

OPEN TENDER NOTICE
CUM
REQUEST FOR PROPOSAL DOCUMENT
FOR
SELECTION OF PROPERTY MANAGEMENT AGENCY
FOR
OPERATION AND MAINTENANCE SERVICES
AT
INDIA INTERNATIONAL CONVENTION & EXHIBITION CENTRE LIMITED, NEW DELHI

RFP / Tender Reference Number	IICC/EF 5978/Tender/2023-24/001	
E-tender Download Start Date	As per http://eprocure.gov.in	
E-tender Download End Date	As per http://eprocure.gov.in	
Bid Submission Start Date and Time	As per http://eprocure.gov.in	
Bid Submission Closing Date and Time	As per http://eprocure.gov.in	
Estimated Bid Cost	INR One Hundred Thirty-Three Crores Fifty Lacs Only; <u>INR 133,50,00,000/- + applicable GST</u>	
Tender Fee	INR One Lacs only; <u>INR 1,00,000/- + Applicable GST</u>	
Bid Security / EMD Amount	INR Four Crores Fifty Thousand only <u>INR 4,00,50,000/-</u>	
Date and Time for Opening Technical Bid	As per http://eprocure.gov.in	

India International Convention & Exhibition Centre Limited
8th Floor, Tower-1, LIC, Jeevan Bharti Building,
Connaught Place New Delhi-110001, INDIA

Table of Contents

1	Letter of Invitation / Notice Inviting Tender.....	8
2	Purpose & Scope of RFP Document.....	9
2.1	General Information	9
2.2	Definitions	9
2.3	Composition of Bid	12
2.4	Estimated Bid Cost.....	12
2.5	Bid Fee.....	12
2.6	Bid Security or Earnest Money Deposit (EMD).....	13
2.7	Performance Security	14
2.8	Bid Due Date.....	15
2.9	Schedule of Bid Process	15
3	General Terms of RFP Document	16
3.1	Governance	16
3.2	Code of Integrity.....	16
3.3	Liability and Indemnification	17
3.4	Pre Bid Conference	17
3.5	Number of Bids and costs thereof.....	17
3.6	Site visit and verification of information.....	18
3.7	Correspondence with the Bidder.....	18
3.8	Contacts during BID Evaluation	18
3.9	Clarifications by SPV	18
3.10	Clarifications by Bidder(s)	19
3.11	Verification of Information and Representation by Bidder(s).....	19
3.12	Cancellation and or Amendment of RFP Document	19
3.13	Right to Reject Bids from Bidder(s).....	19
3.14	Right to Disqualify Bidder(s) and Bids.....	20
3.15	Forfeit of Performance Security	20
4	Eligibility Criterion for Bidder(s)	21
4.1	Minimum Qualification Criteria for Bidder(s).....	21
4.2	Eligibility for Participating Bidder(s)	23
4.3	Eligibility Qualification for Consortium Company	23
4.4	Subcontractors	24
4.5	Bidder(s) credentials for evaluation of Technical capacity	25

4.6	Bidder(s) credentials for evaluation of Financial capacity	25
4.7	Qualifying Technical Bidding	26
5	Preparation and Submission of Bid	27
5.1	Language	27
5.2	Format and signing of Bid	27
5.3	Contents of Technical Bid:.....	27
5.4	Contents of Financial Bid.....	27
5.5	Submission of Online Bid	28
5.6	Submission of Physical Bid	28
5.7	Validity of Bid	29
5.8	Acknowledgement by Bidder	29
5.9	Late Bids	29
5.10	Modifications or substitution of Bids.....	29
5.11	Withdrawal of Bids	30
6	Evaluation Process	31
6.1	Bid Evaluation Authority	31
6.2	Opening of Bids	31
6.3	Tests of responsiveness	31
6.4	Evaluation of Technical Bids:	31
6.5	Evaluation of Financial Bid	32
6.6	Selection of Bidder	32
7	Appendices of Bid Process.....	34
7.1	Appendix 1 - RFP Acceptance Letter	34
7.2	Appendix 2 - Bid Security BG Format	35
7.3	Appendix 3 - Bank Details of "SPV"	38
7.4	Appendix 4 - Performance Bank Guarantee.....	39
7.5	Appendix 5 - Integrity Pact.....	42
7.6	Appendix 6 - Technical Bid Submission.....	46
7.7	Appendix 7 - List of Submittals (Technical Bid)	49
7.8	Appendix 8 - Details of Bidding Organization.....	51
7.9	Appendix 9 - Details of Authorized Signatory for Bid Process.....	52
7.10	Appendix 10 - Member Detail of Bidding/Consortium Organizations.....	53
7.11	Appendix 11 - Banking Details of the Bidder.....	55
7.12	Appendix 12 - Format for Power of Attorney for Bid Signing for Single Entity	56
7.13	Appendix 13 - Format for Joint Bidding Agreement for Consortium.....	57

7.14	Appendix 14 - Format for Power of Attorney for Lead Member of Consortium.....	61
7.15	Appendix 15 - Letter of Authorization of Bidder Representative.....	63
7.16	Appendix 16 - No Deviation Certificate.....	64
7.17	Appendix 17 - Technical Capacity of Bidder	65
7.18	Appendix 18 - Financial Capacity of the Bidder	69
7.19	Appendix 19 - Format for Pre-bid queries.....	70
7.20	Appendix 20 - Financial Proposal Submission (To be given on Company Letter Head).....	71
7.21	Appendix 21 - Bill of Quantities (to be submitted online on CPP Portal).....	73
7.22	Appendix 22 - Instructions to Bidder for e-Tendering	89
8	Project Introduction and Area Statements.....	94
8.1	Introduction.....	94
8.2	Layout Concept Plan	95
8.3	Broad Descriptions and Features of the development	96
8.4	Development Plan	98
8.5	Summary of Area Under the scope of Property Management by Service Provider.....	101
8.6	Detailed Area Statement for Development	101
9	Service Agreement	111
9.1	General Terms of Service Agreement	111
9.2	Definitions	112
9.3	Interpretation	114
9.4	Governing Law and Jurisdiction.....	115
9.5	Code of Integrity	116
9.6	Confidentiality	116
9.7	Conflict of Interest	116
9.8	Force Majeure	117
9.9	Dispute Resolution.....	118
9.10	Commencement and Duration.....	118
9.11	Performance Security	119
9.12	Statement of Work	119
9.13	Best Practices and Quality of Services	120
9.14	Service Level and Performance Parameters.....	121
9.15	Service Levels Monitoring	122
9.16	Clarification on Scope of work for Occupied Areas	122
9.17	Responsibility Matrix of Service Delivery for Common Areas and Occupied Areas	124
9.18	Services Detail and Billing Model.....	125

9.19	Workforce and Resources Standards.....	126
9.20	Workforce and Resources for Transition Management.....	128
9.21	Safety and Security Standards.....	128
9.22	Machinery, Tools & Equipment Management	129
9.23	Registrations and Compliances	130
9.24	Assignment and Subcontracting.....	131
9.25	Client's Obligations and Rights.....	131
9.26	Rights of Third Parties.....	132
9.27	Liability and Indemnification	132
9.28	Insurance.....	134
9.29	Termination.....	135
9.30	Payments and Reconciliation	137
9.31	Cost corrections and variations	139
9.32	Miscellaneous.....	139
10	Annexure 1 - Non Disclosure Agreement	141
11	Annexure 2 - Scope of Work for Transition Services.....	146
11.1	Brief Introduction of Transition Services	146
11.2	Resource Deployment.....	146
11.3	Defining Communication protocol	147
11.4	Process development stage for Inspection and Commissioning of Assets and Equipment....	147
11.5	Property Inspection, Snags Identification and Desnagging Management.....	148
11.6	Compliance Monitoring and Implementation.....	148
11.7	Documentation and Control Process development	149
11.8	Project Takeover for Operations	153
11.9	Personnel Recruitment and Services Commencement	154
11.10	Possession handover procedure to Occupants	154
11.11	Fit out Monitoring and Management procedure	155
11.12	Development and monitoring of SLA.....	155
11.13	Preparation of Memorandum	156
11.14	Operator Company's Maintenance Manual.....	156
11.15	Calculation of charges recoverable from occupants for various services provided by SPV....	156
12	Annexure 3 - Scope of Work (Property Management Services).....	157
12.1	General Management Services.....	157
12.2	Customer Relationship Management	161
12.3	Compliance Management	163

12.4	Environment, Health and Safety Management	164
12.5	Emergency Services and Disaster Management	168
12.6	Quality and Sustainability Management.....	171
12.7	Financial and Accounting Management.....	174
12.8	Procurement, Contract, Insurance and Inventory Management	176
12.9	Project Coordination and Fit out Management	179
12.10	Engineering Service Management	181
12.11	Engineering Operation and Maintenance	191
12.12	Janitorial Services	213
12.13	Waste Management and Recycling Services.....	222
12.14	Landscape and Horticulture Maintenance Services	225
12.15	Signages and Graphics Management and Maintenance.....	229
12.16	ICT Infrastructure and Services Management.....	230
12.17	ELV, Systems Operation and Maintenance Services.....	242
12.18	Physical Security Systems and Services – Operation & Maintenance	245
12.19	SCADA & IBMS System.....	252
12.20	Parking Operation & Maintenance	253
13	Annexure 4 - Service Level Performance Parameters.....	259
13.1	Service Level Performance Review - Combined Score Card.....	260
13.2	SLA - General Management Services	261
13.3	SLA - Customer Relationship Management.....	265
13.4	SLA - Compliance Management.....	268
13.5	SLA - EHS Services	287
13.6	SLA - Emergency & Disaster Management.....	290
13.7	SLA - Quality and Sustainability Management	293
13.8	SLA - Finance and Accounting Management.....	296
13.9	SLA - Project Coordination and Fitout Management.....	302
13.10	SLA - Engineering Management Services.....	305
13.11	SLA - Engineering O & M Services - Operational	310
13.12	SLA - Engineering O & M Services – Response and Resolutions.....	316
13.13	SLA - Janitorial & Horticulture Services.....	322
13.14	SLA - ICT Services	327
13.15	SLA - ELV System O & M Services	332
13.16	SLA - Security Management Services.....	336
14	Annexure 5 - Minimum Qualification for Property Management Team.....	340

15	Annexure 6 - Minimum Tools and Consumable Requirements.....	390
15.1	Engineering Tools and Tackles.....	390
15.2	Personal Protection Equipment.....	393
15.3	Cleaning and Housekeeping Tools and Tackles	395
15.4	Cleaning and Housekeeping Consumables	398
15.5	Horticulture Tools and Tackles	400
15.6	Horticulture Consumables	402
16	Annexure 7 - Fee Schedule	403
16.1	Fee Schedule for Transition Services	403
16.2	Fee Schedule for Property Management Services	404
16.3	Fee Schedule for Event Services	405
17	Annexure 8 - Performance Gap Deductions	406
18	Annexure 9 - Certificate of Compliance	408
19	Annexure 10 - List of Compliance	409
20	Annexure 11 - Equipment and Utilities List	422
20.1	Electrical System for Common Area and Occupied Area	422
20.2	HVAC System for Common Area and Occupied Area	512
20.3	Fire Fighting System for Common Area and Occupied Area	649
20.4	Plumbing and Sanitation System for Common Area / Occupied Area.....	653
20.5	Mobile equipment and Motor Vehicles	668
20.6	Critical Environment Systems – Data Centers	670
20.7	Waste Management and Recycling System	671
20.8	Lifts, Escalators and Travellators	672
20.9	Kitchen Equipment	674
21	Annexure 12 - List of Drawings.....	692
21.1	Architectural Drawings.....	692
21.2	MEP Package Drawings	699
21.3	Information, Communication and Technology Package Drawings.....	701
22	Annexure 13 - IO Summary (73 pages)	710
23	Annexure 14 - List of ICT equipment (58 pages)	711

1 Letter of Invitation / Notice Inviting Tender

As per the decision of the Union Cabinet in its meeting held on November 10, 2017, India International Convention & Exhibition Centre Limited ('IICC Limited') has been set up as a Special Purpose Vehicle "SPV" for the implementation and development of the Exhibition-Cum-Convention Centre at Dwarka, New Delhi with 100% equity of Government of India through Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry, Government of India.

India International Convention & Exhibition Centre Limited is a company registered under the Companies Act, 2013 with registered address at Room No. 452A, DPIIT, Ministry of Commerce & Industry, Udyog Bhawan, New Delhi-110011. The Corporate Identity Number of the company is U74999DL2017GOI327372.

SPV has decided to float e-Tender to invite proposals from the prospective Bidder(s) for Comprehensive Property Management Services for Operations of ('IICC Limited').

The RFP document shall cover the details of project and the Bid Process to facilitate the Bidder(s) to submit their responses in the defined timelines. The "SPV" invites prospective Bidder(s) to submit their duly complied proposals to undertake the operation and maintenance of the Project and such other obligations as set out in and in accordance with this RFP document.

MD and CEO,
IICC Limited,
8th Floor, Tower-1,
LIC, Jeevan Bharti Building,
Connaught Place New Delhi-110001
Phone No.: +91 11 2419 0300
Email: iiccdwarka@nicdc.com

2 Purpose & Scope of RFP Document

2.1 General Information

- 2.1.1 On behalf of India International Convention & Exhibition Centre Limited ('IICC Limited'), Bid(s) are invited by the MD and CEO of the organization from prospective Bidder(s) under Single Stage Two Bid System (collectively referred to as the "Bid process") through the Open Tender Enquiry system.
- 2.1.2 Bid(s) are invited by IICC Ltd. (SPV) for providing Property Management Services at India International Convention & Exhibition Centre Limited (Property) for Operation and Maintenance Services thereof for the duration of three Years and transition services for three months from Effective Date. The Property shall include and cover all the areas as mentioned in Clause 8.5 & 8.6.
- 2.1.3 The Bid Process shall be conducted via online Central Public Procurement Portal (CPP Portal).
- 2.1.4 Bidders are advised to go through instructions provided regarding "[Appendix 22 - Instructions to Bidders for e-tendering](#)". In addition, further details may be obtained by Bidder(s) on the CPP web portal and NICDC website. This RFP document is provided to assist prospective Bidder(s) with the General guidelines and Terms of Bid outlined in various Sections of this document.
- 2.1.5 The "SPV" shall execute the detailed terms of engagement with Selected Bidder which are specified in the Service Agreement included in this RFP document. In the event of conflict, if any, between the provisions of the Service Agreement and other clauses of the RFP, the provisions of the Service Agreement shall prevail.
- 2.1.6 This RFP document is not transferable.

2.2 Definitions

In this RFP Document, unless the context otherwise requires:

- 2.2.1 "Bid" (including the term 'tender', 'offer', 'quotation' or 'proposal' in certain contexts) means an offer to supply goods, services or execution of works made in accordance with the terms and conditions set out in a document inviting such offers;
- 2.2.2 "Bidder" (including the term 'tenderer(s)', 'Service Provider', Property Management Agency in certain contexts) means any eligible person or firm or company, including a consortium participating in a procurement process with a procuring entity;
- 2.2.3 "Bid process" (including the term 'Procurement process' means the process of procurement extending from the assessment of need; issue of invitation to pre-qualify or to enlist or to bid, as the case may be; the award of the procurement contract; execution of contract till closure of the contract;
- 2.2.4 "Bid security" (including the term 'Earnest Money Deposit' (EMD), in certain contexts) means a security from a bidder securing obligations resulting from a prospective contract award with the intention to avoid: the withdrawal or modification of an offer within the validity of the bid, after the deadline for submission of such documents; failure to sign the contract or failure to provide the required security for the performance of the contract after an offer has been accepted; or failure to comply with any other

condition precedent to signing the contract specified in the solicitation documents.;

- 2.2.5 “e-Procurement” means the use of information and communication technology (specially the internet) by the procuring entity in conducting its procurement processes with Bidder(s) for the acquisition of goods (supplies), works and services with the aim of open, non- discriminatory and efficient procurement through transparent procedures;
- 2.2.6 “EPC Contractor” means the Engineering Procurement Contractor (L&T) with whom the SPV has entered into an EPC Contract for IICC Project.
- 2.2.7 “Net Worth” shall mean the aggregate value of the paid-up share capital and all reserves created out of the profits and securities premium account, after deducting the aggregate value of the accumulated losses, deferred expenditure and miscellaneous expenditure not written off, as per the audited balance sheet, but does not include reserves created out of revaluation of assets, write back of depreciation and amalgamation.
- 2.2.8 “Pre-qualification (bidding) procedure” means the procedure set out to identify, prior to inviting bids, the Bidder(s) that are qualified to participate in the procurement;
- 2.2.9 “Procurement” or “public procurement” (or ‘Purchase’, or ‘Government Procurement/ Purchase’ in certain contexts) means acquisition by way of purchase, lease, license or otherwise, either using public funds or any other source of funds (e.g. grant, loans, gifts, private investment etc.) of goods, works or services or any combination thereof, including award of Public Private Partnership projects, by a procuring entity, whether directly or through an agency with which a contract for procurement services is entered into, but does not include any acquisition of goods, works or services without consideration, and the term “procure” or “procured” shall be construed accordingly;
- 2.2.10 “Procurement contract” (including the terms ‘Purchase Order’ or ‘Supply Order’ or ‘Withdrawal Order’ or ‘Work Order’ or ‘Consultancy Contract’ or ‘Contract for Other Services’ under certain contexts), means a formal legal agreement in writing relating to the subject matter of procurement, entered into between the procuring entity and the Contractor, Service Provider or Contractor on mutually acceptable terms and conditions and which are in compliance with all the relevant provisions of the laws of the country. The term “contract” will also include “rate contract” and “framework contract”;
- 2.2.11 “Project Management Company” means the Project Management Company (AECOM) with whom the SPV has entered into a PMC Contract for IICC Project.
- 2.2.12 “Prospective bidder” means anyone likely or desirous to be a bidder;
- 2.2.13 “Request for Proposal” (including the term ‘Invitation to bid’ or ‘Notice inviting tenders’ in certain contexts) means a document and any amendment thereto published or notified by the procuring entity, which informs the potential Bidder(s) that it intends to procure goods, services and/ or works.;
- 2.2.14 “Similar work” mean Operation & Comprehensive maintenance of Civil & Architectural works, Internal & external finishing works, Plumbing works, Electrical works, Electro Mechanical works, Information and Communication technology works, housekeeping of Buildings/facilities, landscaping (Hardscape & Soft Scape) and security & surveillance for projects like Exhibition Centre, Convention Centre, International

Airports, IT complexes, Industrial and Institutional Complex, 5/4 star Hotels, Resorts, Corporate offices, Retail and Malls, Commercial Hubs, Residential Complexes of similar magnitude, volume and grade like of IICC facility.

- 2.2.15 The term "SPV" wherever appearing in this RFP document shall mean India International Convention and Exhibition Centre Ltd. (IICCL), a company registered under the Indian Companies Act 2013.
- 2.2.16 SPV has adopted a "Single Stage Two Bid System" (collectively referred to as the "Bidding Process") for selection of the bidder for award of the Project. Under this process, the bid shall be invited under two parts. Eligibility and qualification of the Bidder will be first examined based on the details submitted under first part (Technical Bid) with respect to eligibility and qualifications criteria prescribed in this RFP. The Financial Bid under the second part shall be opened only for those Bidders whose Technical Bids are responsive to eligibility and qualifications requirements as per this RFP.
- 2.2.17 "Scheduled Bank" shall mean a bank as defined under Section 2(e) of the Reserve Bank of India Act, 1934.
- 2.2.18 "Operator Company" means the company engaged by SPV for running core business of the property. The present Operator Company engaged by SPV is "Kinexin Convention Management Private Limited", who shall be an occupant of Exhibition Halls 1 & 2 and Convention Centre.
- 2.2.19 "Effective Date" means the date mentioned on the Notice to proceed to be issued by the SPV after issuance of Letter of Award (LOA).
- 2.2.20 "Commercial Operation Date" means the commercial operation date of the Project Facilities shall be the date on which the SPV notifies the Operator that all construction activities in relation to Project Facilities are complete and the Project Facilities are fit for use and commercial operations (the "COD").
- 2.2.21 "Built up Area (BUA)" shall mean the total constructed covered area of all the floors within the building envelope up to the extent of external walls excluding the projections, Grand steps, Sunken court, area below the Grand steps at Basement-1 and Light well. The area under shafts (Plumbing, HVAC, Fire, Electrical etc.), Cut outs in floor, atrium, escalator cut outs & lift wells, smoke extractions shafts, open & covered terraces, terrace fan rooms, Underground & Overhead water tanks, STP, Cooling towers shall not be counted in Built up Area. However, these spaces are also required to be maintained/serviced by the Service Provider without any additional cost. All service areas including the built up areas given in this RFP document are indicative only and the same shall be assessed by the Bidders as per the list of drawings given in this RFP. This list of drawings is not exhaustive and the same shall be updated and provided to the successful bidder progressively after issue of Notice to Proceed. No claim of any additional cost on account of increase in the built up / serviceable areas shall be admissible.
- 2.2.22 "Event" means an exhibition or convention/ meeting/ conference of national or international importance to be held at the project facilities after its completion to run the core business of IICCL and generate revenue for it through the Operator company.
- 2.2.23 "Contract Price" The SPV shall make payments to the Service Provider on the basis of the price under various heads in Financial Bid, accepted by the SPV in consideration of the obligations specified in this Agreement. The Parties further agree that save and except as provided in this Agreement, the Contract Price shall be valid and effective until completion of the Contract period. The Contract Price includes all

duties, taxes, royalty, GST and fees that may be levied in accordance with the laws and regulations in force on the Service Provider's equipment, plant, materials and supplies acquired for the purpose of this Agreement and on the services performed under this Agreement.

- 2.2.24 "Transition period/Cooling period/Stabilization period" shall be the 3 months from the Effective Date (as per Clause 2.2.19). During this period, the Service Provider shall make itself ready to perform its services and all obligations in accordance with the Service Agreement. Evaluation of performance of the Service Provider against the Service Level Performance parameters shall be taken up after completion of the Transition/Cooling/Stabilization Period.

As the COD is falling before the start of transition period, the Service Provider shall make all necessary arrangements to ensure smooth operation and maintenance of the project facilities required for uninterrupted operation of services for any exhibition/event/conference etc. to be held during the transition period. During this period, the Service Provider is required to fulfill its obligations and scope of services as stipulated at Annexures 2 & 3 of the RFP.

2.3 Composition of Bid

- 2.3.1 Bid(s) are invited under two separate parts which will be submitted together at one time.

- a) Technical Bid
- b) Financial Bid

- 2.3.2 The Bidder(s) are advised to follow the prescribed mandatory modes of submission of Bid(s) via mode of Online Submission as per defined timelines in Schedule of Bid Process.

- 2.3.3 The Financial Bid under the second part shall be opened only for those Bidder(s) who's Technical Bids are responsive to eligibility and qualifications requirements as per this RFP document.

2.4 Estimated Bid Cost

- 2.4.1 The tenure of the Service contract is three (3) years and 3 months of transition period. The EPC Contractor on the project shall provide DLP (Defects Liability Period) for two (2) years after issuance of Provisional Certificate to the EPC Contractor by the SPV. EPC Contractor shall also provide one-year maintenance for soft-scaping (plants & shrubs) works.

- 2.4.2 The estimated Bid cost for Property Management Services has been calculated based on the total cost of Property management services for three years, cost of transition services for three months and the cost of events for three years based on 100 event days per year.

- 2.4.3 The estimated Bid cost proposed under the Scope of work of this RFP Document is INR One hundred Thirty-Three Crores Fifty Lacs only (INR 133,50,00,000)/- + applicable GST.

2.5 Bid Fee

- 2.5.1 The RFP submissions will necessarily have to be accompanied with a non-refundable processing fee in the form of Demand Draft/RTGS/NEFT of INR 1,00,000/- (Indian Rupees One Lakhs only) plus GST@18%

in favour of "India International Convention and Exhibition Centre Limited", payable at New Delhi, India.

2.6 Bid Security or Earnest Money Deposit (EMD)

2.6.1 The BID Security (Refundable) drawn in favour of India International Convention and Exhibition Centre Limited payable at New Delhi of Rs. 4,00,50,000/- (Rupees Four Crores Fifty Thousand only) is to be submitted through BG in the form of an irrevocable and unconditional bank guarantee issued by nationalized bank, or a commercial Scheduled Bank in India in favour of the Employer in the format at Appendix 2 (the "Bank Guarantee") and having a validity period of not less than 180 (One hundred Eighty) days from the BID Due Date, excluding a claim period of 45 (forty-five) days, and may be extended as may be mutually agreed between the Employer and the Bidder from time to time or Insurance Surety Bonds, account payee demand draft, fixed deposit receipt, or banker's cheque/RTGS drawn in favour of India International Convention and Exhibition Centre Limited payable at New Delhi. For Consortium, the bid security shall be submitted only in the name of the Consortium Firm and not in the name of constituent member.

2.6.2 No interest will be payable on BID SECURITY. In the case of successful bidder, Bid Security shall be returned only after submission of Performance Security in accordance with relevant clause or it may be forfeited in case the successful bidder refuses to accept the award of supply or fails to complete the required formalities within the specified and permitted time. Bid securities of the unsuccessful bidders should be returned to them at the earliest after expiry of the final bid validity and latest on or before the 30th day after the award of the contract. However, in case of two packet or two stage bidding, Bid securities of unsuccessful bidders during first stage i.e., technical evaluation etc. should be returned within 30 days of declaration of results of first stage i.e., technical evaluation etc.

In the case of successful bidder, Bid Security shall be returned only after submission of Performance Security in accordance with relevant clause or it may be forfeited in case the successful bidder refuses to accept the award of supply or fails to complete the required formalities within the specified and permitted time.

The tender without BID Security will be summarily rejected.

- a) Any BID not accompanied by the BID Security shall be summarily rejected by the SPV as non-responsive.
- b) Bid Security of the unsuccessful Bidder(s) will be returned within 30 days, without any interest, upon the selected bidder signing the Contract Agreement and furnishing the Performance Security in accordance with the provisions thereof.
- c) The SPV shall be entitled to forfeit and appropriate the BID Security as Damages inter alia in any of the events specified in Clause below herein below. The Bidder, by submitting its BID pursuant to this RFP, shall be deemed to have acknowledged and confirmed that the SPV will suffer loss and damage on account of withdrawal of its BID or for any other default by the Bidder during the period of BID validity as specified in this RFP.
- d) The BID Security shall be forfeited and appropriated by the SPV as damages payable to the SPV for, inter-alia, time cost and effort of the SPV without prejudice to any other right or remedy that may be available to the SPV under the bidding documents and/or under the Agreement, or otherwise, under the following conditions:

- i. If a Bidder engages in a corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice as specified in this RFP;
- ii. If a Bidder withdraws its BID during the period of Bid validity as specified in this RFP and as extended by mutual consent of the respective Bidder(s) and the SPV;
- iii. In the case of Selected Bidder, if it fails within the specified time limit –
 - 1. to sign and return the duplicate copy of LOA;
 - 2. to sign the Agreement within the time frame as mentioned in the Turnkey Agreement;
 - 3. to furnish the Performance Security within the period prescribed therefore in the Agreement or in this RFP; or
 - 4. fail to commence the work within the stipulated time period prescribed in the contract.
- e) In case the Selected Bidder, having signed the Agreement, commits any breach thereof prior to furnishing the Performance Security.
- f) The MSEs are provided tender documents free of cost and are exempted from payment of Bid Security, Subject to furnishing of relevant valid certificate for claiming exemption.
- g) The bidder must submit certified copy of valid NSIC Registration Certificate/ Renewal Certificate. Photocopy of application for registration or for Renewal of NSIC will not acceptable.

2.7 Performance Security

- 2.7.1 Within ten (10) days of receipt of the Letter of Award, the Selected Bidder shall deliver to the SPV an irrevocable Performance Security for an amount equivalent to 5% of the total Contract Price. The Bank Guarantee for Consortium shall be accepted only in the name of the Consortium and no splitting of guarantee amongst the members of the Consortium shall be permitted.
- 2.7.2 This Performance guarantee shall be valid till a period of six months beyond the expiry of the contract period of thirty-nine (39) months, i.e., the total validity period of Performance guarantee to be submitted by the selected bidder shall be forty-five (45) months.
- 2.7.3 Performance Guarantee can be furnished through Account Payee Demand Draft/ Bank Guarantee/ Fixed Deposit Receipt/ Insurance Surety Bond from a nationalized or commercial scheduled bank, issued/confirmed from the bank in an irrevocable and unconditional Guarantee (as per format given in Appendix 4 of the RFP document) drawn in favour of the "India International Convention & Exhibition Centre Limited" payable at New Delhi. RTGS / NEFT payments can be made in Bank account of "SPV" for which details of Bank are provided in Appendix 3. No interest shall be payable on the amount paid against Performance Guarantee.
- 2.7.4 In the event the Service Provider fails to provide the Performance Security within time period specified as Clause 2.7.1, it may seek extension of time for a period not exceeding 5 (five) days on payment of Damages for such extended period in a sum calculated at the rate of 0.5% (zero point five per cent) of

the Contract Price for each day until the Performance Security is provided.

2.7.5 Should the contract period, for whatever reason is extended, the Bidder, shall at its own cost, get the validity period of Bank Guarantee furnished by Bidder extended and shall furnish the extended / revised Bank Guarantee to the SPV before 15 days of the expiry date of the previously submitted Bank Guarantee.

2.7.6 SPV shall return the Performance security without any interest, 60 days after the completion of the validity period of 45 months of the performance guarantee.

2.8 Bid Due Date

2.8.1 Technical and Financial Bid of the RFP shall be submitted online through CPP Portal (<https://eprocure.gov.in/eprocure/app>) on or before 1700 hours IST on the Bid Due Date as mentioned in Clause 2.9.1.

2.9 Schedule of Bid Process

2.9.1 The "SPV" shall endeavor to adhere to the following schedule:

Sr. No	Event Description	Timeline	Date
(1)	Date of uploading RFP document	D	
(2)	<u>Pre- Bid Conference</u>	D+14	
(3)	<u>Clarifications to queries received in pre-bid conference</u>	D+21	
(4)	Last Date for Online Submission of Bid	D+45	
(5)	Physical Submission of Bid Processing fee, Bid Security, Power of Attorney etc.	D+45	
(6)	Opening of technical Bids	D+46	
(7)	<u>Validity of Bids</u>	180 days from of Bid due date	
(8)	Submission of Performance Bank Guarantee	Within 10 days of LOA	
(9)	Signing of Contract	Within 30 days of LOA	

3 General Terms of RFP Document

3.1 Governance

- 3.1.1 The Bid Process shall be conducted as per the relevant CPP Portal procurement Guidelines.
- 3.1.2 For revision, interpretation, clarification and issues relating to this RFP Document, India International Convention & Exhibition Centre Limited ('IICC Limited') shall be the Nodal authority.

3.2 Code of Integrity

- 3.2.1 The Bidder(s) and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Bid Process.
- 3.2.2 Bidder(s) are required to sign and submit the Integrity Pact as mentioned under standard operating procedure for public tendering process.
- 3.2.3 Copy of Integrity Pact as per Appendix 5 duly shall be used for signing by the Bidder(s) which shall be submitted as part of Technical Bid submission along with the physical submission. Any tender without signed integrity Pact shall be liable for rejection as non- responsive Bid.
- 3.2.4 Notwithstanding anything to the contrary contained herein, the "SPV" may disqualify and reject a Bid without being liable in any manner whatsoever to the Bidder if it determines that the Bidder has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice in the Bid Process. Further, as per Rule 151 of GFR, 2017 the Bidder(s) proved to be engaged in any such activity shall be debarred for public procurements thereafter.
- 3.2.5 The Bidder(s), should observe the highest standard of ethics and should not indulge in the following prohibited practices, either directly or indirectly, at any stage during the procurement process or during execution of resultant contracts:
 - a) "Corrupt practice": making offers, solicitation or acceptance of bribe, rewards or gifts or any material benefit, in exchange for an unfair advantage in the procurement process or to otherwise influence the procurement process or contract execution;
 - b) "Fraudulent practice": any omission or misrepresentation that may mislead or attempt to mislead so that financial or other benefits may be obtained or an obligation avoided. This includes making false declaration or providing false information for participation in a tender process or to secure a contract or in execution of the contract;
 - c) "Anti-competitive practice": any collusion, bid rigging or anti-competitive arrangement, or any other practice coming under the purview of The Competition Act, 2002, between two or more Bidder(s), with or without the knowledge of the procuring entity, that may impair the transparency, fairness and the progress of the procurement process or to establish bid prices at artificial, non-competitive levels;
 - d) "Coercive practice": harming or threatening to harm, persons or their property to influence their participation in the procurement process or affect the execution of a contract;

- e) "Conflict of interest": participation by a bidding firm or any of its affiliates that are either involved in the consultancy contract to which this procurement is linked; or if they are part of more than one bid in the procurement; or if the bidding firm or their personnel have relationships or financial or business transactions with any official of procuring entity who are directly or indirectly related to tender or execution process of contract; or improper use of information obtained by the (prospective) bidder from the procuring entity with an intent to gain unfair advantage in the procurement process or for personal gain; provided further that this disqualification shall not apply to any ownership by a bank, insurance company, pension fund or a public financial institution referred to in sub-section (72) of section 2 of the Companies Act, 2013.
- f) "obstructive practice": materially impede the procuring entity's investigation into allegations of one or more of the above-mentioned prohibited practices either by deliberately destroying, falsifying, altering; or by concealing of evidence material to the investigation; or by making false statements to investigators and/ or by threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or by impeding the procuring entity's rights of audit or access to information

3.3 Liability and Indemnification

- 3.3.1 The RFP document is based on the design details available at the time of development of the document. These details are subject to change, omission, improvisation or modification during the bidding process. Any such change shall be provided with through a form of Corrigendum on CPP Portal and/or IICC website.
- 3.3.2 Each prospective Bidder(s) should update themselves for any such event during the Bid Process. Bidder shall familiarize itself with the IICC Project site conditions. "SPV" takes no claim and/or responsibility for the ignorance/ lack of familiarity of the Bidder(s) regarding the details related to the Project which may affect accuracy, reliability and completeness of their responses and submissions.

3.4 Pre Bid Conference

- 3.4.1 Pre-BID conference of the Bidder(s) shall be convened at the designated date, time and place. A maximum of three representatives of prospective Bidder(s) shall be allowed to participate on production of Authority letter from the Bidder as per Appendix 15.
- 3.4.2 During the course of Pre-Bid conference, the Bidder(s) will be free to seek clarifications by the "SPV". The "SPV" shall provide clarifications and such further information consider appropriate for facilitating a fair, transparent and competitive Bid Process. Responses will be issued in writing along with an addendum/corrigendum; no queries will be entertained thereafter.
- 3.4.3 Bidder has to send the queries as per the format given in Appendix 19.

3.5 Number of Bids and costs thereof

- 3.5.1 No Bidder shall submit more than one Bid for the Project. A Bidder bidding individually or as a member of a Consortium shall not be entitled to submit another bid either individually or as a member of any Consortium, as the case may be.

- 3.5.2 In the event it is identified at any stage of the Bid Process (including During Bid or Post Bid) that a Bidder(s) is involved in submission of multiple Bid(s) for this RFP document, it shall be considered breach of Code of Integrity and all submissions of the bidder are liable to disqualification from the Bid Process. Unsuccessful Bidder shall not be allowed to engage itself with the successful Bidder/ Service Provider of this RFP as subcontractor of the Service Provider or in any other capacity.
- 3.5.3 The Bidder(s) shall be responsible for all of the costs associated with the preparation of their Bids and their participation in the Bid Process regardless of the conduct or outcome of the Bid Process.
- 3.6 Site visit and verification of information
- 3.6.1 Bidder(s) are advised to submit their respective Bids post visiting Project site and ascertaining for themselves the concerned details required for preparation and submission of Bid.
- 3.7 Correspondence with the Bidder
- 3.7.1 Save and except as provided in this RFP document, the "SPV" shall not entertain any correspondence with any Bidder in relation to the acceptance or rejection of any Bid.
- 3.8 Contacts during BID Evaluation
- 3.8.1 BIDs shall be deemed to be under consideration immediately after they are opened and until such time the "SPV" makes official intimation of award/ rejection to the Bidder(s).
- 3.8.2 While the BIDs are under consideration, Bidder(s) and/ or their representatives are advised to refrain, save and except as required under the RFP Documents, from contacting by any means, the "SPV" and/ or their employees/ representatives on matters related to the Bid(s) under consideration.
- 3.9 Clarifications by SPV
- 3.9.1 Bidder(s) requiring any clarification on the RFP document may notify the "SPV" in writing or by e -mail to the concerned authority within the prescribed time window for such queries in Clause 2.9.1 of Schedule of Bid Process.
- 3.9.2 All communications related to queries shall clearly bear the following identification / title: "Request for Clarification: RFP for Property Management services at IICC Project".
- 3.9.3 The "SPV" shall endeavor to respond to the queries received within 3 days of Pre-bid meeting within the period specified therein, but no later than 7 (seven) days prior to the Bid Due Date. Without identifying the source of queries, responses will be uploaded on the CPP Portal and/ or IICC website.
- 3.9.4 The "SPV" may also on its own motion, if deemed necessary, issue interpretations and clarifications to all Bidder(s). All clarifications and interpretations issued by the "SPV" shall be deemed to be part of the RFP document. Verbal clarifications and information given by "SPV" or its employees or representatives shall not in any way or manner be binding on the "SPV".

3.10 Clarifications by Bidder(s)

- 3.10.1 To facilitate evaluation of Bids, the "SPV" may, at its sole discretion, seek clarifications from any Bidder regarding its Bid. Such clarification(s) shall be provided within the time specified by the "SPV" for this purpose. Any request for clarification(s) and all clarification(s) in response thereto shall be in writing submitted to the concerned authority.
- 3.10.2 If a Bidder does not provide clarifications sought as per above clause within the prescribed time, its Bid shall be treated as non-responsive and rejected.

3.11 Verification of Information and Representation by Bidder(s)

- 3.11.1 The "SPV" reserves the right to verify all statements, information and documents submitted by the Bidder in response to the RFP document.
- 3.11.2 Any information contained in the Bid shall be binding against the Bidder if the Project is subsequently awarded to it on the basis of such information.
- 3.11.3 Any such verification or lack of such verification by the "SPV" shall not relieve the Bidder of its obligations or liabilities hereunder nor will it affect any rights of the "SPV" there under.
- 3.11.4 Any misrepresentation, misleading or false representation by Bidder(s) through the Bid response by Bidder(s) shall be considered breach of Code of Integrity and all submissions of the bidders are liable to disqualification and cause to effect consequential debarment for participation in Ongoing and future Tenders of Government of India.

3.12 Cancellation and or Amendment of RFP Document

- 3.12.1 At any time during the Bid Process, the "SPV" may, for any reason, whether at its own initiative or in response to clarifications requested by a Bidder, modify the RFP document by the issuance of Addenda.
- 3.12.2 Any Addendum thus issued will be available on CPP Portal and/ or NICDC website.
- 3.12.3 In order to afford the Bidder(s) a reasonable time for taking an Addendum into account, or for any other reason, the "SPV" may, in its sole discretion, extend the Bid Due Date.
- 3.12.4 The "SPV", in its sole discretion and without incurring any obligation or liability, reserves the right, at any time, to suspend and/ or cancel the Bid Process and/ or amend and/ or supplement the Bid Process or modify the dates or other terms and conditions relating thereto; with no cost to SPV whatsoever.
- 3.12.5 In the event that the "SPV" rejects or annuls all the Bids, it may, in its discretion, invite all eligible Bidder(s) to submit fresh Bids hereunder.

3.13 Right to Reject Bids from Bidder(s)

- 3.13.1 Notwithstanding anything to the contrary contained in this RFP document, the Bidder(s) are required to submit the complete, accurate and time bound responses for Bid submission. Bid(s) not accompanied by the required supporting documents shall be summarily rejected by the "SPV" as non-responsive.

3.13.2 Any condition or qualification or any other stipulation contained in the Bid shall render the Bid liable to rejection as a non-responsive Bid if the Bidder(s) and or Bids are non-compliant to the following requirements of the RFP document.

- a) Schedule of Bid Process
- b) Enters into any Dispute with "SPV" in reference to Clause 3.4.2
- c) Clarification by Bidder(s)
- d) Language required for Bid submission
- e) Requirements under Format and signing of Bids
- f) Late Bid submission
- g) Test of responsiveness after the Bid submission is evaluated

3.14 Right to Disqualify Bidder(s) and Bids

3.14.1 Notwithstanding anything to the contrary contained in this RFP document, the Bidder(s) are required to submit the complete and accurate responses for Bid submission and abide by the Code of Integrity.

3.14.2 Bidder(s) and their respective Bid(s) not complying with the Bid process requirements as per subsequent Clause shall be disqualified and rejected.

3.14.3 The "SPV" reserves the right to disqualify any Bid on account of breach and or failure in honoring terms and specifications of the RFP document at any and all stages of the Bid process including Pre-Bid, During Bid and Post Bid stage mentioned below:

- a) Code of Integrity,
- b) Submission of more than prescribed number of Bid(s)
- c) Proactive or inappropriate contacts by Bidder(s) during Bid evaluation
- d) Verification of Information and representation by Bidder(s)
- e) Withdrawal of Bid by Bidder(s) during the period of Bid validity
- f) Failure to submit Performance security post issuance of Letter of Award to Selected Bidder

3.14.4 If such disqualification/ rejection occurs after the Bids have been opened and the Lowest Bidder gets disqualified/ rejected, then the Procuring Entity shall re-tender the case.

3.14.5 In the event where the Selected Bidder fails to commence the agreed services as per the requirements of Letter of Award, the Bidder shall be disqualified and LOA shall be cancelled. This shall apply for the cases listed below:

- a) to sign and return the duplicate copy of LOA; or
- b) to furnish the Performance Security within the period prescribed therefore in the Contract Agreement, or
- c) to sign the Contract Agreement; or
- d) the Selected Bidder, having signed the Contract Agreement, commits any breach of Service Agreement thereof.

3.15 Forfeit of Performance Security

3.15.1 In the event of disqualification of Selected Bidder due to reasons mentioned in Clause 3.14.5, the SPV shall be entitled to forfeit the Performance Security, without prejudice to any other right or remedy that may be available to the "SPV" under the RFP Documents and/ or the Contract Agreement or by Law or otherwise.

4 Eligibility Criterion for Bidder(s)

4.1 Minimum Qualification Criteria for Bidder(s)

4.1.1 For Bidder(s) to apply for the response in the RFP, they must meet or exceed the minimum qualification of Bidder(s) mentioned hereunder:

Criteria	Parameters	Criteria For Single Entity / Consortiums	Target Value
(1)	Age of the Bidder Company	The Minimum requirement for Bidder company's age is 7 Years before the Date of Bid Submission. In case of Consortiums, The Age of Lead Member should be minimum 7 Years before the date of Bid submission.	Should qualify the requirement
(2)	Debarment	The Bidder should not be barred (permanent or short term) by the Central/ State Government, or any entity controlled under Govt. of India and the bar subsists as on the date of Bid	Should qualify the requirement
(3)	Expulsion or Penalization by Arbitral or Judicial authority	The Bidder in the last 3 (three) Years, have neither failed to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial authority or a judicial pronouncement or arbitration award against the Bidder or Member, as the case may be, nor has been expelled from any project or contract by any public entity nor have had any contract terminated by any public entity for breach by such Bidder or Member.	Should qualify the requirement
(4)	Net Worth	Minimum positive Net Worth (the "Financial Capacity") of (50% of Estimated Bid Price of INR 133.50 crores in INR Crore at the end of financial year i.e. FY 2022-23.	66.75 crores
(5)	Turn Over	Average annual financial turnover during last three financial years ending 31st March 2023, should be at least 75% of the Estimated Bid Price of INR 133.50 crores. The Bidder should submit copies of Audited Balance sheet and auditor's report / CA Certificate for the Financial Year viz FY 2020 – 21, FY 2021 – 22 and FY 2022 – 23. Turnover shall be considered only from Similar works.	100.13 crores
(6)	Work Experience in Managing Built up Area	Experience of having successfully completed or currently managing "Similar Project" in terms of Built up area in Million Sq ft during the last (7) seven Years ending last day of month previous to the month of invitation of Bids under the following listed three criteria;	
		Three similar works each served for minimum BUA in Sq. Ft not less than 40% of the BUA area of 4.61 million sq ft under management to Bid OR	1.84 million sq ft

Criteria	Parameters	Criteria For Single Entity / Consortiums	Target Value
		Two similar works each served for minimum BUA in Sq. Ft not less than 50% of the BUA area of 4.61 million sq ft under management to Bid OR	2.31 million sq ft
		One similar works each served for minimum BUA in Sq. Ft not less than 80% of the BUA area of 4.61 million sq ft under management to Bid OR	3.69 million sq ft
(7)	Work Experience in Managing Landscape and Hardscaped Area	Experience of having successfully completed or currently managing "Similar Project" in terms of Landscape and Hardscaped area in Acres during the last (7) seven Years ending last day of the month previous to the month of invitation of Bids. This area should be exclusive of the land / ground coverage area on which construction is done for a particular project.	
		Three similar works each served for minimum Land area in Acres not less than 40% of the land area of 103.18 Acres under management to Bid OR	41.27 acres
		Two similar works each served for minimum Land area in Acres not less than 50% of the land area of 103.18 Acres under management to Bid OR	51.59 acres
		One similar works each served for minimum Land area in Acres not less than 80% of the land area of 103.18 Acres under management to Bid.	82.54 acres
(8)	Work Experience in managing similar works	Experience of having successfully completed similar works or currently managing during last 7 years ending last day of the month previous to the month in which bids are invited should be either of the following:	
		Three similar works costing not less than the amount equal to 40% of the estimated bid cost OR	53.40 crores
		Two similar works costing not less than the amount equal to 50% of the estimated bid cost OR	66.75 crores
		One similar works costing not less than the amount equal to 80% of the estimated bid cost.	106.80 crores

4.1.2 For arriving at cost of similar work, the value of work executed shall be brought to current costing level by enhancing the actual value of work at simple rate of seven percent per annum, calculated from the date of completion to the date of Bid opening for the completed number of years. Further, in respect of

the similar ongoing/current works, experience in respect of only those current/ongoing works shall be considered which are ongoing for more than one year before the date of opening of Bids.

4.2 Eligibility for Participating Bidder(s)

- 4.2.1 The prospective Bidder(s) shall be an existing Company or a group of entities (the "Consortium") registered under the Indian Companies Act.
- 4.2.2 A group of entities (the "Consortium") shall be allowed for participation for the Bid.
- 4.2.3 The prospective Bidder(s) shall have existing Company which minimum age of 7 years incorporated under the Indian Companies Act prior to Bid due date of this RFP document. In case of Consortiums, the age of Lead Member should be minimum 7 Years before the date of Bid submission.
- 4.2.4 Bidder(s) shall nominate one member as the Authorized Representative. The nomination(s) shall be supported by a Power of Attorney, as per the format at Appendix 13, signed by the Authorized signatory of the Company.

4.3 Eligibility Qualification for Consortium Company

- 4.3.1 In case of a Consortium, number of members in a Consortium shall not exceed 3 (Three) entities including lead partner.
- 4.3.2 The Technical Capacity and Financial Capacity of both the Members of Consortium would be considered for satisfying the above conditions of eligibility.
- 4.3.3 Lead member and the other members of the Consortium shall meet the requirement in Clause 4.1.1 (1), (2), (3). Lead member and the other members of the CONSORTIUM shall meet minimum 60% and 30% of the requirement respectively as per Clause 4.1.1 (4) and (5). For avoidance of doubt, it is further clarified that the Consortium must collectively and individually satisfy the above qualification criteria. Consortium as a whole shall cumulatively/ collectively fulfill the 100% requirement.
- 4.3.4 In case of Technical capacity, requirement of Clause 4.1.1 (6), (7) and (8) should be satisfied collectively by both the Consortium members. Work experience of only substantial partner (partner with share of 26% or more in the JV/ Consortium) shall be considered for evaluating of Consortium and also in case of single bidder submitting a work experience for work done previously in a joint venture/Consortium. If the qualifying work(s) were done by them in JV/Consortium having different constituents or percentage participation, then the value of work as per their percentage participation in such JV/Consortium shall be considered.
- 4.3.5 Where a work is undertaken by a group, only that portion of the contract which is undertaken by the concerned applicant/member should be indicated and the remaining done by the other members of the group be excluded. This is to be substantiated with documentary evidence.
- 4.3.6 Change in the composition of a Consortium will not be permitted by the "SPV" during the Bid Stage.
- 4.3.7 Additionally, the following requirements need to be fulfilled for Consortiums:

- a) Bid should contain the information required for each Member of the Consortium;
- b) Members of the Consortium shall have entered into a binding Joint Bidding Agreement, substantially in the form specified at Appendix 13, for the purpose of making the Bid and submitting a Bid. The Joint Bidding Agreement, to be submitted along with the Bid, shall, *inter alia*:
 - (i) convey the commitment(s) of the Lead Member in accordance with this RFP document, in case the contract to undertake the Project is awarded to the Consortium;
 - (ii) clearly outline the proposed roles and responsibilities, if any, of each member;
 - (iii) commit the approximate share of work to be undertaken by each member;
- c) Members of the Consortium shall nominate one member as the lead member (the "Lead Member"). The nomination(s) shall be supported by a Power of Attorney, as per the format at Appendix 14, signed by both the Lead member and the other Members of the Consortium.
- d) the Bid should include a brief description of the roles and responsibilities of individual members, particularly with reference to financial and technical obligations;
- e) an individual Bidder cannot at the same time be member of a Consortium submitting for bid. Further, a member of a particular Bidder Consortium cannot be member of any other Bidder Consortium submitting for bid;

4.4 Subcontractors

- 4.4.1 The Service Provider shall not assign or transfer any of its rights and/or obligations under this RFP/Agreement to any third party.
- 4.4.2 The entire scope of services to be performed by the Service Provider cannot be subcontracted. Key personnel, i.e., managerial staff and discipline heads / in-charges of various service packages shall be on the payroll of the Service Provider only and the same cannot be arranged through subcontractors. However, all other categories of personnel, e.g., all skilled/semi-skilled/unskilled labour, technicians, operators, engineers, supervisors etc., as well as equipment on hire, can be deployed by the Service Provider by engaging subcontractors.
- 4.4.3 In the event the "Service Provider" engages Subcontractors at commencement of the services and post commencement of services due to termination of the existing Subcontractors, the Service Provider shall notify for such engagement to SPV at least 30 (thirty) days in advance by submitting detailed credentials of the shortlisted Subcontractor which shall include relevant technical experience along with its financial capabilities for past 3 years in the same set of services for which the Subcontractor is intended to be engaged by the Service Provider.
- 4.4.4 Service Provider shall ensure that Subcontractor engaged for specific set of services is awarded a single service contract for the project and cannot be issued multiple contracts during the tenure of this agreement.

- 4.4.5 In all the contracts, subcontracts, agreements entered into by the Service Provider, the Service Provider shall ensure adequate provisions to be inserted and/ or taken up by the Service Provider so that the terms and conditions of all such contracts, subcontracts and agreements with Contractors, suppliers, vendors, Subcontractors are strictly brought within the purview of this RFP. Failure of the Service Provider to ensure the same shall amount to material breach of the terms of this RFP.
- 4.4.6 Service Provider shall ensure strict adherence by all subcontractors to the terms and conditions of this RFP and compliance with the provisions of Contract Labour (Regulation & Abolition) Act, 1970 and the rules framed thereunder and all other Applicable Laws.
- 4.5 Bidder(s) credentials for evaluation of Technical capacity
 - 4.5.1 Bidder(s) shall strictly follow the prescribed detail to be furnished as part of submittals for Technical Bid as per the Appendix 7 for evaluation purpose.
 - 4.5.2 The Bidder shall provide details of all their on-going projects along with stage of litigation, blacklisting or debarment, if so, against the Central/ State Government, or any entity controlled under Govt. of India/State Government.
 - 4.5.3 The credentials of eligible Bidder(s) shall be measured in terms of their Experience.
 - 4.5.4 The Bidder(s) should furnish the details of eligible work experience for the last seven (7) financial Years immediately preceding the Bid Due Date.
 - 4.5.5 The Bidder should furnish the required Project specific information and evidence such as work orders/ Agreements and Completion Certificates issued by the Clients in support of its claim of Technical Capacity.
- 4.6 Bidder(s) credentials for evaluation of Financial capacity
 - 4.6.1 The Bidder should furnish Certificate(s) from its statutory auditors specifying the net worth of the Bidder, as at the close of the preceding financial year, and also specifying that the net worth calculation methodology confirms to the provisions prescribed for minimum requirements. Net Worth shall mean the aggregate value of the paid-up share capital and all reserves created out of the profits and securities premium account, after deducting the aggregate value of the accumulated losses, deferred expenditure and miscellaneous expenditure not written off, as per the audited balance sheet, but does not include reserves created out of revaluation of assets, write back of depreciation and amalgamation.
 - 4.6.2 The Bidder shall furnish Certificate(s) from its statutory auditors stating the payments received from concerned client(s) during the past 7 Years, in respect of the Completed Projects; and In case a particular job/ contract has been jointly executed by the Bidder (as part of a Consortium), it should further support its claim for the payments received or O&M carried out by itself in the Projects as applicable the share in work done for that particular job/ contract by producing a certificate from the client; and
 - 4.6.3 The Bidder shall furnish Audited Annual Reports of the Bidder (of each member of a Consortium) for the last 7 (seven) financial Years, preceding the year in which the Bid is made.
 - 4.6.4 In case the annual accounts for the latest financial year are not audited and therefore the Bidder cannot

make it available, the Bidder shall give an undertaking to this effect and the statutory auditor shall certify the same. In such a case, the Bidder shall provide the Audited Annual Reports for 7 (seven) Years preceding the year for which the Audited Annual Report is not being provided.

- 4.6.5 Notwithstanding anything to the contrary contained herein, in the event that the Bid Due Date falls within three months of the closing of the latest financial year of a Bidder, it shall ignore such financial year for the purposes of its Bid and furnish all its information and certification with reference to the 7 (seven) Years or 1 (one) year, as the case may be, preceding its latest financial year. For the avoidance of doubt, financial year shall, for the purposes of a Bidder hereunder, mean the accounting year followed by the Bidder in the course of its normal business.

4.7 Qualifying Technical Bidding

- 4.7.1 The prospective Bidder(s) shall be evaluated under Technical Bid for Technical and Financial Capabilities as specified in above clauses.
- 4.7.2 For being technically qualified, a bidder must satisfy/qualify all the minimum eligibility criteria specified in Clause 4.1.1, failing which his bid is liable to be rejected. All Bidder(s) who fulfill the above said conditions of eligibility and meet the other conditions specified in this RFP shall be qualified in Technical Bid.
- 4.7.3 The Bidder(s) meeting the qualification requirements for Technical Bid as per this RFP document shall be notified officially after due verification of their credential information in support of qualification.
- 4.7.4 All qualifying Bidder(s) shall be evaluated further for Financial Bidding as per the established evaluation criteria.

5 Preparation and Submission of Bid

5.1 Language

- 5.1.1 The Bid and all related correspondence and documents in relation to the Bid Process shall be in English language. Bid(s) which do not comply to the Language requirement shall be treated as non-responsive.
- 5.1.2 Supporting materials, which are not translated into English, may not be considered. For the purpose of interpretation and evaluation of the Bid, the English language translation shall prevail.
- 5.1.3 In case a bidder submits any documents in any language other than English, then it will be the responsibility of such Bidder to also provide the English translation copy of the same duly certified, stamped and signed by their Local Chamber of Commerce. Translation by Indian Embassy/ Indian High Commission or authorized/ approved translation agencies (by Indian embassy/ high commission or any other authority) shall also be acceptable.

5.2 Format and signing of Bid

- 5.2.1 Incomplete and /or conditional Bids shall be liable to rejection and shall be treated as non-responsive.
- 5.2.2 The Bidder shall provide all the information sought under this RFP document. The "SPV" will evaluate only those Bids that are received online in the required formats and complete in all respects.
- 5.2.3 The Bid shall be typed document in Black colour and signed in indelible blue ink by the authorized signatory of the Bidder. All the alterations, omissions, additions or any other amendments made to the Bid shall be initialed by the person(s) signing the Bid
- 5.2.4 The following conditions shall be adhered to while submitting the Bid:
 - a) Bidder(s) should attach clearly marked and referenced continuation sheets in the event that the space provided in the prescribed forms in the Annexes is insufficient. Alternatively, Bidder(s) may format the prescribed forms making due provision for incorporation of the requested information;
 - b) Information supplied by the Bidder must apply to the Bidder, named in the Bid;
 - c) In case the Bidder is a Consortium, each Member should substantially satisfy the bid requirements to the extent specified herein.

5.3 Contents of Technical Bid:

- 5.3.1 Bidder(s) shall strictly follow the prescribed detail to be furnished as part of submittals for Technical Bid as per the Appendix 7 which shall be submitted online along the main cover letter for Technical Bid submission as per Appendix 6.

5.4 Contents of Financial Bid

- 5.4.1 Bidder shall quote as per the price bid (excel file) attached.

- 5.4.2 Bidder(s) shall strictly follow the prescribed detail to be furnished as part of submittals for Financial Bid as per the Appendix 21 (attached excel sheet) which shall be submitted online along the main cover letter for Financial Bid submission as per Appendix 20.
- 5.4.3 Financial Bids shall be summarized for the total cost of four components. The cost for all four sections shall be provided as per Section A (Summary), Section B, Section C and Section D provided in Appendix 21.
- a) Cost of Transition Services for three (3) months
 - b) Cost of Property Management Services for First (1st) Year
 - c) Cost of Property Management Services for Second (2nd) Year
 - d) Cost of Property Management Services for Third (3rd) Year
- 5.5 Submission of Online Bid
- 5.5.1 The Bidder shall submit its Proposal (the Technical Proposal and the Financial Proposal), on the e-procurement platform of the Authority (CPP Portal) at the <https://eprocure.gov.in/eprocure/app> website, duly signed in digital form by the authorized signatory of the Applicant, no later than the date and time specified as the Proposal Due Date, by uploading the complete and legible scanned/digital copies of Technical Proposal in PDF format (i.e. scanned copy of original signed documents and the supporting documents) and Financial Proposal.
- 5.5.2 All Bidder(s) must comply to the Schedule of Bidding for submission of Online Bids.
- 5.6 Submission of Physical Bid
- 5.6.1 The documents supporting the BID shall be submitted in a separate envelope before the bid due date marked as "Enclosures of the BID". The documents shall include:
- (i) Bid Processing Fee Rs. 1,00,000/- in the form of demand draft/ banker's cheque/ pay order (Plus applicable GST) (non-refundable).
 - (ii) Original BID Security in the form as specified in Clause 2.6.1;
 - (iii) Original Power of Attorney for signing the Bid as per the format at Appendix 12;
 - (iv) If applicable, Original Joint Bidding Agreement for Consortium as per the format at Appendix 13;
 - (v) if applicable, Original Power of Attorney for Lead Member of Consortium as per the format at Appendix 14;
 - (vi) Integrity Pact as per Appendix 5.
- 5.6.2 The envelope specified in above Clause shall be placed in an outer envelope, which shall be sealed. The envelopes shall clearly bear the identification "BID for the "Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi " and shall clearly indicate the name and address of the Bidder. In addition, the BID Due Date should be indicated on the right hand top corner of each of the envelopes.

5.6.3 Each of the envelopes shall be addressed to the SPV's address details:

To,
MD & CEO,
IICC Limited,
8th Floor, Tower-1, LIC,
Jeevan Bharti Building, Connaught Place,
New Delhi - 110001
India

5.6.4 If the envelopes are not sealed and marked as instructed above, the SPV assumes no responsibility for the misplacement or premature opening of the contents of the Bid and consequent losses, if any, suffered by the Bidder.

5.6.5 Bids submitted by fax, telex, telegram or e-mail shall not be entertained and shall be rejected.

5.7 Validity of Bid

5.7.1 Interested Bidder(s) are being called upon to submit their Bid in accordance with the terms specified in this Bidding Document. The Bid shall be valid for a period of not less than 180 days from the date of submission of BIDs (the "Bid Due Date").

5.8 Acknowledgement by Bidder

5.8.1 It shall be deemed that by submitting the Bid, the Bidder has:

- a) made a complete and careful examination of the RFP document;
- b) received all relevant information requested from the "SPV";
- c) accepted the risk of inadequacy, error or mistake in the information provided in the RFP document or furnished by or on behalf of the "SPV" relating to any of the matters referred to the RFP; and
- d) Agreed to be bound by the undertakings provided by it under and in terms hereof.

5.8.2 The "SPV" shall not be liable for any omission, mistake or error in respect of any of the above or on account of any matter or thing arising out of or concerning or relating to the Bid Process, including any error or mistake therein or in any information or data given by the "SPV".

5.9 Late Bids

5.9.1 Bids received by the "SPV" after the specified time on the Bid Due Date as per Clause 2.9 shall not be eligible for consideration and shall be summarily rejected.

5.10 Modifications or substitution of Bids

5.10.1 The Bidder may modify or substitute its e- BID after submission prior to the BID Due Date. No BID can be modified or substituted by the Bidder on or after the BID Due Date & Time.

5.10.2 Modification of bid shall be in accordance with the guidelines/ procedure, as applicable, as per the CPP Portal.

- 5.10.3 Any alteration/ modification in the Bid or additional information supplied subsequent to the Bid Due Date, unless the same has been expressly sought for by the "SPV", shall be disregarded.
- 5.10.4 BID amount shall be indicated clearly in both figures and words, in Indian INR in prescribed format of Financial Bid and it will be signed by the Bidder's authorized signatory. In the event of any difference between figures and words, the amount indicated in words shall be taken into account.
- 5.10.5 In case, there is an error in a total corresponding to the addition or subtraction of sub-totals, the sub-totals shall prevail and the total shall be corrected. When there is a difference between the prices in figures and words, the price in words shall prevail.
- 5.10.6 Such discrepancy in an offer shall be conveyed to the Bidder and they shall be advised to respond by a target date and if the bidder does not agree or rectifies the discrepancy, the same is liable to be rejected.
- 5.10.7 The Bidder, by submitting its Bid pursuant to this RFP, shall be deemed to have acknowledged and confirmed that the "SPV" will suffer loss and damage on account of withdrawal of its Bid or for any other default by the Bidder during the period of Bid validity as specified in this RFP. The "SPV" shall be entitled to disqualify the Bidder(s) in case of withdrawal of bid by the bidder before the bid validity date, besides being entitled to recover/be paid by the bidder for any other penalty/ damage suffered by the SPV on this account. The bidder shall also be blacklisted / debarred from any future bidding in the IICC Ltd.
- 5.11 Withdrawal of Bids
- 5.11.1 The Bidder may withdraw its e- BID after submission prior to the BID Due Date. No BID can be withdrawn by the Bidder on or after the BID Due Date & Time.
- 5.11.2 The Bid submission shall remain valid for the total duration of Bid as mentioned in the Schedule of Bid Process. Any Bid withdrawal before validity date shall result in the disqualification of Bidder.

6 Evaluation Process

6.1 Bid Evaluation Authority

- 6.1.1 Bidder(s) are advised to contact below mentioned authority for all approved means and reasons contacts and submissions:

MD and CEO,
IICC Limited,
8th Floor, Tower-1,
LIC, Jeevan Bharti Building,
Connaught Place New Delhi-110001
Phone No.: +91 11 2419 0300
Email: iiccdwarka@nicdc.in

6.2 Opening of Bids

- 6.2.1 The "SPV" shall open the Bids on the date specified as per the CPP Portal process.

6.3 Tests of responsiveness

- 6.3.1 Prior to evaluation of Bids, the "SPV" shall determine whether each Bid is responsive to the requirements of the RFP document.
- 6.3.2 A Bid shall be considered responsive only if the documents as part of Technical Bid are received with all accuracy and completeness as detailed in Appendix 7 of the RFP document. Any BID not accompanied by the BID Security and tender fee (bid processing fee) shall be summarily rejected by the SPV as non-responsive.
- 6.3.3 The "SPV" reserves the right to reject any Bid which is non-responsive and no request for alteration, modification, substitution or withdrawal shall be entertained by the "SPV" in respect of such Bid.

6.4 Evaluation of Technical Bids:

- 6.4.1 Technical Bids of those Bidder(s), who have not submitted their Bid online, shall not be considered for opening and evaluation.
- 6.4.2 Only those Bidder(s) who qualify the test of responsiveness shall be evaluated for Technical Bid evaluation.
- 6.4.3 The "SPV" will subsequently examine and evaluate Technical Bids in accordance with the provisions set out in this section.
- 6.4.4 The Bidder's competence and capability is proposed to be established by the following parameters:
- a) Technical Capacity; and
 - b) Financial Capacity
- 6.4.5 To facilitate evaluation of Technical BID's, the "SPV" may, at its sole discretion, seek clarifications in

writing from any Bidder regarding its Technical BID. Such clarification(s) shall be provided within the time specified by the "SPV" for this purpose. Any request for clarification(s) and all clarification(s) in response thereto shall be in writing.

- 6.4.6 Bidder(s) are advised that qualification of Bidder(s) will be entirely at the discretion of the "SPV". Bidder(s) will be deemed to have understood and agreed that no explanation or justification on any aspect of the Bid Process or selection will be given.
- 6.4.7 After evaluation of Technical Bids, the "SPV" will publish a list of technically responsive Bidder(s) whose financial bids shall be opened on CPP Portal. The "SPV" shall notify other Bidder(s) that they have not been technically responsive. The "SPV" will not entertain any query or clarification from Bidder(s) who fail to qualify.
- 6.4.8 The "SPV" reserves the right not to proceed with the Bid Process at any time without notice or liability and to reject any or all Bid(s) without assigning any reasons.

6.5 Evaluation of Financial Bid

- 6.5.1 The SPV will notify the Bidder(s) who is qualified, technically, through CPP Portal indicating the date and time set for opening the Financial Proposals.
- 6.5.2 The "SPV" shall open the Financial Proposal on the date specified as per the CPP Portal process.
- 6.5.3 Evaluation Committee will determine whether the Financial Proposals are complete in all respects, unqualified and unconditional, and submitted in accordance with the terms hereof.

6.6 Selection of Bidder

- 6.6.1 Bids will be evaluated for the Project on the basis of the lowest cost required by a Bidder for implementing the Project (the "Bid Price"). The total duration for Property Management Services under the Agreement (the "Contract Period") is specified in the draft Service Agreement forming part of the Bidding Documents. Evaluation of the financial bid shall be based on total amount quoted by the bidder excluding GST.
- 6.6.2 In this RFP document, the term "Lowest Bidder" shall mean the bidder who is quoting the lowest BID price.
- 6.6.3 If the bidder, whose bid has been found to be the lowest evaluated bid withdraws or whose bid has been accepted, fails to sign the Contract Agreement as may be required, or fails to provide the performance security as may be required for the performance of the contract or otherwise withdraws from the procurement process, the SPV shall re-tender and invite fresh bids for selection of the Service Provider or annual the Bid Process, as the case may be.
- 6.6.4 Subject to the provisions of Clause 3.13, the Bidder whose BID is adjudged as responsive in terms of Clause 6.3 and who quotes lowest price shall be declared as the selected Bidder (the "Selected Bidder").
- 6.6.5 If the Financial Bid, which results as the lowest evaluated bid price, is seriously unbalanced or does not comply to all the cost components of the BOQ as specified in Appendix 21, in the opinion of the "SPV",

the "SPV" may require the Bidder to produce detailed price analysis for any or all items of the project to demonstrate the internal consistency of those prices with the proposed operation and maintenance methods and schedules.

- 6.6.6 In the event that the "SPV" rejects or annuls all the BIDs, it may, in its discretion, invite all eligible Bidder(s) to submit fresh BIDs hereunder.
- 6.6.7 In the event that two or more Bidder(s) quote the same BID price (the "Tie BIDs"), the "SPV" shall identify the Selected Bidder by the following criteria:
 - a) Financial capacity of the bidder
 - b) Experience in terms of Built Up Area of project of O&M in last 7 (seven) Years.
- 6.6.8 In the event that the "SPV" rejects or annuls all the BIDs, it may, in its discretion, invite all eligible Bidder(s) to submit fresh BIDs hereunder.
- 6.6.9 After selection, a Letter of Award (the "LOA") shall be issued, in duplicate, by the "SPV" to the Selected Bidder and the Selected Bidder shall, within 7 (seven) days of the receipt of the LOA, sign and return the duplicate copy of the LOA in acknowledgement thereof. In the event the duplicate copy of the LOA duly signed by the Selected Bidder is not received by the stipulated date, the "SPV" may, unless it consents to extension of time for submission thereof, disqualify the Bidder as Damages on account of failure of the Selected Bidder to acknowledge the LOA.
- 6.6.10 After acknowledgement of the LOA as aforesaid by the Selected Bidder, it shall cause the bidder to execute the Agreement within the period prescribed in above clause. The Selected Bidder shall not be entitled to seek any deviation, modification or amendment in the Agreement.

7 Appendices of Bid Process

7.1 Appendix 1 - RFP Acceptance Letter

(To be given on Company Letter Head)

Date

To,

MD and CEO,
IICC Limited,
8th Floor, Tower-1,
LIC, Jeevan Bharti Building,
Connaught Place New Delhi-110001

Sub: Acceptance of Terms & Conditions of RFP Document / Tender

RFP Reference No:

Name of RFP / Work: Selection of Property Management Agency for Operation and Maintenance Services at IICC, Sector 25, Dwarka, New Delhi.

Dear Sir,

- 1) I / We have downloaded / obtained the RFP document(s) along with its all Appendix and Annexures for the above-mentioned 'Services / Work' from the web site(s) namely: _____ as per your advertisement, given in the above-mentioned website(s).
- 2) I / We hereby certify that I / we have read the entire details and prescribed terms and conditions of the RFP documents (including all documents like annexure(s), schedule(s), etc.), in totality of the document which form part of the RFP Document as a whole and I / we shall abide hereby by the terms / conditions / clauses contained therein.
- 3) The corrigendum(s) issued from time to time by your department/ organization too has also been taken into consideration, while submitting this acceptance letter.
- 4) I / We hereby unconditionally accept the terms and conditions of above-mentioned RFP document(s) / corrigendum(s) in its totality / entirety.
- 5) I / We do hereby declare that our Firm has not been blacklisted/ debarred by any Govt. Department/Public sector undertaking.
- 6) I / We certify that all information furnished by our Firm is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/ organization shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy.

Yours Faithfully,

(Signature of the Bidder, with Official Seal)

7.2 Appendix 2 - Bid Security BG Format

B.G. No. Dated:

1. In consideration of you, *** **, having its office at *** **, (hereinafter referred to as the "SPV/Employer", which expression shall unless it be repugnant to the subject or context thereof include its, successors and assigns) having agreed to receive the BID of and having its registered office at (and acting on behalf of its Consortium) (hereinafter referred to as the "Bidder" which expression shall unless it be repugnant to the subject or context thereof include its/their executors, administrators, successors and assigns), for the *** ** Project (hereinafter referred to as "the Project") pursuant to the RFP Document dated issued in respect of the Project and other related documents including without limitation the draft contract Agreement (hereinafter collectively referred to as "Bidding Documents"), we (Name of the Bank) having our registered office at and one of its branches at (hereinafter, referred to as the "Bank"), at the request of the Bidder, do hereby in terms of Clause 2.6 of the RFP Document, irrevocably, unconditionally and without reservation guarantee the due and faithful fulfilment and compliance of the terms and conditions of the Bidding Documents (including the RFP Document) by the said Bidder and unconditionally and irrevocably undertake to pay forthwith to the SPV an amount of Rs. *** ** (Rupees *** ** only) (hereinafter referred to as the "Guarantee") as our primary obligation without any demur, reservation, recourse, contest or protest and without reference to the Bidder if the Bidder shall fail to fulfil or comply with all or any of the terms and conditions contained in the said Bidding Documents.
2. Any such written demand made by the SPV stating that the Bidder is in default of the due and faithful fulfilment and compliance with the terms and conditions contained in the Bidding Documents shall be final, conclusive and binding on the Bank.
3. We, the Bank, do hereby unconditionally undertake to pay the amounts due and payable under this Guarantee without any demur, reservation, recourse, contest or protest and without any reference to the Bidder or any other person and irrespective of whether the claim of the SPV is disputed by the Bidder or not, merely on the first demand from the SPV stating that the amount claimed is due to the SPV by reason of failure of the Bidder to fulfil and comply with the terms and conditions contained in the Bidding Documents including failure of the said Bidder to keep its BID open during the BID validity period as set forth in the said Bidding Documents for any reason whatsoever. Any such demand made on the Bank shall be conclusive as regards amount due and payable by the Bank under this Guarantee. However, our liability under this Guarantee shall be restricted to an amount not exceeding Rs. ***** (Rupees *** ** only).
4. This Guarantee shall be irrevocable and remain in full force for a period of 180 (one hundred and eighty) days from the BID Due Date inclusive of a claim period of 60 (sixty) days or for such extended period as may be mutually agreed between the SPV and the Bidder, and agreed to by the Bank, and shall continue to be enforceable till all amounts under this Guarantee have been paid.
5. We, the Bank, further agree that the SPV shall be the sole judge to decide as to whether the Bidder is in default of due and faithful fulfilment and compliance with the terms and conditions contained in the Bidding Documents including, inter alia, the failure of the Bidder to keep its BID open during the BID

validity period set forth in the said Bidding Documents, and the decision of the SPV that the Bidder is in default as aforesaid shall be final and binding on us, notwithstanding any differences between the SPV and the Bidder or any dispute pending before any Court, Tribunal, Arbitrator or any other Authority.

6. The Guarantee shall not be affected by any change in the constitution or winding up of the Bidder or the Bank or any absorption, merger or amalgamation of the Bidder or the Bank with any other person.
7. In order to give full effect to this Guarantee, the SPV shall be entitled to treat the Bank as the principal debtor. The SPV shall have the fullest liberty without affecting in any way the liability of the Bank under this Guarantee from time to time to vary any of the terms and conditions contained in the said Bidding Documents or to extend time for submission of the BIDs or the BID validity period or the period for conveying acceptance of Letter of Award by the Bidder or the period for fulfilment and compliance with all or any of the terms and conditions contained in the said Bidding Documents by the said Bidder or to postpone for any time and from time to time any of the powers exercisable by it against the said Bidder and either to enforce or forbear from enforcing any of the terms and conditions contained in the said Bidding Documents or the securities available to the SPV, and the Bank shall not be released from its liability under these presents by any exercise by the SPV of the liberty with reference to the matters aforesaid or by reason of time being given to the said Bidder or any other forbearance, act or omission on the part of the SPV or any indulgence by the SPV to the said Bidder or by any change in the constitution of the SPV or its absorption, merger or amalgamation with any other person or any other matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect of releasing the Bank from its such liability.
8. Any notice by way of request, demand or otherwise hereunder shall be sufficiently addressed to [name of Bank along with branch address] and delivered at our above branch which shall be deemed to have been duly authorized to receive the said notice of claim.
9. We undertake to make the payment on receipt of your notice of claim on us addressed to [name of Bank along with branch address] and delivered at our above branch which shall be deemed to have been duly authorized to receive the said notice of claim.
10. It shall not be necessary for the SPV to proceed against the said Bidder before proceeding against the Bank and the guarantee herein contained shall be enforceable against the Bank, notwithstanding any other security which the SPV may have obtained from the said Bidder or any other person and which shall, at the time when proceedings are taken against the Bank hereunder, be outstanding or unrealized.
11. We, the Bank, further undertake not to revoke this Guarantee during its currency except with the previous express consent of the SPV in writing.
12. The Bank declares that it has power to issue this Guarantee and discharge the obligations contemplated herein, the undersigned is duly authorized and has full power to execute this Guarantee for and on behalf of the Bank.
13. For the avoidance of doubt, the Bank's liability under this Guarantee shall be restricted to Rs. *** crore (Rupees *** ** crore only). The Bank shall be liable to pay the said amount or any part thereof only if the

SPV serves a written claim on the Bank in accordance with paragraph 9 hereof, on or before [*** (indicate date falling 180 days after the BID Due Date)].

Signed and Delivered by Bank

By the hand of Mr./Ms, its and authorized official.

(Signature of the Authorised Signatory)

(Official-Seal)

7.3 Appendix 3 - Bank Details of "SPV"

The Bank details of India International Convention & Exhibition Centre Limited ('IICC Limited') are provided hereunder:

1. Name: India International Convention & Exhibition Centre Limited.
2. Bank Name; State Bank of India
3. Branch Add: CAG -II Branch (17313), Redfort Capital Parsvnath Towers, Bhai Veer Singh Marg New Delhi.
4. IFSC Code: SBIN0017313
5. Current Account No.: 38421926838

7.4 Appendix 4 - Performance Bank Guarantee

(To be made on Non- Judicial Stamp Paper of Rs 100)

To,
MD and CEO, IICC Limited,
8th Floor, Tower-1,
LIC, Jeevan Bharti Building,
Connaught Place New Delhi-110001

Whereas

- A. [name and address of Service Provider] (hereinafter called "the Contractor") and India International Exhibition and Convention Center Limited (hereinafter called "the SPV") have entered into an agreement (the "Agreement") for " Property Management Services of India International Convention & Exhibition Centre at Sector 25, Dwarka, New Delhi, subject to and in accordance with the provisions of the Agreement.
- B. The Agreement requires the Contractor to furnish a Performance Security for due and faithful performance of its obligations, under and in accordance with the Agreement, during the Operation & Maintenance Period (as defined in the Agreement) in a sum of Rs _____Crores (INR Crores) (the "Guarantee Amount").
- C. We, _____, (the "Bank") through our branch at _____ have agreed to furnish this bank guarantee (hereinafter called the "Guarantee") by way of Performance Security.

NOW, THEREFORE, the Bank hereby, unconditionally and irrevocably, guarantees and affirms as follows:

- D. The Bank hereby unconditionally and irrevocably guarantees the due and faithful performance of the Contractor's obligations during and under and in accordance with the Agreement, and agrees and undertakes to pay to the "SPV", upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Contractor, such sum or sums up to an aggregate sum of the guarantee amount as the "SPV" shall claim, without the "SPV" being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.
- E. A letter from the "SPV", under the hand of an officer not below the rank of [of "SPV"], that the Contractor has committed default in the due and faithful performance of all or any of its obligations under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that the "SPV" shall be the sole judge as to whether the Contractor is in default in due and faithful performance of its obligations during and under the Agreement and its decision that the Contractor is in default shall be final, and binding on the Bank, notwithstanding any difference between the "SPV" and the Contractor, or any dispute between them pending before any court, tribunal, arbitrators or any other authority or body, or by the discharge of the Contractor for any reason whatsoever.
- F. In order to give effect to this Guarantee, the "SPV" shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Contractor and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.

- G. It shall not be necessary, and the Bank hereby waives any necessity, for the "SPV" to proceed against the Contractor before presenting to the Bank its demand under this Guarantee.
- H. The "SPV" shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Agreement or to extend the time or period for the compliance with, fulfillment and/or performance of all or any of the obligations of the Contractor contained in the Agreement or to postpone for any time, and from time to time, any of the rights and powers exercisable by the "SPV" against the Contractor, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the "SPV", and the Bank shall not be released from its liability and obligation under these presents by any exercise by the "SPV" of the liberty with reference to the matters aforesaid or by reason of time being given to the Contractor or any other forbearance, indulgence, act or omission on the part of the "SPV" or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.
- I. This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the "SPV" in respect of or relating to the Agreement or for the fulfillment, compliance and/or performance of all or any of the obligations of the Contractor under the Agreement.
- J. Notwithstanding anything contained herein before, the liability of the Bank under this Guarantee is restricted to the Guarantee amount and this Guarantee will remain in force for the period specified in paragraph K below and unless a demand or claim in writing is made by the "SPV" on the Bank under this Guarantee all rights of the "SPV" under this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.
- K. The Performance Security shall cease to be in force and effect after six months from the end of the term of 39 months
- L. The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of the "SPV" in writing and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.
- M. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred branch, which shall be deemed to have been duly authorized to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the "SPV" that the envelope was so posted shall be conclusive.
- N. This Guarantee shall come into force with immediate effect and shall remain in force and effect for up to the end **** month in the year ***** or until it is released earlier by the "SPV" pursuant to the provisions of the Agreement.

Signed and sealed this..... day of20.....at.....

SIGNED, SEALED AND DELIVERED

For and on behalf of the Bank by:

(Signature)

(Name)

(Designation)

(Code Number)

(Address)

NOTES:

- a. The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.
- b. The address, telephone number and other details of the head office of the Bank as well as of issuing branch should be mentioned on the covering letter of issuing branch.

7.5 Appendix 5 - Integrity Pact

(To be made on Non- Judicial Stamp Paper of Rs 100)

BETWEEN

India International Convention & Exhibition Center Limited ("IICC Limited") hereinafter referred to as "The Principal / "SPV"" (which expression, unless repugnant to the context thereof, shall mean and include its legal representatives, heirs and assigns)

AND

.....hereinafter referred to as "The Bidder" (which expression, unless repugnant to the context thereof, shall mean and include its legal representatives, heirs and assigns)

Preamble

The Principal intends to award, under laid down organizational procedures, contract(s) for (Operation & Maintenance Services Contract) (hereinafter referred to as the 'project'). The Principal necessarily requires full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/ transparency in its relations with its Bidder(s) and/or Contractor(s).

Section 1: Commitments of the Principal

- a. The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:
- b. No employee of the Principal, personally or through family members or through any other channel, will in connection with the RFP for or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit, which the person is not legally entitled to.
- c. The Principal will, during the Bid Process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the Bid Process, provide to all Bidder(s) the same information and will not provide to any Bidder(s), confidential/additional information through which the Bidder(s) could obtain an advantage in relation to the Bid Process or the contract execution.
- d. The Principal will exclude from the process all known prejudiced persons. The Principal shall obtain bids from only those parties who have been short-listed or pre-qualified or through a process of open advertisement/ web publishing or any combination thereof.
- e. If the Principal obtains information on the conduct of any of its employees, Contractor(s) and/or Bidder(s), which is a criminal offence under the IPC/PC Act, or if there be a substantive suspicion in this regard, the Principal will inform the Chief Vigilance Officer and subject to its discretion, can additionally initiate disciplinary actions.
- f. The Principal will enter into agreements with identical conditions with all Bidder(s) for the different Work Packages in the aforesaid Project.
- g. The Principal will disqualify from the Bid Process all Bidder(s); who do not sign this Pact or violate its provisions.

Section 2: Commitments of the Bidder(s) / Contractor(s)

- a. The Bidder(s) commit(s) itself/themselves to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Bid Process and during the contract execution.

- b. The Bidder(s) will not, directly or through any other person or firm offer, promise or give to any of the Principal's employees involved in the Bid Process or the execution of the contract any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage, of any kind whatsoever, during the Bid Process or during the execution of the contract.
- c. The Bidder(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non -submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the Bid Process.
- d. The Bidder(s) will not use improperly, for purpose of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- e. The Bidder(s) of foreign origin shall disclose the name and address of the Agents/representatives in India, if any. Similarly, the Bidder(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any. Further details as mentioned in the "Guidelines on Indian Agents of Foreign Suppliers" shall be disclosed by the Bidder(s). Further, as mentioned in the Guidelines all the payments made to the Indian agent/representative have to be in Indian INR only.
- f. The Bidder(s) will, when submitting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- g. The Bidder(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section 3: Disqualification from Bid Process and/or exclusion from future contracts.

- a. If the Bidder(s), before awarding the Project or during execution has committed a transgression by violating Section 2 above or in any other form so as to put his reliability or credibility in question, the Principal, at its sole discretion, is entitled to disqualify the Bidder(s) from the Bid Process or terminate the contract, if already awarded, for that reason, without prejudice to any other legal rights or remedies available to the Principal under the relevant clauses of RFP.
- b. If the Bidder(s) has committed a transgression through a violation of any of the terms under Section 2 above or in any other form such as to put his reliability or credibility into question, the Principal will also be entitled to exclude such Bidder(s) from future RFPs/contract award processes. The imposition and duration of the exclusion will be determined by the Principal, keeping in view the severity of the transgression. The severity will be determined by the circumstances of the case, in particular, the number of transgressions and/or the amount of the damage.
- c. If it is observed after payment of final bill but before the expiry of validity of Integrity Pact that the Service Provider has committed a transgression, through a violation of any of the terms under Section 2 above or any other term(s) of this Pact, during the execution of contract, the Principal will be entitled to exclude the Contractor from further RFP/contract award processes.
- d. The exclusion will be imposed for a minimum period of six (6) months and a maximum period of three (3) Years.
- e. If the Bidder(s) / Service Provider can prove that he has restored/recouped the damage to the Principal caused by him and has installed a suitable corruption prevention system, the Principal may, at its sole discretion, revoke or reduce the exclusion period before the expiry of the period of such exclusion.

Section 4: Compensation for Damages

- a. If the Principal has disqualified the Bidder(s) from the Bid Process prior to the awarding of the Project according to Section 3, the Bid Security furnished, if any, along with the offer, as per terms of the Invitation of Tender, shall also be forfeited. The Bidder(s) understands and agrees that this will be in addition to the disqualification and exclusion of the Bidder(s) as may be imposed by the Principal, in terms of Section 3 above.
- b. If, at any time after the awarding of the Project, the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the Security Deposit/Performance Bank Guarantee furnished by the Bidder(s) / Service Provider, if any, as per the terms of the NIT/Contract shall be forfeited without prejudice to any other legal rights and remedies available to the Principal under the relevant clauses of General/ Special Conditions of Contract.
- c. The Bidder(s) / Service Provider understands and agrees that this will be in addition to the disqualification and exclusion of the Bidder(s) / Service Provider, as may be imposed by the Principal in terms of Section 3 above.

Section 5: Previous transgression

- a. The Bidder(s) / Service Provider herein declares that it has committed no transgressions in the last 3 Years with any other Company in any country conforming to the anti-corruption approach as detailed herein or with government/ any other Public Sector Enterprise in India that could justify its exclusion from the Bid Process.
- b. If at any point of time during the Bid Process or after the awarding of the Contract, it is found that the Bidder(s) / Service Provider has made an incorrect statement on this subject, he can be disqualified from the Bid Process or if, as the case may be, that the Contract, is already awarded, it will be terminated for such reason and the Bidder(s) / Service Provider can be black listed in terms of Section 3 above.

Section 6: Independent External Monitor / Monitors

Name to be given

Section 7 Criminal charges against violating Bidder(s)/Contractor(s)/Subcontractor(s)

- a. If the Principal obtains knowledge of conduct of a Bidder/ Service Provider or any employee or a representative or an associate of a Bidder / Service Provider, which constitutes a criminal offence under the IPC/PC Act, or if the Principal has substantive suspicion in this regard, the Principal will forthwith inform the same to the "SPV".

Section 8 - Duration of the Integrity Pact

- a. This Pact shall come into force when both parties have legally signed it. The Pact shall expire, in case of the Service Provider, 3 (three) months after the last payment under the Service Contract is made and in case of the unsuccessful Bidder(s), 2 (two) months after the contract for the project has been awarded.
- b. If any claim is made / lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged / determined by "SPV".
- c. The Bidder(s) / Service Provider, however, understands and agrees that even upon the completion of the Project and/or the last payment under the Contract having been made, if any transgression/violation of the

terms of this Pact comes/is brought to the notice of the Principal, it may, subject to its discretion, blacklist and/or exclude such Bidder(s) / Service Provider as provided for in Section 3, without prejudice to any other legal right or remedy so available to the Principal.

Section 9 - Other provisions

- a. This agreement is subject to Indian Law. Place of performance and jurisdiction is the Registered Office of the Principal, i.e. New Delhi.
- b. Changes and supplements as well as termination notices need to be made in writing.
- c. Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement shall remain valid and binding. In such a case, the parties will strive to come to an agreement in accordance to their original intentions.
- d. Wherever he or his as indicated in the above sections, the same may be read as he/she or his/her, as the case may be.
- e. If the Bidder/Contractor is a partnership or a Consortium, this agreement must be signed by all partners or Consortium members.

(For & On behalf of the Principal)

(For & On behalf of Bidder/ Service Provider)

(Office Seal)

(Office Seal)

Place _____ Date ____

Witness 1: (Name & Address)

Witness 2: (Name & Address)

{COUNTERSIGNED and accepted by: Bidder}

7.6 Appendix 6 - Technical Bid Submission

(To be given on Company Letter Head)

Date:

To,

CEO and MD,

IICC Limited,

8th Floor, Tower-1,

LIC, Jeevan Bharti Building,

Connaught Place New Delhi-110001

Sub: Submission of (Technical Bid for RFP Ref. No *****)

Dear Sir,

Subject: Selection of Property Management agency for Operation and Maintenance Services at IICC, Dwarka, New Delhi

1. With reference to your RFP Document No. _____ dated _____, we, having examined all relevant documents and understood their contents, hereby submit our Technical Proposal in respect of the Property Management Services at IICC, New Delhi ("Project"). The Proposal is unconditional and unqualified.
2. We are submitting our Proposal as (sole bidder/ Consortium) comprising [insert a list with full name and address of each member].
3. Our Proposal is binding upon us, subject only to the modifications resulting from technical discussions and communications with SPV/IICCL till the final award process.
4. We understand you are not bound to accept any Proposal you receive. Further:
5. We acknowledge that the SPV will be relying on the information provided in the Proposal and the documents accompanying the Proposal for selection of the Property Management Agency, and we certify that all information provided in the Proposal and in the supporting documents is true and correct, nothing has been omitted which renders such information misleading; and all documents accompanying such Proposal are true copies of their respective originals.
6. This statement is made for the express purpose of appointment as the Selected Bidder for the aforesaid Project.
7. We shall make available to the SPV any additional information it may deem necessary or require for supplementing or authenticating the Proposal.
8. We acknowledge the right of the SPV to reject our Proposal without assigning any reason or otherwise and hereby waive our right to challenge the same on any account whatsoever.
9. We understand that you may cancel the Selection Process at any time and that you are neither bound to accept any Proposal that you may receive nor to declare the Selected Bidder, without incurring any liability to the Bidder.
10. We agree and understand that the proposal is subject to the provisions of the RFP. In no case, shall we have any claim or right of whatsoever nature if we are not declared the Selected Bidder or our proposal is not opened or rejected.
11. We acknowledge that qualification in the Selection Process will be based on the credentials submitted herewith, and, accordingly, undertake to abide by the obligations set out in the Service Agreement.
12. We have studied the RFP and all other documents carefully. We understand that except to the extent as expressly set forth in the Service agreement, we shall have no claim, right or title arising out of any documents or information provided to us by the SPV or in respect of any matter arising out of or concerning or relating

to the selection process, including the declaration of the Selected Bidder.

13. We declare that:

- a) We have examined and have no reservations to the RFP, including any addenda/ amendments/ corrigenda issued by the SPV;
- b) We do not have any conflict of interest in accordance with the terms of the RFP;
- c) We have not directly or indirectly or through an agent engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as defined in the RFP, in respect of any tender or request for proposals issued by or any agreement entered into with the SPV or any other public sector enterprise or any government, Central or State; and
- d) we have taken steps to ensure that no person acting for us or on our behalf will engage in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice.
- e) neither we nor any of our members have been barred by the central government, any state government, a statutory body or any public sector undertaking, as the case may be, from participating in any project or bid, and that any such bar, if any, does not subsist as on the date of this RFP
- f) in the last 3 (three) Years, we, or any of our Associates, have neither failed to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial authority or a judicial pronouncement or arbitration award against us, nor been expelled from any project or contract by any public authority nor have had any contract terminated by any public authority for breach on our part.
- g) no investigation by a regulatory authority is pending either against us or against our Associates or against our CEO or any of our directors/ managers/ employees.
- h) in regard to matters other than security and integrity of the country, we or any of our Associates have not been convicted by a court of law or indicted or adverse orders passed by a regulatory authority which would cast a doubt on our ability to implement the Property Management Services or which relates to a grave offence that outrages the moral sense of the community.
- i) in regard to matters relating to security and integrity of the country, we have not been charge-sheeted by any agency of the Government or convicted by a court of law for any offence committed by us or by any of our Associates.

14. We certify that

- a) we have examined in detail and confirmed that we meet the minimum Technical and Financial qualifications for Bidding in this RFP as specified in Clause 4.1.1 of RFP document.
- b) we, or any of our Associates, are not submitting any other proposal for selection as Property Management agency, either as a member of any other Consortium or otherwise.
- c) We have submitted the Bid Security and bid processing fee for the RFP document in favour of "SPV".
- d) we are fully aware and accept to the conditions of Non-responsive Bid(s) subject to rejection in the RFP document
- e) we are fully aware and accept to the conditions of disqualification and rejection of Bidder(s) and Bid(s) subject to rejection in the RFP document which shall lead to forfeit of Performance Security.

15. We hereby irrevocably waive any right or remedy which we may have at any stage at law or howsoever otherwise arising to challenge or question any decision taken by the SPV in connection with the selection of Developer or in connection with the Selection Process itself in respect of the above-mentioned Project.

16. The Financial Proposal is being submitted separately. This Technical Proposal read with the Financial Proposal shall be binding on us.

17. We agree and undertake to abide by all the terms and conditions of the RFP. We remain,

Yours sincerely,

Signature of Authorized Representative [In full and initials]:

Name and Title of Signatory:

Name of Bidder:

Address:

(Name and seal of the Bidder)

7.7 Appendix 7 - List of Submittals (Technical Bid)

- A. (To be given on Company Letter Head) The Bidder shall submit the BID online on CPP Portal along with other supporting scanned documents as mentioned below:

Sr. No	Submittals	Provided / Not Provided / Not Applicable	Remarks (if any)
1)	<u>Appendix 6 – Cover 1 for Technical Bid Submission</u>		
2)	<u>Appendix 7 – List of Submittals (Technical Bid)</u>		
3)	<u>Appendix 1 – RPF Acceptance Letter</u>		
4)	Signed and Stamped Copy in Unconditional Acceptance of RFP Document (all pages, Appendix, Annexures etc)		
5)	Proof of submission of cost of Bid Processing Fee Rs. 1,00,000/- in the form of demand draft/ banker's cheque/ pay order (Plus applicable GST) (non-refundable)		
6)	<u>Appendix 2 – Copy of Bid Security in the form of</u> Bank Guarantee/ Insurance Surety Bonds, account payee demand draft, fixed deposit receipt, or banker's cheque/ RTGS		
7)	<u>Appendix 5 – Copy of Integrity Pact</u>		
8)	<u>Appendix 8 - Details of Bidding Organization</u>		
9)	<u>Appendix 9 - Details of Authorized Signatory for Bid Process</u>		
10)	<u>Appendix 10 – Member Details of Individual/Consortium Bidding Company</u>		
11)	<u>Appendix 11 – Banking details of Bidder</u>		
12)	<u>Appendix 12 – Copy of Power of Attorney for Bid Signing for Single Entity</u>		
13)	<u>Appendix 13 – Copy of Joint Bidding Agreement for Consortium (if applicable)</u>		
14)	<u>Appendix 14 – Copy of Power of Attorney for Lead Member of Consortium (if applicable)</u>		
15)	<u>Appendix 15 – Letter of Authorization of Bidder Representative</u>		
16)	<u>Appendix 16 - No Deviation Certificate</u>		
17)	<u>Appendix 17 - Technical Capacity of Bidder (Part A, B, C and D)</u>		
18)	<u>Appendix 18 - Financial Capacity of Bidder (Section A)</u>		
19)	Copy of CIN certificate of Bidder Organization		
20)	Copy of Memorandum of Association of Bidder Organization		
21)	Copy of Article of Association of Bidder Organization		

Sr. No	Submittals	Provided / Not Provided / Not Applicable	Remarks (if any)
22)	Copy of GSTIN registration		
23)	Copy of Valid PAN card of Bidder Organization		
24)	Copy of ESIC Registration – Main Certificate (if outside Delhi)		
25)	Copy of ESIC registration – For Delhi State		
26)	Copy of EPF Enrollment Certificate		
27)	Audited Balance Sheet for last 7 Years as per <u>Clause</u> 4.6.3		
28)	Non-Disclosure Agreement as per Annexure 1		
29)	Requirements as per Clause 4.5.2		

B. The Bidder has submitted the following documents in hard copy in a sealed envelope as per Clause 5.6

- (i) Bid Processing Fee Rs. 1,00,000/- in the form of demand draft/ banker's cheque/ pay order (Plus applicable GST) (non-refundable)
- (ii) Original BID Security in the form as specified in Clause 2.6.1 ;
- (iii) Original Power of Attorney for signing the Bid as per the format at Appendix 12;
- (iv) If applicable, Original Joint Bidding Agreement for Consortium as per the format at Appendix 13;
- (v) if applicable, Original Power of Attorney for Lead Member of Consortium as per the format at Appendix 14;
- (vi) Integrity Pact as per Appendix 5.

Yours sincerely,

Signature of Authorized Representative [In full and initials]:

Name and Title of Signatory:

Name of Bidder:

Address:

(Name and seal of the Bidder)

7.8 Appendix 8 - Details of Bidding Organization

(To be given on Company Letter Head)

Sr. No	Name of Bidder company/firm/agency	Details
1)	Type of Organization A company/ Consortium/ consortium registered under the Indian Companies Act.	
2)	Country of Incorporation of Organization	
3)	Date of incorporation and/ or commencement of business	
4)	Address of the Registered office as per Incorporation	
5)	Address of the corporate headquarters and its branch office(s), if any, in India	
6)	Company Incorporation Number	
7)	GSTIN Registration	
8)	Valid PAN of the Organization	
9)	E.P.F. Registration Number	
10)	E.S.I. Registration Number - Main	
11)	E.S.I. Registration Number - For New Delhi	
12)	Company LIN Registration Number	
13)	Age of the Organization (Years / Months)	

Signature of Authorized Representative [In full and initials]:

Name and Title of Signatory:

Name of Bidder:

(Name and seal of the Bidder)

7.9 Appendix 9 - Details of Authorized Signatory for Bid Process

(To be given on Company Letter Head)

Sr. No	Description	Details
1)	Name of Director of Bidder company /firm/agency (Authorized signatory for Bid Process)	
2)	Designation	
3)	Name of the Company	
4)	Complete Address	
5)	Telephone No /Mobile No	
6)	FAX No	
7)	E-Mail Address	
8)	Valid PAN Number	
9)	DIN Number	

Signature of Authorized Representative [In full and initials]:

Name and Title of Signatory:

Name of Bidder:

(Name and seal of the Bidder)

7.10 Appendix 10 - Member Detail of Bidding/Consortium Organizations

Note: Please mention List of All Directors

- a) Name of the Company _____
- b) Please specify Total Number of Directors
- (i) (in figure) _____
- (ii) (in words) _____
- c) Type of bidder (Individual / Consortium) _____

Director 1		
1)	Full Name	
2)	Name of the Company	
3)	Designation	
4)	Complete Address	
5)	Telephone No /Mobile No	
6)	E-Mail Address	
7)	Valid PAN Number	
8)	Director Identification Number	
9)	Member of Organization since (Date in DDMMYY)	

Director 2		
1)	Full Name	
2)	Name of the Company	
3)	Designation	
4)	Complete Address	
5)	Telephone No /Mobile No	
6)	E-Mail Address	
7)	Valid PAN Number	
8)	Director Identification Number	
9)	Member of Organization since (Date in DDMMYY)	

Director 3		
1)	Full Name	
2)	Name of the Company	
3)	Designation	
4)	Complete Address	
5)	Telephone No /Mobile No	
6)	E-Mail Address	
7)	Valid PAN Number	
8)	Director Identification Number	
9)	Member of Organization since (Date in DDMMYY)	

Member 1		
1)	Full Name	
2)	Name of the Company	
3)	Designation	
4)	Complete Address	
5)	Telephone No /Mobile No	
6)	E-Mail Address	
7)	Valid PAN Number	
8)	Director Identification Number	
9)	Member of Organization since (Date in DDMMYY)	

* Note- Add additional pages in this section to add details for all members as may be required to complete the detail under this section

Signature of Authorized Representative [In full and initials]:

Name and Title of Signatory:

Name of Bidder:

(Name and seal of the Bidder)

7.11 Appendix 11 - Banking Details of the Bidder

(To be given on Company Letter Head)

S.NO.	DESCRIPTION	PARTICULARS
1)	Name of the Organization	
2)	Office Address	
3)	Contact Person Name and Designation	
4)	Telephone/Mobile Number	
5)	Pin code/Zip Code	
6)	Email ID	
7)	Valid PAN Number	
8)	GSTIN	
9)	One Cancelled Cheque	
10)	Payment in favor of (Complete Name)	
11)	Bank Name	
12)	Bank Address	
13)	IFSC/SWIFT Code	
14)	Account No.	

I/We declare that the above particulars are correct. I promise to intimate of any change in the above particulars at the earliest. Further, it is certified that any eligible refunds for Security deposits shall be transferred into the Bank account details as furnished above.

FOR BIDDER

Seal & Signature of Authorized Representative [In full and initials]:

Name and Title of Signatory:

Name of Bidder:

7.12 Appendix 12 - Format for Power of Attorney for Bid Signing for Single Entity

Know all men by these present, We (..... name of the firm and address of the registered office) do hereby irrevocably constitute, nominate, appoint and authorize Mr/Ms/ Mrs. (name), son/daughter/wife ofand presently residing at, who is presently employed with us/ retained by us and holding the position of, as our true and lawful attorney (hereinafter referred to as the "Attorney") to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental submission of our bid for the India International Exhibition and Convention Center, Dwarka being developed by the (the "SPV") including but not limited to signing and submission of all bids and other documents and writings, participate in Bids and other conferences and providing information/ responses to the "SPV", representing us in all matters before the "SPV", signing and execution of all contracts including the Contract Agreement and undertakings consequent to acceptance of our bid, and generally dealing with the "SPV" in all matters in connection with or relating to or arising out of our bid for the said Project and/ or upon award thereof to us and/or until the Commencement Date under Contract Agreement.

AND we hereby agree to ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

IN WITNESS WHEREOF WE, , THE ABOVE NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THISDAY OF 2....

Witnesses:

1.

For

(Signature, name, designation and address)

2.

Accepted

(Signature, name, designation and address)

(Notarized)

(Name, Title and Address of the Attorney)

Notes:

- a) The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.
- b) Wherever required, the Bidder should submit for verification the extract of the charter documents and documents such as a board or shareholders' resolution/ power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Bidder.
- c) For a Power of Attorney executed and issued overseas, the document will also have to be legalized by the Indian Embassy and notarized in the jurisdiction where the Power of Attorney is being issued. However, the Power of Attorney provided by Bidder(s) from countries that have signed the Hague Legislation Convention 1961 are not required to be legalized by the Indian Embassy if it carries a conforming Apostille certificate.

7.13 Appendix 13 - Format for Joint Bidding Agreement for Consortium

(To be executed on Stamp paper of appropriate value)

THIS JOINT BIDDING AGREEMENT is entered into on this the day of 20...

AMONGST

{..... , a company } and having its registered office at (hereinafter referred to as the "First Part" which expression shall, unless repugnant to the context include its successors and permitted assigns)

AND

{..... , a company } and having its registered office at (hereinafter referred to as the "Second Part" which expression shall, unless repugnant to the context include its successors and permitted assigns)

AND

{..... , a company } and having its registered office at (hereinafter referred to as the "Third Part" which expression shall, unless repugnant to the context include its successors and permitted assigns)

The above-mentioned parties of the FIRST, {SECOND, THIRD} PART are collectively referred to as the "Parties" and each is individually referred to as a "Party"

WHEREAS,

- a) [....., incorporated under the Act , represented by its and having its principal offices at] (hereinafter referred to as the "SPV" which expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors and assigns) has invited applications (the Applications") by its RFP document dated ____ for award of Contract for "Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi"
- b) The Parties are interested in jointly bidding for the Project as members of a Consortium and in accordance with the terms and conditions of the RFP document and other bid documents in respect of the Project, and
- c) It is a necessary condition under the RFP document that the members of the Consortium shall enter into a Joint Bidding Agreement and furnish a copy thereof with the Bid.

NOW IT IS HEREBY AGREED as follows:

1. Definitions and Interpretations

- 1.1 In this Agreement, the capitalized terms shall, unless the context otherwise requires, have the meaning ascribed thereto under the RFP document.

2. Consortium

- 2.1 The Parties do hereby irrevocably constitute a Consortium (the "Consortium") for the purposes of jointly

participating in the Bid Process for the Project.

2.2 The Parties hereby undertake to participate in the Bid Process only through this Consortium and not individually and/ or through any other Consortium constituted for this Project, either directly or indirectly.

3. Covenants

3.1 The Parties hereby undertake that in the event the Consortium is declared the selected Bidder and awarded the Project, it shall enter into the Contract Agreement with the "SPV" for performing all its obligations as the Contractor in terms of the Contract Agreement for the Project.

4. Role of the Parties

4.1 The Parties hereby undertake to perform the roles and responsibilities as described below:

a) Party of the First Part shall be the Lead member of the Consortium and shall have the power of attorney from all Parties for conducting all business for and on behalf of the Consortium during the Bid Process and until the Commencement Date under the Contract Agreement;

b) Party of the Second Part shall be {the Member of the Consortium; and}

{(c) Party of the Third Part shall be the Member of the Consortium.}

5. Joint and Several Liability

5.1 The Parties do hereby undertake to be jointly and severally responsible for all obligations and liabilities relating to the Project and in accordance with the terms of the RFP, and the Contract Agreement, till such time as the completion of the Defects Liability Period in accordance with the Contract Agreement.

5.2 The Parties do hereby undertake and declare that the Lead Member shall represent all the members of the Consortium and shall at all times be liable and responsible for discharging the functions and obligations of the Consortium; and that each member of the Consortium shall be bound by any decision, communication, notice, action or inaction of the Lead Member on any matter related to this Agreement and the "SPV" shall be entitled to rely upon any such action, decision or communication of the Lead Member. The "SPV" shall have the right to release payments solely to the Lead Member and shall not in any manner be responsible or liable for the inter se allocation of payments among members of the Consortium.

6. Share of work in the Project

6.1 The Parties agree that the proportion of Operation & Maintenance in the Contract Agreement to be allocated among the members shall be as follows:

I. First Party:

II. Second Party:

III. Third Party:

6.2 Further, the Lead Member shall itself undertake and perform at least 51 (Fifty One) per cent scope of the proposed project if the Contract is allocated to the Consortium.

7. Representation of the Parties

7.1 Each Party represents to the other Parties as of the date of this Agreement that:

- a) Such Party is duly organized, validly existing and in good standing under the laws of its incorporation and has all requisite power and authority to enter into this Agreement;
- b) The execution, delivery and performance by such Party of this Agreement has been authorized by all necessary and appropriate corporate or governmental action and a copy of the extract of the charter documents and board resolution/ power of attorney in favour of the person executing this Agreement for the delegation of power and authority to execute this Agreement on behalf of the Consortium Member is annexed to this Agreement, and will not, to the best of its knowledge:
 - I. require any consent or approval not already obtained;
 - II. violate any Applicable Law presently in effect and having applicability to it;
 - III. violate the memorandum and articles of association, by-laws or other applicable organizational documents thereof; violate any clearance, permit, concession, grant, license or other governmental authorization, approval, judgment, order or decree or any mortgage agreement, indenture or any other instrument to which such Party is a party or by which such Party or any of its properties or assets are bound or that is otherwise applicable to such Party; or
 - IV. create or impose any liens, mortgages, pledges, claims, security interests, charges or Encumbrances or obligations to create a lien, charge, pledge, security interest, encumbrances or mortgage in or on the property of such Party, except for encumbrances that would not, individually or in the aggregate, have a material adverse effect on the financial condition or prospects or business of such Party so as to prevent such Party from fulfilling its obligations under this Agreement;
- c) this Agreement is the legal and binding obligation of such Party, enforceable in accordance with its terms against it; and
- d) there is no litigation pending or, to the best of such Party's knowledge, threatened to which it or any of its Affiliates is a party that presently affects or which would have a material adverse effect on the financial condition or prospects or business of such Party in the fulfillment of its obligations under this Agreement.

8. Termination

- 8.1 This Agreement shall be effective from the date hereof and shall continue in full force and effect until Project completion is achieved under and in accordance with the Contract Agreement, in case the Project is awarded to the Consortium. However, in case the Consortium, the Agreement will stand terminated in case the Bidder is not selected for award of the Services by the "SPV".

9. Miscellaneous

- 9.1 This Joint Bidding Agreement shall be governed by laws of {India}.

9.2 The Parties acknowledge and accept that this Agreement shall not be amended by the Parties without the prior written consent of the "SPV".

IN WITNESS WHEREOF THE PARTIES ABOVE NAMED HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN.

SIGNED, SEALED AND DELIVERED

(Address)

In the Presence of:

1. 2.

Notes:

- a) The mode of the execution of the Joint Bidding Agreement should be in accordance with the procedure, if any, laid down by the Applicable Law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.
- b) Each Joint Bidding Agreement should attach a copy of the extract of the charter documents and documents such as resolution / power of attorney in favour of the person executing this Agreement for the delegation of power and authority to execute this Agreement on behalf of the Consortium Member.

7.14 Appendix 14 - Format for Power of Attorney for Lead Member of Consortium

Whereas the ***** ("the "SPV"") has invited bids from interested parties for the ***** Project (the "Project").

Whereas,and.....

(collectively the "Consortium") being Members of the Consortium are interested in bidding for the Project in accordance with the terms and conditions of the RFP document and other connected documents in respect of the Project, and

Whereas, it is necessary for the Members of the Consortium to designate one of them as the Lead Member with all necessary power and "SPV" to do for and on behalf of the Consortium, all acts, deeds and things as may be necessary in connection with the Consortium's bid for the Project and its execution.

NOW THEREFORE KNOW ALL MEN BY THESE PRESENTS

- a) We, having our registered office at, M/s having our registered office at ,M/s..... having our registered office at,
- b) and..... having our registered office at....., (hereinafter collectively referred to as the "Principals") do hereby irrevocably designate, nominate, constitute, appoint and authorize M/S having its registered office at, being one of
- c) the Members of the Consortium, as the Lead Member and true and lawful attorney of the Consortium (hereinafter referred to as the "Attorney").
- d) We hereby irrevocably authorize the Attorney (with power to sub-delegate) to conduct all business for and on behalf of the Consortium and any one of us during the Bid Process and, in the event the Consortium is awarded the contract, during the execution of the Project and in this regard, to do on our behalf and on behalf of the Consortium, all or any of such acts, deeds or things as are necessary or required or incidental to the qualification of the Consortium and submission of its bid for the Project, including but not limited to signing and submission of bids and other documents and writings, participate in Bidder(s) and other conferences, respond to queries, submit information/ documents, sign and execute contracts and undertakings consequent to acceptance of the bid of the Consortium and generally to represent the Consortium in all its dealings with the "SPV", and/ or any other Government Agency or any person, in all matters in connection with or relating to or arising out of the Consortium's bid for the Project and/ or upon award thereof until the Commencement Date under the Contract Agreement .
- e) AND hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us/ Consortium.

IN WITNESS WHEREOF WE THE PRINCIPALS ABOVE NAMED HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS DAY OF 2.....

For
(Signature)
(Name & Title).....

For
(Signature)
(Name & Title).....

For
(Signature)
(Name & Title).....

Witnesses:

1.

2.
(Executants)

(To be executed by all the Members of the Consortium)

Notes:

- I. The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.
- II. Also, wherever required, the Bidder should submit for verification the extract of the charter documents and documents such as a board or shareholders' resolution/ power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Bidder.

For a Power of Attorney executed and issued overseas, the document will also have to be legalized by the Indian Embassy and notarized in the jurisdiction where the Power of Attorney is being issued. However, the Power of Attorney provided by Bidder(s) from countries that have signed the Hague Legislation Convention 1961 are not required to be legalized by the Indian Embassy if it carries a conforming Apostille certificate.

7.15 Appendix 15 - Letter of Authorization of Bidder Representative

(To be given on Company Letter Head)

To
CEO and MD,
IICC Limited,
8th Floor, Tower-1,
LIC, Jeevan Bharti Building,
Connaught Place New Delhi-110001

RFP No. _____ dated _____

Subject: Authorization of Bidder Representatives for attending Pre-Bid conference and Financial Bid Opening

Sir,

The following person(s) is/are hereby authorized to attend the pre bid conference and the Financial bid opening for the tender mentioned above on behalf of our company,
.....(Bidder) in order of preference given below:

<u>Order of Preference</u>	<u>Name</u>	<u>Designation</u>	<u>Specimen Signatures</u>
----------------------------	-------------	--------------------	----------------------------

1

2

3

Yours sincerely,

Signature of Authorized Representative [In full and initials]:

Name and Title of Signatory:

Name of Bidder:

(Name and seal of the Bidder)

Note:

- Maximum of three representatives will be permitted to attend the bid opening. In cases, where it is restricted in attendance, attendees shall be allowed basis preference submitted. Alternate representative will be permitted when regular representatives are not able to attend.
- Permission for entry to the hall where bids are opened may be refused in the absence of authorization as prescribed above.

7.16 Appendix 16 - No Deviation Certificate

(To be given on Company Letter Head)

To

CEO and MD, IICC Limited,

8th Floor, Tower-1,

LIC, Jeevan Bharti Building,

Connaught Place New Delhi-110001

With reference to above, this is to confirm that, we have read the RFP/ tender documents. We also confirm that we have not changed/ modified the RFP/ tender documents as appeared in the CPP Portal website/ issued by you and in case of such observance at any stage, the bid shall stand rejected and Performance Bank Guarantee stand forfeited. We hereby confirm that we have not taken any deviation from tender clauses together with other references as enumerated in the above referred NIT. We hereby confirm our unqualified acceptance to all terms & conditions, all other annexures, unqualified compliance to technical specification, corrigendum, integrity pact. In the event of observance of any deviation in any part of our offer at a later date whether implicit or explicit, the bid shall stand rejected and Performance bank Guarantee forfeited. We confirm to have submitted offer in accordance with tender instructions and as per aforesaid references.

Yours sincerely,

Signature of Authorized Representative [In full and initials]:

Name and Title of Signatory:

Name of Bidder:

(Name and seal of the Bidder)

7.17 Appendix 17 - Technical Capacity of Bidder

(To be given on Company Letter Head)

A. Details of Business for Identifying Technical Capacity – Overall Capability

Sr. No	Particulars	Unit	In Figure	In Words
1)	Total number of Years since Company Incorporations (Single Entity/ Consortium)	Years		
		Months		
		Days		

FOR BIDDER

Signature of Authorized Representative [In full and initials]:

Name and Title of Signatory:

Name of Bidder:

(Name and seal of the Bidder)

B. List of similar work experience as per Minimum Eligibility Criteria – Managed Built Up Area of Project (Clause 4.1.1 (6))

- a) Three similar completed works (Applicable/ Not Applicable)
 b) Two similar completed works (Applicable/ Not Applicable)
 c) One similar completed work (Applicable/ Not Applicable)

Sr. No	Name of the Project/ Client (Complete Name & Address)	Type of Project	Date of Start	Date of Completion	Date and No. of Completion Certificate	Eligibility Criteria Chosen (40% /50% /80%)	Total managed Built Up Area in million sq.ft
Minimum Eligibility Criteria							
1							
2							
3							

FOR BIDDER

Signature of Authorized Representative [In full and initials]:

Name of Bidder:

(Name and seal of the Bidder)

C. List of similar work experience as per Minimum Eligibility Criteria – Managed Built Up Area of Project (Clause 4.1.1 (7))

d) Three similar completed works (Applicable/ Not Applicable)

e) Two similar completed works (Applicable/ Not Applicable)

f) One similar completed work (Applicable/ Not Applicable)

Sr. No	Name of the Project/ Client (Complete Name & Address)	Type of Project	Date of Start	Date of Completion	Date and No. of Completion Certificate	Eligibility Criteria Chosen (40% /50% /80%)	Total managed landscape and Hardscaped Area in Acres
Minimum Eligibility Criteria							
1							
2							
3							

FOR BIDDER

Signature of Authorized Representative [In full and initials]:

Name of Bidder:

(Name and seal of the Bidder)

D. List of similar work experience as per Minimum Eligibility Criteria Clause 4.1.1 (8)

- a) Three similar works each costing (Applicable / Not Applicable)
 b) Two similar works each costing (Applicable / Not Applicable)
 c) One similar works each costing (Applicable / Not Applicable)

Sr. No	Name of the Project	Type of Project	Date of Start	Date of Completion	Date and No. of Completion Certificate	Eligibility Criteria Chosen (40% /50% /80%)	Total Contract Amount INR Crore
	(Complete Name & Address)						
Minimum Eligibility Criteria							
1							
2							
3							

FOR BIDDER

Signature of Authorized Representative [In full and initials]:

Name of Bidder:

(Name and seal of the Bidder)

Details

7.18 Appendix 18 - Financial Capacity of the Bidder

(To be given on Company Letter Head)

A. Details of Business for Identifying Financial Capacity for Minimum Eligibility Criteria- FOR INDIVIDUAL /CONSORTIUM BIDDER(S)

Sr. No.	Particulars	FY 2022-23	FY 2021-22	FY 2020-21	Average of last three Years	Min Requirement in % for Qualification	Actual Result of Record against Min. Requirement
		Amount in INR (Cr)	Amount in INR (Cr)	Amount in INR (Cr)	Amount in INR (Cr)		
1	Average Annual Financial Turnover (Clause 4.1.1 (5))					Average Annual Financial Turnover from Similar work; minimum 75% of Estimated Bid Cost	
2	Net Worth (Clause 4.1.1 (4))		xxx	xxx	xxx	50% of Estimated Bid Cost	

Name and Address of Bidder(s) Bank

Notes:

- a) Net Worth shall mean the aggregate value of the paid-up share capital and all reserves created out of the profits and securities premium account, after deducting the aggregate value of the accumulated losses, deferred expenditure and miscellaneous expenditure not written off, as per the audited balance sheet, but does not include reserves created out of revaluation of assets, write back of depreciation and amalgamation.

FOR BIDDER

FOR STATUTORY AUDITOR / CHARTERED ACCOUNTANT

Seal & Signature of Authorized Representative [In full and initials]:
 Name and Title of Signatory:
 Name of Bidder:
 (Name and seal of the Bidder)

Seal / Signature of Authorized Representative [In full and initials]:
 Name and Title of Signatory:
 Name of Certifying Authority:
 (Name of the Firm and Registration Number)

7.19 Appendix 19 - Format for Pre-bid queries

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi				
Sr. No	Description	Tender conditions	Queries/ Request	Reply

Yours sincerely,

Signature of Authorized Representative [In full and initials]:

Name and Title of Signatory:

Name of Bidder:

(Name and seal of the Bidder)

7.20 Appendix 20 - Financial Proposal Submission (To be given on Company Letter Head)

To,
CEO & MD,
IICC Limited,
8th Floor, Tower-1, LIC,
Jeevan Bharti Building, Connaught Place,
New Delhi - 110001
India

Dear Sir,

1. With reference to your RFP document dated *** **, I/we, having examined the Bidding Documents and understood their contents, hereby submit my/our BID for the aforesaid Project. The BID is unconditional and unqualified.
2. I/ We acknowledge that the SPV will be relying on the information provided in the BID and the documents accompanying the BID for selection of the Contractor for the aforesaid Project, and we certify that all information provided in the Bid are true and correct; nothing has been omitted which renders such information misleading; and all documents accompanying the BID are true copies of their respective originals.
3. The Bid price has been quoted by me/us after taking into consideration of all the terms and conditions stated in the RFP, Draft Agreement, our own estimates of Costs and after careful assessment of the site and all the conditions that may affect the project cost and implementation of the Project and we understand that no additional payments shall be allowed on the basis of change in site parameters at a later date.
4. I/ We acknowledge the right of the "SPV" to reject our BID without assigning any reason or otherwise and hereby waive, to the fullest extent permitted by applicable law, our right to challenge the same on any account whatsoever.
5. In the event of my/ our being declared as the Selected Bidder, I/we agree to enter into an Agreement in accordance with the draft that has been provided to me/us prior to the BID Due Date. We agree not to seek any changes in the aforesaid draft and agree to abide by the same.
6. I/ We shall keep this offer valid for 180 (one hundred and eighty) days from the BID Due Date specified in the RFP.
7. I/ We hereby submit our BID and offer a BID Price (excluding GST) for Rs.
(Rs..... in words) for undertaking the aforesaid Project in accordance with the Bidding Documents and the Agreement.
8. I/ We undertake that, in competing for (and, if the award is made to us, in executing) the above Contract, we will strictly observe the laws against fraud and corruption in force in India namely "Prevention of Corruption Act 1988".

Yours sincerely,

Signature of Authorized Representative [In full and initials]:

Name and Title of Signatory:

Name of Bidder:

(Name and seal of the Bidder)

7.21 Appendix 21 - Bill of Quantities (to be submitted online on CPP Portal)

7.21.1 Section A – Summary of Bid Price

Sr. No	Summary- Financial Bid	HSN/ SAC Code	Transition Period (3 months)	Year 1	Year 2	Year 3	Total
1	Total Cost of Transition Services for Three Months (A1) - Section B -7.21.2 of BOQ		-	NA	NA	NA	-
2	Total cost of Property Management Services (A2) - Section C -7.21.3 of BOQ		NA	-	-	-	-
3	Total cost of additional services (event) based on 100 days event per year (A3) - Section D -7.21.4 of BOQ		-	-	-	-	-
A*	Total Cost of Services Under Transition and Property Management (A1+A2+A3) including labour cess and all other applicable taxes and duties except GST		-	-	-	-	-
	Cost (Bid price) (A) in words						
B	GST as applicable in (%) on (A)						
C	Total Cost inclusive of GST = (A+B)		-	-	-	-	-
	Total Cost (C) in words						

* Note: Evaluation of the financial bid shall be based on total amount (A) quoted by the bidder excluding GST.

7.21.2 Section B – BOQ for Transition Services (A1)

Sr. No	Cost Head	Designation	Headcount	Deployment Tenure in months	Cost per Month	Cost for 3 months
1	Manpower Cost - Management and Executive Staff					
a	(Provide list of team member designation, head count and cost under the section) – Provide number of months for which particular resource will be deployed					
b						
	Sub-total 1					
2	Manpower Cost - Ground Staff (Under Minimum Wages)					
a	(Provide list of team member designation, head count and cost under the section) Provide number of months for which particular resource will be deployed					
b						
	Sub-total 2					
3	Total Cost for 3 months = sub totals (1+2)					
4	Average Cost per month					A1/3

NOTES:

1. Payment shall be based on actual manpower deployed in accordance with approval from IICC and paid at rates (cost/month) mentioned above, subject to the maximum amount for any month limited to the Average Cost per month quoted above.

2. The Bidder must quote against all the items mentioned above. If the bidder fails to quote against any item mentioned above, his bid shall be liable for rejection.

3. Payment for the last month shall be released only after finalization of all AMC between IICC & OEM.

7.21.3 Section C – BOQ for Property Management Services (A2)

BILL OF QUANTITY- PROPERTY MANAGEMENT SERVICES FOR OPERATION & MAINTENANCE AT IICC, DWARKA		Year		
		Year 1	Year 2	Year 3
TOTAL COST OF SERVICES		Annual Cost	Annual Cost	Annual Cost
Sr.no.	Cost Head			
1	Manpower Cost - Management and Executive Staff	-	-	-
a	Management Staff			
b	Human Resource Services			
c	EHS & Compliance Services			
d	Security, Disaster management, fire safety and parking operation and management Services			
e	Engineering Services- Management & Executives			
f	Finance, Accounts and Procurement Services			
g	Asset Management, CRM and Custodial Services			
h	ICT Services - Management & Engineering Services			
	Sub-total 1			

BILL OF QUANTITY- PROPERTY MANAGEMENT SERVICES FOR OPERATION & MAINTENANCE AT IICC, DWARKA		Year		
		Year 1	Year 2	Year 3
TOTAL COST OF SERVICES		Annual Cost	Annual Cost	Annual Cost
2	Manpower Cost - Ground Staff (Under Minimum Wages)	-	-	-
a	Command Center & Disaster Mgmt. Center - Ground Staff			
b	Engineering Services- Ground Staff			
c	Help Desk Services			
d	Housekeeping Services- Ground Staff			
e	Façade Cleaning Services - Ground Staff			
f	Mail Room Services- Ground Staff			
g	Horticulture Services			
h	ICT Services - Technician Team			
i	Operation of Truck Scanner			
	Sub-total 2			
3	Engineering Services- Spares, Specialized Repair and Consumable Cost- Common Areas, common services buildings, open area, parking and basements	-	-	-
a	Civil Work- Structure			

BILL OF QUANTITY- PROPERTY MANAGEMENT SERVICES FOR OPERATION & MAINTENANCE AT IICC, DWARKA		Year		
		Year 1	Year 2	Year 3
TOTAL COST OF SERVICES		Annual Cost	Annual Cost	Annual Cost
b	Civil Work- Roads, Ramps, Tunnels			
c	Civil Work- Pathways and Walkways			
d	Civil Work- Façade and External Finishes			
e	Civil Work- Interior Finishing			
f	Civil Work- Plazas, Pergolas & Canopies			
g	Civil Work- Hardscaped Area			
h	Civil Work- Softscape & Horticulture			
i	Civil Work- water bodies			
j	Electrical Work- High Side (Panels, Equipment and Cabling upto Buildings)			
k	DG Set			
l	Cooling Towers			
m	Transformers			
n	Electrical Work- Low Side (Common Buildings)			

BILL OF QUANTITY- PROPERTY MANAGEMENT SERVICES FOR OPERATION & MAINTENANCE AT IICC, DWARKA		Year		
		Year 1	Year 2	Year 3
TOTAL COST OF SERVICES		Annual Cost	Annual Cost	Annual Cost
o	Electrical Work- Lighting Common Area			
p	Fire Fighting System			
q	Fire Detection and Alarm System			
r	HVAC - High Side Equipment			
s	HVAC -Low Side (Common Buildings)			
t	Lift, Escalators & Travellators			
u	STP			
v	WTP			
w	Plumbing - External			
x	External Sewage System			
y	External Storm Water Drainage and Rain Harvesting			
z	Irrigation & drainage			
aa	Water body Fountains and Pumps			

BILL OF QUANTITY- PROPERTY MANAGEMENT SERVICES FOR OPERATION & MAINTENANCE AT IICC, DWARKA		Year		
		Year 1	Year 2	Year 3
TOTAL COST OF SERVICES		Annual Cost	Annual Cost	Annual Cost
ab	Plumbing System- Internal (Common Buildings)			
ac	Signages			
ad	Pneumatic Solid Waste Management including inlets and piping			
ae	Solid Waste pipe Network			
af	External Furniture			
ag	Transport Vehicle- LCV 2 Ton			
	Sub-total 3			
4	Engineering Services- Spares and Specialized Repair Cost (Low Side)- Occupant Area	-	-	-
a	Civil Work- Structure			
b	Civil Work- Interior Finishing			
c	Electrical Work- Low Side			
d	Electrical Work- Lighting			
e	HVAC -Low Side			

BILL OF QUANTITY- PROPERTY MANAGEMENT SERVICES FOR OPERATION & MAINTENANCE AT IICC, DWARKA		Year		
		Year 1	Year 2	Year 3
TOTAL COST OF SERVICES		Annual Cost	Annual Cost	Annual Cost
f	Plumbing System- Internal			
	Sub-total 4			
5	ICT System - Repair & Maintenance including Consumables	-	-	-
a	Data Centers Equipment and Licenses			
b	Wi-Fi and DAS Distributed Antenna System			
c	IPABX System			
d	PA System			
e	Access Control System			
f	Intrusion Alarm System and Fencing Systems			
g	Parking Access Management & Guidance System			
h	CCTV System			
i	Security Checkpoint System			
j	LED Video Wall			

BILL OF QUANTITY- PROPERTY MANAGEMENT SERVICES FOR OPERATION & MAINTENANCE AT IICC, DWARKA		Year		
		Year 1	Year 2	Year 3
TOTAL COST OF SERVICES		Annual Cost	Annual Cost	Annual Cost
k	Media Façade			
l	Audio Visuals System			
m	Digital Signage System			
n	Augmented Reality / Virtual reality Solution			
o	BGM System (Background Music System)			
p	People Counting System			
q	BMS/IBMS and SCADA System			
	Sub-total 5			
6	Engineering Tools & PPE			
a	Engineering Tools and Tackles			
b	Personal Protection Equipment			
	Sub-total 6			
7	Cleaning, Housekeeping, Parking Management and Waste Management Services- Machine, Tools, Spares & Consumables	-	-	-

BILL OF QUANTITY- PROPERTY MANAGEMENT SERVICES FOR OPERATION & MAINTENANCE AT IICC, DWARKA		Year		
		Year 1	Year 2	Year 3
TOTAL COST OF SERVICES		Annual Cost	Annual Cost	Annual Cost
a	Housekeeping Mechanized Machines			
b	Housekeeping Hand Tools, and general consumables			
c	Housekeeping & Façade Cleaning Chemicals and Cleaning Agents			
d	Housekeeping Toiletries			
e	Spares and consumables for Parking Management			
	Sub-total 7			
8	Horticulture Services- Machine, Tools, Spares and Consumables	-	-	-
a	Horticulture Machines and Hand Tools			
b	Horticulture Chemicals and Consumables			
	Sub-total 8			
9	Pest Control and Sanitization Services	-	-	-
a	Pest Control Services			
b	Sanitation and Disinfection Services			
	Sub-total 9			

BILL OF QUANTITY- PROPERTY MANAGEMENT SERVICES FOR OPERATION & MAINTENANCE AT IICC, DWARKA		Year		
		Year 1	Year 2	Year 3
TOTAL COST OF SERVICES		Annual Cost	Annual Cost	Annual Cost
10	Heavy Equipment and Vehicles (Rental and Operation)	-	-	-
a	Battery operated E Cart (5 Nos.)			
b	Tractor with carriage Trolley (2 Nos.)			
c	Electrically operated Forklift (1 Nos.)			
d	Vertical Lift for Indoor Maintenance (1 Nos.)			
e	Telescopic Boom Lift (Min Working Height - 30 meters) - (1 Nos.)			
f	Communication - Walky Talky for Team (as per posts and locations) - 50 Nos.			
	Sub-total 10			
11	Audits	-	-	-
a	Energy Audit / Thermograph and Harmonic Test			
b	Indoor Air Quality and DG emission testing			
c	Transformer Oil Testing and Dielectric Test			
d	Statutory compliances Audit for Labour Laws			

BILL OF QUANTITY- PROPERTY MANAGEMENT SERVICES FOR OPERATION & MAINTENANCE AT IICC, DWARKA		Year		
		Year 1	Year 2	Year 3
TOTAL COST OF SERVICES		Annual Cost	Annual Cost	Annual Cost
e	Water Testing Charges			
	Sub-total 11			
12	Administrative Expenses	-	-	-
a	Staff Uniforms (3 sets per staff of approved dress code by IICCL)			
b	Travel / Conveyance			
c	Site Team Communication Charges-Mobile			
d	Magazine, Journals and Newspapers			
e	Staff Welfare for deployed manpower			
f	Office Stationery and Printed Stationary			
g	Mail Room and Material Dispatch Expenses			
	Sub-total 12			
Total Cost from sub totals (1+2+3+4+5+6+7+8+9+10+11+12)				

BILL OF QUANTITY- PROPERTY MANAGEMENT SERVICES FOR OPERATION & MAINTENANCE AT IICC, DWARKA	Year		
	Year 1	Year 2	Year 3
TOTAL COST OF SERVICES	Annual Cost	Annual Cost	Annual Cost
<p>NOTES:</p> <p>1. The amount quoted against each service item under Section C of the BOQ is the maximum lumpsum price payable against such service item. In case, service for any service item is not provided for any particular period, pursuant to instructions from the SPV or any other reason, whatsoever, deduction for such gap in the service period when the services are not provided, shall be made on pro-rata basis. For example, if the total maximum annual amount for a service item is "A" and gap in service period is "B" (in days), then the amount of deduction shall be = $(A/365) \times B$.</p> <p>2. Irrespective of the number/quantity of resources (manpower, equipment or consumables/ spares/ materials etc.) considered by the bidder in its price quoted for various service items, the cost of such service items shall be considered to have been quoted in line with the Target Service level performance parameters required to be achieved. No claim, whatsoever, will be entertained in this regard at any stage during the tenure of the Agreement till completion of the services to be provided by the Service Provider.</p> <p>3. The Bidder must quote against all the items mentioned above. If the bidder fails to quote against any item mentioned above, his bid shall be liable for rejection.</p> <p>4. Total Payment for any month under all items of Section C shall be based on the average cost per month (i.e., Annual Cost quoted above / 12), shall be limited to maximum of 5% above the average cost per month quoted above, subject to approval from the SPV. Further, the total amount payable against any service item for any year shall not exceed the respective annual amount quoted against it.</p>			

7.21.4 Section D – BOQ for Property Management Services (Additional for Events) (A3)

BILL OF QUANTITY- PROPERTY MANAGEMENT SERVICES FOR OPERATION & MAINTENANCE AT IICC, DWARKA		During Transition Period (after COD, if any)	Year 1	Year 2	Year 3
		Per event Day Cost	Per event Day Cost	Per event Day Cost	Per event Day Cost
Sr.no.	Cost Head				
1	Manpower Cost - Ground Staff		-		
a	Housekeeping Services- Ground Staff				
b	Parking Management Services				
	Sub-total 1				
2	Housekeeping Services- Machine, Tools, Spares and Consumables		-		
a	Housekeeping Hand Tools, and general consumables				
b	Housekeeping Cleaning Chemicals and Cleaning Agents				
c	Housekeeping Toiletries				
d	Spares and consumables for Parking Management				
	Sub-total 2				
3	Management Fee (inclusive of Service Provider & Subcontractors)				
	Sub-total 3				
4	Total Event Cost per day (= sub Total 1+2+3)				
5	Total Event Cost for 100 event days (=Sr. no. 4. X 100 days)				

NOTES:

1. Service Provider is required to include in the above cost the cost for any additional services required to manage Open Areas, Open Exhibition Area Toilets and increased load on Toilets labeled as “Swachh Bharat Toilets” during event days.

2. Service Provider shall deploy additional resources post advance confirmation from Operator Company for events.

3. Service Provider shall consider total 100 event days per year for the purpose of bidding only. However, the payment shall be made for this item at the bidder’s quoted rate for this item as per the number of days on which the events are actually held.

4. The Bidder must quote against all the items mentioned above. If the bidder fails to quote against any item mentioned above, his bid shall be liable for rejection.

7.22 Appendix 22 - Instructions to Bidder for e-Tendering

A. Enrolment process on the Tender web-site

- Bidders are required to enroll on the e-Procurement module of the Central Public Procurement (CPP) Portal (URL: <https://eprocure.gov.in/eprocure/app>) by clicking on the link "Online Bidder Enrolment". Enrolment on the CPP Portal is free of charge.
- As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (DSC) - (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India, with their profile.
- Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse.
- Bidder then logs in to the site through the secured log-in by entering their user ID /password and the password of the DSC / e-Token.

B. Tender search

- There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, organization name, location, date, value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organization name, form of contract, location, date, other keywords etc. to search for a tender published on the CPP Portal.
- Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective 'My Favourites' folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
- The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

C. Preparation of bids

- Make folders with the name of the tender number so as to identify the folders easily during the bid document uploading.
- File and Folder name should not contain any special characters (&, #, etc.) or space in between.
- Download the tender document, ITB (Instruction to Bidders) of the required tender in that folder.
- Scan the Bid Security fee instruments/ Tender fee instruments for offline payments if any.
- In the case of offline payment, the details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the bid submitted will not be acceptable.
- Scan and keep ready Pre-qualification documents like life certificates, PAN etc. if any.
- Prepare the technical bid document and then convert into PDF.
- Prepare the Price Bid i.e. fill up required figures in the downloaded word document. The Price Bid file with the same name has to be uploaded while uploading the financial/price bids. If there is any change in Name, it may not get uploaded or give an error.
- Keep all the documents in the same folder for the easy bid document upload.
- The bid summary has to be printed and kept as an acknowledgement as a token of the submission of the bid. It will act as a proof of bid submission for a tender floated and will also act as an entry point to participate in the bid opening date. For any clarifications from the TIA (Tender inviting authority)/ Employer, the bid number can be used as a reference.

D. Submission of bids

1. Bidder should log into the site well in advance for bid submission so that he/she upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
2. The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document. Offers which are not digitally signed will not be accepted. Applicant shall submit their offer in electronic format on CPP Portal only.
3. Bidder should prepare the Bid Security as per the instructions specified in the tender document. The original should be posted/couriered/given in person to the Tender Processing Section, latest by the last date of bid submission. The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise, the uploaded bid will be rejected.

4. The Price Bid format has been provided with the tender document to be filled by all the bidders. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. Bidders are required to download the Price bid file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the Price bid file is found to be modified by the bidder, the bid will be rejected.
5. The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
6. All the documents being submitted by the bidders would be encrypted using PKI (Public Key Infrastructure) encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128-bit encryption technology. Data storage encryption of sensitive fields is done.
7. Any document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers / bid-openers public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
8. Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
9. The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

E. Password maintenance

- The length of the password should be of 8 to 32 characters.
- The password should be of any English lowercase and uppercase (a-z and A-Z) characters.
- The password must contain at least one number between 0-9.
- The password must contain at least one special character from these [! @ # \$ ^ * _ ~]
- Sample password is just like Admin123\$, India2000#, etc.

F. About DSC

- Digital Signature Certificates (DSC) is the digital equivalent (that is electronic format) of physical paper certificates.
- Like physical documents are signed manually, electronic documents, for example e-forms are required to be signed digitally using a Digital Signature Certificate. Transactions that are done using Internet if signed using a Digital Signature certificate becomes legally valid.
- Bidders have to procure Class 2 or 3 signing certificates only. Only Class 2 or 3 is valid for e-tendering purpose.
- The Certifying Authorities are authorized to issue a Digital Signature Certificate with a validity of one or two years. The maximum period for which the DSC is issued is only two years. On the expiry of the term, the Digital Signature Certificate can be revalidated by paying the fees again.
- Digital Signatures are legally admissible in a Court of Law, as provided under the provisions of IT.
- Digital Signature Certificate (DSC) is not required by Companies but by individuals. For example, the Director or the Authorized signatory signing on behalf of the Company requires a DSC.
- Each user logs in to the tender site thro' the secured log in by giving the user id/ password allotted during registration & then by giving the password of the DSC. The DSC password will get locked if successively wrong password is given many times.

G. DSC providers for Private firms

- A licensed Certifying Authority (CA) issues the digital signature. Certifying Authority (CA) means the authority that has been granted a license to issue a digital signature certificate under Section 24 of the Indian IT-Act 2000.
- The vendors like TCS (www.tcs-ca.tcs.co.in), Sify, MTNL, nCode (dsc@ncodesolutions.com), e-Mudhra (www.e-mudhra.com) are issuing DSC's for bidders.
- The time taken by Certifying Authorities to issue a DSC may vary from three to seven days.

H. Advantage of "My Space" on CPP Portal

- The bidder can upload Non-Sensitive frequently asked documents prior at any point of time once he logs in to the Bid. These are not encrypted.
- These can be anything like GST, PAN Certificate, VAT Certificate, Equipment Details, Manpower Details, Copies of Audited Balance Sheet of last few years, Details of quantity of work executed etc.
- In some cases, the TIA might have uploaded a format while in many cases it may just be a scanned copy of the original which needs to be uploaded.
- This will avoid repeated upload of common documents and also save space and time.

I. System requirements

- Windows XP with latest service pack
- Loaded IE 7.0 or above
- Loaded JRE 1.6 or above

- Antivirus Software with latest definition.
- Internet connectivity
- Scanner to scan the documents if required
- Printer and PDF Creator.

J. Assistance to Bidders

- Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority (Employer) for a tender or the relevant contact person indicated in the tender.
- Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.
- For any technical related queries please call at 24 x 7 Help Desk Number: 0120-4001 002; 0120-4001 005; 0120-6277 787.

8 Project Introduction and Area Statements

8.1 Introduction

The India International Convention & Exhibition Centre (IICC) is envisioned as a “World Class”, transit oriented, mixed use district, providing one of the largest facilities of its kind in India and Asia. This project is an anchor project to the National Capital Region (NCR) and shall act as a catalyst for growth of industrial development in the Country. The IICC facility will provide for both national and international conferences, exhibitions and meetings, attracting visitors and business to India.

The project is planned at Sector 25, Dwarka, New Delhi, approximately 11kms from IGI Airport by road and well connected to Metro and road links. The proposed site is located in between a 100 m wide UER-II (Urban Extension Road-II on north) and the proposed 80m wide UER-I (Urban Extension Road-I on south) connecting NH-1, 8 and 10. An 80m wide road (Dwarka Expressway) in between Sector 25 and 26 is proposed to be built by NHAI connecting UER-I & UER-II.

The IICC is an integrated complex developed in 89.72 Hectare land with a host of mutual beneficial facilities like Exhibition Halls, Convention Center (comprising Plenary Hall, Ball room and Meeting rooms), a multipurpose Arena, Open Exhibition Spaces, mixed use commercial spaces like Star Hotels, F&B outlet, Retail Services and grade “A” offices. These components have the ability to be utilized independently or in conjunction with each other, depending upon nature of the event

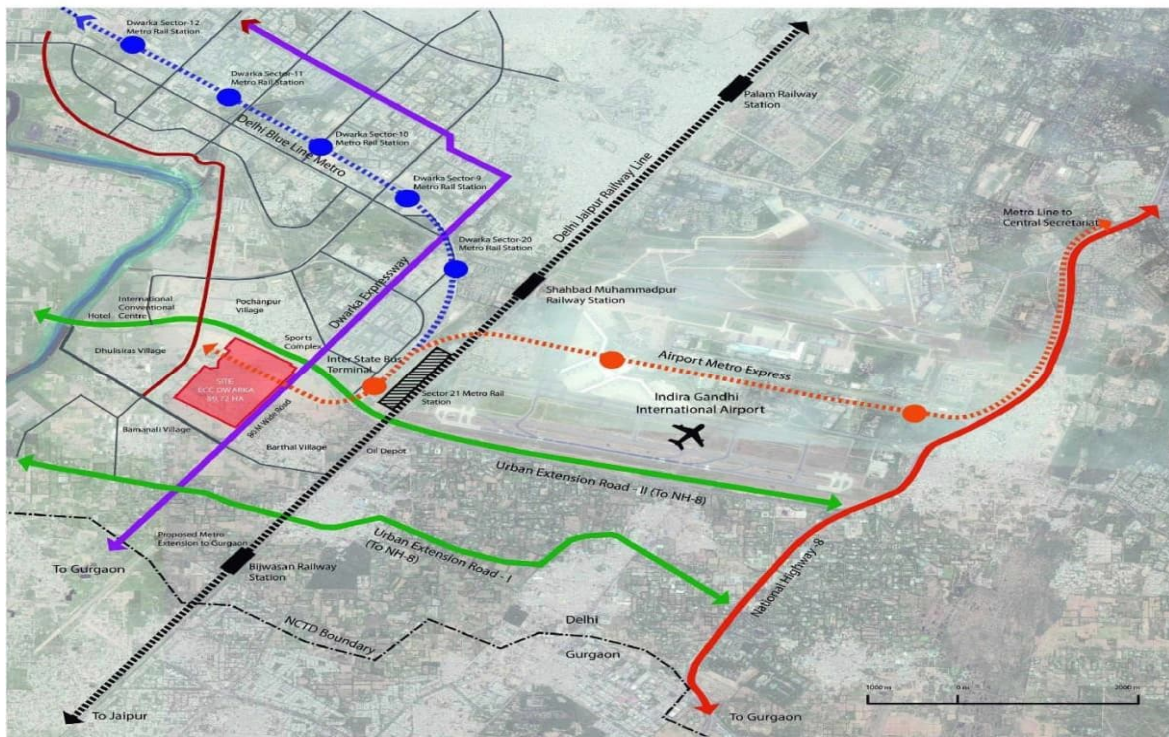


Image 1: Location map of IICC, Dwarka

8.2 Layout Concept Plan



Fig. 1 : Layout concept plan of IICC as per indicative master plan

LEGENDS

1. Exhibition Halls
2. Foyer
3. Convention Center
4. Open Exhibition Area
5. Multipurpose Arena
6. Mixed Use Offices, Hotels, Service Apartment and Retail Area

8.3 Broad Descriptions and Features of the development

8.3.1 Exhibition Halls

- a) There are total five Exhibition Halls in the overall development plan.
- b) Phase 1 shall consist of two Exhibition Halls; Hall 01 and Hall 02. These two Exhibition Halls would consist of area approximately 95,000 sq. m.
- c) The basement of Exhibition Hall- 03 has been developed in Phase 1. Basement of Exhibition Hall 3 with total built up area approx 35,000 sq mtrs consist of all the infrastructure utilities like STP, WTP, Fire water, Irrigation water, HVAC Chillers, Hot water, Pumps, Motors, Pneumatic waste treatment, composting etc. for the entire complex for future phase(s) of work to be taken up later from time to time.

8.3.2 Grand Foyer

- a) There is a development plan of a Grand Foyer which shall be approx 1 Km long and shall connect the front lobbies of all Exhibition Halls. A connecting passage has been provided between Exhibition Hall and Convention Center through this Foyer
- b) Phase 1 development includes Foyer with approximately Built up area of 20,000 sq. m. in front of Exhibition Hall 1 and Exhibition Hall 2.

8.3.3 Convention Center

- a) Convention Centre of approximate Built up area of 73,000 sq. m.
- b) This Convention center shall include main auditorium with a capacity of 6,000 people (divisible into 2 (two) auditoria with a capacity of 4,000 and 2,000 people),
- c) 13 (thirteen) modular conference rooms with a capacity ranging from 60 to 1,000 people, and
- d) A Grand ball room with a capacity of about 2,400 people, Green rooms, Change rooms, Artist rooms, utility rooms, Security & control rooms.

8.3.4 Open Exhibition Area

- a) Phase 1 development includes an External Exhibition Area with approximately 12,000 sq. m.
- b) The open areas are planned for non-covered exhibition areas. These are wide, open streets, walkways to serve the exhibits. The main features of Open exhibition are:
 - Big area for open exhibition structures in smaller square areas.
 - Palm tree alignment.
 - Rest areas with pergolas, benches and water bodies.

8.3.5 Utilities and Services

- a) Service Gallery – Aprox. 5840 meter long service gallery including branch tunnels for Phase-1 and subsequent Phases piping system for chilled water lines, hot water lines, irrigation/ flushing water lines, fire pipe network, HSD line, HT & LT cables, data cables for the entire complex in the Service Gallery. The phase 1 would include development of complete trunk infrastructure including major trunk services, its connectivity and disposal to rising mains, internal road network system, associated underground car parking facilities, external road network system and connectivity to major carriage ways. PNG, main water supply inlet, sewerage and drainage outlets, 66Kv electrical feeder cables, telecommunication cables etc. connections are being laid separately within the complex.
- b) Grid Sub-station - 2nos
- c) DG room building and cooling towers
- d) Exhibition Hall -3 basement (35,000 sq. m)
- e) Basement Parking – 2938 cars
- f) Loading/ unloading bays between Exhibition Halls for Truck Spaces.

8.3.6 Network Command Centers - Phase 1

- a) Main Data Center - 1 No. in Convention Center
- b) Backup Data Center - 1 No. in Exhibition Hall 2
- c) MOCC (Main Operating Command Center) – 1 No. in Exhibition Hall 2
- d) OCC (Operating Command Centers) – 2 Nos. in Exhibition Hall 1 and Convention Center
- e) Primary Technical Rooms (2 each in EH 1, EH 2 and Convention Center)
- f) Secondary Technical Rooms (On every floor of EH 1, EH 2 and Convention Center)

8.3.7 Security Command Centers - Phase 1

- a) MSCC (Main Security Command Center) – 1 No. in Convention Center
- b) SCC (Security Command Centers) – 2 Nos. in Exhibition Hall 1 and Convention Center
- c) Security Rooms – 18 Nos. at all entrance gates
- d) Security Pill Boxes - 18 Nos. at all entrance gates
- e) Disaster Management Centre building with fire station and medical centre including 8 bedded, Nursing room and a Consultation room

8.3.8 Other major components of Phase 2 development

- a) Sports Arena – 50,000 sq. m of area with a seating capacity of 20,000 pax.
- b) 08 Nos. Hotels totaling 3100 keys - (2,54,460 sq. m)
- c) Service apartment – 400 Keys
- d) Commercial Office & Retail space (3,82,000 sq. m)
- e) Basement Parking – 28000 cars
- f) Exhibition Hall 3 - 56,115 sq. m
- g) Exhibition Hall 4 - 41,851 sq. m
- h) Exhibition Hall 5 - 83,017 sq. m
- i) Grand Foyer 3 - 15,326 sq. m
- j) Grand Foyer 4 - 9,842 sq. m
- k) Grand Foyer 5 - 15,219 sq. m

The detail of all project components and development is provided in the following section along with the area statements.

8.4 Development Plan

The project is planned to be completed in two phases i.e. Phase 1 and Phase 2 development. The Phase 1 development details are further divided into two parts:

- Existing Buildings (already constructed buildings in Phase 1)
- Proposed Buildings (allocated land area for PPP development model in Phase 1)

The area statement as per approved master plan is based on the FAR Area. The total serviceable area for Property Management agency shall be constituted of FAR Areas and additional Non FAR areas for respective buildings. For this purpose, the total Built-up area is provided in the following section.

The summarized area statement of the overall development is as below:

Below listed Area statement is the Comprehensive Area Details (As Per Master Plan) for IICC Project.

Plot Number	Use	Ground Coverage (Sq. Mtr)	FAR (Sq. Mtr)	Retail (podium /first floor)	Total FAR (Sq.mtr)
1	EXHIBITION HALL 1	31,240.00	32,413.00		32,413.00
2	EXHIBITION HALL 2	29,260.70	28,580.00		28,580.00
3	EXHIBITION HALL 3	29,380.45	56,115.00		56,115.00
4	EXHIBITION HALL 4	42,174.00	41,851.00		41,851.00
5	EXHIBITION HALL 5	41,820.00	83,017.00		83,017.00
6A	FOYER	63,613.00	61,024.00		61,024.00
6B	OFFICES ECC		15,000.00		15,000.00
7	CONVENTION	14,755.50	60,000.00		60,000.00
8	ARENA	16,948.60	50,000.00		50,000.00
9	HOTEL (5*)	4,056.00	39,472.00		39,472.00
10	RETAIL	7,355.00	56,048.00		56,048.00
11	HOTEL (5*)	4,056.00	39,472.00		39,472.00
12	OFFICE	1,968.00	16,126.00	1,200.00	17,326.00
13	OFFICE	1,728.00	15,512.00	1,000.00	16,512.00
14	HOTEL (5*)	2,816.00	23,570.00	2,800.00	26,370.00
15	OFFICE	1,968.00	16,126.00	1,200.00	17,326.00
16	RETAIL HUB	3,103.00	10,000.00		10,000.00
17	OFFICE	1,728.00	15,512.00	1,000.00	16,512.00
18	HOTEL (5*)	2,816.00	25,370.00	1,000.00	26,370.00
19	OFFICE	4,416.00	31,392.00	2,400.00	33,792.00
20	OFFICE	4,416.00	30,932.00	1,900.00	32,832.00
21	HOTEL (4*)	3,427.00	28,534.00	3,500.00	32,034.00
22	OFFICE	4,416.00	31,392.00	2,400.00	33,792.00
23	OFFICE	4,416.00	30,932.00	1,900.00	32,832.00
24	HOTEL (4*)	4,056.00	33,584.00	4,800.00	38,384.00

Plot Number	Use	Ground Coverage (Sq. Mtr)	FAR (Sq. Mtr)	Retail (podium /first floor)	Total FAR (Sq.mtr)
25	OFFICE	3,648.00	24,163.00	4,000.00	28,163.00
26	HOTEL (3')	3,648.00	22,529.00	3,650.00	26,179.00
27	SERVICE APT.	3,648.00	25,063.00	3,100.00	28,163.00
28	HOTEL (3*)	3,648.00	22,529.00	3,650.00	26,179.00
29	RETAIL	8,622.00	64,242.00		64,242.00
30-A	SERVICES- (DG BUILDING)	6,310.25			-
30-B	ELECTRICAL SUB STATION 1	1,195.00			-
30-C	ELECTRICAL SUB STATION 2	1,195.00			-
31	FIRE STATION	157.50			-
32	MUSEUM	1,800.00			-
33	SECURITY BUILDING	220.00			-
34	DIESEL STORAGE YARD	1,238.00			-
35	TOILETS - OPEN AREA	816.99			-
Total		362,079.99	1,030,500.00	39,500.00	1,070,000.00

8.5 Summary of Area Under the scope of Property Management by Service Provider

Total Serviceable area for Property Management Services under Operations at IICCL property is summarized below under three heads:

A. Constructed Area

a) Occupant Area	181,569.12 sq meters
b) Common Services Buildings	67,263.11 sq meters
c) <u>Basements & Parking Area</u>	<u>179,260.03 sq meters</u>
Total Constructed Area	428,092.26 sq meters (<u>4.61 Million Sq ft</u>)
B. Open Areas (Softscape and Hardscaped)	417,553.00 sq meters (103.18 <u>Acres</u>)
C. Designated Plots for future development	484,649.06 sq meters (<u>119.76 Acres</u>)

Note:

- The detailed breakup area of Occupant Buildings is provided in Clause 8.6.1
- The detailed breakup area of Common Services Buildings is provided in Clause 8.6.2.
- The detailed breakup of Basement Area is provided in Clause 8.6.3
- The detailed breakup of Open Area is provided in Clause 8.6.4
- The detailed breakup of Designated Plots for general maintenance is provided in Clause 8.6.5.
- The term "constructed area", wherever used in this RFP document, shall have the same meaning as the "Built-up Area".

8.6 Detailed Area Statement for Development

8.6.1 Occupant Area – Constructed

- a) The core business of the project is broadly spread under two major streams
 1. Exhibition Halls, Convention Center and Sports Arena
 2. Star Hotels, Commercial Office Space, Service Apartments and Retail Area
- b) The aforesaid occupant area does not include Common Areas/ Common Services Buildings (as per Clause 8.6.2), Covered Parking, Utility and Basement Area (as per Clause 8.6.3), Open Area (as per Clause 8.6.4), Designated Plots (as per Clause 8.6.5).
- c) The internal Operation and General Maintenance services in the occupant area shall be managed directly by the Operator Company and partial engineering maintenance activities shall be managed by Service

Provider for the occupant areas. The details of responsibility matrix and differentiation of scope of services for the occupant area is provided in Clause 9.16 of Service Agreement. The detailed scope of work is described in Annexure 3.

- d) The detailed breakup of the area statement of the project and Phase 1 components is provided below for further clarification.

STATEMENT OF OCCUPANT AREA (KINEXIN) - PHASE 1 (all areas in Sq. meter.)			
Plot No.	Building Detail	Total Built Up Area	Phase 1 Development (BUA)
1	EXHIBITION HALL 1	47,353.56	47,353.56
1.01	Ground floor		30,884.23
1.02	Ground floor - EH-01 and EH-02 connection		2,531.77
1.03	Ground floor - (Mezzanine floor)		1,288.34
1.04	First floor - Exhibition		2,723.00
1.05	First floor - Exhibition- (rear side)		1,009.30
1.06	Second floor		4,942.68
1.07	Third floor		3,851.00
1.08	Headroom-Roof level		123.24
2	EXHIBITION HALL 2	47,288.75	47,288.75
2.01	Ground floor -Exhibition Hall		28,022.25
2.02	Ground floor - (Mezzanine floor)		1,520.06
2.03	First floor		3,906.30
2.04	First floor (Rear Side)		859.22
2.05	Second floor		6,033.25
2.06	Third floor		5,663.38
2.07	Third floor-Future Office area		1,161.05
2.08	Headroom-Roof level		123.25
6A	FOYER	13,713.81	13,713.81
6A.1	Ground floor - FOYER- EH -1		8,189.32
6A.2	Ground floor - FOYER EH-2		3,719.14
6A.3	First floor - Foyer Connecting to CC and EH -01		1,805.35
7	CONVENTION	73,213.00	73,213.00
7.01	Basement - 2 (Below Building)		7,490.00

STATEMENT OF OCCUPANT AREA (KINEXIN) - PHASE 1 (all areas in Sq. meter.)			
Plot No.	Building Detail	Total Built Up Area	Phase 1 Development (BUA)
7.02	Basement - 2 Mezzanine (Artist Area)		1,435.00
7.03	Basement - 1		13,129.00
7.04	Ground floor		6,436.00
7.05	First floor		6,904.00
7.06	Second floor		7,486.00
7.07	Third floor		6,078.00
7.08	Fourth floor		4,869.00
7.09	Fifth floor		7,474.00
7.10	Sixth floor		7,380.00
7.11	Seventh floor		2,994.00
7.12	Eighth floor		1,538.00
	Total Occupant Area	1,81,569.12	1,81,569.12

8.6.2 Common Services Area – Constructed

- a) Common Area shall mean and include all premises contained in the premises that are not dedicated to any individual or group of occupants and which benefits, or is intended to benefit, all users of the building, in common and without distinction.
- b) Common Services / Facilities shall mean and include all equipment or service invested in or paid for by the "SPV", whose benefit or output is availed in totality or fraction by all occupants of the project, in common and without distinction
- c) The Service Provider shall be responsible for overall Management, Operation and Maintenance services in the Common Services Buildings and associated areas. The detailed scope of work is described in Annexure 3.
- d) The detailed breakup of the Common Services Area of Phase 1 is provided in below table.

AREA STATEMENT OF COMMON SERVICES BUILDINGS - PHASE 1 (all areas in Sq. meter.)			
Plot No.	Building Detail	Total Built Up Area	Phase 1 Development (BUA)
3	EXHIBITION HALL 3	1,290.00	1,290.00
3.01	Floors - Ground		1,290.00
30A	SERVICES- (DG Building)	8,617.86	8,617.86
30A.1	Ground Floor		6,623.86
30A.2	First Floor		1,750.00
30A.3	Terrace		244.00
30B	SERVICES- Electrical Sub Station 1	2,217.38	2,217.38
30B.1	Electrical Sub-Station - 1 - Ground floor		1,194.47
30B.2	Electrical Sub-Station - 1 - Basement		1,022.91
30C	SERVICES- Electrical Sub Station 2	2,217.38	2,217.38
30C.1	Electrical Sub-Station - 2 (Ground floor)		1,194.47
30C.2	Electrical Sub-Station - 2 (Basement)		1,022.91
31	FIRE STATION	1,575.00	1,575.00

AREA STATEMENT OF COMMON SERVICES BUILDINGS - PHASE 1 (all areas in Sq. meter.)			
Plot No.	Building Detail	Total Built Up Area	Phase 1 Development (BUA)
31.1	Ground Floor- Fire Station		525.00
31.2	1st Floor- Fire Station		525.00
31.3	2nd Floor- Disaster Management Office		525.00
33	Security Buildings	432.00	432.00
33.1	Security Cabin- 1		12.00
33.2	Security Cabin- 2		12.00
33.3	Security Cabin- 3		12.00
33.4	Security Cabin- 4		12.00
33.5	Security Cabin- 5		12.00
33.6	Security Cabin- 6		12.00
33.7	Security Cabin- 7		12.00
33.8	Security Cabin- 8		12.00
33.9	Security Cabin- 9		12.00
33.10	Security Cabin- 10		12.00
33.11	Security Cabin- 11		12.00
33.12	Security Cabin- 12		12.00
33.13	Security Cabin- 13		12.00
33.14	Security Cabin- 14		12.00
33.15	Security Cabin- 15		12.00
33.16	Security Cabin- 16		12.00
33.17	Security Cabin- 17		12.00
33.18	Security Cabin- 18		12.00
33.19	Pill Box- 01		12.00
33.20	Pill Box- 02		12.00
33.21	Pill Box- 03		12.00
33.22	Pill Box- 04		12.00
33.23	Pill Box- 05		12.00
33.24	Pill Box- 06		12.00
33.25	Pill Box- 07		12.00
33.26	Pill Box- 08		12.00
33.27	Pill Box- 09		12.00

AREA STATEMENT OF COMMON SERVICES BUILDINGS - PHASE 1 (all areas in Sq. meter.)			
Plot No.	Building Detail	Total Built Up Area	Phase 1 Development (BUA)
33.28	Pill Box- 10		12.00
33.29	Pill Box- 11		12.00
33.30	Pill Box- 12		12.00
33.31	Pill Box- 13		12.00
33.32	Pill Box- 14		12.00
33.33	Pill Box- 15		12.00
33.34	Pill Box- 16		12.00
33.35	Pill Box- 17		12.00
33.36	Pill Box- 18		12.00
34	Diesel Storage Yard	1,238.00	1,238.00
35	Toilets in Open Area	816.99	816.99
35.1	Open Exhibition Area Block -1 (Gents - 2 Nos.)	59.76	59.76
35.2	Open Exhibition Area Block -2 (Ladies - 2 Nos.)	59.76	59.76
35.3	Toilets- Swachh Delhi Block -1	96.72	96.72
35.4	Toilets- Swachh Delhi Block -2	96.72	96.72
35.5	Toilets- Swachh Delhi Block -3	96.72	96.72
35.6	Toilets- Swachh Delhi Block -4	96.72	96.72
35.7	Toilets- Swachh Delhi Block -5	96.72	96.72
35.8	Toilets- Swachh Delhi Block -6	96.72	96.72
35.9	Toilets- Service Toilets Block -1	23.43	23.43
35.10	Toilets- Service Toilets Block -2	23.43	23.43
35.11	Toilets- Service Toilets Block -3	23.43	23.43
35.12	Toilets- Service Toilets Block -4	23.43	23.43
35.13	Toilets- Service Toilets Block -5	23.43	23.43
36	Service Gallery	48,858.50	48,858.50
Total		67,263.11	67,263.11

8.6.3 Covered Parking, Utility and Basement Area– Constructed

- a) Covered Parking and Basement Areas shall mean and include all premises contained in the premises that are not dedicated to any individual or group of Occupants and which are intended to be used for common utilities distribution units, plant rooms, parking lanes and tracks etc which benefits, or is intended to benefit, all users of the building and visitors in common and without distinction.
- b) The Service Provider shall be responsible for overall Management, Operation and Maintenance services in the Parking and Basement areas and associated utilities and services. The detailed scope of work is described in Annexure 3.
- c) Area detail for Covered Parking and Basement areas developed in Phase 1 is provided in table below.

AREA STATEMENT OF BASEMENT- PHASE 1 (all areas in Sq. meter.)		
Plot No	Area Detail	Phase 1 Development
1	EXHIBITION HALL 1	3,485.30
1.01	Basement - 1 (EH1) - FIRE ESCAPE TUNNEL AREA	3,485.30
2	EXHIBITION HALL 2	3,118.90
2.01	Basement - 1 (EH2) - FIRE ESCAPE TUNNEL AREA	3,118.90
3	EXHIBITION HALL 3	34,613.00
3.01	Basement Area- 01	28,898.00
3.02	Basement Area- 02	5,715.00
6A	FOYER	92,404.69
6A.1	Foyer 1- Basement - 1 CAR PARKING (EH-1)	20,300.60
6A.2	Foyer 1- Basement - 2 CAR PARKING (EH-1)	15,767.20
6A.3	Foyer 1- Basement - 3 CAR PARKING (EH-1)	16,378.00
6A.4	Foyer 2- Basement - 1 - Below Foyer area CAR PARKING	12,968.41
6A.5	Foyer 2- Basement - 2 CAR PARKING (EH-2)	12,773.91
6A.6	Foyer 2- Basement - 3 CAR PARKING (EH-2)	12,799.68
6A.7	Foyer 2- Basement - 4 (EH-2)	1,416.91

7	CONVENTION	45,638.14
7.01	Ground floor -head room	427.81
7.02	Parking for Convention Center- Basement - 1	11,784.33
7.03	Parking for Convention Center- Basement - 2	11,410.00
7.04	Parking for Convention Center- Basement - 3	11,008.00
7.05	Parking for Convention Center- Basement - 4	11,008.00
Total Basement Area – Phase 1 (Constructed)		179,260.03

8.6.4 Open Area – (Open Area / Horticulture and Gardens)

- Open Areas includes Roads and Walkways, Hardscaped Area, Softscape Areas, Open Exhibition Area, Terrace and terrace Gardens. This shall include all developed areas outside the walls of Occupant Areas including the porch, grand steps, sunken court, external open area, Atriums, backyards, staircases developed as part of Hardscape area.
- The Service Provider shall be responsible for overall Management, Operation and Maintenance services in the Open areas and associated fixtures and equipment including but not limited to Janitorial Services, Horticulture Services, IT and Engineering Operation and Maintenance, etc. The detailed scope of work is described in Annexure 3.
- Total Open Area under Management in Phase 1 services shall be 417,55300 sq meters. Area detail for Open areas to be managed and maintained in Phase 1 & Phase 2 is provided in table below.

AREA STATEMENT OF OPEN AREAS, LANDSCAPE AND HARDSCAPE - (As per Master Plan) (all areas in Sq. meter.)				
Sr. No	Area Description	Total	Phase 1 Development	Phase 2 Development
A	Roads and Walkways	168,071.00	110,000.00	58,071.00
B	Hardscape Area	183,071.00	100,453.00	82,618.00
C	Softscape Area	135,000.00	85,000.00	50,000.00
D	Open Exhibition Area	50,000.00	17,100.00	32,900.00
E	Terrace, Terrace Gardens & Terrace Pathways, planters, etc.	105,000.00	105,000.00	-
		641,142.00	417,553.00	223,589.00

8.6.5 Designated Plots (General Maintenance)

- In addition to the Open Area for management, "SPV" has allocated designated Plots during Phase 1 for future development of selected facilities and buildings under Star Hotels, Service Apartments and Retail Areas, Foyer and additional Exhibition Halls. These plots shall be developed for designated purposes as

and when they are allotted for development in due course of time.

- b) The Service Provider shall be responsible for maintaining these designated plots for General cleaning, Barricading and General Horticulture as detailed further is Annexure 3.
- c) Post construction of any or all buildings listed in above table, the scope of work inside and outside of these Buildings for Service Provider shall get added under Services related to Constructed Area for Leased / Occupied space for which a amendment letter to this service agreement shall be issued for inclusion of additional area in the services to be performed by Service Provider.

AREA STATEMENT BREAKUP OF TERRACE GARDENS AND OPEN PLOTS (in sq meters)			
Sr. No	Area Description	Area	Remarks
3	EXHIBITION HALL 3	29,380.45	Slab Area for General Cleaning
4	EXHIBITION HALL 4	42,174.00	Open Parking – Provisional
5	EXHIBITION HALL 5	41,820.00	Open Parking – Provisional
6A	FOYER	48,982.01	Plots for General Maintenance
8	ARENA	16,948.60	Open Parking – Provisional
9	HOTEL (5*)	4,056.00	Plots for General Maintenance
10	RETAIL	7,355.00	Plots for General Maintenance
11	HOTEL (5•)	4,056.00	Plots for General Maintenance
12	OFFICE	1,968.00	Plots for General Maintenance
13	OFFICE	1,728.00	Plots for General Maintenance
14	HOTEL (4*)	2,816.00	Plots for General Maintenance
15	OFFICE	1,968.00	Plots for General Maintenance
16	RETAIL HUB	3,103.00	Plots for General Maintenance
17	OFFICE	1,728.00	Plots for General Maintenance
18	HOTEL (5*)	2,816.00	Plots for General Maintenance
19	OFFICE	4,416.00	Plots for General Maintenance
20	OFFICE	4,416.00	Plots for General Maintenance
21	HOTEL (4*)	3,427.00	Plots for General Maintenance
22	OFFICE	4,416.00	Plots for General Maintenance
23	OFFICE	4,416.00	Plots for General Maintenance
24	HOTEL (4*)	4,056.00	Plots for General Maintenance
25	OFFICE	3,648.00	Plots for General Maintenance
26	HOTEL (3*)	3,648.00	Plots for General Maintenance

AREA STATEMENT BREAKUP OF TERRACE GARDENS AND OPEN PLOTS (in sq meters)			
27	SERVICE APT.	3,648.00	Plots for General Maintenance
28	HOTEL (3*)	3,648.00	Plots for General Maintenance
29	RETAIL	8,622.00	Plots for General Maintenance
32	MUSEUM	1,800.00	Plots for General Maintenance
A	TOTAL	261,060.06	
B	OPEN AREAS, LANDSCAPE AND HARDSCAPE	223,589.00	General Maintenance
	TOTAL PLOT AREAS (A+B) FOR FUTURE DEVELOPMENT	484,649.06	

The above tables under Clauses 8.6.4 & 8.6.5 depict the area distribution of various phases of IICC Project upto completion. It is to be noted that an area of 133,391 sqm, is included in the areas given in the aforesaid tables, which is being developed with green turfing along with the associated irrigation system. The operation and maintenance of the said green turfing area and associated irrigation system is not in the scope of the Service Provider and the same shall be arranged by the SPV through other agencies. However, the irrigation pumps and its reticulation system through the Service Gallery will be the under the scope of the Service Provider.

9 Service Agreement

9.1 General Terms of Service Agreement

This Service Agreement ("Agreement") is executed at New Delhi on this _day of _20....

BETWEEN

India International Convention & Exhibition Centre Limited, a company incorporated under the Companies Act, 2013, having its registered office at, ___New Delhi -110001 (hereinafter referred to as "First Party" (or "SPV") which expression shall unless it be repugnant to the context or meaning thereof be deemed to mean and include its successors and permitted assigns), acting through its authorized signatory, ___, party of the First Part;

AND

M/ ___, a company incorporated under the Companies Act, 1956 /2013, having its registered office at _____(hereinafter referred to as the "Second Party" (or the "Service Provider") acting through its authorized signatory _____, duly authorized vide board resolution dated _____, party of the Second Part

IICCL and the Second Party or the Service Provider are collectively referred to as the Parties and individually as the Party wherever the context so requires.

WHEREAS

9.1.1 SPV/IICCL intends to engage an Service Provider for Operation and Maintenance of Buildings, Project Facilities & Associated Infrastructure of India International Convention & Exhibition Center at Sector 25, Dwarka, New Delhi (as defined hereinafter), so as to receive world-class, safe and secure, uninterrupted and best quality services for the property and its customers to their satisfaction.

9.1.2 The Service Provider has represented to IICCL that it is a Property Management company of international repute and has expertise in the business of overall property management including end to end management, operation and maintenance of properties/ buildings including but not limited to Services (as defined hereinafter) and has the necessary infrastructure, latest technology, know-how, skills, experience and fully qualified, trained, and experienced manpower required for performing the Services on its own.

9.1.3 The Service Provider hereby represents and provide assurance to SPV that:

- (i) it shall be able to assume complete control and supervision with regard to its obligations as provided under this Agreement;
- (ii) it is fully competent and entitled under all Applicable Laws (as defined hereinafter), to enter into this Agreement with IICC on a principal-to-principal basis and shall perform its obligations under this Agreement on a principal to principal basis.
- (iii) it is a law-abiding entity and is fully aware of all Applicable Laws and requisite Approvals (as defined

hereinafter), as may be required as a Service Provider and also for the purposes of performance of Services hereunder, including its status as a principal "SPV" under all Applicable Laws including but not limited to labour laws for the property.

- 9.1.4 Relying on the representations and assurances of the Service Provider, SPV has agreed to enter into this Agreement on the terms and conditions contained herein.
- 9.1.5 That it is understood and has been agreed between the Parties that this Agreement is entered into by and between the Parties as "Client" and "Service Provider" and nothing in this Agreement shall create, or be deemed to create, a partnership, Consortium or the relationship of principal and agent, between the Parties or any of them.

NOW THIS AGREEMENT WITNESSETH AS AND IT IS HEREBY MUTUALLY AGREED BY AND BETWEEN BOTH THE PARTIES AS FOLLOWS:

9.2 Definitions

- 9.2.1 "Applicable Law(s)" shall mean all central and state laws, bye laws, rules, regulations, notifications, circulars, guidelines, judgments, orders etc. as are in force or as may be brought into force from time to time including but not limited to Contract Labour (Regulation & Abolition) Act, 1970, Payment of Bonus Act, Minimum Wages Act, Inter State Migrant Workmen (Regulation of employment and Conditions of Service) Act 1979, Provident Fund Act, ESIC Act, The Child Labour Prohibition and Regulation Act, 1986, Industrial Dispute Act, 1947, Maternity Benefit Act, 1961, Payment of Gratuity Act, 1972, Employee Compensation Act, 1923, Shops and Establishments Act, and other laws related to fire, safety, environment, lift, explosives etc;
- 9.2.2 "Approval(s)" shall mean all or any authorizations, registrations, consents, approvals, notifications and permissions, licenses, permits, rulings, exemptions or other authorizations of whatsoever nature which is/ are required to be obtained under Applicable Laws for or in respect of this Agreement from any competent authority(ies).
- 9.2.3 "Applicable Permits" means all clearances, licenses, permits, authorizations, no objection certificates, consents, approvals and exemptions required to be obtained or maintained under Applicable Laws in connection with the operation and maintenance of the Project Works during the subsistence of this Agreement;
- 9.2.4 "Business Day" means a normal working day on which the Parties are ordinarily open for business;
- 9.2.5 "Building(s)" shall mean the buildings specified in this Agreement at one or more locations and shall include the entire complex, superstructures, erections, plant, machinery, equipment, common areas, facilities, services, maintenance, operations and amenities relating to the Building(s);
- 9.2.6 "Capital Asset" are core assets installed by the IICCL including but not limited to Air Conditioning Chillers, Cooling Tower, AHUs, FCUs, HVAC Main Panels and Starter Panels, Generators, Transformers, HT< Panels, UPS, Fire Alarm Panel, BMS- (Building Management System/ Integrated Building Management

System (IBMS) Controller, CCTV system, Lifts, Escalators, Pumps (Fire, Water, Sewage and Air Conditioning), Solar Panel System, STP, etc.

- 9.2.7 "Confidential Information" shall mean all information that is not generally known and which is obtained/received during the tenure of the contract and relates directly to the business of the Parties whether or not such information have any commercial value;
- 9.2.8 "Communication" between parties are the written and signed letters, notices, reminders, memorandum and instructions recorded in the instruction book or books kept at site.
- 9.2.9 "Contract" or "Service Agreement" means agreement signed between SPV and Service Provider in accordance with terms and conditions of this Contract.
- 9.2.10 "Customers" shall mean owner(s), Occupant(s), tenant(s), lessee(s), licensee(s) and other user(s) of the Building(s);
- 9.2.11 "Fee and Operational Cost" shall mean the monthly charges payable by First Party "SPV" to the Service Provider as specified in Annexure 7 of this Agreement based on Bill of Quantities;
- 9.2.12 "Project Facility" refers to all the assets owned by IICCL which includes buildings, equipment, exhibits, artifacts etc.
- 9.2.13 "Property Management Services" means the providing comprehensive Management, Operation and Maintenance related services as per scope of work defined in this Contract.
- 9.2.14 "Scope of Services" shall mean services with respect to overall operation, management and maintenance of Building(s) and the services agreed to be performed/ rendered by the Service Provider wherever specified under this Agreement including the scope specifically mentioned in Annexure 2 for Transition management services and Annexure 3 for Property management services in this Agreement;
- 9.2.15 "Service Level & Service level Score Card" shall mean the indicative performance parameters with respect to the Services to be performed by the Service Provider as specified in Annexure 4 to this Agreement, as may be modified from time to time by IICC;
- 9.2.16 "Subcontractor" is an eligible person or entity, who has a Contract with the Service Provider to carry out a part of the works /services in the Contract.
- 9.2.17 "Real Property" means and includes the buildings themselves (like building structure, waterproofing, structural work, metal beams, coverings, façades, slab, roadways and platform traversing), utilities distribution and removal (gas and water, etc.) as well as electricity supply which includes all high and low-voltage networks (including electrical and telephone wiring, computer wiring, tubing for the supply and support of computer wiring or other utilities), heating and air conditioning, elevators, escalators, security and surveillance equipment, computer and telephone networks, antennas (transmitters/receivers), Security and Fire Prevention Devices, etc.

- 9.2.18 "Heavy Fixtures" means all elements permanently affixed to Real Property and whose Original Equipment Manufacturers get into Annual Maintenance Contracts, as per prevalent industry practices. For example, Elevators, kitchen equipment, staging structures (technical panels, patches, cross connects, audiovisual equipment, light, sound and image mixing racks, light adjusters and sound equalizers) and support structures for lighting and sound elements as well as motorized lifting systems associated with these structures, Motorized fixed/mobile stage platforms, etc.), logistics equipment (Forklifts, scissor lifts, boom lift, pallet jacks, motorized pallet etc.), ticketing machines, vending machines, etc.
- 9.2.19 "Light Fixtures" means all elements permanently affixed to Real Property and whose Original Equipment Manufacturers do not get into Annual Maintenance Contracts, as per prevalent industry practices. For example, bulbs, tube-lights, fans, trolleys & racks, linen, decorative items, etc.
- 9.2.20 "Furniture & Equipment" means and includes mobile elements which meet the minimum conditions necessary to operate and manage the Project such as furniture and accessories (tables, chairs, sofas, lamps, paper boards, etc), engineering tools (like workshop fit out, drills, ladders, hand tools, welding, electrical testers, painting equipment etc.), kitchen cutlery & utensils, housekeeping equipment, etc.
- 9.2.21 "EPC Contractor" means the Engineering Procurement and Construction Contractor (L&T) with whom the IICC has entered into an EPC Contract;
- 9.2.22 "Operator Company" means the company engaged by SPV for running core business of the property. The present Operator Company engaged for IICCL is "Kinexin Convention Management Private Limited", who shall be an occupant of Exhibition Halls 1 & 2 and Convention Centre.
- 9.2.23 The term "SPV" wherever appearing in this RFP document shall mean IICC Ltd. (IICCL), a company registered under the Indian Companies Act 2013.
- 9.2.24 "SCADA" shall mean Supervisory Control and Data Acquisition

9.3 Interpretation

- 9.3.1 Any reference herein to any recital, clause or annexure is to such recital, clause or annexure to this Agreement unless the context otherwise requires. The recitals and annexures to this Agreement shall be deemed to form part of this Agreement.
- 9.3.2 Any references to laws of India or Indian law or regulation having the force of law shall include the laws, acts, ordinances, rules, regulations, bye laws or notifications which have the force of law in the territory of India and as from time to time may be amended, modified, supplemented, extended or re-enacted
- 9.3.3 The table of contents, headings or sub-headings in this Agreement are for convenience of reference only and shall not be used in, and shall not affect, the construction, linkage or interpretation of this Agreement
- 9.3.4 Unless the context requires otherwise, words importing the singular include the plural and vice versa, and pronouns importing a gender include each of the masculine, feminine and neutral genders.

- 9.3.5 References to the knowledge, information, belief or awareness of any person shall be deemed to include the knowledge, information, belief or awareness such person would have if such person had made due and careful inquiries.
- 9.3.6 The words and phrases "other", "including" and "in particular" shall not limit the generality of any preceding words nor be construed as being limited to the same class as any preceding words where a wider construction is possible.
- 9.3.7 The words "hereof," "hereunder", "herein" and "hereto," and words of like import, refer to this Agreement as a whole and not to any particular Clause hereof.
- 9.3.8 Priority of agreements and errors/discrepancies.
- 9.3.8.1 This Agreement, RFP and all other agreements and documents forming part of or referred to in this Agreement are to be taken as mutually explanatory and, unless otherwise expressly provided elsewhere in this Agreement, the priority of this Agreement and other documents and agreements forming part hereof or referred to herein shall, in the event of any conflict between them, be in the following order:
- (a) Service Agreement; and
 - (b) RFP and all other agreements and documents forming part hereof or referred to herein; i.e. this Service Agreement at (a) above shall prevail over the agreements and documents at (b).
- 9.3.8.2 Subject to the provisions of Clause 9.3.8.2, in case of ambiguities or discrepancies within this Agreement, the following shall apply:
- (a) between two or more Clauses of this Agreement and documents forming part of the Agreement, the provisions of a specific Clause relevant to the issue under consideration shall prevail over those in other Clauses;
 - (b) between the Clauses of the Service Agreement and the documents forming part of this Agreement, the Clauses of Service Agreement shall prevail and between Service Agreement and Annexures thereto, the Service Agreement shall prevail;
 - (c) between any two Annexures, the Annexure relevant to the issue shall prevail;
 - (d) between any value written in numerals and that in words, the later shall prevail.
- 9.3.9 The word "will" shall be construed to have the same meaning and effect as the word "shall" and vice versa.
- 9.3.10 The word "SPV" shall be construed to have the same meaning and effect as the word "IICCL" and vice versa.
- 9.3.11 The Annexure and Schedules shall form an integral part of this Agreement.

9.4 Governing Law and Jurisdiction

- 9.4.1 This Agreement shall be construed and interpreted in accordance with and governed by the extant laws

of India, and the courts at New Delhi shall have exclusive jurisdiction over matters arising out of or relating to this Agreement.

9.5 Code of Integrity

9.5.1 The Service Provider and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Bid Process.

9.5.2 Service Provider has signed and submitted the Integrity Pact as part of RFP Bidding process as per Appendix 5. This Integrity pact shall be in force and shall be binding for the Service Provider during the bidding process and complete tenure of this Agreement as an integral part of the Service Agreement post commencement of the services.

9.6 Confidentiality

9.6.1 The Service Provider shall not at any time use or disclose to others any information of IICC Project and "SPV" which is considered and/or observed as confidential by SPV and which is disclosed or provided to the Service Provider under this Agreement.

9.6.2 That the Service Provider shall ensure that its personnel shall at no time, without the consent of IICCL, disclose to any person any information relating to the affairs of IICCL which they may have come to know during the Term of this Agreement.

9.6.3 The personnel(s) of the Service Provider shall not indulge in any activity, of whatsoever nature, which is or which may be damaging to the reputation/goodwill of IICCL and will also maintain secrecy/confidentiality of any task assigned to them from time to time by the Service Provider relating to Services at the Building(s).

9.6.4 The Service Provider shall provide the signed copy of Non disclosure Agreement as per Annexure 1.

9.7 Conflict of Interest

9.7.1 The Service Provider shall hold the "SPV's" interests paramount, without any consideration for future work, and strictly avoid conflict of interest with other assignments or their own corporate interests. If during the period of this contract, a conflict of interest arises for any reasons, the Service Provider shall promptly disclose the same to the SPV and seek its instructions.

9.7.2 The payment of the Service Provider in accordance with this Contract shall constitute the Service Provider's only payment in connection with this Contract and, the Service Provider shall not accept for its own benefit any trade commission, discount or similar payment in connection with activities pursuant to this Contract or in the discharge of its obligations hereunder, and the Service Provider shall use its best efforts to ensure that Personnel involved shall not receive any such additional payment.

9.7.3 Service Provider and its affiliates shall not to be otherwise interested in Project. Service Provider agrees that, during the term of this Contract, the Service Provider and any entity affiliated with Service Provider

shall be disqualified from Bidding and providing Consultancy, Goods, Works or Services resulting from or directly related to the Service Provider for the development of the IICC Project.

- 9.7.4 Service Provider and its affiliates are strictly prohibited for engaging and executing any conflicting activities of the Business of SPV conducted inside the IICC complex. The Service Provider shall not engage, and shall cause their Personnel not to engage, either directly or indirectly, in any business or and their professional activities with the Occupants and Users of IICC complex which shall safeguard any kind of conflict with the activities assigned to them under this Service Contract.

9.8 Force Majeure

- 9.8.1 "Force Majeure" shall mean the conditions beyond control of either parties like war, hostility, acts of public enemy, civil commotion, sabotage, serious loss or damage by fire, explosions, epidemics, strikes, lockouts or acts of God come under the purview of Force Majeure (FM). Delays in performance of contractual obligations under influence of FM conditions are condonable by the other party without any right to termination or damages, provided, notice of the happening of any such event is given by the affected party to the other within 30 (thirty) days from the date of occurrence. Works under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist.:

- 9.8.2 Provided that the same:

- (i) materially and adversely affects the performance of an obligation; and
- (ii) are beyond the reasonable control of the affected Party; and
- (iii) such Party could not have prevented or reasonably overcome with the exercise of good industry practice or reasonable skill and care; and
- (iv) do not result from the negligence or misconduct of such Party or the failure of such Party to perform its obligations hereunder;

- 9.8.3 If a Party claims relief on account of a Force Majeure event, then the Party claiming to be affected by the Force Majeure event shall, immediately on becoming aware of the Force Majeure event, give notice of and describe in detail: (i) the Force Majeure event(s) that has occurred; (ii) the obligation(s) affected; (iii) the dates of commencement and estimated cessation of such event of Force Majeure and (iv) the manner in which the Force Majeure event(s) affect the Party's obligation(s) under this Agreement. No Party shall be able to suspend or excuse the non- performance of its obligations hereunder unless such Party has given the notice specified above.

- 9.8.4 The affected Party may suspend the performance of the obligation(s) affected due to a Force Majeure event, upon delivery of the notice of the occurrence of a Force Majeure event in accordance with this Clause provided that the Party claiming to be affected by an event of Force Majeure has established to the full satisfaction of the other Party that it has been materially and adversely affected against performance of its obligations under the Agreement.

- 9.8.5 If Force Majeure event continues for more than 120 (One Hundred Twenty) days either Party shall have the right to terminate this Agreement by giving a notice of termination in respect thereof and the

consequence of termination shall follow.

9.8.6 While any such prevention or delay continues, the Parties shall continue to comply with their obligations under this Agreement which is/ are not affected by it to the extent that they are able lawfully to do so. Upon cessation of such Force Majeure events the Parties shall resume their respective Performance.

9.8.7 It is clearly agreed and understood that the Service Provider shall not be absolved from its obligations during the term of this Agreement on the ground that the Premises/ Building(s) cannot be used because of non-availability of amenities and facilities in any manner whatsoever other than established Force Majeure event(s).

9.9 Dispute Resolution

9.9.1 All or any disputes arising out of or touching upon or in relation to the terms of this Agreement including the interpretation and validity of the terms thereof and the respective rights and obligations of the parties shall be settled amicably by mutual discussion failing which the same shall be settled through arbitration.

9.9.2 The arbitration shall be governed by the Arbitration & Conciliation Act, 1996 or any statutory amendments/modifications thereto for the time being in force. The arbitration proceedings shall be held at New Delhi by a Sole Arbitrator who shall be appointed by SPV and whose decision shall be final and binding upon the Parties. The Service Provider hereby confirms that he/she/it shall have no objection to this appointment.

9.9.3 Jurisdiction: The contents of the present Agreement shall be subject to the jurisdiction of the Courts at New Delhi only.

9.9.4 During the Term, if any difference/dispute arises between the Parties or any litigation between the Parties is pending before any arbitrator/court/authority relating to the terms and conditions of this Agreement, the Service Provider shall not discontinue the performance of Services unless so desired by SPV.

9.10 Commencement and Duration

9.10.1 The scope of services under Property Management is divided into two stages:

<u>Stage</u>	<u>Type of Service</u>	<u>Duration</u>
Stage 1	Transition Services	03 Months
Stage 2	Property Management Services	36 Months

9.10.2 This Agreement covers the scope of services in two separate parts for respective stages of engagement of Service Provider.

9.10.3 Services of Stage 1 are related to Transition services and shall have duration of 3 (three) months ("Term") commencing with effect from ("Effective Date") unless otherwise terminated earlier in accordance with the provisions contained hereunder.

- 9.10.4 The Services of Stage 2 are related to Comprehensive Property Management services and shall have duration of 3 (Three Years ("Term") commencing with effect from ("date of completion of Transition Services") unless otherwise terminated earlier in accordance with the provisions contained hereunder.
- 9.10.5 With effect from the Commencement Date, the "First Party" engages the "Second Party" referred to as Service Provider, and the Service Provider hereby agrees, to render the Services to the Client subject to the terms and conditions of this Agreement.
- 9.10.6 The Services rendered by the Service Provider to the Client for Transition Services for the duration of initial 3 (three) months shall be in accordance with and in conformity with the Scope of Services as per Annexure 2 and Service Levels as listed in Annexure 4 of this Agreement.
- 9.10.7 The Service Provider undertakes and confirm to provide services for Transition management duration which is at present prescribed at 3 (three) months which may be extended upto a maximum of 12 (twelve) months based on the project readiness and unforeseen events. Cost of Services during Transition period beyond 3 (three) months shall be mutually agreed between the SPV and the Service Provider.
- 9.10.8 In such case, the SPV shall have full right to advice Service Provider to ramp down the size of the deployed team-with mutual discussion however the final decision of SPV shall be binding for Service Provider.
- 9.10.9 The Services rendered by the Service Provider to the Client for Comprehensive Property Management Services for the duration of 36 (thirty six) months shall be in accordance with and in conformity with the Scope of Services as per Annexure 3 and Service Levels as listed in Annexure 4 of this Agreement.
- 9.10.10 The Service Provider shall depute the requisite manpower and/ or resources immediately from the Commencement Date without any disruption.
- 9.10.11 After the expiry of the Term, this Agreement may be renewed/ extended in writing for a further period of at least 2(two) years or such other period and on such terms and conditions as may be mutually agreed between the Parties and in such an event, the Parties shall execute a fresh agreement.
- 9.11 Performance Security
- 9.11.1 Within ten (10) days of receipt of the Letter of Award, the Service Provider shall deliver to the SPV an unconditional and irrevocable Performance Security for an amount and conditions mentioned as per Clause 2.7.Letter of Award
- 9.12 Statement of Work
- 9.12.1 The Scope of Work mentioned in Annexure 2 for Transition management services and Annexure 3 for Property management services describes the services covered under this Agreement at India International Exhibition and Convention Center ("IICCL") to be performed by Service Provider.
- 9.12.2 The Service Provider will have full accountability for delivering these services as per defined Service levels and performance parameters and for complying with all requirements defined here and elsewhere in this

agreement ("Agreement"). Unless otherwise indicated, all references to "Service Provider" or "Service Provider personnel" in this document are considered to apply equally to employees or Subcontractors working for or on behalf of Service Provider

- 9.12.3 Statements in the sections of Scope of work referring to "Service Levels" define the aggregate value that SPV expects to receive from Property Management services. Scope of work document outline the major work tasks involved and specific requirements of IICCL. The service expectations are provided primarily for guidance and are not intended to be all inclusive. The Service Provider will identify and perform any additional work required to meet the Outcomes and service expectations, whether or not specifically called out in this document at no extra cost.
- 9.12.4 SPV is engaging Service Provider to maintain and repair assets and to provide other services that are critical to General Business environment of the project.
- 9.12.5 As the quantum of business exacted within the project is very high including stakes of International Organizations and Government of India, service delivery failures have potential to create significant reputational and business losses, including but not limited to loss of business, personal injury or death, property damage and regulatory intervention. Therefore, Service Provider shall identify and actively manage risks in a way that minimizes and eliminate business losses to IICCL.
- 9.12.6 Service Provider is fully accountable for delivering all services described in the Scope of works (SOW) under all conditions save force majeure events as defined in the Agreement, although it will provide emergency response support to IICCL in case of such events.
- 9.12.7 Service Provider will perform and manage all activities required to operate and maintain the assets in a manner that delivers all agreed service levels.
- 9.12.8 Except as explicitly agreed to by IICCL, Service Provider will also maintain IICCL assets in a manner that maximizes their operating life, performance and efficiency as well as provide documentation of maintenance activities.

9.13 Best Practices and Quality of Services

- 9.13.1 SPV intend to achieve sustainable and measurable cost optimization and net cost savings while maintaining and improving upon the asset reliability and quality of service.
- 9.13.2 The Service Provider acknowledges that standard and quality of Services are of paramount importance and essence of the Agreement and the Service Provider shall not do or allow to be done any act, deed or thing that may directly or indirectly affect the reputation and goodwill of SPV, Building(s) and/ or Customers.
- 9.13.3 The Service Provider shall use internationally accepted best standards and good industry practice, efficient methodologies, processes, standards, technologies and work practices so as to strengthen and evolve the best standard operating procedures and practices for the Services to be provided for the respective Building(s).

9.13.4 SPV intends to allow Service Provider discretion to define and deliver any and all work tasks required to deliver the defined Outcomes and service expectations, within the limits set out in the Agreement. However, SPV reserves the final decision authority to require Service Provider to provide, or cease to provide, specific resources (including employees and Subcontractors), methodologies, processes, technologies and work practices at any time it deems such intervention to be in its business interest.

9.14 Service Level and Performance Parameters

9.14.1 The Service Provider undertakes and agrees that its obligations with regard to performance of the Services shall be in accordance to the provided Service levels and Performance parameters defined in Annexure 4.

9.14.2 Service Level and performance parameters for the Scope of Work in this document shall be considered as the final outcome of desired responsibilities and deliverables performed timely and with correctness.

9.14.3 The Service Provider shall comply with the service levels to ensure adherence to project timelines, quality and availability of services throughout the duration of the Contract. For the purpose of the clarifications, definitions and terms as specified in the document shall have the meanings set forth below:

- (i) "Total Time" – Total number of hours in consideration for evaluation of SLA performance.
- (ii) "Downtime" – Time period for which the specified services/components/system are not available in the concerned period, being considered for evaluation of SLA, which shall exclude downtime owing to Force Majeure and reasons beyond control of the Service Provider.
- (iii) "Scheduled Maintenance Time" – Time period for which the specified services/components/system with specified technical and service standards are not available due to scheduled maintenance activity. The scheduled maintenance shall be carried out during non-peak hours.
- (iv) "Uptime" – Time period for which the specified services are available in the period being considered for evaluation of SLA.
- (v)
$$\text{Uptime (\%)} = [1 - \{(\text{Total Downtime}) / (\text{Total Time} - \text{Scheduled Maintenance Time})\}] * 100.$$
- (vi) Penalties shall be applied for each criterion individually and then added together for the total penalty for a particular quarter.
- (vii) "Incident" – Any event/abnormalities in the service/system being provided that may lead to disruption in regular/normal operations and services to the end user.
- (viii) "Response Time" – Time elapsed from the moment an incident is reported to the Helpdesk either manually or automatically through the system to the time when a resource is assigned for the resolution of the same.
- (ix) "Resolution Time" – Time elapsed from the moment incident is reported to the Helpdesk either manually or automatically through system, to the time by which the incident is resolved

completely and services as per the Contract are restored.

9.14.4 The Service Provider shall immediately attend to any and/or all complaints put forward by IICC pertaining to the Services and shall take immediate remedial actions to redress the same.

9.14.5 In case the Service Provider fails to provide the Services in accordance with the provisions of this Agreement and/ or to the satisfaction of the Customers, then the Service Provider undertakes and agrees that SPV shall be entitled to make performance gap deductions ("Performance Gap Deductions") as specified in Annexure 8 to this Agreement from any amount payable to the Service Provider.

9.15 Service Levels Monitoring

9.15.1 The Service Level and performance parameters defined for respective deliverables shall be monitored periodically as detailed in this Agreement. As part of these requirements, Service Provider shall develop, supply and install real time monitoring system of SLAs through software and hardware to automate the procedure of reporting, recording and submission of reports during the course of this Agreement.

9.15.2 The "SPV" reserves the right to audit these tools for accuracy and reliability at any time. If at any time during the audit the accuracy and reliability of tools shall be found to be compromised, the "SPV" reserves the right to invoke up to penalty clause. The Service Level performance parameters shall be reviewed on a monthly basis.

9.15.3 Service Provider shall be expected to take immediate corrective action for any issue / breach in service levels. In case issues are not rectified to the complete satisfaction of "SPV", within a reasonable period of time defined in this RFP, then the "SPV" shall have the right to take appropriate penalizing actions, or termination of the contract.

9.15.4 For issues i.e. breach of SLAs beyond control of the Service Provider, the Service Provider shall submit a justification for the consideration of the "SPV". In case it is established that the Service Provider is responsible for such breach, respective penalties shall be applied to the Agency.

9.15.5 The Parties, through their mutual consent in writing, shall have the right to revise, amend or modify the scope of the Services and the Service Levels at any time upon prior written notice of seven (7) Business Days. All such amendment(s) shall form part of the main Service agreement as addendum.

9.15.6 If any extra services, functions or responsibilities not specifically described and agreed to in this Agreement, including its Schedules and Annexure, are required for the proper performance and provision of the Services, the Service Provider may render such extra services, subject to the agreement of additional Charges and terms and conditions for provision of such extra services between the Parties

9.16 Clarification on Scope of work for Occupied Areas

9.16.1 Service Provider upon written confirmation from SPV shall assist the Operator Company ("the Customer") in obtaining access to all necessary infrastructure facilities and utilities, including water and electricity as well as all services provided under Project Facilities and Infrastructure Services.

- 9.16.2 Service Provider shall be responsible to provide under the existing set of management team, additional manpower and complete maintenance of Common Areas and facilities including Roads and Walkways, Open Areas, Common Area Toilets, IT helpdesk and Troubleshooting services, ELV maintenance team during the Events to be organized by the Operator Company in the Exhibition Halls, Convention Center and Open Exhibition Area. Operator Company shall provide the detailed schedule of events with expected footfall to SPV and Service Provider in advance notice of minimum 7 (seven) days.
- 9.16.3 Service Provider shall be responsible to arrange the additional manpower and consumables required for the services related to Common Area during the events. The cost of such activities is separately provided to the Service Provider as per approved rates under the Additional cost for events covered in financial Bid.
- 9.16.4 Prior to the declaration of the date of commercial operations of the Project Facilities, the "Operator Company" will conduct trial events, at its own cost, at the Project Facilities ("Trial Events"). For which Service Provider shall not provide any additional services in the execution of such trial events.
- 9.16.5 Operator Company under the Routine Operation and Maintenance activities for Occupied Area shall deploy its own Operation and maintenance team for the asset under the occupied area.
- 9.16.6 Operator Company shall be negotiating, executing (in the Operator's name), delivery, and administration of any and all licenses, occupancy agreements, rental agreements, event booking commitments, advertising agreements, supplier agreements, service contract including, without limitation, contracts for cleaning, decorating and set-up, general maintenance and inspection of HVAC systems, elevators, escalators, stage equipment, fire control panels and other safety equipment, staffing and needs, including guards and ushers, and other services which are necessary or appropriate in relation to the Project as per the scope of responsibilities defined in responsibility matrix as per [Clause 9.17](#).
- 9.16.7 The Operator Company shall Replace, repair, replenish or renew, as the case may be, the materials, goods, machinery, equipment, capital components and spares etc. and undertake preventive maintenance at its cost as necessary to carry out efficient operations and maintenance of the Project/ Project Facilities (limited to the scope of responsibilities defined in responsibility matrix as per Clause 9.17).
- 9.16.8 The Operator Company shall promptly and diligently repair, replace or restore the Project/ Project Facilities or part thereof which may be destroyed, lost or damaged due to negligence on part of Operator or any of its employees, Subcontractors, associates or representatives.
- 9.16.9 The Operator Company shall provide adequate service standards and to ensure that the Project/Project Facilities are transferred to the SPV in a good condition except for the normal wear and tear having regard to their life, construction use and the period of use, in accordance with the terms of this Agreement.
- 9.16.10 The Operator Company shall remove promptly from the Project all surplus materials, hazardous materials, rubbish and other debris (including, without limitation, accident debris) at its own cost in accordance with the Waste Management policy of the property.
- 9.16.11 Service Provider shall ensure that the waste material collected for recycling purpose is suitable collected

and processed inside the property.

9.16.12 AMC, Corrective maintenance and Replacement / Renewal activities shall be managed and performed by Service Provider in coordination with Operator Company/ EPC Contractor/OEMs and Contractors for such assets and facilities from case to case basis.

9.17 Responsibility Matrix of Service Delivery for Common Areas and Occupied Areas

9.17.1 The scope of work under Operation and Maintenance activities to be performed inside the Overall Project is broadly classified in two areas:

- (i) Common Areas (Common Service Areas), Open Areas, Basements and Parking Areas, Designated Plots (General Maintenance)
- (ii) Occupied Areas (by Operator Company)

9.17.2 The overall responsibility for performing Routine, Corrective and Replacement / Renewal Activities for the infrastructure and assets associated as per Clause 9.17.1 (i) shall be with Service Provider as per the table-2 given below. Refer details of Common Areas of the project as per [Clause 8.5](#). The distribution of scope of work and responsibilities associated to the Occupied Areas between the Operator Company and the Service Provider is defined as per the table-1 given below.

Table- 1 Type of Infrastructure (Occupied Area)	Category - A	Category - B	Category - C
	Routine maintenance	Corrective maintenance	Replacement / Renewal activities
Real Property	Operator Company	Service Provider	Service Provider / SPV
Heavy Fixture	Operator Company	Service Provider	Service Provider / SPV
Light Fixture	Operator Company	Operator Company	Operator Company
Furniture & Equipment provided by the SPV as part of Project Facility	Operator Company	Operator Company	Service Provider / SPV
Furniture & Equipment provided by the Operator as part of Additional Facilities	Operator Company	Operator Company	Operator Company

Table -2 Type of Infrastructure Common Areas (Common Service Areas), Open Areas, Basements and Parking Areas, Designated Plots (General Maintenance)	Category - A	Category - B	Category - C
	Routine maintenance	Corrective maintenance	Replacement / Renewal activities
Real Property	Service Provider	Service Provider	Service Provider / SPV
Heavy Fixture	Service Provider	Service Provider	Service Provider / SPV
Light Fixture	Service Provider	Service Provider	Service Provider
Furniture & Equipment provided by the SPV as part of Project Facility	Service Provider	Service Provider	Service Provider / SPV
Furniture & Equipment provided by the Operator as part of Additional Facilities	Service Provider	Service Provider	Service Provider

9.18 Services Detail and Billing Model

9.18.1 The following table illustrates the broad heads of the Services under Property Management which will be covered in two payment modes. The Service Provider shall refer to the cost models for purpose of billing to SPV under this Service agreement.

- i) Managed service with direct Cost to SPV
- ii) Services through Service Provider; billed on monthly basis

9.18.2 Services Managed by Service Provider which will be paid directly by SPV to the respective vendors for system as mentioned in table below and detailed out at Annexure 11 & 14. Service Provider to correlate the content of this table and the detailed Scope of work as provided in Annexure 3.

Direct Cost to SPV	Indicative Services and their Expenses
Utility Charges	Electricity Bill of the IICC complex
	Diesel Cost for DG operation
	Water consumption cost
	PNG gas cost
	Voice and Data fixed lines for the entire IICC Dwarka premises
Insurance, Statutory Fee and Legal Cost	Insurance structural & electro mechanical equipment
	Statutory fee for Compliances, Licenses, Registration and Certifications (excluding Labour Compliances)
	Legal and Arbitration fee (excluding cases where Service Provider is party)
Replacement and Renewal Cost	Please refer Clause 9.16, 9.17 & 9.18
	Painting of buildings and steel structures
AMC Charges (Comprehensive / Non Comprehensive)	Please refer Annexure 11 & Annexure 14 in conjunction with Annexure 3

9.18.3 Services to be billed through Service Provider under Property Management Fee is provided in table below. Service Provider to correlate the content of this table and the detailed Scope of work as provided in Annexure 3.

Cost covered in Property Management Fee	Indicative Services and their Expenses
Property Management Charges	Property Management Company Management Fee (includes margins, overheads and profit of Property Management Company and its Subcontractors)
Engineering Operation and Maintenance,	Manpower cost for all services
	Engineering tools and PPEs
	Spares and consumables for Preventive and Corrective Maintenance for Panels, Pumps, Motors (including rewinding), Starters. Components for Controls, Breakers, LT and distribution cables, Earthing, Lighting Protection, Lights, bulbs, tubes (other than external fixtures of large light fixtures), timers, DB and MCBs and MCCBs.
	HVAC system components maintenance of FCU, AHU, Cassette and Split Units including filters, ducts, diffusers, canvas, valves and Exhaust fans of all types
	Fire Fighting systems and Plumbing system components including Pumps, Motors, Cables, Controllers, Starters, Sprinklers other than items mentioned in AMC.
	Civil repair work, Painting repairs, False ceiling and dry wall portion repair work, Polishing, pathways, roads, manholes, drains, patch and corner repair work of Hot mix laid roads, etc
	WTP, STP and irrigation, water bodies spare and consumables.
	ICT general consumables for routine maintenance (cords, disks, etc) which shall include all type of passive components.
Custodial Services	Housekeeping Machines, Tools and Equipment
	Horticulture Machines, Tools and Equipment
	Pest Control Machines, Tools and Equipment
	Waste Management Tools and Consumables including OWG consumables
	Façade Cleaning Machines, Tools and Equipment
	Security and Parking Management and Mail Room Management Consumables
	Signages Spares and Consumables (excluding digital and interactive)
	Statutory and EHS related Tests, Audits & Returns
	Engineering Audits, Power Quality Test etc
	Stationaries, Print Media items, Mail Room Management

The cost of all spares and consumables under routine maintainence (except routine maintainence under the scope of Operator Company as per the scope matrix for Occupied Areas given in Clause 9.17.2) and corrective maintainence for the entire project (except in respect of equipment whose CAMC shall be provided by the SPV as per Annexures 11 & 14), shall be borne by the Service Provider. However, the cost of any renewal / replacement shall be borne by the SPV. AMCs taken by SPV shall be managed by the Service Provider as per Clause 12.10.7 of the RFP.

9.19 Workforce and Resources Standards

9.19.1 The Service Provider agrees and undertakes to provide Services:

- (i) by assuming complete supervision and control with regard to its obligations as provided under this Agreement;
- (ii) in proper, efficient and effective manner to the full satisfaction of the customers;
- (iii) in accordance with internationally accepted best standards and good industrial practices;
- (iv) The Contractor shall comply with all Applicable Laws and Applicable Permits (including renewals as required) in the performance of its obligations under this Agreement.

9.19.2 The Service Provider undertakes to follow the standard operating procedures and maintenance procedures applicable for the Management, Operation and Maintenance of respective Building(s), common areas, basements and parking areas, hardscape & softscape areas & horticultures.

9.19.3 The Service Provider shall mobilize its resources, necessary infrastructure, latest technology, know-how, skills, experience and fully qualified, trained, and experienced manpower required for performing the Services for 24 hours X 365 days annually in a safe and reliable manner.

9.19.4 The Service Provider shall depute its responsible and duly authorized person ("Designated Person") as the Service Provider's point of contact in respect of this Agreement to interface and interact with IICC.

9.19.5 The Service Provider agrees that the personnel, employees or workmen deployed to provide the Services shall be and shall always remain the employees of the Service Provider and IICCL shall have nothing to do with their recruitment, compensation, monetary and non-monetary benefits, training or termination.

9.19.6 The Service Provider shall control the unplanned leaves and absenteeism of its employees and Subcontractors' staff and a minimum of 95% attendance are maintained on daily basis. Service Provider shall also ensure that the attrition rate is not more than 6% of the annual deployment.

9.19.7 The Service Provider undertakes to exercise all due care and diligence at their own cost while deploying the personnel, employees or workmen at the Premises, Building(s) which include inter alia ensuring that no person having a criminal record or a person with dubious character and/ or integrity is deployed at the Building(s). Mandatory police verification is required to be carried out for all the personnel, employees or workmen.

9.19.8 The Service Provider shall ensure that the personnel, employees or workmen who are deployed to perform services at the Building(s) conduct themselves in befitting manner and do not cause/stage or permit any demonstration, nuisance at the Building(s) or do anything which may cause unnecessary disturbance or inconvenience to others at the Building(s).

9.19.9 The Service Provider and its personals including Subcontractors at the IICC complex shall work as per the SPV's calendar and work schedule agreed for the property.

9.19.10 The personnel employed by Service Provider shall not be entitled to be paid for overtime and Service Provider shall ensure adequate manpower is deployed to cover any kind of statutory leave or vacation leave. The Service Provider fee and cost shall be deemed to cover these items.

9.19.11 In case IICC objects to the deployment/deputation of any of the Service Provider's employee(s) at the Building(s) due to any reason, the concerned employee(s) shall be removed/ transferred from the Building(s) and the Service Provider shall immediately arrange/depute a suitable replacement for the same.

9.19.12 In case of replacement of any key Personnel deployed by Service Provider, the Service Provider shall provide as a replacement of a person of equivalent or better qualifications as per the provisions specified in Annexure 5 of this agreement, and with the approval of the SPV.

9.19.13 The Service Provider shall depute/deploy requisite skilled, trained, uniformed, well experienced and medically fit personnel, employees or workmen with relevant educational/technical qualification, contractors, Subcontractors along with items/apparatus/vehicles etc. as required and as are necessary for providing the services under its own direct supervision and control.

9.19.14 All main electricians under whom a team of other electricians to be deployed for all electrical work must mandatorily hold valid licenses issued by relevant electrical / licensing authority.

9.19.15 All preventive and safety measures shall be taken by the personnel, employees or workmen deployed by the Service Provider to ensure that no damage/loss is caused to any machine, material, equipment, person(s), Building(s) and/ or Customers.

9.19.16 The Service Provider shall ensure providing regular training to the personnel, employees or workmen deployed at the building to enhance their skills to effectively perform the Services and to maintain the best standards of Service.

9.19.17 The Service Provider's fee and cost shall be deemed to cover cost of all above items/ provisions.

9.20 Workforce and Resources for Transition Management

9.20.1 The Service Provider agrees and undertakes to provide Transition Services in accordance with the defined Scope of work as per Annexure 2 of the agreement.

9.20.2 In addition to the terms and condition for Workforce and Resource standards described in this agreement, Service Provider shall ensure the following conditions in managing transition services:

- (i) The Transition team of Service Provider and resources shall be deployed onsite as per the approved deployment plan of financial proposal.
- (ii) The Transition team of Service Provider to be deployed at site shall constitute not less than 90% of the transition team onsite strength who will continue for the subsequent property management services. Maximum of 10% of the total deployed head count shall be temporary resources those who can be removed from site post transition services. Service Provider is encouraged to make maximum onsite deployment which can be continued in Property management services.

9.21 Safety and Security Standards

- 9.21.1 That the Service Provider shall perform its services in fully safe, secure and compliant manner and shall be fully responsible for safety and security of Premises, Building(s) and/ or any person or property in or around the Building(s) / Premises as per the scope of work covered under Scope of Services of this Agreement.
- 9.21.2 That the Service Provider understands and acknowledges the importance of safety and security of the Premises/ Building(s) and the Customers and assures that the personnel, employees or workmen so deployed by it for rendering/performing Services shall be trained on safety & security aspects including to handle emergencies.
- 9.21.3 The Service Provider shall ensure that its personnel, employees or workmen do not smoke in the Premises and should not be under the influence of liquor, drugs, tobacco or any other forms of intoxicants while working in the Building(s) and shall not receive any gratuity or reward in any shape from anyone.
- 9.21.4 The Service Provider shall ensure that all emergency situations arising on account of fire or safety are dealt with in prompt, efficient and effective manner.
- 9.21.5 That all preventive and safety measures shall be taken by the Service Provider to ensure that no damage to material / Building / person(s) / machinery and or to equipment takes place during the course of performance of the Services or due to any act, omission or commission of the Service Provider.
- 9.21.6 The Service Provider shall not assign or transfer any of its rights and/or obligations under this Agreement to any third party.

9.22 Machinery, Tools & Equipment Management

- 9.22.1 Service Provider shall arrange and supply all machinery, equipment, tools, appliances, implements, ladder, cordage, tackle, personal protection equipment and gears for its workforce etc required for the performance of the services forming part of the Contract or referred to these conditions or not all which may be necessary for the purpose of satisfying or complying with the requirements of the SPV as to any matter which under these conditions SPV is entitled to be satisfied or which SPV is entitled to require together with the carriage therefore to and from the work.
- 9.22.2 The Service Provider shall arrange and provide for all the requisite manpower equipment, tools, safety devices, consumables, spares and any other material required for providing services which shall include but not be limited to personal protection equipment and such other equipment required for the safety of the personnel, employee or workmen deployed to render/perform services under this Agreement and shall also ensure that such equipment are used during the performance of services.
- 9.22.3 The minimum requirement of such equipment and tools is described in Annexure 6.
- 9.22.4 Service Provider shall bear all the taxes including transportation, loading, unloading, stacking storage, safe custody of such materials, tools and equipment and ensure that the required tools are in serviceable condition at all times and the adequacy of such tools is always maintained at site.

9.22.5 Service Provider shall be responsible for arranging and managing the tools, equipment and machinery including scaffoldings, heavy duty cranes, etc at additional cost for services which form part of Major repair and replacement services and the cost of such services is either pass through or reimbursable and not included in the agreed fixed fee of Service Provider under this contract.

9.22.6 Arrangement of such items shall be done strictly under the procurement guidelines considering the benefits of such procurement through rental services or direct purchases.

9.23 Registrations and Compliances

9.23.1 In accordance with the provisions of the Contract Labour (Regulation & Abolition) Act, 1970 and the rules framed there under, the "Service Provider" shall be responsible to apply and obtain the certificate of registration for the "First Party" as the principal "SPV" with respect to the IICCL property in its name and shall coordinate for providing a certificate in Form-V for itself which shall include all its Sub - Contractor employed by the "Service Provider" it in relation to respective Building(s)/ Item of works and to do all such acts, deeds and things as are required.

9.23.2 The Service Provider shall mandatorily obtain Labour License for itself inclusive of all its Sub - Contractor employed for the project against the issued Form V.

9.23.3 The Service Provider shall get mandatorily registered for under all other Applicable Laws including but not limited to PF Act, ESIC Act etc. and obtain license(s) under the Contract Labour (Regulation & Abolition) Act, 1970 in its own name for the purposes of this Agreement and the rules made there under.

9.23.4 The Service Provider hereby represents, warrants and undertakes that it shall solely pay and deposit all statutory dues/contributions e.g. provident fund contributions, employee state insurance contributions etc. with the appropriate authority/agency/office/ departments in a timely manner in relation to its personnel, employees and workmen engaged including direct and contractual employees in providing the Services and to file all and/or any statutory returns/forms/ statements under Applicable Laws from time to time. All such dues shall be collectively paid by the Service Provider itself on monthly basis for complete workforce and this responsibility shall not be passed on to any of its Subcontractor engaged for the services.

9.23.5 The Service Provider agrees and undertakes to be responsible for and ensure compliance of all Applicable Laws including but not limited to the List attached as Annexure 10 hereto. It shall be the sole responsibility of the Service Provider to identify and ensure compliance of any other statutory requirements to be fulfilled under the provisions of this Agreement. Any penalty or fine imposed by the concerned authority related to Operational issues, mismanagement or failure to abide statutory compliances covered under the provision of this Service agreement shall be borne by Service Provider and SPV shall not be liable to pay any such fines and penalty.

9.23.6 The Service Provider shall provide a monthly Compliance Certificate as per Annexure 9 along with the proof of Compliance maintained in form of certificates, return and proof of depositing all statutory dues/payments with the competent authority in respect of required compliances to be maintained at the premise.

9.23.7 The Service Provider shall at all times abide by the Applicable Law(s) and shall always ensure procurement and possession of all Approvals required from the competent authorities for performance of all obligations hereunder.

9.24 Assignment and Subcontracting

9.24.1 The Service Provider shall not assign or transfer any of its rights and/or obligations under this RFP/Agreement to any third party.

9.24.2 The entire scope of services to be performed by the Service Provider cannot be subcontracted. Key personnel, i.e., managerial staff and discipline heads / in-charges of various service packages shall be on the payroll of the Service Provider only and the same cannot be arranged through subcontractors. However, all other categories of personnel, e.g., all skilled/semi-skilled/unskilled labour, technicians, operators, engineers, supervisors etc., as well as equipment on hire, can be deployed by the Service Provider by engaging subcontractors.

9.24.3 In the event the "Service Provider" engages Subcontractors at commencement of the services and post commencement of services due to termination of the existing Subcontractors, the Service Provider shall notify for such engagement from SPV at least 30 (thirty) days in advance by submitting detailed credentials of the shortlisted Subcontractor which shall include relevant technical experience along with its financial capabilities for past 3 years in the same set of services for which the Subcontractor is intended to be engaged by the Service Provider.

9.24.4 Service Provider shall ensure that Subcontractor engaged for specific set of services is awarded a single service contract for the project and cannot be issued multiple contracts during the tenure of this agreement.

9.24.5 In all the contracts, subcontracts, agreements entered into by the Service Provider, the Service Provider shall ensure adequate provisions to be inserted and/ or taken up by the Service Provider so that the terms and conditions of all such contracts, subcontracts and agreements with Contractors, suppliers, vendors, Subcontractors are strictly brought within the purview of this Service Agreement. Failure of the Service Provider to ensure the same shall amount to material breach of the terms of this Agreement.

9.24.6 Service Provider shall ensure strict adherence by all subcontractors to the terms and conditions of this Agreement and compliance with the provisions of Contract Labour (Regulation & Abolition) Act, 1970 and the rules framed thereunder and all other Applicable Laws.

9.25 Client's Obligations and Rights

9.25.1 The Client undertakes during the term of this Agreement to supply the Service Provider with such information, assistance and documents as the Service Provider may reasonably require enabling the Service Provider to fulfill its obligations under this Agreement. All the available project documents such as Technical Data sheets, GFC's or any other available documents required in performance of the Service Provider shall be uploaded on the Client server during the transition period for its use by the Service

Provider.

9.25.2 IICC shall (either directly or through an independent audit team or any other representative) has, at all times, the right to access/assess, inspect, conduct/ cause to be conducted audit of all documents, systems, procedures, data and information maintained/ used by the Service Provider, in any of its offices or otherwise and may demand or required to be produced all or any records, data, books, documents of the Service Provider, information of any kind relating to the Service Provider in connection with this Agreement including inventory receipts (GST), credit/cash/bank statements, store records, books of accounts, ledgers, journals, entries, notings etc. and make assessments of expenditure, claims and/ or their reasonableness by any method/tool as are employed by IICC.

9.25.3 The Service Provider shall proactively assist SPV for this purpose and shall make available all such records and information required by IICC for assessing the performance of the Service Provider.

9.25.4 After completion of a financial year (i.e. from 1st April of a calendar year to 31st March of the next calendar year), the Service Provider will provide to IICCL, within a reasonable time period, a certificate of expenditure / expenses towards Operational Costs along with the detailed breakup of all such expenditure/ expenses along with their payment proofs incurred during such financial year to direct or third-party auditor appointed by SPV.

9.25.5 SPV shall have with it the right to withhold the payment of the Service Provider (as contained in Annexure 7), to the extent of the proof of Compliance Management are not submitted.

9.26 Rights of Third Parties

9.26.1 This Agreement shall not confer any rights or remedies upon any person or entity who is not a Party to this Agreement.

9.27 Liability and Indemnification

The Service Provider hereby indemnifies and undertakes to always hold harmless and keep indemnified and defend SPV, its affiliates, associate/ group companies and their respective employees, officers, representatives, agents and directors at its cost against all actions, demands, claims, losses, damages, penalty, costs, punishments, consequences and other liabilities arising out of or as a consequence of covenants of complete Clause 9.27.

9.27.1 The Service Provider shall be solely responsible for:

- (i) Ensuring payment of wages/ salaries and other remunerations and benefits to its personnel in accordance with their term of employment and the applicable laws.
- (ii) providing the personnel, employees or workmen, regular intervals and all other statutory facilities/benefits during the daily working hours and all other monetary or non-monetary benefits as are applicable under Applicable Laws, at its own cost and expenses.
- (iii) the work, acts or omissions, all negotiations relating to salaries, wages and benefits of the personnel,

employees or workmen, assessments and monitoring of their performance and for all disciplinary matters.

- 9.27.2 That the Service Provider shall obtain insurance in the joint names of Service Provider and the SPV for its personnel, employees or workmen at its own cost and expenses for accidents/injuries/death which may occur during the course of performance/rendering of the services and the Service Provider shall be solely responsible for payment of all claims, damages, compensation in case of accidents, injuries, death of any personnel, employees or workmen deployed by it for performing/rendering the services.
- 9.27.3 That the Service Provider shall be solely responsible for all civil and/or criminal liabilities arising out of or in connection with performance or non-performance of services by the Service Provider under this Agreement. The Service Provider shall fully indemnify SPV/IICCL against any civil or criminal liability accrued to IICCL by virtue of this Agreement and any failure of the Service Provider in this regard shall be considered as material breach of this Agreement by the Service Provider.
- 9.27.4 That the Service Provider undertakes that in case of its failure to ensure compliance of any Applicable Law or statutory requirement relating to the IICCL property including any labour laws in relation to the personnel, employees or workmen deployed at the IICCL property, the Service Provider shall be solely liable and responsible for all and/or any consequences of whatsoever nature, arising out of any such default made by it and shall keep SPV fully indemnified in this regard.
- 9.27.5 That the Service Provider undertakes to fully defend and protect SPV and/ or owners of the respective Building(s) against all or any legal, civil, criminal and monetary liabilities arising out of or pursuant to performance, non-performance, lapse, negligence, misrepresentation, breach, default or fraud on the part of the Service Provider, or its representatives, Subcontractors in connection with this Agreement.
- 9.27.6 The Service Provider hereby indemnifies and undertakes to always hold harmless and keep indemnified and defend SPV, its affiliates, associate/ group companies and their respective employees, officers, representatives, agents and directors at its cost against all actions, demands, claims, losses, damages, penalty, costs, punishments, consequences and other liabilities arising out of or as a consequence of:
- (i) breach of any of the terms and conditions of the Agreement by the Service Provider;
 - (ii) any acts, commissions, omissions, negligence or contribution of the Service Provider, its officers, representatives, employees, agents, Contractors or Subcontractors relating to any failure to ensure, procure or maintain adequate safety measures under the provisions of this Agreement;
 - (iii) any injury, harm or damage caused to any person, property, material or Building(s) that takes place due to any accident, incident etc for whatsoever reason on account of any activity of the Service Provider pursuant to this Agreement;
 - (iv) failure of the Service Provider to comply with any Applicable Laws including but not limited to Contract Labour (Abolition & Regulation) Act, 1970, Employee State Insurance Act, 1948, Employees Provident Fund and Misc. Provisions Act, 1952, Factories Act, 1948, relevant Shops & Establishment Act or any other labour laws as applicable. The Service Provider shall always remain solely responsible

for the consequences of such non-compliance as stated herein.

- (v) Failure of the Service Provider in obtaining any requisite Approvals for the purposes of provision of Services required under this Agreement.
- (vi) Infringement of any third party's intellectual property rights on account of any activity carried out by the Service Provider.
- (vii) If SPV is dragged into any arbitration proceedings, litigation or dispute for any purposes whatsoever between/ amongst the Service Provider and/or it's Contractors, Subcontractors or any third party, persons or entity.

9.27.7 The Service Provider undertakes and assures IICC that in case SPV is made a party to any arbitration, litigation or dispute arising out of or touching upon this Agreement by any person or party, the Service Provider shall at its own expense and cost take all appropriate & necessary steps to defend/resolve such claims/demands/disputes on behalf of SPV in consultation with SPV so as to ensure discharge of SPV free from any such liability.

9.27.8 Further, if required, the Service Provider undertakes that it shall fully pay/ compensate SPV in respect of the cost & expenses incurred by SPV, if any, in defending such claims/ demands/ disputes on account of any court order or otherwise

9.27.9 It is however, agreed between the Parties that the aggregate financial liability of the Service Provider arising out of or in connection with any breach of the terms and conditions of this Agreement by the Service Provider, including without limitation, breach of any warranties contained herein, delay in performance of its obligations or any representation of the Service Provider being found to be false, shall not exceed a sum equivalent to Contract Price at any given time. The limitation of liability shall not affect the Service Provider's liability, if any, on account of the following:

- (i) Damage to any third party or person caused by the Service Provider, its officers, representatives, employees, agents, Contractors or Subcontractors acting on its behalf; and/ or
- (ii) Gross misconduct or willful misconduct on the part of the Service Provider, its officers, representatives, employees, agents, Contractors or Subcontractors acting on its behalf.

9.27.10 The limitation of liability shall not be construed as providing the Service Provider with any limitation or exclusion from liability which is prescribed under any Applicable Law.

9.28 Insurance

9.28.1 The "Service Provider" shall be responsible to identify the need and recommend to SPV, facilitate and apply to obtain in the names of the "First Party" insurance cover for the project including but not limited to:

- (i) loss of or damage to the works, plant and materials;

- (ii) loss of or damage to equipment;
- (iii) loss of or damage of property (except the works, plant, materials and equipment) in connection with the project

9.28.2 The Service Provider shall maintain at its own cost Insurance from the start date to the end of this Agreement, in the amounts and deductibles stated in the Contract document for the events which are due to the Contractor's All risk, personal injury or death for its personals. The Contractor All risk shall be obtained for not less than the 115% of amount of contract price at any time during the contract.

9.28.3 Professional Indemnity Insurance: The Service Provider shall provide to the SPV, within 30 days of the Letter of Award, evidence of professional liability insurance to cover the risk of professional negligence. The professional liability coverage shall be for a sum of not less than 5% (five per cent) of the Contract Price and shall be maintained until the end of the contract period.

9.28.4 The Service Provider is required to take insurance cover under the Workman Compensation Act, 1923 amended from time to time. The Service Provider shall maintain at its own cost Insurance against claims, actions or proceedings brought or instituted against the Service Provider or Principal Employer/SPV, by any of its direct employee, Subcontractors' employees or any other third party in connection with, relating to or arising out of the performance of the services under the agreement.

9.28.5 Policies and certificates for insurance shall be delivered by the "Service Provider" to the SPV for record and necessary clearance on the coverage before the start date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.

9.28.6 If the "Service Provider" does not provide any of the policies and certificates required, SPV may affect the insurance which the Contractor should have provided and recover the premiums the SPV has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due along with the penalty for non compliance as applicable.

9.28.7 Alterations to the terms of acquired insurance(s) shall not be made without the approval of the "SPV".

9.29 Termination

9.29.1 It is specifically made clear to the Service Provider that each and every default, breach, non-observance and/or non-compliance of any of the terms and conditions of this Agreement shall be construed to be an event of default liable for consequences stipulated herein. With a view to acquaint the Service Provider, some of the events of defaults are mentioned below, which are merely indicative/illustrative and are not exhaustive and may include other instances of defaults as determined by SPV under this Agreement:

- (i) Failure by the Service Provider to comply with all relevant norms with respect to electrical safety, fire safety and any other safety norms in contravention of NBC, Bureau of Indian Standards, Specifications/Codes of Practice or relevant international standards, building rules, or any other Applicable Laws or what has been approved by SPV.

- (ii) Safety of all Occupants/ Visitors of the Building(s), Customers and the Building(s) itself are paramount and the Service Provider shall perform all acts and deeds necessary for complying with all safety requirements, as per Annexure 10- List of Compliance. Upon any such failure of the Service Provider to comply with the aforesaid requirements, the Agreement shall stand terminated forthwith without any prejudice to IICC's claims against the Service Provider or any other remedies available to IICC.
- (iii) In the event the Service Provider fails to maintain its corporate/ juridical existence during the Term of this Agreement or the Service Provider files a petition for being declared as insolvent and/ or fails to maintain its corporate/ juridical existence and/ or is adjudicated as insolvent, then the Agreement shall stand terminated forthwith.

9.29.2 Further, this Agreement shall stand terminated in the event of:

- (i) any representations made by the Service Provider under this Agreement or during Bid process, are found to be incorrect, false or misleading;
- (ii) any deterioration in the standard of Services is observed or reported;
- (iii) Service Provider fails to comply with any Applicable Laws and Code of Integrity;
- (iv) any labour unrest, formation of any union/association by the personnel(s) deployed / deputed at the Building(s), labour problems between the personnel and the Service Provider or any such other problem(s) involving the personnel;
- (v) any other acts, deeds or things which the Service Provider may commit or fail to perform in terms of this Agreement or any other document, if any, or as required pursuant to this Agreement which in the opinion of SPV amounts to an event of default and the Service Provider agrees and confirms that the decision of SPV in this regard shall be final and binding on the Service Provider and the Service Provider fails to rectify/cure to the satisfaction of SPV any default specified in this Agreement, within 7 (seven) days of being intimated of such default by SPV.

9.29.3 IICC shall have the right to terminate this Agreement, in the event of the performance of the Service Provider remains below 80% for three consecutive months based on the evaluation results of Service levels performance monthly score cards, by giving an advance written notice of 30 (thirty) days to the Service Provider.

9.29.4 In the event of the annual expenses against approved annual cost as per the Section C of the BOQ (Appendix 21) exceeds, the same shall be borne by the Service Provider at no extra cost to the SPV.

9.29.5 SPV/ICCL shall have the right to terminate this Agreement, without assigning any reasons whatsoever, by giving an advance written notice of 30 (thirty) days to the Service Provider.

9.29.6 Service Provider shall have the right to terminate the Agreement by giving 3 (three) months' notice in case SPV fails to perform its obligations under the Agreement despite being given 2 months advance written notice to cure such default.

9.29.7 In case of expiry/ termination of this Agreement:

- (i) The Service Provider shall comply with the post termination obligations of the Service Provider as may be specified by SPV in its termination notice;
- (ii) All payments of the Service Provider up to the date of expiry/termination of this Agreement, as the case may be, shall be cleared only when the Service Provider complies with its post termination obligations specified under the termination notice and/ or this Agreement;
- (iii) The Service Provider shall handover all documents, data, information (i) handed over by SPV; (ii) developed or collected by SPV, during the Term of this Agreement or before execution hereof and obtain a handover & no dues certificate from SPV.
- (iv) The Service Provider shall be required to execute such documents and/ or do such acts, deeds and things as may be required for seamless and continuous operations, management and maintenance of the Buildings.
- (v) In the event this Agreement is terminated on account of breach by the Service Provider of any provision or obligations stated in the Agreement, the Service Provider shall further be liable to bear and pay the complete cost of identifying, evaluating and sourcing a timely replacement of a Service Provider in its place for the purposes of operations, management and maintenance of the Building(s).

9.30 Payments and Reconciliation

- 9.30.1 In consideration of the Services performed by the Service Provider in accordance with the provisions of this Agreement, IICC agrees to pay to the Service Provider the fee in accordance with the Cost Summary sheet as provided in the Annexure 7 hereto separately for Transition Management, Operation and Maintenance and Additional O&M Services for Event Days.
- 9.30.2 Service Provider shall bill for the actual expenses only and shall not bill for the overall approved cost provided to the Service Provider for specific component of service. Service Provider is required to perform within the maximum approved and agreed cost for the services as per the BOQ line items for each service line under the consolidated head of approved Bill of quantity as per Appendix 21 and shall not bill in excess to the approved annual cost.
- 9.30.3 That Service Provider shall submit the invoice(s) to SPV for all Fee and Operational Cost payable by SPV in the following month of the month in which it has rendered / provided the services for payment to be made by IICC.
- 9.30.4 The Fee and Operational Cost shall be supported with full details of each and every actual expenses (with full supporting documents including but not limited to material invoice and delivery challans, salary disbursement statement in accordance to the approved cost, ESI, EPF, ECR and payment receipts with mention of GST separately), along with the completed Certificate of Compliance as per Annexure 9.
- 9.30.5 Payment of the Fee and the Operational Costs shall be made by SPV only after making proper verification

of invoices raised by the Service Provider within 30 days from the date of receipt of the invoice(s) subject to attachment of all the required supporting documents along with invoices including prior approvals of IICC, if any, so required; and further subject to there being no objections being raised by SPV.

- 9.30.6 All measurements and calculations shall be in the metric system and calculations done to 2 (two) decimal places, with the third digit of 5 (five) or above being rounded up and below 5 (five) being rounded down
- 9.30.7 Further, the Service Provider shall, with each invoice, submit a 'no pending claims' certificate for each preceding month issued by its authorized signatory. No payment towards any invoice shall be released in case the Service Provider fails to furnish proof/ supporting documents as stated above or elsewhere under this Agreement. The Service Provider shall not raise any invoice or make any claim with respect to any item which is not covered under the approved cost. For the purposes of this Agreement, the Service Provider shall maintain a separate bank account, and shall also maintain proper books of account for each of the Building(s).
- 9.30.8 In case of any gap found in the evidences so provided and receipts from Service Provider, the equivalent amount of the gap so found shall be deducted from the succeeding payables in any form to the Service Provider.
- 9.30.9 Payment of Fee shall be subject to deductions as agreed between the Parties as Performance Gap Deductions as provided in Annexure 8.
- 9.30.10 The Fee and Operational Cost as billed by the Service Provider doesn't include the direct expenses and the Capital Expenses incurred by SPV for the expenses as described in Clause 9.18.2. The payment against such expenses shall be paid to the concerned EPC Contractor/OEM, AMC Provider, Contractor or Third Party as per the agreed payment terms. The Service Provider shall manage all such services and verify their bills and recommend for payments to SPV as and when due in accordance with the terms and conditions of their respective contracts.
- 9.30.11 In addition to the Operational Costs, the GST and other levies of similar nature as applicable shall be payable by SPV. All payments shall be subject to deduction of TDS as applicable.
- 9.30.12 The Service Provider undertakes to mention GST separately in all invoices submitted for payment to IICC. The Service Provider also undertakes to raise invoices in accordance with this Annexure, plus GST as applicable.
- 9.30.13 The Service Provider shall furnish at the end of every month with effect from the Effective Date, monthly statements of account relating to the Operational Costs of the property.
- 9.30.14 The Cost of all services to be provided by the Service Provider as per its obligations under this Service Agreement and payable as per the price quoted in the BOQ shall include the cost of all manpower, equipment, consumables, spares, materials etc., all taxes, duties, royalty, GST, labour cess, EPF, ESI, BOCW, insurances, all obligations pertaining to statutory rules and regulations for operations and maintenance of IICC premises etc. in accordance with all applicable laws and regulations in force.

9.31 Cost corrections and variations

- 9.31.1 Total Operational Cost shall be valid for the entire term of this Agreement subject to revision, if any, only due to reasons described in following clauses.
- 9.31.2 The incremental or decremental cost revisions during the tenure of Service Agreement shall be based on the following factors only:
- (i) Variation in serviceable area assets, equipment, utilities etc; in the existing area provided to Service Provider,
 - (ii) Any change mutually agreed, between SPV and Service Provider.
- 9.31.3 The variation in cost shall be determined by the SPV based on the comparison of the details/scope of services required to be performed by the Service Provider as per the RFP with respect to the scope of services required to be performed after change of scope. The cost for such change of scope (increase or decrease) shall be determined by the SPV based on the cost of manpower as per prevalent minimum labour wages and the cost of materials/consumables or other resources as per the prevalent market rates and applicable taxes as per the prevalent industry practice. A margin of 15% shall be considered over the aforesaid costs to cover the overheads and profit of the Service Provider.

9.32 Miscellaneous

- 9.32.1 The Service Provider shall not assign or transfer any of its rights and/or obligations under this Agreement to any third party.
- 9.32.2 The Service Provider shall be permitted to display a small signage having such content as is pre- approved by IICCL, at a space identified by IICCL of such size and shape as IICCL may deem fit within the Premises. No other branding approval is provided including on the Staff uniforms which shall only display the logo of IICCL; however, colour coding for Uniforms can be done for various teams for ease of identification.
- 9.32.3 That failure of either party to this Agreement to enforce at any time or for any period of time, all or any provision(s) of this Agreement shall not be construed to be waiver of such provision(s) or of the right thereafter, to enforce all or any such provision(s) of this Agreement.
- 9.32.4 That if any provision(s) of this Agreement shall be determined to be void or unenforceable under any law, such provision(s) shall be deemed amended or deleted to the extent necessary to conform to Applicable Law(s) and the remaining provision(s) of this Agreement shall remain valid and enforceable. Provided however that, whenever a question of interpretation of any provisions this Agreement is involved, the Service Provider agrees to the interpretation and intent already captured in this Agreement and shall not resort to any interpretation that seeks to dilute the obligations and/ or liabilities of the Second Party vis-à-vis IICCL and/or the Customers, and/or shifts the same against the interests of IICC and/ or the Customers.
- 9.32.5 That all costs, charges and expenses payable on or in respect of this Agreement and on all other instruments and deeds to be executed, if any, pursuant to this Agreement, including stamp duty and

registration charges of this Agreement, if any, shall be borne and paid by Service Provider.

- 9.32.6 That any notice, letter or communication to be made, served or communicated to a party to this Agreement shall be in writing and be deemed to be duly made, served or communicated, only if, the notice or letter or communication is addressed to the party at its address as mentioned in this Agreement or to any such other address as may be intimated in this behalf and sent by either e- mail/ speed post/ registered post/ fax or personally handed over with acknowledgement due.
- 9.32.7 That this Agreement constitutes the entire Agreement between the Parties and revokes/supersedes all previous discussions/ correspondence/ memorandum of understanding or Agreements between the parties whether written, oral or implied, if any, concerning the matters covered herein in this Agreement. This Agreement shall not be changed or modified except by written amendment duly agreed and signed by the parties to the present Agreement.
- 9.32.8 The parties to the Agreement, before executing the Agreement, have clearly understood their rights/duties/liabilities/ responsibilities or obligations under all clauses of this Agreement and have agreed to abide by the term(s) and condition(s) of this Agreement.
- 9.32.9 That Annexure (s) to this Agreement is/are part and parcel of this Agreement and be read in conjunction with this Agreement while interpreting the terms and conditions of this Agreement.
- 9.32.10 The Agreement shall be signed on non judicial stamp paper of Rs. 100.00 and the cost of such stamp paper will be borne by the Contractor.
- 9.32.11 That this Agreement shall be executed in two counterparts and each Party shall retain one original copy.

IN WITNESS WHEREOF the Parties hereto have set their hands and seal to these presents on the day, month and year first mentioned above.

Signed for and on behalf of IICC IICC Limited.	Witness: 1
Signed for and on behalf of the Second Party "Name of the company"	Witness: 2

10 Annexure 1 - Non Disclosure Agreement

(To be given on Company Letter Head)

THIS NON-DISCLOSURE AGREEMENT (this "Agreement") is entered into on by SPV and (name of the Service Provider) between the undersigned parties on the date specified below.

WHEREAS,

either Party possesses certain confidential proprietary information; and

WHEREAS,

in connection with the pursuit, evaluation and/or feasibility of a business relationship, and/or the consummation of a transaction (collectively, the "Business Purposes") between the two parties hereto, including their affiliates, subsidiaries, stockholders, partners, co-venture, trading partners, employees and other organizations (hereinafter referred to as Affiliates), confidential proprietary information of one Party may become available to the other Party.

WHEREAS,

either Party desires to prevent the unauthorized use and disclosure of its confidential proprietary information. NOW THEREFORE, in consideration of these premises and for other good and valuable consideration, Receipt of which is hereby acknowledged, the parties agree as follows:

1. Confidential Information

- a) For purposes of this Agreement, Confidential Information shall mean all strategic and development plans, financial condition, business plans, co developer identities, data, business records, customer lists, project records, market reports, employee lists and business manuals, policies and procedures, information relating to processes, technologies or theory and all other information which may be disclosed by one Party or to which the other Party may be provided access by the disclosing Party or others in accordance with this Agreement, or which is generated as a result of , incidental to or in connection with the Business Purposes, which is not generally available to the public.

2. Non-disclosure Obligations

The Receiving Party promises and agrees to receive and hold the Confidential Information in confidence. Without limiting the generality of the foregoing, the Receiving Party further promises and agrees:

- a) to protect and safeguard the Confidential Information against unauthorized use, publication or disclosure;
- b) not to use any of the Confidential Information except for the Business Purposes. C. not to, directly or indirectly, in any way, reveal, report, publish, disclose, transfer or otherwise use any of the Confidential Information except as specifically authorized by the Disclosing Party in accordance with this Non-Disclosure Agreement.

- c) not to use any Confidential Information to unfairly compete or obtain unfair advantage vis-a- vis Disclosing Party in any commercial activity which may be Comparable to the commercial activity contemplated by the parties in connection with the Business Purposes.
- d) to restrict access to the Confidential Information to those of its officers, directors, and employees who clearly need such access to carry out the Business Purposes.
- e) to advise each of the persons to whom it provides access to any of the Confidential Information, that such persons are strictly prohibited from making any use, publishing or otherwise disclosing to others, or permitting others to use for their benefit or to the detriment of the Disclosing Party, any of the Confidential Information, and, upon Request of the Disclosing Party, to provide the Disclosing Party with a copy of a written agreement to that effect signed by such persons
- f) to comply with any other reasonable security measures requested in writing by the Disclosing Party.
- g) to refrain from directly contacting or communicating by whatsoever means to the Source(s) of Information without written consent of the Disclosing Party.
- h) to undertake not to disclose any names and their particulars to third parties without the written consent by the Disclosing party.

3. Exceptions

The confidentiality obligations hereunder shall not apply to Confidential Information which:

- a) is, or later becomes, public knowledge other than by breach of the provisions of this Agreement; or
- b) is in the possession of the Party with the full right to disclose prior to its receipt from the Disclosing Party, as evidenced by written records; or
- c) is independently received by the Receiving Party from a third party, with no restrictions on disclosure.

4. Return of Confidential Information

- a) The Receiving Party agrees, upon termination of the Business Purposes or upon the written request of the other Party, whichever is earlier, to promptly deliver to the other Party all records, notes, and other written, printed, or tangible materials in the possession of the Receiving Party, embodying or pertaining to the Confidential Information.

5. No Right to Confidential Information.

- a) The Receiving Party hereby agrees and acknowledges that no license, either express or implied, is hereby granted to the Receiving Party by the other Party to use any of the Confidential Information.
- b) The Receiving Party further agrees that all inventions, improvements, copyrightable works and designs relating to machines, methods, compositions, or products of the other Party directly resulting from or

relating to the Confidential Information and the right to market, use, license and franchise the Confidential Information or the ideas, concepts, methods or practices embodied therein shall be the exclusive property of the other Party, and the Receiving Party has no right or title thereto.

6. No Warranty

- a) The Disclosing Party has not made and will not make any representation or warranty as to the accuracy or completeness of its Confidential Information or of any other information provided to the Receiving Party, and the Receiving Party agrees that the Disclosing Party shall have no liability resulting from the use of the Confidential Information or such other information.

7. No Commitment

- a) The disclosure of Confidential Information does not, and is not intended to, represent a commitment by the Disclosing Party to enter into any business relationship with the Receiving Party or with any other entity. If the Parties desire to pursue business opportunities, they will execute a separate written agreement to govern such business relationship.

8. Compelled Disclosure

- a) If the Party faces legal action to disclose Confidential Information received under this Agreement, then the Party shall promptly notify the other Party in order that it may have the opportunity to intercede and contest such disclosure and, upon request, shall cooperate with the other Party in contesting such a disclosure. Except in connection with failure to discharge the responsibilities set forth in the preceding sentence, neither Party shall be liable in damages for any disclosures pursuant to such legal action.

9. Losses

- a) The Receiving Party agrees to indemnify the other Party against any and all losses, damages, claims, or expenses incurred or suffered by the other Party as a result of the Receiving Party's breach of this Agreement.

10. Communication

- a) The two parties agree that the communication between the parties is considered delivered and reached other party if transmitted by fax or electronic means with proof of sending machine. The date of receiving the messages, notices or letters is the date of sending authenticated by the sending machine. All notices under this Agreement shall be deemed to have been duly given upon the mailing of the notice, postpaid to the addresses listed above, or upon the facsimile transmission, to the party entitled to such notice at the facsimile number set forth below.

11. Counterparts

- a) Either the original or copies, including facsimile transmissions, of this Agreement, may be executed in counterparts, each of which shall be an original as against any party whose signature appears on such counterpart and all of which together shall constitute one and the same instrument.

12. No Solicitation of Employees

- a) The Receiving Party agrees that it will not, for a period of five (5) Years from the date of this Agreement, initiate contact with the other Party's employees in order to solicit, entice or induce any employee of the other Party to terminate an employment relationship with the other Party to accept employment with the Receiving Party.

13. Term and Termination

- b) This Agreement shall commence on the date first written above. The Receiving Party's right to use the Confidential Information in connection with the Business Purposes shall continue in effect until the period of one year from the date above or the other Party provides the Receiving Party with written notice of termination of such right, whichever is earlier.
- c) Notwithstanding the foregoing, the Receiving Party's obligations with respect to the Confidential Information hereunder shall continue in full force for at least five Years from the termination date and/or effect until further notice from the other Party.

14. Remedies

- a) The Receiving Party understands and acknowledges that any disclosure or misappropriation of any of the Confidential Information in violation of this Agreement may cause the Disclosing Party irreparable harm, the amount of which may be difficult to ascertain and, therefore, agrees that the Disclosing Party shall have the right to apply to a court of competent jurisdiction for an order restraining any such further disclosure or misappropriation and for such other relief as the Disclosing Party shall deem appropriate. Such right of the Disclosing Party shall be in addition to Remedies otherwise available to the Disclosing Party at law or in equity.

15. Entire Agreement

- a) This Agreement embodies the entire understanding between the parties respecting the subject matter of this Agreement and supersedes any and all prior negotiations, correspondence, understandings and agreements between the parties respecting the subject matter of this Agreement.
- b) This Agreement shall not be modified except by a writing duly executed on behalf of the party against whom such modification is sought to be enforced. Should any provisions of this Agreement be found unenforceable, the remainder shall still be in effect.

16. No Waiver

- a) The failure of either Party to require performance by the other Party of any provision of this Agreement shall in no way affect the full right to require such performance at any time thereafter.

17. Successors and Assigns

- a) Neither Party shall have any right to assign its rights under this Agreement, whether expressly or by operation of law, without the written consent of the other Party.
- b) This Agreement and the Party's obligations hereunder shall be binding on their Representatives, permitted assigns, and successors of the Parties and shall ensure to the benefit of Representatives, assigns and successors of the Parties.

18. Governing Law

- a) This Agreement shall be governed by and construed in accordance with the laws of India.

19. Attorneys' Fees

- a) If any action at law or in equity is brought to enforce or interpret the provisions of this Agreement, the prevailing party in such action shall be entitled to attorneys' fees.

20. Modification

- a) This Agreement constitutes the sole understanding of the parties about this subject matter and may not be amended or modified except in writing signed by each of the parties to the Agreement.

Legal Address of the Parties:

Party A:

Party B:

Address	Address
Signed for and on behalf of IICC	Signed for and on behalf of Service Provider
IICC Ltd.	_____

11 Annexure 2 - Scope of Work for Transition Services

11.1 Brief Introduction of Transition Services

11.1.1 The scope of work for the Transition assignment designed for the project is summarized in a broader aspect and the details are mentioned in later section of the document for all respective key deliverables listed below:

- a) Resource Deployment
- b) Defining Communication protocol for operations
- c) Process development stage for Inspection and Commissioning of property
- d) Property Inspection and Snag Identification and De-snagging Management
- e) Compliance Monitoring and Implementation
- f) Creating processes, manuals, guidelines for all service lines under Property Management
- g) Project Takeover for Operations
- h) Personnel Recruitment and Services Commencement
- i) Possession handover procedure to Occupants
- j) Fit out Monitoring and Management procedure
- k) Calculation of charges recoverable from the occupants for various services provided by the SPV.
- l) Service Level Agreements (SLAs) for the Infrastructure Services and Infrastructure Facilities to be provided to the Operator Company by SPV Preparation of memorandum along with the Operator Company containing an inventory of the Project Facilities and the Site including the vacant and unencumbered land, buildings, structures, trees and any other immovable property on or attached to the Site.
- m) The Operator Company in consultation with SPV/ Service Provider shall evolve a repair and maintenance manual (the "Maintenance Manual") for the regular maintenance of the Project in conformity with the Safety Requirements and Good Industry Practice. The Service Provider shall monitor the Maintenance Manual and make sure that the Operator company follows the documented guidelines in the Manual.

11.2 Resource Deployment

11.2.1 The transition is the critical first step in establishing service delivery platform in the property. Service Provider shall assemble a Transition team of Service Provider, Subject Matter Experts and professionals, which is led by a Transition Lead responsible for overall communications, progress monitoring, and on-time delivery of Transition Services.

11.2.2 For hassle free transition, Service Provider shall appoint Director–Transition Management as optimization manager to spear head the transition effort with support from senior management, Subject Matter expert

teams, support team and functional teams such as HR, Finance, Procurement, IT, Engineering etc.

11.2.3 Service Provider shall ensure effective and efficient transition of services. Transition team of Service Provider shall be fully deployed on-site and no virtual and remote support team shall be deployed for the purpose of execution of routine deliverables at project site. Service Provider shall deploy onsite team for managing Transition services for a smooth and efficient service delivery.

11.2.4 Service Provider shall set up full working office at the designated location provided by the SPV. All tools, tackles, air conditioners, internet & intranet services including requisite hardware and software, fans, water dispenser, pantry, office furniture, tables, chairs, storage racks, printers, paper, stationary, storage etc. and any other item necessary for running an office shall be provided by the Service Provider at no extra cost to SPV. Water and electricity are to be provided by the SPV which shall be on chargeable basis. SPV may at his own discretion, if situation demands, direct the Service Provider to shift Service Provider's office without any cost.

11.3 Defining Communication protocol

11.3.1 Service Provider shall establish a communications-rich environment where all stakeholders are wholly informed and kept abreast of transition activities.

11.3.2 Transition team of Service Provider will work in partnership with Project Management Team and EPC Contractor of SPV through all phases of the Transition assignment including recommendations, accomplishment of service deliverables.

11.3.3 Transition team of Service Provider shall follow the established processes for testing & commissioning and handing/taking over through inspections, coordination meetings with concerned stakeholders in a progressive manner.

11.3.4 All takeover plans will be developed by Transition team of Service Provider in defined timeline based on the testing & commission and handing over schedule of EPCC and shall be approved by the "SPV". This will include as much flexibility as required to ensure a successful transition with array of expertise that infuses international best practices in the project.

11.4 Process development stage for Inspection and Commissioning of Assets and Equipment

11.4.1 Service Provider shall review and provide input for Inspection, Testing and Commissioning plan prepared by the EPC Contractor/ Project Management Team from the appointment date of Service Provider.

11.4.2 Based on the review of Inspection, Testing and Commissioning plan, the Transition team of Service Provider shall provide their independent input based on the best practices on inspection checklists and commissioning protocol for all the assets and BOQ items, provided by the Project Management Team and EPC Contractor of SPV, to cover all systems comprehensively.

11.4.3 Comprehensive Commissioning checklists and template for commissioning reports for individual packages shall be reviewed by Transition team of Service Provider in accordance with the EPC Contractor

/ OEM guidelines and best Engineering practices from the appointment date of Service Provider.

11.4.4 The Commissioning document of each individual package and the overall system duly accepted by the Project Management Team and EPC Contractor of SPV shall be the base document to carry out the testing & commissioning by EPC contractor and witnessing by the Transition Team of Service Provider.

11.5 Property Inspection, Snags Identification and Desnagging Management

11.5.1 Perform preliminary inspection of Physical Structure including Civil and Finishes, Equipment and Utilities, Fire and Safety systems installed for Infrastructure Facilities and services.

11.5.2 Provide inspection and review report on both common and unique situation and formulate specific mitigation steps with project management team, operator and EPC Contractor of SPV especially during retailers fit-outs.

11.5.3 Identification of snags and reporting the same to project management team and EPC Contractor of SPV and co-ordination for rectification work of the reported snags and issues.

11.5.4 Record operations and security related risks, observations, rectification and coordination with project team.

11.5.5 Monitoring and inspection of de-slagging work and coordinate with project management team and EPC Contractor in de-slagging of systems and subsystems to prepare closure report for reported snags, issues and to close out the project.

11.6 Compliance Monitoring and Implementation

11.6.1 Transition onsite team shall do the following activities under this section:

11.6.2 Prepare a comprehensive list of all applicable compliances for the project including development of documents as per statutory requirements and submission to the concerned authorities but not limited to:

- Design, drawing and building permissions related
- Local, municipal and state government related permissions and registrations
- Fire and safety, environment related safety related compliances
- Labour laws related registrations and licenses
- Other specific requirements related to the project

11.6.3 Transition team of Service Provider may refer to the list of compliances provided in the document as Annexure 10 for this activity.

11.6.4 Collate all existing licenses, registrations, approvals of statutory authorities.

11.6.5 Inform "SPV" for renewal and/or newly required licenses, registrations, approvals for the project and prepare for all documentations and necessary process for applying and obtaining such compliances.

11.6.6 Apply for updation of all required compliances with prior approval through “SPV” and track for such approvals on the applied compliances.

11.6.7 Prepare a comprehensive compliance tracker and share the same with “SPV” as part of MIS.

11.6.8 Additionally, coordinate, maintain and record the details and copy of all licenses, registrations, approvals required and obtained by the Occupants and Operator company.

11.6.9 Follow up and maintain updated compliance tracker for all occupants and their Contractors who are performing any kind of work or services inside the project.

11.7 Documentation and Control Process development

11.7.1 Transition team of Service Provider shall prepare the following documents and processes for the systems covered under Property Management for the project.

11.7.2 The list is indicative as minimum requirement and Transition team of Service Provider is advised to contribute incrementally to the below provided list for a cohesive and comprehensive documentation for reporting and control process. The list is as below:

Sr. No	Documents	Key Contents and Areas of Focus
1	Property Information Guide	<ul style="list-style-type: none"> • Project Background, • Information of Stakeholders • General Information on Infrastructure and Amenities • Project Contact Directory
2	Occupant Handbook	<ul style="list-style-type: none"> • Information of Project • Details of Project Facilities • Occupants Rights and Obligations • General Duties of Occupants • System integration requirement related to Engineering, Fire Safety and EHS • Lease administration • Compliant and Helpdesk details • Escalation Matrix of PM team • Emergency Response Plan

Sr. No	Documents	Key Contents and Areas of Focus
3	Fit out Guidelines	<ul style="list-style-type: none"> • Design Standards and Guidelines • Relevant building details and work procedures for fit outs • Interior drawings approved and acceptance criteria • Post verification of design certification process • Contractor and Service Provider enrollment process and obligations • Risks, Liabilities and Insurance requirements • Work permit issuance and implementation • Work progress updating mechanism • Fit out acceptance and closure reports mechanism • MIS and reporting documents
4	Compliance Management Guidelines	<ul style="list-style-type: none"> • Details of applicable compliances for project • Details of applicable compliances for occupants • Compliance renewal and monitoring process • Compliance calendar • Process for applying / renewals • Roles and responsibility of compliance management team • MIS, reporting documents & frequency
5	Emergency and Disaster Management Plan	<ul style="list-style-type: none"> • Emergency response plan, • Disaster management plan • Emergency services requirements and process management • Emergency medical facilities details and process • Operation and maintenance risk mitigation plan • Communication protocol in case of emergency and national security threat • Business continuity plan in case of natural calamity and event of force majeure • MIS and reporting documents
6	Quality Management Plan	<ul style="list-style-type: none"> • Quality Assurance & Control Policy (Quality Management System) • Quality certification management • MIS, reporting documents & frequency
7	EHS (Environment, Health & Safety) Guidelines	<ul style="list-style-type: none"> • Establish environment, health and safety Policy (EHS Management System) • Establish environment, health and safety Committee • Define roles and responsibility of stakeholders • Identify and evaluate work and site hazards • Identify legal and statutory EHS compliances • Hazardous material management plan • Monitoring and reporting process • Formulate evacuation plan • Training modules and schedule • Review regulatory and safety environment • Review environmental health and safety plan • MIS, reporting documents & frequency

Sr. No	Documents	Key Contents and Areas of Focus
8	Customer Relation Manual	<ul style="list-style-type: none"> Helpdesk protocol set up (software implementation) and respective documentation Customer categorization and relationship management Define service levels and turnaround time Complaint management system service delivery process Escalation and grievance redressal process MIS, reporting documents & frequency
9	General Finance and Accounting Manual	<ul style="list-style-type: none"> Budgeting and Forecasting planning process Procurement guidelines and process Debtor and Creditor Management process Vendor and contract management system Invoicing, Payments and Reconciliation Plan MIS, reporting documents & frequency
10	HR Manual	<ul style="list-style-type: none"> Recruitment and approval process Background verification requirements and process Hiring approval mechanism Manpower deployment plan and phasing Detailed Labour laws applicability for the onsite deployed manpower Labour registration, Contractor licensing requirements Insurance and statutory compliances requirements Employment terms and conditions Employees' remuneration, appraisals and review mechanism Transfer and redeployment procedure Employee and Employer obligations under services at IICC Project Minimum eligibility requirements for employees for respective roles and responsibilities Job Description of Property Management teams Training (On job, Onsite and External) Plan and schedule MIS, reporting documents & frequency
11	Security Manual	<ul style="list-style-type: none"> Site specific security plan with proper risk assessment survey Formulate shift wise deployment along with the standard operating procedures for security operations, guard evaluation and audit forms Deployment plan and roles and responsibilities Perform transition of security services MIS and reporting documents

Sr. No	Documents	Key Contents and Areas of Focus
12	Engineering Services and Operation & Maintenance Manual	<ul style="list-style-type: none"> • Engineering service deliverables (asset coding, standard operating procedures, checks, schedules) • Operation manual for each individual systems including but not limited to the following: HVAC, Electrical – HT & LT equipment, diesel generators, fire protection & alarm, public health engineering, pneumatic solid waste management, compressed air, information & communication technology - active & passive, CCTV, access control & intruder alarm, car parking, integrated building management, supervisory control & data acquisition, EPABX, Wi-Fi, call back / telephony, people counting, buildings & gates security – internal and periphery, solar power security fencing, truck scanner, façade cleaning, LED media façade, audio video equipment and augmented & virtual reality equipment, digital signage, irrigation, green roof, horticulture and landscaping etc., complete • Routine, corrective and renewal / replacement maintenance manuals • Setting up energy conservation policy, tracking and monitoring processes • Training schedule • Deployment plan and roles and responsibilities • Inventory and critical spares control • Management reporting templates
13	General Cleaning and Housekeeping Manual	<ul style="list-style-type: none"> • Floor and finishes details • Cleaning requirements and methodology • Machinery requirement, usage and maintenance • Waste management and garbage disposal plan • Formats for housekeeping operations - checks and balances • Project cleaning coordination. • Deployment Plan and roles and responsibilities • Finalization of chemicals and consumables, customization of standard operating procedures, training schedules for housekeeping personnel.

Sr. No	Documents	Key Contents and Areas of Focus
14	Parking Management Manual	<ul style="list-style-type: none"> • Identification of parking management needs and challenges • Operating methodology • Traffic Circulation • Real time monitoring • Entry- Exit timelines • Training schedule • Deployment plan and roles and responsibilities • Management reporting templates • Auditing • Methodology of ticketing, revenue collection • Rectification of defects • Engineering service deliverables • Inventory, critical spares and consumables • Statutory obligations and fire guidelines • Customer Service/ Complaints/ Disputes • Performance Measurement and KPI • Coordination with other agencies • Any other information required for smooth and seamless functioning

11.8 Project Takeover for Operations

- 11.8.1 Transition team of Service Provider to convene the taking over of all the buildings, including all plants and equipment, landscaping, pergolas, security pill boxes/ gate houses prepare snagging and de-snagging reports.
- 11.8.2 Transition team of Service Provider shall ensure that all mandatory processes, manual, guidelines for all service lines under Property Management are dully prepared and approved by the "SPV" management team for implementation.
- 11.8.3 Transition team of Service Provider shall establish the engineering store and custodial services in-house store and take physical handover of the arranged spares, attic stocks, and essential spares from respective Contractors in coordination with Project Management Team and EPC Contractor of SPV.
- 11.8.4 Transition team of Service Provider shall inspect the available inventory, spares and essential spares provided by the Project Management Team and EPC Contractor of SPV and shall ensure adequacy of these items based on the established and approved inventory management system and shall procure all general and essential spares for smooth site operation for every quarter of the Contract Period services.
- 11.8.5 Transition team of Service Provider shall establish and enforce monitoring and management of fit out activities.
- 11.8.6 Handover of all project documents to be done in coordination with Project team and prepare a document depository.

11.8.7 In addition, Transition team of Service Provider shall undertake through the EPC Contractor training programmes imparted by Original Equipment Manufacturers, AMC service Providers and specialists Subcontractors before taking over the site to ensure the resources deployed on-site are well versed with the systems installed and their operation & maintenance responsibilities. Transition team of Service Provider, if required, shall also organize the training programmes from the Original Equipment Manufacturers, AMC service Providers and specialists Subcontractors before taking over the site to ensure the resources deployed on-site are well versed with the systems installed and their operation & maintenance responsibilities

11.8.8 Transition team of Service Provider will ensure the EPC Contractor/OEM trainings are recorded and provided on a regular interval to cover up the new joiners and also during site operation.

11.9 Personnel Recruitment and Services Commencement

11.9.1 Transition team of Service Provider shall prepare for the commencement of Operations and Maintenance services for the post project commissioning and takeover of the facilities.

11.9.2 Transition team of Service Provider shall prepare and submit a resource deployment plan to "SVP" for the service commencement in the project. This plan should include the manpower engagement plan with incremental deployment of staff and workers within stipulated timeline.

11.9.3 The deployment shall be done with prior approval from "SPV" management team and on the desire of the "SPV" management team; all key resources shall be finalized for deployment post documented approval after scheduled interviews with "SPV" management team.

11.9.4 A skeleton operations and maintenance team shall be deployed in the project under Transition team of Service Provider which will be dedicated for implementation of all processes and control documents for all systems which will be operating continuously post commissioning. This team shall be deployed till the time formal Service Provider team is on board and are provided with complete orientation and trainings for the respective system.

11.9.5 Transition team of Service Provider shall finalize engagement of all required Contractors, Subcontractors and Third party service providers for the respective multiple services under Property Management.

11.9.6 All such agreement and Contractor credentials shall be submitted to "SPV" management team for their review and approval. Any such engagement and resource deployment shall be strictly done post "SPV" formal approval is obtained.

11.10 Possession handover procedure to Occupants

11.10.1 In preparation for handover of the leasable areas of the project including buildings and land parcels, Service Provider shall coordinate with the project design team of the EPC Contractor and the Employer's Engineer/ SPV to ensure that every leasable area has been surveyed and all detailed drawings, designs and floor plans suitable for their architect / retail designer are available.

11.10.2 Service Provider shall support the SPV that all lease requirements and their control strategies have been met. Some of control strategies include the following:

- 1) Register of Occupants security deposits / bank guarantees
- 2) Register of tenant insurance certificates
- 3) Fully executed lease agreement / Operator Agreement
- 4) Register of fit-out deposits
- 5) Condition of premises at hand-over report
- 6) Register of keys provided

11.10.3 Establishment and monitoring of liability for maintenance by the Lease / Occupant / Operator Company relating to all equipment and systems provided by the "SPV" for their respective space.

11.11 Fit out Monitoring and Management procedure

11.11.1 To make certain that the quality of the Occupant's fit-outs meets the standards set by "SPV" for the project, Fit-out management team shall work with the selected architect / project manager to co-ordinate the fit-out process.

11.11.2 The tasks include:

- 1) Initial meeting with Occupants and their designer to convey "IICCL" design vision for the property
- 2) Provide necessary project details and Fit out guidelines to the occupants
- 3) Ongoing meetings with Occupants and designers to receive, then review and approve those plans
- 4) Confirm Occupants and their respective Contractors are insured and licensed as necessary
- 5) Provide Contractors with on-site rules, safety regulations
- 6) Receive Contractor's risk management plans
- 7) Issue work permits for various services including height, hot work and other risk prone work.
- 8) Receive certificates of completion and statutory authority occupation certificate and permit to trade (where appropriate)
- 9) Do final inspection of the constructed Occupant's area and provide no objection certificate post approval from "SPV" management team.
- 10) Service Level Agreements (SLAs) for the Infrastructure Services and Infrastructure Facilities to be provided to the Operator Company by SPV.

11.12 Development and monitoring of SLA

11.12.1 Service Provider shall be responsible for development and monitoring of the SLAs for infrastructure services and infrastructure facilities to be provided to the Operator Company by SPV.

11.12.2 Service Provider shall be responsible maintaining the SLAs for infrastructure services and infrastructure facilities to be provided to the operator company by SPV.

11.12.3 In case the SLAs for infrastructure services and infrastructure facilities are not maintained as per the committed SLAs by the Service Provider, any consequences to SPV, shall be the responsibility of the

Service Provider.

11.13 Preparation of Memorandum

11.13.1 Preparation of memorandum along with the Operator Company containing an inventory of the Project Facilities and the site including the vacant and unencumbered land, buildings, structures, trees and any other immovable property on or attached to the site.

11.14 Operator Company's Maintenance Manual

11.14.1 The Operator Company in consultation with SPV/ Service Provider shall evolve a repair and maintenance manual (the "Maintenance Manual") for the regular maintenance of the Project in conformity with the Safety Requirements and Good Industry Practice. The Service Provider shall provide input to SPV/Operator Company on Maintenance Manual, monitor the Maintenance Manual and make sure that the Operator company follows the documented guidelines in the Manual.

11.15 Calculation of charges recoverable from occupants for various services provided by SPV

11.15.1 As per the provisions of the Operation Services Agreement between the Operator (Kinexin) and the SPV, various infrastructure services and facilities shall be provided by the SPV on chargeable basis. The rates for providing such services by SPV to the occupants shall be as approved by the SPV.

11.15.2 The rates for providing the aforesaid services by SPV shall be worked out by the Service Provider on behalf of SPV, based on all relevant details and documents, for approval of the SPV.

12 Annexure 3 - Scope of Work (Property Management Services)

12.1 General Management Services

The Service Provider shall provide General administrative services at IICC property for the overall scope of work as described in this Service Agreement. Service Provider shall be responsible for overall management of the property and ensure smooth business function of IICCL. The broad responsibilities under this section are as follows:

- a) Operations reliability and safety
- b) Service levels and performance management
- c) Management communication
- d) Loss control management
- e) Intellectual property protection
- f) Workforce deployment, conduct and appearance

12.1.1 Operations Reliability and Safety

- a) Service Provider shall perform all activities necessary to ensure that the reliability and safety of operations meet the required outcomes
- b) Service Provider shall analyze/trend failures and incidents, determine root cause, and implement process improvements as appropriate
- c) Service Provider shall analyze equipment, systems and operations and implement processes to ensure sustainable results for maximizing operational efficiency

12.1.2 Service Levels and Performance Management

- a) Service Provider shall work in accordance with the Service level performance parameters as described in Annexure 4.
- b) The General Administration team shall ensure strict implementation and performance of prescribed Service Level Performance parameters for the overall services under Property Management of the project for each and every deliverable.
- c) The management shall ensure that all deliverables are covered under set measurable performance parameters and ensure the recording and reporting of the service levels and shall recommend to "SPV" for addition, modification or inclusion of such deliverables which are not mapped under Service levels.
- d) Service Provider shall collect data on actual performance against SLAs
- e) Service Provider shall provide Service Level performance reports to IICCL at agreed intervals in a timely and consistent fashion.
- f) The broad categorization of Service levels is provided in below table for implementation and management by Service Provider:

Sr. No	Type of SLA	Key Indicators
1	Condition-based service levels	<ul style="list-style-type: none"> • Uptime or availability of specified assets, space or utilities delivered by assets • Functionality of specified assets for users • Environmental impacts / conditions • Equipment operating parameters • Efficiency and performance based • Cleanliness or appearance of assets or areas
2	Incident-based service levels	<ul style="list-style-type: none"> • Safety incidents, accidents • Impacts to Site Operations • Violations of laws or regulations • Violations of contract terms or IICCL policies • Loss or damage to IICCL property/ complex • Unplanned outage or loss of service • Interruption or disruption to IICCL and Occupant's business activities
3	Activity-based service levels	<ul style="list-style-type: none"> • Timeliness of response to user requests • Timeliness of completion of work • Quality and Satisfaction of completed work • Frequency of routinely performed activities • Conduct and professionalism of Service Provider personnel, including professional appearance of personnel.

- g) Performance reports should furnish performance feedback on issues deemed important for moving to best in class performance, including, but not limited to:
- Safety
 - Critical systems performance
 - Compliance with legal standards, regulatory standards, and corporate policies
 - Process efficiency
 - Financial variances
 - Schedule variance
 - Productivity
 - Workload Management
 - Quality & Customer Satisfaction
 - Training
 - Pending Action/Decision/Opportunity Items
 - Incident Reports of equipment failures
 - Employee turnover of direct and indirect labor
 - Possible additional reports by discipline/functional area
- h) Clearly present performance trends, explain progress on key dimensions, and proactively suggest strategies and tactics to continuously improve the maintenance performance, cost structure, and

throughput within overall Research & Commercial managed services.

- i) Service levels and Performance Reports should be periodically reviewed with “SPV” management team to ensure that they provide the necessary information to manage performance

12.1.3 Management Communication

- a) Service Provider is to communicate effectively and in defined protocol with IICCL.
- b) Service Provider shall communicate regularly and as needed with designated IICCL personnel regarding the quality and adequacy of services, and any changes desired in service levels.
- c) Service Provider shall ensure that the MIS and reporting system is prompt and managed as per schedule and no fault shall be observed in the timelines and quality of reporting system.
- d) Service Provider shall develop an active dashboard accessible online to both where the Service Provider and the SPV can view the performance parameters of the services provided including the details of manpower deployment, major procurement, periodic O&M of equipment carried and due, AMC monitoring and due dates, areas of concern etc. The format of dashboard shall be agreed between SPV and the Service Provider and on approval updated & reported on daily basis.
- e) Service Provider shall record in writing any commitments made by either party that materially impact either IICCL or Service Provider performance, workloads, or costs.
- f) Service Provider will convey IICCL input, complaints, and suggestions in an agreed upon manner to designated IICCL personnel.
- g) Service Provider should also provide input/feedback to these suggestions or complaints.
- h) Service Provider shall adhere to the routine and periodic reporting procedure and maintain the reporting services without any deviation or fail.

12.1.4 Loss Control Management

- a) Service Provider is to minimize risks to IICCL property/complex
- b) Service Provider is to conduct work in a manner that minimizes the risk of damage, disruption or loss of service for IICCL property or assets, including property or assets the Service Provider is not directly responsible for maintaining.
- c) Service Provider is to minimize disruption to Occupants
- d) Service Provider shall ensure that planned work activities create minimal disruption and damage, including scheduled work in common areas and occupied areas.
- e) Conduct preventive activities, including, but not limited to:
 - 1) Moving or covering workspaces or property

- 2) Pre-arranging and performing work area cleanups.
- f) The Service Provider shall leave all areas in which it performs work in safe, compliant and otherwise as-found condition
- g) Undertaking regular safety tours and developing action plans to address identified issues
- h) Service Provider is to implement stop loss procedures
- i) Service Provider will carry out:
 - 1) Take immediate action to minimize further damage or disruption in instances where Service Provider activities result in unplanned disruption or damage to assets.
 - 2) Monitor external events that could have an impact on operations (e.g. wind, rain, etc.) and conduct appropriate measures to protect life/safety of personnel/site residents and protect assets.
 - 3) Notify SPV management immediately, verbally and in writing. E-mail is considered written communication for this purpose.
 - 4) Take follow-on action as required ensuring that no further disruption or repeat incident occurs.

12.1.5 Intellectual Property Protection

- a) Service Provider shall ensure that IICCL's intellectual rights are protected. This only involves data and information that the Service Provider will have access to while serving the IICC Project
- b) Service Provider will carry out:
 - 1) Comply with all IICCL Information protection Program Policies and procedures.
 - 2) Not share data and information obtained on the IICCL account with other firms.
 - 3) Not market products specifically developed for IICCL.
 - 4) Have a program to ensure that IICCL's information is appropriately stored and protected. This applies to all Service Provider systems and peripheral devices (including the protection of information that is not stored).
 - 5) Sign Non disclosure Agreements with "SPV" as per Annexure 1 and ensure that the terms and conditions of the agreement are fully maintained.
 - 6) Turn back information to "SPV" upon request.
 - 7) Confirm that data has been effectively removed from Service Provider systems.

12.1.6 Workforce Deployment, Conduct and Appearance

- a) Service Provider is to perform work using trained and qualified personnel and it's Subcontractors for the execution of the required work at the property.
- b) Service Provider will carry out:
 - 1) Maintain and produce upon request all required qualifications, licenses, certifications, training, and experience appropriate to perform the work.

- 2) Hire team supervisors and any personnel working unsupervised who are functional in spoken and written English and any other local language where applicable, and are able to communicate effectively with IICCL.
 - 3) Use “self-directed” maintenance work teams having full ownership and accountability for successful implementation of the maintenance program where appropriate.
 - 4) Adhere to IICCL requirements regarding the use of uniforms, Personal protective gears and equipment as required by job description
- c) Service Provider is to observe and report problems or unusual conditions in facilities
- d) Service Provider will carry out:
- 1) Promptly and accurately report any observed problems or unusual conditions per site escalation policies encountered in the course of performing work at IICCL, even if such deficiencies fall outside the individual’s craft area or the SOW.
 - 2) Promptly respond to any unusual conditions identified by IICCL personnel in the course of conversation.
 - 3) Promptly report unsecured spaces, doors or windows, damaged assets, potential health or safety hazards, suspicious persons or signs of unusual activity to appropriate IICCL entity
- e) Service Provider is to ensure employment eligibility of its personnel
- f) Service Provider will carry out:
- 1) Ensure that all Service Provider personnel and Subcontractors are eligible for employment.
 - 2) Conduct verification of employment eligibility for Service Provider personnel, including all new hires and random sampling annually in multiple locations.
 - 3) Perform background checks on all Service Provider personnel, including all new hires
 - 4) perform drug testing on those Service Provider and Contractor personnel for which reasonable doubt, complaint or probable cause has been determined.

12.2 Customer Relationship Management

12.2.1 Customer relations, welfare & facilitation:

- a) Interaction with Occupants including keeping log of all suggestions, issues or complaints and their closure or rejection, feedbacks from Occupants on all such closure or rejection.
- b) Establish & operate helpdesk and mailroom operation.
- c) Coordination & facilitation of Occupants’ move-in.
- d) Facilitate for material handling, ingress, storage, deliveries, egress.
- e) Coordinate with Occupants and facilitate them for managing external support services and Common Area services in case of Business events within IICC premises,

12.2.2 Customer Request Management

- a) The Service Provider will provide best-in-class customer request management.
- b) Tasks to be provided include Coordination and Planning with Customers:
 - 1) Maintain a high level of communication throughout the life of a project, work order, etc.
 - 2) Determine and communicate project schedules and estimated work order closure dates.
- c) The Service Provider will perform Needs Assessment and shall ensure to:
 - 1) Perform assessment upon work order receipt to document the needs of the Customer.
 - 2) Offer work plan alternatives (when applicable) to provide appropriate options for the Customer.
- d) Complaints and Work Order Management:
 - 1) Track all incoming requests, complaints and issue tickets / work orders from open to close.
 - 2) Communicate with customer throughout life of the Work Order.
 - 3) Maximize resources to perform work on established and agreed upon schedule.

12.2.3 SPV and Occupant Relations

- a) Service Provider shall act as liaison between SPV and Occupants on IICCL's behalf for activities and engagements related to leased properties for:
 - 1) lease/sub-lease activities and communications
 - 2) related to sundry items/work order requests
 - 3) Communicate problems/issues to the "SPV" and occupants
 - 4) Provide expense reports for work provided for Occupants for billing purposes
 - 5) Monitor and coordinate for compliance management which is in scope of Occupants and ensure enforcement of such compliances.

12.2.4 Help Desk and Complaint Call Center Management

- 1. Service Provider shall manage Help Desk and Compliant Call center with internet, email, and phone access to handle all incoming service requests.
- 2. The Service Provider shall provide, operate and maintain Certified Helpdesk tool including configuration/ reconfiguration/ upgrade / update and necessary licenses as applicable for managing the Help Desk services inside the property.
- 3. Help Desk and Compliant call center must be operational 24/7. Help desk shall log and route all complaints to designated departments such as Maintenance, IT support and Security Command Center.
- 4. Service Provider shall ensure that the resource managing the Help Desk has ability to converse in English and Hindi languages as may be necessary to facilitate the users.
- 5. Service Provider will be required to manage the help desk services and will carry out:
 - Establish how call center will be staffed.

- Maintain an effective program to properly process and route all incoming requests and preventive work orders to the appropriate support personnel and responsible subcontracted vendors.
 - Maintain an accurate, up-to-date list of who needs to be called for different types of requests.
 - Receive and handle service requests.
 - Maintain at all times a professional and courteous manner when receiving requests from customers and forwarding information to the various service units.
 - Ensure service requests are logged into the work order system.
 - Reconcile and close out all work orders and implement follow-up actions for work orders that are deferred.
 - Ensure service requests are completed in accordance with agreed to response times.
 - Keep customer informed as to when service will be performed and completed.
 - Must be able to activate emergency procedures on 24/7 basis.
 - Keep open lines of communication with Security in order to ensure proper emergency/escalation procedures and communications and response actions.
 - Produce call center reports showing types of calls, number of calls, response time, task completed, tasks deferred, etc.
 - Analyze call center reports to identify trends and recurring problems and implement measures to reduce the number of future occurrences
6. Service Provider shall maintain Recording and Reporting system and ensure that:
- all Help desk logs and reports are maintained for Daily, weekly, fortnightly, monthly, bi monthly, quarterly, half yearly and annually.
 - all serviced, declined and open tickets are tracked and the turnaround time for responses is maintained for MIS and reporting.
 - a written record of all audit & inspections of the overall system and equipment and to present it to SPV management team.

12.3 Compliance Management

12.3.1 IICC Complex operate under and in full compliance with relevant regulatory requirements, IICCL guidelines and procedures. The broad classification of compliances under management are as follows:

- a) Design and Drawings related
- b) Building Related Compliances
- c) Labour and Workplace related Compliances
- d) Registration and Certification for Operation
- e) Occupants compliances for Operation and Establishments
- f) EHS and Fire Safety related compliances

12.3.2 The Service Provider has been provided a detailed list of General and other applicable Compliances to be maintained for the property as Annexure 10.

12.3.3 The Service Provider is expected to be familiar with, comply with, and support SPV management in complying with these requirements and identify & maintain any other additional applicable Compliance requirement.

- a) Compliance Record upkeep (as-built drawings, statutory approvals, certificates, receipts & alike)
- b) Conformance to Insurances, Taxes and alike obligations, Payment of dues to authorities.
- c) Manage third party certification of all Equipment and check, third party inspections, audits, licensing from authorities as applicable & ensure all licenses / permits are valid.
- d) Compliance to local, state or national byelaws / codes, laws, statutes, guidelines, notifications as applicable for operation of Building / Society / Association, tracking, Incident reporting, including but not limited to the Labour Laws, Health Safety & Environment, Environment Protection, Hazardous Waste generation/storage/disposal, Prohibition of Drug/Alcohol/Smoking, No-obstruction to government official, No Encroachment, Municipal guidelines/taxes/charges, Intellectual Property copyright / trademark etc.
- e) General watch, surveillance within the premises for any changes from approved building plans (as-built drawings), facades, for encroachment on common areas or changes to façade and alike. And general watch, surveillance of periphery of the premises, which is affecting or being affected by occupation, operation or maintenance.
- f) Preparedness for taking necessary steps for statutory inspections at specified intervals.

12.3.4 The Service Provider shall manage, apply and maintain all compliances through its experienced and efficient onsite team and no additional cost for external consultant shall be provided. The cost related to fee and premiums for taking such insurances shall be pass through cost and will not be covered in the Service Provider's operating cost.

12.4 Environment, Health and Safety Management

The Service Provider will prepare and submit an EH&S Plan / Manual for approval of "IICCL" and work to maintain and develop IICCL's EH&S programs and ensure full EH&S compliance for the project.

In addition to above, the Service Provider shall monitor the surveillance and safety programme developed by Operator Company in consultation with SPV/ Service Provider for providing a safe environment on or about the Project within 6 (six) months of "COD".

The deliverables under this section include:

12.4.1 Safety Program Management

- a) Service Provider is to ensure EH&S requirements are followed and their staff and Subcontractors have received the appropriate training and certifications.
- b) Provide training records, licenses, and certifications to SPV management immediately upon request.

- c) Service Provider will oversee compliance of all Service Provider personnel, as well as third party Subcontractors performing work on site including the Contractors and Subcontractors working inside the Occupant's space under Fit out period or any notified project activity.
- d) Safety Programs to be conducted by Service Provider include but are not limited to:
 - 1. Hoists, cranes, jibs, slings and rigging equipment
 - 2. Aerial Lift Program
 - 3. Line Breaking Program
 - 4. Forklift Program
 - 5. Electrical safety program
 - 6. Lock Out / Tag Out Program
 - 7. Arc Flash program
 - 8. Confined Space Program
 - 9. Work at heights safety programs
 - 10. Work alone programs and policies
 - 11. Spill Response program
 - 12. Safety Committee
 - 13. HAZMAT (Hazardous Material Management) Training Program
 - 14. Radioactive and X-ray equipment for Security Systems
- e) Service Provider is to ensure that:
 - 1. Hazardous material handling and controls are followed.
 - 2. Revision or development of processes, instructions and training materials
 - 3. Ensure employees properly trained for safe handling
- f) Designate specific Service Provider personnel as process participants and ensure appropriate training requirements are met
- g) Ensure testing, containment and abatement equipment are properly tested, inspected, and maintained
- h) Monitor program effectiveness and compliance by Service Provider personnel and third-party vendors

12.4.2 Environmental Compliance Management

- a) The Service Provider will conduct its activities in a manner consistent with IICCL's environmental policies and good corporate citizenship.
- b) Service Provider is to provide environmental training.
- c) Service Provider shall ensure and comply to Environment clearance granted to IICC. All the compliance reports as per the Environment clearance granted to IICC shall be prepared as mandated and submitted to the statutory authorities as and when required.

- d) Service Provider will ensure their personnel who operate assets or handle materials (e.g., chemicals, trash) that may create environmental incidents are properly trained, including all specific training required for environmental permits.
- e) Service Provider is to identify and mitigate environmental risks and maintain a risk register.
- f) Service Provider is expected to comply with local, state and central regulations with regards to environmental compliances.
- g) Developing and implementing procedures for identification and containment of environmental incidents, including but not limited to:
 - 1. Chemical spills or leakage
 - 2. Unfiltered emissions
 - 3. Wastewater discharges out of specification
- h) Develop and implement procedures for identification and containment of major hazards relating to the Statement of Work.
- i) Ensure that EH&S related work orders and directives to be performed by the Service Provider are addressed with appropriate prioritization.
- j) Ensure environmental sampling and analysis program is adhered to, routine reports are filed, and notifications are made.
- k) Conducting emergency responses to mitigate and contain any environmental incident occurring on IICC premises, whether first identified by the Service Provider, SPV management or a third party.
- l) Conduct odor and chemical spills investigations as required.
- m) Conduct root cause analysis of environmental incidents and implementing or recommending effective measures to prevent recurrence.
- n) Handle hazardous waste by following proper legal requirements and dispose of per specified IICCL standard disposal methods and legally approved ultimate disposal sites.
- o) Ensure all permit requirements are met.

12.4.3 Safety Implementation and Controls

- a) Service Provider is to strictly observe safety procedures and policies. Service Provider will carry out:
 - 1. Ensure compliance with applicable EHS operating requirements.
 - 2. Maintain necessary documentation and respond appropriately to deviations.
 - 3. Provide regulatory prescribed EHS training.
 - 4. Strictly observe all defined safety procedures applicable at IICC premises.
 - 5. Plan, procure and provide all safety equipment required to perform work under Property Management related work at IICC in accordance with the risk assessment for the specified activity, including but not limited to hard hats, safety glasses, safety shoes, protective clothing,

- gloves, and respirators, hearing protection, fall arrest equipment and other equipment.
 - 6. Conduct PPE hazard assessments, Workplace Health surveys, ergonomic reviews, job hazard analysis, and other job/task evaluations.
 - 7. Ensure employees utilize PPE as required.
 - 8. Conduct safety tours and participate on site safety committees per site frequencies and practices.
- b) Service Provider is to identify and correct safety hazards. Service Provider will carry out:
- 1. Conduct regular safety and housekeeping inspections for areas relating to the SOW, and address identified issues through action tracking processes to help ensure safe/compliant operation.
 - 2. When unsafe conditions or activities are observed or reported by a third party, confront, rectify, and/or report.
 - 3. Conduct effective Service Provider safety meetings on a regular basis. Conduct root cause analysis of safety incidents and implement or recommend to "SPV" management for effective measures to prevent recurrence.
- c) Service Provider is to report incidents and investigate. Service Provider will carry out:
- 1. Investigate violations and prepare corrective action plans when requested, including temporary or permanent removal of violating employees from the site if appropriate.
 - 2. Utilize established disciplinary process in a consistent manner to reinforce EH&S requirements.
 - 3. Promptly report all accidents, incidents, and near misses involving Service Provider personnel to SPV in writing within the agreed upon time frame. Where required by laws and regulations, report accidents, incidents and near misses to the proper agencies.
 - 4. Bear all costs incurred as a result of the incident and those associated with corrective action plans if a violation is found to be the result of negligence on the part of the Service Provider.
- d) Service Provider is to provide safety training to Service Provider personnel. Service Provider will carry out:
- 1. Ensure completion of a basic safety training and orientation program, as approved by SPV and required by regulations, prior to issuing a Contractor badge.
 - 2. Service Provider shall ensure that appropriate training has been provided to all Service Provider personnel, Contractors, Sub- Contractors and Third-party vendors before the commencement of the work.
 - 3. Maintain and produce appropriate record and certifications upon request
 - 4. Have equipment certified when using any type of respiratory equipment as per OSHA, HAZWOPER requirements).

12.4.4 Legal and other Regulatory Compliance Management

- a) Service Provider shall comply with all government laws and regulations. Service Provider shall:
- 1. Comply with all applicable laws, rules and regulations including equal opportunity laws, EHS laws, and related rules and regulations.

2. Provide access to Service Provider's systems if there are any legal activities (e.g., legal hold internal audit) to allow for data extraction of IICCL specific data (inclusive of system audit logs) to support legal and/or audit efforts.
 3. Immediately correct any work and replace any materials or equipment furnished by Service Provider that do not comply with applicable laws, rules and regulations at its own expense.
 4. Take immediate action to desist and remedy any violation related to applicable ISO Standards, identified for which the Service Provider is responsible to adhere, and observes during the course of its services.
- b) Service Provider is to ensure safe and legal vehicle operation. Service Provider shall:
1. Adhere to all transport authority regulations concerning driver and vehicle safety.
 2. Ensure adequate training and certification for the use of forklifts, scissor lifts and other elevated platforms as per IICCL standards and specific requirements/regulations.
 3. Assume full responsibility for all incidents or accidents involving vehicles operated by its personnel, whether or not they take place on IICC property.
 4. Obtain proper parking permits and stickers to all vehicles that enter permit areas.
 5. Promptly notify SPV management of any incident involving loss, damage or injury to IICC property or personnel arising from operation of vehicles. Document the nature and cause of any such incidents.
 6. All Service Provider personnel required to drive vehicle in IICC property must complete vehicle safety training, Authorized License as applicable and comply with a vehicle safety program.

12.5 Emergency Services and Disaster Management

The Service Provider shall maintain and develop IICCL's Emergency services and Disaster management programs and ensure full implementation and compliance of these services in the project. The deliverables under this section includes:

12.5.1 Emergency Response Planning

- a) Service Provider is to provide emergency response planning and preparation. Service Provider shall:
1. Work with the appropriate engineering, life safety, and maintenance personnel for the development and implementation of the Emergency and Disaster Management Manual and all its components, designed for the specific property and property type.
 2. Service Provider shall adhere to the Emergency and Disaster Management Manual, which will include following listed major components
 - Building(s) Security Plan;
 - Building Life Safety System Plan and Emergency Preparedness Plan;
 - Life Safety and evacuation Plan for all eventualities
 3. The Emergency and Disaster Management Manual should be routinely reviewed and updated as circumstances in the market dictate and should support regularly schedule semi-annual re-assessment inspections
 4. Work with inter functional teams and others as required to document processes, staffing and

training requirements for emergency response.

5. Ensure that emergency response personnel contact information is current, accurate and widely distributed.
6. Provide training and certifications for all Service Provider personnel with emergency response-related duties.
7. Store up-to-date backup copies of critical documents such as project layouts, Occupant Area layout and evacuation plans, system diagrams and other critical information in a secure location where they can be readily accessed should primary materials be unavailable.
8. Participate fully in exercises, equipment tests and drills related to emergency action plans.

12.5.2 Emergency Response Support

- a) Service Provider shall establish and deploy fully trained and certified manpower in the Disaster Management Command Center for managing all services defined under this section of scope of work.
- b) Service Provider is required to respond to project emergencies 24 hours a day, 365 days a year including, but not limited to routine facility failures, alarms, issues, force majeure events, or other situations that fall outside the scope of this Agreement.
- c) The Service Provider will play a number of important roles in emergency situation management and providing responses such as:
 1. First responder
 2. Planning and preparation
 3. Post-event analysis
- d) Service Provider is to support evacuation of affected premises. Service Provider shall:
 1. Respond to emergencies / alarms in accordance with training
 2. Support rapid, orderly and complete evacuation of IICC premises when an alarm occurs or an emergency condition has been reported. In case of adverse weather, direct people promptly to appropriate shelter areas.
 3. Manage pedestrian and vehicle traffic; cordon off potentially affected areas as required for the duration of the emergency.
- e) Service Provider is to support emergency responses. Service Provider shall:
 1. Ensure Service Provider personnel are available to receive and respond to calls "SPV" management Personnel as required in the event of emergencies or like conditions for 24 hours-a-day, 365 days-a-year emergency/ urgent response.
 2. Jointly own and work with SPV management on site emergency procedures.
 3. Use, develop, and improve detailed action plans that list all steps in case of emergency, by system and by service utilities.
 4. Participate on confined space rescue teams.
 5. Provide site-specific knowledge and technical services to emergency response personnel, including Occupant's employees and specialty Contractors.

6. Identify building specific issues (e.g. hazardous chemical storage and piping locations). This includes rapid provision of site drawings upon request.
7. Isolate water, Gas, HVAC and electrical systems, if possible from locations outside affected areas. Service Provider personnel will only enter affected areas when properly equipped and protected, and only when escorted by emergency personnel.
8. Contain and or mitigate affected areas as required.
9. Assist emergency responders with building access and egress, and with building navigation.
10. Removing debris and obstructions using available equipment.

12.5.3 Emergency Medical Support

- a) In case of medical emergency, ensure that emergency services personnel are able to reach the affected person(s) without delay.
- b) Service Provider shall manage and deploy skilled staff at Disaster Management Centre building with fire station and medical centre. The medical center is provided with 8 bedded medical facilities including a nursing room and a consultation room.
- c) Service Provider personnel deployed at Disaster management centre building are obliged under this Agreement to be trained in, or to render, first aid. Service Provider personnel will obtain medical training as necessary to comply with applicable ISO Standards.
- d) Adequate functional medical first aid kit, stretchers/wheelchairs will be kept at each location. The kits will be inspected and replenished as required. Service Provider staff to be trained in providing emergency first aid and CPR at each location.
- e) Record all pertinent data pertaining to the emergency and file an emergency condition report immediately after incident.

12.5.4 Business Continuity Support

- a) Service Provider is to support business continuity and return to normal operations for the Project Facilities and Occupants' operation.
- b) Service Provider will support the business continuity plans to all Occupants in case of emergency and provide operational support to support the return to routine business, including interim workaround plans.

12.5.5 Audits, Inspections and Reporting

- a) A detailed Emergency and Life Safety Services Audit will be performed and documented bi-monthly for all Common areas and Occupied Area inside the IICC property, utilizing the appropriate security and Life Safety Audit checklist.
- b) Life Safety Equipment should be inspected on a monthly basis and written documentation of the findings should be maintained in a secure file.

- c) Carrying out safety audit of Occupied Area in accordance with the Safety Requirements at most once every 3 (three) contract years after COD.

12.6 Quality and Sustainability Management

The Service Provider shall provide Quality and Sustainability management services and ensure full implementation and compliance of these services in the project. The deliverables under this section include:

12.6.1 Quality Management Programs

- a) The Service Provider will manage and ensure Operation and Maintenance activities are in line with the minimum operating standards as per applicable ISO Standards.
- b) Service Provider will develop, maintain and operate a well-documented quality management system (QMS) for IICC property.
- c) This QMS shall comply with the following Standards:
 - ISO 9000 family - Quality management
 - ISO 41001:2018 - Facility management
 - ISO 14000 - Environmental management
 - ISO/IEC 20000-1:2018 - Information technology - Service management
 - ISO/IEC 27000:2018 - Information technology - Security techniques - Information security management systems
 - ISO 45001:2018 - Occupational health and safety management systems - Requirements with guidance for use
 - Any other relevant internationally recognized Standards of the industry sector. Compliance of security regulations defined by Government of India or any other Govt. Authorized Agency.
- d) Service Provider will prepare detailed quality plans for all major service lines that as a minimum will define:
 - 1. objectives and requirements for Services
 - 2. quality assurance methodologies, including verification, inspection and testing
 - 3. the type, structure and substance of records to show that objectives and requirements are being met.
- e) Service Provider is to ensure activities for Quality Certification process and its maintenance thereafter. Service Provider will carry out:
 - 1. Current state assessment of processes, technologies, skills and operations
 - 2. Gap analysis and recommendations for improvement based on Guidelines and system requirements

3. Design and development of new/modified policies/ processes
 4. Training of operating personnel on processes
 5. Handholding the operating personnel for audit readiness
 6. Certification
 7. Support for the entire contract duration
- f) It is the responsibility of Service Provider to get fresh ISO certificates for the project and renew the same till the Agreement End Date.
- g) For the maintenance of these certifications, the Service Provider is required to adhere to all the policies and ensure documentation and maintenance of reports as required for maintaining the certification. Service Provider will be:
1. responsible for operating, monitoring, reviewing, maintaining and improving the services at the project till Agreement End Date.
 2. conduct periodical Quality Audits as stipulated to ensure that services are compliant with the quality plans, and should there be any issues, Service Provider will deliver and implement an action plan addressing all non-conformances identified.
 3. coordinate with authorized certifying agencies for maintaining the continuity of the certifications and receive the continuity certificates from authorized certifying agencies till the end of the project period.
 4. correspond with and provide all relevant information to the certifying agencies for the purpose. All the cost towards maintenance and for new/continuity/extension of the certificates will be borne by the Service Provider for the entire project.

12.6.2 Sustainability and Green Building Management

- a) The Service Provider will manage and ensure all sustainability initiatives and programs implemented at the IICC property. Programs include, but are not limited to:
1. Energy efficiency / reduction programs
 2. Waste reduction programs
 3. IGBC certifications including renewal
 4. Alternative energy program initiatives or projects
 5. Carbon footprint assessment and reduction
 6. Provide waste and recycling reporting and statistics
 7. Composting of vegetative landscaping waste materials and food service waste
- b) The broad detail of Green Sustainability implemented at the project are as follows:
1. IGBC Platinum rating Green Campus
 2. Bioclimatic architectural design with solar passive architectural design features
 3. GRC grits as sunshade design element on building façade
 4. Glass skylights on roof for diffused sun light and air funnels for wind in the foyer area
 5. Terrace pathways of all the building / structures such as Convention Centre, Exhibition Halls 1 & 2, Foyers 1 & 2

6. Green Roof (terrace gardens), planters of buildings / structures such as Convention Centre, external toilets, exhaust air towers, fresh air towers, fan rooms, mummies over Convention Centre car park, entries & exits of Service Gallery etc.
 7. Solar panels with photo-voltaic cells on terrace at Convention Centre and Foyers 1 & 2.
 8. 100% wastewater reuse, and water efficient plumbing fixtures will be used to reduce the overall water demand of the complex
 9. High energy efficient light fixtures with LED and solar lighting for street lighting
 10. Electric shuttle buses/carts service within complex
- c) The Service Provider shall manage, monitor and record project specific data for maintaining the IGBC Platinum Rating of the entire campus by following the Green Building norms as laid down by IGBC.
- d) These services include but are not limited to:
1. Energy Data Monitoring:
 - Service Provider shall maintain logs and records of the electricity consumption on daily basis.
 - A comparative statement of the consumption data should be published on monthly basis the baseline figures as used in the energy simulation, monthly.
 - Red flags to be raised and tickets issued to the inter functional teams in case the deviations are more than 10% from the baseline.
 - The same analysis is to be done for HSD and PNG consumption. Logs are to be maintained daily for monthly reporting, with a detailed audit planned at the time of recertification.
 2. Water Data Monitoring:
 - Service Provider shall maintain logs and records of water consumption on daily basis.
 - A comparative statement of the consumption data should be published monthly basis the baseline figures as used for initial submissions, monthly.
 - Red flags to be raised and tickets issued to the inter functional teams in case the deviations are more than 10% from the baseline.
 - The same analysis shall be done for recycled water, treated water, rainwater harvested, potable water, consumption for chillers, consumption for gardening and flushing. Logs are to be maintained daily for monthly reporting, with a detailed audit planned at the time of recertification.
 3. Waste Management:
 - Waste in the form of paper, plastic, organic, glass, e-waste, metal and mixed are monitored daily and compiled monthly.
 - Recyclable waste is to be ensured that it is sent to the right vendor in exchange of usable credits, by the Property Management Agency.
 - Logs shall be maintained daily for monthly reporting, with a detailed audit planned at the time of recertification.
 4. IEQ Management:

- Indoor Environment Quality shall be constantly monitored and maintained w.r.t. all 5 parameters – thermal comfort, lux levels, indoor noise, indoor odour, and air quality.
 - Red flags to be raised and tickets issued to inter functional teams in case the occupants report discomfort, or in case the daily test results show unacceptable levels as per green building norms.
 - Logs are maintained daily for monthly reporting, with a detailed audit planned at the time of recertification.
 - Maintain air quality of all underground parking areas by detecting Carbon Monoxide (CO), Carbon Dioxide (CO₂) and Sulphur Dioxide (SO₂).
5. Training & Development
- Regular Training and Development modules of various stakeholders – operations and maintenance / property management teams, new projects ideation teams, teams involved in direct and indirect operations of the building, shall be planned and executed for a frequency of at least once a month.

12.7 Financial and Accounting Management

The Service Provider shall provide Financial and Accounting management services and ensure full implementation and compliance of these services in the project. The deliverables under this section include:

12.7.1 Budgeting, Accruals and Forecasting

- a) Service Provider shall:
1. Provide annual estimate of fixed and variable costs for all services under the scope of the contract as requested by IICCL to support the annual planning process.
 2. Provide separate annual Common area maintenance expenses calculations basis actual spend and inflation analysis.
 3. Provide estimated costs of unbilled services to ensure IICCL accruals can be made in accordance with generally accepted accounting principles.
 4. Maintain accurate and updated records of expenses.
- b) The Service Provider will deliver services to ensure financial information is properly tracked, monitored, and reported.
- c) Service Provider will provide SPV management with an estimate of unbilled services on a monthly basis to support appropriate accruals in accordance with generally accepted accounting principles.
- d) Service Provider will forecast remaining annual spend for both fixed and variable costs on a periodic basis.
- e) In order to support the annual IICCL Capital Planning process, the Service Provider will have a thorough understanding of capital project requirements and shall develop short and long-term capital plans based on the life-cycle asset management program for capital projects.

12.7.2 Debtors Management

- a) The Service Provider is required to track, invoice and forecast expenses for services provided to the Occupants of the project under the contract with "SPV" on an annual and monthly basis to support IICCL's budget and forecasting processes.
- b) Service Provider in connection to the services performed for Debtors relation will:
 - 1. Raising Debit notes / Invoices for all charges to be paid by the licensee/ Occupants / Retailers/ Customers/ external suppliers etc. of the project for services rendered on a periodic basis as per the billing agreement with SPV.
 - 2. maintain complete and accurate records of, and supporting documentation for, all amounts invoiced to and payments made by customer
 - 3. ensure the timely Billing and Recoveries of lease rent, common area maintenance (CAM) charges, charges for various infrastructure services and facilities provided by SPV on monthly basis.
 - 4. act as First point of contact for all internal & external customers and users requiring interaction on financial matters related to IICCL and liaison on all financial matters on behalf of "SPV".
 - 5. escalate issues and discrepancies in the billing and collection or breach of contractual term by occupants to "SPV" on high priority basis.
 - 6. maintain billing and collection records and prepare aging reports for outstanding payments and follow-up with the concerned parties for clearance of outstanding amounts as per contractual obligations.
 - 7. provide reconciliation and ledger reports to "SPV" and occupants on request for accounting purpose.
 - 8. generate and monitor the tax deduction reports and submit to "SPV" on regular intervals.

12.7.3 Creditors Management

- a) Service Provider in connection to the services performed for creditor relation will:
 - 1. maintain complete and accurate records of, and supporting documentation for, all fees and expenses invoiced to supplier by subcontractors or by third parties and billed to "SPV" on a pass-through basis (if any)
 - 2. maintain complete and accurate records of, and supporting documentation for, all fees and expenses invoiced by Service Provider to "SPV" under the terms of this agreement and for the services provided in addition on a case-to-case basis (if any).
 - 3. for all manpower related invoicing, ensure all statutory compliances related to ESIC, EPF, contract labour welfare funds, leave and other benefits are maintained, and all periodic reports and returns are provided along with the invoice for processing.
 - 4. track and monitor unit usage for any services priced on a per-unit basis

5. Maintain invoicing and payment records and prepares aging reports for outstanding payments and coordinates with the "SPV" for clearance of outstanding amounts as per contractual obligations.
6. provide reconciliation and ledger reports including No dues certificates and NOC from all debtors including Service Provider itself to "SPV" on regular basis for accounting purpose.
7. generate and monitor the tax deduction reports and submit to "SPV" on regular intervals.

12.7.4 Banking Services Management

- a) Service Provider shall provide following services under Banking Service management:
 1. Deposit all collections in form of cheque and draft in the bank account of "SPV" within 24 working hours of bank.
 2. Coordinate with bank and prepare bounced and uncleared cheque reports and submit to SPV periodically.
 3. Deposit bank guarantees against contractual obligations by Occupants/Suppliers/Service Providers to the SPV or in Bank (as the case may be) and maintains a record for validity and amount and submits the same to SPV periodically.
 4. Generate reconciliation report on weekly basis for all inward and outward transactions in coordination with Bank and submit the report to SPV periodically.

12.8 Procurement, Contract, Insurance and Inventory Management

12.8.1 Procurement Management

- a) Service Provider under the procurement management services shall:
 1. Prepare Procurement manual and general guidelines for establishing the procurement policy, classification of procurements to be done between procurements done by "SPV" under government tendering process and Service Provider.
 2. In consultation with & prior approval from SPV management, will be responsible for all procurement related activities under this agreement.
 3. Ensure that all contracts covered under this scope of services should deliver the best value for money for IICL and are well within the approved / forecasted budget for the financial year.
 4. follow applicable forecasted service unit usage with IICCL prior to execution of annual purchase orders
 5. Provide status of spend against PO amounts and reported on a routine basis by Service Provider.
 6. Provide cost benchmarking & cost benefit analysis for all such activities as required.
- b) Service Provider will be required to procure and/or source appropriate Contractors and vendors to perform the works outlined within this scope of work & where necessary, on behalf of "SPV", in line with defined purchase procedures & due-diligences. All such procurements shall be made through the tendering process or Government e marketplace (GeM) portal/or any other portal/process as approved by SPV.

- c) Service Provider must ensure following key criteria are met while executing any procurement activity:
 - 1. Each sourcing meets the stipulated procurement guidelines
 - 2. Benchmarking & cost benefit analysis is carried out.
 - 3. Periodically review all contract SLA's for assessing performance levels
 - 4. Meet with all suppliers at least on a monthly basis to discuss performance levels
 - 5. Recommend methods to improve efficiency and achieve additional savings
 - 6. Track each service to ensure timely renewal of existing contracts.
- d) Service Provider is required to ensure all suppliers working on site perform their works in accordance with the local statutory regulations including the ones which apply to the environment, health and safety.

12.8.2 Contracts Management

- a) Service Provider shall manage and maintain:
 - 1. All legal documents related to IICCL operations i.e. Agreements with Occupants, Letter of Intent, Leave & License agreement, addendums, common area maintenance (CAM) agreements etc.
 - 2. all contracts and agreements between suppliers and service providers engaged in the services at IICCL property
 - 3. Copy of all Purchase orders, work orders, RPF and other procurement and services related control documents.
 - 4. Provide necessary automation for document repository and digitalization of data required for any/all of the above-mentioned activities to ensure accuracy, reporting efficiency & effective tracking of all related services, financial & legal documentations.

12.8.3 Insurance and Claims Management

- a) Service Provider shall manage and maintain all Insurances related to the property and shall:
 - 1. Maintain all Insurances to be obtained by Service Provider at it's own cost for providing the services in the IICC property related to Contractor's risk, Personal injury or death for its personals and Third Party Liability Insurance.
 - 2. Facilitate to apply and arrange with its existing manpower all necessary details and documents for obtaining all Insurance's required for the property where the Policy owner and beneficiary is SPV, such as:
 - (i) loss of or damage to the Works, Plant and Materials;
 - (ii) loss of or damage to Equipment;
 - (iii) loss of or damage of property (except the Works, Plant, Materials and Equipment) in connection with the project
 - 3. Coordinate and take full responsibility for renewals, Claim registrations, Post incident surveys and Claim management on behalf of SPV and apprise SPV for any support as may be required

from case to case basis.

4. Manage all services through its experienced and efficient onsite team and no additional cost for external consultant shall be provided. The cost related to fee and premiums for taking such insurances shall be pass through cost and will not be covered in the Service Provider's operating cost.
5. Maintain provide necessary automation for document repository and digitalization of data required for any/all of the above-mentioned activities to ensure accuracy, reporting efficiency & effective tracking of all related services, financial & legal documentations.

12.8.4 Inventory Management - Consumables and Spares

- a) Service Provider shall be provided with the designated space for creating stores to stock and manage the spares and consumables for managing and performing all kind of Operations and maintenance programs within the property.
- b) The material and consumables for the Operation and Maintenance services shall broadly include but not limited to consumables for Engineering routine maintenance activities, Janitorial Services including cleaning, Housekeeping, Pest Control, Disinfecting and Sanitization, Waste Management and the like described in the detailed scope of work for Property management.
- c) All consumable materials and other related items shall be provided by the Service Provider as per the site requirement to suffice the minimum Service levels and adequacy levels.
- d) Service Provider shall ensure that all attic stock and spares provided by the EPC Contractor/OEM during the handover of systems is stocked in the designated stores within the property and a record for all such items is maintained efficiently.
- e) The Service Provider shall assess the quantity of consumables to be used for the purpose of Operation and maintenance and other services in advance and ensure the adequacy of inventory and proactively procure them in advance on fortnightly/ monthly basis and store them at designated stores.
- f) Service Provider shall ensure that all consumables used for performing the services shall strictly comply with the Safety and Environmental compliances considering the use of ecofriendly and minimum ISO standards.
- g) The minimum requirement of such consumables is described in Annexure 6 and Service Provider shall add to the list basis its methodology for managing the services.
- h) The cost of such consumables shall form part of the agreed fee for Property management services and no additional cost shall be provided by SPV to the Service Provider. The cost of such consumables shall be subject to verification basis the quantity actually used supported by the actual delivery Challans / invoices and product quality certificates.

- i) Service Provider shall be fully accountable and responsible for ensuring the availability of engineering spares and critical spares to be maintained at site under its direct Operation and maintenance responsibilities. All critical spares related to systems covered under Annual maintenance contracts shall be stocked at site with a minimum quantity level based on the AMC Contractor's capability to arrange such spares and turnaround time within the specified time to rectify or repair systems which are critical for the functioning of the property and in line with the agreed to terms and conditions by the AMC Contractor.
- j) The Service Provider undertakes and warrants that the parts, materials and components purchased and supplied under this Agreement shall be ideal and suitable for the purposes for which the same have been used. All parts used during course of the Services shall be brand new and from the original manufacturer only. Where these parts are not available, subject to furnishing adequate proof of such non-availability, the Service Provider may procure/ supply brand new parts from another manufacturer which should not be of a kind that are not acceptable for maintaining the quality of Services required under this Agreement.
- k) All the material brought to the site shall be duly accounted and managed by the Service Provider and all critical materials shall be insured against loss due to any reason whatsoever. Proof regarding this supported by the copies of the requisite document shall be regularly submitted to the Representative appointed by the SPV. The SPV may summon the complete record of the Inventory, Store records and procurement of materials from the Service Provider at any time if needed.
- l) The material procured by the Service Provider shall be strictly according to the specification of that material conforming the EPC Contractor/OEM recommendations, minimum ISI / CE standard or any other approving authority as applicable.

12.9 Project Coordination and Fit out Management

12.9.1 Project Coordination

- a) Service Provider shall:
 - 1. Interface with "SPV" Project Management and EPC Contractor teams engaged by "SPV" during project development phases of IICCL
 - 2. Support coordination efforts as it relates to projects (e.g. taking fire alarm systems out of service, obtaining occupancy certificates, etc.)
 - 3. Ensure all required approvals, certifications, operating manuals, etc. are transferred to Service Provider upon completion
 - 4. As required manage small projects

12.9.2 SPV requested Specialty Projects

- a) Service Provider shall execute Facility Enhancement specialty projects as requested by SPV where:
 - 1. The Service Provider may be asked to perform Capital or Expense projects. The decision to assign these will be on a case-by-case basis at mutually agreed cost.

2. The Service Provider will be expected to manage these projects. "SPV" has the right to exclude Service Provider from the management or execution of any Capital or Expense project.
- b) Service Provider shall realize small projects comprising of minor repairs or improvements of existing items that meet the following criteria:
1. Do not require third party review and/ or approval, including, but not limited to engineering, layout, or coordination by the Service Provider.
 2. Signatures required for compliance to work control processes do not constitute third party review.
 3. Cannot affect documentation including layout or project capacity
 4. Do not require Service Provider to provide specialty or "long lead-time" items.
- c) Service Provider shall provide technical assistance and evaluations, and as such:
1. Provide planning, design and construction estimates to support SPV management in its plan budgeting cycle preparations and management presentations.
 2. Conduct feasibility studies on requested work. Provide schematic designs and statements of work to assist Customer in project programming.
 3. Provide reviews of work orders, project requests, and construction documents prepared by external Contractors for compliance with codes and standards. Documents may consist of construction documents generated by the Service Provider's staff members or may be provided from outside Service Provider's direct control.
 4. Prepare technical evaluations as requested to support activities relating to facilities planning, cost reduction, capital management, safety evaluations and hazard assessments, among others.
 5. Review all design documents and make recommendations to SPV management team as to constructability, scheduling, time of construction, clarity, and consistency. Coordinate release of documentation to all construction Contractors involved in the Statement of Work.
 6. Provide suitable presentation materials and documentation as required by SPV to support project status communication and approvals.
- d) Service Provider is to schedule interruptions and as such:
1. Safely and properly communicate and execute required interruptions in accordance with IICCL policies and standards.
 2. Ensure that defined property standards are fully restored as scheduled.

12.9.3 Fit-out Management

- a) Service Provider team shall establish a fit-out management procedure and coordinate for all types of Fit outs required to be executed in Owned or Occupant's space.
- b) Service Provider team shall make certain that the quality of the occupant's fit-outs meet the standards set by "SPV" for the project, Fit-out management team shall work with the selected architect / project manager to co-ordinate the fit-out process.

c) The tasks include:

1. Initial meeting with Occupants and their designer to convey "IICCL" design vision for the property.
2. Provide necessary project details and Fit out guidelines to the occupants
3. Ongoing meetings with Occupants and designers to receive, then review and approve those plans.
4. Confirm Occupants and their respective Contractors are insured and licensed as necessary.
5. Provide Contractors with on-site rules, safety regulations.
6. Receive Contractor's risk management plans.
7. Issue work permits for various services including height, hot work and other risk prone work.
8. Receive certificates of completion and statutory authority occupation certificate and permit to trade (where appropriate)
9. Do final inspection of the constructed Occupant's area and provide no objection certificate post approval from "SPV" management team.

12.10 Engineering Service Management

"SPV" recognizes the operational efficiencies and financial benefits of reliability-based maintenance and is intended to implement a comprehensive, world-class reliability-based Maintenance Management System in IICCL property.

The reliability-based Maintenance management shall comprise of three primary work-streams:

- a) Work Management,
- b) Reliability Engineering, and
- c) Service Models Management

Service Provider shall comply with SPV's vision for reliability of project assets and Utilities as stated in the Reliability Based Maintenance Management. The various deliverables and responsibilities of Service Provider under Maintenance management are detailed in below section.

12.10.1 Life Cycle Property Asset Management

Service Provider shall develop and manage a Life Cycle Facilities Asset Management program for all assets in scope. Although specific program details are left to Service Provider, it is expected that this program will have certain characteristics as described below.

- a) Service Provider is to conduct criticality assessments
- b) Service Provider will lead the verification of appropriate IICCL-specific asset criticality criteria and perform the necessary criticality assessment of IICCL's assets.
- c) Service Provider is to implement and maintain an equipment reliability program. Service Provider shall:
 1. Recommend and implement a proven Reliability Centered Maintenance (RCM), Reliability Based Maintenance (RBM), Total Process Maintenance (TPM) or other similar type program

designed to efficiently maximize asset performance.

2. Develop and implement an equipment reliability program focused on critical assets, including but not limited to
 - Criticality assessments, identifying and classifying research critical, operations critical, bottleneck or single-point-of-failure processes, unit operations, systems, assets or components
 - Risk analysis, measuring probability and consequences of failures in a consistent manner
 - Failure analysis and root cause analysis, defining what constitutes functional failure for a critical system or process
 - Utilization and load testing
3. Perform root cause evaluation for underperforming critical systems and failed critical components. Track and prioritize resolution of these failures

12.10.2 Short and Long term Maintenance Activities Planning

- a) Service Provider is to provide short and long term maintenance and life-cycle planning
- b) Service Provider shall:
 1. Develop appropriate short-term and longer-term maintenance plans based on IICCL's performance requirements and standards and asset criticality.
 2. Create the supporting budgets for both O&M and capital spending items.
 3. Prepare documentation to justify capital spending requests based on system performance, lower maintenance life cycle cost and lower operating cost.
 4. Identify options, prepare analysis, provide expertise and make recommendations relating to new maintenance procedures, lease vs. buy, new technologies, equipment overhauls, repair vs. replace decisions, installation of new equipment, and disposal of obsolete equipment. Recommendations will draw on industry best practices, on new technology developments and Service Provider's expertise and experience.
 5. Develop and submit recommendations to "SPV" relating to comprehensive planning, scheduling and work control procedures. The detail and sophistication of these procedures will be appropriate to the criticality of the assets concerned.
 6. Recommend changes in equipment operating procedures, design or configurations that improve cost performance, operational performance, efficiency, and reliability, while remaining within EPC Contractor/OEM warranty specifications.

12.10.3 Developing Maintenance Programs

- a) Service Provider will develop and manage comprehensive Maintenance programs for all assets in scope to ensure the functional and operational efficiency of the assets of the project. The various maintenance programs to be followed are:
 1. Asset care and maintenance optimization programs
 2. Preventive Maintenance programs
 3. Corrective Maintenance programs

- b) Service Provider is to provide Asset Care and Maintenance Optimization Programs. Service Provider shall:
1. Design and implement an asset care program.
 2. Determine which major systems and components will be maintained on a predictive basis and which will be maintained on an interval-based PM or run-to-failure basis.
 3. Create risk mitigation strategies for critical assets.
 4. Assess inventory and availability of spare parts and recommend changes.
 5. Recommend changes in the asset care program that correspond with business conditions and budgetary constraints.
 6. Conduct property condition assessments program, resulting in a Property Condition Index and a comparable metric system to enable the development of project plans, maintenance optimization programs and Capital Planning.
 7. Employ maintenance technologies as appropriate for equipment and utilities.
 8. Use analysis of results and trends to identify specific interventions, or to adjust maintenance schedules or intervals.
 9. Develop and maintain a maintenance monitoring database. Effort to be undertaken in collaboration with appropriate SME's and IT to ensure technical standards, security, and data management. Information may be collected within Building automation system and/or other acceptable solution.
 10. Document all procedures and catalog equipment and PM routines by site specific procedures.
- c) Service Provider is to provide Preventive Maintenance Programs or Routine Maintenance.
1. Routine Maintenance shall mean all activities that are necessary for operation of the Project and are conducted on elements which are easily and safely accessed using support equipment built into the Project Facilities and/or support equipment (integrated or external) which is easy to use or implement.
 2. Service Provider is expected to identify all safety critical equipment and implement processes to ensure the reliability of the equipment
 3. Develop and implement PM programs as appropriate, including but not limited to the following:
 - Lubrication programs
 - "Tighten Lube and Clean" (TLC) programs for operations personnel
 - Intrusive and non-intrusive maintenance regimes appropriate to equipment criticality, condition and age
 - Corrosion control programs
 - Structural inspection program
 - Roofing and siding inspection program
 - Building Audits and Inspections
 - Regular Physical Inspections
 - Periodic Maintenance including Daily, Weekly, Fortnightly, Monthly, Bimonthly, Quarterly, Half Yearly and Annual checks.
 - Maintaining Regular Logs, Reports and Service Record
 - Continues Monitoring and Physical Operations

- Complaint and Issue Log Management
 - 4. Evaluate current preventive maintenance (PM) program and transition to more effective, robust PM program
 - 5. Document all procedures and catalog equipment and PM routines by site specific procedures.
- d) Service Provider is to provide "Corrective Maintenance Program".
- 1. Corrective Maintenance means maintenance of key parts/components of the Project Facilities whose replacement is imperative and would determine the structural integrity of the Project Facilities.
 - 2. Such activities would include maintenance and repair activities to be conducted after a breakdown or after a deterioration/wear and tear are detected in order to restore the Project Facilities to a condition in which it can accomplish its required function.
 - 3. Service Provider is will develop and implement a program to conduct corrective equipment repairs, modifications, overhauls or rebuilds as appropriate on selected underperforming or high-risk assets. Such maintenance may include, but is not limited to:
 - Breakdown Maintenance
 - Major Overall and Repair work
 - Instrument or control adjustments, repairs or recalibration
 - Bearing repacking or replacement
 - Equipment rebalancing or remounting
 - Installation of vibration dampers
 - Rewiring or surge protection
 - Critical Spare procurement
 - 4. Document all procedures and catalog equipment and PM routines by site specific procedures.
 - 5. Issue a Work Order for all corrective work as followed:
 - All corrective work requiring parts, labor or involving asset reliability (critical assets) will be performed utilizing a work order.
 - All corrective work orders shall include failure reporting information (Problem, Cause, Part, and Remedy).
 - 6. All corrective work that is identified during PPM (Preventive/ Predictive Maintenance) activities shall be documented.
 - 7. Document individual tasks at the end of each work period
 - 8. Labor, material and status information should be documented for each work order assigned.
 - 9. All time related to the task should be included (travel, site prep/cleanup, etc).
 - 10. The Service Provider shall perform corrective work within its normal operating budget using its on-site repair and maintenance personnel and will provide all materials.
- e) Service Provider is to provide Replacement/Renewal Activities Planning
- 1. Replacement/Renewal Activities means all activities and operations necessary in order to replace any existing component of the Project Facilities, Infrastructure assets and Utilities having a specific intended use, with an identical or better item, given the evolution of the said asset and techniques.
 - 2. Such activities and operations are necessary, where activities of Corrective Maintenance

cannot guarantee the use of said component of the Project Facilities, or when a Change in law requires such renewal or replacement. This shall include:

- Life Cycle Assessment
 - Efficiency Analysis
 - Replacement and recommissioning
 - Capex Controlled activities
3. Service Provider may request additional operational funding or capital allocations from IICCL by submitting a business case showing clearly:
- What the payoff of the proposed work is in terms of operating savings, increased reliability and decreased risk to IICCL
 - Why the proposed work cannot reasonably be performed within its normal operating budget
4. IICCL will make all final decisions relating to capital or operating requests.

12.10.4 Asset History and Program documentation

- a) Service Provider is to maintain asset history and program documentation in IICCL's systems
- b) Service Provider shall:
 - 1. Maintain records of asset history in accordance with site specific procedures.
 - 2. Retain and maintain program documentation in web-based document repository systems.

12.10.5 Maintenance Planning and Scheduling

- a) Service Provider is to perform maintenance planning and scheduling activities
- b) Service Provider will perform all maintenance planning and scheduling activities, including, but not limited to:
 - 1. Relevant planning and management meetings.
 - 2. Daily planning and scheduling
 - 3. Look-ahead scheduling
 - 4. Maintenance planning
 - 5. Forced outage scheduling
 - 6. Shutdown scheduling
 - 7. Coordinate and communicate with end users regarding scheduled activities
 - 8. Adhere to all site work specifications and guidelines in the planning, scheduling, and execution of work
- c) Service Provider will maintain records of all required maintenance planning and scheduling activities.
- d) Service Provider will abide by mutually agreed upon response times for all work order types.
- e) Service Provider is expected to provide shutdown planning:

1. Identify the critical path item and establish this as a critical path asset.
 2. Identify every piece of work that can be done while the shutdown is taking place.
 3. When required, work directly with impacted IICCL's Occupants and users for planning of shutdowns, regardless of the size or impact of the shutdowns.
 4. Submit a written MOP (Method of Procedure) for all shutdowns outlining the affected areas, systems, duration, and contingency a minimum of 48 hours in advance for approval for all non-emergency events.
 5. Monitor planned shutdowns to align major maintenance activities
 6. Seek written approval of shutdown schedules from SPV management post confirmation from all affected Users and Occupants.
 7. Follow shutdown schedules and avoid exceeding planned downtime projections
- f) Service Provider will be included in all planned maintenance events and may be the primary contact responsible for communication and delivering updates.

12.10.6 Warranty and Defects liability period Management

- a) The overall Asset and associated equipment falling within this SOW shall be covered by a warranty or Defects liability period for the period of 24 months from the date of commissioning of the respective systems by the EPC Contractor which shall cover the rectification and or replacement of the faulty asset / equipment under breakdown due to any reason other than usual operational wear and tear and mishandling of the asset / equipment by the Service Provider.
- b) These arrangements do not relieve Service Provider from final accountability for the proper functionality and operational efficiency of the equipment.
- c) Service Provider shall coordinate with Project Management Team and EPC Contractor of SPV for obtaining details and all agreements covering warranty and Defects liability period.
- d) Service Provider shall:
 1. Manage warranty and service contract work.
 2. Administer and retain all warranties and service contracts relating to assets or components covered under the SOW.
 3. Ensure that all maintenance and repair activities are performed in a way to maintain validity of all warranties.
 4. Contact warranty vendor and ensure proper performance of all work performed when warranty service is required.
 5. Take necessary action to restore the service and promptly report the problem to "SPV" in the event warranty vendor does not perform required duties and service disruption impacts IICCL (even though the failure is covered under warranty)
 6. Document all warranty-related activities and report periodically.

12.10.7 AMC Management

- a) SPV shall procure Comprehensive Annual Maintenance Contracts (CAMC) for critical equipment installed at Common Areas and for the Occupied Areas.
- b) Comprehensive annual maintenance contracts shall mean specialized external agencies, either direct OEM or its authorized service partner, which shall be engaged by SPV to undertake breakdowns and faults in the equipment and shall also execute the repairing and service of the equipment includes spare parts replacement.
- c) Along with this, preventive maintenance shall also be done by the AMC agency on a pre-determined and agreed upon frequency along with providing consumables utilized by equipment periodically. It shall exclude all physical mishandling or damages.
- d) Comprehensive annual maintenance contracts procured by SPV for systems during the warranty and defects liability period for the purpose of periodic maintenance (which may or may not include running spares and consumables from case-to-case basis) shall exclude the cost of all machinery components supplied / provided by OEM or its authorized supplier which are under Defects liability period. Such contracts shall be monitored by Service Provider to ensure that no extra cost for any such equipment is paid to the AMC Contractor which is covered under warranty and or Defects liability period.
- e) SPV shall make provisions in the AMC contract for deployment of key technicians and experts from OEM or its authorized agents for their respective packages to ensure that there is no downtime and lack of corrective maintenance responses during the VIP and critical events which has involvement of national importance or events with the participation of government representatives of different countries. Service Provider shall ensure that all such events and requirements are monitored closely and the required support from AMC contractors is arranged well in time.
- f) The routine Operation and maintenance for these equipment and assets shall be done by Service Provider / Operator Company for their respective areas as specified in Clause 9.17.2. and the Service Provider shall be responsible for overall management and execution of such Comprehensive Annual maintenance contracts for both Common Areas and Occupied Areas.
- g) Service Provider will be responsible for ensuring that all assets & equipment under the scope of property management services are at any given time covered under a Defects Liability period or EPC Contractor/OEM warranty period from the date of commissioning & successful handover during the 24 months.
- h) The detail of the AMC contracts to be managed by Service Provider on behalf of SPV is provided in Section 9.18.2. Service Provider shall ensure that all the maintenance, spares and consumables associated expenses occurred due to Operational wear and tear during the initial 24 months of warranty is fully covered under its own cost as described in Section 9.18.3.
- i) SPV shall continue to procure such services through AMC during the term of this contract and Service Provider shall manage all such AMCs for assets and equipment on behalf of SPV and shall continue to include all costs for routine maintenance, spares and consumables in its own operating cost.

- j) Service Provider will be responsible for:
1. sourcing, documentation & management (including tracking & renewals) of all annual maintenance contracts (AMCs) for the required assets / equipment not covered under / post expiry of DLP/Warranty period.
 2. establishing an effective tracking mechanism for the above to ensure renewals proactively & mitigate/ avoid any risk exposures to any IICC asset/equipment requiring coverage until the shelf-life of the related asset/equipment.

12.10.8 Long-Term Capital Planning Infrastructure Services

- a) Service Provider is to prepare five-year schedule and ten-year look ahead.
- b) Service Provider will prepare and present to SPV management the short and long term planning of likely capital requirements relating to existing facilities and will also maintain long term look-ahead list of projects with high level cost projection estimates. Particular emphasis will be on the following areas:
- Infrastructure systems
 - Infrastructure equipment
 - Building core
 - Building shell
 - Grounds and Civil Infrastructure (e.g. road replacements, etc.)
- c) Service Provider shall:
1. Develop and maintain a database of all projects opportunities within long-term look-ahead timeline. Data will be critical to effectively steer budget planning activities and maintain or improve facilities condition and compliancy.
 2. Organize on-site visits and interact with "SPV" management in order to check data accuracy and validate information.
 3. Update database to capture projects completion.
- d) Service Provider shall:
1. Use Criticality Analysis and other related Reliability tools to identify maintenance and operations risks and critical systems/equipment components.
 2. Collect information for various analyses. IICCL will rely on Service Provider's expertise to identify options, make recommendations when confronted with different options such as investing in new technologies, realizing equipment overhauls, repairing, refurbishing, replacing current installations and/or disposing of obsolete equipment. Recommendations will draw on industry best practices and new technology developments.
- e) Service Provider shall demonstrate its ability to identify refurbishment opportunities and exercise refurbishment options in lieu of replacement whenever it is possible and whenever it is in IICCL's best interest.

- f) Service Provider will self-identify and define requirements for any facilities-related construction work that is deemed necessary or prudent. All Service Provider-identified capital requests shall be reviewed by "SPV" management and Service Provider will perform only those capital requests approved by "SPV".
- g) Service Provider is to tie long-term planning to cost/benefit analysis. Service Provider will:
 - 1. determine what critical systems or equipment have reached (or expected to reach) its end-of-life cycle, does not operate at its optimum and likely needs to be replaced/ refurbished within the next five Years.
 - 2. analyze any Budgetary and operations constraints which will be factored-in and might require the implementation program to adopt a phased approach.
 - 3. long-term planning will therefore be required in order to operate efficiently equipment of different generations.
 - 4. generate multiple scenarios to recommend "SPV" on the benefits of conducting several retrofits or investing in new equipment at once as to minimize the numbers of shutdowns and business interruptions even if it might imply realizing some projects ahead of time.
- h) Service Provider is to identify credit opportunities by identifying potential benefits from energy conservation and/ or possible CO₂ credit impact and associated financial projections for projects qualified as Improvement Projects or energy/ CO₂ reduction opportunities.

12.10.9 Building and Equipment Inspections

- a) Service Provider shall inspect the Building and Building Equipment to ensure that the IICCL buildings and equipment are properly maintained.
- b) Service Provider shall:
 - 1. Provide documented inspection program
 - 2. Perform routine inspections of the building and building equipment to identify any potential problems (e.g. leaks, corrosion, cracks, vibration, discoloration, unnecessary noise, breakage, etc.)
 - 3. Ensure inspection cycle is in compliance with regulatory requirements and manufacture recommendations.
 - 4. Ensure inspections are performed by a qualified person.
 - 5. Ensure problems are logged into Work Order system and tracked until completion.
 - 6. Ensure problems are addressed in a timely manner.
 - 7. Ensure qualified personnel are deployed to repair any issues identified.
 - 8. Identify any changes required to minimize future problems (e.g. changes in equipment, technology, processes, vendors, etc.).

12.10.10 Energy Management and Control

- a) Energy Consumption, Benchmarking and Accounting

1. Service Provider shall be responsible for regular monitoring, review and analysis of Energy monitoring & accounting system.
2. The responsibilities shall include regular monitoring and review of energy monitoring & accounting system in terms of metering, record keeping, data logging, periodic performance analysis etc.
3. Review of installed energy meters for adequate measuring and monitoring requirements and its calibration status
4. Perform Gap analysis and implement improvement for effective energy monitoring & accounting system
5. Service Provider shall be responsible for evaluating Energy performance index and benchmarking.
6. The responsibilities shall include:
 - Energy Performance Index (EPI) of the facility will be evaluated for both – present case and historic case.
 - Benchmarking of energy consumption trend for various sections under Common Area services and Occupant Areas & implement measures to optimize the energy consumption.
7. Document all reports, schedules and improvement procedures by site specific procedures and submit to SPV management as per set Management Information system and reporting procedure.

b) Utility Demand Management

1. SPV will be responsible for securing energy for the IICCL property. Service Provider will work to develop and implement measures to reduce and optimize energy usage in the project.
2. Service Provider shall:
 - Identify opportunities to reduce energy and CO₂ footprint.
 - Implement energy conservation and CO₂ footprint reduction measures.
 - Have a formal energy conservation/sustainability program.
 - Track and report energy usage and CO₂ footprint.
 - Assist in the development of business cases to obtain funding that may be required to implement a change.
 - Support IICCL's Green Office Program.
 - Provide best practices and benchmarking data.
3. Document all reports, schedules and improvement procedures by site specific procedures and submit to SPV management as per set Management Information system and reporting procedure.

c) Engineering and Energy Audits

1. Service Provider will work to develop program and conduct regular thermal scanning and periodic thermograph audit of all electro mechanical systems and identify electrical risks.
2. Perform study of reactive power compensation system by conducting Harmonics study where APFC systems are installed and check Capacitor Healthiness and efficiency.
3. Measuring all electrical parameters of the power system of the utility with help of Power analyzer and verify for presence of any harmonics, transient, noise or abnormal parameter.

4. Review power quality issues like voltage unbalance, current unbalance, power factor etc. for grid electricity and diesel generated electricity.
5. Physical inspection of sites to identify electrical hazards (shock, fire, explosion, overloading) and implement remedial safety solutions.
6. Review of electrical accidents and near misses to identify the root cause.
7. Document all reports, schedules and improvement procedures by site specific process and submit to SPV management as per set Management Information system and reporting procedure.

12.11 Engineering Operation and Maintenance

The following Engineering Maintenance services would broadly be covered under the scope of services of Property Management. Service Provider shall be responsible for operation, regular and periodic maintenance under this set of services for the following functions detailed below:

The Engineering Operation and Maintenance Services area related to but not limited to the followings:

- 1) Electrical and Mechanical Work
- 2) Heating, Ventilation and Air-conditioning system
- 3) Fire Safety System
- 4) Plumbing and Sanitation work
- 5) Mobile equipment and motor vehicles
- 6) Civil Repairs and Maintenance services
- 7) Mini Bulk Chemical, Gases and Fuels
- 8) Critical Environment Monitoring System

The Service Level performance parameters for Engineering Operation and Maintenance Services are mentioned in Annexure 4.

12.11.1 Electrical and Mechanical System

- a) Brief Introduction of Electrical and Mechanical System
 1. The Electrical System including the HT Incomer, Diesel Generators and Internal HT / LT Power distribution Network is detailed in the following Section.
 2. Service Provider shall be responsible for the Overall Operation and Maintenance of the Electrical system for the common areas and also manage the services for Occupied Areas as per responsibility matrix defined at Clause 9.16, 9.17 & 9.18.

3. HT System components:

Sr. No	System	Details for Services
1	Substations	2 Nos. GIS, 66 / 11 kV
2	Feeders	2 Nos. from Transco
3	Service Provider	BSES Rajdhani Power Limited (BRPL)

4	Power Demand	70 MVA in Phase 1 (Total 110 MVA)
5	Solar Power Supply	5% of Demand Load
6	HT/LT Substations/Block	13 HT / LT Blocks with 30 Nos. HT/LT transformers (Xers)
7	HT DG Sets	18 Nos. HT DG Sets each 2000 KVA in Phase 1
8	LT Section	Available for individual buildings

4. Electrical installations in different areas with scope and classification of services are detailed at Clauses 9.16, 9.17 & 9.18. The detailed list of equipment is provided at Annexure 11 of this RFP document.

b) Key Deliverables under Electrical and Mechanical System

1. Service Provider shall be responsible for operation and maintenance of Electrical systems, Power supply systems, HT & LT equipment, utilities and associated items and accessories.
2. The responsibilities shall include Operation and maintenance of:
 - Electric substation, 66 KV GIS Panel, 11 HT Panel and LT Panels,
 - Transformers,
 - HT DG Sets, HT Synchronization Panels
 - UPS System (24x 7 Hour Basis)
 - External lights, street lighting
 - Earthing and lightening protection system
 - Solar PV power generating systems, their integration interface and solar panels at Convention Centre and Foyers 1 & 2.
 - Terrace pathways of Convention Centre, Exhibition Halls 1 & 2, Foyers 1 & 2.
 - Green Roof (terrace gardens), planters of buildings / structures such as Convention Centre, external toilets, exhaust air towers, fresh air towers, fan rooms, munties over Convention Centre car park, entries & exits of Service Gallery etc.
 - Lifts and escalators
3. Operate and maintain the entire and complete Electrical and Mechanical Utilities System from ESS buildings and diesel generators including all equipment and installations as per the operation and maintenance manuals and specifications of the manufacturers and/or the original installation Contractors and ensure that all the equipment and utilities are operational round the clock.
4. Service Provider shall maintain all Electrical Rooms and DG/HSD/Transformer Yards to ensure that:
 - all electric and lift rooms, electrical equipment in public areas, electrical shaft doors, meter boxes in units/buildings/premises etc. are locked and access is limited to authorized personnel only.
 - Ensure that the proper lighting is available in all spaces
 - Ensure all cable and wire connections are clean and firm.
 - Ensure accuracy of all panel and equipment labeling.

- Maintain, clean, and replace components in accordance with industry standards.
5. Service Provider shall maintain all Electrical Panels and Components to ensure that:
- Test circuits, locate, diagnose, and repair faults.
 - Maintain conduits, raceways and interstitial spaces in orderly condition and maintain required clearance distances around electrical equipment.
 - Maintain, operate and maintain substation equipment, digital voltage regulators, cabling/wiring and associated equipment, both inside and outside buildings.
 - Test circuit breakers and switch switchgear to industry standards as per internal and external requirements.
 - Contacts in all breakers are clean and mechanical operation is smooth and firm.
 - Check for all meters periodically to ensure they are functioning and show correct readings.
 - Provide qualified support to properly isolate and tag out power supplies for asset maintenance and repair work. Perform log out tag out for all electric circuits related to planned and unplanned project/construction work. De-energization of the circuit to be performed.
 - Repair, replace and adjust electric heat tracing, as needed.
 - Manage load profiles in order to minimize peak loads.
6. Service Provider shall manage the UPS Power supply system and provide following key services:
- Monitor operation and loading as per laid down schedule.
 - Perform maintenance as recommended by EPC Contractor/OEM.
 - Operate unit using maintenance bypass so work can be performed during the business day.
 - Execute battery discharge.
 - Participate in capacity analysis for expanded UPS services.
 - Work with customers to maintain their confidence and involvement in UPS reliability.
 - Ensure system is in condition for supporting a 24X7x365/366 basis operation.
 - Ensure response within the agreed timeline in the event of any urgent request by the licensee/occupant/internal customer or SPV authorized personnel.
7. Service Provider shall operate and maintain the DG system and provide following key services:
- DG back up is restored promptly as per defined AMF logic and mention by EPC Contractor/OEM.
 - DG set, Transformer yard and UPS rooms, panel rooms upkeep is maintained to deliver optimum performance.
 - ensure that the DG set daily trial are done as recommended by EPC Contractor/OEM.
 - ensure periodic DG set preventive and breakdown maintenance and ensure all A, B, C & D checks are carried out as per schedule.
 - Diesel tanks & pumps are maintained properly and all periodic maintenance are done.
 - Diesel storage tanks internal cleaning and periodic sludge removal activities.
8. Service Provider shall test, maintain, operate and repair the Emergency Power Supply System and is expected to perform following key services:
- Maintain, operate and repair emergency generators (diesel/oil), including batteries, belts, shafts, bearings, gauges and fuel supply.

- Replenish fuel supply as required; maintain storage tanks and drums.
 - Provide predictive, preventive and corrective maintenance on the electrical generators, transfers switches, transformers and distribution, UPS equipment, etc., as needed.
9. Service Provider shall operate, maintain and repair the Solar Power Supply System and is expected to perform following key services:
- Service Provider shall deploy trained manpower and personals to operate and maintain the solar power generation and distribution system installed in the property.
 - It is strongly recommended that anyone working around energized PV systems complete a minimum of the 10-hour OSHA-10 Construction Industry Training Program or equivalent.
 - Service Provider shall ensure that the specific higher rating PPE are provided for the operations team for performing activities on the Solar PV system.
 - Service Provider shall ensure that the periodic inspections are conducted for the Solar PV system roof installations, electrical controls, panels and cabinets and confirm proper functioning of the system
 - Service Provider shall conduct periodic inspection and maintenance of Invertors and Record and validate all voltages and production values from the human-machine interface (HMI) display.
10. Service Provider shall manage the Earthing and Lightening Arrestor system and provide following key services:
- Maintenance of the earthing system to ensure earth continuity at all points in the electrical system up to the main distribution board in each unit/building/premises and also maintains all earthing pits with necessary watering etc.
 - Inspections, readings of Lightening protection system and grounding network integrity, repairs as needed, all according to local codes.
11. Service Provider shall manage the Lift and Escalators and is expected to perform following key services:
- Operation and maintenance of Lifts, Escalators within and outside buildings (24x 7 Hour Basis). Refer drawings for numbers, size, capacity, speed, location, levels etc.
 - Coordinate with EPC Contractor/OEM and Subcontractors responsible for periodic maintenance for these equipment.
 - inspections, testing and preventive maintenance is occurring at the required frequencies.
 - Ensure regulatory required certificates of inspection are current.
 - Ensure problems, outages, etc. are addressed in a timely manner.
 - Provide emergency rescue and support for equipment failure, power outages and emergency situations.
 - Maintain records of entrapment and take appropriate corrective measures if occurrences are higher than industry norms.
 - Ensure a rapid response within the defined turn-around time to equipment failures from the Service Provider/Subcontractor.
 - Work with Security and Operations to put "out of order" signs on any elevator in a non-operating condition and to ensure the safety of all personnel.
 - Ensure all elevator machine rooms are kept meticulously clean and that they are not misused

used in any form (e.g. for storage of any materials)

12. Service Provider shall maintain the Lighting System in the common areas and is expected to perform following key services:
- Maintenance of interior and exterior building Lighting Systems
 - Include the repair or replacement of fixtures and controls, the replacement of bulbs and ballasts
 - All routine preventive maintenance and necessary inspection of lights and fixtures
 - Ensure the maximum uptime of the lighting systems and adequate lux levels are maintained in entire common area, peripheries and boundary and entry exit gates.
 - Ensure that lighting systems of common area is kept in a high state of operational availability and reliability.
 - Major maintenance/repairs and parts replacements will be carried out by the EPC Contractor/OEM through comprehensive Annual Maintenance contracts after warranties.
 - Ensure system is in condition for supporting a 24X7x365/366 basis operation.
 - Ensure periodic audits are being conducted.
 - Tightening of street light fittings/supply line connected to the street lighting systems including welding of fittings.
 - Repair/replacement of cables, lamps and their accessories on street lighting/landscape lighting or as per fitting and irrigation control cabling etc.
 - Repair/replacement of junction boxes, MCBs, timer switches
 - Repairing of stay wire connecting to the street lighting systems,
 - Cleaning of street lighting fixtures (covers, reflectors etc)
 - Straightening and strengthening of the tilted poles.
 - Removing of bird nest/any other unwanted cables/wires/ etc.
 - Pole numbering, earthing, jointing of cables, replacement of broken pole any type, straightening of the tilted pole any type.
13. Service Provider shall monitor the lighting system in the Occupants areas and is expected to perform following key services:
- Ensure response within the agreed timeline in the event of any urgent request by the retailers / occupant/internal customer of IICC project.
 - Ensure that the lux levels and lighting scheme is in accordance with the approved lux level requirements and colour and temperature of lights is maintained uniformly in compliance with the internal lighting scheme and as approved in fitout design.
14. Service Provider shall manage ensure the uptime for all systems and maintain the required Spare and Inventory system and provide following key services:
- Maintain and operate all the equipment adequately in order to deliver all services upto agreed standards in the entire building/premises.
 - Stock levels to be maintained for different kinds of spares/inventory, etc. Ensure adequacy of stock/spares for all machines installed at the Building(s)/premises.
 - Maintain inventory for required Tool & Fixtures for upkeep of the Building(s)/premises.

15. Service Provider shall maintain recording and reporting system and ensure that:
- all Operational and maintenance logs and reports are maintained for Daily, weekly, fortnightly, monthly, bi monthly, quarterly, half yearly and annually.
 - all Spare and Inventory utilized are recorded and maintained in the inventory management system without any delay
 - all utility and energy consumption related readings of electrical meters installed in electrical room for electrical consumption of all Common Areas and Occupied Areas are recorded as per set frequency and provide details for invoicing purpose to the Accounts team.
 - all utility and energy consumption related readings of BTU meters for HVAC system, Diesel Supply Flow meters for Common and Occupant Areas shall be recorded as per set frequency and provided for invoicing purpose to the Accounts team post verification of records.
16. SPV/Operator company shall engage an external agency for providing, operating and maintaining Electric Shuttle Buses for facilitating visitors and Occupants inside the property. It is expected from Service Provider to provide following services for smooth and uninterrupted operation of electric shuttle buses inside the property:
- Service Provider shall ensure that power charging stations for Electric Shuttle Buses are operational and maintained periodically.
 - Energy metering and reporting to concerned team under Property management for energy billing and collection of charges.
 - Ensure that the charging stations are clean, operational and free from any damage, wear and tear. Any such fault should be promptly recorded and repaired accordingly.
 - Coordinate with EHS team for periodic inspection of all buses from inside and outside to ensure safety and quality standards are met and ensure that all required corrective measures are done by the bus operating agency.

12.11.2 Heating, Ventilation and Air Conditioning (HVAC) System

The HVAC system including the chilled water system, pumps, air conditioning units, heat pumps, ventilation and emergency fans and associated systems is detailed in the following section.

Service Provider shall be responsible for the overall operation and maintenance of the HVAC system for the common areas and also manage the services for Occupied Areas as per responsibility matrix defined in Clause 9.16, 9.17 & 9.18.

a) Brief of HVAC System components

Operation and maintenance of services, utilities, equipment, machines, systems within Exhibition Hall 3 basement, within service gallery, service gallery branches and in open areas. Major equipment for District cooling system are as under:

- Chillers: 2000 TR: 05 Nos. working + 01 No. standby
- Cooling towers: 2400 TR x 05 Nos. + 01 No. standby
- District cooling plant and piping: final phase capacity 28000 TR (Phase-1: 12000 TR)
- Primary chilled water pumps: 06 Nos. (phase-1)

- Secondary chilled water pumps: 07 Nos. (phase-1)
 - Condenser water pumps: 06 Nos. (phase-1)
 - Expansion tanks and pressurization pumps: 02 Nos. (phase-1)
 - Chemical dosing system pumps: 03 Nos. (phase-1) District heating system (only for Hotels & Convention Centre): final phase capacity 6000 kW (Phase-1: 4000 kW)
 - Primary & secondary pumps for district heating circuits
 - Pumping stations for respective buildings
- b) HVAC installations and classification of services are detailed at Clauses 9.16, 9.17 & 9.18. The detailed list of equipment is provided at Annexure 11 of this RFP document.
- c) Key Deliverables under HVAC System
- Service Provider shall be responsible for the operation and maintenance of HVAC system installed in the Common Area and shall provide specific set services for the equipment dedicated for Occupied Areas which will be operated by Operator Company. This shall broadly include:
1. Service Provider shall be responsible for operation and maintenance of HVAC System, and associated items. The responsibilities shall include operation and maintenance of HVAC plant room equipment comprising the following but not limited to:
 - Chillers
 - Hot water system
 - Cooling towers
 - Pumps and pipelines
 - VFD
 - Electrical panels, motor starters and auxiliary systems
 2. To operate and maintain the entire and complete HVAC system on district cooling system as per the operation and maintenance manuals and specifications of the manufacturers and/or the original installation Contractors.
 3. All the equipment to be maintained and operated adequately in order to deliver the correct temperature as per leasing/ licensing arrangements with the Occupants of the property.
 4. Service Provider shall operate and maintain Centralized HVAC system and ensure that:
 - all equipment's installed i.e. cooling towers, chillers, AHU's, FCU's, pumps including complete piping and ducting are in working condition and to carry out periodic checks to ensure the appropriate operating parameters as designed and handed over.
 - Minor repairs, regular cleaning of filters, coils, makeup water tank etc and maintenance as performed per recommendations of EPC Contractor/OEM's.
 - Regular checks for various valves installed in the piping system including cracks, proper water level in makeup tank, piping connections etc. are done and appropriate action as per the scope of work is taken.
 - all blowers, axial flow fans, extractors, Kitchen Exhaust Scrubbers, air washers and their indicator and control panels are functioning to specified design parameters and the equipment and system

- (both ventilation and water services) are in an acceptable running condition.
 - all bird screens, louvers etc. are maintained in a proper fashion.
 - noise levels of the ventilation system is unacceptable range and ensure there is no excessive vibration by performing required tests and analysis.
5. Service Provider shall execute the hot water generator and supply system maintenance program and is expected to perform following key services:
- Operate steam and hot water heating equipment.
 - Manage automation system associated with all heating equipment.
 - Repair and maintain steam and hot water heating equipment. Remedy all outages.
 - Repair and maintain equipment piping. Remedy all hazards or malfunctions.
 - Perform water treatment for the circulation water and ensure that de-alkalizing and required chemical processing is done
 - Follow maintenance on mechanical system by parameters as determined by design intent and Occupant's operating requirements and specifications.
 - Perform maintenance checks on optimal schedule frequency using appropriate checklists and audits and used for system analysis.
 - Program execution shall be carried out through consistent monitoring of program requirements through BMS or site-specific procedures.
 - Activate where/when applicable, redundant or backup systems to minimize loss of service or inconvenience to users; notify Occupants in advance of any repair-related interruptions; post suitable warning signs.
 - Test equipment, locate, diagnose, adjust and repair faults.
 - Perform scheduled non-capital repairs, overhauls and life cycle change-outs. Where/when appropriate, equipment may be repaired off-site.
 - Test to ensure proper operation and return equipment to service.
 - Restore maintained area to as-found condition.
 - Calibrate gauges and regulators.
 - Repair insulation, ruptures, etc.
6. Service Provider shall execute the HVAC system maintenance program and is expected to perform following key services:
- Coordinate with EPC Contractor/OEM and Subcontractors responsible for periodic maintenance for these equipment.
 - Inspections, testing and preventive maintenance is occurring at the required frequencies.
 - Ensure problems, breakdowns, etc. is addressed in a timely manner.
7. Service Provider shall manage ensure the uptime for all systems and maintain the required Spare and Inventory system and provide following key services:
- Maintain and operate all the equipment adequately in order to deliver all services upto agreed standards in the entire building/premises.
 - Stock levels to be maintained for different kinds of spares/inventory, etc. Ensure adequacy of stock/spares for all machines installed at the Building(s)/premises.

- Maintain inventory for required Tool & Fixtures for upkeep of the HVAC system.
8. Service Provider shall maintain recording and reporting system and ensure that:
- all Operational and maintenance logs and reports are maintained for Daily, weekly, fortnightly, monthly, bi monthly, quarterly, half yearly and annually.
 - all Spare and Inventory utilized are recorded and maintained in the inventory management system without any delay
 - all utility and energy consumption related readings of Electrical meter installed in electrical room for electrical consumption of all Common Areas and Occupied Areas are recorded as per set frequency.

12.11.3 Fire Safety System

The Fire Fighting System including the Hydrant System, Sprinkler System, Water Curtain System, Fire Detection and Alarm System, Fire Extinguishers and associated systems is detailed in the following Section. Service Provider shall be responsible for the Overall Operation and Maintenance of the Fire Fighting system for the common areas and also manage the services for Occupied Areas as per responsibility matrix defined in Clause 9.16, 9.17 & 9.18.

a) Brief of Fire Safety System

Operation and maintenance services for Fire safety system equipment's, machines, systems for 24x7 operation.

- Centralized storage pumping and piping system for the complex
- Local Fire Station with space for 02 fire tender & control office
- UG fire tanks – 800 KL
- Fire tanks on each building – 30KL
- Yard Hydrant in the entire complex and Internal Hydrant inside each building
- Underground tanks 2 x 400 KL
- Two (02) Sets of following fire pumps provided at centralized fire plant room
- 03 Nos. electric pumps of 2850 LPM capacity for hydrants, sprinkler & water curtain
- 01 No. Diesel pump of 2850 LPM capacity
- 04 Nos. of Jockey pumps of 280 LPM capacity
- Piping network of 200mm dia. MS heavy duty pipes with isolation valves for sprinkler systems, yard hydrant and internal hydrant in service gallery
- 150mm dia. pipe yard hydrant network around the buildings with yard hydrant at 45m interval
- All buildings including service gallery with sprinkler systems
- Water curtains for compartmentation of basement. Compartmentation of floors above ground
- Clean and inert gas for protection of electrical installation
- Fire extinguisher CO2 and ABC
- Firefighting arrangements for HSD Pipe Network and HSD tank

- b) Areas and Equipment under Fire Safety installations and classification of services are detailed at Clauses 9.16, 9.17 & 9.18. The detailed list of equipment is provided at Annexure 11 of this RFP document.

c) Key Deliverables under Fire Safety System

Service Provider shall be responsible for the operation and maintenance of Fire Safety system installed in the IICCL property. This shall broadly include:

1. Service Provider shall be responsible for operation and maintenance of Fire Safety System and associated equipment / items. The responsibilities shall include operation and maintenance of:
 - Fire Hydrant System
 - Fire Sprinkler System
 - Water Curtain Systems
 - Fire Alarm and Detection System
 - Fire Extinguishers
 - Gas Suppression System
2. Service Provider shall operate and maintain fire safety system and ensure that:
 - the system is charged and operational, manned and monitored 24x7 and 365/366 days in a year without any deviation.
 - the rules and regulations of the Government on the fire and safety are complied with. Service Provider will be responsible for any lapse.
 - all equipment will be handled by only the trained staff.
3. Service Provider shall conduct trainings, drills and inspections for the fire safety system and ensure that:
 - Periodic training on fire and safety for all Service Provider staff and Subcontractor staff and Occupant designated staffs is conducted and a record of the same to be maintained.
 - Ensure periodic rehearsals and evacuation drills related to fire safety and disaster management are carried as per the standard operating procedure (SOP).
 - Effective liaison and coordination with fire department will be maintained.
4. Service Provider shall operate and maintain the entire and complete fire detection and alarm, fire fighting and suppression system and ensure that:
 - fire reserve tanks (underground/overhead) are always full and there is no misuse for other purposes
 - the proper and efficient functioning of ventilation and smoke exhaust system
 - adequate maintenance and working of all indicators, panels and alarms
 - adequate maintenance of panic exit devices, deluge system etc.
 - all precautions against flooding will be taken and implemented when required
 - fire extinguishers placement is correct and in order and the pressure inside the fire extinguishers is adequate for safe fire safety operations at all the time
 - adequate maintenance is provided to all fire pumps, jockey pumps standby diesel pumps and their controls and panels and ensure all fire lines can withstand the specified water pressure
 - no obstruction is created (by means of parking or otherwise) in front of fire hydrants and fire hose reel cabinets

- all fire exits are clear & free of obstruction of any kind
5. Service Provider shall conduct the periodic maintenance and inspection of the entire and complete fire detection and alarm, fire fighting and suppression system and ensure that:
 - all types of fire extinguishers are inspected / revalidated / refilled or replaced periodically and a log of expiry dates is maintained
 - periodically test of all alarms and systems (including fire and smoke detection equipment (fire detectors, smoke detectors, manual pull stations, alarm bells and lights, annunciators, speakers, flow detectors, flow switches, valve switches, wiring, devices, and accessories) fire suppression systems) is conducted in accordance with appropriate regulations
 - all smoke & heat detectors i.e., all detectors/sensors and the system as a whole are in perfect working condition and to carry out periodic checks to ensure the appropriate alarm is raised as designed and handed over. A log of all such tests to be maintained
 - perform inspection, maintenance, and testing of all exhaust duct sprinkler systems
 - monitor and refill fire extinguishers as required
 - monitor and refill gas suppression systems as required
 6. Service Provider shall manage ensure that:
 - all access roads for fire tender movement, as designated, are kept free
 - Inspection carried out by the Fire Department is coordinated promptly and all licenses and certifications are valid
 7. Service Provider shall execute the fire safety system maintenance program and is expected to perform following key services:
 - Coordinate with EPC Contractor/OEM and subcontractors responsible for periodic maintenance for these equipment, as per operation and maintenance manuals
 - Inspections, testing and preventive maintenance is occurring at the required frequencies
 - Ensure problems, breakdowns, etc. is addressed in a timely manner
 8. Service Provider shall manage ensure the uptime for all systems and maintain the required spare and inventory system and provide following key services:
 - Maintain and operate all the equipment adequately in order to deliver all services upto agreed standards in the entire building/premises
 - Stock levels to be maintained for different kinds of spares/inventory, etc. ensure adequacy of stock/spares for all equipment and machines installed at the Building(s)/premises
 - Maintain inventory for required tool & fixtures for upkeep of the fire safety system
 9. Service Provider shall maintain recording and reporting system and ensure that:
 - all Operational and maintenance logs and reports are maintained for daily, weekly, fortnightly, monthly, bi monthly, quarterly, half yearly and annually
 - all spare and inventory utilized are recorded and maintained in the inventory management system without any delay
 - a written record of all audit & inspections and to present it to SPV management team.
 - all trainings and fire drills are recorded and the records are available for inspection and review by local authorities and SPV management at all times

12.11.4 Plumbing and Sanitation Work

The Plumbing and Sanitation System including the Water Supply System, Sewer and Storm water system, and associated systems is detailed in the following Section. Service Provider shall be responsible for the Overall Operation and Maintenance of the Plumbing and Sanitation system for the common areas and also manage the services for Occupied Areas as per responsibility matrix defined in Clause 9.16 , 9.17 & 9.18.

a) Brief of Plumbing and Sanitation System

Operation and maintenance of the Plumbing system within and outside buildings comprising (but not limited to):

1. Water supply system

- Centralized storage pumping and piping system for the complex.
- Following underground water storage tanks:
 - Domestic Water Tanks – 05 Nos. – Total capacity 12.66 MLD
 - Soft Water Tanks – 02 Nos. – Total capacity 3.24 MLD
 - Flushing Water Tanks (including 01 no. soft water sump) – 05 Nos. – Total capacity 7.76 MLD
- Piping network of 250mm dia. D.I. pipes for domestic and treated water, minimum 150mm dia. HDPE pipes for horticulture with control and isolation valves in service gallery.
- Variable Frequency Drive hydro pneumatic pumps to maintain minimum 15 m residual pressure at highest point.
- Separate set of pumps for day and night water distribution for domestic and treated water both.
- Variable Frequency Drive hydro pneumatic pumps supply of soft water to cooling tower.

2. Sewer & Storm Water line Network

- Complete underground pipe network shall be double coil wall HDPE piping, HDPE precast manholes, double seal C.I. heavy duty manholes covers, SFRC perforated catch basins.
- RCC break tanks of adequate capacity complete with set of submersible pumps to discharge water to city storm water drain above HFL.

3. Irrigation Network

- Trunk Irrigation line of 150 mm size including variable frequency drive hydro pneumatic pumping sets shall be provided for the entire complex
- Moisture sensor, drip irrigation and sprinkler systems to ensure conservation of water and control through BMS/BAS/SCADA

4. Treatment Plant for Water bodies

- Water treatment plant for water bodies with LED lighting and Jets/Fountains.

5. Modular Rain Water harvesting

- Total Capacity - 19,200 cum (Ph-1 - 12,400 and Ph-2 - 6,800)
- Modular type rain water harvesting with recycle PVC nodules (Ph-1 –Approx. 26 Nos.)

6. Internal plumbing in buildings
 - Stainless Steel concealed pipes
 - Galvanized iron exposed pipes
 - Rain water pipes
 - Sanitaryware, faucets and urinals for all types of toilets (inside basements external areas)
 - Miscellaneous equipment viz., Hand dryers, air purifiers etc outside building premise
 7. Sewage Treatment Plant (24x7 hours basis)
 - In-house STP – 10 MLD (Phase-1: 2 Nos. - 2 MLD each)
 - Technology: Membrane Bio Reactor (MBR)
 - Softening System – Capacity 1 MLD
- d) Areas and Equipment under Plumbing and Sanitation System installations and classification of services are detailed at Clauses 9.16, 9.17 & 9.18. The detailed list of equipment is provided at Annexure 11 of this RFP document.
- b) Key Deliverables under Plumbing and Sanitation System
1. Service Provider shall operate and maintain the entire and complete Water Supply and Circulation system and ensure that:
 - To ensure operation of complete plumbing system according to planned schedule for 24-hour water supply. All water meter reading shall be logged periodically.
 - To ensure all water supply pumps, pressure vessels, hydro pneumatic systems and control panels are maintained as specified in manuals furnished by EPC Contractor/OEMs.
 - To ensure all water valves operate smoothly and there are no leaks anywhere in the system.
 - To clean, on a regular basis, all underground and overhead tanks and to ensure there are no deposits/sediments or algae growth.
 - To ensure proper maintenance of water treatment plant and correct chlorine dosage.
 - To ensure filtration equipment is maintained in a proper fashion and to carry out backwashing as specified.
 - To ensure all level indicators and level controllers' function as required.
 - To ensure that towers of A.C./D.G. set and expansion tank are always full of water.
 - To ensure all the services are smooth and do not come in the way of a smooth operating environment and state.
 2. Service Provider shall operate and maintain the entire Storm Drainage and Sewage system and ensure that:
 - All chambers, manholes, rooftop khurras, downtake stormwater drainage pipes, syphonic stormwater drainage system on the roofs of Exhibition Halls, Foyers and Convention Centre, catch basins at grade level, grease traps and other chambers and related pumping system. All pipelines should be clear through regular cleaning and de-silting and choking, if any, shall be attended promptly. However, routine maintenance of Occupant areas shall be in the scope of the Operator Company as per the Scope matrix given under Clause 9.17.2.
 - All chambers, manholes, sewerage pipes, inspection chambers etc. and related pumping system.

- All pipelines should be clear through regular cleaning and de-silting and choking, if any, shall be attended promptly.
- All gratings and covers should be in place and losses, if any shall be replaced promptly.
 - All pumps, electrical panels and controls for reticulation of storm water and sewage shall be maintained in proper working order.
3. Service Provider shall operate and maintain the entire and complete Sewage Treatment Plant and ensure that:
- Sewage treatment plant is to be maintained in proper fashion and regular checking of water is to be carried out and recorded.
 - To maintain all systems smoothly and to ensure all government compliances are complied.
 - All routine preventive maintenance and necessary inspection of Sewerage Treatment Plant as per the manufacturer recommendations.
 - Monthly, Quarterly, Bi-annual and Annual checks are performed per manufacturer recommendation.
 - Ensure that sewerage treatment plant is kept in a high state of availability and reliability.
 - Ensure the maximum uptime of the sewerage treatment plant in coordination with EPC Contractor/OEMs.
 - Ensure water quality of sewerage treatment plant is maintained as per defined standard /acceptable standard.
 - Ensure that the flushing system operation is unaffected and during STP maintenance.
 - Tracking of capacity and efficiency analyses of the system.
 - Ensure system is in condition for supporting a 24X7x365/366 basis operation.
 - Ensure periodic audits are being conducted.
 - In the events of non-generation of sufficient sewage at the inlet/equalization tank, MBR chamber needs to be filled with water at all the time including circulation of water through MBR chamber.
 - Transportation and handling of the sludge generated from STP will be carried out at regular intervals for fertilizing all landscape areas and/or to landfill areas as situation arises.
4. Service Provider shall maintain all Water Storage Tanks (Overhead and Underground) and ensure that:
- Water tank cleaning will be carried out by certified cleaning professional under supervision at frequency to be mutually discussed with the SPV/Employer and/or as per standard practices to maintain the TDS and hygiene of water.
 - Routine water testing will be carried out as per defined acceptable standard.
 - Log sheets will be maintained for water testing. Water testing for domestic supply is checked daily for TDS and other parameters in-house and quarterly testing for detailed parameters for Water properties and treated water should be checked from certified agency for periodic returns of MOEF.
 - Responsible for submitting the monthly service report.
 - All routine preventive maintenance and necessary inspection of Water Tanks will be carried out as per the standards.
 - Ensure system is in condition for supporting a 24X7x365/366 basis operation.

5. Service Provider shall maintain complete Rain Water Harvesting System and ensure that:
 - Rain Water Harvesting System is maintained to ensure optimum utilization of the system.
 - Perform routine checks & cleaning of the system.
 - The de-silting chambers, filters, dewatering pit, pumping system are free from blockage and periodic cleaning of sludge and mud is done to ensure maximum effectiveness of the system.
6. Service Provider is to maintain fountain systems and water features and ensure:
 - Where necessary prior to dormant seasons (e.g., winter) and/ or extended non-usage periods, drain fountain systems to prevent damage to system, such as corrosion/ blocked lines.
 - Shut off and drain or blow the water out of the system, turn off main supply valves, open manual drain valves, and bleed backflow prevention devices/ valves.
 - Provide necessary maintenance to ensure proper operation of fountain systems and water features.
7. Service Provider is to maintain irrigation lines and systems and perform following activities:
 - Test and maintain irrigation systems at a frequency necessary to ensure consistent functionality, providing full irrigation to all landscaped areas as necessary. Water application shall be at a frequency that promotes healthy turf growth.
 - Where necessary prior to dormant seasons (e.g., winter) and/ or extended non-usage periods, drain irrigation system to prevent damage to system, such as corrosion/frozen lines. Service Provider shall shut off and drain or blow the water out of the system, turn off main supply valves, open manual drain valves, and bleed backflow prevention devices/ valves.
 - Where practical, conduct watering at night or early morning.
8. Service Provider shall execute the Plumbing and Sanitation System Maintenance Program and is expected to perform following key services:
 - Major maintenance/repairs and parts replacements will be carried out by the EPC Contractor/OEM through comprehensive Annual Maintenance Contracts after warranties/DLP.
 - Coordinate with EPC Contractor/OEM and Subcontractors responsible for periodic maintenance for these equipment.
 - Inspections, testing and preventive maintenance is occurring at the required frequencies.
 - Ensure problems, breakdowns, etc. is addressed in a timely manner.
9. Service Provider shall manage ensure the uptime for all systems and maintain the required Spare and Inventory system and provide following key services:
 - Maintain and operate all the equipment adequately in order to deliver all services up to agreed standards in the entire building/premises.
 - Stock levels to be maintained for different kinds of spares/inventory, etc. Ensure adequacy of stock/spares for all equipment and machines installed at the Building (s)/premises.
 - Maintain inventory for required Tool & Fixtures for upkeep of the Fire safety system.
10. Service Provider shall maintain Recording and Reporting system electronically and otherwise to ensure that:
 - all Operational and maintenance logs and reports are maintained for Daily, weekly, fortnightly, monthly, bi monthly, quarterly, half yearly and annually.

- all Spare and Inventory utilized are recorded and maintained in the inventory management system without any delay
- a written record of all audit & inspections and to present it to SPV management team.

12.11.5 Mobile Equipment & Motor Vehicles

The Plumbing and Sanitation System including the mobile equipment and motor vehicles and their associated systems are detailed in the following Section.

Service Provider shall be responsible for the Overall Operation and Maintenance of this system for the common areas and also manage the services for Occupied Areas as per responsibility matrix defined in Clause 9.16, 9.17 & 9.18.

a) Brief of Mobile Equipment and Motor Vehicles

- Man lifts,
- Carts,
- Material Handling Equipment
- Forklifts,
- Electric Overhead Cranes
- Battery operated Vehicle

b) Key Deliverables under Mobile Equipment and Motor Vehicles

1. Service Provider shall operate and maintain the mobile equipment and motor vehicles and those provided by SPV inside the IICCL property. The detailed Equipment list is provided for Phase 1 as per Annexure 11 of this document for further clarification.
2. In addition to this, Service Provider shall provide the following mobile and motor equipment along with operators and operating licenses as applicable under its services for the project:
 - a) Battery operated E Cart – 5 numbers
 - b) Tractor with carriage trolley – 2 numbers
 - c) Telescopic Boom Lift (Min. Working Height - 30 meters) – 1 number
 - d) Electrically operated Forklift (Min. capacity – 2 T and Mast Height Range – 5 meters) – 1 number
 - e) Vertical lift for Indoor and outdoor Maintenance.; Electrically Operated (Min. Working Height - 10 meters) - 1 number
3. Service Provider shall operate and maintain the mobile equipment and associated system and the key responsibilities shall include following:
 - Services relates to the operation and maintenance of on-site Electric Shuttle Buses and mobile equipment, including Man lifts, Carts, Material Handling Equipment, Forklifts, Overhead Cranes, Battery operated vehicles etc. This is to be noted that some of the equipment and associated system are to be provided by SPV.
 - Operate and maintain fixed and mobile devices for the removal, installation, and loading, movement of heavy equipment, pallets and materials or to access elevated work areas.

- Deploy trained and certified /licensed operators for the operation of the machines and equipment.
 - Submit for approval by SPV management team a plan for the use, sustaining support, maintenance and replacement of the equipment.
 - Ensure equipment maintenance, operation, inspections, training and certificates are current and comply with all regulatory and legal requirements including Machine and Third party insurance.
 - Submit requests for the replacement or installation of equipment/installations.
 - Cranes and related equipment maintained within EPC Contractor/OEM specifications.
 - No safety incidents related to equipment malfunction, failure, or user negligence
 - Minimal interruptions or delays due to insufficient maintenance/repair/replacement mobile equipment.
 - The Service Provider shall also maintain the other Logistics equipment such as forklifts, scissor lifts, boom lift, pallet jacks, motorised pallet, etc. which have been procured by SPV for occupant areas.
4. Service Provider shall operate and maintain the Motor Vehicles and the key responsibilities shall include following:
- Deploy trained and certified / licensed operators for the operation of the vehicles
 - Operate all vehicles in a safe manner and in accordance with IICCL programs
 - Ensure No safety incidents related to equipment malfunction, failure, or user negligence
 - Ensure minimal interruptions or delays due to insufficient maintenance/repair/replacement of vehicles
5. Service Provider shall execute the maintenance program for Mobile equipment and Motor vehicles and is expected to perform following key services:
- Coordinate with EPC Contractor/OEM and Subcontractors responsible for periodic maintenance for these equipment.
 - Inspections, testing and preventive maintenance is occurring at the required frequencies.
 - Ensure problems, breakdowns, etc. is addressed in a timely manner.
6. Service Provider shall manage ensure the uptime for all systems and maintain the required Spare and Inventory system and provide following key services:
- Maintain and operate all the equipment adequately in order to deliver all services upto agreed standards in the entire building/premises.
 - Stock levels to be maintained for different kinds of spares/inventory, etc. Ensure adequacy of stock/spares for all equipment and machines installed at the Building(s)/premises.
7. Service Provider shall maintain recording and reporting system and ensure that:
- all Operational and maintenance logs and reports are maintained for Daily, weekly, fortnightly, monthly, bi monthly, quarterly, half yearly and annually.
 - all Spare and Inventory utilized are recorded and maintained in the inventory management system without any delay
 - a written record of all audit & inspections and to present it to SPV management team.

12.11.6 Civil Repairs and Maintenance Services

The Civil repair and Maintenance Services requirement is detailed in the following Section. Service Provider shall be responsible for the overall repair and maintenance of the civil finishes and structures for the Common areas, Hardscaped areas, Basements and Parking areas.

a) Key Deliverables under Civil and Maintenance services

1. Service Provider shall execute the repair and maintenance activities for Civil finishes and structures and is expected to perform following key services:
 - To cut, fix and polish marble / granite and stonework at the Common Areas and Hardscaped areas or at any other location as and when required for upkeep of complex.
 - Repair gaps and cracks in all building exterior walls, apertures and roofing to prevent water seepage into buildings or foundations.
 - Secure or remove any building structural element that presents a safety hazard
 - Inspect structural elements for rust, rot or other deterioration, particularly in staircases, roofs and load bearing elements. Paint as needed to prevent deterioration.
 - For glass repairs, remedy hazards, leaks and major cracks, replace windows when broken or seals fail.
 - Repair broken glass or structural elements where they present a risk to safety, security or water damage.
 - Remove or re-paint over graffiti.
 - Paint exterior surfaces/structures as required.
 - Maintain and repair concrete precast, concrete plastering pointing and joint caulking
 - Conduct regular inspections and preventive treatment, repair any damage and provide preventive/concrete protection.
 - Repair or replace expansion joints and caulking and prevent rodent and insect invasion.
 - Clean drains according on a recurring schedule and on an as-needed basis.
 - To carry out all other civil related repairs and maintenance job including but not limited to all civil work, painting, polishing preparing surfaces plastering, POP usage, etc. as per the scheduled PPM.
 - Perform carpentry, wooden and structural work like repair of doors windows, shutters, cabins, workstations, sentry posts, aluminum, SS and MS structures, staircase, canopies and signboards and signboards structures etc.
 - Replacement of sealants on the external façade work.
 - Repairing of façade surfaces wherever required and repainting with matching paint.
2. Service Provider shall execute the repair and maintenance activities for External Areas and is expected to perform following key services:
 - Ensure that entire property shall remain water logging free during the monsoon and prepare a monsoon mitigation plan.
 - Work related with the same like sand bags, sand filling, hiring of JCB, & hydra, dumper, tractors etc. will be in Service Provider scope.
 - Repair and maintenance of security fencing, entrance, road safety accessories /appliances, etc, in and around the IICCL property.
 - Service Provider shall maintain all water bodies (Dry type/floor type fountain, integrated with LED Lights and installed in circular, linear or random pattern and there are various types of fountain effect created by using of specialized nozzles are provided in outer upper, inner and central ring around the

- sculpture.
- All street furniture placed spread over IICC premises.
3. Service Provider shall execute the repair and maintenance activities for roof tops and terraces and is expected to perform following key services:
 - Perform regular roof inspections and leak detection including infrared when necessary.
 - Repair roof leaks and parapets. Repair damage caused by indoor and outdoor leaks.
 - Keep roof/gutters/khurras cleared of dust, debris, trash, pests, bird-nests, undesired naturally grown vegetation etc. on regular basis.
 - Remove all pest and rodents and clear roof area of all pest and rodent droppings, nests, and other debris.
 - Administer roof and siding inspection programs.
 4. Service Provider shall execute the repair and maintenance activities for Basement and Utility Areas civil repairs and is expected to perform following key services:
 - Inspect and maintain all basements to assure no water seepage or leakage occur.
 - Maintain retaining walls: Repair cracks and damage caused by the elements and soil movement. Provide inspections to prevent possible collapse.
 - Maintain and repair seal and epoxy coating to protect surfaces against gasoline, oil, salts and water. Assess how many coats are needed and curing time requirements for the location where the work is to take place. Ensure surface of repairs does not contain irregularities.
 5. Service Provider is expected to maintain Roads and Pavements and shall perform following activities:
 - Maintain concrete and blacktop pavements as well as drainage systems.
 - Maintain paintwork on pavements, curbs, and barriers.
 - Repair asphalt and concrete damage in a timely manner (this includes parking lots, sidewalks, patios, stone walkways, concrete borders, and pad yards)
 - Conduct maintenance work in order to extend pavement life by minimizing crack growth.
 - Realize crack sealing on a seasonal basis to keep water from entering and weakening the base or sub-base and prevents sand, stone and dirt from making its way into open cracks and cause compressive stresses.
 - Maintain storm drain system and ensure all storm drain gratings are flush with pavement surfaces.
 - Repairs potholes by adding paving mixture as needed and using technology such as infra-red technology to ensure repair is seamless and blends well with existing pavement.
 6. Service Provider shall prepare and execute the Civil repair and Maintenance program and is expected to perform following key services:
 - Coordinate with Civil Contractor and Subcontractors responsible for repair and maintenance for these areas under warranty and Defects liability period.
 - Ensure problems and failures etc. is addressed in a timely manner.
 - Work requiring major re-paving of the pathways, walkways, hot mix overlay is excluded from the statement of work and will be conducted as a separate project.
 - Service Provider is expected to conduct assessments and maintain a 5-year maintenance and

investment plan.

7. Service Provider shall manage ensure the uptime for all systems and maintain the required Spare and Inventory system and provide following key services:
 - Maintain and operate all the tools and equipment adequately in order to deliver all civil repair and maintenance services upto agreed standards in the entire building/premises.
 - Stock levels to be maintained for different kinds of spares/inventory, etc. Ensure adequacy of stock/spares for required activities.
8. Service Provider shall maintain recording and reporting system and ensure that:
 - all repair and maintenance logs and reports are maintained for Daily, weekly, fortnightly, monthly, bi monthly, quarterly, half yearly and annually.
 - all spare and inventory utilized are recorded and maintained in the inventory management system without any delay
 - a written record of all audit & inspections and to present it to SPV management team.
 - Any repairs or modification of buildings that change the aesthetics of the building must be approved by the "SPV" management prior to work.

12.11.7 Mini Bulk Chemicals, Gases and Fuels

The bulk chemicals, gases and fuels handling, operation and maintenance Services requirement is detailed in the following Section.

Service Provider shall be responsible for the Overall handling, Operation and Maintenance of these systems for the Common areas and project facilities under scope of "SPV" obligated to Occupants.

a) Brief of Systems under Mini Bulk Chemicals, Gases and Fuels

- Pressurized Natural Gas (PNG)
- High Speed Diesel
- Lubricants,
- Waste Oil
- Mini bulk gases such as refrigerants, Nitrogen for HVAC system.
- Mini bulk gases for welding purpose

b) Key Deliverables under Mini Bulk Chemicals, Gases and Fuels management services

1. Service Provider shall execute these services and is expected to perform following key services:
 - Monitoring, inspection, maintenance and repair of storage tanks and storage areas for fuel, chemicals, waste oil, and mini bulk gases as managed by the site.
 - Scope includes periodic testing of underground fuel storage tanks and leak detection monitoring systems.
 - Operation and maintenance of underground PNG Network (24x7 Hour Basis) in coordination with IGL
2. Service Provider shall ensure that:

- Trained and certified manpower is deployed in the handling, operation and distribution system
 - Reliable operation and maintenance of the material receiving, storage and distribution is followed including diesel and gases.
 - No leaks, spills, or over-pressurization of the distribution systems supplying bulk chemicals, Fuels and gases
 - No interruptions, disruptions or losses arising from unscheduled downtime of Customer-owned chemical distribution equipment
 - general systems support in compliance with IICCL Procedures and Policy as well as all regulatory agencies.
3. Service Provider will carry out:
- Perform daily inventory inspections.
 - Manage chemical, Fuels and Gases inventories under Storage code compliance and observe adequate supply to serve Services, Occupants / Users need.
4. Service Provider shall follow EHS guidelines in managing these services and ensure:
- an emergency response plan is prepared to tackle any situation of emergency or hazard occurred due to these services.
 - provide training to concerned teams for efficient handling and operation management
 - Support chemical excursion prevention and mitigation.
 - Participate in Customer coordinated internal and external quality audits.
 - Respond to and mitigate any equipment alarms.
5. Service Provider shall execute the maintenance program for Civil repair and Maintenance and is expected to perform following key services:
- Coordinate with EPC Contractor/OEMs, distributors and authorized suppliers responsible for repair and maintenance for these items.
 - Ensure problems and failures etc. is addressed in a timely manner.
8. Service Provider shall manage ensure the uptime for all systems and maintain the required Spare and Inventory system and provide following key services:
- Maintain and operate all the tools and equipment adequately in order to deliver all immediate repair and maintenance services upto agreed standards in the entire building/premises.
 - Stock levels to be maintained for different kinds of spares/inventory, etc. Ensure adequacy of stock/spares for required activities.
9. Service Provider shall maintain recording and reporting system and ensure that:
- all Repair and maintenance logs and reports are maintained for Daily, weekly, fortnightly, monthly, bi monthly, quarterly, half yearly and annually.
 - all Spare and Inventory utilized are recorded and maintained in the inventory management system without any delay
 - a written record of all audit & inspections and to present it to SPV management team.
 - Any repairs or modification of buildings that change the aesthetics of the building must be approved by the "SPV" management prior to work.

12.11.8 Environment Monitoring System

The Environment Monitoring System including the safety monitoring systems installed inside the Data centre and Back up Data Centre. Service Provider shall be responsible for the Overall Operation and Maintenance of this system and also manage the periodic maintenance carried out by the AMC/EPC Contractor/OEM Contractors during DLP and AMC period.

a) System covered in Environment Monitoring System

- Liquid Cooling Package System (LCP –CW)
- Water Leak Detection System
- Temperature, Humidity and Smoke Monitoring
- Digital Rodent repellent System

The detailed Equipment list is provided for Phase 1 as per Annexure 11 of this document for further clarification.

b) Key Deliverables under Maintenance of Environment Monitoring System

1. Service Provider shall operate and maintain, in accordance with Clause 9.16, 9.17 & 9.18, the Liquid Cooling Package Systems installed in Data Centers and Back up Data Centers and ensure that:
 - all LCP units are Operational under safe operating parameters
 - Regular monitoring of Inlet and Outlet Chilled water lines and flexible hose pipes are intact and ensure that the actuator operated control ball valves are efficiently working
 - ensure that the Fan modules are operational and no abnormal sound or heat is generated inside the modules
 - ensure that the compact impeller and blower units are in working condition and to carry out periodic checks to ensure the appropriate operating parameters as designed and handed over.
 - Minor repairs, leakage control, regular cleaning of connecting pipes and valves, filters, and maintenance as performed per recommendations of EPC Contractor/OEM's.
 - Regular checks for various valves installed in the piping system including cracks, proper water flow, piping connections etc. are operational.
 - Noise levels of the fan units and blower is in acceptable range and ensures there is no excessive vibration by performing required tests and analysis.
2. Service Provider shall execute the inspection and maintenance program for Environment monitoring systems including Water Leak Detection, Temperature, Humidity and Smoke Monitoring, Digital Rodent repellent system and is expected to perform following key services:
 - Physical inspection of control panels and modules, piping, capillary tubes, battery modules, satellite detectors, etc to ensure the physical and functional integrity of the system and equipment.
 - Provision for emergency services for Plumbing and leakage control activities inside Data Centers to control any damage to equipment of racks and servers.
 - Coordinate with EPC Contractor/OEMs, distributors and authorized suppliers responsible for repair and maintenance for these items.

- Ensure problems and failures etc. is addressed in a timely manner.
3. Service Provider shall manage ensure the uptime for all systems and maintain the required Spare and Inventory system and provide following key services:
- Maintain and operate all the tools and equipment adequately in order to deliver all immediate repair and maintenance services upto agreed standards in the entire building/premises.
 - Stock levels to be maintained for different kinds of spares/inventory, etc. Ensure adequacy of stock/spares for required activities.
4. Service Provider shall maintain recording and reporting system and ensure that:
- all Repair and maintenance logs and reports are maintained for Daily, weekly, fortnightly, monthly, bi monthly, quarterly, half yearly and annually.
 - all Spare and Inventory utilized are recorded and maintained in the inventory management system without any delay
 - a written record of all audit & inspections and to present it to SPV management team.
 - Any repairs or modification of buildings that change the aesthetics of the building must be approved by the "SPV" management prior to work.

12.12 Janitorial Services

"SPV" recognizes the environmental, health and operational efficiencies and benefits by reliability-based Janitorial services and is intended to implement a comprehensive, reliability based Janitorial service in IICCL property.

The reliability based Janitorial shall comprise of three key areas-

- 1) Cleaning and Housekeeping Services
- 2) Pest Control Services
- 3) Disinfectant and Sanitization Services

Service Provider shall comply and execute reliability based Janitorial Services.

Service Provider shall provide all necessary Equipment, machinery, cleaning tools and tackles and consumables for performing Janitorial services. Minimum requirement for such items is indicated in Annexure 6.

The various deliverables and responsibilities of Service Provider under this service are detailed in below section.

12.12.1 Areas covered for Housekeeping Services

The Service Provider to provide the Housekeeping services for the areas as defined in Clause 8.5 & 8.6 and as per responsibility matrix defined in Clause 9.16, 9.17 & 9.18.

12.12.2 Cleaning and Housekeeping Services

Service Provider is expected to provide Cleaning and Housekeeping Services for entire property excluding inside the occupied areas. Service Provider shall provide its services for cleaning and housekeeping services for the entire property during normal working conditions and shall also provide additional services during the events and programs days for the common areas. Although specific program details are left to Service Provider, it is expected that this program will have certain mandatory characteristics as described below.

The Service Level performance parameters for Cleaning and Housekeeping Services are mentioned in Annexure 4.

a) Common Area Cleaning

1. Service Provider is expected maintain common area floors, walls and staircases and will carry out:
 - Keep all floor mats substantially free of dirt, stains and debris.
 - Keep all hard floors and baseboards substantially free of visible dirt, dust, debris, stains, traffic/scuff marks, ageing marks, cobwebs and wax buildup.
 - Apply floor finish appropriate to floor type on all floor surfaces.
 - Utilize appropriate techniques and standards to achieve appearance, aesthetics, clean/healthy environment, and maintain the life of the product.
 - Clean tiles, including grout lines, and concrete floors will be substantially clean with minor controllable spots, stains, dirt, scuff marks and debris, consistent with a quality working environment.
 - High gloss shine will be applied in specified cases only.
 - Keep all floor mats trip or slip free.
 - Provide and maintain special entry mats as necessary including for inclement weather.
 - Keep all mirrors, glass partitions, doors and shelves free of streaks, smudges, spots and dust.
 - Substantially clean carpets and ensure carpets only have minor controllable spots, stains, dirt, and debris, consistent with a quality-working environment.
 - Keep tile, including grout lines, and concrete floors substantially clean with minor controllable spots, stains, dirt, scuff marks and debris, consistent with a quality working environment; high gloss shine will be applied in specified cases only.
2. Service Provider is to clean common area and connecting lobbies and will carry out:
 - Keep lobbies clean with no visible dust and cobwebs.
 - Keep all installations and displays clean and defect-free.
 - Keep any glass surface free of marks, stains, scratches or any other defects.
 - Eliminate spills, trash, stains and defects on the floor.
 - Maintain all furniture to its original condition and dust-free.
 - Keep all equipment uniform.
 - Maintain all glass windows and doors to be free of marks and smudges.
3. Service Provider is to clean walls and staircases and will carry out:
 - Keep all hard floors and baseboards substantially free of visible dirt, dust, debris, stains, traffic/ scuff marks, ageing marks, and wax buildup.

- Apply floor finish appropriate to floor type on all floor surfaces.
 - Utilize appropriate techniques and standards to achieve appearance, aesthetics, clean/ healthy environment, and maintain the life of the product.
 - Clean tiles, including grout lines, and concrete floors will be substantially clean with minor controllable spots, stains, dirt, scuff marks and debris, consistent with a quality working environment.
 - Floors buffed and polished (all stone, slate and ceramic floors to be scrubbed with a neutral cleaning agent). High gloss shine will be applied in specified cases only.
 - Wipe clean and polish walls in foyer and to glass entrance doors and railing glasses to be spot cleaned for any finger marks, stains or other marks.
 - Special attention to be given to entrance and high traffic areas (as required).
 - Sweep all external walkways and landings with manual sweeper.
 - Clean all stair landings, stairways and escalators.
4. Service Provider is to maintain external areas, basement and parking areas and shall perform cleaning services. Service Provider will carry out:
- To be cleaned before start of operations in morning.
 - Pick up the rag from the entire area including basements as and when required.
 - Brooming of heavy traffic area starting front area and then moving to back area.
 - Periodic cleaning of Parking Areas at all levels
 - Appropriate machines need to be used wherever required.
 - Cleaning of advertising hoarding, banners (with the help of maintenance staff)
 - Dusting of iron pillars /electric poles/camera poles/Signage & direction poles/AV poles/Flag poles (with the help of maintenance staff)
5. Service Provider is to maintain Utilities and Service areas and shall perform cleaning services. Service Provider will carry out:
- Daily cleaning of external areas i.e. DG Room, UPS Room and other utility areas in Basements and external areas.
 - Cleaning of AC grills, fire sensors, light fittings and extinguishers.
 - Other emergency cleaning services, as required.
 - Keep all vents and exhausts free of dust.
 - Ensure all exhausts and air fresheners are operational and function properly.
 - Keep all elevator (passenger & freight) door tracks free of dirt, soil, lint, dust and debris.
 - Keep passenger elevator doors, walls, and floors substantially free of dirt, stains, streaks, spots, lint and cleaning marks.
 - Keep drinking fountains substantially free of calcium build-up, debris in drains, stains, dust, and odors.
 - Ensure drinking fountains in an appropriate level of sheen to its design standard.
6. Service Provider is to clean common area furniture and other installations and will carry out:
- Keep all surfaces free of dust, dirt, and marks.
 - Regularly disinfect all surfaces with regular human contact (e.g., doorknobs).
- Furniture will be clean of minor dirt, dust and debris, consistent with a quality-working environment, and arranged per original set-up.

b) Toilets / Restrooms Cleaning

1. Service Provider shall be responsible for the cleaning of Common Area toilets including Service Toilets, Exhibition Hall 03 basement toilets, ESS 1 & 2, Fire Station and DG building toilets, Swatch Bharat Toilets across periphery and Open Area Exhibition Toilets.
2. Service Provider will carry out:
 - Regularly sanitize installations and surfaces to maintain a high level of cleanliness.
 - Ensure there are no offensive odors, no overflows or backflows.
 - Respond in a proactive and reactive manner to incidents in order to restore affected spaces to their original conditions and intended use.
3. Service Provider is to clean restroom floors, walls and surfaces and will carry out:
 - Keep floors and walls substantially free of any residue build-up (i.e., calcium build-up, mildew), smudges, odors, and dust.
 - Keep mirrors, partitions, drains, and fixtures and all horizontal and vertical surfaces substantially free of any residue build-up (i.e., calcium build-up, mildew), smudges, odors, and dust.
4. Service Provider is to clean toilet bowls, urinals, wash basins, traps and sinks. Service Provider will carry out:
 - Keep toilet bowls, urinals and sinks substantially free of any residue build-up (i.e., calcium build-up, mildew).
 - Respond, in the event of an incident or other mechanical failure, in a proactive and reactive fashion to restore affected installations to their original conditions.
5. Service Provider is to maintain and replenish restroom installations. Service Provider will carry out:
 - Replenish all dispensers and ensure they are fully operational.
 - Refill deodorizers and ensure they are fully operational.
 - Properly escalate mechanical/operational issues with any equipment or installations.
 - Maintain infrared equipped toilets, faucets, and other installations.
6. Service Provider is to collect trash and will carry out:
 - Maintain all trash cans and recycling receptacles and keep them free of odors.
 - Ensure trash receptacles are of consistent design and standard throughout areas.
 - Use trash bags of the most appropriate size for each receptacle.
7. Service Provider is to maintain custodial closets and will carry out:
 - Clean Janitorial Closets and Storage spaces and keep them clean and neat at all times in compliance with applicable fire codes and regulations. Janitorial closets must comply with AHJ including for the storage of chemicals and other products (EH&S, etc.).
 - Clean mops, buckets, wet floor signs, tools, equipment and all other materials and store them properly in janitor closets.
 - Cleaning caddies and materials shall not be left unattended and shall be stored in Janitor Closets when not in use.

c) Interior Wood/Metal/Stone Cleaning

1. Service Provider is to maintain Interior Wood, Metal and Stone finishes and fixtures and will carry out:
 - Provide special care and periodic cleaning of Wood, Metal, or Stone items. Examples include building entrances, lobby interiors and wall finishes.
 - Surfaces must be maintained using appropriate products and will be appropriately maintained in accordance with industry and/or manufacturer specifications
 - Use appropriate chemicals and equipment.
 - Perform routine inspections.
2. Service Provider shall ensure that:
 - Care and maintenance is performed by qualified personnel.
 - Activities are performed in a safe manner.
 - Activities performed do not disrupt or create unpleasant conditions or degrade air quality.
 - Cleaning activities do not damage or unduly shorten the operating life of the item.

d) Fabric and Carpets Cleaning and Maintenance

1. Service Provider is to maintain Fabrics and fabric finishes installed in the common areas and will carry out:
 - Ensure fabric cleaning and repair is performed by qualified personnel.
 - Use appropriate chemicals and equipment.
 - Ensure activities are performed in a safe manner.
 - Perform routine inspections.
 - Ensure activities do not disrupt or create unpleasant conditions or degrade air quality.
 - Ensure cleaning activities do not damage or unduly shorten the operating life of the fabric.
 - Ensure problems (e.g. stains, tears, etc.) are addressed in a timely manner.
2. Service Provider is to maintain carpets installed in the common areas and will carry out:
 - provide services related to the Care and Cleaning of Carpeted areas, including mats and rugs
 - Ensure cleaning is in accordance with manufacturers specifications.
 - Ensure carpet cleaning and repair is performed by qualified personnel.
 - Use appropriate chemicals and equipment.
 - Ensure activities are performed in a safe manner.
 - Perform routine inspections.
 - Ensure activities do not disrupt or create unpleasant conditions or degrade air quality.
 - Ensure cleaning activities do not damage or unduly shorten the operating life of the carpet.
 - Ensure problems (e.g. stains, tears, etc.) are addressed in a timely manner.
 - Keep all accessible carpets, mats, and rugs substantially free of debris, stains, odors, and visible dirt.
 - Utilize appropriate techniques, equipment, and standards to achieve appearance, aesthetics, clean/healthy environment, and maintain the life of the product.
 - Implement comprehensive processes to manage all spills in a proactive and reactive fashion.

e) General and Non hazardous waste and trash collection

1. Service Provider is to maintain general and non-hazardous waste installed in the common areas and will carry out:
 - Collect general, non-hazardous trash.
 - Clean all trash and recycle receptacles.
 - Maintain all receptacles and keep them free of odors.
 - Ensure trash receptacles are of consistent design and standard throughout areas.
 - Use trash bags of the most appropriate size for each receptacle.
2. Service Provider is to will carry out:
 - Clean recycle stations regularly and all material staged for recycling collected and transported to appropriate containers for on-site treatment or off-site disposal.
 - Provide cleaning for contained areas designated for Hazardous waste collection and storage with usage of proper PPE and technical supervision.

f) Building Exteriors and Façade Cleaning

1. Service Provider is to maintain Building Exterior and Façade in the entire common areas of the property and this shall exclude the buildings and areas occupied by Operator Company comprising Exhibition Hall- 1, Exhibition Hall- 2, Convention Center and Foyer 1 & 2.
2. Service Provider is expected to perform following services:
 - Exteriors of all buildings including glass, dry and wet claddings surfaces and louvers etc. shall be inspected and cleaned on a regular basis and maintained in a good condition, which does not compromise on safety in any way.
 - External surface of glazing of all buildings using the best practiced cleaning system shall be cleaned, on a regular basis and a log of this shall be maintained.
 - Trained staff shall be deployed for the cleaning of Façade and Height areas
 - Façade cradles and trolleys shall be maintained for smooth and safe operation
3. Service Provider shall ensure:
 - All Personal protection equipment including safety belt, helmets and gloves shall be used by the trained staff for cleaning work.
 - All Statutory and Regulatory Compliances in relation to the above including but not limited to the adherence to the as-built drawings, facades, encroachment on common areas or changes to façade and alike.
4. Service Provider shall ensure that a proper medical test report is provided at the time of joining and periodic health report on Quarterly basis is provided to ensure that no team member suffers from any Heart disease, High or low blood pressure, Epilepsy / fits / vertigo, Giddiness / difficulty with balance, Impaired limb function, Alcohol or drug dependence, Psychiatric Illness, Obesity and Diabetes. No personal shall be deployed on any heightened work unless the medical reports are provided prior to deployment.

g) Property External & Internal Boundary walls, chain link fencing and Peripheral Fixtures

1. Service Provider is expected to prepare a cleaning and maintenance schedule for External & Internal boundary walls, chain link fencing and peripheral fixtures shall ensure:
 - Boundary walls are always clean from inside and outside at all the time
 - Paint, claddings components, Metal design, external signages installed on the wall are clean and free from any stain or smug.
 - Entry exit gates, pergolas, street furniture and security cabins are clean and maintained properly
 - that no private posters, advertisements, banners and bill boards are pasted on the external walls and should remove any such item immediately. It is advised to ensure that formal complaint is filed with Local authority against any such illegal advertisement done on the external walls.
 - All Personal protection equipment including safety belt, helmets and gloves shall be used by the trained staff for cleaning work.
 - All Statutory and Regulatory Compliances in relation to the above including but not limited to the adherence to the as-built drawings, facades, encroachment on common areas or changes to façade and alike.

h) Cleaning Agents, Consumables and Cleaning Equipment

1. Service Provider is responsible for Acquisition and administration of Janitorial Supplies and Equipment.
2. Service Provider shall procure all required materials and equipment necessary to meet service expectations outlines in this SOW. Service Provider will carry out:
 - Maintain inventory of the required supplies and equipment.
 - Store supplies and equipment on-site in a secure/safe manner.
 - Ensure facilities are appropriately stocked.
 - Ensure appropriate, eco friendly and certified green rated products are used.
 - Ensure that approved neutral, alkaline, acidic, toilet cleaning agents having proper MSDS (Material Safety DATA Sheets) to remove smudges, streaks, stains, spots and skill deposits.

i) Activity Recording and Reporting

1. Service Provider shall maintain recording and reporting system and ensure that:
 - all cleaning and maintenance logs and reports are maintained for Daily, weekly, fortnightly, monthly, bi monthly, quarterly, half yearly and annually.
 - all Consumables and Equipment Spare utilized are recorded and maintained in the inventory management system without any delay
2. Service Provider shall perform regular audits & inspection related to cleaning services and ensure that:
 - a written record of all audit & inspections and to present it to SPV management team.
 - all frays and uncontrollable spots or stains or damaged surfaces, fixtures and furniture that cannot be removed by general cleaning practices are reported to management and necessary remedial action is taken.

12.12.3 Pest control Services

1. Service Provider is expected to provide Pest Control Services for entire property excluding inside the

occupied areas. Although specific program details are left to Service Provider, it is expected that this program will have certain mandatory characteristics as described below.

2. Service Provider is to provide pest control services in the common areas and external areas of the property. Service Provider will carry out:
 - Identify Vermin, Pests, termites, mammal, bird or insect, Harborage and Breeding Sites and perform pest control and ensure removal of the same.
 - Post signage as appropriate notifying colleagues of any dangers.
 - Employ trained and certified personnel to apply any pesticide or baited trap, indoors or outdoors.
 - Ensure pest control personnel uses appropriate equipment and eco friendly and green chemicals.
 - Pest control in common areas, basements, Building(s) Management offices, Services Offices areas, Engineering Services of the Building(s), floor levels, shafts, toilets, as per schedule given
 - Rodent, flies, cockroaches, mosquitoes, spiders control as per schedule
 - Clean and clear animal droppings and other wastes and disinfect affected areas as required.
 - Follow written and approved pest control procedures and reporting policies.
 - Abide by all policies, procedures, and precautions regarding pest control services in areas.
3. Service Provider shall follow all the guidelines/norms issued from time to time by Ministry of Home affairs, Ministry of Health, MoEF, State Govt directives including instructions under Force Majeure. The Service Provider will take effective necessary measures to prevent spread of COVID-19 epidemic and will implement of various measures issued by the Government time to time while ensuring maintenance of essential services such as housekeeping/ conservancy services & health infrastructure etc.
4. Service Provider shall maintain consumables, equipment and recording and reporting system is maintained to ensure that:
 - all Pest control activities are logged and reports are maintained as per schedule of activities.
 - all Consumables and Equipment Spare utilized are recorded and maintained in the inventory management system
 - Maintain inventory of the required supplies and equipment.
 - Store supplies and equipment on-site in a secure/safe manner.
 - Ensure facilities are appropriately stocked.

12.12.4 Disinfecting and Sanitization Services

1. Service Provider will provide Disinfecting and Sanitization Services for entire property excluding inside the occupied areas. Although specific program details are left to Service Provider, it is expected that this program will have certain mandatory characteristics as described below.
2. Service Provider is to provide disinfecting services in the Internal spaces of the common areas and external areas of the property. Service Provider will carry out:
 - Prepare and execute the disinfecting activity schedule and implement the services to ensure safe workplace environment.
 - Deploy trained cleaning staff to execute disinfecting and sanitation process and apply all necessary Personal protective gears during the activity.

- All indoor areas such as entrance lobbies, corridors and staircases, escalators, elevators, security guard booths, office rooms, meeting rooms, cafeteria should be mopped with a disinfectant with 1% sodium hypochlorite or phenolic disinfectants.
 - High contact surfaces such elevator buttons, handrails / handles and call buttons, escalator handrails, public counters, intercom systems, equipment like telephone, printers/scanners, and other office machines should be cleaned twice daily by mopping with a linen/absorbable cloth soaked in 1% sodium hypochlorite.
 - Frequently touched areas like table tops, chair handles, pens, diary files, keyboards, mouse, mouse pad, tea/coffee dispensing machines etc. should specially be cleaned.
 - For metallic surfaces like door handles, security locks, keys etc. 70% alcohol can be used to wipe down surfaces where the use of bleach is not suitable.
 - Hand sanitizing stations should be installed in office premises (especially at the entry) and near high contact surfaces.
 - Carefully clean the equipment used in cleaning at the end of the cleaning process.
 - Remove PPE, discard in a disposable PPE in disposable bag and wash hands with soap and water.
3. Service Provider is to provide disinfecting services in the Common Area Toilets of the property. Service Provider will carry out:
- Prepare and execute the disinfecting activity schedule and implement the services to ensure safe usage of Common Area toilets.
 - Deploy trained cleaning staff to execute disinfecting and sanitation process and apply all necessary Personal protective gears during the activity.
 - Follow sanitization procedure by using 70% Alcohol based cleaning agents to wipe down surfaces where the use of bleach is not suitable, e.g. metal. (Chloroxyleneol (4.5-5.5%)/ Benzalkonium Chloride or any other disinfectants found to be effective against infecting viruses and may be used as per manufacturer's instructions)
 - Always use freshly prepared 1% sodium hypochlorite.
 - Ensure that disinfectants spray on potentially highly contaminated areas (such as toilet bowl or surrounding surfaces) as it may create splashes which can further spread the infecting bacteria and virus.
 - To prevent cross contamination, discard cleaning material made of cloth (mop and wiping cloth) in appropriate bags after cleaning and disinfecting.
 - Disinfect all cleaning equipment after use and before using in other area
4. Service Provider shall maintain consumables, equipment and recording and reporting system is maintained to ensure that:
- all sanitization activities are logged and reports are maintained as per schedule of activities.
 - all Consumables and Equipment Spare utilized are recorded and maintained in the inventory management system
 - Maintain inventory of the required supplies and equipment.
 - Store supplies and equipment on-site in a secure/safe manner.
 - Ensure facilities are appropriately stocked.

12.13 Waste Management and Recycling Services

The Service Provider will deliver all services and functions associated with the management and administration of the Hazardous and non-hazardous waste management and recycling program inside the project to ensure all compliances are maintained and a clean and eco friendly workplace environment is maintained.

The main responsibilities of Service Provider under waste management and recycling services are broadly classified below and detailed scope of work is mentioned in following section:

- 1) Solid Waste Management (Non- Recyclable)
- 2) Solid Waste Management (Recyclable)
- 3) In-house Organic Waste Recycling Services
- 4) Hazardous Waste Management

Service Provider is expected to comply and execute reliability based Waste Management Services inside the property. The detailed Equipment list is provided for Phase 1 as per Annexure 11 of this document for further clarification. The various deliverables and responsibilities of Service Provider under this service are detailed below.

12.13.1 Non-recyclable Solid Waste Management Services

1. The Service Provider will manage and administer the garbage and waste generated inside the property and shall provide garbage bins of appropriate sizes and colour codes as per Standards for proper collection of garbage at various waste disposal areas.
2. The Service Provider shall ensure that the waste collected in the property generated from Common areas as well as the occupied areas is efficiently collected and segregated for recycling and non-recyclable waste.
3. Service Provider shall perform following activities for non-recyclable solid waste:
 - Coordinate with authorized garbage lifting authorities and supervise that wet, disposable and non-disposable garbage are segregated and disposed off accordingly.
 - To coordinate the selling of scrap to the authorized / licensed vendors post confirmation from the "SPV" management and ensure the recovery and collection of the sales proceeds
 - Accounting of garbage sale shall be maintained.
4. Service Provider shall maintain recording and reporting system and ensure that waste collection and disposal records and reports are maintained for daily, weekly, fortnightly, monthly, bi monthly, quarterly, half yearly and annually.
5. The Service Provider will also coordinate recycling programs and will execute waste minimization efforts within the property.

12.13.2 Recyclable Solid Waste Disposal Services

1. The Service Provider will also collect non-hazardous recycling items and administer the recycling program in accordance with IICCL sustainability initiatives.
2. Further segregation shall be done for in-house Organic waste recycling and disposal for external waste recycling process.
3. Items to be segregated for external recycling include, but are not limited to cans, cardboard, glass, metals, packing materials, pallets, and paper.
4. Service Provider shall engage and co-ordinate with authorized waste recycling agency and ensures that proper licenses and facilities are available with the agency for collection, storage and recycling the collected waste.

12.13.3 In-house Solid Waste Recycling Services

1. The Service Provider is responsible for Operating and maintaining the Solid Waste Converter system installed in the property for in-house recycling of the organic waste material.
2. The Service Provider shall provide Operation and Maintenance services for Solid and Organic waste converter system to be comprising of following listed systems:
 - Pneumatic Solid Waste Management Plant of capacity minimum 35 Ton.
 - Compost plants minimum 2 Nos. of 5 Ton capacity each.
 - 500 mm dia MS pipes with isolation valves and blanking flanges in service gallery for connecting inlet points.
 - 450 mm dia Stainless Steel (304 grade) garbage chute with stainless steel hoppers from kitchens to inlet points.
 - Temporary waste collection chambers.
 - Organic and inorganic inlet points at convenient points as specified
 - Loader and trucks suitable for transporting containers 2 Nos., 2 Ton LCV-1 no. as specified.
 - Mechanical ventilation for the plant room.
 - Air conditioning for the exhausters' room.
3. The Service Provider shall ensure that:
 - A standard operating process is established for operating and maintaining the waste converter system
 - trained manpower, drivers, loaders are deployed for the operation and maintenance of the system and adequate personal protection equipment are used while operating the system
 - Adequate cleaning and maintenance is done for smooth and uninterrupted services of the system
 - Processed compost is stored and dried in staked and secure designated place.
4. Service Provider shall maintain recording and reporting system and ensure that waste converter and processed quantity records and reports are maintained for daily, weekly, fortnightly, monthly, bi monthly, quarterly, half yearly and annually.
5. Service Provider shall execute the maintenance program for waste Converter system and is expected to perform following key services:

- Coordinate with EPC Contractor/OEMs, distributors and authorized service agency responsible for repair and maintenance for these items during warranty and Defects Liability period.
 - Ensure problems and failures etc. is addressed in a timely manner.
6. Service Provider shall manage ensure the uptime for all systems and maintain the required spares, and inventory system and provide following key services:
- Maintain and operate all the tools and equipment adequately in order to deliver all immediate repair and maintenance services upto agreed standards in the entire building/premises.
 - Stock levels to be maintained for different kinds of spares/inventory, etc. Ensure adequacy of stock/spares for required activities.

12.13.4 Hazardous Waste Management Services

1. The Service Provider is required to establish handling and disposal procedure under Environmental Health and Safety guidelines as per statutory requirements to properly dispose of hazardous waste.
2. Procedure shall include securing, collecting, disposing, and recycling chemical, e-waste and other Hazardous waste materials in accordance with all regulatory policies and standards.
3. The Service Provider is expected to ensure the following functions are performed for regulated Hazardous waste:
 - Collect waste containers
 - Compliance monitoring
 - Compliance reporting
 - Consolidation and storage
 - Coordinate for external recycling process
 - Update records and manifests
 - Waste container inspections
 - Reports and returns management
4. The service Provider shall manage Hazardous waste strictly in accordance to the Solid Waste Management Rules, 2016 and Hazardous and other Wastes (Management and Transboundary) Rules 2016 as amended up to date.
5. Service Provider to ensure that the segregate and storage of the waste generated inside the property is segregated in three separate streams namely bio-degradable, non-biodegradable and hazardous wastes in suitable bins.
6. The service Provider shall take all the steps while managing hazardous and other wastes to:
 - contain contaminants and prevent accidents and limit their consequences on human beings and the environment; and
 - provide persons working in the site with appropriate training, equipment and the information necessary to ensure their safety.

7. The Service Provider shall ensure that hazardous and other wastes are stored inside the property for a period not exceeding ninety days from generation and shall maintain a record of sale, transfer, storage, recycling, recovery, pre-processing, co-processing and utilization of such wastes and make these records available for inspection.
8. Service Provider to engage authorized Hazardous waste collection and recycling agency and handover segregated wastes as per the direction or notification by the local authorities from time to time.
9. Service Provider shall ensure that all statutory reports and
 - Maintain monthly records of such operations as per statutory requirements.
 - Prepare and submit annual returns to the State and/or Central Pollution Control Boards as per statutory requirements.

12.14 Landscape and Horticulture Maintenance Services

Service Provider will be responsible for maintaining all exterior areas including, but not limited to landscaped areas, non-landscaped exterior areas, berms, service yards, patios/courtyards, parking lots, green roofs (terrace gardens) / pathways/ planters such as Convention Centre, Exhibition Halls 1 & 2, external toilets, exhaust air towers, fresh air towers, fan rooms, munties over Convention Centre car park, entries & exits of Service Gallery etc., wetlands, and public transportation common areas. The broad area covered under horticulture and landscape is as defined in Clause 8.5 & 8.6 and as per responsibility matrix defined in Clause 9.16, 9.17 & 9.18.

General maintenance / replacement of installations will be carried out by the landscape contractor appointed by the EPC Contractor under obligations for performing complete Operation and Maintenance of Installed and executed areas for the period of One year from the date of complete plantation. This shall exclude open grounds and plots allocated for future development of Buildings and facilities and are either maintained as is basis or to be used under parking provisions.

Service Provider shall provide all necessary equipment, machinery, tools and tackles and consumables for performing Horticulture and Landscape services. Minimum requirement for such items is indicated in Annexure 6.

The detailed Scope of work under these services is detailed in below section.

12.14.1 Landscaping and Grounds Maintenance

1. Service Provider is to maintain Landscaped Areas and will carry out:
 - Perform weed control as needed to maintain a weed free appearance. Provider shall ensure that sidewalks (cracks), curbs and parking pavements are free of weeds/moss.
 - Non-chemical and/or organic practices are recommended. Use of pre-emergent herbicides shall be considered on a site-by-site basis and shall comply with applicable law or local ordinance.
 - Inspect landscape areas, plants and trees for pest, disease infestation and any condition detrimental to the health of the plants and trees.

- Establish a continuing program to control pests and nuisance wildlife, which includes but not limited to geese, seagulls, moles, gophers, skunks, snakes, rats, coyotes and other vermin in accordance with local regulations. Provider shall repair landscape areas accordingly.
- Conduct mowing and edging at a frequency that maintains a grass height that is optimal for the health of the lawn, inhibits weed/ moss/ pest growth, maintains aesthetics, and encourages water retention.
- Conduct reseeding, weeding/ treating, aerating, fertilizing, and watering at a frequency and manner that supports a healthy, full lawn.
- Conduct edging along all sidewalks, curb lines, concrete service slabs, asphalt paths, tree circles, and bed edges as needed to maintain a neat, clean appearance.
- Trim around all road signs, guard posts, gates, security fencing, trees, shrubs, utility poles, fire hydrants, irrigation controllers, water, shutoff valves and other obstacles.
- Repair damaged irrigation lines and systems, in-ground lighting, and other similar items caused by operation of landscaping equipment.
- Schedule watering in coordination within site guidelines and Applicable Law by-laws/regulations, minimizing water evaporation. Efforts shall be made to eliminate run-off into parking, sidewalk, and road areas.
- Clean up soil, grass, debris, fertilizer, bark and all other by-products of landscape/ lawn care immediately after application. Clean up may include, but will not be limited to sweeping/ blowing/ pressure washing of walks, paths, patios, and other similar surfaces to remove debris.
- Remove grass clippings from street, curbs, and sidewalks, parking areas and travel lanes. Rake and remove excess debris and grass from lawn areas. Keep all mulch and flowerbeds free of weeds and debris. No grass clippings shall remain in beds.
- Pick up all foreign debris (paper, bottles, cans, and cigarettes), regardless of cutting frequency. This includes lawn, sidewalk and parking lot areas. Specific attention shall be given to the immediate surroundings of the premises and public access.
- Care for flowers.

12.14.2 Plants, Trees, Shrubs and Hedges Maintenance

1. Service Provider will guarantee All Plants and Trees grown in the project area are in healthy condition throughout the year. Plant material shall be alive and in satisfactory growth condition at the end of the guarantee period. Service Provider is to provide tree care:
 - Properly prune all trees shall; eliminating suckers, shoots, and seedlings to develop a balanced canopy and ensure the tree remains structurally sound.
 - Support all young or new trees in a method to promote healthy growth and protected from pests/ vermin.
 - Maintain area of clearance around security cameras, traffic, and pedestrian lines-of-sight, including but not limited to signs and lampposts. Provider shall propose standards for maintaining at safe and satisfactory levels.
2. Service Provider will guarantee shrubs and hedges grown in the project area are in healthy condition throughout the year. Service Provider is to provide tree care activities:
 - Trimming & Pruning - All shrubs and hedges shall be trimmed and pruned regularly. Special attention

shall be given to prevent any unsafe conditions, and to ensure that there are no obstructions of vision from building windows, for vehicles and pedestrians, or of safety signage.

- Mulching Application - Keep IICCL beds adequately covered to optimize appearance, health, keep down weeds and water retention of ground in and around IICCL.
- Maintain area of clearance around security cameras, traffic, fire hydrants (per local code), shut off valves access hatches and pedestrian lines-of-sight, including but not limited to signs and lamp posts. Provider shall propose standards for maintaining at safe and satisfactory levels.

3. Service Provider will provide groundcover care and ensure that all groundcover will be trimmed to promote full growth and kept contained within IICCL boundaries.

12.14.3 Non-landscaped lands and Open Plots Maintenance

1. Service Provider shall maintain non-landscaped areas and allocated plots for planned Buildings and Facilities in development and perform following activities:
 - Mow fields, slopes, berms, drainage ponds, and retention ponds areas at a frequency necessary to keep down to a level that will not create a fire danger.
 - Control and/or eliminate invasive weeds.
 - Apply pre-emergent and post emergent herbicides to inert areas as required to control weeds.
 - Raked and/or blown out loose stone areas as needed to maintain a neat, debris free appearance.
 - Clean all such areas of paper and other extraneous material.
 - Periodically blow out and/ or vacuum rock areas to remove leaf and debris build-up.

12.14.4 Seasonal Horticulture Maintenance Activities

1. Service Provider is to conduct "autumn" clean-up and perform following activities:
 - Prune all damaged shrubbery, ornamental trees and remove dead wood.
 - Remove all dead plants, leaves, ornamental trees and shrubs.
 - Remove all annual flowers.
2. Service Provider is to conduct "spring" clean-up and perform following activities:
 - Prune all damaged shrubbery, ornamental trees and remove dead wood.
 - Replenish all dead plants, ornamental trees and shrubs.
 - Remove all sand and dirt from walkways and parking lots.
 - Replenish all annual flowers.
3. Service Provider is to conduct seasonal activities on an "as-needed" basis:
 - Replacement of shrubs or trees,
 - Replacement of seasonal flower plants
4. Service Provider shall perform the work to meet site specific requirements linked to local weather conditions.
5. Service Provider is to ensure compliance with herbicide and pest control application requirements:

- Ensure herbicide and pesticide applications comply with all applicable laws.
- Ensure all chemicals and quantities used are reviewed and approved by EH&S department before being brought onto IICCL Property. Provider shall provide alternative chemicals or control methods in the event chemicals and/or products do not meet Customer EH&S approval.
- Maintain Material Safety Data Sheets (MSDS) for any chemicals used.
- Submit application schedules for review and approval by EH&S department.

12.14.5 Interior Horticultural Maintenance and Care

1. Services Provider shall perform services related to caring for plants inside of the buildings and covered areas pertaining to Common Areas only. The Service Provider will be required to care for the plants and is expected to perform following activities:
 - Water plants.
 - Chemically treat/fertilize them as required.
 - Ensure all fertilizer and chemical products used in the care of plants are approved by IICCL and in compliance with all regulatory requirements.
 - Ensure plants are kept healthy.
 - Perform activities required of seasonal changes.
 - Trim plants as required.
 - Inspect the condition of the plants and change them out as required.
 - Ensure activities are performed in a safe manner.
 - Provide equipment to care for the plants.
 - Terrace pathways of Convention Centre, Exhibition Halls 1 & 2, Foyers 1 & 2.
 - Green Roof (terrace gardens), planters of buildings / structures such as Convention Centre, external toilets, exhaust air towers, fresh air towers, fan rooms, munties over Convention Centre car park, entries & exits of Service Gallery etc.

12.14.6 Maintenance and Inventory Planning and Management

1. Service Provider shall execute the Landscape and Horticulture Services Maintenance Program and is expected to perform following key services:
 - Coordinate for General maintenance / replacement of installations will be carried out by the Project Contractor under obligations for complete Operation and Maintenance for the period of One year from the date of commissioning.
 - Establish schedule and Coordinate with Contractor and its Subcontractors responsible for periodic maintenance for these equipment during the period of DLP.
 - Prepare and implement maintenance schedule for all in-house activities to be performed in general under the service scope of work during and post DLP period.
 - Inspections, testing and preventive maintenance is occurring at the required frequencies.
 - Ensure problems, breakdowns, etc. is addressed in a timely manner.
2. Service Provider shall manage ensure the uptime for all services and maintain the required Consumables and spares are provide following key services:

- Maintain minimum requirement of seeds and saplings
- Maintain treatment chemicals and related equipment and operate all the equipment adequately in order to deliver all services upto agreed standards in the entire building/premises.
- Stock levels to be maintained for different kinds of consumables and spares, etc.
- Maintain inventory for required Tool & tackles for upkeep of the Landscape and Horticulture services.

12.14.7 Data recording and reporting system

1. Service Provider shall maintain Recording and Reporting system and ensure that:
 - all Operational and maintenance logs and reports are maintained for Daily, weekly, fortnightly, monthly, bi monthly, quarterly, half yearly and annually.
 - all Spare and Inventory utilized are recorded and maintained in the inventory management system without any delay
 - a written record of all audit & inspections and to present it to SPV management team.

12.15 Signages and Graphics Management and Maintenance

1. Service Provider shall provide services related to the maintenance of non-digital fixed or movable Exterior and common area signages, graphics and sign boards. Digital and Interactive Signages / Screens provided in Exhibition Hall 1, 2, Convention Center and Foyer are covered under responsibility of Operator Company for routine Operation and Maintenance.
2. Service Provider shall:
 - Coordinate with Project Management Team and EPC Contractor of SPV and take necessary design guidelines and standards to prepare a Signage guidelines and standards policy for IICCL operations.
 - Maintain all name tags / plates and building signage as installed and in a manner that is consistent with IICCL signage standards.
 - Maintain a template or program to produce door plates for common space such as utility rooms, restrooms, etc.
 - Maintain and update interior and exterior directional signage.
 - In event of maintenance activities performed on surface or items where plates and signage is installed, remove plates and signages which are in good condition and can be reused or properly discard old signage.
 - Provide periodic signage reports that address the type, size and number of signages and related expense incurred for new or replacement jobs.
 - Evaluate the impact changes in standards will have on operating budgets.
 - Maintain and enforce building interior wall hanging guidelines.
3. Service Provider shall monitor the Signages installed by Occupants and Users in their respective leased / allotted areas and ensure that:
 - All signages installed are as per design guidelines of IICCL and match the overall theme of the project
 - Ensure size, colour scheme and quality of signages should be as per the design guidelines in Fit-out manual.
 - Ensure that the lux levels for backlit or illuminant signages is within prescribed limits and does not

- create any glare or visibility related issue.
 - Maintain and enforce building interior wall hanging guidelines.
 - Work permits shall be issued for installation of signages which are on the control line between Occupant area and Common areas and it must be ensured that the Signage installations can be completed during normal business hours as long as normal business operations are not interrupted.
4. SPV shall engage an external Advertisement company for generating business and managing the Signages/Display units installed inside the property which are excluded from the scope of Operator Company.
 5. Service Provider shall monitor the overall engagement and implementation of Advertisements and banners for business promotions inside the Property and ensure that:
 - the service contract is in place and the advertisement calendar or schedule is followed as per agreed plan.
 - all signages and business promotion related banners are installed as per the applicable Advertisement rules and regulation provided by Local governing authorities.
 - must ask for and maintain a copy of approval certificate on the oversized and signages facing outside the campus.
 - Monitor and record the overall services performed under the Contract and provide the record of advertisements made by the Contractor/advertisement agency for revenue management purpose.

12.16 ICT Infrastructure and Services Management

12.16.1 The ICT System (Information Technology and Communication system) installed in IICCL property is backbone of the core business to be performed inside the property. The Information Technology and Communication Services are broadly classified in following table:

Sr. No	Service	Service Type	Broad System Components
1	Infrastructure	Data Center	<ul style="list-style-type: none"> • Workstations, • Computers, • Desktops, LED Screens etc. • Software and Licenses
2		IT and Data Networking Infra System	<ul style="list-style-type: none"> • Server and Network Racks, • Switches, • IT Components (active, passive) • Intelligent Cabling Components • Network Security Appliances • Structured Cabling, Optics, Storage Equipment • Software and Licenses
3		Environmental Monitoring Systems (DCIM)	<ul style="list-style-type: none"> • RiZone Monitoring System • Temperature, Humidity and Smoke Monitoring • Water Leak Detection System • Digital Rodent Repellent System

Sr. No	Service	Service Type	Broad System Components
4	Application and Services	Applications and Services- ICT System	<ul style="list-style-type: none"> • Cyber Security System • Wi-Fi and Distributed Antenna System (DAS) • IPABX System • Audio Visuals System • Digital Signage System • Augmented Reality / Virtual reality Solution • LED Media Façade System • BGM System (Background Music System) • People Counting System • OB Van connectivity System • Mass Antenna TV
5		Applications and Services- Security System	<ul style="list-style-type: none"> • CCTV System • Access Control System • Intrusion Alarm System and Solar Powered Fencing Systems • Public Address System • Parking Access Management & Guidance System • Physical & Vehicle Security Checkpoint System

The detailed list of equipment under this ICT Services is provided in Annexure 14. The Service Level performance parameters for ICT Services are mentioned in [Annexure 4](#). The detailed scope of work under above listed categories is defined in following section.

12.16.2 ICT System Related Key Location and Command Centers

S. No	Description	Nos.	Operations Responsibility
1	Main Security Control Center (MSCC) at Convention Center	1	Joint Operation (Service Provider, Operator Company & Security Agency)
2	Security Control Center (SCC) at Foyer-2	1	Under Operator Company
3	Main Hall & Stage Security Control Room (for Auditorium) at Convention Center	1	Under Operator Company
4	Main Operation Control Center (MOCC) at Foyer-2	1	Under Operator Company
5	Operation Control Center (OCC) at Convention Center Foyer-2 Exhibition Hall 1	2	Under Operator Company
6	Main Data Center (MDC) at Convention Center	1	Under Operator Company
7	Backup Data Center (BDC) at Exhibition Hall-2	1	Under Operator Company
8	Primary ICT Technical Room at Convention Center, Exhibition Hall 1, Exhibition Hall 2	6	Under Operator Company
9	Communication Operators Room B (COR - B) at Convention Center, Exhibition Hall 2	3	Under Operator Company

S. No	Description	Nos.	Operations Responsibility
10	TV Station Room at Convention Center	2	Under Operator Company
11	Satellite Equipment Technical Room (SETR) at Convention Center	1	Under Operator Company
12	Secondary ICT Technical Room/s, ICT Rooms, ELV Rooms	As per Drawing	As per responsibility matrix
13	AV Control Rooms	As per Drawing	As per responsibility matrix
14	Any other operation room(s)	As per Drawing	As per responsibility matrix

12.16.3 The scope of services for Operation, Maintenance and Management of ICT services has been described in this section based on the classification of areas assigned to Operator Company and common areas and services for respective systems. Service Provider shall be responsible for the Overall Operation and Maintenance of the ICT services for the common areas and also manage the services for Occupied Areas as per responsibility matrix defined in Clause 9.16, 9.17 & 9.18.

12.16.3.1 Asset Management Services

1. Service Provider shall coordinate with Project Management Team and EPC Contractor of SPV and obtain the current list of assets to the system.
2. The Systems installed inside the Data Centers, MOCC, OCC, and IT distribution systems Occupant's area which are operated by IT enabled services shall be operated and maintained by the Operator Company's IT Team.
3. Service Provider to deploy their representatives, as required, within Occupant's area and coordinate with Operator Company in fault identification and their rectification of any equipment, facility, network serving the entire complex except the Occupant's area.
4. The Service Provider's IT Team shall Operate and maintain the ICT systems as per Clause 12.16.3 and ensures that the infrastructure services are kept active for Operator Company to perform the business activities through the ICT systems and equipment provided by IICCL for occupied areas.
5. Service Provider in coordination with Operator Company's IT Team shall be required to create and maintain database of all the assets procured/installed at IICC complex as per following details:
 - The database should have information like make, model, configuration details, serial numbers, licensing agreements, warranty and AMC details, place/location of installation etc.
 - The Service Provider shall create and maintain Software inventory with information such as Licenses, Version Numbers and Registration Details along with their configuration details and history.
 - The Service Provider shall be required to record installation and removal of any equipment, replacement of any equipment and inform tendering authority even if it is temporary.

6. It is the responsibility of the Service Provider to monitor, inspect and perform the following activities:
 - Performing Corrective and Replacement / Renewal Activities for the infrastructure and assets associated to applications and services in Occupant's area.
 - Execute the maintenance program for all ICT enabled system and is expected to coordinate with DLP / Warranty and AMC related EPC Contractor/OEM and Subcontractors responsible for periodic maintenance for these equipment for both Occupants and Common Areas.
 - Responsible for the routine checks and maintenance of these systems and shall ensure that the backend network and data services are provided for smooth operation of the services.
7. Service Provider shall notify the SPV of all licensing contracts and renewal contracts before 3 months of expiry and shall be required to register all software (in case not registered) with respective EPC Contractor/OEMs however renewal cost for the licenses shall be reimbursed by the First Party.
8. Service Provider shall operate and perform maintenance on the IT enabled assets installed in the Common areas and ensure that all equipment are operational all the time.

12.16.3.2 Data Center Management Services

Service Provider will provide full support and coordinate for infrastructure functions of Main Data Center and Back up Data Center as per responsibility matrix defined in Clauses 9.16, 9.17 & 9.18.

Service Provider shall have auditing and supervisory control on behalf of SPV for the assets and infrastructure provided by SPV to Operator Company. as part of Project Facilities which are operated and maintained by Operator Company.

12.16.3.3 Network Management Services

The scope of work under network management services would include following services for the operations of common areas and also manage the services for Occupied Areas as per responsibility matrix defined in Clause 9.16, 9.17 & 9.18.

- To ensure continuous operation and upkeep of the LAN Infrastructure at the IICC complex including all active and passive components within the designated areas, so that the network is available 24 x 7as per the prescribed SLA.
- To ensure configuration, /reconfiguration, /deployment and management of various policies like security policies, access policy, IP policy, routing policy, firewall policies etc. as per ISO requirements for providing accessibility between external links and their infrastructure hosted at the Data Centers in co-ordination with respective vendors including but not limited to opening/closing of specific ports on network devices.
- Performance tuning to ensure resilient performance, reliability and high availability of the network services. A performance matrix has to be provided by Service Provider to the SPV management on monthly basis and as and when required.
- The Service Provider shall also be responsible for integration, management, maintenance, of any additional Internet Bandwidth/networks which needs to be integrated with IICC network during

entire contract period.

12.16.3.4 Server Management Services

1. Service Provider has to provide these services for existing servers and servers to be procured in future.
2. Service Provider shall be responsible for corrective maintenance and replacement/renewal and software support, configuration for the IICC project and also manage the services for Occupied Areas as per responsibility matrix defined in Clause 9.16, 9.17 & 9.18. Service Provider shall be responsible to manage and operate the following services as applicable:
 - a) Monitor the environment, alarm systems and environmental controls.
 - b) Monitor the performance of devices based on tool availability to resolve system-related incidents, including escalating (as appropriate) the incident to the proper Level 2 and Level 3 Support group.
 - c) Provide operational support for data transmission (send/receive), consistent with IICCL standards.
 - d) Manage, maintain, monitor, and control online and batch processes, both scheduled and unscheduled (including on-request processing).
 - e) Complete batch processing and backups in the correct sequence and within the defined time periods.
 - f) On an on-going basis, enhance processing capabilities and efficiencies through system tuning and other run-time improvements.
 - g) On an on-going basis, work towards reduction of false alerts, refine alert monitoring processes and fine-tune monitoring threshold parameters in monitoring tools.
 - h) Notify management in accordance with the notification procedures in the event that Applications do not execute properly.
 - i) Perform periodic and emergency systems maintenance in accordance with procedures established to minimize the impact to Occupant's and Users business.
 - j) Perform computer shutdowns and restarts, as required, and execute customary utility functions.
 - k) Maintain, administer, and provide necessary automated tools and processes for systems management to the extent available in the tool suite jointly agreed by the Parties.
 - l) Maintain tables, calendars, parameters, and definitions for tools used to automate manual procedures or to automate and improve the quality of the operations.
 - m) Provide remote monitoring and management of Servers, storage Equipment, and associated peripherals.

- n) Maintain and update the operational documentation for all operations procedures and services, including maintaining accurate information about all Configuration Items (CIs) in Configuration Management Database (CMDB) / Configuration Management System (CMS).
- 3. Service Provider shall also coordinate installation/re-installation of all the servers in terms of operating system, databases, clusters, virtualization, Application Server software, latest Software updates/upgrades, patches etc.
- 4. Develop, where appropriate, and install productivity tools/utilities, as well as performing all required operational modifications for the efficient and proper delivery of the Services.
- 5. Develop and maintain technical and functional specifications and requirements for all environments and related interfaces and manage, prioritize, and coordinate all preventive and remedial maintenance and updates for System Software.
- 6. Service Provider shall provide device/peripherals management, user management, file system management, files management services for the servers.
- 7. Service Provider shall implement operating system security/hardening and application server software level security for the servers.
- 8. Service Provider shall deploy and upload/configure/host and manage web sites, application software and databases on the servers as per requirement and policies. The Service Provider shall also coordinate and provide all assistance/services to the purchaser and the users of respective websites/applications for smooth operations and resolution of day-to-day problems.
- 9. Service Provider shall assign rights on servers to different user's w.r.t. FTP, Remote Access etc. as per defined policies.
- 10. Service Provider shall also maintain and manage Domain Name Server (DNS).
- 11. Service Provider shall be responsible to maintain optimum utilization of all the equipment's w.r.t. keeping close watch on optimum performance of Hardware/OS/Network software/processes/database with detecting contention, wait state and queue of jobs on the equipment's, Network, I/O, storage/concurrent load on the devices, etc. and implementing necessary measures to rectify the issues. A performance matrix has to be provided by Service Provider to the IICC on monthly basis and as and when required.

12.16.3.5 Configuration and reconfiguration/rollback of equipment's/network/services

Service Provider shall be responsible for Configuration and reconfiguration, rollback of equipment, network, services, Programming, Re-Programming for the operation of common areas and also manage the services for Occupied Areas as per responsibility matrix defined in Clause 9.16, 9.17 & 9.18. Service Provider shall be responsible to manage and operate the following services as applicable:

- 1. The Service Provider shall maintain a record of hardware and software configurations/ programs of all equipment's including the details of different policies implemented on the devices such as VLAN

configurations, access control lists, routing filters, clustering details etc. Service Provider shall keep regular backups of the configurations/programs of each of the devices.

2. Service Provider shall adhere to the change management procedures already defined to ensure that no unwarranted changes are carried out on the devices. All the changes must be formally approved by the Service Provider designated team leaders and recorded. The Purchaser/designated Agency shall communicate such change management procedures and their amendments made time to time.
3. Service Provider shall do proper version management of all the configurations/programs/ firmware.
4. Service Provider shall ensure that these configurations are not accessible in general and must be kept confidential with the Purchaser and project manager as per security policy of Data center.
5. Service Provider shall have the capabilities to configure or reconfigure hardware/software installed in Data Centers, Primary Technical Rooms, Secondary Technical Rooms, Main Security Control Centers, Security Control Centers, Main operation Control Center, Operation Control Centers, Communications Operator Rooms, ELV Rooms, ICT Rooms during the contract period. However, the operation of systems under Operator company shall be managed by their own IT Team and Service Provider shall engage in special circumstances based on written approval by the SPV.

12.16.3.6 Storage, Backup & Recovery Management Services

Service Provider shall be responsible for Storage, Backup & Recovery Management Services for the operation of common areas and also manage the services for Occupied Areas as per responsibility matrix defined in Clause 9.16, 9.17 & 9.18. Service Provider shall be responsible to manage and operate the following services as applicable:

1. Service Provider will remain current in the knowledge and use of data storage technology and management products and provide Storage and Backup management services.
2. Service Provider responsibilities will include:
 - a) Investigate Incidents and Problems that require an in-depth technical understanding.
 - b) Provide in-depth analysis of the data storage environment to assist in service Outage investigations and support availability management processes, in general.
 - c) Identify opportunities for continual improvement, through knowledge management and constant skill review.
 - d) Provide a robust and highly available Storage and Backup infrastructure, update the Storage and Backup infrastructure to leverage new tools and technologies that would improve business processes and performance.
 - e) Educate and train the operational staff in the use of analysis tools and processes where appropriate.

- f) Plan for changes in capacity requirements.
 - g) Maintain, plan, execute and participate in annual disaster recovery tests for specified critical applications which require Disaster Recovery tests.
 - h) Provide evaluations of new tools and technologies and perform testing and benchmarking of new infrastructure or tools prior to deployment.
 - i) Create handover documentation, training, diagnostic scripts, and operational procedures for the operations group.
 - j) Implement performance and configuration tuning of the Storage and Backup infrastructure in conjunction with Capacity Management and Change Management.
 - k) Provide appropriate security measures for the Storage and Backup infrastructure.
3. Service Provider responsibilities under Storage Architecture Operation and Processing will include:
- a) Provide event, warning, alert, and alarm processing and management.
 - b) Provide resolution of all events, warning, alert, and alarm messages.
 - c) Liaise with Incident Management and Problem Management.
 - d) Provide Storage and Backup infrastructure configuration maintenance.
 - e) Instigate improvement or remedial activities in operational processes under the control of Change Management.
 - f) Assign and initialize storage volumes activity.
 - g) Manage the archiving of inactive files and report on online storage directories for review by operations and DBA staff.
 - h) Conduct full time monitoring using available Software tools to measure the efficiency of online storage access, and take corrective action as needed (including performance adjustments to Equipment and Software, or file placement as required to improve service).
 - i) Perform regular patching and major upgrades of backup software to keep cloud backup infrastructure current.
 - j) Manage all file-share provisioning including management of security attributes, and maintenance for day-to-day use
4. Service Provider shall ensure periodic backups of all the servers OS through the backup servers installed in the Data Centers as per policy/ guidelines

5. Service Provider shall take backup of VM's, Server Configuration, Databases, and Storage etc.
6. The Service Provider shall restore the backups as and when required with having minimum downtime.
7. Service Provider shall be responsible for proper labeling and housing of the backup media for identification and retrieval. Service Provider responsibilities will include operational responsibility for off-site media storage, including:
 - a) Integrity checking
 - b) Definition of storage requirements
 - c) Compliance with government requirements
8. Develop requirements, procedures, and standards for off-site storage, in consultation with SPV management, and obtain approval from the SPV management.
9. Service Provider shall co-ordinate with media off-site vendor or agent to provide off-site vault storage in a physically and environmentally controlled and protected area with appropriate fire.
10. Service Provider shall be responsible for Backup tool and Storage Manager Installation, configuration, administration, maintenance and troubleshooting.
11. Transfer of data from one Data Centre to another Data Centers/ DR Sites as required by IICC.

12.16.3.7 Capacity and Performance management services

Service Provider is required to understand the future business requirements, the organization's operation, and the IT infrastructure, as well as to provide all current and future capacity and performance aspects of the business requirements in a cost effective manner for the operation of common areas and manage the Occupant's area as per responsibility matrix defined in Clause 9.16, 9.17 & 9.18. Service Provider shall be responsible to manage and operate the following services as applicable:

1. Service Provider will be responsible to perform activities required for monitoring and optimizing performance in order to reduce costs or improve Service Levels.
2. Provide performance and availability monitoring, tuning, and reporting, including:
 - a) Monitor all phases of Systems performance down to the online transaction level and/or batch processes level using appropriate real-time and historical data performance databases.
 - b) Provide performance monitoring and tuning of disk and tape storage.
 - c) Provide intersystem messaging and file transfer traffic performance monitoring, tuning, and reporting.
 - d) Provide real-time and historical CPU, Memory and Storage utilization statistics.

3. Coordinate with business partners, Third-Party Vendors, other vendors as appropriate to install/upgrade hardware & software systems.
4. Perform corrective actions necessary to resolve System performance and capacity issues as per responsibility matrix defined in Clause 9.16, 9.17 & 9.18.

12.16.3.8 Data base management services

Service Provider shall undertake tasks of managing changes to database scheme, creation, alteration of Database, disk space, storage, user roles, parallel distribution of data on storage to balance the I/O load as per responsibility matrix defined in Clause 9.16, 9.17 & 9.18. Service Provider shall be responsible to manage and operate the following services as applicable:

1. Service Provider shall periodically perform configuration checks and fine tune the databases with respect to performance and proactive identification of potential problems.
2. Service Provider shall provide performance monitoring, Maintenance and tuning of the databases on a regular basis as well as proactive health check-ups.
3. Service Provider shall manage, coordinate with Operator Company to manage database upgrade, patch upgrade, patches, and updates as and when required with planned minimal downtime.
4. Service Provider shall provide database performance and health reports to the purchaser as per standards.
5. Service Provider shall assign rights on database for different users as and when required
6. Service Provider shall upload, create, alter users and assigning privileges and Roles.
7. Service Provider shall create logical objects, procedures, triggers, functions packages in the data base on the request of designer, developer of the applications.
8. Service Provider shall be responsible for taking database backups, restoration and recovery of Database as per the policy as required by IICC
9. The backup policy would be framed by the Service Provider keeping in view of severity of different databases and MTTR. The policy would be approved by the First Party and gradually be updated as per requirements.
10. Service Provider shall be responsible to maintain optimum utilization of all the equipment's w.r.t. database operations and keeping close watch on optimum performance of Hardware, OS, Network software, processes, database objects with detecting contention, wait state and queue of jobs on the equipment, memory objects, processes, Network, I/O, storage, concurrent load on the devices, etc. and implementing necessary measures to rectify the issues as per the responsibility. A performance matrix has to be provided by the Service Provider to the IICC on monthly basic and as and when required.
11. Service Provider shall implement monitoring of uses of devices, objects, users as and when required.
12. Service Provider shall be responsible for implementing Database Audit of devices / objects / transactions

/ users to identify malicious/suspected activities as and when required through database tools or writing its own scripts.

12.16.3.9 Security Administration and Management Services

The Service Provider shall be responsible for Security Administration and Management Services (Cyber Security and Network security services) for the operation of common areas and manage the Occupant's area as per responsibility matrix defined in Clause 9.16, 9.17 & 9.18. Service Provider shall be responsible to manage and operate the following services as applicable:

Intrusion Detection System Management, Log and alert management and Patch management.

Addressing the ongoing needs of security management including, but not limited to, monitoring, troubleshooting of various devices/ tools such as firewall, IPS/IDS, virus protection, and vulnerability protection through implementation of proper patches, procedures and rules.

Maintaining an updated knowledge base of all the published security vulnerabilities and virus threats for related software and microcode etc.

Ensuring that latest patches/ workarounds for identified vulnerabilities are applied immediately. Any up-gradation of software such as antivirus signatures etc. in the Data Centers shall be the responsibility of the Service Provider during the entire period of FMS. Service Provider shall enforce update/upgrade management.

Respond to security breaches or other security incidents by taking corrective measures, providing guidelines to users and coordinate with respective EPC Contractor, OEM in case a new threat is observed to ensure that workaround /patch is made available for the same.

Maintenance and management of security devices, including, but not limited to maintaining firewall services to restrict network protocols and traffic, detecting intrusions or unauthorized access to networks, systems, services, applications or data, protecting email gateways, firewalls, servers, from viruses.

Compliance of security regulations defined by Government of India or any other Govt. Authorized Agency such as CERT-IN and any other applicable security regulations etc.

12.16.3.10 Routine/Preventive Maintenance Services

The service Provider shall develop and establish a detailed Operation and Maintenance manual for ICT services and ensure it is implemented at entire IICC project for managing the services with utmost care and efficiency. These service responsibilities will include following services as per responsibility matrix defined in Clause 9.16, 9.17 & 9.18.

12.16.3.11 Corrective, Replacement, Renewal Maintenance Services

The details of the work to be undertaken by Service Provider are as follows for the common areas and also manage the services for Occupied Areas as per responsibility matrix defined in Clause 9.16 & 9.17, 9.18.:

12.16.3.12 Emergency Change Management Services

Service Provider shall have emergency change management system in place to support last minute emergency changes to mitigate the poorly tested and un-controlled changes which results in high number of incidents for the common areas and also manage the services for Occupied Areas as per responsibility matrix defined in Clause 9.16, 9.17 & 9.18.

Service Provider has to develop and follow the Emergency Change Management approval procedure.

12.16.3.13 IT Help Desk Support

1. The Service Provider shall provide 24 x 7 help desk support from day 1 of commencement of services for entire IICC Complex
2. The Service Provider shall provide, operate and maintain ITSM Certified Helpdesk tool including configuration/ reconfiguration/ upgrade / update and necessary licenses as applicable.
3. Service Provider shall log all calls received through any medium viz. telephone/email/in writing/in person, shall generate a ticket mentioning type of problem using helpdesk tool and forward the same to the concerned team/person for resolution.
4. The Service Provider shall provide various services related to ICT Package to different users on demand basis as and when required. The request would be made on help desk by the user by dedicated help line number/Specific email account. The resolution time for such services would be as per SLAs.

12.16.3.14 Quality Management

1. It is the responsibility of Service Provider to get a fresh ISO's certificates for DC and DR Site, and sustenance of the same till the Project End Date.
2. For the maintenance of these certifications, the Service Provider is required to adhere to all the policies and ensure documentation and maintenance of reports as required for maintaining the certification.
3. Service Provider would be responsible for operating, monitoring, reviewing, maintaining and improving the Information Security Management System and Facility Management Services for entire IICC site till project End date.
4. Activities to be performed for ISO certification
 1. Current state assessment of ISO 20000/27001 processes, technologies, skills and operations
 2. Gap analysis and recommendations for improvement based on ISO 20000/27001 requirements
 3. Design and development of new/modified policies/ processes
 4. Recommendations on updating of new/modified ITSM /ISMS as and when required
 5. Deployment of new/changed processes
 6. Training of operating personnel on processes

7. Handholding the operating personnel for audit readiness
 8. Certification
 9. Support for the entire contract duration
5. Min. Service Provider Resources on site for implementing/achieving ISO 27001 and ISO 20000 Certification is as follows:
1. Process / tools consultant ISO 27001: 1No
 2. Process/tools consultant ISO 20000: 1No

12.16.3.15 Vendor Management Services

1. Service Provider shall coordinate with external vendors and AMC contractors for upkeep of equipment, software, firmware, services to meet the SLA and shall liaison with respective vendors, EPC Contractor, OEMs for repairs, replacement of items and or update, upgrade, troubleshoot the software, services.
2. To perform this activity, the Service Provider shall maintain equipment, software, service wise database of the various vendors and service providers with details like contact person, telephone numbers, escalation matrix, response time and resolution time commitments, expiry date of Maintenance Services, Warranty, Software Assurance, Support etc.
3. Log and escalate the calls with respective vendors, EPC Contractor, OEM, service providers within 1 hour from occurrence of incident, problem, repetitive pursuance and coordinate with them to get the equipment repaired, problems resolved.

12.16.3.16 AR, VR and Media Façade Content Management

Service Provider shall not be responsible for the routine Operation of the AR, VR, Façade Media and content development and management for occupant's areas Service Provider shall coordinate with Operator Company and shall be responsible for managing scheduled and corrective maintenance activities for the common areas and also manage the services for Occupied Areas as per responsibility matrix defined in Clause 9.16 & 9.17, 9.18 and maintain the complete documentation of service records.

Operation and maintenance of façade for buildings are to be carried out as per Clause no. 9.16 & 9.17. Routine maintenance of the LED media façade on the areas/ buildings occupied by the Operator is to be carried out by the Operator company and corrective maintenance, replacement/ renewal activities whenever required shall be carried out by the Service Provider.

12.17 ELV, Systems Operation and Maintenance Services

The scope of services for Operation, Maintenance and Management of ELV Systems has been described in this section based on the classification of areas assigned to Operator Company and common areas and services for respective systems. Service Provider shall be responsible for the Overall Operation and Maintenance of the ELV Systems services for the common areas and also manage the services for Occupied Areas as per responsibility matrix defined in Clause 9.16, 9.17 & 9.18.

The detailed list of equipment under this ICT Services is provided in Annexure 14. The Service Level performance parameters for ICT Services are mentioned in Annexure 4. The detailed scope of work under above listed categories is defined in following section.

1. The service Provider shall develop and establish a detailed Operation and Maintenance manual for ELV system and ensure it is implemented at entire IICC project under the ELV system for managing the services with utmost care and efficiency.
2. The service Provider shall ensure that the Operation and Maintenance guidelines are in accordance with the Legal and statutory compliances and property requirements for achieving the highest level of Technical and security service.
3. The broad ELV System Operation and Maintenance is described in the table below.

Service Type	Broad System Components
ELV System	<ul style="list-style-type: none"> • Wi-Fi and DAS Distributed Antenna System • IPABX System • AV System • Wireless Language Interpretation System • Digital Wireless Conference System • Projector Screens • Sound Reinforcement System • Podium with Interactive Display • Multi Format Input Source • Local Recording and Streaming System • LED Video Wall • Audio Visuals System • Digital Signage System • Augmented Reality / Virtual reality Solution • Media Façade • BGM System (Background Music System) • People Counting System • Ticket Vending Machines • Ticketing and Collection Kiosk Infrastructure • CCTV System • Access Control System • Car Parking Management System • Any other ELV equipment installed in the IICC Complex

4. Service Provider shall provide support and services to be performed on these systems as per responsibility matrix defined in Clause 9.16, 9.17 & 9.18.

5. The ELV system Operation and Maintenance shall be done in close coordination with ICT management team and Security Management team and have dual responsibilities to upkeep the overall system as per the core operating standards.
6. Service Provider's ELV maintenance team in coordination with the Security team shall maintain all equipment and assets of the Security system and ensure that the system is always healthy and responsive.
7. Service Provider's ELV maintenance team should check all cameras routinely on a daily basis to ensure all cameras are operating correctly. In particular, checks are to be made to ensure that:
 - a) Operator adjustable settings can be made appropriately, and predefined fields of view are displayed.
 - b) The time and date settings are correct. Any inconsistencies should be documented, and the equipment monitored to ensure that further drift of these settings does not occur.
 - c) Recording equipment is operating correctly and minimum 60 days recording facility is always available.
 - d) Ensure adequate supplies of recording media, including spares in case of media failure. The media should either be new, reformatted or erased in an approved manner in accordance with the equipment manual and backup of the recordings is secured with IT team in storage systems.
 - e) Any media protection settings will not prevent recordings being made.
 - f) For all equipment which are battery operated, ensure that they are sufficient fully charged batteries available and Uninterrupted Power Supply (UPS) systems are operating, where installed.
 - g) A periodical scheme of checks is carried out before deployment particularly for equipment that is used less frequently.
 - h) All faults and maintenance activities are to be recorded in the CCTV Management Spreadsheet.
8. Service Provider shall select and deploy the experienced and technically efficient team for the Access control operations and maintenance and shall ensure that the team:
 - a) has full responsibility for electronic access arrangements for the property;
 - b) undertake periodic audits to monitor for effectiveness and compliance;
 - c) shall hold the authority to activate access cards – and to delegate this authority to Facilities Operations as required or appropriate—by setting up restricted local capabilities in the department, division or operating unit to issue cards (card keys or fobs) and program access
9. Service Provider team shall be responsible for all physical assets of the Access control system and shall be responsible for complete operation and maintenance of the system installed for Common Areas and Services areas. It is responsibility of service Provider to:
 - a) Maintain all equipment and assets of the system and ensure that the system is always healthy and responsive. The Authorized Officer should check all equipment and installations routinely on daily basis to ensure all system components are operating correctly.
 - b) Ensure that a common template for managing access credentials and key control processes (e.g., issuance, collection, inventory, security, record-keeping, etc.) is implemented.

- c) Responsibility for the maintenance and repair of doors, frames, locks, keys, door and frame hardware, electrical and fiber optic cabling, and access control hardware and devices (e.g., proximity reader, biometric readers, IRIS readers, electronic strike, door contacts, magnets, electronic latches, power transfer hinge, motion sensor, etc.).
- d) Responsibility for central key production, issue, control of master keys, and distribution of regular/change keys to the Designated Authority or Access Coordinator.

12.17.1 Operation of Full Body X-Ray Truck Scanner is in the scope of the Service Provider, the Operator for truck scanner should mandatorily satisfy the requirements set out by Atomic Energy Regulatory Board (AERB). The Service Provider shall coordinate with the OEM or its authorized representatives of the truck scanner for operation purposes and shall be responsible for managing the Contract of the OEM or its authorized representatives. CAMC of the truck scanner is in the scope of truck scanner operator. However, the maintenance of truck scanner building is in the scope of the Service Provider.

12.18 Physical Security Systems and Services – Operation & Maintenance

1. The Service Provider will deliver services and functions associated with the management and administration of the Security Services of the project to ensure a comprehensively coordinated safe and secure workplace is established for all Occupants and Users of the IICC Project.
2. The following Security services (including operation, maintenance and management, as applicable) would broadly be covered under the scope of services of Service Provider. The services are related to but not limited to the followings:
 - a) Management of physical security guarding team hired by SPV in coordination with Operator.
 - b) Common areas at security checkpoints & related equipment and systems such as, bollards, Under Vehicle Surveillance scanners (UVSS), turnstiles, boom barriers, tyre shredders, gates (pedestrian & vehicle), truck scanner etc., including IT infrastructure thereof.
 - c) CCTV, Access Control System and Intrusion Alarm monitoring (for common areas and as per Scope Matrix).
 - d) Solar Powered Fencing System at the peripheral boundary walls and gates.
 - e) Mail room and inward materials management.
 - f) Automated Car Parking Management and Guidance System.
 - g) Operation and Maintenance of IT related equipment installed for security operation of the entire IICC project as per responsibility matrix defined in Clause 9.16, 9.17 & 9.18.
3. The Service Level performance parameters for Security Management Services are mentioned in Annexure 4.
4. The key deliverables and responsibilities of Service Provider under this service are detailed in below

section.

12.18.1 Security Command Center Management

1. The Service Provider shall manage the overall Operation and Maintenance of Security Command Center facilities for Security Operations in 24 hrs. x 7day format in co-ordination with Operator Company and physical security guarding agency for overall campus security of IICC.
2. One main Command Center is located in Convention Center Building and the Backup Command Center is located inside the Exhibition Hall 02.
3. Deployment of manpower in main security command center and backup Security Command centers shall also be done by Operator Company for eyeball monitoring purpose for their respective areas. The maintenance of the equipment shall as per responsibility matrix defined in Clause 9.16, & 9.17 & 9.18.
4. Security Command Center shall be equipped for the management of services related to:
 - a) CCTV Operations
 - b) Access Control System and Intrusion Alarm System
 - c) Public Announcement System
 - d) Solar powered fencing system
 - e) All equipment & systems related to security checkpoints
 - f) Any other services required for the smooth operations of security of the IICC campus.
5. Service Provider shall deploy the core team of operators and responders in Security Command Center and provide overall administration and coordination of security services of the IICC property. This team shall be deployed in combination with the Physical Security Guarding agency engaged directly by SPV for the property.
6. Service Provider shall ensure deployment of chief security officer for managing the overall security services of the property. This position shall be responsible for comprehensive responsibilities of specialized team for security services deployed by Service Provider and the physical guarding agency. The Chief Security Officer shall be responsible for co-ordination with Service Provider, Operator Company, Physical Guarding Agency and Any other agency deployed by SPV as and when required.
7. Service Provider shall deploy specialist staff of high level of qualification and experience in managing the IT enabled security systems installed inside the property including CCTV surveillance and access control management and its operation system.
8. Service Provider shall deploy trained and experienced staff for supervising security aspects of parking operations, vehicle movements and complaints and grievances related to parking facility inside the IICCL property.

12.18.2 Management of Physical Security Guarding

IICC complex shall be secured by the physical security guarding by the following security agencies:

Locations	Security agencies deployed by	Type of services
Perimeter (boundary wall) & gate house security	SPV and Service Provider	Physical security services as described below. Joint operation of Main Security Control Center (MSCC)
Occupant areas	Occupant and Operator	All security as per occupant's requirement.
Common area except Occupant's Areas (as per Clause 9.16, 9.17 & 9.18)	Service Provider	Patrolling and other operations as described below. Joint operation of Main Security Control Center (MSCC)

1. SPV shall engage security agency (Security team) for physical guarding services for IICCL property.
2. Service Provider shall manage the Service Agreement between SPV and security agency on behalf of SPV and ensure that all deliverables of security agency are performed as agreed.
3. The Service Provider shall manage and coordinating the overall deployment and performance of the deployed security agency by providing a Security Management services to administer and manage the day to day operations of Physical Guarding Services.
4. Service Provider shall be responsible to administer, plan and establish the security network through the Physical Guarding Agency for Entry and Exit points along the perimeter of IICC complex, common area security, with an objective to detect, assess, impede, report & respond to any threat like theft of assets, public safety & security, unauthorized intruders, riot, power failure, critical equipment failure, fire, terrorist threat, borne weapons & explosive devices, natural disasters, etc.
5. Service Provider shall ensure that the Physical Guarding Agency provide adequate manpower as per security design reviewed & approved by SPV & its authorized representatives.
6. Service Provider shall provide the overall security plan of the IICC complex, buildings, security post and site instructions to each and every post, procedure of patrolling, entry, exit, visitors management procedure and other related process of security.
7. Service Provider shall ensure that physical guarding manpower is deployed to cover marshalling services for all vehicular traffic and pedestrian movement inside the complex, entry & exit points during all hours, controlling the movement of the heavy vehicles, regulating movement timing to ensure smooth traffic movement inside the complex during VIP movements, checking all vehicles for authorization, documentation & threats before entering into the premises.
8. Service Provider shall take proper measures of theft and nuisance control in common area to avoid theft of installed equipment and accessories like landscape lighting, general lightings, loose street furniture, safety equipment, cables, decor lighting and props, water meter, irrigation accessories and fittings, CCTV cameras, dust bin, manhole covers, etc.

9. Service Provider shall ensure that the security equipment installed in the property which are used and operated by the Physical Guard agency, is maintained in best condition as per the standards by Service Provider. Service Provider shall execute the maintenance program for CCTV system and is expected to coordinate with DLP / Warranty and AMC related EPC Contractor/OEM and Subcontractors responsible for periodic maintenance for these equipment.
10. Service Provider shall plan and maintain the Surveillance and patrolling schedule and deploy dedicated personals for patrolling of the property at regular intervals. The deployed personals shall patrol the IICC complex in accordance with the provided Guard Tour system and the record for patrolling shall be mapped through this tool which is synced with the provided access control system of the IICC complex.

12.18.3 CCTV System

1. Service Provider's security team is responsible for complete Operation of CCTV system for Common Areas and Service buildings.
2. Service Provider's security team shall manage the maintenance of the system in coordination with their ELV maintenance team of IT department and Engineering Maintenance team on case to case basis. The CCTV maintenance for Occupant Buildings shall be carried out by Operator Company and Service Provider shall coordinate and carry out maintenance as per clause 9.16, 9.17 & 9.18.
3. Service Provider is expected to develop a detailed operating procedure for the CCTV operation and maintenance in accordance with the Legal and statutory compliances and property requirements for achieving the highest level of security services.
4. Service Provider shall:
 - a) provide personnel with all the safety, health, environmental and operational information necessary to perform their roles and responsibilities properly under CCTV operations.
 - b) ensure that CCTV Operations are performed consistently to maintain quality control of processes and recorded material.
 - c) ensure that CCTV Operations continue without any disruption and are conducted as per prescribed Standards.
 - d) ensure that any system failures or faults are detected and responded to efficiently and rectified as soon as possible for Common areas and Service Buildings.
 - e) ensure to repair, rectify and replacement efficiently for Occupant's areas.
5. Service Provider shall select and deploy the experienced and technically efficient team for the CCTV operations and shall ensure that:
 - a) All authorized officers assigned for surveillance operations must be duly authorized by the SPV to undertake defined roles which shall be provided on the basis of their qualification, evaluation prior to hiring.
 - b) All Command Center authorized officer's shall have a police clearance certificate.
 - c) All authorized Officers shall sign the approved Code of Conduct at the start of their employment inside the IICC complex.
 - d) The employment of authorized Officers will comply with all relevant hiring guidelines and policies and

in accordance with relevant industrial awards and legislation, including equal opportunity and occupational health and safety.

6. Service Provider CCTV operation team shall perform the Live Tracking and Surveillance duties and it is expected that the team follows the minimum standards:
 - a) Monitor operators must act with the utmost probity and in accordance with the Code of Conduct.
 - b) The tracking or zooming in on any member of the public or staff member shall not be done in a gratuitous or unreasonable manner. All operators should be made aware, as a matter of course, that their camera operation may be audited and that they may be called upon to satisfy their interest in a member of the public. Members of the public going about their lawful business shall not be the subject of undue, unethical or illegal surveillance.
 - c) During general surveillance, operators shall not allow cameras to view into private premises. Private premises may come into view as part of a wide angle or long shot or as a camera is panning past them.
 - d) An operator may allow certain particular premises to remain in view when there are reasonable grounds for so doing, that is, for the purpose of identifying individuals or actions when there is a reasonable cause in response to a criminal offence or situation of concern only.
7. Service Provider CCTV operation team shall deal and respond in situations of incidents and the team shall follow the minimum standards as under:
 - a) The CCTV monitoring or control room equipment and suitable communication facilities to enable the operator to easily contact relevant personnel shall be maintained with zero downtime.
 - b) A list of stakeholders and call out details will be compiled and maintained in the CCTV Management and operation spreadsheet.
 - c) The level of Internal Security team response to incidents occurring will be determined by the Service Provider in the Security manual and will be subject to the various priorities at the time the incident is reported.
 - d) Designated person from the Security team shall be authorized to report relevant matters to the Local Police and other emergency services, as appropriate. A written record of any reports will be made at the time or as soon as practicable following the incident and will include details of the incident, date and time of the report and details of the Police or other public or private services.
 - e) All incidents requiring attendance by the Police or other emergency services will be recorded by Authorized Officer's, as soon as practicable.
 - f) When an Officer identifies an offence or situation of concern to which a response is required, the operator must contact either the Police while ensuring that the incident is being appropriately monitored and recorded.
 - g) Where possible, the incident must continue to be monitored and recorded up to and including the completion of the response.
 - h) Whenever a response is deemed appropriate to an identified incident, the officer must record the following in the CCTV Management report:
 - Type of incident (according to defined offence categories), including description (e.g. number of persons involved);
 - Date and time of incident; and
 - Organization making response (i.e. Police / Internal Security / Rapid Action Force etc.)

8. Service Provider shall maintain recording and reporting system and ensure that:
 - a) all operational and maintenance logs and reports are maintained for daily, weekly, fortnightly, monthly, bi monthly, quarterly, half yearly and annually.
 - b) all spare and inventory utilized are recorded and maintained in the inventory management system without any delay
 - c) a written record of all audit & inspections and to present it to SPV management team.

12.18.4 Access Control and Intrusion Alarm System

1. Service Provider is responsible for complete monitoring, operations and maintenance of access control system installed inside the property for common areas and services buildings. Access control systems for occupant buildings shall be operated and maintained by operator company as per clause 9.16, 9.17 & 9.18.
2. Service Provider shall manage the maintenance of the system in coordination with its ELV maintenance team of IT department and Engineering Maintenance team on case to case basis. The Access control system maintenance for Occupant Buildings shall be carried out by Service Provider as per clauses 9.16, 9.17 & 9.18.
3. Service Provider shall ensure that:
 - a) The appropriate levels of access control are provided for all buildings and assets as per design of the service;
 - b) Access control is provided comprehensively and equitably across the property and meets the needs of SPV, Occupants and the safe operations;
 - c) Access control installations and ongoing maintenance of access control systems are delivered in an effective manner;
 - d) Appropriate control of keys, biometric data and access cards exists to protect the overall integrity of the Access Control program; and
 - e) An overall operating procedure is in place for the ongoing management of access control that establishes standards and sets forth responsibility and accountability at appropriate levels.
 - f) Adequate response is initiated to secure any Break-in attempt or intrusion and addressed timely and promptly.
4. Service Provider shall maintain recording and reporting system and ensure that:
 - a) all operational and maintenance logs and reports are maintained for daily, weekly, fortnightly, monthly, bi monthly, quarterly, half yearly and annually.
 - b) all spare and inventory utilized are recorded and maintained in the inventory management system without any delay
 - c) a written record of all audit & inspections and to present it to SPV management team.

12.18.5 Mail Room and Inward Material Management

1. Service Provider shall establish Mailroom and Inward Material management procedure and policy and shall ensure that all incoming mails and material related exclusively to SPV and Property management

services inside the property are routed through the single-entry source to ensure a safe, accountable and reliable workplace environment. This shall not include mail management services for Occupants and Users inside IICC complex.

2. The Service Provider shall provide, operate and maintain certified software and application tool including configuration, reconfiguration, upgrade, update and necessary licenses as applicable for managing the main room and inward, outward material management services inside IICC complex.
3. Service Provider shall deploy trained and skilled manpower for Mail room management 24x7 operational 365/366 days in a year.
4. This mail room shall be operated with close coordination of Help Desk and Security Command Center. The team deployed in the Mailroom and inward material receiving station shall comprise of specialized operation staff and Physical Security Guards for execution of desired services.
5. The responsibilities of Service Provider under Mail and Inward material Receiving includes but is not limited to the following activities:
 - a) Confirm the name of consignee and validate the existence of such consignee or department.
 - b) Inform the consignee designated personal for collection and receiving Mail or material
 - c) Ensure the vehicle details and transporter details match with the invoice or way bills details provided along the material.
 - d) Ensure that the vehicle which may be required to enter the property is secured and safe from external fitments and no loose fitting or fixture is present which shall pose any incident or threat of Hazards or injury.
 - e) Validate number of pieces or quantity prior to signing for shipment, resolve damage issues and any discrepancies with carrier.
6. The Service Provider must adhere to suspicious package screening procedures, including PPE and use of dedicated space where appropriate and maintain all procedures are followed to ensure safety of the property.
7. The Service Provider must adhere to vehicle screening procedures and shall ensure that all vehicles for material delivery are scanned through the scanners installed at entry gates by deployed security team and ensure safety and security of the site. The Service Provider will carry out:
 - a) Visually inspect mail and packages for anything suspicious.
 - b) Use scanning equipment as required.
 - c) Ensure that the equipment is appropriately maintained.
 - d) Ensure staff is properly trained in the use of the scanning equipment and the identification of suspicious packages.
 - e) Have procedures on what actions should be taken.
 - f) Wear appropriate personal protective equipment.
 - g) Halt all suspicious packages and escalate remediation per local SOPs.
 - h) Immediately report any suspicious items or packages to emergency response team and Security department.

8. The Service Provider shall manage services for internal Mail and material distribution and perform following activities:
 - a) Maintain the inward material and mail record
 - b) Process receiving report when requested by Consignee from SPV and Service Provider team.
 - c) Bar code and track materials from receipt through delivery.
 - d) Sort, stage and Route items for distribution.
 - e) Manage internal movement of materials and special packages among buildings, and utility areas.
 - f) Materials include, but are not limited, to fuels such as diesel, chemicals, solvents, glassware, regulated items must be delivered at end destination and shall be escorted from the IICC complex entry point up to the destination by a designated personnel of Service Provider team.
 - g) Ensure adherence to corporate shipping, receiving policies and procedures.
9. Service Provider shall ensure that inward and outward material movement is monitored and inspected with utmost care and precision. Service Provider shall ensure that the documentation (delivery challan, invoice, gate pass) is provided and indicate clearly the material details and the names of the consignee and recipient are mentioned.
10. The Service Provider shall manage services for external mail and courier services for SPV and property management activities and perform following activities:
 - a) Maintain record of all outgoing mails and materials.
 - b) For material movement, ensure that gate pass is made and authorized appropriately and confirm that material is classified as returnable or non-returnable item.
 - c) All outgoing vehicles (empty or loaded) shall be checked for authorization from the SPV or its authorized representative(s).
 - d) Sort and stage for shipping through standard postal service and courier services.
 - e) Contact shipping provider for pickup arrangements and assign runners for standard posts shipment.
 - f) For International shipments, ensure paperwork is appropriately completed and international shipment requirements are met.
 - g) Ensure consistency of addresses on the outward emails.
 - h) Procure and maintain inventory and deliver paper, stationery supplies as required to internal functional teams for mail services.

12.19 SCADA & IBMS System

Service Provider shall be responsible to operate and manage the Integrated Building Management System (IBMS) and SCADA for monitoring, controls, efficient and optimum operation and maintenance of all buildings, systems, plants, power distribution system, 66KV Substation, Central DG Facility, load management, all HT & LT Panels, other equipment, etc. in the entire complex. BMS room is located at 3rd floor of Foyer. Operator company shall also be responsible for operation and management of IBMS & SCADA for their respective area. The maintenance of equipment shall be as per clause 9.16, 9.17 & 9.18. The Building Management and Control System (BMS) shall provide both monitoring and control of HVAC, Pump System, ventilation system, electrical monitoring system, Plumbing, fire-fighting monitoring, etc. for building management, energy conservation, and environmental control. The Service Provider shall

ensure that the interfacing between Fire Alarm & Fire Fighting System and other MEP services with Integrated Building Management/ Automation System / SCADA System are in operational condition as per the defined SLAs for respective MEP, ICT, ELV services.

The Service Provider scope shall be to review the entire scheme of IBMS and SCADA system during the transition phase or as when required during the operation phase and provide input for improvement of entire system and to ensure smooth and trouble-free operation and maintainence.

The Building Management system installation comprises of the following, but not limited to:

A completely dedicated Building Management Systems (BMS) and associated automatic control and monitoring works of the following systems:

- a) Complete operational control and monitoring of chilled water distribution system including chillers, primary and secondary pumps, variable speed drive, pressurization unit, and associated accessories units including modulation of valves serving air handling units, fan coil units. All operational control and monitoring of mechanical ventilation and pressurization systems including fans, ductwork, and associated accessories serving the toilets, plant rooms, staircases, service/fire lift lobbies, and other areas that are not air-conditioned.
- b) Complete operational control and monitoring of mechanical ventilation for car park area (including carbon monoxide detection system) and smoke control system. (WHEREVER APPLICABLE).
- c) All associated water treatment works.
- d) All associated monitoring and control of lift and escalator management.
- e) All associated electrical works, like monitoring and controlling of medium voltage switchgears (11/0.415kV), light management, D.G set operation, metering, etc.
- f) All associated operations and controls of the fire protection system as specified.
- g) All associated interfacing works with other trades including electrical, fire protection, plumbing and sanitary, gas supply and detection, etc.
- h) The complete operation and control of security systems such Access control, CCTV, Car Park Management, etc. as specified in the subsequent sections and schedule of equipment.
- i) For the reference IO summary has been enclosed as Annexure 13. However, finalization is still under process and final list shall be provided during transition period by the SPV and shall form part of Service Agreement without any change in the price quoted by the Selected Bidder / Service Provider.

12.20 Parking Operation & Maintenance

The Service Provider in co-ordination with equipment OEM shall provide operation and maintenance services for all the equipment related to parking management. Maintenance services are to be provided by Service Provider as and when required.

1. The Automated Parking System installed in the IICC complex comprises the following major components / systems:
 - a) Parking Servers

- b) Parking Access Control System (RFID Tag Readers/Fastag, ANPR System, Automated Boom Barriers)
- c) Parking Guidance and Information System (detectors, LED indicators, zone controllers, digital & non-digital signages)
- d) Ticket vending machines
- e) Ticketing and Collection Kiosks

Annexure 14 is to be followed for complete list of equipment / system.

2. Service Provider shall be responsible for operation of the vehicle parking facilities, ticketing system and fee collection system as per Parking Management Manual to be prepared by the Service Provider and approved by IICCL.
3. Service Provider shall be responsible for the parking facilities, including vehicle traffic management and vehicle guidance inside the boundary of parking areas for which a trained team shall be deployed by the Service Provider to execute overall parking operations.
4. Service Provider shall collect the parking fee on behalf of IICCL and will transfer the collection of parking fee on a daily basis to IICCL account and submit the records for the same. The fee collection along with the detail shall be submitted to IICCL management on daily basis and record to be maintained for revenue collections.
5. The rates for providing the aforesaid services by SPV shall be worked out by the Service Provider on behalf of SPV, based on all relevant details and documents, for approval of the SPV.
6. Service Provider shall ensure that adequate and agreed numbers of staff is deployed for parking management and the deployed team is trained and qualified for operation, maintenance and management of parking system.
7. Service Provider shall be responsible for the maintenance of the ICT related services and equipment (server, rack etc. installed at IICC) as per responsibility matrix defined in Clause 9.16, 9.17 & 9.18 and the Automated Parking System is performed regularly, and no system component is under breakdown or malfunctioning. Service Provider team shall promptly communicate with ICT and ELV maintenance team for corrective actions to eliminate any downtime in the services.
8. Service Provider shall be responsible for routine maintenance, corrective maintenance, replacement/renewal and managing the overall maintenance of the automated car parking systems which include the parking access control systems and parking information and guidance system. It is expected that the Service Provider shall make every effort to ensure the system performs as designed & intended which shall include (but not be limited to):
 - a) All routine preventive maintenance and necessary inspection of Car Park Management Systems as per the manufacturers' recommendations.
 - b) Monthly, Quarterly, Bi-annual and Annual checks are performed per manufacturers'

- recommendation.
- c) Ensure the maximum uptime of the Car Park Management Systems in coordination with EPC Contractor & OEMs.
 - d) Ensure that the Car Park management system is kept in a high state of operational availability and reliability.
 - e) Ensure all the maintenance will be coordinated.
 - f) Ensure system is in condition for supporting a 24X7x365/366 basis operation.
 - g) Coordinate with DLP / Warranty and AMC related EPC Contractor/OEM and subcontractors responsible for periodic maintenance of these equipment.
 - h) Inspections, testing and preventive maintenance is occurring at the required frequencies.
 - i) Ensure problems, breakdowns, etc. is addressed in a timely manner.
9. Service Provider shall provide all the consumables required for parking management including ticket rolls, printer, cartridge etc.
 10. Service Provider shall be responsible for cleaning and maintaining all the parking areas and related signages and equipment.
 11. Service Provider shall deploy trained and experienced staff for complaints and grievances related to parking facilities inside IICC complex.
 12. The broad details of parking to be managed by Service provider is mentioned below but not limited to:

FLOOR	NO. OF CARS
CC-BASEMENT	
Ground Floor	
Basement-1	202
Basement-2	296
Basement-3	307
Basement-4	318
TOTAL	1123

FLOOR	NO. OF CARS
FOYER 1-BASEMENT	
Basement-1	304
Basement-2	367
Basement-3	412
TOTAL	1083
FOYER 2 BASEMENT	
Basement-1	207
Basement-2	261
Basement-3	264
TOTAL	732
GRAND TOTAL OF UNDERGROUND PARKING AREAS (Phase-1 works)	2938
Surface parking for trucks (Phase-1 works)	385
Surface car park	25 nos VIP/VVIP, but expandable

13. Detailed Scope of Parking Management and Operations:

- Before exit, parking fees shall be collected from digital payment system (Fastag/ UPI etc.) at manned point of sale (collection centres)
- Will populate and take charge of database of Car Parking utilities, assets and systems along with their Vendors / Suppliers database as required for operations.

- Periodically or as directed by the Client, the Service Provider independently or in coordination with other agencies will organize workshops and simulations to exercise the facilities department's roles and responsibilities during emergency.
- Will develop long range strategic plan and OPEX & CAPEX plans along with annual budgets for both.
- Will liaise with all the OEMs and spare vendors so that any fault is brought into their notice immediately and corrective action is initiated promptly with minimum downtime.
- will develop category wise list of consumables for inventory, manage and maintain these with optimized costs. The cost of procurement of such consumables will be borne by the Service Provider.
- At least one person trained in First Aid should always be deployed during each shift at each basement.
- At least one person trained as fire warden should always be deployed during each shift at each basement.
- Will monitor and control traffic for a smooth orderly manner to create a delightful parking experience.
- Ensuring management of traffic circulation within the parking lot avoiding chaotic situations such as grid locks and conflicting traffic movement. Service Provider will also ensure proper designated arrangement of vehicle classes within the parking lots.
- Will ensure smooth traffic inwards & outwards from the premises.
- Management of the drop / pick up zone traffic with sufficient & trained valets.
- Proper handling of VVIP/VIP ingress and exit lanes, in consultation with relevant security personnel.
- Staffing at all the cashier exit lane in the parking area.
- Vehicle management inside the parking areas.
- To manage Auto Pay Station points in the parking lots.
- To help customers park in the parking lot.
- To resolve customer complaints.
- To provide value added services in conjunction with IICC team.
- To manage the issues / incidents / damages happened in the parking lot and ensure it is resolved along with IICCL team if necessary.
- Communicate the anticipated growth, parking demand and any other change so that parking management can be proactive in assuring best practices and services to the guest.
- To make arrangements for reservation of parking lots for the special event.
- To manage / regulate the traffic regulations inside the parking lot.
- Observe the traffic and utilize the parking lot accordingly.
- Parking tickets shall be issued using digital handheld ticketing machines (to be procured by the Service Provider) with accountability of parking usage counts with duration and car registration number. Service Provider will be required to conduct management, collection, banking, and full accounting of the ticketing revenue and provide a detailed report to the Authority.
- Financial audit shall be conducted on monthly basis to have a revenue control and prevents pilferages.
- Operations audit shall be conducted once in 3 months to ensure the standards are maintained and upkeep of the car parking utilities etc.

- Training to be conducted on monthly basis and every employee must undergo the basic communication, first aid, fire, crisis management and be trained in specialized training like technical trainings and increase the level of performance. Staff must be provided with adequate on-site training which would include operations of boom barriers and other equipment, collection of tickets, firefighting emergency evacuation etc.
- At any time during normal business hours and as often as IICC deems necessary, Service Provider shall make available to IICC/ or its representative for examination all the books, ledgers, journals, accounting records, Parking Tickets / Stubs, receipts for season parking, logs, validation receipts, daily bank deposit slips, invoices of services and other related records etc.
- in case of any defect being noticed, the same shall be conveyed to the designated IICC/ OEM representatives by email as well as phone within one hour. A service log should be maintained for such incidents and should include the location, date, time of complaint as well as the action taken or reason for non-action. The service log should be available for inspection to IICC/ IICC representatives at all times.
- Effective asset security – Security of parked vehicles. Deployment of adequately trained staff to manage the control room, managing the cashier station, Cash-in-Transit (CIT) process and general administration will be the responsibility of the Service Provider.

13 Annexure 4 - Service Level Performance Parameters

1. Service level performance parameters (SLA/SLP) are defined in this section to highlight the minimum requirement for various deliverables expected from Service Provider.
2. The summary of the Service level performance score card is as below which will be used for periodic evaluation of services.
3. The Service Provider shall execute the required services at IICCL property by following the minimum requirements prescribed in the Service level performance parameters for various services which will be evaluated by SPV based on the Service Level score card for the respective services. The detailed Score cards for various services are provided in the following section.
4. While maintaining the Service level performance parameters for various services, Service Provider shall ensure that all Service level performance parameters shall be supported with the technical specifications such as measurements, operating values, readings and necessary analytical records for the purpose of evaluation and review by "SPV".
5. The Uptime and resolution time for Critical Systems under various systems has been prescribed which is required to be maintained by Service Provider. Below mentioned table indicates the desired uptime and relevant SLA percentage

SLA uptime / Resolution Time	Maximum Downtime Allowed			
	Daily	Weekly	Monthly	Yearly
99.995%	4 sec	30s	2m 11s	26m 17s
99.990%	8s	1m 0s	4m 22s	52m 35s
99.900%	1m 26s	10m 4s	43m 49s	8h 45m 56s
99.000%	14m 24s	1h 40m 48s	7h 18m 17s	3d 15h 39m 29s
98.500%	21m 36s	2h 31m 12s	10h 57m 26s	5d 11h 29m 14s
98.000%	28m 48s	3h 21m 36s	14h 36m 34s	7d 7h 18m 59s
97.000%	43m 12s	5h 2m 24s	21h 54m 52s	10d 22h 58m 28s
96.000%	57m 36s	6h 43m 12s	1d 5h 13m 9s	14d 14h 37m 58s

13.1 Service Level Performance Review - Combined Score Card

Service Level Performance Report Card - Monthly					
S No	Service Line	Weighted %	Target Result	Result %age score	Achieved Score
1	General Management Services	5.0%	98.97%	100.00%	5.0
2	Customer Relationship Management	5.0%	97.64%	100.00%	5.0
3	Compliance Management	10.0%	100.00%	100.00%	10.0
4	Environment, Health and Safety Services	6.0%	99.07%	100.00%	6.0
5	Emergency and Disaster Management	8.0%	100.00%	100.00%	8.0
6	Quality and Sustainability Management	7.0%	100.00%	100.00%	7.0
7	Financial, Accounting, Procurement & Insurance Management	6.0%	99.66%	100.00%	6.0
8	Project Coordination and Fitout Management	4.0%	100.00%	100.00%	4.0
9	Engineering Services Management	6.0%	100.00%	100.00%	6.0
10	Engineering O & M Services- Operational	7.0%	96.39%	100.00%	7.0
11	Engineering O & M Services- Response and Resolutions	7.0%	99.00%	100.00%	7.0
12	Janitorial, Waste Management and Horticulture Services	8.0%	97.63%	100.00%	8.0
13	ICT Operation & Maintenance	9.0%	95.00%	100.00%	9.0
14	ELV System Operation and Maintenance	7.0%	95.00%	100.00%	7.0
15	Security Management Services	5.0%	99.82%	100.00%	5.0
	Total Score	100%	98.55%	100.00%	100.0

13.2 SLA - General Management Services

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		General Management Services		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
1	Manpower engagement and Deployment	Ensure manpower deployment at site is as per approved deployment plan.	99.00%	5.00	100.00%	Exceed	5.00	
2	Manpower engagement and Deployment	Daily attendance is maintained and does not affect any service deliverable. Monthly absenteeism level to be measured and should not exceed more than 5%	95.00%	5.00	100.00%	Exceed	5.00	
3	Manpower engagement and Deployment	Reliever or substitute manpower to be provided for planned and approved leaves. Unmanned shifts shall be counted.	98.00%	5.00	100.00%	Exceed	5.00	
4	Manpower engagement and Deployment	Background verification of all new joinee deployed at site shall be submitted to SPV minimum 6 days prior of deployment date.	99.50%	5.00	100.00%	Exceed	5.00	
5	Manpower engagement and Deployment	Background verification of all personals to be conducted and obtained for every six months of employment for regular manpower and submitted to SPV.	99.50%	5.00	100.00%	Exceed	5.00	
6	Manpower engagement and Deployment	All hired personals above Manager level positions to be approved by SPV prior to deployment. No post facto approval shall be obtained	100.00%	5.00	100.00%	Met	5.00	

SERVICE LEVEL PERFORMANCE INDICATORS					IICCL Dwarka			
Name of the Service		General Management Services		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
7	Manpower engagement and Deployment	Overall Attrition rate of employees to be controlled by Service Provider. Ensure attrition rate should be less than 0.5% of the total deployment on monthly basis.	99.00%	5.00	100.00%	Exceed	5.00	
8	Workforce Conduct and Appearance	Property Management Agency personnel conduct themselves in a professional, honest and customer service friendly manner and no behavioral compliant is recorded, zero tolerance	100.00%	5.00	100.00%	Met	5.00	
9	Workforce Conduct and Appearance	All property Management Agency personnel including management team shall follow the dress code at site. No violation is recorded	99.00%	5.00	100.00%	Exceed	5.00	
10	Operations Reliability and Safety	HR policies, manuals, procedure are prepared and implemented and updated all the time and record for site orientation and induction training record is maintained for every employee	100.00%	5.00	100.00%	Met	5.00	
11	Operations Reliability and Safety	Record for controlled documents with approval, and change of document versions and date of implementation at site to be maintained and up to date.	100.00%	5.00	100.00%	Met	5.00	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		General Management Services		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
12	Operations Reliability and Safety	Trainings being conducted at site for all departments including site orientation for all employees, periodic trainings and emergency process trainings	99.00%	5.00	100.00%	Exceed	5.00	
13	Operations Reliability and Safety	No interruptions to Occupants or other business critical operations. Goal of achieving 99.5% up time reliability. Record to be verified by overall downtime of critical services and formally logged complaints by Occupants.	99.90%	5.00	100.00%	Exceed	5.00	
14	Operations Reliability and Safety	Recordable safety incidents related to activities within Service Provider's responsibility with the ultimate goal of attaining an injury free workplace; Max. incidents recorded per month not to exceed more than 1 No	99.00%	5.00	100.00%	Exceed	5.00	
15	Service Level and Performance Management	Service levels are well-documented and accurately reflect service requirements for the assets, systems and areas covered and updated within 7 days of approval.	99.00%	5.00	100.00%	Exceed	5.00	
16	Service Level and Performance Management	Service level performance review meetings are initiated and facilitated for comprehensive review and audits by SPV management every month on fix schedule	98.50%	5.00	100.00%	Exceed	5.00	

SERVICE LEVEL PERFORMANCE INDICATORS					IICCL Dwarka			
Name of the Service		General Management Services		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
17	Management Communication	No deviation on periodic report submission. All reports to be submitted on fixed schedule. Delay shall be calculated in number of days.	99.00%	5.00	100.00%	Exceed	5.00	
18	Management Communication	All emergency communications to be made within 10 minutes to SPV management. Record for such communications shall be verified from Disaster Management logs.	99.00%	5.00	100.00%	Exceed	5.00	
19	Management Communication	All communications with Occupants and Users to be made in defined business protocol and courtesy and no deviation shall be recorded. Maximum complaints should not exceed more than 2 in a quarter.	98.00%	5.00	100.00%	Exceed	5.00	
20	Loss Control Management	No damage or disruption to IICCL property or business arising from Property Management Agency activities. Record to be verified from Asset health report to be submitted on monthly basis.	99.00%	5.00	100.00%	Exceed	5.00	
Total Score-		General Management Services	98.97%	100.00			100.00	100.00%

13.3 SLA - Customer Relationship Management

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Customer Relationship Management		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
1	Customer Relationship and Facilitation	Cooperation and necessary support is provided to Occupants and Users for their move in inside the property and no compliant to be recorded on this account.	99.5%	7.14	100%	Exceed	7.14	
2	Customer Relationship and Facilitation	All established policies and manuals related to building management are handed over to Occupants and a receiving of such handover is recorded within 24 hours of commencement of occupancy	100.0%	7.14	100%	Met	7.14	
3	Customer Relationship and Facilitation	Contract documents to be maintained at site for all Occupants and a record for in progress or under negotiation contracts must be managed	100.0%	7.14	100%	Met	7.14	
4	SPV and Occupant Relationship	Contract renewal process to be facilitated and a record to be maintained.	99.5%	7.14	100%	Exceed	7.14	
5	Customer Request Management	Dedicated helpdesk to take care of customer complaints	99.5%	7.14	100%	Exceed	7.14	

SERVICE LEVEL PERFORMANCE INDICATORS					IICCL Dwarka				
Name of the Service		Customer Relationship Management			SCORE MATRIX				
Year of Assessment					Fail	Below Target Result			
Month					Met	Matched Target Result			
Date of Review					Exceed`	Above Target Result, below 100%			
Conducted By:					NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %	
6	Customer Management Request	Manning of the helpdesk 24 x 7 operations, No complaint or observation to be recorded on email or any escalation reported for unmanned or unanswered calls.	99.5%	7.14	100%	Exceed	7.14		
7	Customer Management Request	Communication system is always up and without breakdown.	99.5%	7.14	100%	Exceed	7.14		
8	Customer Management Request	Maintain Complaint Register on daily basis; surprise checks may be conducted at any time in the month and review shall be done on monthly basis.	99.5%	7.14	100%	Exceed	7.14		
9	Customer Management Request	Job cards and complaint tickets are communicated to Occupants via email or message for opening and recorded in Helpdesk log within 10 minutes of compliant.	95.0%	7.14	100%	Exceed	7.14		
10	Customer Management Request	Job cards and complaint tickets status updated and closure are communicated to Occupants within 15 minutes of resolution. For Jobs spread beyond 24 hours, status update communication should be communicated in every 8 hours	95.0%	7.14	100%	Exceed	7.14		
11	Customer Management Request	Minimum Resolution Time of All complaints as per defined turnaround time and recorded; report to be submitted for all complaints status and resolution time on monthly basis.	100.0%	7.14	100%	Met	7.14		

SERVICE LEVEL PERFORMANCE INDICATORS					IICCL Dwarka				
Name of the Service		Customer Relationship Management			SCORE MATRIX				
Year of Assessment					Fail	Below Target Result			
Month					Met	Matched Target Result			
Date of Review					Exceed	Above Target Result, below 100%			
Conducted By:					NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %	
12	Customer Management Request	Quantity of repetitive complaints for same problem by single source shall not be more than 5% of the total monthly complaints of particular service type.	95.0%	7.14	100%	Exceed	7.14		
13	Customer Management Request	Perform Monthly Occupant Satisfaction survey and results are above 90%	90.0%	7.14	100%	Exceed	7.14		
14	Customer Management Request	Adverse feedback on Help desk performance shall be considered as noncompliance and failure in performance.	95.0%	7.14	100%	Exceed	7.14		
Total Score-		Customer Relationship Management	97.64%	100.00			100.00	100.0%	

13.4 SLA - Compliance Management

SERVICE LEVEL PERFORMANCE PARAMETER REVIEW ANALYSIS SCORE CARD								
Name of the Service		Compliance Management						
SUMMARY OF SCORE CARDS- ALL COMPLIANCES								
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
A	Building Compliance			100.00				100.0%
B	Fire Safety and Environmental Compliances			100.00				100.0%
C	Electrical and Lift Compliances			100.00				100.0%
D	Occupants (Hotels / Retail / Food Courts)			100.00				100.0%
E	Labour Laws and Compliances			100.00				100.0%
Average Score- Compliance Management				500.00				100%

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Compliance Management		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
A	Building Compliance							
1	Building Compliance	Airport Height NoC	100%	3.03	100%	Met	3.03	
2	Building Compliance	NHAI Approval	100%	3.03	100%	Met	3.03	
3	Building Compliance	Coastal Regulation Zone (CRZ) Approval	100%	3.03	100%	Met	3.03	
4	Building Compliance	Ancient Monument Approval	100%	3.03	100%	Met	3.03	
5	Building Compliance	Change Of Land Use	100%	3.03	100%	Met	3.03	
6	Building Compliance	Registration	100%	3.03	100%	Met	3.03	
7	Building Compliance	Stamp Duty	100%	3.03	100%	Met	3.03	
8	Building Compliance	No Encroachment	100%	3.03	100%	Met	3.03	
9	Building Compliance	Municipal Taxes	100%	3.03	100%	Met	3.03	
10	Building Compliance	No Obstruction to Govt. Official	100%	3.03	100%	Met	3.03	
11	Building Compliance	Layout zoning site plan Approval	100%	3.03	100%	Met	3.03	
12	Building Compliance	Building Plan Approval	100%	3.03	100%	Met	3.03	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Compliance Management		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
13	Building Compliance	Drawings & Designs	100%	3.03	100%	Met	3.03	
14	Building Compliance	Building Development License LC –V	100%	3.03	100%	Met	3.03	
15	Building Compliance	Occupancy certificate	100%	3.03	100%	Met	3.03	
16	Building Compliance	Lease/ Rent	100%	3.03	100%	Met	3.03	
17	Building Compliance	Commercial Launch of Project	100%	3.03	100%	Met	3.03	
18	Building Compliance	Shops & Establishment Registration	100%	3.03	100%	Met	3.03	
19	Building Compliance	Renovation Alteration Approval	100%	3.03	100%	Met	3.03	
20	Building Compliance	Service Plan Estimates	100%	3.03	100%	Met	3.03	
21	Building Compliance	Interior fit out scheme approvals	100%	3.03	100%	Met	3.03	
22	Building Compliance	SEZ Notification	100%	3.03	100%	Met	3.03	
23	Building Compliance	Approval for rain water harvesting	100%	3.03	100%	Met	3.03	
24	Building Compliance	Approval for storm water connection	100%	3.03	100%	Met	3.03	
25	Building Compliance	Approval for Bore well (if required)	100%	3.03	100%	Met	3.03	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Compliance Management		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
26	Building Compliance	Water Connection Approval (if required)	100%	3.03	100%	Met	3.03	
27	Building Compliance	Export Processing Zone (EPZ) Approval	100%	3.03	100%	Met	3.03	
28	Building Compliance	Kiosk Registration	100%	3.03	100%	Met	3.03	
29	Building Compliance	License to play music in Public Places.	100%	3.03	100%	Met	3.03	
30	Building Compliance	Indian performing rights society for public performance	100%	3.03	100%	Met	3.03	
31	Building Compliance	License for Signages	100%	3.03	100%	Met	3.03	
32	Building Compliance	Hoarding Approval	100%	3.03	100%	Met	3.03	
33	Building Compliance	Third Party liability Insurance	100%	3.03	100%	Met	3.03	
	Total Score- Building Compliance			100.00			100.00	100.0%

B	Fire Safety and Environmental Compliances							
1	Fire Safety Compliance	Fire Extinguishers scheme Approval	100%	3.13	100%	Met	3.13	
2	Fire Safety Compliance	Fire fighting scheme Approval	100%	3.13	100%	Met	3.13	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Compliance Management		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
3	Fire Safety Compliance	Fire NOC	100%	3.13	100%	Met	3.13	
4	Fire Safety Compliance	Indian Standard Code of Practice for Selection, Installation and Maintenance of Portable First Aid Fire Extinguishers and other fire fighting aids (record to be maintained for refilling & HPT carried out by Agency),	100%	3.13	100%	Met	3.13	
5	Fire Safety Compliance	Display the inspection card to the body of the extinguisher indicating the serial numbers of the extinguishers, date of initial charging and also the next due date for refilling immediately after refilling the fire extinguishers, ensure that fire extinguishers are refilled every year by an external agency.	100%	3.13	100%	Met	3.13	
6	Environmental Compliances	Consent to Establish	100%	3.13	100%	Met	3.13	
7	Environmental Compliances	Installation of Sewage treatment plant	100%	3.13	100%	Met	3.13	
8	Environmental Compliances	Consent to Operate (CTO)	100%	3.13	100%	Met	3.13	
9	Environmental Compliances	Environmental Clearance (applicable if planned built-up area is more than 20,000sq. mtr and construction started after 2004)	100%	3.13	100%	Met	3.13	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Compliance Management	SCORE MATRIX					
Year of Assessment			Fail	Below Target Result				
Month			Met	Matched Target Result				
Date of Review			Exceed`	Above Target Result, below 100%				
Conducted By:			NA	100%				
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
10	Environmental Compliances	Sewer Connection Approval (Sewer of the building connected to Municipal Sewer lines directly or through Sewage Treatment Plant)	100%	3.13	100%	Met	3.13	
11	Environmental Compliances	Monitoring of stack emissions, influent & effluent of STP and noise level outside DG room, ground water, ambient air, soil, ES and submission of Six-monthly Report. (Adequate Green Belt is maintained for controlling noise levels around the periphery of the Building)	100%	3.13	100%	Met	3.13	
12	Environmental Compliances	Submission of Environmental Statement (ES) in Form-V ES for previous financial year ending 31st March) under Environment Protection Rules,1986	100%	3.13	100%	Met	3.13	
13	Environmental Compliances	Application for authorization of storage / disposal of Hazardous Waste – FORM 1(under Hazardous waste Management Rules,2008 as amended till date)	100%	3.13	100%	Met	3.13	
14	Environmental Compliances	Return of sale of used batteries in Form-VIII & (Filing of return of Used Batteries in form-IX by 30th June & 31st December under Batteries (Management and handling) Rules, 2001)	100%	3.13	100%	Met	3.13	
15	Environmental Compliances	Submission of Annual Return for hazardous waste in Form-4 (under Hazardous waste Management Rules,2008 as amended till date)	100%	3.13	100%	Met	3.13	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Compliance Management		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
16	Environmental Compliances	Submission of Sample Testing Fee by DD of Rs 4200	100%	3.13	100%	Met	3.13	
17	Environmental Compliances	Maintain Record of Hazardous Waste in Form 3(under Hazardous waste Management Rules,2008 as amended till date)	100%	3.13	100%	Met	3.13	
18	Environmental Compliances	Maintaining Inspection Book for site visit by SPCB Official	100%	3.13	100%	Met	3.13	
19	Environmental Compliances	Mark the container of Hazardous waste as Performa -12	100%	3.13	100%	Met	3.13	
20	Environmental Compliances	Send/ sell hazardous waste to an authorized recycler within 90 days and 1) Prepare 6 copies of manifest in Form-13 (Retain 2 copies, white & yellow copies, and rest 4 copies to be handed over to the transporter) 2) Provide relevant information (in Form-11) to the transporter	100%	3.13	100%	Met	3.13	
21	Environmental Compliances	Submit white copy of the manifest (in Form-13) to SPCB (Intimation of transportation of hazardous waste to State Pollution Control Board), authorized vendor should have NOC from interstate for transportation of hazardous waste	100%	3.13	100%	Met	3.13	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Compliance Management		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
22	Environmental Compliances	DG Set should have label with their manf. Make, date, capacity etc (Records of maintenance of DG sets as per manufactures are available at site)	100%	3.13	100%	Met	3.13	
23	Environmental Compliances	Submission of water cess Bill	100%	3.13	100%	Met	3.13	
24	Environmental Compliances	Monthly Return for Water Cess in Form-1 (in form –XIII under water Cess Rules,1979)	100%	3.13	100%	Met	3.13	
25	Environmental Compliances	Explosive Substances Gas Petroleum Approval (HSD bulk storage- if more than 999 Liters/ DG set)	100%	3.13	100%	Met	3.13	
26	Environmental Compliances	Occurrence of accident, unforeseen act or event resulting in discharge of poisonous, noxious or polluting matter into a stream or well or sewer or on land,	100%	3.13	100%	Met	3.13	
27	Environmental Compliances	05IN412002 Intimation of excess discharge of environmental pollutants	100%	3.13	100%	Met	3.13	
28	Environmental Compliances	Maintain the diesel generator as per the preventive maintenance procedure in consultation with the DG set manufacturer on daily basis	100%	3.13	100%	Met	3.13	
29	Environmental Compliances	Provide Acoustic enclosure with an insertion loss of minimum 25 dB(A) in an acoustic room before operation of the Diesel Generator sets and thereafter	100%	3.13	100%	Met	3.13	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Compliance Management		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
30	Environmental Compliances	Keep noise levels below 65 dB(A) Leq during day time and 55 dB(A) Leq during night time for Commercial area and 75dB(A) Leq during day time and 70dB(A) Leq during night time for industrial area	100%	3.13	100%	Met	3.13	
31	Environmental Compliances	Maintenance of emission standards for generator sets (more than 800 KW)	100%	3.13	100%	Met	3.13	
32	Environmental Compliances	Obtaining and renewal of Certifications/ Clearances for all the security devices related to radioactive / X-Ray equipment	100%	3.13	100%	Met	3.13	
	Total Score-	Fire Safety and Environmental Compliances		100.00			100.00	100.0%

C	Electrical and Lift Compliances							
1	Electrical and Lift Compliance	Electricity Scheme Approval	100%	8.33	100%	Met	8.33	
2	Electrical and Lift Compliance	Lift / escalator installation approval	100%	8.33	100%	Met	8.33	
3	Electrical and Lift Compliance	Permission/Registration of Lift & Escalators operation	100%	8.33	100%	Met	8.33	
4	Electrical and Lift Compliance	Renewal of Lift Permission	100%	8.33	100%	Met	8.33	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Compliance Management		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
5	Electrical and Lift Compliance	Electrical Sub Station Approval	100%	8.33	100%	Met	8.33	
6	Electrical and Lift Compliance	Renewal of Electrical substation approval	100%	8.33	100%	Met	8.33	
7	Electrical and Lift Compliance	DG Set fitness certificate (if DG is operational in the building)	100%	8.33	100%	Met	8.33	
8	Electrical and Lift Compliance	Placing of High Voltage insulated mat inside all Lift Machine room & near all LT / HT Panel, approved as per IS 15652 :2006	100%	8.33	100%	Met	8.33	
9	Electrical and Lift Compliance	Danger notices are displayed at the establishment of medium and high voltages	100%	8.33	100%	Met	8.33	
10	Electrical and Lift Compliance	Electrical shock instructions are displayed in DG, LT, Pump Room, Control room	100%	8.33	100%	Met	8.33	
11	Electrical and Lift Compliance	Records of all tests, tripping, maintenance works and repairs of all equipment, cables and supply lines shall be duly kept in such a way that these records can be compared with earlier ones	100%	8.33	100%	Met	8.33	
12	Electrical and Lift Compliance	Ensure that person who appointed for Electrical Supervisor should have Certificate of Competency issued by the State Government	100%	8.33	100%	Met	8.33	
	Total Score-	Electrical and Lift Compliances		100.00			100.00	100.0%

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Compliance Management		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
D	Occupants (Hotels / Retail / Food Courts)							
1	Occupant Area - Monitoring	Police License / Registration.	100%	2.70	100%	Met	2.70	
2	Occupant Area - Monitoring	License under Shops & Establishments Act.	100%	2.70	100%	Met	2.70	
3	Occupant Area - Monitoring	License under Prevention of Food Adulteration Act.	100%	2.70	100%	Met	2.70	
4	Occupant Area - Monitoring	Health Trade License	100%	2.70	100%	Met	2.70	
5	Occupant Area - Monitoring	Eating House License.	100%	2.70	100%	Met	2.70	
6	Occupant Area - Monitoring	Municipal Beer Bar License.	100%	2.70	100%	Met	2.70	
7	Occupant Area - Monitoring	Bar License (Foreign Liquor).	100%	2.70	100%	Met	2.70	
8	Occupant Area - Monitoring	Mild Liquor License.	100%	2.70	100%	Met	2.70	
9	Occupant Area - Monitoring	Central Excise License for Bakery Products.	100%	2.70	100%	Met	2.70	
10	Occupant Area - Monitoring	Copy Right License for Playing of Music.	100%	2.70	100%	Met	2.70	
11	Occupant Area - Monitoring	Registration under the Luxury Tax Act.	100%	2.70	100%	Met	2.70	
12	Occupant Area - Monitoring	GST Registration	100%	2.70	100%	Met	2.70	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Compliance Management		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
13	Occupant Area - Monitoring	Trademark Registration	100%	2.70	100%	Met	2.70	
14	Occupant Area - Monitoring	Registration under the Pollution Control Act.	100%	2.70	100%	Met	2.70	
15	Occupant Area - Monitoring	License for Chimney under the Smoke Nuisance Act.	100%	2.70	100%	Met	2.70	
16	Occupant Area - Monitoring	License for storage of Diesel Oil.	100%	2.70	100%	Met	2.70	
17	Occupant Area - Monitoring	License for storage of Kerosene & Compressed Gas (LPG).	100%	2.70	100%	Met	2.70	
18	Occupant Area - Monitoring	Cold Storage License, (if over 25 cubic ft.).	100%	2.70	100%	Met	2.70	
19	Occupant Area - Monitoring	License for Boiler & Generators and Mixers and Grinders.	100%	2.70	100%	Met	2.70	
20	Occupant Area - Monitoring	Entertainment License on Festival Occasions	100%	2.70	100%	Met	2.70	
21	Occupant Area - Monitoring	Registration under the Weights & Measures Act.	100%	2.70	100%	Met	2.70	
22	Occupant Area - Monitoring	Factory License for Laundry.	100%	2.70	100%	Met	2.70	
23	Occupant Area - Monitoring	Registration & Permits under the Motor Vehicle Act for Tourist Coaches / Taxies.	100%	2.70	100%	Met	2.70	
24	Occupant Area - Monitoring	Sign Board Directions, Neon Signs.	100%	2.70	100%	Met	2.70	
25	Occupant Area - Monitoring	License to deal in Foreign Exchange under FEMA.	100%	2.70	100%	Met	2.70	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Compliance Management		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
26	Occupant Area - Monitoring	Temporary License for Awnings & covering of Terrace during monsoon.	100%	2.70	100%	Met	2.70	
27	Occupant Area - Monitoring	Building Completion Certificate.	100%	2.70	100%	Met	2.70	
28	Occupant Area - Monitoring	Lodging House License	100%	2.70	100%	Met	2.70	
29	Occupant Area - Monitoring	Approval from the Department of Tourism, Government of India.	100%	2.70	100%	Met	2.70	
30	Occupant Area - Monitoring	Classification of Hotel Category (Star Rating)	100%	2.70	100%	Met	2.70	
31	Occupant Area - Monitoring	Registration from GTDC for new projects under the Package Scheme of Incentives.	100%	2.70	100%	Met	2.70	
32	Occupant Area - Monitoring	Registration under the Contract Labour Act.	100%	2.70	100%	Met	2.70	
33	Occupant Area - Monitoring	Registration under the Apprentices Act.	100%	2.70	100%	Met	2.70	
34	Occupant Area - Monitoring	Registration under the Provident Fund Act.	100%	2.70	100%	Met	2.70	
35	Occupant Area - Monitoring	Registration under the ESI Act.	100%	2.70	100%	Met	2.70	
36	Occupant Area - Monitoring	Consumer protection rights under Food Court	100%	2.70	100%	Met	2.70	
37	Occupant Area - Monitoring	Monopolistic and Restrictive Trade Practices order Competition Order Food Court	100%	2.70	100%	Met	2.70	
	Total Score-	Occupants (Hotels / Retail / Food Courts)		100.00			100.00	100.0%

SERVICE LEVEL PERFORMANCE INDICATORS					IICCL Dwarka				
Name of the Service		Compliance Management			SCORE MATRIX				
Year of Assessment					Fail	Below Target Result			
Month					Met	Matched Target Result			
Date of Review					Exceed`	Above Target Result, below 100%			
Conducted By:					NA	100%			
Sr. No	Particulars	Service Level Description		Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %

E	Labour Laws and Compliances							
1	Contractor Compliance	Received compliance certificate from each Contractor	100%	1.96	100%	Met	1.96	
2	Contractor Compliance	Every Contractor is complying by laws and SOPs applicable to them	100%	1.96	100%	Met	1.96	
3	Employees Provident Fund	Requisite PF contribution has been paid at the existing prescribed rate (current rate 12%)	100%	1.96	100%	Met	1.96	
4	Employees Provident Fund	Declaration in Form 2 by every employee has been taken	100%	1.96	100%	Met	1.96	
5	Employees Provident Fund	In case employees directly employed by the principal employer, both the contribution of employer and employee paid by the principal employer.	100%	1.96	100%	Met	1.96	
6	Employees Provident Fund	Contribution card in Form - 3A has been prepared in respect of every employee	100%	1.96	100%	Met	1.96	
7	Employees Provident Fund	Any particulars of change pertaining to branches and departments, owners, occupiers, directors, partners, managers or any other person or persons has been finished to the regional Commissioner in Form 5A.	100%	1.96	100%	Met	1.96	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Compliance Management	SCORE MATRIX					
Year of Assessment			Fail	Below Target Result				
Month			Met	Matched Target Result				
Date of Review			Exceed`	Above Target Result, below 100%				
Conducted By:			NA	100%				
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
8	Employees Provident Fund	Details of Employee left in Form-10, filed within a month	100%	1.96	100%	Met	1.96	
9	Employees Provident Fund	Details of PF contribution paid in different accounts and Head count of the employee in form 12-A, filled within a month.	100%	1.96	100%	Met	1.96	
10	Employees Provident Fund	Annual return in Form 6A has been filled within prescribed time period	100%	1.96	100%	Met	1.96	
11	Equal Remuneration Act	Equal remuneration has been paid to men and women workers for same work	100%	1.96	100%	Met	1.96	
12	Equal Remuneration Act	No discrimination made while recruiting or promoting etc. men and women for the same work.	100%	1.96	100%	Met	1.96	
13	Equal Remuneration Act	Register is maintained in prescribed forms for all workers employed.	100%	1.96	100%	Met	1.96	
14	Contract Labour Act	The establishment [principal employer employing 20 or more workers through the Contractor (s)] is registered	100%	1.96	100%	Met	1.96	
15	Contract Labour Act	Certain amenities such as canteen, first aid facility, drinking water, latrines, urinals rest room etc. has been provided	100%	1.96	100%	Met	1.96	
16	Contract Labour Act	Representation and certification for disbursement of wages by the Contractor has been done.	100%	1.96	100%	Met	1.96	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Compliance Management		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
17	Contract Labour Act	Principal employer and every Contractor have maintained register of records	100%	1.96	100%	Met	1.96	
18	Contract Labour Act	Principal employer and every Contractor have exhibited notices containing particulars such as hours of work, nature of duty and other prescribed information at conspicuous place	100%	1.96	100%	Met	1.96	
19	Contract Labour Act	Register of contractors in Form-XII in respect of each registered establishment has been maintained	100%	1.96	100%	Met	1.96	
20	Contract Labour Act	Contractor has issued employment card in Form XIV to each worker within 3 days of employment of the worker	100%	1.96	100%	Met	1.96	
21	Contract Labour Act	Contractor has issued service certificate in Form-XV on the termination of a workman	100%	1.96	100%	Met	1.96	
22	Contract Labour Act	Commencement/Completion Certificate in form VI B has been sent within 15 days of commencement/completion of each site	100%	1.96	100%	Met	1.96	
23	Contract Labour Act	Every Contractor has sent half-yearly return in Form- XXIV within prescribed period	100%	1.96	100%	Met	1.96	
24	Contract Labour Act	Annual return by principal employer in Form-XXV has been filed by 15 February of following year	100%	1.96	100%	Met	1.96	
25	Payment of wages	The wages of every person employed has been paid before the 7th day of every month	100%	1.96	100%	Met	1.96	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Compliance Management	SCORE MATRIX					
Year of Assessment			Fail	Below Target Result				
Month			Met	Matched Target Result				
Date of Review			Exceed`	Above Target Result, below 100%				
Conducted By:			NA	100%				
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
26	Payment of wages	Only authorized deductions from the wages have been made	100%	1.96	100%	Met	1.96	
27	Payment of wages	All records and registers giving particulars of persons employed, wages paid, deductions made etc. have been maintained	100%	1.96	100%	Met	1.96	
28	Compensation in case of deaths (Note - This act only applies where ESI act is not applicable).	If death caused to a workman arising out of and during the course of employment then proper compensation has been paid through the Compensation Commissioner	100%	1.96	100%	Met	1.96	
29		If personal injury resulting into total or partial disablement or occupational disease caused to a workman arising out of and during the course of employment then proper compensation has been paid	100%	1.96	100%	Met	1.96	
30		Payment of compensation and payment of lump sum compensation to a person under a legal disability has been made to the Commissioner	100%	1.96	100%	Met	1.96	
31		Notice in form EE for any accident occurring in the premises resulting in death/serious bodily injury is given to the Commissioner within 7 days of such accident	100%	1.96	100%	Met	1.96	
32		Returns specifying number of injuries in respect of which compensation has been paid during previous year, amount of compensation etc. has been filed when the same is required by the State Govt.	100%	1.96	100%	Met	1.96	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Compliance Management	SCORE MATRIX					
Year of Assessment			Fail	Below Target Result				
Month			Met	Matched Target Result				
Date of Review			Exceed`	Above Target Result, below 100%				
Conducted By:			NA	100%				
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
33	Bonus to workers	Every employee who has worked in the establishment for not less than 30 working days in a year and whose salary does not exceed Rs.10,000 per month has been given bonus	100%	1.96	100%	Met	1.96	
34	Bonus to workers	A minimum bonus i.e. 8.33% of the salary paid	100%	1.96	100%	Met	1.96	
35	Bonus to workers	All amounts payable to an employee by way of bonus has been paid within the prescribed period	100%	1.96	100%	Met	1.96	
36	Bonus to workers	Registers/records and other documents has been prepared and maintained in such form and in such manner as prescribed	100%	1.96	100%	Met	1.96	
37	Bonus to workers	An annual return in Form-D has been submitted to the inspector	100%	1.96	100%	Met	1.96	
38	Maternity benefits	Every woman entitled has been paid maternity benefit	100%	1.96	100%	Met	1.96	
39	Maternity benefits	Every women entitled has been paid a medical bonus of Rs.250	100%	1.96	100%	Met	1.96	
40	Maternity benefits	Maternity leaves for 6 weeks immediately following day of miscarriage or medical termination of pregnancy has been provided	100%	1.96	100%	Met	1.96	
41	Maternity benefits	Maximum leave of 12 weeks (with wages) given to a woman of which not more than 6 weeks preceded the date of her expected delivery.	100%	1.96	100%	Met	1.96	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Compliance Management		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
42	Maternity benefits	Extract of the Act has been exhibited at a conspicuous place	100%	1.96	100%	Met	1.96	
43	Maternity benefits	Records, registers and muster rolls has been prepared and maintained	100%	1.96	100%	Met	1.96	
44	Payment of minimum wages	Minimum rates of wages fixed by the government have been paid to the employees	100%	1.96	100%	Met	1.96	
45	Payment of minimum wages	Payment for overtime has been paid to the employee at the fixed rate for the time being	100%	1.96	100%	Met	1.96	
46	Payment of minimum wages	Registers and records of Fines, Returns, Overtime, Wages, Wage Slip, and Muster Roll etc. have been maintained in prescribed form	100%	1.96	100%	Met	1.96	
47	Payment of minimum wages	Annual returns have been sent to Inspector in Form-IV before 1st February	100%	1.96	100%	Met	1.96	
48	Labor welfare fund Act	Contribution as per existing norms is paid within time frame	100%	1.96	100%	Met	1.96	
49	Labor welfare fund Act	Unpaid accumulation is paid with concerned authority within the stipulated timeframe	100%	1.96	100%	Met	1.96	
50	Labor welfare fund Act	Registers and records have been maintained	100%	1.96	100%	Met	1.96	
51	Restriction of child employment	No child has been employed or permitted to work in the establishment	100%	1.96	100%	Met	1.96	
	Total Score-	Labour Laws and Compliances		100.00			100.00	100.0%

13.5 SLA - EHS Services

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service	Environment, Health and Safety Services			SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
1	Process and Procedures	EHS Guidelines established and implemented	100.0%	6.67	100%	Met	6.67	
2	Process and Procedures	Record of Training schedule and implementation of training as per schedule	100.0%	6.67	100%	Met	6.67	
3	Process and Procedures	EHS audits and periodic EHS committee meetings are conducted and no deviation is reported in schedule	100.0%	6.67	100%	Met	6.67	
4	Reporting	Periodic EHS reports generation and submission on time as per schedule. Reports are timely, well-documented, and accurately reflect expected requirements	100.0%	6.67	100%	Met	6.67	
6	Safety management	Availability of Personal protection equipment and implementation of PPE's as per approved PPE plan. Physical verification shall be done	100.0%	6.67	100%	Met	6.67	
8	Safety management	Quantity of EHS incidents at site shall not be more than 5% of the total monthly complaints and incidents;	95.0%	6.67	100%	Exceed	6.67	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Environment, Health and Safety Services		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
9	Safety management	Quantity of repetitive incident for EHS related shall not be more than 1 of the total monthly complaints and incidents.	95.0%	6.67	100%	Exceed	6.67	
10	Safety management	No report of damage or disruption to IICCL property or business arising from Property Management Agency activities	99.5%	6.67	100%	Exceed	6.67	
11	Safety management	Record of EHS related workorder is maintained and no work order or work permit is executed without clearance of EHS personals at site. 100% compliance to be maintained	100.0%	6.67	100%	Met	6.67	
12	Safety management	EHS audits conducted at site are performed as per schedule and the observations recorded are documented and issued with Non conformity to cross functions	99.5%	6.67	100%	Exceed	6.67	
13	Safety management	EHS audit observations are closed in defined timeline and EHS team to ensure that the closure reports are reviewed and accepted and clearance to the NC are issued and recorded.	99.5%	6.67	100%	Exceed	6.67	
14	Material management	No unapproved or improperly registered chemicals stored, used, or disposed at any site; physical verification shall be done	100.0%	6.67	100%	Met	6.67	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka					
Name of the Service		Environment, Health and Safety Services		SCORE MATRIX					
Year of Assessment				Fail	Below Target Result				
Month				Met	Matched Target Result				
Date of Review				Exceed`	Above Target Result, below 100%				
Conducted By:				NA	100%				
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %	
15	Material management	No incident of mis handling and improper stacking and storage of Hazardous material shall be recorded; physical verification shall be done	99.5%	6.67	100%	Exceed	6.67		
16	Material management	No trace of chemical, Oil, fuel or waste discharge is observed	99.5%	6.67	100%	Exceed	6.67		
17	EHS Compliances	100% compliance related to EHS services are met for the property and no deviation or failure in compliance management is found	99.5%	6.67	100%	Exceed	6.67		
Total Score-			Environment, Health and Safety Services	99.07%	100.00			100.00	100.0%

13.6 SLA - Emergency & Disaster Management

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service	Emergency and Disaster Management Services			SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
1	Emergency Response Planning	Preparation and implementation of Emergency response plan	100%	6.25	100%	Met	6.25	
2	Emergency Response Planning	Circulation of approved copy of Emergency procedure and Contact details to all Occupants and Users and recorded acceptance.	100%	6.25	100%	Met	6.25	
3	Emergency Response Planning	Establishment of Emergency response team and define job responsibilities and update of team in case of change of employee.	100%	6.25	100%	Met	6.25	
4	Emergency Response Planning	Training and certifications for all Service Provider personnel with emergency response-related duties.	100%	6.25	100%	Met	6.25	
5	Emergency Response Planning	Record for controlled documents with approval, and change of document versions and date of implementation at site to be maintained and up to date.	100%	6.25	100%	Met	6.25	
6	Emergency Response Support	Manning of Disaster Management Command center to be provided 24 x 7 operation	100%	6.25	100%	Met	6.25	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Emergency and Disaster Management Services		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
7	Emergency Response Support	Ensure Emergency plan and evacuation plan are provided and displayed at all designated locations inside the property	100%	6.25	100%	Met	6.25	
8	Emergency Response Support	Ensure all emergencies are responded within defined Turnaround time and a formal emergency status is activated for cross function teams participation. Records to be maintained	100%	6.25	100%	Met	6.25	
9	Emergency Response Support	Availability of dedicated rescue team and training and drill record as per schedule	100%	6.25	100%	Met	6.25	
10	Emergency Response Support	SPV management is informed for all emergency situations within 10 minutes of first report.	100%	6.25	100%	Met	6.25	
11	Emergency Medical Support	Ensure all equipment are up to date and no damaged or under breakdown equipment is reported for not more than 24 hours.	100%	6.25	100%	Met	6.25	
12	Emergency Medical Support	Manning and deployment of Medical support services team for 24 x 7 operation	100%	6.25	100%	Met	6.25	
13	Emergency Medical Support	Ensure all medical equipment are up to date and no damaged or under breakdown equipment is reported for not more than 24 hours.	100%	6.25	100%	Met	6.25	
14	Emergency Medical Support	All minimum consumables and first aid kits are always stocked and quantity is never below the minimum stock level	100%	6.25	100%	Met	6.25	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Emergency and Disaster Management Services		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
15	Emergency Medical Support	Periodic Trainings are executed and record is maintained for all Medical support team personals	100%	6.25	100%	Met	6.25	
16	Emergency Medical Support	Record all pertinent data pertaining to the emergency and file an emergency condition report immediately after incident.	100%	6.25	100%	Met	6.25	
Total Score- Emergency and Disaster Management Services				100.00			100.00	100.0%

13.7 SLA - Quality and Sustainability Management

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Quality and Sustainability Management		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
1	Quality Management Program	Preparation and implementation of Quality and Sustainability service manual	100%	6.25	100%	Met	6.25	
2	Quality Management Program	Ensure applicable laws and statutory requirements are updated and recorded in the manual no later than 10 days of notification and all required regulations are implemented at site.	100%	6.25	100%	Met	6.25	
3	Quality Management Program	Establishment of Quality and Sustainability team and define job responsibilities and ensure availability of team at site regularly.	100%	6.25	100%	Met	6.25	
4	Quality Management Program	Training are conducted to all site personals and record is maintained on monthly basis for quality management services for all respective functions.	100%	6.25	100%	Met	6.25	
5	Quality Management Program	Record for controlled documents with approval, and change of document versions and date of implementation at site to be maintained and up to date.	100%	6.25	100%	Met	6.25	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Quality and Sustainability Management		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
6	Quality Management Program	ISO checklists for Operational efficiency are implemented and inspection is carried out every week.	100%	6.25	100%	Met	6.25	
7	Quality Management Program	Quality management system weekly inspection report and non confirmity report is generated and circulated to all departments. Record for all follow-up closure and acceptance reports to be provided for verification.	100%	6.25	100%	Met	6.25	
8	Quality Management Program	Quality management system Monthly Audit report and non confirmity report is generated and circulated to all departments. Record for all follow-up closure and acceptance reports to be provided for verification.	100%	6.25	100%	Met	6.25	
9	Quality Management Program	Certificates for Quality management system are in force and renewal process is carried out post expiry of the certification date.	100%	6.25	100%	Met	6.25	
10	Quality Management Program	External trainings are conducted for knowledge enhancement on quarterly basis and record for training is provided	100%	6.25	100%	Met	6.25	
11	Sustainability and Green Building Management	Daily Data analysis report for energy consumption is prepared and submitted for MIS without deviation.	100%	6.25	100%	Met	6.25	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Quality and Sustainability Management		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
12	Sustainability and Green Building Management	Intimation and non-conformity reports are issued to inter functional teams for energy consumption trends and acceptance recorded	100%	6.25	100%	Met	6.25	
13	Sustainability and Green Building Management	Monthly audit report for all Green Building data for IGBC certification is recorded and submitted in MIS	100%	6.25	100%	Met	6.25	
14	Sustainability and Green Building Management	Ensure all operating parameters and energy consumption trends are within specified limits by IGBC platinum rating guidelines and no deviation is recorded below minimum required levels	100%	6.25	100%	Met	6.25	
15	Sustainability and Green Building Management	All records and details are submitted for renewal of the certification and all renewals and required up gradation is done before expiry of the certificate.	100%	6.25	100%	Met	6.25	
16	Emergency Medical Support	Trainings for sustainability program are conducted for all inter functional teams as per defined schedule and record for the same is submitted in MIS.	100%	6.25	100%	Met	6.25	
Total Score-		Quality and Sustainability Management	100.00%	100.00			100.00	100.0%

13.8 SLA - Finance and Accounting Management

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Financial, Accounting and Procurement Management		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
1	Management Services	Preparation and implementation of Financial and Accounting Service manual	100.0%	2.94	100%	Met	2.94	
2	Management Services	Ensure qualified and certified manpower is deployed at site as per minimum approved manpower deployment plan	100.0%	2.94	100%	Met	2.94	
3	Management Services	Ensure applicable laws and statutory requirements are updated and recorded in the manual no delay is reported for implementation of such notification and all required regulations are implemented at site.	100.0%	2.94	100%	Met	2.94	
4	Management Services	Establishment of Finance and Accounting team and define job responsibilities and ensure availability of team at site regularly.	100.0%	2.94	100%	Met	2.94	
5	Management Services	Training are conducted to all personals and record is maintained on monthly basis for Finance and Accounting management services.	99.5%	2.94	100%	Exceed	2.94	
6	Management Services	Record for controlled documents with approval, and change of document versions and date of implementation at site to be maintained and up to date.	100.0%	2.94	100%	Met	2.94	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Financial, Accounting and Procurement Management		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
7	Management Services	Preparation and implementation of Procurement and Contract management Service manual	100.0%	2.94	100%	Met	2.94	
8	Management Services	Establishment of Procurement and Contract management team and define job responsibilities and ensure availability of team at site regularly.	100.0%	2.94	100%	Met	2.94	
9	Management Services	Training are conducted to all personals and record is maintained on monthly basis for Procurement and Contract management services.	100.0%	2.94	100%	Met	2.94	
10	Management Services	Record for controlled documents with approval, and change of document versions and date of implementation at site to be maintained and up to date.	99.5%	2.94	100%	Exceed	2.94	
11	Budgeting and Forecasting	Provide annual estimates of fixed and variable costs for all services under the scope of the Property Management Services	99.5%	2.94	100%	Exceed	2.94	
12	Budgeting and Forecasting	Provide annual Common area maintenance expenses calculations basis actual spend on monthly basis as part of MIS	99.5%	2.94	100%	Exceed	2.94	
13	Budgeting and Forecasting	Provide quarterly report for Capital project requirement and short and long term requirements and associated plans as part of MIS	99.5%	2.94	100%	Exceed	2.94	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Financial, Accounting and Procurement Management		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
14	Debtor Services	Generation of Invoices for Common Area maintenance charges and rentals for Occupants	99.5%	2.94	100%	Exceed	2.94	
15	Debtor Services	Tracking of Invoice dispatch Within 48 hrs of receiving of invoices and provide delivery report as part of MIS and ensure 100% delivery rate.	99.5%	2.94	100%	Exceed	2.94	
16	Debtor Services	Monthly records of, and supporting documentation for, all amounts invoiced to and payments made by Customer	99.5%	2.94	100%	Exceed	2.94	
17	Debtor Services	Provide report for Recoveries of lease rent, CAM charges, charges for various infrastructure services and facilities provided by SPV on monthly basis	99.5%	2.94	100%	Exceed	2.94	
18	Debtor Services	Cheque Deposit cheque in the designated bank account within 2 days of receiving and submit submission report on monthly basis.	99.5%	2.94	100%	Exceed	2.94	
19	Debtor Services	Follow-up communication for recovery of nonpayment Weekly update & to act in -co-ordination / direction of SPV on tenant related issues on out standing's	99.5%	2.94	100%	Exceed	2.94	
20	Debtor Services	Report generation and submission for payment received and Tax deduction on monthly basis as part of MIS	99.5%	2.94	100%	Exceed	2.94	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Financial, Accounting and Procurement Management		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
21	Debtor Services	Payment recommendation advice report for Tax payments related to GST on monthly basis.	99.5%	2.94	100%	Exceed	2.94	
22	Creditor Services	Monthly Report generation for records of, and supporting documentation for, all fees and expenses invoiced to Supplier by Subcontractors or by Third Parties and billed to “SPV” on a pass-through basis (if any)	99.5%	2.94	100%	Exceed	2.94	
23	Creditor Services	Monthly Report generation for records of, and supporting documentation for, all fees and expenses invoiced by Service Provider to “SPV” under the terms of this agreement and for the services provided in addition on a case to case basis (if any).	99.5%	2.94	100%	Exceed	2.94	
24	Creditor Services	Maintain invoicing and payment records and prepares monthly aging reports for outstanding payments and coordinates with the “SPV” for clearance of outstanding amounts as per contractual obligations	99.5%	2.94	100%	Exceed	2.94	
25	Creditor Services	Prepare reconciliation and ledger reports including No dues certificates and NOC from all debtors including Service Provider itself to “SPV” on monthly basis for accounting purpose	99.5%	2.94	100%	Exceed	2.94	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Financial, Accounting and Procurement Management		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
26	Banking Services	Prepare bounced and uncleared cheque reports and submit to SPV on every 30th day	99.5%	2.94	100%	Exceed	2.94	
27	Banking Services	Deposit bank guarantees against Contractual obligations by Occupants / Suppliers / Service providers to the SPV or in Bank (as the case may be) and maintains a record for validity and amount and submits the same to SPV on monthly basis	100.0%	2.94	100%	Met	2.94	
28	Banking Services	Generate reconciliation report on weekly basis for all inward and outward transactions in coordination with Bank and submit the report to SPV on monthly basis	100.0%	2.94	100%	Met	2.94	
29	Procurement Management	Ensure all services provided in the property are evaluated for eligibility post service Contract and NDA and report to be prepared on monthly basis.	100.0%	2.94	100%	Met	2.94	
30	Procurement Management	Provide status of spend against PO amounts and reported on a monthly basis by Service Provider.	99.5%	2.94	100%	Exceed	2.94	
31	Procurement Management	Provide cost benchmarking & cost benefit analysis for all such activities as required	99.5%	2.94	100%	Exceed	2.94	
32	Procurement Management	Track each service to ensure timely renewal of existing contracts	99.5%	2.94	100%	Exceed	2.94	
33	Procurement Management	Meet with all suppliers at least on a monthly basis to review performance levels and submit monthly report	99.5%	2.94	100%	Exceed	2.94	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Financial, Accounting and Procurement Management		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
34	Procurement Management	Review all statutory registrations and licenses of all service providers and prepare compliance report for all service providers on monthly basis.	99.5%	2.94	100%	Exceed	2.94	
Total Score-		Financial, Accounting & Procurement Management	99.66%	100.00			100.00	100.0%

13.9 SLA - Project Coordination and Fitout Management

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Project Coordination and Fitout Management		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
1	Fitout Management	Preparation and implementation of Fitout management Service manual	100%	8.33	100%	Met	8.33	
2	Fitout Management	Ensure qualified and certified manpower is deployed at site as per minimum approved manpower deployment plan	100%	8.33	100%	Met	8.33	
3	Fitout Management	Ensure applicable laws and statutory requirements are updated and recorded in the manual no delay is reported for implementation of such notification and all required regulations are implemented at site.	100%	8.33	100%	Met	8.33	
4	Fitout Management	Establishment of Fitout management team and define job responsibilities and ensure availability of team at site regularly.	100%	8.33	100%	Met	8.33	
5	Fitout Management	Trainings are conducted to all personals and record is maintained on monthly basis for Fitout management services.	100%	8.33	100%	Met	8.33	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Project Coordination and Fitout Management		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
6	Fitout Management	Record for controlled documents with approval, and change of document versions and date of implementation at site to be maintained and up to date.	100%	8.33	100%	Met	8.33	
7	Fitout Management	All established policies and manuals related to building management are handed over to Occupants and a receiving of such handover is recorded	100%	8.33	100%	Met	8.33	
8	Fitout Management	Provide monthly report for Fitout activities and submit as part of MIS	100%	8.33	100%	Met	8.33	
9	Fitout Management	Review the Occupant's submitted design document and recommends for formal approval by SPV recommended Architect for Fitout drawings approval.	100%	8.33	100%	Met	8.33	
10	Fitout Management	Review report for Occupant's submitted design document for Fitout drawings approval to be submitted by Service Provider within six working days.	100%	8.33	100%	Met	8.33	
11	Fitout Management	Issue and maintain record for work permits issued to Occupants Fitout and ensure compliance with safe and secure construction activities	100%	8.33	100%	Met	8.33	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Project Coordination and Fitout Management		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
12	Fitout Management	Prepare inspection report of the constructed Occupant's area and provide No objection certificate post approval from "SPV" management team.	100%	8.33	100%	Met	8.33	
13	Fitout Management	No report for any incident related to EHS and Fire safety during Fitout period inside the Occupant's premises.	100%	8.33	100%	Met	8.33	
Total Score- Project Coordination and Fitout Management				100.00			100.00	100.0%

13.10 SLA - Engineering Management Services

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service	Engineering Service Management			SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
1	Maintenance Management	Preparation and implementation of Operation and Maintenance Service manual	100%	4.00	100%	Met	4.00	
2	Maintenance Management	Ensure qualified and certified Technical manpower is deployed at site as per minimum approved manpower deployment plan	100%	4.00	100%	Met	4.00	
3	Maintenance Management	Ensure applicable laws and statutory requirements are updated and recorded in the manual no delay is reported for implementation of such notification and all required regulations are implemented at site.	100%	4.00	100%	Met	4.00	
4	Maintenance Management	Deployment of Engineering management, Operations and Maintenance team and define job responsibilities and ensure availability of team at site regularly.	100%	4.00	100%	Met	4.00	
5	Maintenance Management	Training are conducted to all personals and record is maintained on monthly basis for Engineering Services.	100%	4.00	100%	Met	4.00	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Engineering Service Management		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
6	Maintenance Management	Record for controlled documents with approval, and change of document versions and date of implementation at site to be maintained and up to date.	100%	4.00	100%	Met	4.00	
7	Maintenance Management	Develop and implement all Standard operating procedures, Checklist for periodic maintenance including daily, weekly, monthly etc for all systems under the services.	100%	4.00	100%	Met	4.00	
8	Life Cycle Property Asset Management	Develop and implement an equipment reliability program focused on critical assets	100%	4.00	100%	Met	4.00	
9	Life Cycle Property Asset Management	Provide monthly report on Asset and equipment performance and Operational efficiency analysis and Perform root cause evaluation Track and prioritize resolution of these failures	100%	4.00	100%	Met	4.00	
10	Maintenance Planning	Prepare Preventive Maintenance schedule for all Engineering systems and implement the maintenance schedule along with periodic reports; Monthly MIS to cover all records	100%	4.00	100%	Met	4.00	
11	Maintenance Planning	Develop and implement an equipment Corrective maintenance program and prepare periodic reports	100%	4.00	100%	Met	4.00	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Engineering Service Management		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
12	Maintenance Planning	Manage critical and general inventory for maintenance activities and ensure that minimum stock level for all general spares is always maintained at site to eliminate any downtime based on spare availability.	100%	4.00	100%	Met	4.00	
13	Asset History and Maintenance record	Maintain records of asset history in accordance with site specific procedures.	100%	4.00	100%	Met	4.00	
14	Asset History and Maintenance record	Retain and maintain program documentation in web based document repository systems	100%	4.00	100%	Met	4.00	
15	Warranty and management DLP	Prepare asset warranty and DLP tracker and manage scheduled preventive and corrective maintenance activities under such provisions.	100%	4.00	100%	Met	4.00	
16	Warranty and management DLP	Ensure that the required services are asked for and OEM and concerned contractors are informed and called promptly to minimize equipment and services downtime.	100%	4.00	100%	Met	4.00	
17	AMC management	Establishing an effective tracking mechanism for the above to ensure renewals proactively & mitigate/ avoid any risk exposures to any asset/equipment requiring coverage until the shelf-life of the related asset/equipment	100%	4.00	100%	Met	4.00	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Engineering Service Management	SCORE MATRIX					
Year of Assessment			Fail	Below Target Result				
Month			Met	Matched Target Result				
Date of Review			Exceed`	Above Target Result, below 100%				
Conducted By:			NA	100%				
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
18	AMC management	sourcing, documentation & management (including tracking & renewals) of all annual maintenance contracts for the required assets / equipment not covered under / post expiry of DLP/Warranty period	100%	4.00	100%	Met	4.00	
19	Building and Equipment Inspection	Perform routine inspections of the building and building equipment to identify any potential problems (e.g. leaks, corrosion, cracks, vibration, discoloration, unnecessary noise, breakage, etc.) and provide MIS report	100%	4.00	100%	Met	4.00	
20	Energy Management and Control	Monthly report for regular monitoring and review of energy monitoring & accounting system in terms of metering, record keeping, data logging, periodic performance analysis	100%	4.00	100%	Met	4.00	
21	Energy Management and Control	Perform Gap analysis and implement improvement for effective energy monitoring & accounting system	100%	4.00	100%	Met	4.00	
22	Energy Management and Control	Document all reports, schedules and improvement procedures by site specific procedures and submit to SPV management as per set Management Information system and reporting procedure	100%	4.00	100%	Met	4.00	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka				
Name of the Service		Engineering Service Management		SCORE MATRIX				
Year of Assessment				Fail	Below Target Result			
Month				Met	Matched Target Result			
Date of Review				Exceed`	Above Target Result, below 100%			
Conducted By:				NA	100%			
Sr. No	Particulars	Service Level Description	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
23	Energy Management and Control	Document all reports, schedules and improvement procedures by site specific procedures and submit to SPV management as per set Management Information system and reporting procedure.	100%	4.00	100%	Met	4.00	
24	Energy Management and Control	Develop program and conduct Bimonthly Thermal scanning and periodic Thermograph Audit of all electro mechanical system and Identify electrical risks	100%	4.00	100%	Met	4.00	
25	Energy Management and Control	Perform Quarterly Study of Reactive Power Compensation, electrical parameters and Power quality.	100%	4.00	100%	Met	4.00	
Total Score- Engineering Service Management				100.00			100.00	100.0%

13.11 SLA - Engineering O & M Services - Operational

SERVICE LEVEL PERFORMANCE INDICATORS					IICCL Dwarka				
Name of the Service		Engineering Operation & Maintenance- Operational			SCORE MATRIX				
Year of Assessment					Fail	variation >3%			
Month					Met	variation 1-3%			
Date of Review					Good	Variation <1%			
Conducted By:					NA	100%			
Sr. No	Particulars	Service Level Description	Performance Indicator (KPI)	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
1	Diesel Generator	DG Efficiency at 30% Loading	2.8 Units/Ltr	90.00%	1.75	100%	Exceed	1.75	
2		DG Efficiency at 50%-65% Loading	3.5 Units/Ltr	90.00%	1.75	100%	Exceed	1.75	
3		DG Efficiency at 70-80 % Loading	3.9 Units/Ltr	90.00%	1.75	100%	Exceed	1.75	
4		Diesel Engine Battery Voltage	22- 30 V	90.00%	1.75	100%	Exceed	1.75	
5		Specific Gravity of electrolyte	1180- 1240	90.00%	1.75	100%	Exceed	1.75	
6		Preventive Maintenance - A Check	Daily	90.00%	1.75	100%	Exceed	1.75	
7		Preventive Maintenance - B Check	300-350 Hrs	90.00%	1.75	100%	Exceed	1.75	
8		Preventive Maintenance - C Check	800-1200 Hrs	90.00%	1.75	100%	Exceed	1.75	
9	Transformer	Oil temperature	(Normal 30 to 70 Deg C) Alarm - 85 deg C,Trip - 95 deg C.	95.00%	1.75	100%	Exceed	1.75	

SERVICE LEVEL PERFORMANCE INDICATORS					IICCL Dwarka				
Name of the Service		Engineering Operation & Maintenance- Operational			SCORE MATRIX				
Year of Assessment					Fail	variation >3%			
Month					Met	variation 1-3%			
Date of Review					Good	Variation <1%			
Conducted By:					NA	100%			
Sr. No	Particulars	Service Level Description	Performance Indicator (KPI)	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
10		Winding Temperature	(30 to 70 Deg Celsius) Alarm - 95 deg C, Trip - 105 deg C.	95.00%	1.75	100%	Exceed	1.75	
11		No Load Voltage Ratio Test	11000 / 430 V	99.50%	1.75	100%	Exceed	1.75	
12		Control and Trip System Calibration	As per schedule	99.50%	1.75	100%	Exceed	1.75	
13		Leakage and Oil precipitation Checks	No traces	99.50%	1.75	100%	Exceed	1.75	
14		Silica Gel Colour	Blue Colour	90.00%	1.75	100%	Exceed	1.75	
15		Transformer Eathing	0.5 1.0 ohm	90.00%	1.75	100%	Exceed	1.75	
16	Panels and Breakers	Capacitor Panels and Power factor	0.95-1	99.95%	1.75	100%	Exceed	1.75	
17		ACBs / Panels/ Cables- Critical	Healthy	99.95%	1.75	100%	Exceed	1.75	
18		ACBs / Panels/ Cables- Non Critical	Healthy	98.00%	1.75	100%	Exceed	1.75	

SERVICE LEVEL PERFORMANCE INDICATORS					IICCL Dwarka				
Name of the Service		Engineering Operation & Maintenance- Operational			SCORE MATRIX				
Year of Assessment					Fail	variation >3%			
Month					Met	variation 1-3%			
Date of Review					Good	Variation <1%			
Conducted By:					NA	100%			
Sr. No	Particulars	Service Level Description	Performance Indicator (KPI)	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
19	UPS System	UPS Machines and Power Supply Outputs	Healthy	99.95%	1.75	100%	Exceed	1.75	
20		UPS Battery Bank Healthiness	Healthy	100.00%	1.75	100%	Met	1.75	
21	Elevator	Door Sensor is Working	Should open when interruption at door	99.95%	1.75	100%	Exceed	1.75	
22		ARD working	Auto rescue check	99.95%	1.75	100%	Exceed	1.75	
23		Panel errors	No error	99.95%	1.75	100%	Exceed	1.75	
24		Emergency Light in the car	Should be on on EB power failure	99.95%	1.75	100%	Exceed	1.75	
25		Emergency contact, Do's & Don'ts list in the elevator	Displayed at elevator	99.95%	1.75	100%	Exceed	1.75	
26		Telephone in the elevator	Fixed at elevator	99.95%	1.75	100%	Exceed	1.75	
27		Fire Man switch operations	Landing at GF during operation	99.95%	1.75	100%	Exceed	1.75	

SERVICE LEVEL PERFORMANCE INDICATORS					IICCL Dwarka				
Name of the Service		Engineering Operation & Maintenance- Operational			SCORE MATRIX				
Year of Assessment					Fail	variation >3%			
Month					Met	variation 1-3%			
Date of Review					Good	Variation <1%			
Conducted By:					NA	100%			
Sr. No	Particulars	Service Level Description	Performance Indicator (KPI)	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
28	STP/ WTP	PH value of treated Water	6~ 9	95.00%	1.75	100%	Exceed	1.75	
29		Aeration tank MLSS level	<=40%	95.00%	1.75	100%	Exceed	1.75	
30	Lighting System	Internal Lights Uptime		99.00%	1.75	100%	Exceed	1.75	
31		External Lights Uptime		99.00%	1.75	100%	Exceed	1.75	
32		Emergency Light uptime		99.50%	1.75	100%	Exceed	1.75	
33		Lux Level - Lobby	200	95.00%	1.75	100%	Exceed	1.75	
34		Lux Level - Staircase	200	95.00%	1.75	100%	Exceed	1.75	
35		Lux Level - External	200	95.00%	1.75	100%	Exceed	1.75	
36		Lux Level - parking	75	95.00%	1.75	100%	Exceed	1.75	
37		Lux Level - Basement	100	95.00%	1.75	100%	Exceed	1.75	
38		Lux Level - Lift	75	95.00%	1.75	100%	Exceed	1.75	

SERVICE LEVEL PERFORMANCE INDICATORS					IICCL Dwarka				
Name of the Service		Engineering Operation & Maintenance- Operational			SCORE MATRIX				
Year of Assessment					Fail	variation >3%			
Month					Met	variation 1-3%			
Date of Review					Good	Variation <1%			
Conducted By:					NA	100%			
Sr. No	Particulars	Service Level Description	Performance Indicator (KPI)	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
39		Lux Level - Utility rooms	150	95.00%	1.75	100%	Exceed	1.75	
40		Lux Level - Toilets	100	95.00%	1.75	100%	Exceed	1.75	
41		Lux Level - Entrance to Hall	150	95.00%	1.75	100%	Exceed	1.75	
42	HVAC	HVAC systems not including chillers	1	99.50%	1.75	100%	Exceed	1.75	
43		AC system at Data centers	1	99.95%	1.75	100%	Exceed	1.75	
44		Chiller - CHW entering temperature	less than 53 Deg F	95.00%	1.75	100%	Exceed	1.75	
45		Chiller - CHW Leaving temperature	less than 45 Deg F	95.00%	1.75	100%	Exceed	1.75	
46		Chiller- Condenser (Cooling Tower)	85 - 90 Deg F	95.00%	1.75	100%	Exceed	1.75	
47		AHU - Canvass Temp	13.5 - 15 C	95.00%	1.75	100%	Exceed	1.75	
48		AHU - Grill Temperature	18 - 20 C	95.00%	1.75	100%	Exceed	1.75	
49		Floor Temperature & Common Corroder Temperature	23+1 degree C	95.00%	1.75	100%	Exceed	1.75	

SERVICE LEVEL PERFORMANCE INDICATORS					IICCL Dwarka				
Name of the Service		Engineering Operation & Maintenance- Operational			SCORE MATRIX				
Year of Assessment					Fail	variation >3%			
Month					Met	variation 1-3%			
Date of Review					Good	Variation <1%			
Conducted By:					NA	100%			
Sr. No	Particulars	Service Level Description	Performance Indicator (KPI)	Target Percentage	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
50	Fire Pump Room	Jockey Pump-Hydrant	Operational all the time; downtime calculated in hours against total working hours in a month	99.50%	1.75	100%	Exceed	1.75	
51		Main Pump- Hydrant		99.50%	1.75	100%	Exceed	1.75	
52		Jockey Pump-Sprinkler		99.50%	1.75	100%	Exceed	1.75	
53		Main Pump- Sprinkler Pump		99.50%	1.75	100%	Exceed	1.75	
54		Water Curtain Pump		99.50%	1.75	100%	Exceed	1.75	
55		Diesel driven (stand by) Pump		99.50%	1.75	100%	Exceed	1.75	
56		Diesel Level in Day Tank	Level >75%	99.50%	1.75	100%	Exceed	1.75	
57			Fire Tank water level 100%	100%	100.00%	1.75	100%	Met	1.75
Total Score-		OPERATIONAL PARAMETERS		96.39%	100.00			100.00	100.0%

13.12 SLA - Engineering O & M Services – Response and Resolutions

SERVICE LEVEL PERFORMANCE INDICATORS					IICCL Dwarka						
Name of the Service		Engineering Operation & Maintenance- Response			SCORE MATRIX						
Year of Assessment		PERFORMANCE PARAMETERS (RESULT TO BE VERIFIED BY MAINTENANCE RECORD / HELPDESK REPORT AND ONSITE CONDITION)			In Time		100%				
Month					Delayed		0%				
Date of Review											
Conducted By:											
Sr. No	Particulars	Service Level Description	Response Time	Diagnosis time	Resolution Time	Target Percentage	Max Score	In Time / Delayed	Result %	Score Achieved	Score %
1	Electrical	Replacement/repair Power socket	10 minutes	10 Minutes	30 Minutes	99.00%	2.13	In Time	100%	2.13	
2		Power distribution breaker tripped	Immediate	5 Minutes	15 Minutes	99.00%	2.13	In Time	100%	2.13	
3		MCB failure	Immediate	20 Minutes	20 Minutes	99.00%	2.13	In Time	100%	2.13	
4		MCCB / ACB Failure or tripping	Immediate	10 Minutes	30 Minutes	99.00%	2.13	In Time	100%	2.13	
5		Grid Failure - Provide Standby DG Power	Immediate	Immediate	25 Seconds	99.00%	2.13	In Time	100%	2.13	
6		DG / HT Panels / Transformer / HT Cable repairs - 1st Level Maintenance with replacement of spares	Immediate	10 Minutes	4 Hours	99.00%	2.13	In Time	100%	2.13	
7		DG / HT Panels / Transformer / HT Cable repairs - Maintenance with OEM support without replacement of spares	Immediate	30 Minutes	8 Hours	99.00%	2.13	In Time	100%	2.13	

SERVICE LEVEL PERFORMANCE INDICATORS					IICCL Dwarka						
Name of the Service		Engineering Operation & Maintenance- Response			SCORE MATRIX						
Year of Assessment		PERFORMANCE PARAMETERS (RESULT TO BE VERIFIED BY MAINTENANCE RECORD / HELPDESK REPORT AND ONSITE CONDITION)			In Time			100%			
Month					Delayed			0%			
Date of Review											
Conducted By:											
Sr. No	Particulars	Service Level Description	Response Time	Diagnosis time	Resolution Time	Target Percentage	Max Score	In Time / Delayed	Result %	Score Achieved	Score %
8		DG / HT Panels / Transformer / HT Cable repairs - Maintenance with OEM support with replacement of spares	30 Minutes	8 Hours	3 days	99.00%	2.13	In Time	100%	2.13	
9	Lighting	Internal Lighting Replacement	Immediate	Immediate	10 Minutes	99.00%	2.13	In Time	100%	2.13	
10		Bulb / Tube Flickering / replacement	5 minutes	10 Minutes	20 Minutes	99.00%	2.13	In Time	100%	2.13	
11		Light Fixture loose / Not properly fixed / Not Functional	10 Minutes	20 Minutes	30 Minutes	99.00%	2.13	In Time	100%	2.13	
12		External Lighting Replacement	10 Minutes	20 Minutes	30 Minutes	99.00%	2.13	In Time	100%	2.13	
13	Earthing	Earth Faults in Distribution System	Immediate	Immediate	5 Minutes	99.00%	2.13	In Time	100%	2.13	
14		Earth Faults in Earthing Network	Immediate	Immediate	15 Minutes	99.00%	2.13	In Time	100%	2.13	
15		Fault Repair-1st Level Maintenance-Replacement of Spares	20 Minutes	20 Minutes	1days	99.00%	2.13	In Time	100%	2.13	
16	Elevator	Lift is stuck and Rescue of travelers required	Immediate	Immediate	5 Minutes	99.00%	2.13	In Time	100%	2.13	

SERVICE LEVEL PERFORMANCE INDICATORS					IICCL Dwarka						
Name of the Service		Engineering Operation & Maintenance- Response			SCORE MATRIX						
Year of Assessment		PERFORMANCE PARAMETERS (RESULT TO BE VERIFIED BY MAINTENANCE RECORD / HELPDESK REPORT AND ONSITE CONDITION)			In Time		100%				
Month					Delayed		0%				
Date of Review											
Conducted By:											
Sr. No	Particulars	Service Level Description	Response Time	Diagnosis time	Resolution Time	Target Percentage	Max Score	In Time / Delayed	Result %	Score Achieved	Score %
17		Fault Repair-First Level Maintenance-Replacement of Spares	20 Minutes	20 Minutes	30 Minutes	99.00%	2.13	In Time	100%	2.13	
18		Fault Repair - Maintenance with OEM support with Spare	30 Minutes	4 Hours	1 days	99.00%	2.13	In Time	100%	2.13	
19	HVAC	Attend temperature/air flow problem at w/s area	30 Minutes	30 Minutes	60 Minutes	99.00%	2.13	In Time	100%	2.13	
20		Attend temperature/air flow problem at critical area	10 Minutes	30 Minutes	60 Minutes	99.00%	2.13	In Time	100%	2.13	
21		Rectification of drain water leakage	30 Minutes	30 Minutes	2 Hours	99.00%	2.13	In Time	100%	2.13	
22		Rectification of air duct noise	30 Minutes	30 Minutes	2 Hours	99.00%	2.13	In Time	100%	2.13	
23		Exhaust Fans, Blowers etc Fault	Immediate	Immediate	15 Minutes	99.00%	2.13	In Time	100%	2.13	
24		Fault Repair-First Level Maintenance-Replacement of Spares	20 Minutes	20 Minutes	30 Minutes	99.00%	2.13	In Time	100%	2.13	
25		AC Units, AHU's and system Tripping of Equipment	Immediate	Immediate	5 Minutes	99.00%	2.13	In Time	100%	2.13	
26		Equipment-1st Level Maintenance-Replacement	10 Minutes	20 Minutes	60 Minutes	99.00%	2.13	In Time	100%	2.13	

SERVICE LEVEL PERFORMANCE INDICATORS					IICCL Dwarka						
Name of the Service		Engineering Operation & Maintenance- Response			SCORE MATRIX						
Year of Assessment		PERFORMANCE PARAMETERS (RESULT TO BE VERIFIED BY MAINTENANCE RECORD / HELPDESK REPORT AND ONSITE CONDITION)			In Time			100%			
Month					Delayed			0%			
Date of Review											
Conducted By:											
Sr. No	Particulars	Service Level Description	Response Time	Diagnosis time	Resolution Time	Target Percentage	Max Score	In Time / Delayed	Result %	Score Achieved	Score %
		of spares									
27		Equipment Repair-require OEM	10 Minutes	20 Minutes	24 Hours	99.00%	2.13	In Time	100%	2.13	
28		Equipment Repair - replacement of parts with OEM support	20 Minutes	6Hours	2 days	99.00%	2.13	In Time	100%	2.13	
29		Toilets and Common Area Exhaust fan not working	10 Minutes	20 Minutes	24 Hours	99.00%	2.13	In Time	100%	2.13	
30		Overcooling / High temperature in Cabin / Room	Immediate	20 Minutes	60 Minutes	99.00%	2.13	In Time	100%	2.13	
31		AC Noise / Vibration	Immediate	20 Minutes	60 Minutes	99.00%	2.13	In Time	100%	2.13	
32		Lack of fresh air	10 Minutes	20 Minutes	60 Minutes	99.00%	2.13	In Time	100%	2.13	
33	Pump	Acknowledgement and response to attend the Fault	Immediate	Immediate	5 Minutes	99.00%	2.13	In Time	100%	2.13	
34		Fault Repair-1st Level Maintenance-Replacement of Spares	20 minutes	20 minutes	30 minutes	99.00%	2.13	In Time	100%	2.13	
35	Fire Alarm system	Fire alarm acknowledgement	Immediate	Immediate	5 Minutes	99.00%	2.13	In Time	100%	2.13	

SERVICE LEVEL PERFORMANCE INDICATORS					IICCL Dwarka						
Name of the Service		Engineering Operation & Maintenance- Response			SCORE MATRIX						
Year of Assessment		PERFORMANCE PARAMETERS (RESULT TO BE VERIFIED BY MAINTENANCE RECORD / HELPDESK REPORT AND ONSITE CONDITION)			In Time		100%				
Month					Delayed		0%				
Date of Review											
Conducted By:											
Sr. No	Particulars	Service Level Description	Response Time	Diagnosis time	Resolution Time	Target Percentage	Max Score	In Time / Delayed	Result %	Score Achieved	Score %
36		Fire Alarm Panel Faults	10 Minutes	20 Minutes	6Hours	99.00%	2.13	In Time	100%	2.13	
37		Fault Repair-1st Level Maintenance-Replacement of Spares	20 minutes	20 minutes	30 minutes	99.00%	2.13	In Time	100%	2.13	
38		Leakages, blockage and valve failures	15 Minutes	2 Hrs	2 Hours	99.00%	2.13	In Time	100%	2.13	
39	Plumbing	water Leakage	15 Minutes	10 Minutes	40 Minutes	99.00%	2.13	In Time	100%	2.13	
40		water Blockage and Valve failure	15 Minutes	20 Minutes	60 Minutes	99.00%	2.13	In Time	100%	2.13	
41		Drain Choking	15 Minutes	15 Minutes	120 Minutes	99.00%	2.13	In Time	100%	2.13	
42		Drop in MLSS levels in STP	Immediate	1 day	2 days	99.00%	2.13	In Time	100%	2.13	
43	WTP Plant	Acknowledgement and response to attend the Fault	Immediate	Immediate	5 Minutes	99.00%	2.13	In Time	100%	2.13	
44		Fault Repair-1st Level Maintenance-Replacement of Spares	20 minutes	20 minutes	30 minutes	99.00%	2.13	In Time	100%	2.13	
45	Civil Maintenance	Repair/replace of door closer	30 Minutes	60 Minutes	2 Hours	99.00%	2.13	In Time	100%	2.13	

SERVICE LEVEL PERFORMANCE INDICATORS					IICCL Dwarka						
Name of the Service		Engineering Operation & Maintenance- Response			SCORE MATRIX						
Year of Assessment		PERFORMANCE PARAMETERS (RESULT TO BE VERIFIED BY MAINTENANCE RECORD / HELPDESK REPORT AND ONSITE CONDITION)			In Time		100%				
Month					Delayed		0%				
Date of Review											
Conducted By:											
Sr. No	Particulars	Service Level Description	Response Time	Diagnosis time	Resolution Time	Target Percentage	Max Score	In Time / Delayed	Result %	Score Achieved	Score %
46		Lock and key defects	30 Minutes	60 Minutes	2 Hours	99.00%	2.13	In Time	100%	2.13	
47		Paintings and minor Civil repair	30 Minutes	60 Minutes	8 Hours	99.00%	2.13	In Time	100%	2.13	
Total Score-		Engineering Operation & Maintenance- Response				99.00%	100.00			100.00	100.0%

13.13 SLA - Janitorial & Horticulture Services

SERVICE LEVEL PERFORMANCE INDICATORS								IICCL Dwarka	
Name of the Service		Janitorial & Horticulture Services			SCORE MATRIX				
Year of Assessment					Fail	Below Target Result			
Month					Met	Matched Target Result			
Date of Review					Exceed	Above Target Result, below 100%			
Conducted By:					NA	100%			
S. No	Particulars	Service level description	Performance Indicator (KPI)	Target Percentage	Max Score	Result	FAIL / MET / Exceed / NA	Score Achieved	Score %
1	General	All floor areas: Spot clean all marks, stains and spills	To maintain the cleanliness and hygiene at all the locations in the property	95%	3.13	94%	Fail	0.00	
2		Dustbins are not more than 2/3rd full		95%	3.13	100%	Exceed	3.13	
3		No foul smell inside the shopping mall		95%	3.13	100%	Exceed	3.13	
4		No flies/mosquitoes/rodents/lizards		95%	3.13	100%	Exceed	3.13	
5	External Area and Periphery	All external walkways and landings are clean	To keep the periphery of the shopping mall free of any litter and dust	95%	3.13	100%	Exceed	3.13	
6		Stair landings, stairways, SS railings, light lamps, security cabin, footsteps (if any) are clean		95%	3.13	100%	Exceed	3.13	
7	Atrium	Floors buffed and polished	Atrium of the shopping mall gives out the	95%	3.13	100%	Exceed	3.13	

SERVICE LEVEL PERFORMANCE INDICATORS								IICCL Dwarka	
Name of the Service		Janitorial & Horticulture Services			SCORE MATRIX				
Year of Assessment					Fail	Below Target Result			
Month					Met	Matched Target Result			
Date of Review					Exceed	Above Target Result, below 100%			
Conducted By:					NA	100%			
S. No	Particulars	Service level description	Performance Indicator (KPI)	Target Percentage	Max Score	Result	FAIL / MET / Exceed / NA	Score Achieved	Score %
8		Walls in foyer and glass entrance doors and mirror windows are clean of any finger marks, stains or other marks	overall impression of the mall.	95%	3.13	100%	Exceed	3.13	
9	Floors	All floors are clear of any spillage/dust/dirt	To keep the floors free of any dirt and rubbish	95%	3.13	100%	Exceed	3.13	
10		Safety boards are used while mopping and cleaning		95%	3.13	100%	Exceed	3.13	
11	Toilets	No leakage or blockage in the W/C or urinals and sensors are working properly, Soap dispensers, and dryers are ni working condition	To maintain the cleanliness and hygiene of the toilets as they are one of the most visited areas by the customers	100%	3.13	100%	Met	3.13	
12		Urinals, W/C, Basins, fittings to be clean		100%	3.13	100%	Met	3.13	
13		The soap dispensers, C- Fold and toilet rolls are present & refilled		100%	3.13	100%	Met	3.13	
14	Staircases and Fire Exits	No spit marks on the floors	To maintain the cleanliness, hygiene and keep the area free of any litter	95%	3.13	100%	Exceed	3.13	
15		The railings are clean		95%	3.13	100%	Exceed	3.13	

SERVICE LEVEL PERFORMANCE INDICATORS								IICCL Dwarka	
Name of the Service		Janitorial & Horticulture Services			SCORE MATRIX				
Year of Assessment					Fail	Below Target Result			
Month					Met	Matched Target Result			
Date of Review					Exceed`	Above Target Result, below 100%			
Conducted By:					NA	100%			
S. No	Particulars	Service level description	Performance Indicator (KPI)	Target Percentage	Max Score	Result	FAIL / MET / Exceed / NA	Score Achieved	Score %
16	Basements	All the drains are clear	To maintain the cleanliness, hygiene and keep the area free of any litter	95%	3.13	100%	Exceed	3.13	
17		There is no rubbish on the floors		95%	3.13	100%	Exceed	3.13	
18		No stagnant water on the floor		95%	3.13	100%	Exceed	3.13	
19	Pest Control	Mist Spraying in the common area and drains / Use gloves, safety shoes , masks for mouth and nose while carrying out fumigation/	To keep the shopping mall free of all pests. Non visibility of pest / rodents.	99.95%	3.13	100%	Exceed	3.13	
20		Rat traps and base station / All garbage are stored in rodent proof and fly tight bins with handles		99.95%	3.13	100%	Exceed	3.13	
21		Post treatment cleaning of the areas under pest control must be done /		99.95%	3.13	100%	Exceed	3.13	
22	Garbage Management	Adherence to garbage management schedule	To ensure that the waste generated at site is handled stored and suitably dispose off in a controlled environment/ Minimize EHS related hazards	99.95%	3.13	100%	Exceed	3.13	
23		Cleaning and washing of all the garbage trolleys		99.95%	3.13	100%	Exceed	3.13	
24		Cleaning the floor of the garbage room / No overflowing of waste bins.		99.95%	3.13	100%	Exceed	3.13	

SERVICE LEVEL PERFORMANCE INDICATORS								IICCL Dwarka	
Name of the Service		Janitorial & Horticulture Services			SCORE MATRIX				
Year of Assessment					Fail	Below Target Result			
Month					Met	Matched Target Result			
Date of Review					Exceed	Above Target Result, below 100%			
Conducted By:					NA	100%			
S. No	Particulars	Service level description	Performance Indicator (KPI)	Target Percentage	Max Score	Result	FAIL / MET / Exceed / NA	Score Achieved	Score %
25	Horticulture indoor plant	To provide appropriate indoor plants as per the site requirement and maintain subsequently on a day-to-day basis.	Trimming / De weeding / Pruning to be done on regularly	99.95%	3.13	100%	Exceed	3.13	
26	Landscaping	Pruning and trimming of plants and lawn mowing	Application of chemical fertilizers and spring of insecticide. Gap filling and replacement of plants and soil as required.	99.95%	3.13	100%	Exceed	3.13	
27		All plants neatly maintained and damp wiped		99.95%	3.13	100%	Exceed	3.13	
28	Façade	All safety gadget before starting the work are in place.	To ensure the area is free with dust and any visible stains	99.95%	3.13	100%	Exceed	3.13	
29		Window frames and facade and ledges are clean		99.95%	3.13	100%	Exceed	3.13	
30	Material & Equipment storage	Equipment History card / Usage / Data card / Service card are filled	Storage Area should clean and tidy all the time	99.95%	3.13	100%	Exceed	3.13	

SERVICE LEVEL PERFORMANCE INDICATORS								IICCL Dwarka	
Name of the Service		Janitorial & Horticulture Services			SCORE MATRIX				
Year of Assessment					Fail	Below Target Result			
Month					Met	Matched Target Result			
Date of Review					Exceed	Above Target Result, below 100%			
Conducted By:					NA	100%			
S. No	Particulars	Service level description	Performance Indicator (KPI)	Target Percentage	Max Score	Result	FAIL / MET / Exceed / NA	Score Achieved	Score %
31		Chemicals stored in racks and handled with care while issuing / transporting to their location.		99.95%	3.13	100%	Exceed	3.13	
32		MSDS sheet displayed / briefed to the handlers.		99.95%	3.13	100%	Exceed	3.13	
Total Score				97.63%	100.0			96.9	100%

13.14 SLA - ICT Services

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka					
Name of the Service		ICT Operation and Maintenance		SCORE MATRIX					
Year of Assessment				Fail	Below Target Result				
Month				Met	Matched Target Result				
Date of Review				Exceed`	Above Target Result, below 100%				
Conducted By:				NA	100%				
Sr.	Service Area	Service Level Description	Performance Indicator	Target result	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
1	Network Related Performance Levels	Overall Network (MMN, COR, BMS) availability	Beside other criterion as applicable, shall include all links individually and shall be added for all applicable individual links that are unavailable for a month. It is defined as {1 - (Number of Link Hours Unavailable) /(Total Number of Links*Total Number of Hours in a Month)}.	95%	6.25	100%	Exceed	6.25	
2	Network Related Performance Levels	Overall Network (MMN, COR, BMS) availability, in access level (STR) and all below levels		95%	6.25	100%	Exceed	6.25	
3	Application / System Performance Levels	Availability of critical applications such as Email, Browsing etc. and it's related equipment's.	Application downtime shall be measured from the time the solution becomes unavailable for business processing to end user for performing all activities and tasks. Each application shall be measured separately for penalty.	95%	6.25	100%	Exceed	6.25	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka					
Name of the Service		ICT Operation and Maintenance		SCORE MATRIX					
Year of Assessment				Fail	Below Target Result				
Month				Met	Matched Target Result				
Date of Review				Exceed`	Above Target Result, below 100%				
Conducted By:				NA	100%				
Sr.	Service Area	Service Level Description	Performance Indicator	Target result	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
4	Application / System Performance Levels	All uptimes for Secondary Technical Rooms, ICT Rooms, ELV Rooms etc. and it's related equipment's	Continuous 24 X 7 operations	95%	6.25	100%	Exceed	6.25	
5	Helpdesk Performance Levels	Average Call Response Time / Average Speed of Answer (Average time taken by callers waiting in queue to be attended by the helpdesk Operator)	Incoming call from various users/callers to be answered within 15 seconds. To be measured/checked by relevant tools	95%	6.25	100%	Exceed	6.25	
6	Helpdesk Performance Levels	Average Call handling time	Incoming calls shall have average call handling time of less than 180 seconds. Average call handling time will be considered for calculation	95%	6.25	100%	Exceed	6.25	
7	Helpdesk Performance Levels	Abandoned call rate	Abandoned call rate calculated over a period of one week should not be more than 5 %	95%	6.25	100%	Exceed	6.25	
8	Helpdesk	Helpdesk – Resolution of logged in ticket	Resolution of service ticket calculated over a period of one week	95%	6.25	100%	Exceed	6.25	

SERVICE LEVEL PERFORMANCE INDICATORS						IICCL Dwarka					
Name of the Service		ICT Operation and Maintenance				SCORE MATRIX					
Year of Assessment						Fail		Below Target Result			
Month						Met		Matched Target Result			
Date of Review						Exceed`		Above Target Result, below 100%			
Conducted By:						NA		100%			
Sr.	Service Area	Service Level Description	Performance Indicator			Target result	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
9	Performance Levels Helpdesk Performance Levels	Helpdesk Availability (24 hours a day, 7 days a week)	Helpdesk shall be available, and all incidents/events raised with the helpdesk shall be logged into the system and service ticket			95%	6.25	100%	Exceed	6.25	
	Service Request Resolution	Event Type:	Priority Level	Response Time	Resolution Time						
10		Requests (like password reset, firewall port opening, hardening, etc.) will be logged in the Helpdesk and the successful bidder will have to resolve the request and provide necessary updates through the Help Desk Portal and co- ordinate with the stakeholders	Priority Incident Level 1 (Revenue linked Systems)	15 Mins	1 Hour	95%	6.25	100%	Exceed	6.25	
11			Priority Incident Level 2 (Backend Operations)	15 Mins	2 Hour	95%	6.25	100%	Exceed	6.25	

SERVICE LEVEL PERFORMANCE INDICATORS						IICCL Dwarka					
Name of the Service		ICT Operation and Maintenance				SCORE MATRIX					
Year of Assessment						Fail		Below Target Result			
Month						Met		Matched Target Result			
Date of Review						Exceed`		Above Target Result, below 100%			
Conducted By:						NA		100%			
Sr.	Service Area	Service Level Description	Performance Indicator			Target result	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
12	Incidence Resolution (Network & Server)	The network outage, security or performance related issues impacting the network availability/performance and leading to unavailability of the services.	L1 Level Severity: Impacting	15 Mins	1 Hour	95%	6.25	100%	Exceed	6.25	
13			L2 Level Severity: impacting one or more distribution level	15 Mins	2 Hour	95%	6.25	100%	Exceed	6.25	
14			L3 Level Severity: Impacting access level (STR) or Junctions/ Endpoints/ Offices or below levels	15 Mins	3 Hour	95%	6.25	100%	Exceed	6.25	
15			L4 Level Severity: Impacting one or more end devices/utilities	15 Mins	4 Hour	95%	6.25	100%	Exceed	6.25	

SERVICE LEVEL PERFORMANCE INDICATORS						IICCL Dwarka					
Name of the Service		ICT Operation and Maintenance				SCORE MATRIX					
Year of Assessment						Fail		Below Target Result			
Month						Met		Matched Target Result			
Date of Review						Exceed`		Above Target Result, below 100%			
Conducted By:						NA		100%			
Sr.	Service Area	Service Level Description	Performance Indicator			Target result	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
16			Mean Time to Repair (MTTR) shall be monitored on the time taken between logging of complain against the fiber repair and its closure	15 Mins	2 Hour	95%	6.25	100%	Exceed	6.25	
Total Score-		ICT Operation and Maintenance				95%	100.00			100.00	100.0%

13.15 SLA - ELV System O & M Services

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka					
Name of the Service		ELV System Operation and Maintenance		SCORE MATRIX					
Year of Assessment				Fail	Below Target Result				
Month				Met	Matched Target Result				
Date of Review				Exceed	Above Target Result, below 100%				
Conducted By:				NA	100%				
Sr.	Service Area	Service Level Description	Performance Indicator	Target results	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
1.	CCTV System	Availability and Uptime of System Equipment, Control Cabling and associated accessories	Equipment Downtime shall be measured from the time any one or more equipment becomes unavailable for business processing to the end user to the time it becomes fully available	95%	8.33	100%	Exceed	8.33	
2.	Access Control System	Availability and Uptime of System Equipment, Control Cabling and associated accessories	Equipment Downtime shall be measured from the time any one or more equipment becomes unavailable for business processing to the end user to the time it becomes fully available	95%	8.33	100%	Exceed	8.33	
3.	Intelligent Automation System	Availability and Uptime of System Equipment, Control Cabling and associated accessories	Equipment Downtime shall be measured from the time any one or more equipment becomes unavailable for business processing to the end user to the time it becomes fully available	95%	8.33	100%	Exceed	8.33	

SERVICE LEVEL PERFORMANCE INDICATORS				IICCL Dwarka					
Name of the Service		ELV System Operation and Maintenance		SCORE MATRIX					
Year of Assessment				Fail	Below Target Result				
Month				Met	Matched Target Result				
Date of Review				Exceed	Above Target Result, below 100%				
Conducted By:				NA	100%				
Sr.	Service Area	Service Level Description	Performance Indicator	Target results	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
4.	Wi-Fi, DAS Systems	Availability of Wi-Fi and DAS applications and it's related equipment	Application Downtime shall be measured from the time the solution becomes unavailable for Business processing to the end user for all activities and tasks. Each application will be measured separately for penalty.	95%	8.33	100%	Exceed	8.33	
5.	EPABX and IPABX Systems	Availability of EPABX applications and it's related equipment	Application Downtime shall be measured from the time the solution becomes unavailable for Business processing to the end user for all activities and tasks. Each application will be measured separately for penalty.	95%	8.33	100%	Exceed	8.33	
6.	Security Systems	Availability of Physical Security Systems (Boom barrier, Bollards, HHMD, DFMD, UVVS, Truck Scanner, Full Body Scanners etc.) applications and it's related equipment	Application Downtime shall be measured from the time the solution becomes unavailable for Business processing to the end user for all activities and tasks. Each application will be measured separately for penalty.	95%	8.33	100%	Exceed	8.33	

SERVICE LEVEL PERFORMANCE INDICATORS					IICCL Dwarka					
Name of the Service		ELV System Operation and Maintenance			SCORE MATRIX					
Year of Assessment					Fail	Below Target Result				
Month					Met	Matched Target Result				
Date of Review					Exceed	Above Target Result, below 100%				
Conducted By:					NA	100%				
Sr.	Service Area	Service Level Description	Performance Indicator		Target results	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
7.	Parking Management Systems	Availability of Parking Management Systems (Payment Kiosks, Ticket dispensers, Parking sensors, LED indicators ANPR Camera, Driver Image Camera etc.,) applications and it's related equipment	Application Downtime shall be measured from the time the solution becomes unavailable for Business processing to the end user for all activities and tasks. Each application will be measured separately for penalty.		95%	8.33	100%	Exceed	8.33	
8.	Solar Power Fencing Systems	Availability of Solar Powered fencing system applications and it's related equipment's	Application Downtime shall be measured from the time the solution becomes unavailable for Business processing to the end user for all activities and tasks. Each application will be measured separately for penalty.		95%	8.33	100%	Exceed	8.33	
9.	Maintenance activities (Self Performed / OEM supported)	1st Level Maintenance without replacement of spares		30 Mins	95%	8.33	100%	Exceed	8.33	
10.		1st Level Maintenance with replacement of spares		1 Hour	95%	8.33	100%	Exceed	8.33	
11.		Maintenance with OEM support without replacement of spares		8 Hours	95%	8.33	100%	Exceed	8.33	

SERVICE LEVEL PERFORMANCE INDICATORS					IICCL Dwarka					
Name of the Service		ELV System Operation and Maintenance			SCORE MATRIX					
Year of Assessment					Fail	Below Target Result				
Month					Met	Matched Target Result				
Date of Review					Exceed	Above Target Result, below 100%				
Conducted By:					NA	100%				
Sr.	Service Area	Service Level Description	Performance Indicator		Target results	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
12.		Maintenance with OEM support with replacement of spares	24 Hours		95%	8.33	100%	Exceed	8.33	
Total Score-		ELV System Operation and Maintenance			95%	100.00			100.00	100.0%

13.16 SLA - Security Management Services

SERVICE LEVEL PERFORMANCE INDICATORS			IICCL Dwarka					
Name of the Service		Security Management Services	SCORE MATRIX					
Year of Assessment			Fail	Below Target Result				
Month			Met	Matched Target Result				
Date of Review			Exceed	Above Target Result, below 100%				
Conducted By:			NA	100%				
Sr.	Service Area	Service Level Description	Target Result	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
1	Disaster Management and Fire Control	System should be manned all the time with trained professional for Eye ball monitoring and control systems	100.0%	3.84	100%	Met	3.84	
2		Availability and Uptime of Disaster management Systems and Equipment	100.0%	3.84	100%	Met	3.84	
3		Fire Station Help Desk manned 24 x 7 and no call is unanswered; Reviewed by Availability of trained staff, monthly attendance and call logs.	100.0%	3.84	100%	Met	3.84	
4		Medical Emergency Room manned 24 x 7; Reviewed by Availability of trained staff and monthly attendance.	100.0%	3.84	100%	Met	3.84	
5		Medical support equipment and first aid stock is always adequate and above minimum stock levels	100.0%	3.84	100%	Met	3.84	
6		Availability of Fire tenders and Operational healthiness all the time	100.0%	3.84	100%	Met	3.84	
7		Fire tender route and Fire exits are always clear and unblocked all the time including any event time	100.0%	3.84	100%	Met	3.84	

SERVICE LEVEL PERFORMANCE INDICATORS			IICCL Dwarka					
Name of the Service		Security Management Services	SCORE MATRIX					
Year of Assessment			Fail	Below Target Result				
Month			Met	Matched Target Result				
Date of Review			Exceed	Above Target Result, below 100%				
Conducted By:			NA	100%				
Sr.	Service Area	Service Level Description	Target Result	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
8		All fire staircases should be kept clear of obstructions at all times	100.0%	3.84	100%	Met	3.84	
9	Physical Guarding Management	100% Security Manpower deployment at designated post	100.0%	3.84	100%	Met	3.84	
10		Compulsory checking of all vehicles at the entry point	100.0%	3.84	100%	Met	3.84	
11		Use of Sniffer Dogs for vehicle & parking area scanning	100.0%	3.84	100%	Met	3.84	
12		Hand Tools and Control Gears for Physical security team adequate and in working condition	100.0%	3.84	100%	Met	3.84	
13		Mandatory frisking of all personals irrespective of Grade and levels in Organization	100.0%	3.84	100%	Met	3.84	
14		Mandatory frisking of all outgoing employees, contractual staff of property management and Occupants.	100.0%	3.84	100%	Met	3.84	
15		Periodic patrolling and surveillance rounds and record maintained for every round	100.0%	3.84	100%	Met	3.84	

SERVICE LEVEL PERFORMANCE INDICATORS			IICCL Dwarka					
Name of the Service		Security Management Services	SCORE MATRIX					
Year of Assessment			Fail	Below Target Result				
Month			Met	Matched Target Result				
Date of Review			Exceed	Above Target Result, below 100%				
Conducted By:			NA	100%				
Sr.	Service Area	Service Level Description	Target Result	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
16	Emergency Signages	All corridors should have adequate signages to depict the nearest fire exit and the evacuation route. These should be visible under poor light and smoke. Periodicity of the evacuation drills and levels	99.5%	3.84	100%	Exceed	3.84	
17	Fire Staircases	All fire staircases, basements; lift lobby should be kept well illuminated with emergency lighting.	99.5%	3.84	100%	Exceed	3.84	
18	Security Checkpoints Management	Availability and Uptime of System Equipment, Control Cabling and associated accessories for Physical Security Systems (Boom barrier, Bollards, HHMD, DFMD, UVVS, Truck Scanner, Full Body Scanners, etc.) applications and it's related equipment	99.9%	3.84	100%	Exceed	3.84	
19	Mail Room Management	Availability of the mail room attendant as per service contract. Availability of trained staff and monthly attendance.	99.5%	3.84	100%	Exceed	3.84	
20		Internal mails should be delivered within 24 hrs.	99.5%	3.84	100%	Exceed	3.84	
21		All records maintained and retrieved same day when required	99.5%	3.84	100%	Exceed	3.84	
22		Make sure 100% service availability and adequacy of stock and stationary	99.5%	3.84	100%	Exceed	3.84	
23		All inward material and vehicles record is maintained and all delivery and transportation compliance are recorded	100.0%	3.84	100%	Met	3.84	

SERVICE LEVEL PERFORMANCE INDICATORS			IICCL Dwarka					
Name of the Service		Security Management Services	SCORE MATRIX					
Year of Assessment			Fail	Below Target Result				
Month			Met	Matched Target Result				
Date of Review			Exceed	Above Target Result, below 100%				
Conducted By:			NA	100%				
Sr.	Service Area	Service Level Description	Target Result	Max Score	Result %	Fail / Met / Exceed / NA	Score Achieved	Score %
24		Ensure that no material is moved out of the premises without authorized note and no deviation is recorded; zero tolerance on deviation	100.0%	3.84	100%	Met	3.84	
25	Parking Management Systems	Availability of Parking Management Systems (Payment Kiosks, Ticket dispensers, Parking sensors, LED indicators ANPR Camera, Driver Image Camera etc.,) applications and it's related equipment	99.5%	3.84	100%	Exceed	3.84	
26	Solar Power Fencing Systems	Availability of Solar Powered fencing system applications and it's related equipment's	99.5%	3.84	100%	Exceed	3.84	
Total Score-		Security Management Services	99.82%	100.00			100.00	100.0%

14 Annexure 5 - Minimum Qualification for Property Management Team

Below mentioned Grade and Levels Chart of position is provided for the purpose of uniformity in understanding of various roles and their selection criteria:

Level	Grade	Designation	Statutory Classification	Category
A	A1	Management - Senior	Director	Management Staff
	A2	Management - Middle	Associate Director	
	A3	Management - Lower	Senior Manager / Engineer L3	
B	B1	Executive Staff	Manager	Executive Staff
	B2	Executive Staff	Engineer- L2	
	B3	Executive Staff – L2	Assistant Manager	
	B4	Executive Staff	Engineer- L1.5 / Sr. Executive	
	B5	Executive Staff	Engineer- L1 / Executive	
C	C1	Supervisors / Assistant Executives	Clerical and supervisory staff - Graduate and above	Statutory Positions under Minimum Wages
	C2	Senior Technicians	Skilled - Experienced / Supervisor below Graduate	
	C3	Skilled (Technicians, Operators etc)	Skilled	
	C4	Semi-skilled (Technical Helpers etc)	Semi-skilled	
	C5	Unskilled (Labour)	Unskilled	

Service Provider has been provided with the below mentioned Minimum Qualification and Experience Criteria for the indicative manpower required for the Property Management Services at IICCL. Service Provider shall ensure that the provided Criteria is followed for manpower planning and deployment to cover the desired service levels:

Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
SPOC - PROPERTY MANAGEMENT				
1.	Director - Operations	Bachelors or advanced degree in, Engineering / Science / Architecture/ or related discipline.	20 Years overall; 15 Years specifically at Managerial level in Facility and Property Management Services	Experienced in Multi city Property and Facility Management Operations, Multi Project and Multi Tenanted Operations with in-depth knowledge in Property & Facility Management, Customer Relationship Management, Engineering and Custodial Services Operations and Management, Security & Parking Management, Industrial and Workplace Automations and IT services management; Minimum 10 years of experience in directly coordination with Project Management teams and Construction Activities and proven experience in handling Fitout and retrofit projects. Minimum 15 years of Experience in directly managing Buildings / Campus / Public Areas environment and experience in Central / State and Local Compliances and Statutory laws including Building, Labour Laws, Legal, MOEF, Fire and Safety requirements, regulatory compliance. Experience in inspections, certification and licensing processes and proven experience in coordination with Local and Statutory authorities must.; Minimum 10 years of experience in Risk Management, direct Environmental, Hygiene, Occupational Health and/or Safety experience in a Buildings / Campus / Public Areas environment; Applied knowledge and working understanding of Central / State and Local EHS requirements (i.e.; OSHA, ISO), regulatory compliance, experience with inspections, incident investigations, process safety, Contractor safety, EHS training, hazard reviews and job safety analysis; Strong incident investigation, root cause analysis and continuous improvement skills; Excellent organizational skills and ability to manage multiple tasks by prioritization and execution; Experience developing, implementing and/or managing an Large scale multi user , multi tenanted Property Management program preferred; IGBC AP / Chartered Engineer / Chartered Surveyor certifications

Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
2.	Manager - MIS	Bachelors or advanced degree in, Business / Engineering or related discipline.	12 Years	<p>Minimum 12 Years of experience in developing MIS documentation and minimum of 6 Years of experience in Property management environment; shall support Operations Director for overall MIS management of the project.</p> <p>Key skills include Performing data analysis for generating reports on periodic basis. Develop MIS system for customer management and internal communication, Provide strong reporting and analytical information support for the business team,</p> <p>Generate both periodic and ad hoc reports as needed, Analyze business information to identify process improvements for increasing business efficiency and effectiveness, Coordinate with team members for collation of information for reports, Summarize, analyze, and prepare reports and finding, Perform quality review of own work and the work of others in a verifiable and methodical manner,</p> <p>Execute engagement tasks independently or in a team setting and deliver to high quality standards, Design dashboards, reports and intuitive interactive data visualizations, Conduct data gathering activities in coordination of cross functions including document review. Strong on Analysis of data,</p> <p>Strong on EXCEL and ADVANCED EXCEL, MS-WORD, MS-POWERPOINT. Excellent Communication Skills in English, Responsible for generating weekly, monthly MIS reports based on the given data.,</p>
HR FUNCTION				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
3.	Manager- HR	Post Graduate- MBA HR	12 Years in Management Role	<p>Minimum 12 Years of Experience in Statutory and Labour Laws Compliance, Employee Relation, Contract Labour Management, Grievance Handling, Disciplinary Proceedings, Domestic Enquiries, Legal Management, Formation of Committees, Coordinating with Legal Authorities, Recruitment and Trainings, Cross Functional coordination</p>

Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
4.	Assistant Manager - HR Operations	Post Graduate- MBA HR	10 Years	Minimum 10 Years of experience in Handling Recruitment Process, Good knowledge of Labour Laws, Effective implementation of factory & labour laws Inspector of Buildings, PF, ESIC, Wage and salary administration, Should have knowledge PF Profile Summary, liasoning with Local & Government bodies, Manage a performance appraisal system that drives high performance. Assess training needs to and monitor training programs. Ensure legal compliance with all state& local employment laws relating to Building Operations. Support current and future business needs through the development, engagement, motivation and preservation of human capital Contract Labour Management Grievance handling Coordinating & maintaining relationships with nearby local & government bodies
5.	Executive – HR Operations	Bachelors or advanced degree in, Humanities / Business / HR or related discipline.	3 Years	Minimum 5 Years of experience in MIS, Attendance Management, Handling Recruitment Process and Training coordination. Good knowledge of Labour Laws, Effective implementation of factory & labour laws Inspector of Buildings, PF, ESIC, Wage and salary administration, Coordinate and monitor training programs. Ensure legal, Contractual and Labour compliance with all state & local employment laws relating to Buildings Operation. Coordinating & maintaining relationships with employees and Subcontractor staff.
EHS & COMPLIANCE MANAGEMENT FUNCTION				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
6.	Sr. Manager - EHS and Compliance Management	Bachelors or advanced degree in, Safety/Environmental or related discipline.	15 Years	Minimum 12 Years of experience in Risk Management, direct Environmental, Hygiene, Occupational Health and/or Safety experience in a Buildings / Campus / Public Areas environment and Minimum 5 Years of experience in Industrial / Manufacturing Environment; Minimum 7 Years of experience in Green Building Management experience in a Buildings / Campus / Public Areas environment; Applied knowledge and working understanding of Central / State and Local EHS requirements (i.e.; OSHA, ISO), regulatory compliance, experience with inspections, incident investigations, process safety, Contractor safety, EHS training, hazard reviews and job safety analysis; Strong incident investigation, root cause analysis and continuous improvement skills; Excellent organizational skills and ability to manage multiple tasks by prioritization and execution; Experience developing, implementing and/or managing an Environmental and Governance program preferred

Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
7.	Assistant Manager- Legal & Compliance	Bachelors or advanced degree in, Law / or related discipline.	10 Years	Minimum 10 Years of Experience in Buildings / Campus / Public Areas environment of related to Central / State and Local Compliances and Statutory laws including Contracts, Insurance, Building Laws, Labour Laws, Legal, MOEF, Fire and Safety requirements, regulatory compliance, experience with inspections, certification and licensing and coordination with Local and Statutory authorities must. Experience developing, implementing and/or managing Building Compliance program preferred
8.	Executive - Compliance Management	Bachelors or advanced degree in, Law / or related discipline.	5 Years	Minimum 5 Years of Experience in Buildings / Campus / Public Areas environment of related to Central / State and Local Compliances and Statutory laws including Building, Labour Laws, Legal, MOEF, Fire and Safety requirements, regulatory compliance, experience with inspections, certification and licensing. Experience in implementing a Building Compliance program preferred with MIS experience.
9.	Assistant Manager – EHS Trainings & Audits	Bachelors or advanced degree in, Safety / Environmental or related discipline.	10 Years	Minimum 10 Years of experience in Risk Management, direct Environmental, Hygiene, Occupational Health and/or Safety experience in a Buildings / Campus / Public Areas environment; Experience developing, implementing and/or managing an Environmental and Governance program preferred, Audits and Inspection experience, ISO Trainer Certification mandatory
10.	Sr. Executive- EHS Services	Diploma or Bachelors degree in, Safety / Environment	7 Years	Minimum 7 Years of Experience implementing an EHS program preferred, Mandatory ISO / OSHAS Certification, Experience with EHS and Work safety regulations Lean, 5S, and Kaizen experience

SECURITY, DISASTER MANAGEMENT, FIRE SAFETY AND PARKING MANAGEMENT FUNCTION				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
11.	Associate Director - Chief Security Officer	Bachelors or advanced degree in, Humanities / Engineering/ discipline.	25 Years	<p>Preference given to Candidate from retired personals from Indian Army holding the rank of Lieutenant Colonel and above who possess all other desired requirements. Minimum 15 Years of experience with in-depth experience in Risk Management, Occupational Health and/or Safety experience in a Buildings / Campus / Public Areas environment with thorough knowledge and working understanding of Central / State and Local Safety and Security requirements, VIP movement protocols, Large public gatherings. This position requires a thorough knowledge of all-hazards emergency planning, National Emergency System, emergency operations planning and response, and state and central emergency processes. The Chief of Security shall be also heading Disaster and Emergency Management Services including plans, analyzes, and develops the emergency plans for response, recovery, and mitigation, manages preparedness programs; directs and coordinates activations of the Disaster and Emergency Command Center. Work shall be performed under regular supervision of the Director Operations; experience with inspections, incident investigations, process safety, Contractor safety, threat and hazard reviews; Strong incident investigation, root cause analysis and continuous improvement skills; Excellent organizational skills and ability to manage multiple tasks simultaneously; Experience developing, implementing and/or managing an Security Governance program is must; High knowledge of enterprise physical and electronic security processes, procedures and their suitable integration to enhance security management, preparedness & monitoring, Having certification in Firefighting, Emergency Response and First Aid is must, Training courses attended on Physical Security, Electronic Security, Security Audit, and OHS.; Past Experience to effectively Communicate, Managerial Proficiency, Surveillance Skills, Analyzing Information, Informing Others, Staffing, Coordination, Handling Pressure, Reporting Skills, Scheduling and to Deal with Complexity, Computer savvy and well versed with MS Office, Internet and e-mailing., experience in heading a network using security and fire safety officers across locations, and maintain continuing relationships with local police and Govt. officials to have an effective security liaison and intelligence network.</p>

SECURITY, DISASTER MANAGEMENT, FIRE SAFETY AND PARKING MANAGEMENT FUNCTION				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
12.	Security Manager	Diploma or Bachelors degree in any discipline.	20 Years	Candidate shall be retired personnel from Indian Army in Corps of Military Police only who possess all other desired requirements. Minimum 10 Years of experience with in-depth experience in Risk Management, and Safety experience in a Buildings / Campus / Public Areas environment with thorough knowledge and working understanding of Central / State and Local Safety and Security requirements, VIP movement protocols, Large public gatherings, Traffic Management. Having certification in Firefighting, Emergency Response and First Aid is must, Training courses attended on Physical Security, Electronic Security. Past Experience to effectively Communicate, Managerial Proficiency, Surveillance Skills, Analyzing Information, Informing Others, Staffing, Coordination, Handling Pressure, Reporting Skills, Scheduling and to Deal with Complexity, Computer savvy and well versed with MS Office, Internet and e-mailing., experience in handling security and fire safety teams across locations, and maintain continuing relationships with local police and Govt. officials to have an effective security liaison and intelligence network; Experience in operation of Security Automated and IT enabled equipment and identifying preventive maintenance requirements and coordination for maintenance
13.	Sr. Executive-Surveillance Officer	Diploma or Bachelors degree in any discipline.	10 Years	Minimum Experience of 10 Years in Security services for Buildings / Campus / Public Areas environment for securing premises and personnel by patrolling property; monitoring surveillance equipment; inspecting buildings, equipment, and access points; permitting entry, Prevents losses and damage by reporting irregularities; informing violators of policy and procedures. reports by recording observations, information, occurrences, and surveillance activities; Should have experience in handling 24 x 7 team for CCTV and Access control systems.
14.	Fire Safety Officer (Assistant Manager)	Diploma or Degree in Fire Safety and Hazard Management / Fire Sub Officer	10 Years	Minimum education from Govt. of India Approved University for Fire and Safety Courses and experience required is Diploma in Fire Safety and Hazard Management with 12 Years of experience / Fire Sub Officer with 10 Years of experience / B.sc in Fire-Safety and Hazard Management with 10 Years of experience/B Tech in Fire with 7 Years of experience. Minimum Experience of 7 Years in Preparing plans and executing (fire and life safety) evacuation drills and other fire safety-related training to the team members and occupants available on the premises; Completing appropriate rescue, firefighting and salvage operations at a fire scene; lift evacuation and rescue drills; Coordination with Government authorities for periodic renewal of the NOCs; Inspection of Fire alarm system and reporting to Management about any functionality issue.

SECURITY, DISASTER MANAGEMENT, FIRE SAFETY AND PARKING MANAGEMENT FUNCTION				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
15.	Sr. Executive - Parking Inspector	Diploma or Bachelors degree in any discipline.	10 Years	Minimum Experience of 10 Years in Automated, MLCP Parking facilities for Buildings / Campus / Public Areas environment for managing and monitoring Parking equipment; Parking services; Vehicles monitoring, and access points controls; permitting entry, prevent losses and thefts by identifying and managing irregularities; informing violators of policy and procedures. Reports by recording observations, information, occurrences, and surveillance activities; Should have experience in handling 24 x 7 team for Parking and traffic management. Should have experience in Cash Handlings and coordinating with OEMs for maintenance activities.
16.	Operator- Security Posts	1 year ITI Computer Operator and Programming Assistant or Diploma	3 Years	Minimum experience of 3 Years in handling and Eye Ball monitoring experience in Security devices like Security Scanners, CCTV, Bollard system, Boom Barriers, CCTV systems.
17.	Operator-	1 year ITI Computer Operator and Programming Assistant or Diploma	3 Years	Minimum experience of 3 Years in handling and Eye Ball monitoring experience in Security devices like Security Scanners, CCTV, Bollard system, Boom Barriers, CCTV systems.
18.	Emergency Medical Officer	MBBS with diploma in Emergency Medicine	3 Years	Emergency Medical Officer should have minimum qualification of MBBS with experience in Emergency centers or MBBS with Diploma in Emergency Medicine.
19.	Paramedics	B.Sc Nursing / B.sc Life Science / GNM Course	3 Years	Disciplined and dynamic personnel to work as Paramedics in Emergency and Critical Care Center as Medical Assistants; Previous experience from Army Medical Corps with a good knowledge in emergency medical care Age below 40 yrs OR B.Sc graduates in Life Sciences trained and worked as EMTs in reputed Emergency Medical Services in India or abroad for a minimum of one year - Age below 30 yrs OR GNMs trained and worked in reputed Emergency Medical Services in India or abroad for a minimum of one year Age below 30 yrs. Nurses - with GNM qualifications 2 yr of working experience in Hospitals OR B.Sc in Nursing from recognized Nursing Colleges

SECURITY, DISASTER MANAGEMENT, FIRE SAFETY AND PARKING MANAGEMENT FUNCTION				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
20.	Non Medical Attendants	Intermediate / 1 or 2 year Diploma after 10th Grade	1 Year	Responsible to respond in emergency situations and Transports patients to and from incident locations to Emergency medical centers when necessary; Assists in moving patients in and out of stretchers and wheelchairs and Ambulance; Assists in Keeping the Emergency medical room in clean and orderly condition; Assists in restocking rooms with supplies and equipment as directed; Must be able to successfully lift patient weighing 80-100 Kg on stretcher and move stretchers, with assistance.; Preference to candidate trained in CPR and First Aid. Minimum age above 23 Years and maximum age is 40 Years.

ENGINEERING OPERATION AND MAINTENANCE				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
21.	Associate Director-Engineering Services	Diploma / Bachelors or advanced degree in, Electrical Engineering discipline.	15 Years	Minimum 15 Years of Experience in Buildings / Campus / Public Areas / 5 Star Hotels in engineering environment including Building, MOEF, Fire and Safety requirements, regulatory compliance, experience must. Previous or current engineer position in Large Commercial Campus , Multi tenanted Complexes and Hotels project is a must with a min team management of more than 100 members, Mandatory qualification include Chartered Engineer with preference to additional certification like IGBC AP, ISO trainer, ISHRAW member; Good knowledge in the principles and practices of engineering operation, Have good English communication skills both in written and spoken; Computer literate; Posses professional disposition with good communication and interpersonal skills; Experience in Monitoring Key Performance Indicators for the Engineering Department and take corrective action, as required, to improve equipment inventory, quality audit, efficiency, functionality, productivity, and other objectives; Manage all Team Member related activities, including recruitment, performance management, training, career planning, disciplinary matters, and team motivation; Coordinate with Compliance team and Government agencies to ensure full compliance with statutory regulations; Prepare Capital and Repairs and Maintenance budgets for Engineering; Develop, implement, and direct all Operation & Maintenance related and emergency programs; Develop, implement and manage energy conservation programs for the property to minimize expenses; Coordinate renovation bidding, define the cost and scope of the project, and oversee the general Contractor and Subcontractors to ensure quality work is performed cost effectively; Perform special projects and other responsibilities as assigned; Identify and introduce environmentally-friendly systems and equipment;

ENGINEERING OPERATION AND MAINTENANCE				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
22.	Sr. Manager- Engineering Services	Diploma / Bachelors or advanced degree in, Electrical or Mechanical Engineering discipline.	15 Years	Previous Experience of minimum 15 Years in effective management of all engineering and maintenance operations within the property, including energy conservation; responsible for the development of the Engineering Team and staying abreast of compliance regulations and procedures in the field of Engineering; Lead the Engineering Team in the day-to-day engineering and maintenance operations of the property including service standards, equipment schedules, and work schedules; Communicate with cross functional teams to coordinate and prioritize maintenance activities for Occupant Areas and Common areas; Develop systems and procedures for maintenance and Operation and proper conditions for plants, machinery, and property; Perform daily checks around the property; Conduct lift emergency release procedures as required; Diagnose, maintain, and repair mechanical equipment within the property; Ensure good relationships are built with internal and external customers; Maintenance of all Utilities and Infrastructure to ensure they are in safe condition and take action when any unsafe situations arise; Should have experience in managing and monitoring Occupant's Fitout and review technical details, designs and project procedures.
23.	Manager- Energy and Reliability Engineering	Diploma / Bachelors or advanced degree in, Energy / Electrical / Building System Engineering discipline.	12 Years	Minimum 12 Years of experience with mandatory qualification as Certified Energy Auditors or Certified Energy Managers with more than 5 Years experience; Proficiency in MS Office, MS Excel, Project management tools and other relevant data management tools. Past proven experience to build analytical models to improve the teams operational and functional capabilities; Strong understanding of the energy sector and de-carbonization models in energy efficiency; Understanding of carbon emissions and the required energy transition; Relevant experience in roles that require excellent research, data analysis and strategic planning skills. Experience considering how solutions may impact a large range of stakeholders, is preferred; Excellent quantitative and qualitative analytical skills with exceptional attention to details

ENGINEERING OPERATION AND MAINTENANCE				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
24.	Engineer L 1.5- Energy Monitoring	Diploma / Bachelors or advanced degree in, Energy / Electrical / Building System Engineering discipline.	7 Years	Minimum experience of 7 Years to calculate & verify energy savings using engineering estimates, temperature bin analysis, statistical techniques, motor, lighting and HVAC calculators for various energy efficiency projects; Possess knowledge of lighting, HVAC, pumps and motors, Variable Frequency Drives, air compressors and other major energy consuming components present in a residential, commercial and industrial setting. Maintain an advanced proficiency of energy efficiency measures applicable in commercial and multi tenanted buildings. Analyze utility and energy efficiency program data utilizing Excel and other analytical software, identifying trends, summarizing program events, and identifying causal impacts on program results. Support senior staff with development of reports, Management plans and proposals
25.	Assistant Manager- Sustainability and Quality Management	Bachelors or advanced degree in, Environmental/ Engineering/ Architecture discipline.	10 Years	Minimum 10 Years of experience in Green Building Management experience in a Buildings / Campus / Public Areas environment, Mandatory IGBC Accredited Professional Certification, Experience developing, implementing and/or managing an Environmental and Governance program preferred, Managing and Implementing IGBC certification experience preferred; Proficiency in MS Office, MS Excel and other relevant data management tools.
26.	Manager- Fitout, Projects Coordination & AMC	Bachelors or advanced degree in, Civil / Electrical Engineering discipline.	12 Years	Minimum experience of 12 Years in managing Projects including Structure and Interiors for Large Projects and expertise in Review of Civil and MEP Design Fit-Out Submittals (Concept & Detailed Design) and providing feedback to Clients; Review fit out MEP design and ensure adherence to Local & International regulations and standards; Liaise/coordinate with Consultants with regard to Base Build issues relating to Fit-Outs.; Conduct regular on-site inspections of Fit-out installations as they progress through to completion; Periodically review the Logistics plan & update as the fitout site progresses; Review and update the Tenant Fit-out Guide regarding each property segment/asset class; Implementation and regular reviews of the Fit-Out steps to ensure a quality standard Fit-Out; highlight any problems, defects, and non-functioning of fixtures; Verify and record testing and commissioning of Fitout Area post completion in accordance with the Quality Plan and projects specific requirements; Review O&M manual of Occupants and provide review remarks and recommend for approval from Engineering Head and submit to Occupant; Coordination with AMC contractors and OEMs for periodic maintenance and spare management activities and work in accordance with the integrated Maintenance plan of the property managed by the Engineering Head.

ENGINEERING OPERATION AND MAINTENANCE				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
27.	Engineer L1.5- Fitout, Project Coordination & AMC	Diploma or Bachelors degree in, Civil / Electrical / Mechanical / Instrumentation Engineering discipline.	7 Years	Minimum experience of 7 Years in Projects as Site Engineer with experience in monitoring and execution of Civil and Interior Fitout work for Large projects. Proficiency in MS Office, MS Excel, tools and other relevant data management tools. Collaborate with technical team of AMC contractors and OEMs for execution of periodic maintenance and spare replacement activities and work as per integrated Maintenance plan of the property
28.	Manager- Operation and Maintenance	Diploma / Bachelors or advanced degree in, Electrical or Mechanical Engineering discipline.	12 Years	Previous Experience of minimum 12 Years in effective management of all engineering and maintenance operations within the property, responsible for the overall performance of Engineering Operation and Maintenance Team and staying abreast of compliance regulations and procedures in the field of Engineering; Lead the Engineering Team in the day-to-day engineering and maintenance operations of the property including service standards, equipment schedules, and work schedules; Communicate with cross functional teams to coordinate and prioritize maintenance activities for Occupant Areas and Common areas; Develop systems and procedures for maintenance and Operation and proper conditions for plants, machinery, and property; Perform daily checks around the property; Conduct lift emergency release procedures as required; Diagnose, maintain, and repair mechanical equipment within the property; Ensure good relationships are built with internal and external customers; Maintenance of all Utilities and Infrastructure to ensure they are in safe condition and take action when any unsafe situations arise; Should have experience in managing and monitoring Occupant's Fitout and review technical details, designs and project procedures.

ENGINEERING OPERATION AND MAINTENANCE				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
29.	Engineer L1.5- BMS / Scada	Diploma in Electrical / Computer Application / Electronics / Instrumentation Engineering discipline.	3 Years	Minimum experience of 5+ Years with expertise in installation and maintenance of BMS and the electronic control of Building Services System; thorough knowledge of the control systems and HVAC industry. Demonstrated knowledge of control theory, building automation systems and other building subsystems. Proficiency in MS Office, MS Excel and other relevant data management tools.; Maintain and repair the control systems of the BMS controlled HVAC systems and other Utilities automation system throughout the site as determined by the manufacturers recommended system as detailed by the site management; Carry out routine checks for correct operation of all control equipment as directed by site management and Daily/Weekly Servicing Plan; Checks routinely for correct operation of all equipment in locations that include BMS control of systems; Adjust variables and provide adjustment as required to ensure systems are operating correctly within parameters
30.	Operator- BMS / Scada	Diploma in Electrical / Computer Application / Electronics / Instrumentation Engineering discipline.	2 - 4 Years	Minimum experience of 2+ Years of experience in BMS, SCADA operations, monitoring system, fire suppression system operation parameters, potable water irrigation water system operations parameters, emergency DG test run parameter. Proficiency in MS Office, MS Excel, BMS operating systems, tools and other relevant data management tools

ENGINEERING OPERATION AND MAINTENANCE				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
31.	Engineer L1.5- Operation & Maintenance (MEP)	Diploma or Bachelors degree in, Electrical or Mechanical Engineering discipline.	7 Years	Minimum experience of 5 Years and expertise in Operation and maintenance jobs for Large projects; Responsibilities include daily Inspection to the area of responsible to check the Healthy and normal working condition of the Equipment's; Operation of Sub Stations and HT panels; Routine and preventive Maintenance and operation of Transformer, Chiller, Diesel Generator, UPS and Firefighting system; Daily Reporting the condition of site and other details like Energy, Diesel and water consumption to the next level; Allocation of the work to the technicians and monitoring it; Energy management (Power, Diesel and water).; Tracking the complaint record and taking the necessary action to resolve it Asap.; Tracking of PM seclude and get it done by the team/Vendor within the Due Date; Co-ordination with the Vendors; Updating the completion of work allotted to the Next level; Following up the work completed/work in progress details to the next shift; Reading of Supervisor/Technician log book to understand the previous Day/Shift work; Preparation of Daily, weekly and monthly report, Shift schedule, PM checklist etc; Monitor and maintain the minimum diesel stock in DG day tank in HSD yard. Monitor the operation and maintenance of Plumbing system, WTP, STP , Irrigation system; Monitor and maintain the HVAC system like suction pressure, discharge pressure, chiller water temperature etc. and verify the reading books; Monitor the DG set Operations and track Min and Max load; Monitor and observe the Electrical technicians while power failure time and during emergency one DG set to be switched ON as well as proper change over; Check the Technicians are maintaining the Transformer readings & condition monitoring, in case any abnormalities inform to line manager for taking further action; Observe the either technicians are taking readings voltage. Current, PF etc. and check the log books are maintaining properly; Hand over the shift through proper documentation and follow up's next shift Supervisors
32.	E&M Supervisors	2 Year ITI in Electrical Engineering or Diploma in Electrical Engineering	5 Years	Minimum experience required is 5 Years of work experience with 2 Year ITI in Electrical Engineering or 3 Years of work experience with Diploma in Electrical Engineering; Past experience in Operation and Maintenance of MEP services and Utilities in Large Buildings and Campus with expertise in managing team of technicians and working along with own hands. Experience in managing operations of HT power fed Sub Stations is must.

ENGINEERING OPERATION AND MAINTENANCE				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
33.	Electrician Operator	2 year ITI course in Electrical Engineering	3 Years	Prior experience is necessary in Building and Utilities Operation and Routine maintenance; Experience required in HT/ LT Panel Operation, DG Panels, transformers and circuit breakers. Identify electrical problems with a variety of testing devices. Repair or replace wiring, equipment, or fixtures using hand tools and power tools. Maintenance of mechanical plant and machinery; Follow preventive maintenance schedule; Knowledge of testing instrument; Safety precaution for Manpower & Equipment; Trouble shooting of electrical control panels & all equipment; Up keeping of all measuring & testing equipment; Carried out all repair & maintenance work time to time; Skills required for efficiently recording and reporting daily operating parameters and record maintenance activities.
34.	Helper Electrician	2 year ITI course in Electrical Engineering	2 Year	2 year working experience in Electrical Systems in Building maintenance
35.	Operator- HVAC Plant Room	2 Year ITI in Refrigeration and air conditioning technician	3 Years	Prior experience is necessary in Building and HVAC Utilities Operation and maintenance; Experience required in Chillers, AHUs, Split and Cassette AC units, VFDs, Pumps and Motors, Ventilation Fans, Exhaust Fans and Pressurization fans, Cooling Towers, Valves etc, wiring and control, inspecting mechanical and electrical components, such as pumps, shafts, bearings etc, Identify mechanical and electrical problems with a variety of testing devices. Follow Standard operating procedures and preventive maintenance schedule; Knowledge of testing instrument; Safety precaution for Manpower & Equipment; Up keeping of all Utilities area, tools, measuring & testing equipment;
36.	Helper- HVAC Plant Room	1 year ITI in Pump Operator cum Mechanic / Plumber	2 Year	2 year working experience in HVAC Systems in Building maintenance
37.	Operator- STP	1 year ITI in Pump Operator cum Mechanic /Plumber	3 Years	Prior experience is necessary in Operation and Maintenance of STP system; Experience required in Plant, Pumps and Motors, Valves etc, wiring and control, inspecting mechanical and electrical components, such as pumps, shafts, bearings etc, Identify mechanical and electrical problems with a variety of testing devices. Follow Standard operating procedures and preventive maintenance schedule; Knowledge of testing instrument; Safety precaution for Manpower & Equipment; Up keeping of all Utilities area, tools, measuring & testing equipment;

ENGINEERING OPERATION AND MAINTENANCE				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
38.	Operator- Fire Pump Room	2 year ITI in Pump Operator cum Mechanic / Plumber	3 Years	Prior experience in Operation and Maintenance of Fire Pump Room, Experience required in DG set, Pumps and Motors, Valves etc, wiring and control, inspecting mechanical and electrical components, such as pumps, shafts, bearings etc, Identify mechanical & electrical problems with a variety of testing devices. Follow Standard operating procedures and preventive maintenance schedule; Knowledge of testing instrument; Safety precaution for Manpower & Equipment; Up keeping of all Utilities area, tools, measuring & testing equipment; Skills required for efficiently recording and reporting daily operating parameters and record maintenance activities.
39.	Operator- WTP and Pump Room	3 year ITI in Pump Operator cum Mechanic / Plumber	3 Years	Prior experience in Operation and Maintenance of Water Treatment Plant, Pump Room, Experience required in Pipeline network, Pumps and Motors, Valves etc, wiring and control, inspecting mechanical and electrical components, such as pumps, shafts, bearings etc, Identify mechanical and electrical problems with a variety of testing devices. Follow Standard operating procedures and preventive maintenance schedule; Knowledge of testing instrument; Safety precaution for Manpower & Equipment; Up keeping of all Utilities area, tools, measuring & testing equipment; Skills required for efficiently recording and reporting daily operating parameters and record maintenance activities.
40.	Helper- STP and Pump Rooms	1 year ITI in Pump Operator cum Mechanic / Plumber	2 Year	2 year working experience in STP and Plumbing Systems in Building maintenance
41.	Operator- Forklift, Battery operated Vehicle	10th Pass	3 Years	Minimum experience of 3 Years in Operation of Fork Lift with valid license to operate the machine and vehicle. Expertise is required in Operating the Fork lift and battery-operated Vehicle for visitors and team. Should be able to Inspect the vehicle to ensure its safety; Performing routine maintenance, battery maintenance etc; Carrying tools for running repairs; Driving the vehicle to a worksite; Wearing PPT safety equipment; Using lever and pedal controls efficiently.

ENGINEERING OPERATION AND MAINTENANCE				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
42.	OWC Operator	10th Pass	3 Years	Minimum experience of 3 Years to operate the Organic Waste Converter in large Buildings, Campus or Residential units. Expertise is required in Operating the machine and inspection of shredders, trays and driers to ensure its safety and proper functioning; Performing routine maintenance; Hazard identification, site and hopper clearance, Residual stacking and drying, carrying tools for running repairs; Wearing PPT safety equipment; Cleaning and maintaining the mechanism and site area.
43.	OWC Helper	10th Pass	2 Years	Working experience in Building / Residential site as a full time OHC Helper for more than a year.
44.	Sr. Electrician - Maintenance	2 year ITI course in Electrical Engineering	5 Years	Prior experience is necessary in Building and Utilities Operation and maintenance; Experience required in HT/ LT wiring, control, and lighting systems; Inspecting electrical components, such as transformers and circuit breakers. Identify electrical problems with a variety of testing devices. Repair or replace wiring, equipment, or fixtures using hand tools and power tools. Maintenance of mechanical plant and machinery; Follow preventive maintenance schedule; Strong analytical & inspection ability; Excellent Coordination & Communication skills; Knowledge of testing instrument; Safety precaution for Manpower & Equipment; Trouble shooting of electrical control panels & all equipment; Up keeping of all measuring & testing equipment; Carried out all repair & maintenance work time to time
45.	Helper Electrician Maintenance	2 year ITI course in Electrical Engineering	2 Year	2 year working experience in Electrical Systems in Building maintenance

ENGINEERING OPERATION AND MAINTENANCE				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
46.	Sr. Technician- HVAC	2 Year ITI in Refrigeration and air conditioning technician	5 Years	Prior experience is necessary in Building and HVAC Utilities Operation and maintenance; Experience required in Chillers, AHUs, Split and Cassette AC units, VFDs, Pumps and Motors, Ventilation Fans, Exhaust Fans and Pressurization fans, Cooling Towers, Valves etc, wiring and control, inspecting mechanical and electrical components, such as pumps, shafts, bearings etc, Identify mechanical and electrical problems with a variety of testing devices. Repair or replace serviceable components, fittings and equipment, or fixtures using hand tools and power tools. Maintenance of mechanical plant and machinery; Follow preventive maintenance schedule; Strong analytical & inspection ability; Excellent Coordination & Communication skills; Knowledge of testing instrument; Safety precaution for Manpower & Equipment; Up keeping of all measuring & testing equipment; Carry out all repair & maintenance work time to time; Skills required for efficiently recording and reporting daily operating parameters and record maintenance activities.
47.	Fitter Cum Plumber	2 year ITI course in Fitter	5 Years	Minimum experience of 5 Years and should be experienced to efficiently undertake a variety of plumbing tasks ranging from fixing leakages to installing pipes for Water system and HVAC systems; thorough knowledge of hydraulic systems; experience to install and maintain well-functioning systems that transport water, waste, gases or hot liquids
48.	Helper- Plumbing	1 year ITI in Pump Operator cum Mechanic / Plumber	2 Years	2 year working experience in Building maintenance as a full time Helper for Plumbing works in maintenance team.
49.	Carpenter	1 year ITI course in Carpentry / 10th	5 Years	Minimum experience of 5 Years and should be experienced to efficiently undertake a variety of carpentry related tasks ranging from Ply board, wooden, GI sheets, panels, Dry wall and ceiling, Furniture and workshop infrastructure repair and maintenance systems; thorough knowledge of Interior civil and finishing works and should have hands-on experience in repair and maintenance of Finishes including Veneer, Baffles and decorative finishes.
50.	Helper- Carpentry	1 year ITI course in Carpentry / 10th	2 Years	2 year working experience in Building maintenance as a full time Carpenter Helper in maintenance team.

ENGINEERING OPERATION AND MAINTENANCE				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
51.	Painter	2 year ITI course in Painter Course / 10th	5 Years	Minimum experience of 5 Years and should be experienced to performs skilled work in the painting of buildings, fixtures and equipment. Work involves preparation of various types of surfaces for painting and the application of paint by use of spray guns, rollers or brushes
52.	Polisher	2 year ITI course in Painter Course / 10th	5 Years	Minimum experience of 5 Years and should be experienced to performs skilled work in the polishing of Wooden and Metal finishes and fixtures. Work involves preparation of various types of surfaces for polishing and the application of polish by use of spray guns, rollers or brushes.
53.	Masson	1 Year ITI in Mason (Building Constructor) / 10th	5 Years	Minimum experience of 5 Years and should be experienced to performs skilled work in the Masonry work, plastering and tiling, stone and granite repair work, Walkways and pathways block repair and maintenance and in-house waterproofing activities. Work involves preparation of various types of surfaces for polishing and the application of polish by use of spray guns, rollers or brushes.
54.	Helper- Masson	Unskilled Labour	1 year	Working experience in Building / Construction site as a full time Masonry Helper for more than a year.
55.	Welder cum Fitter	1 year ITI in Welding cum Mechanic	5 Years	Minimum experience of 5 Years and should be experienced to efficiently undertake a variety of welding tasks; thorough knowledge of welding types and experience to install and maintain well-functioning systems.

FINANCE, ACCOUNTS, CONTRACTS AND PROCUREMENT FINCTION				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
56.	Sr. Manager – Finance and Accounts	Post Graduate degree in Accounting or equivalent	20 Years	Minimum 20 Years of proven experience to manage and improve financial performance and direct accounting operations. Duties will include managing accounting records, evaluating and managing risk, ensuring compliance with regulations, publishing financial statements, overseeing accounting operations, analyzing financial data, monitoring expenditure, forecasting revenue, coordinating auditing processes, and ensuring true and fair view of financial information. Should be able to provide strategic planning and exceptional numerical proficiency; will aid organization in maintaining positive revenue and financial growth, formulating sound financial strategies including make or buy analysis including capital budgeting techniques, implementing proper internal controls, achieving organizational targets, and developing financial plans that support organizational strategy; Should possess strong analytical skills, exceptional problem-solving skills, a flair for numbers, be highly organized, and have excellent leadership skills; should streamline accounting functions and operations, provide financial analysis and reports, train staff on business finance issues, promote regulatory compliance, and drive income generation
57.	Assistant Manager - Accounts	Graduate degree in Accounting or equivalent	10 Years	Minimum experience of 10 Years and expertise to Manage and oversee the daily operations of the accounting department including: month and end-year process, accounts payable/receivable, cash receipts, general ledger, payroll and utilities, treasury management, budgeting, cash forecasting, revenue and expenditure variance analysis, capital assets reconciliations, account statement reconciliations, check runs, fixed asset activity, debt activity, Invoicing and collection, Monitor and analyze accounting data and produce financial reports or statements, Establish and enforce proper accounting methods, policies and principles, Coordinate and complete annual audits, Provide recommendations to improve systems and procedures and initiate corrective actions, Assign projects and direct staff to ensure compliance and accuracy, Meet financial accounting objectives, Establish and maintain fiscal files and records to document transactions, Monitor and analyze accounting data and produce financial reports or statements

FINANCE, ACCOUNTS, CONTRACTS AND PROCUREMENT FINCTION				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
58.	Executive - Billing & Accounting	Graduate degree in Accounting or equivalent	3 Years	Minimum experience of 3 Years in Building or Property Management services for Large projects and expertise in creating invoices and credit memos, issuing them to vendors/customers by all necessary means, and updating vendors/customer files; Issue invoices to customers/vendors, Issue monthly vendor/customer statements, Update vendor/customer files with issued invoices, Process credit memos, Update the vendor/customer master file with contact information, Track exceptions between the shipping log and invoice register, Submit invoices by to accounts manager. Well versed with Maintenance and Energy billing process and collection process.
59.	Runner	12th Pass	2 Year	Should be able to move the documents to the consignee inside the property or to travel locally for by hand deliveries of important posts and banking related matters efficiently; preferably should be a local resource with geographic and transportation knowledge of the city.
60.	Assistant Manager- Contract and Procurement	Bachelor Degree in Business Administration / Supply Chain Management or related field or equivalent experience	10 Years	Minimum experience of 10 Years in Building or Property Management services for Large projects and demonstrated professional contract/procurement experience including, but not limited to, sourcing, contract negotiation, monitoring and reporting contract performance and expertise to develop, manage and control all facets of contract formation, negotiation, and management and provide technical guidance and oversight of the procurement function to all levels of staff and management; Should be able to lead and support the entire procurement life-cycle for all goods and services that the organization procures; apply professional purchasing concepts, standards, and organizational objectives to complete complex procurement/contracting assignments and collaborate with business units and offices in establishing quality improvements and process efficiencies.

FINANCE, ACCOUNTS, CONTRACTS AND PROCUREMENT FINCTION				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
61.	Sr. Executive - Procurement	Diploma in Procurement / Business / Engineering or equivalent certifications	5 Years	Minimum experience of 5 Years in Building or Property Management services for Large projects and demonstrated professional expertise to source, negotiate and purchase materials from both local and oversea vendors, Evaluate vendor's quotation to ensure that they are in line with the technical and commercial, specifications required for the project, Advise internal and external on issues regarding purchasing Terms & Conditions, In charge of daily operational purchasing needs such as planning, issuing and following up on Purchase Orders delivery and shipment schedules, Resolve supply, quality, service and invoicing issues with vendors, Assist in ISO Annual Performance Review for vendors, Evaluate supplier performance based on quality standards, delivery time & best prices and ensure all the criteria are met according to the organizational requirements and expectation, Responsible for implementing internal procurement strategies to cater to high delivery and short lead time requirements Undertake any other ad-hoc duties as assigned
62.	Executive - Stores	Diploma in Procurement / Business / Engineering or equivalent certifications	3 Years	Minimum experience of 5 Years in Building or Property Management services for Large projects and demonstrated professional expertise to manage Inventory and Store functions. Should possess experience to work in coordination with Cross functional teams; Receiving, stocking and issuing material as per the store management procedures; Like maximum & minimum inventory level, re- order level FSN items, Quality, quantity and cost of material. Will be responsible for tracking of dispatch material till it reaches the consignees direct parties; prepare plan for procurement of spares and consumables as per Minimum stock levels; Make MIS report & Stock report on daily basis and send to HO., Identification of all materials store; Record and maintain files and records of customer request, work or service performed, charges, expenses, inventory and other Store information; and move stock material by FIFO & LIFO system. Responsible for managing all inventory control related activities; Keep all record of Moving and Non Moving & FSN Stock and report; Keep all record Of Party rejection material and return to party as per company standard; Prepare Goods Receipts Notes (GRN) on Store management software; Making RGP/ NRGP; and keep all Record Of RGP/ NRGP.

ASSET MANAGEMENT / CRM / CUSTODIAL SERVICES				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
63.	Associate Director – Custodial Services	Bachelor or advanced Degree in Hotel Management / Business Administration or related field.	15 Years	Minimum 15 Years of proven managerial experience in Asset Management for Large Buildings/ Campus / Star Hotels. Experience in Buildings / Campus / Public Areas environment of related to Central / State and Local Compliances and Statutory laws including Building, Labour Laws, Legal, MOEF, Fire and Safety requirements, regulatory compliance, experience with inspections, certification and licensing and coordination with Local and Statutory authorities must. ; experience in Risk Management, direct Environmental, Hygiene, Occupational Health and/or Safety experience in a Buildings / Campus / Public Areas environment; Applied knowledge and working understanding of Central / State and Local EHS requirements (i.e.; OSHA, ISO), regulatory compliance, experience with inspections, incident investigations, process safety, Contractor safety, EHS training, hazard reviews and job safety analysis; Should have experience to directs and coordinate the daily operations of the Customer Relationship Management, Housekeeping and Cleaning, Waste Management, Horticulture and Landscape services, Mail Room and Material management department to ensure smooth operations and orderly condition of Assets and Infrastructure; Create quality standards, standard operating procedure and service evaluation models and monitor for implementation. Manage all Team Member related activities, including recruitment, performance management, training, career planning, disciplinary matters, and team motivation; Coordinate with Compliance team and security team to ensure full compliance with statutory regulations

ASSET MANAGEMENT / CRM / CUSTODIAL SERVICES				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
64.	Assistant Manager- Customer Relationship Management	Bachelor Degree in Business Administration / Marketing or related field or equivalent experience	10 Years	Minimum 10 Years of Experience in Customer Relationship management and proven expertise in engaging with key customers by building and preserving trusting relationships; constantly identify opportunities to grow the relation and build positive relationships with new clients. Should be strategic and analytical when finding solutions to problems to ensure maximum client satisfaction. Responsible for tracking relevant service KPIs (e.g. customer satisfaction), Build relationships with key employees among customers; Create plans to address clients' business needs; Advise clients on creating profitable processes; Schedule regular meetings with customers to ensure they are satisfied; Act as point of contact for complaints and escalate issues as appropriate; Ensure both the company and clients adhere to contract terms; Study competition to find new ways to satisfy and retain customers; Set sales and revenue targets and work diligently to meet them; Collaborate with internal teams (e.g. Engineering, senior management, Procurement) to address customers' needs, Manage Help desk and ensure the performance and quality of help desk facility; Coordinate and track all Occupant related services including Maintenance and support for events periodically.

ASSET MANAGEMENT / CRM / CUSTODIAL SERVICES				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
65.	Help Desk Executives	Bachelor Degree in Business Administration / Marketing or related field or equivalent experience	3 Years	Minimum 3 Years of Experience in Customer Relationship management and proven expertise in Operating and maintaining the Help Desk and Customer Compliant desk. Should have proven experience in general administrative tasks; prioritization and planning skills as well as the ability to communicate to various stakeholders across the business and customer. Proficiency required in Communication in English and Hindi and respond in the same language as used by incoming Customer; knowledge of additional language is advantage. Provide a friendly and professional point of contact for customers for any queries or concerns. Should be able to Handle incoming calls and manage outgoing calls as required; Liaise with wider team members to ensure the best resolution, consistent with the contract; Completing administration tasks that relate to the contact, including assigning contract colleagues and Subcontractors to service requirement tasks, payroll, general admin etc; Liaise with relevant staff and Subcontractors in relation to all aspects of service desk requirements and that required information is returned in a timely manner. Respond to queries, amend data and re-issue tasks as required; Work closely with Line Managers to develop and enhance the quality of service and reporting processes; Carry out monitoring Help Desk and Compliant Management system data to ensure that Helpdesk work orders have been accurately created, assigned, prioritized and categorized in line with contractual KPI's and SLA's.

ASSET MANAGEMENT / CRM / CUSTODIAL SERVICES				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
66.	Sr. Manager- Custodial Services	Diploma or Degree in Hotel Housekeeping / Housekeeping or relevant field	12 Years	Minimum 12 Years of proven experience in Cleaning and Housekeeping Services, Waste Management, Horticulture and Landscape, Facade and Exterior Cleaning Services and Mail room management for Large Buildings/ Campus / Star Hotels; Applied knowledge and working understanding of Central / State and Local EHS requirements (i.e.; OSHA, ISO), regulatory compliance, experience with inspections, incident investigations, process safety, Contractor safety; Should have expertise to create quality standards, standard operating procedure and service evaluation models and monitor for implementation. Manage all Team Member related activities, including recruitment, performance management, training, career planning, disciplinary matters, and team motivation. Responsible for tracking relevant service KPIs and service standards and deployment adequacy. Manage the budget of services and coordinate with cross functional team for stock and inventory of equipment and consumables. Should be well versed with the quality and usage of the tools, equipment and chemicals and manage the life cycle and proper operation and handling of tools for efficient services.
67.	Assistant Manager- Cleaning & Housekeeping	Diploma or Degree in Hotel Housekeeping / Housekeeping or relevant field	10 Years	Minimum 7 Years of proven experience in Cleaning and Housekeeping Services, Facade and Exterior Cleaning Services for Large Buildings/ Campus / Star Hotels; Applied knowledge and working understanding of Central / State and Local EHS requirements (i.e.; OSHA, ISO), regulatory compliance; Should have expertise to create, improve and implement quality standards and standard operating procedure. Manage Team Member and their day-to-day activities, including performance management, training, disciplinary matters, and team motivation. Responsible for performing service as per desired service levels and standards. Should be well versed with the Safety standards, Personal protection equipment, quality and usage of the tools, equipment, machinery and chemicals and manage the life cycle and proper operation and handling of tools for efficient services.

ASSET MANAGEMENT / CRM / CUSTODIAL SERVICES				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
68.	Sr. Executive-Cleaning & Housekeeping	Diploma in Hotel Housekeeping / Housekeeping or relevant field	7 Years	Minimum 7 Years of proven experience in Cleaning and Housekeeping Services for Large Buildings/ Campus / Star Hotels; Should have expertise to direct and control housekeeping operations and staff of the housekeeping department; co-ordinates between housekeeping crews to inspect assigned areas to ensure standards are met; manage many priorities and demands and is able to solve problems, support staff, as well as perform the duties of a housekeeper when required; Supervises all housekeeping employees, hires new employees as needed, discharges employees when necessary and take disciplinary actions when policies are not followed; Evaluates employees in order to upgrade them when openings arise; Plans the work for the housekeeping department and distributes assignments accordingly. Assigns regular duties and special duties for housekeeping staff. Schedules employees jobs and assigns according to occupancy forecast; Shall maintains a time log book of all employees within the department; Maintains a lost-and-found department and is responsible for all lost-and-found items. Determines the rightful owner and send correspondences.
69.	Supervisor Housekeeping	1 year ITI in House Keeper Course / 12th Standard	10 Years	Minimum 10 Years of proven experience in Cleaning and Housekeeping Services for Large Buildings/ Campus / Star Hotels; Should have expertise to control the HK teams and self performing housekeeping operations; follow Standard operating procedures and ensure standards are met and HK team is efficiently performing the job as per correct operating guidelines; priorities and perform the duties of a housekeeper and Supervises small teams; Evaluates employees performance in order to upgrade skills; Shall maintains all checklists and formats for working and consumables used; should have a proper knowledge of Cleaning Chemicals and MSDS and should be able to respond for First Aid when required; manage and keep custody of the lost-and-found items; Maintain shift logs and efficiently handover cascaded jobs to succeeding teams; Ensure toiletries and consumable for washrooms are stocked and maintained properly and are adequate at all times.

ASSET MANAGEMENT / CRM / CUSTODIAL SERVICES				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
70.	Driver cum Senior Janitor - Ride on Machines	1 year ITI in House Keeper Course / 10th Standard	5 Years	Minimum 5 Years of proven experience in Cleaning and Housekeeping Services for Large Buildings/Campus/Star Hotels; Should have expertise to control the diesel, electrically and battery operated HK machinery and tools and handle small teams of 5 to 7 housekeepers and self-performing machine and equipment operations; follow Standard operating procedures and ensure cleaning standards are met ; Shall maintains all checklists and formats for working and consumables used; should have a proper knowledge of Cleaning Chemicals application and MSDS and should be able to respond for First Aid when required; manage and keep custody of the lost-and-found items; Maintain shift logs and efficiently handover cascaded jobs to succeeding teams. Ensure periodic maintenance of machines is carried out and report any abnormality or breakdown in any machine or equipment.
71.	Janitors – General Cleaning	Minimum capability to read and write in English or Hindi	2 Years	Minimum 2 Years of experience in Cleaning and Housekeeping Services for Large Buildings/ Campus / Star Hotels and proven knowledge of cleaning chemical application, MSDS for chemicals and using ability of HK tools and tackles.
72.	Sr. Executive- Façade Cleaning	Diploma in Hotel Housekeeping / Housekeeping or relevant field	7 Years	Minimum 7 Years of proven experience in Cleaning and Housekeeping Services and Façade Cleaning for Large Buildings/Campus /Star Hotels; Should have expertise to direct and control Façade Cleaning operations and staff of the cleaning department; co-ordinates between Cleaners and Technicians crews to inspect assigned areas to ensure standards are met; manage many priorities and demands and is able to solve problems, support staff, as well as perform the duties of a cleaners when required; Supervises all Façade and External area cleaning employees, hires new employees as needed, discharges employees when necessary and take disciplinary actions when policies are not followed; Evaluates employees in order to upgrade them when openings arise; Plans the work for the housekeeping department and distributes assignments accordingly. Assigns regular duties and special duties for housekeeping staff; Shall maintain a time log book of all employees within the department. Should be able to evaluate the cleaning team and maintain record for medical reports for clearance of team member involved in Height work.

ASSET MANAGEMENT / CRM / CUSTODIAL SERVICES				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
73.	Supervisor- Façade Cleaning	1 year ITI in House Keeper Course / 10th Standard	10 Years	Minimum 10 Years of proven experience in Façade Cleaning for Multistoried / Large Buildings/ Campus / Star Hotels; Should have expertise to direct and control Façade Cleaning operations and staff of the cleaning department; Supervise Cleaners and Technicians crews to inspect assigned areas to ensure standards are met; ensure Personal protection equipment are adequate and in proper working conditions and perform the duties of a cleaners / technician when required; Supervises all Façade and External area cleaning employees; Shall maintains all checklists and formats for working and consumables used; should have a proper knowledge of Cleaning Chemicals and MSDS and should be able to respond for First Aid when required; Maintain day activity logs; Ensure cleaning consumable and PPEs are stocked and maintained properly and are adequate at all times.
74.	Technician- Fitter	2 year ITI course in Fitter	5 Years	Minimum experience of 5 Years and should be experienced to efficiently undertake the onsite maintenance of Cradles and lifts for Façade Cleaning from fixing running complaints and mechanical issues in the machine; thorough knowledge of hydraulic and motor operation systems; experience to install and maintain well-functioning systems.
75.	Façade Cleaner	Minimum capability to read and write in English or Hindi	2 Years	Minimum 2 Years of experience in Façade Cleaning Services for Multistory / Large Buildings/ Campus / Star Hotels and proven knowledge of cleaning chemical application, MSDS for chemicals and using ability of HK tools and tackles and Personal protection equipment. Should be medically fit for working on heights as per standard guidelines.

ASSET MANAGEMENT / CRM / CUSTODIAL SERVICES				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
76.	Supervisor- Spider Cleaning	1 year ITI in House Keeper Course / 12th Standard	10 Years	Minimum 10 Years of proven on hands experience in Facade Cleaning as Spiderman System for Multistoried / Large Buildings/ Campus / Star Hotels; Should have expertise to direct and control Facade Cleaning operations and staff of the cleaning department; Supervise Spiderman Cleaners crews to inspect assigned areas to ensure standards are met; ensure Personal protection equipment are adequate and in proper working conditions and perform the duties of a cleaners / technician when required; Supervises all Facade and External area cleaning employees; Shall maintains all checklists and formats for working and consumables used; should have a proper knowledge of Cleaning Chemicals and MSDS and should be able to respond for First Aid when required; Maintain day activity logs; Ensure cleaning consumable and PPEs are stocked and maintained properly and are adequate at all times.
77.	Spiderman	Minimum capability to read and write in English or Hindi	3 Years	Minimum 3 Years of experience in Façade Cleaning Services as Spiderman for Multistory / Large Buildings/ Campus / Star Hotels and proven knowledge of cleaning chemical application, MSDS for chemicals and using ability of HK tools and tackles and Personal protection equipment. Should be medically fit for working on heights as per standard guidelines.
78.	Sr. Executive - Mail Room and Material Management	Bachelor Degree in Business Administration or related field	7 Years	Minimum 7 Years of experience in Mail room and Material movement management for Large Buildings/ Campus and proven knowledge of routine Operations of Mailroom and Material Inward / Dispatch area; all components of the mailroom for both internal and external audiences; shipping, assembly, deliveries, mailing and packaging; well versed with the documentation for inward and outward packages and material; Coordination with Security team for Screening and scanning for material, packages and Vehicles for safe and reliable operation; coordination with cross functional teams and Occupants for mail and material management; Prepare bookkeeping reports on Charges / expenditures to ensure accurate accounting of debits and credits, and manage consumables and stocks of stationary etc for smooth functioning of system. Strong on Analysis of data, Strong on EXCEL MS-WORD, MS-POWERPOINT. Excellent Communication Skills in English, Responsible for generating weekly, monthly MIS reports based on the given data.

ASSET MANAGEMENT / CRM / CUSTODIAL SERVICES				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
79.	Manager- Horticulture and Landscape	Post Graduate degree in Horticulture or related field	12 Years	<p>Minimum 12 Years of proven experience in Horticulture and Landscape Services for Large Buildings/ Campus / Star Hotels; Applied knowledge and working understanding of Central / State and Local EHS requirements (i.e.; OSHA, ISO), regulatory compliance, experience with inspections, incident investigations, process safety, Contractor safety; Should have expertise to create quality standards, standard operating procedure and service evaluation models and monitor for implementation. Manage all Team Member related activities, including recruitment, performance management, training, career planning, disciplinary matters, and team motivation. Responsible for tracking relevant service KPIs and service standards and deployment adequacy. Manage the budget of services and coordinate with cross functional team for stock and inventory of equipment and consumables. Should be well versed with the quality and usage of the tools, equipment and chemicals and manage the life cycle and proper operation and handling of tools for efficient services; Horticulture Manager should have expertise to actively works in the daily horticultural tasks and establishes and maintains high horticultural standards and practices and provides direction, training and motivation for the horticultural staff. Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources. Shall be responsible to oversee the development and growth of plants; Observes plants, flowers, shrubs, and trees to ascertain condition; Reads inventory records, consumables and work schedules to ascertain day's activities.; Reviews employees' work to ascertain quality and quantity of work performed.</p>

ASSET MANAGEMENT / CRM / CUSTODIAL SERVICES				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
80.	Horticulturist (Assistant Manager)	Diploma / Graduate degree in Horticulture or relevant field	10 Years	Minimum 10 Years with Diploma in Horticulture and Minimum 10 Years of experience with Graduate Degree in Horticulture with proven experience in managing Horticulture and Landscape Services for Large Buildings/ Campus / Star Hotels; Horticulturist shall be able to provide professional advice on the selection, ordering, planting, and maintenance of trees, shrubs, ground covers, and turf grasses on campus; Plans and designs annual and perennial flower beds; Grows potted plants and nursery stock and maintains records on the growing operation; Trains and supervises subordinate personnel in Gardening operations and in the proper methods and techniques of planting ornamental plants; Trains ground personnel in the techniques of pruning, wound dressing, cavity repair, and the cabling and bracing of trees and shrubs; Trains employees in horticultural techniques, such as transplanting and weeding, shearing and harvesting trees, and maintaining flowers; Prepares orders for various types of plants and seeds. Inventories, maps, and labels trees and shrubs on campus for instructional and maintenance purposes; Assists in the preparation of maintenance programs for the control of plant diseases and insects.; Prepares fertilizer programs for various types of plants; Confers with landscape architect and other personnel in the selection of plants.
81.	Supervisor- Horticulture	10th Pass	10 Years	Minimum 10 Years of proven hands on experience in Horticulture and Landscape Services for Large Buildings/ Campus / Star Hotels; Should be expert in assigning workers to duties, such as cultivation, harvesting, maintenance or altering environmental conditions; Estimates work-hour requirements to plant, cultivate, or harvest, and prepares work schedule; Self working skills along with small teams; Confers with management to report conditions, plan planting and harvesting schedules, and to discuss changes in fertilizer, herbicides, or cultivating techniques; Drives and operates heavy machinery, such as tractor and dump trolleys, or growth-media tiller, to transport materials and supplies; Maintains records of employees' hours worked, and work completed; Prepares and submits written or oral reports of personnel actions, such as performance evaluations, hires, promotions, and discipline.

ASSET MANAGEMENT / CRM / CUSTODIAL SERVICES				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
82.	Head Gardner	10th Pass	7 Years	Minimum 7 Years of proven hands on experience in performing Horticulture and Landscape Services for Large Buildings/ Campus / Star Hotels; Should be expert in Gardening techniques such as cultivation, harvesting, maintenance; Excellent knowledge of Operating and using Electric/ Battery operated / Diesel operated Power equipment and other tools and tackles for specialized tasks such as pruning, wound dressing, cavity repair, cabling and bracing of trees and shrubs; transplanting and weeding, shearing and harvesting trees; Self working skills along with small teams; Expert in using fertilizer, herbicides, etc
83.	Gardeners	Minimum capability to read and write in English or Hindi	3 Years	Minimum 3 Years of proven hands-on experience in performing Horticulture and Landscape Services for Large Buildings/ Campus / Star Hotels; Should have working knowledge of Gardening techniques such as cultivation, harvesting, maintenance and using tools and tackles for specialized tasks such as pruning, wound dressing, cavity repair, cabling and bracing of trees and shrubs; transplanting and weeding, shearing and harvesting trees;
84.	Helper - Gardening	Minimum capability to read and write in English or Hindi	2 Years	Unskilled Labour for support to Gardeners and act as per instructions.
85.	Tractor / Dump Trolley Operator	10th Pass	3 Year	Driving License holder, physically fit and able to represent good motor skills
86.	Loaders	NA	Any	Unskilled Labour

Information Technology and Communication Team				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
87.	Associate Director Operations - Information Technology and Communication Services	Bachelor's degree in Information Technology, Computer Science, Information Systems, or a related field	20 Years	<p>Minimum 20 Years of overall experience in IT Services with at least 15 Years of working experience in IT operations, and at least 8 Years of proven experience to supervising technology teams and overseeing large information technology projects. Excellent understanding of computer systems, security, network and systems administration, databases and data storage systems, and telecommunications systems; Strong interpersonal skills and ability to effectively communicate with teams across the entire organization; Excellent leadership and decision-making skills; Strong knowledge of project management principles. Should have a proven experience in managing IT operations and supervise systems and IT staff; Develop strategy as it relates to the organization's IT infrastructure (computer and information systems, security, communication systems), Devise and establish IT policies and systems to support the implementation of strategies set by upper management; Develop, manage, and track the IT department's annual budget, Consult senior-level stakeholders across the entire organization to identify business and technology needs and to optimize the use of information technology; Ensure smooth delivery and operation of IT services by monitoring systems performance, Create processes and standards for selection, implementation, and support of systems, Provide direction, guidance, and training to IT staff. Overall Management of Vendors, Contractors and suppliers for hardware, software, and telecommunications equipment products; recommends purchases for short- and long-term objectives; participates in various internal committees assigned by senior management. Responsible for analyzing and deploying hardware and software updates and other patch management directives. Works closely with the Director - Operations and Chief Security Officer in the development of strategic plans and makes recommendations for information technology projects involving functional changes.</p>

Information Technology and Communication Team				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
Cyber and Network Security				
88.	Information Security Expert	B Tech with relevant certification must in CISSP and certification and Hold DoD-8570 IAT Level 3 baseline certification (Security+ CE or equivalent)	15 Years	Minimum 12 years of Proven experience with network security components such as Firewalls, Intrusion Detection and Protection (IDS/IPS) systems and tools; Continuity of Operations and Disaster Recovery (COOP/DR) Tasks; Experience in DoD Information Assurance, Cyber Security, and Information Technology project; Hands-on working knowledge of network devices such as routers and switches, enterprise systems, such as Active Directory, Windows Servers, VPNs, Remote Access, Multifactor Authentication, Virtualization, and Cloud Computing. Experience to Analyze existing security systems and make recommendations for changes or improvements; Prepare reports and action plans in the event that a security breach does occur; Organize and conduct tests and "ethical hacks" of the existing security architecture; Monitor the network and provide early warning of abnormalities or problems; Upgrade systems regularly to remain competitive in the field of security; Communicate the system status and keep users informed of downtime or changes to the system; Keep technical knowledge current through continuing education; Provide system updates and write code fixes
89.	Engineer- (L3 Level) Cyber Security	B Tech with relevant certifications must in CISSP or CASP and Hold DoD-8570 IAT Level 2 baseline certification (Security+ CE or equivalent) and preference to advance trainings such as SANS GIAC/GCIA/GCIH	12 Years	Minimum 12 years of prior relevant experience and Advanced understanding of TCP/IP, common networking ports and protocols, traffic flow, system administration, OSI model, defense-in-depth and common security elements.; Hands-on experience analyzing high volumes of logs, network data (e.g. Netflow, FPC), and other attack artifacts in support of incident investigations; Experience with vulnerability scanning solutions' Familiarity with the DOD Information Assurance Vulnerability Management program.; Proficiency with any of the following: Anti-Virus, HIPS, ID/PS, Full Packet Capture, Host-Based Forensics, Network Forensics, and RSA Security; In-depth knowledge of architecture, engineering, and operations of at least one enterprise SIEM platform (e.g. Nitro/McAfee Enterprise Security Manager, ArcSight, QRadar, Log Logic, Splunk); Experience developing and deploying signatures (e.g. YARA, Snort, Suricata, HIPS); Understanding of mobile technology and OS (i.e. Android, iOS, Windows), VMware technology, and Unix and basic Unix commands

Information Technology and Communication Team				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
90.	Engineer- (L2 Level) Network Security	B Tech with relevant Advanced certifications must is CCNP- Security and MSCE for Windows Server Data Center and preference to advance certifications such as GIAC Security or equivalent	7- 10 Years	<p>Minimum 7 years of experience in Planning, engineering, and monitoring the security arrangements for the protection of the network systems; Identifying, monitoring, and defining the requirements of the overall security of the system; Creating different ways to solve the existing threats and security issues; Configuring and implementing intrusion detection systems and firewalls.</p> <p>Testing and checking the system for weaknesses in software and hardware.; Maintaining firewalls, virtual private networks, web protocols, and email security; Creating virus and threat detection systems.; Configuring and installing security infrastructure devices; Investigating intrusion and hacking incidents, collecting incident responses, and carrying out forensic investigations.; Determining latest technologies and processes that improve the overall security of the system; Using industry-standard analysis criteria to test the security level of the firm; Developing tracking documents to note system vulnerabilities.</p>

Information Technology and Communication Team				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
Data Center and NOC Operations				
91.	Manager- Data Center & NOC Operations	B. Tech / CCNP & PMP certification	15 Years	<p>Minimum 12 years of proven experience of NOC management in Large work environments and expert in Incident management, Take responsibility for the day to day operation of the team, providing overall guidance and supervision; Minimum 10 years of technical experience, the position shall provide 3rd line and 4th line support to the 1st and 2nd line teams in NOC.</p> <p>Maintain and monitor required staffing levels and schedule to ensure that the team can meet the demand and respond in a timely manner to network and server anomalies and outages; Maintenance –managing routines, obsolescence, contracts, suppliers, service providers; Provisioning – meeting SLA on new provisions, Service Restoration - meeting SLA on services; Capacity management – managing utilization of assets; To develop the team and work with other departments to achieve common business goals; To act as an escalation point for customer problems and questions via telephone, e-mail and face to face; To be escalation contact for service issues, out of hours;</p> <p>Ensuring the right environment is in place so that staff are effectively mentored, developed and trained; Develop and own the processes and procedures used by the team, based on best practice for the industry; Develop documentation related to the departments work processes which is up to date and accurately reflects; the day to day running of the team; Organize and priorities workload; Lead internal projects to improve service;</p> <p>Communicate with suppliers and service providers on behalf of the company; Conduct team reviews and be responsible for personal and career development of team members</p>

Information Technology and Communication Team				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
92.	Engineer- (L3 Level) Server and Storage	B. Tech with Microsoft MCSE, Netapp / VMware certification	12 Years	<p>Minimum 12 years of experience, the position shall provide 3rd line server and storage support to the 1st and 2nd line teams, as well as the Web Operations and Development teams within the wider Technology environment. To provide technical support in both a proactive and reactive manner, ensuring systems are stable and performing within the terms of their respective Service Level Agreements. Key responsibility shall include maintain, design and implement new server or storage infrastructure, as well as provide day-to-day monitoring, capacity planning and management of the existing estate; To evaluate and apply any necessary operating system security patches, hot fixes, service packs and hardware updates; provide out of hours, on-call support for critical systems on a shift rota basis and, where necessary, work the occasional weekend/evening to perform maintenance, upgrades, and repairs or troubleshooting. With a general understanding of Networking technologies. Should have proven experience in working with VMware ESXi and Windows server 2003/2008 R2 operating systems; Working knowledge of monitoring solutions, such as: Microsoft SCOM and HP SIM. A good understanding of HP Blade technologies including HP Virtual Connect; Has previously worked with backup products, such as Symantec NetBackup or Microsoft DPM; Experience in installing, supporting and maintaining server and storage hardware; Hands on experience in working with Microsoft Active Directory Services at a 3rd line level. Working knowledge of NetApp technologies is beneficial</p>

Information Technology and Communication Team				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
93.	Engineer- (L2 Level) Storage and Backup Management	B. Tech and Relevant certifications a must (either of EMC and NetApp, AND preferred at least one of HP storage, EMC Networker, Symantec NetBackup, CommVault) certification	7 Years	<p>Minimum 5 years of experience relevant to enterprise level storage and backup platforms in particular EMC Storage, NetApp Storage, Networker, NetBackup and CommVault; Should be an expert in: Mandatorily either EMC or NetApp Storage. Additionally, at least in one of: HP storage, EMC Networker, Symantec NetBackup, CommVault; Experience on EMC (VNX, VMAX, Celerra, XtremIO) and NetApp series storage arrays; Experience on troubleshoot and maintain SAN infrastructure performance, hardware, and connectivity; Good experience on Cisco and Brocade series FC switches; Good experience on SAN storage provisioning, LUN masking and zoning; Experience on Storage capacity planning, performance analysis, monitoring, reporting Good understanding NFS, CIFS, and Fiber Channel protocols; Good experience in supporting and managing the replication</p> <p>Basic knowledge of multiple operating system environments like windows, Linux and UNIX; Good understanding of operational framework like ITIL/ITSM, operations process.; Very good communication skills – verbal and written; Providing L2 technical support to respective L1 engineers with defined SLAs; Good Knowledge Backup types, configuration and Management. Good Knowledge about Storage management (NAS & SAN); Monitoring & Management of Backup Application. Implementing and administrating network devices, setting and maintaining policies and rights/ security within a Windows Server and Linux environment. Good Knowledge about Print Server, File Server and WSUS Server.</p>

Information Technology and Communication Team				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
94.	Engineer- (L2 Level) Database	B. Tech and relevant certification must in MCSA: SQL Database Administration / MCSA: SQL Database Development. Additional advantage for MCSE: Data Management and Analytics / MTA: Database	7 Years	Minimum 7 years of experience in database technologies including Oracle, SQL Server, SYBASE and other COTS and Open Source database solutions; Should have proven experience in monitoring, administrating, and implementing performance on database systems as well as database performance optimization, developing/changing database indices, redesigning database structure and reloading data into a database; database architecture changes; installation of database management systems, databases, tables and views; administration and use of current and emerging database tools, strategies and technologies; can maintains the integrity, security and availability of multiple database(s); disaster recovery, performance analysis and tuning, index maintenance, and monitoring of data; Administers, maintains, develops and implements policies and procedures for ensuring the security and integrity of the database; Evaluates and recommends available database management system (DBMS) products; database and software life-cycle activities to ensure highest level of system performance and availability and compliance with business requirements; Oracle, SQL Server, SYBASE, and other DBMS Database and Application server administration; Organizes and formats data for efficient query and storage processes; Researches and evaluates new concepts and processes to improve performance. Analyzes cross-functional problem sets, identifies root causes and resolves issues. Assists more junior level technicians, specialists, and managers in their activities. Can perform all tasks of lower-level technicians, specialists.

Information Technology and Communication Team				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
Network Management & Service Delivery Desk				
95.	Sr. Manager- Service Delivery & Network Management	Bachelor's in IT/Computer Science / Tech with relevant certification must in ITIL V3 Foundation/Intermediate Certified. Preferably holds CCNP certification	15 Years	<p>Minimum 15 years of management experience in Service Delivery and possess Expert knowledge on all aspects of ITIL including Incident, Problem, Change, Knowledge and Service Management processes as defined by ITIL. Certifications in Project Management, Business Analysis and Project Assurance would be beneficial to performing this role. Maintain high performing service support functions including and IT Service Desk, Desktop, Support and VIP Support; Owner of the Incident, Request, Change and Escalation processes, ensuring high levels of performance in these processes, accurate reporting and establishing service improvement; activities when required; As owner of the escalation process the Service Delivery Manager will take ownership of major incidents to ensuring coordination of resolving parties, effective communication to stakeholders and post incident review; Monitor, control and support service delivery; ensuring systems, methodologies and procedures are in place and followed; Champion Service and Support in projects and developing a strong understanding of projects impacting your service area and ensuring service impact is minimized and agreed; Be accountable for the quality of Service and performance; ensuring future demand from growth and projects is understood and factored into capacity plans for all associated systems, Drive internal and third party service review meetings covering performance, service improvements, quality and processes; Work with the Technical Design team evolve standards for hardware, software and security in the desktop environment ; Lead the Desktop Management team to continually improve the desktop computing environment, Manage the desktop computing environment to ensure that laptops, PC's and other access devices are built and maintained to high standards of performance and security</p>

Information Technology and Communication Team				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
96.	Engineer- (L3 Level) Network & Wireless	B. Tech with relevant certification must in CCNP	12 Years	<p>Minimum 12 years of experience and Extensive knowledge of LAN and WAN technologies; Experience in security related fields (firewalls, VPN, network access control, Palo Alto with panorama, Cisco ASA, CISCO FTD, FMC.,</p> <p>Strong experience in Managing and troubleshooting CISCO ACI Spine Leaf Architecture & DNA, SDN, Strong Experience in managing & troubleshooting Cisco 9kswitches with FEX, VPC, VXLAN, VDC's etc.; Strong experience in Managing & troubleshooting Aruba controllers, IAP's deployment with aruba central; Strong Experience in managing & troubleshooting Cisco WAN accelerators WAAS & IWAN technologies.,</p> <p>Experience with Routers, switches HSRP, VRRP & GLBP redundancy protocols, Firewalls, Cloud Technologies AWS, Azure ETC., Experience in the configuration and troubleshooting of routing protocols BGP,IBGP,EIGRP,OSP, Experience inF5VIP, Profiles, Monitor, Persistence, SSL Certificates, I-rules LTM & GTM, Strong Experience in managing and troubleshooting with Citrix Netscaler GSLB, VPN gateways, SSL Certificates etc., Experience with Cisco wireless Networks, Ability to understand the wire shark packet analysis, Good Understanding in monitoring tools like solarwinds, Splunk.,</p> <p>Strong troubleshooting skills by providing L3 & L4 support for any network security related issues., Provide review of functional specifications and design documentation for effective deployment and operation of network services, Prepare documentation supporting network requirements, connectivity, implementation and testing & Strong troubleshooting skills, Ability to interpret and apply complex technical manuals and reference materials, Ability to prioritize tasks in order of importance; direct efforts of others, work independently and as a team member; and establish and maintain effective working relationships with customers served and systems administration personnel</p>

Information Technology and Communication Team				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
97.	Engineer- (L2 Level) Network & Wireless	B. Tech with relevant certification must in CCNP	5- 8 Years	<p>Minimum 5 Years of experience and possess Broad knowledge of networking and network equipment/operating systems with detailed experience with CISCO, Load balancer, Routing, Switching;</p> <p>Good knowledge of the OSI model, routing (OSPF, BGP) and switching technologies (STP), Cisco Routing and switching technologies and corresponding protocols, IP services like ACL, High availability.; Checkpoint Smart Center, Console, Defense and Workflow as well as Checkpoint CLI experience.; F5 Load balancer (LTM, GTM), NAT & VPN & Wireless setups.; Encryption methods and technologies & MPLS Configuration.; HTTP/HTTPS, reverse proxy, SSL offload configurations; Implementation of security tools, policies, and procedures in conjunction with the security team.</p> <p>Shall be able to Operate, Maintain, Manage, and Improve network cloud infrastructure, Configure and install various network devices and services (e.g., routers, switches, firewalls, load balancers, VPN, QoS), Work within established configuration and change management policies to ensure awareness, approval and success of changes made to the network infrastructure, Coordination with customers & Vendors for network related problems and providing Remedies, Root Cause Analysis of Faults.,</p> <p>Work closely with team members to provide quick support & error free environment in close cooperation with L1 Level support., Participate in design discussion regarding new Security technologies implementation (new DMZ, Extranet improvement, Manufacturing Network segregation, Fortinet /CISCO Firewall, user VPN access, ISE, URL filtering, ...)</p> <p>Ability to create and provide detailed documentation and Visio drawings for network and Security designs and configurations</p>

Information Technology and Communication Team				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
98.	Engineer - L2 Level Service Management	Bachelors in IT/Computer Science/Tech must in ITIL V4 Foundation/Intermediate Certified.	5- 8 Years	Minimum 5 Years of progressive experience in field of ITSM (majorly into Incident and Problem Management areas); Experience of working with multiple technical teams and functions with an exceptional attention to detail; Prepare and Update the knowledge base as applicable; Excellent verbal and written communication skills in English.; Track record of developing and providing SLAs & KPI's; Flexibility and willingness to support a 24x7 operation through off-hours support, on-call availability, or other as per needs of the business.; ITIL V3 Foundation/Intermediate Certified.
99.	Executive- (Service Desk/ Help Desk)	Bachelors in IT/Computer Science/Tech must in ITIL V3 Foundation / Intermediate Certified.	2 Years	Minimum 2 Years of experience at Service desk and Help Desk support with In-depth knowledge of hardware and software; Strong customer service ethos; Ability to work well with people; Strong communications skills, Excellent verbal and written communication skills in English; Willingness to sometimes work unsociable hours; A logical mind; Enthusiasm for continual learning; Trained on SOP for basic support; Basic Trouble Shooting

IT & ELV Maintenance				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
100.	Manager- ELV Systems	Diploma or Bachelor's or advanced degree in Electrical / Electronics / Instrumentation	12 Years	Minimum 12 Years of experience with Diploma or 10 Years of experience with Bachelor's degree and expertise in ELV system management and possess strong designing, operation and maintenance skills for ICT/Telecom and ELV Systems for Large project environment. Should have proven multitasking skills with a strong zeal for accepting new design based challenges, a team player with excellent communication skills; Duties and responsibilities shall include Operation and maintenance coordination and team management for ICT/telecom system; Process development for Operation and maintenance as per design standards TIA/EIA, BS, BICSI End to end design for ELV systems like IP CCTV, Access control, PAVAICT / telecom / ELV specifications; Should have expertise in schedules and sizing calculations; Developing suitable Operating guidelines for network schematics and modeling coordination, Good practical understanding and hands on experience of ICT/ Telecom / ELV systems, building systems related to Fire Alarm System, Digital Media, Audio Video System, Security , Parking Systems, HVAC, Electrical, Plumbing, etc. Cisco networking system understanding will be an added advantage; Managing a team of ELV engineers proficient in ELV systems and on-site building practices.
101.	Engineer- ELV System	Diploma or Bachelor's or advanced degree in Electrical / Electronics / Instrumentation	7 Years	Minimum experience of 7 Years in handling and maintaining multi technology ELV equipment in Large Project environment including IP CCTV systems, Security systems, Security Gates, Central Battery System, Lighting control system and associated equipment and associated equipment. Will have to work under the directions of the ELV Systems Engineer. Liaising with other contractors and OEM suppliers at the site for Periodic maintenance and component replacements. Carry out remedial repairs and preventative maintenance of ELC systems and associated equipment and associated equipment. Carry out first instance diagnosis of the above ELV Systems Engineer in resolving faults; Spares management.

IT & ELV Maintenance				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
102.	Technicians- ELV System	2 Year ITI / Diploma in Information Technology / Information & Communication Technology System Maintenance / Technician Power Electronics Systems / Electronic Mechanic	5 Years	Minimum experience of 5 Years in maintenance of multi technology ELV equipment in Large Project environment including IP CCTV systems, Security systems, Security Gates, Central Battery System, Lighting control system and associated equipment and associated equipment. Will have to work under the directions of the ELV Systems Engineer. Carry out remedial repairs and preventative maintenance of ELC systems and associated equipment.
103.	Engineer- Audio Visual System	Diploma or Bachelor's or advanced degree in Electrical / Electronics / Instrumentation	7 Years	Minimum experience of 5 Years in maintenance of Audio Video System with a strong competence with video conference and broadcasting systems; Expertise in processing control, routing, and audio video signal flow with broadcast software; Understanding AV technologies and IT systems on a technical level; Awareness of the latest trends, hardware, and features in AV equipment; Familiarity with graphics, encoding and video editing software; Ensuring that AV hardware and software is prepared to meet the needs of the organization; Manage system and satellite stations for live audio and video events, including broadcasts, conferences, and so on; Operating the master controls of AV systems during events; Maintenance, troubleshooting and problem-solving of hardware and software; Storing, transporting, assembling and disassembling AV equipment.; Ensuring the production and updating of AV documentation such as user guides; Cabling and wiring to implement technologies into AV setups.

IT & ELV Maintenance				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
104.	Technicians- AV System	2 Year ITI / Diploma in Information Technology / Information & Communication Technology System Maintenance / Technician Power Electronics Systems / Electronic Mechanic	5 Years	Minimum experience of 5 Years in Operation and maintenance of Audio Video Systems and events in Large Project environment with a strong experience to set up and install equipment such as microphones, sound speakers, video screens, projectors, video monitors, recording equipment, connecting wires and cables, sound and mixing boards for events and functions such as concerts, sports events, meetings and conventions, presentations, and news conferences; Periodically perform maintenance and inspection of system and should have hand on experience to Set up and operate sound equipment, Set up and operate spotlights, Confer with meeting or concert director to establish cues and directions, Create and install custom lighting systems, Monitor sound feeds to ensure quality, Ensure equipment is installed according to designated layout, Test and resolve equipment issues, Diagnose and correct media system problems, Mix sound inputs and feeds, Coordinate audio feeds with television images, Switch video input sources from one camera to another, Determine filming sequences and camera movements, Clean audio and video equipment and store properly, Ensure the safe storage and integrity of data, Perform duties on location, Work with computer-controlled lighting systems, Duplicate audio and video data., Maintain inventory of equipment.
105.	Car Park Manager (CPM)	Graduate	10 Years	Minimum ten years' experience in Parking Operations and Management, Fluent speaking in English. CPM shall work cooperatively with IICC operation team and all relevant stakeholders. CPM will maintain a highly visible presence within the Facilities, including on selected weekends and during periods of heightened activity. CPM shall be responsible for overseeing all aspects of the parking operations. CPM shall oversee the removal of cash from the Facilities and ensure that each Facility is adequately staffed at all times. The CPM shall recommend operational enhancements and provide revenue forecasts for proposed parking rate adjustments to the IICC and ensure that all problems within the Facilities are addressed and corrected.

IT & ELV Maintenance				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
106.	Assistant Car Park Manager	Graduate	5 Years	Minimum five years' experience in Parking Operations and Management, Fluent speaking in English. Shall support the CPM in all aspects of parking facility operations for the Facility they are assigned to manage. Duties shall include but will not be limited to overseeing the administration of the parking office, developing procedures, processing paperwork, planning work schedules, reviewing and approving documents, monitoring employee performance, counseling employees, coordinating employee work activities, counting money, investigating revenue discrepancies, auditing employee and customer use of monthly key cards, ensuring that revenues collected are accurately recorded and properly secured, coordinating bank deposits, reviewing and preparing parking revenue reports, conducting parking facility inspections, responding to customer concerns and complaints and ensuring that their assigned facility is sufficiently staffed at all times. Shall also conduct routine inspections of the parking facility on a daily basis. Daily inspections shall be documented in the form of a checklist or log and will be available to IICC staff upon request. Inspections shall include but not be limited to maintenance, cleanliness, safety hazards, public safety, proper functioning of revenue control equipment, attendant performance and cash and accounting audit
107.	Parking Supervisor	HSC	2	Two Year experience in Parking Industry, should understand and speak English fluently, Basic computer knowledge. Briefing the team before the shift start, Deployment of manpower at different locations, Make the attendance and the reports, Collects the money from cashier at the end of the shift, Tallies the report with money given by the cashier at the end of the shift. In case the cash is less the Cashier will pay from his pocket or the cash is more it will be deposited as excess and entry is made in register, any kind of situation handling during the shift, Reliving the team as and when required. Consumables stock in the office and inform manager for ordering.
108.	Cashier	HSC	2	Two Year experience in Parking Industry, should understand and speak English fluently; basic computer knowledge. Scan Insert the ticket for validation after receiving it from the guest. Collects the parking fees from the guest. Greets the by handing over the receipt and balance change if any. Hands over the tickets and money to the Supervisor at the end of the shift

IT & ELV Maintenance				
Sr. No	Designation	Min. Qualification	Minimum Experience in Years	Key Skills Required for the Positions
109.	Customer Care Associate	HSC	2	Two Year experience in Parking Industry, should understand and speak English fluently; basic computer knowledge. The Customer care associates shall be divided into different categories. 1. Greeter 2. Divertor 3. Guest care
110.	Valet Driver	SSC	5	Must be able to speak, read and write Standard English, Certification of training from Department of motor, vehicles check of experience in handling luxury cars. Welcome guests & visitors with appropriate greetings of the day during opening/closing vehicle doors. Able to park guests' car and retrieve guests' cars without causing damage to the vehicle effectively & securely. Ability to drive and operate uber luxury cars, manual and automatic transmission vehicles to drive and operate manual and automatic transmission vehicles. Able to provide guests with direction & site-specific information. Monitor and direct vehicle traffic on property, including guest vehicles, taxi cabs, etc. Ensure vehicles are legally parked and to maintain a smooth and efficient flow of traffic. Ensure all guest's valet experience are memorable, unique and as per the property standards. Responsible to maintain the security of vehicles, belongings kept inside the car and vehicle keys. Report accidents, injuries, and unsafe work conditions to the supervisor or manager.
111.	Accounts	5	B.Com	Revenue collections once in 4/8 hrs., from all cash points (Bleed off). Communication with IICC and other correspondence. Season Parking issuance, accounting and cash management. Checking with journal reports and ticket consumption as well as collections. Depositing in bank or with client, maintaining registers and reporting to Asst manager. Assists Manager in Admin and accounting activities. Maintains system consumables like tickets, paper rolls, cartridges etc. Coordinates recruitments, Collection and maintenance of documents, uniforms, salaries, training etc. Infrastructure & maintenance of office, Reports, maintains registers. Manages guest feedback forms & client feedback sheets

15 Annexure 6 - Minimum Tools and Consumable Requirements

15.1 Engineering Tools and Tackles

- 15.1.1 Service Provider is required to provide following listed minimum tools and tackles for the execution of services under various functions of Property management at IICCL facility
- 15.1.2 Service Provider at its own knowledge and expertise may use additional tools and tackles over and above the minimum required tools.
- 15.1.3 Service Provider shall ensure the serviceability and adequacy of such tools at all time during the tenure of the contract. The count of such machines and tools shall be quantified by Service Provider itself based on its knowledge and expertise for performing the services.
- 15.1.4 Service Provider shall ensure that all tools and tackles provided at site should be of minimum safety and quality standards as per ISI / CE or applicable standards.
- 15.1.5 Service Provider is advised to use original, and OEM specified spares and consumables for the purpose of Operation and Maintenance. General consumables shall be used which are manufactured within the country to support the Make in India initiative of the Govt. of India.
- 15.1.6 Below mentioned is the list of minimum engineering tools and tackles to be maintained at site:

Sr. No	Type of Tool	Name of Tool (Engineering Tools and Tackles)
1	Cutting Tools	Cross cut Hand Saw
2	Cutting Tools	Flat File
3	Cutting Tools	Hacksaw Frame
4	Cutting Tools	Hand wood planner Electric
5	Cutting Tools	Hand wood planner Manual
6	Cutting Tools	Hole Saw Kit
7	Cutting Tools	Knife
8	Cutting Tools	Round File
9	Electronic Equipment	Air Blower (Hot)
10	Electronic Equipment	Battery Load tester
11	Electronic Equipment	Db meter for noise level monitoring
12	Electronic Equipment	Digital Anemometer
13	Electronic Equipment	Digital LUX Meter
14	Electronic Equipment	Indoor Air Quality Analyzer- Lead Test Kit
15	Electronic Equipment	Label Printer

Sr. No	Type of Tool	Name of Tool (Engineering Tools and Tackles)
16	Electronic Equipment	Megger (0-500volts)
17	Electronic Equipment	Multi-Meter (digital) Texas Instruments /Fluke
18	Electronic Equipment	Polarity Tester / GFCI Tester
19	Electronic Equipment	Tong tester/Clamp Meter (Digital)
20	Hand Tools - Electrical	Cartridge fuses puller (HT / LT.)
21	Hand Tools - Electrical	Crimping Tool for Electrical Wires
22	Hand Tools - Electrical	Line Tester
23	Hand Tools - Electrical	Punching Tools (set 3mm to 24 mm)
24	Hand Tools - Electrical	Roto Split Tool
25	Hand Tools - Electrical	Side Cutter
26	Hand Tools - Electrical	Specific Gravity Tester
27	Hand Tools - Electrical	Wire Stripper
28	Hand Tools - General	Bearing Puller (150 mm - 300 mm)
29	Hand Tools - General	Bench Wise 6"
30	Hand Tools - General	Chisel Small & Big (heavy duty)
31	Hand Tools - General	Hammer 1/2 lbs., 1 lbs, 11/2 lbs
32	Hand Tools - General	Hammer Soft Face
33	Hand Tools - General	IR GUN
34	Hand Tools - General	Measuring tape - 5 mtrs / 10 mtrs
35	Hand Tools - General	Magnetic Tray
36	Hand Tools - General	Torpedo Level
37	Hand Tools - General	Vice Grips
38	IT Tools	Crimping Tool- RJ 45 / RJ 11
39	IT Tools	Telephone Test Kit
40	IT Tools	Tone and Probe Kit
41	Pliers	Combination Pliers (165mm, 185mm, 210 mm)
42	Pliers	Nose Pliers 9"
43	Pliers	Toung and Groove Pliers
44	Power Tools	Arc Welding Set (Single Phase)
45	Power Tools	Cutter Machine (Stone / Wood)
46	Power Tools	Drill Bit Set

Sr. No	Type of Tool	Name of Tool (Engineering Tools and Tackles)
47	Power Tools	Electric Hammer Drill M/C
48	Power Tools	Electric Power Drill M/C
49	Power Tools	Hand Buffing Machine
50	Power Tools	Hand Grinder
51	Screw Drivers	Allen Key Set
52	Screw Drivers	Insulated Screw Driver 4" / 6" / 8" / 12"
53	Screw Drivers	Nut Driver Set
54	Screw Drivers	Screw Driver Set
55	Spanners	Box Spanner Set
56	Spanners	D-Spanner Set
57	Spanners	Ring Spanner Set
58	Spanners	Torque spanner
59	Tool Kit	Pencil
60	Tool Kit	Tool Bags
61	Tool Kit	Tool Box metallic
62	Tools - HVAC	Thermometer Digital
63	Tools- WTP	TDS Meter
64	Tools- WTP	Water Testing Kit
65	Wrench	Crescent Wrench 10"
66	Wrench	Parrot Wrench 10"
67	Wrench	Pipe wrench 18"
68	Wrench	Pipe Wrench 24"/ 18" / 14"/ 12"/10"/8" (set 1 of each)
69	Wrench	Screw wrench
70	PPE	Ear Muffler
71	PPE	Gloves (Electrical) (HT/ LT.)
72	Hand Tool	Grease Gun (heavy duty)
73	Ladders	Ladder 8ft / 12 ft. stool type
74	Ladders	Telescopic Extendable Ladder 30 ft. (18ft+12ft) hook type/wall support

15.2 Personal Protection Equipment

15.2.1 Service Provider is required to provide following listed minimum personal protection equipment for the execution of services under various functions of Property management at IICCL facility

15.2.2 Service Provider at its own knowledge and expertise may use additional safety and protection gears over and above the minimum required list.

Personal Protective Equipment Cost			
Sl. No.	Description	Min Qty	Specification
1	Safety Nets to protect and arrest falls	4	Mesh Size-3", Rope Dia-4mm, Border+ Tie Cord 12 mm.
2	Safety Apron	4	General
3	Safety Coat	4	General
4	Face Masks & Respirators	4	Dust/mist respirator
5	Breathing Apparatus	2	First aid respiratory apparatus
6	Heat and Fire-Resistant Gloves	3	Made of Kevlar para-aramid fiber with a cotton liner
7	Eye protector / Safety Goggles	10	Seepro
8	Ear Plugs	10	SCREW TYPE EARPLUG 3-STEP
9	Ear Muff	5	General (ISI Mark)
10	Helmets for different applications	20	With ratchet type head band including sweat band & nylon chin strap
11	Gum boots	10	Gum Boot-14"
12	First aid box	10	Box containing medicines & first aid for illness/accident
13	Stretchers	2	Stretcher on trolley with stainless steel top
14	Rolling rescue stretcher	2	General (ISI Mark)

Personal Protective Equipment Cost			
Sl. No.	Description	Min Qty	Specification
15	Wheel chairs	4	Model Suvida
16	Fire Suit	2	Fire fighting suit consisting of Nomex coat & pant, fire fighting helmet, Nomex hood, knitted Nomex fire fighting hand gloves & Harvik firefighting boots
17	Multipurpose Tool Kit (with axe, hammer etc.)	1	Consists of axe head, pick, chisel and mattock, shovel
18	Fire Proof Torch	2	3 cell safety torch fire proof approved for CLASS group C & D to be used in hazardous location
19	Dragon Flash Light	2	General (ISI Mark)
20	Safety Barrier Tape (Rs. 3/mtr, roll of 250 mtrs.)	4	General (ISI Mark)
21	Bomb Blanket	1	Ballistic Kevlar Material
22	Mega Phone	1	General (ISI Mark)
23	Head Lamp		
24	Knee Pads		
25	Lockout Tag out Kit		
26	Safety belt (with complete specifications)		
27	Gloves (Electrical) (HT/ LT.)		

15.3 Cleaning and Housekeeping Tools and Tackles

- 15.3.1 Service Provider is required to at its own cost provide following listed minimum hand tools, tackles and machinery for the execution of housekeeping and cleaning services under Property management at IICCL facility
- 15.3.2 Service Provider at its own knowledge and expertise may use additional tools and tackles over and above the minimum required tools.
- 15.3.3 Service Provider shall ensure the serviceability and adequacy of such tools at all time during the tenure of the contract. The count of such machines and tools shall be quantified by Service Provider itself based on its knowledge and expertise for performing the services.
- 15.3.4 Service Provider shall ensure that all tools and tackles provided at site should be of minimum safety and quality standards as per ISI / CE or applicable standards. Some of the recommended makes are Karcher/ Eureka Forbes/ Johnson Diversy/ Taski/ Nilfisk/ Unger/IPC or equivalent. Service Provider is also advised to use products which are manufactured within the country to support the Make in India initiative of the Govt. of India.
- 15.3.5 Below mentioned is the list of minimum Housekeeping and Façade Cleaning Machines to be maintained at site for mechanized cleaning:

Sr. No	Type of Machine	Mode of Operation	Min Coverage per Hour in sq Mtr	Min Specs	Min. Qty	Make
1	Ride on - Heavy Duty Vacuum Sweeper	Battery Operated	15,000.0	Brush Width - 2 x 1500 mm; Hopper Capacity- 500 Liters	3	Diversy / Eureka / Karcher or equivalent
2	Vacuum Sweeper Walk Behind	Battery Operated	2,000.0	Brush Width - 1 x 650 mm; Hopper Capacity- 35 Liters	3	Diversy / Eureka / Karcher or equivalent
3	Box Sweepers	Manual	NA	Dual Brush System; Hopper Capacity- 40 Liters	7	Diversy / Eureka / Karcher or equivalent
4	Ride on - Commercial Floor Scrubber Drier Machine	Battery Operated	5,000.0	Scrubbing Width - 2 X 400 mm; Solution & Recovery Tank - 150 Liters	11	Diversy / Eureka / Karcher or equivalent
5	Auto Scrubber Drier Machine - Walk Behind	Battery Operated	2,000.0	Scrubbing Width - 500 mm; Solution & Recovery Tank - 50 Liters	8	Diversy / Eureka / Karcher or equivalent

Sr. No	Type of Machine	Mode of Operation	Min Coverage per Hour in sq Mtr	Min Specs	Min. Qty	Make
6	Single disc scrubbing / Polishing machine	Battery Operated	1,000.0	Scrubbing Width - 350 mm; Solution & Recovery Tank - 10 Liters	8	Diversy / Eureka / Karcher or equivalent
8	Vacuum Cleaner (Dry Vacuum) Hand Help / Back Pack	Electrical/ Battery	NA	Dry; Tank Capacity 5 Liters	2	Diversy / Eureka / Karcher or equivalent
9	Commercial Vacuum Cleaner (Wet & Dry)	Electrical	NA	Wet & Dry; Tank Capacity 30 Liters	2	Diversy / Eureka / Karcher or equivalent
10	Industrial Vacuum Cleaner (Wet & Dry)	Electrical	NA	Wet & Dry; Tank Capacity 50 Liters	2	Diversy / Eureka / Karcher or equivalent
11	Industrial Vacuum Cleaner (Wet & Dry)- ATEX Certified for Zone 22 classified Areas	Electrical	NA	Wet & Dry; Tank Capacity 100 Liters	1	Diversy / Eureka / Karcher or equivalent
12	Cold & Hot water high pressure cleaner	Electrical	NA	Pressure- 130 bar, Flow - 500 ltr /hr, Detergent Tank Capacity - 10 liters	2	Diversy/ Eureka / Karcher or equivalent
13	Escalator Cleaning Machine (Wet & Dry)	Electrical/ Battery	NA	Working width - 450 mm; Solution & Recovery Tank - 30 Liters	1	Diversy / Eureka / Karcher or equivalent

15.3.6 Below mentioned is the list of minimum Housekeeping tools and tackles to be maintained at site:

Sr. No	Type of Tool	Name of Tool
1	Cleaning Tools	Soft Bristled Brooms
2	Cleaning Tools	Hard coarse bristled brooms
3	Cleaning Tools	Wall Brooms Turk's Head
4	Cleaning Tools	Long handle cobweb brush
5	Cleaning Tools	Hard Brush
6	Cleaning Tools	Soft Brush
7	Cleaning Tools	Scrubbing Brush
8	Cleaning Tools	Corner brush with handle

Sr. No	Type of Tool	Name of Tool
9	Cleaning Tools	Toilet bowl brush
10	Cleaning Tools	Dry Mop Set
11	Cleaning Tools	Wet Mop Set
12	Cleaning Tools	Dust control Mop Set
13	Cleaning Tools	Polish applicator Mops
14	Cleaning Tools	Dust pan and brush with extended handle
15	Cleaning Tools	Lobby Dust Pan set
16	Cleaning Tools	Dual side brush for window cleaning
17	Cleaning Tools	Hang-up tool holder for mops and handles
18	Cleaning Tools	Glass Scrubbing & squeezing 2 in 1
19	Cleaning Tools	Dual bucket combo (with side bucket) with wheels
20	Cleaning Tools	Mop Wringer
21	Cleaning Tools	Hand Caddy
22	Cleaning Tools	Spray Bottles
23	Cleaning Tools	Janitor's Trolley
24	Cleaning Tools	Bucket for Glass Cleaning
25	Cleaning Tools	Flat duster
26	Cleaning Tools	Dusters and Dust Mittens
27	Cleaning Tools	Swabs and Wipes
28	Cleaning Tools	Sponges
29	Cleaning Tools	Glass Cleaning Cloth
30	Cleaning Tools	Chamois Leather
31	Cleaning Tools	Rags and Polishing Cloths
32	Cleaning Tools	Abrasives
33	Cleaning Tools	Floor Scraper Tool
34	Cleaning Tools	UV backlight and invisible ink pen Inspection Kit
35	Cleaning Tools	Flexible dust bag

15.4 Cleaning and Housekeeping Consumables

- 15.4.1 Service Provider is required to provide following listed indicative consumables for the execution of Housekeeping and Cleaning services at his own cost under Property management Fee at IICCL facility.
- 15.4.2 Service Provider at it's own knowledge and expertise may use additional consumables over and above the minimum indicated consumables.
- 15.4.3 Service Provider shall ensure the serviceability and adequacy of such consumables at all time during the tenure of the contract. The adequacy of such consumables shall be quantified by Service Provider itself based on its knowledge and expertise for performing the services.
- 15.4.4 Usage of consumables in the case of events especially for common area toilets shall be managed by Service Provider at own cost.
- 15.4.5 Service Provider shall ensure that all consumables provided at site should be of minimum product quality standards as per Green and eco friendly standards. The products before usage shall be certified by the EHS and environment and sustainability team for usage at IICCL property. Service Provider is advised to use products which are manufactured within the country to support the Make in India initiative of the Govt. of India.
- 15.4.6 Below mentioned is the list of minimum Housekeeping Consumables to be maintained at site:

Sr. No	Type of Item	Description	Specification
1	Cleaning Agents	Cleaning and Sanitizing of Bathroom / Toilet surfaces	Green Seal Certified products from Diversy Taski R1/ Reckitt Benckiser / 3M or Equivalent
2	Cleaning Agents	All-purpose cleaning agent / Hygienic Hard Surface Cleaner	Green Seal Certified products from Diversy Taski R2/ Reckitt Benckiser / 3M or Equivalent
3	Cleaning Agents	For Cleaning Glass and Mirror Cleaner	Green Seal Certified products from Diversy Taski R3/ Reckitt Benckiser / 3M or Equivalent
4	Cleaning Agents	For Furniture Polish and Cleaning / Furniture Maintainer	Green Seal Certified products from Diversy Taski 4/ Reckitt Benckiser / 3M or Equivalent
5	Cleaning Agents	Air Freshener / Room Freshener / Bathroom Freshener	Green Seal Certified products from Diversy Taski R5/ Reckitt Benckiser / 3M or Equivalent
6	Cleaning Agents	Heavy-duty toilet bowl/urinal cleaner for the removal of lime scale, stains and other residues.	Green Seal Certified products from Diversy Taski R6/ Reckitt Benckiser / 3M or Equivalent
7	Cleaning Agents	Oil and grease Removing and Cleaning Agent for water-resistant hard surfaces	Green Seal Certified products from Diversy Taski R7/ Reckitt Benckiser / 3M or Equivalent
8	Cleaning Agents	For Descaling of Metal parts in contact with water	Green Seal Certified products from Diversy Taski R8/ Reckitt Benckiser / 3M or Equivalent

Sr. No	Type of Item	Description	Specification
9	Cleaning Agents	Cleaner and Descaler for all fittings and walls in the bathroom, sink, tiles and fittings.	Green Seal Certified products from Diversy Taski R9/ Reckitt Benckiser / 3M or Equivalent
10	Algaecide and Scale Inhibitor	For Water bodies	GMP certified Green product
11	Consumables	Brass polish	Brasso or similar
12	Consumables	Naphthalene Balls	ISI Make
13	Consumables	Urinals Screen Gel Pads; anti splash and min 10 mm bristles	Pudumjee Hygiene or equivalent
14	Consumables	Surgical hand gloves (to be used by staff during cleaning)	ISI Make
15	Consumables	Air Freshener Dispenser and Spray Cartages	Odonil, Air wick, or equivalent
16	Consumables	Refill for Odour Neutralizer	Odonil, Air wick, or equivalent
17	Consumables	Bio Garbage Plastic Bags (Medium / Large / Industrial Usages) minimum thickness 50 microns	ISI Make, in accordance with Applicable Rules 2016
18	Consumables	Liquid Hand Wash soap and dispensers	Dettol / Savlon or equivalent
19	Consumables	C Fold Hand Towel (Min 20 GSM thickness) and dispensers	Pudumjee Hygiene or equivalent
20	Consumables	Toilet Rolls (Min 40 GSM thickness)	Pudumjee Hygiene or equivalent
Note: C Fold Hand Towels and Toilet Rolls not to be supplied in Swachh Bharat Toilets; to be supplied only for Service Toilets and Open Exhibition Toilets.			

15.5 Horticulture Tools and Tackles

15.5.1 Service Provider is required to at its own cost provide following listed minimum hand tools, tackles and machinery for the execution of Horticulture and Landscape maintenance services under Property management at IICCL facility

15.5.2 Service Provider at it's own knowledge and expertise may use additional tools and tackles over and above the minimum required tools.

15.5.3 Service Provider shall ensure the serviceability and adequacy of such tools at all time during the tenure of the contract. The count of such machines and tools shall be quantified by Service Provider itself based on its knowledge and expertise for performing the services.

15.5.4 Service Provider shall ensure that all tools and tackles provided at site should be of minimum safety and quality standards as per ISI / CE or applicable standards.

15.5.5 Below mentioned is the list of minimum Horticulture Machines, tools and tackles to be maintained at site:

Sr. No	Type of Tool	Name of Tool	Unit	Min. Qty
1.	Machines	Electrical Rotary Lawn mower- 16"	PCS	3.0
2.	Machines	Lawn mower- Diesel Operated 24"	PCS	1.0
3.	Machines	Manual Lawn Mowers roller type-12"	PCS	5.0
4.	Machines	Vacuum Sweeper Walk Behind	PCS	4.0
5.	Machines	Hand Blower	PCS	4.0
6.	Machines	Hedge Trimmer manual	PCS	40.0
7.	Machines	Hedge Trimmer Electric	PCS	2.0
8.	Machines	Brush cutter Petrol Operated	PCS	2.0
9.	Hand Tools	Wheelbarrows	PCS	15.0
10.	Hand Tools	Water Gun	PCS	10.0
11.	Hand Tools	Industrial Sprayers - Back Pack battery operated	PCS	2.0
12.	Watering Tools	Hose Pipe 1" 100 meters	PCS	10.0
13.	Watering Tools	Mobile Sprinklers and Tubes	PCS	10.0
14.	Watering Tools	Watering Cans 10ltr	PCS	20.0
15.	Digging Tools	Shovels	PCS	4.0

Sr. No	Type of Tool	Name of Tool	Unit	Min. Qty
16.	Digging Tools	Spades	PCS	4.0
17.	Digging Tools	Forks	PCS	4.0
18.	Cutting Tools	Flower Shears	PCS	4.0
19.	Cutting Tools	Looping Shears	PCS	4.0
20.	Cutting Tools	Grass Shears	PCS	5.0
21.	Cutting Tools	Secateurs	PCS	5.0
22.	Cutting Tools	Loppers	PCS	5.0
23.	Cutting Tools	Budding Knife & Grafting Knife	PCS	3.0
24.	Cutting Tools	Pruning and Slashing Knife	PCS	3.0
25.	Cutting Tools	Pruning Saw, Bill Hook	PCS	10.0
26.	Cutting Tools	Axes and Hatchets	PCS	3.0
27.	Planting Tools	Trowels	PCS	10.0
28.	Planting Tools	Dibbers	PCS	10.0
29.	Planting Tools	Bulb Planters	PCS	5.0
30.	Cultivating Tools	Bowhead Rakes	PCS	3.0
31.	Cultivating Tools	Flathead Rakes	PCS	3.0
32.	Cultivating Tools	Lawn and Leak Rakes, Moss Rakes	PCS	2.0
33.	Cultivating Tools	Hoes	PCS	2.0
34.	Hand Tools	Spray Bottles 1ltr	PCS	10.0
35.	Hand Tools	Plant Clips	PCS	10.0
36.	Hand Tools	Crow Bars	PCS	2.0
37.	Pesticide Sprayer	HTP Pesticide sprayers 2HP ,4stroke	PCS	1.0
38.	Saw	Chain saw 22 inch (Petrol)	PCS	2.0

15.6 Horticulture Consumables

- 15.6.1 Service Provider is required to provide consumables for the execution of Horticulture and Landscaping services at his own cost.
- 15.6.2 Consumables shall include Manure, Fertilizers, Pesticides, Fungicides, Bactericides, Insecticides and Herbicides of minimum product quality standards as per Green and eco friendly standards. The products before usage shall be certified by the EHS and environment and sustainability team for usage at IICCL property. Service Provider is advised to use products which are manufactured within the country to support the Make in India initiative of the Govt. of India.
- 15.6.3 Service Provider at it's own knowledge and expertise may use additional consumables over and above the minimum indicated consumables.
- 15.6.4 Service Provider shall ensure the serviceability and adequacy of such consumables at all time during the tenure of the contract. The adequacy of such consumables shall be quantified by Service Provider itself based on its knowledge and expertise for performing the services.

16 Annexure 7 - Fee Schedule

16.1 Fee Schedule for Transition Services

FOR TRANSITION MANAGEMENT SERVICES AT IICC, DWARKA			
Sr. No	Cost Heads	Approved Monthly Cost	Billed Monthly Amount
A	Manpower Cost - Management and Executive Staff	-	
B	Manpower Cost - Ground Staff (Covered Under Minimum Wages)	-	
Total Monthly Billed Amount			
GST (as Applicable) on billed amount			
Total Billed Amount including GST			

Note:

1. Service Provider is required to provide the detailed breakup of the cost heads of the above summary sheet as per approved and agreed cost of Transition services in Section B of Appendix 21 in support of the summary sheet along with Compliance certificate and additional supporting documents prescribed in Section 9.30.
2. Any cost exceeding the approved monthly cost shall not be payable to Service Provider in any circumstances unless prior approval from SPV is obtained.

16.2 Fee Schedule for Property Management Services

OPERATION & MAINTENANCE AT IICC, DWARKA					
Sr. No	Cost Heads	Approved Annual Cost	Billed Monthly Amount	Billed Amount Year to Date	Balance Approved Cost
A	Manpower Cost - Management and Executive Staff	-	0.00		
B	Manpower Cost - Ground Staff (Under Minimum Wages)	-	0.00		
C	Engineering Services- Spares, Specialized Repair and Consumable Cost- Common	-	0.00		
D	Engineering Services- Spares and Specialized Repair Cost (Low Side)- Occupant Area	-	0.00		
E	ICT System - Repair & Maintenance including Consumables	-	0.00		
F	Engineering Tools & PPE	-	0.00		
G	Housekeeping Services- Machine, Tools, Spares and Consumables	-	0.00		
H	Horticulture Services- Machine, Tools, Spares and Consumables	-	0.00		
I	Pest Control and Sanitization Services	-	0.00		
J	Heavy Equipment and Vehicles (Rental and Operation)	-	0.00		
K	Audits	-	0.00		
L	Administrative Expenses	-	0.00		
Total Monthly Billed Amount- O &M					
GST (as Applicable) on billed amount					
Total Billed Amount including GST					

Note:

1. Service Provider is required to provide the detailed monthly breakup of the cost heads of the above summary sheet as per approved and agreed cost of O & M services in Section C of Appendix 21 in support of the summary sheet along with Compliance certificate and additional supporting documents prescribed in Section 9.30 for approval of SPV before raising GST Invoice.
2. Any cost exceeding the approved monthly cost shall not be payable to Service Provider in any circumstances unless prior approval from SPV is obtained.

16.3 Fee Schedule for Event Services

ADDITIONAL SERVICES FOR EVENT DAYS ON MONTHLY BASIS AT IICC, DWARKA					
Sr. No	Cost Heads	Approved Event Cost Per Day	Event Days Billed in Month	Billed Amount	Total Event Days Billed in Year to Date
A	Manpower Cost - Ground Staff	-	0.00		
B	Housekeeping Services- Machine, Tools, Spares and Consumables	-	0.00		
C	Management Fee (inclusive of Service Provider & Subcontractors)		0.00		
Total Monthly Billed Amount- Additional O&M for Event Days					
GST (as Applicable) on billed amount					
Total Billed Amount including GST					

Note:

1. Service Provider is required to provide the detailed breakup of the cost heads of the above summary sheet as per approved and agreed cost of Transition services in Section D of Appendix 21 in support of the summary sheet along with Compliance certificate and additional supporting documents prescribed in Section 9.30.
2. Any cost exceeding the approved event day cost shall not be payable to Service Provider in any circumstances unless prior approval from SPV is obtained.
3. The Service Provider shall be evaluated on performance with the Service level performance score cards for specific services on monthly basis as described in Annexure 4 of the agreement.
4. In event of drop in Service Delivery Levels, arising out of performance / non-performance / inadequate performance of the Services (as per the provisions of this Agreement), IICC shall impose Penalty to the Second Party in form of deductions from the any Payable amount to the Second Party as per the followings: Service Quality Level Slab and respective Penalty:

17 Annexure 8 - Performance Gap Deductions

S. No.	Service Line	Weighted %	Target Result	Scenario - 1		Scenario - 2		Scenario - 3	
				Score below 10% from Target result	Penalty on MF (Max 25% on total MF)	Score below 15% from Target result	Penalty on MF (Max 35% on total MF)	Score below 24% from Target result	Penalty on MF (Max 50% on total MF)
1	General Management Services	5.0%	98.97%	88.97%	1.25%	83.97%	1.75%	74.97%	2.50%
2	Customer Relationship Management	5.0%	97.64%	87.64%	1.25%	82.64%	1.75%	73.64%	2.50%
3	Compliance Management	10.0%	100.00%	90.00%	2.50%	85.00%	3.50%	76.00%	5.00%
4	EHS Services	6.0%	99.07%	89.07%	1.50%	84.07%	2.10%	75.07%	3.00%
5	Emergency and Disaster Mgmt	8.0%	100.00%	90.00%	2.00%	85.00%	2.80%	76.00%	4.00%
6	Quality and Sustainability Mgmt	7.0%	100.00%	90.00%	1.75%	85.00%	2.45%	76.00%	3.50%
7	Financial, Accounting, Procurement & Insurance Management	6.0%	99.66%	89.66%	1.50%	84.66%	2.10%	75.66%	3.00%
8	Project Coordination and Fitout Management	4.0%	100.00%	90.00%	1.00%	85.00%	1.40%	76.00%	2.00%
9	Engineering Services Management	6.0%	100.00%	90.00%	1.50%	85.00%	2.10%	76.00%	3.00%
10	Engineering O & M Services-Operational	7.0%	96.39%	86.39%	1.75%	81.39%	2.45%	72.39%	3.50%
11	Engineering O & M Services-Response	7.0%	99.00%	89.00%	1.75%	84.00%	2.45%	75.00%	3.50%
12	Janitorial, Waste Management and Horticulture Services	8.0%	97.63%	87.63%	2.00%	82.63%	2.80%	73.63%	4.00%

S. No.	Service Line	Weighted %	Target Result	Scenario - 1		Scenario - 2		Scenario - 3	
				Score below 10% from Target result	Penalty on MF (Max 25% on total MF)	Score below 15% from Target result	Penalty on MF (Max 35% on total MF)	Score below 24% from Target result	Penalty on MF (Max 50% on total MF)
13	ICT Operation & Maintenance	9.0%	95.00%	85.00%	2.25%	80.00%	3.15%	71.00%	4.50%
14	ELV System Operation and Maintenance	7.0%	95.00%	85.00%	1.75%	80.00%	2.45%	71.00%	3.50%
15	Security Management Services	5.0%	99.82%	89.82%	1.25%	84.82%	1.75%	75.82%	2.50%
	Total	100%	98.55%	89.02%	25.00%	84.02%	35.00%	75.02%	50.00%

The above-mentioned Performance gap penalty shall be implemented on monthly basis on the monthly billing/ fee (MF) submitted by Service provider and shall be implemented on respective service line.

18 Annexure 9 - Certificate of Compliance

(To be given on Company Letter Head)

For the period commencing on DDMMYY and ending on DDMMYY.

I, _____, the undersigned, do hereby certify that I am authorized and competent to furnish this Certificate on behalf of the Company M/s. _____ (Contractor) appointed by India International Exhibition and Convention Center Limited (the "SPV"), having its Registered Office at _____, for providing property Management services to the Project IICL, Dwarka located at _____ vide Contract/Agreement dated -----, do hereby confirm that to the best of my/our knowledge and information gathered from the record, as on the date of this certificate, there is no default/ contravention committed by the Contractor during the discharge of contractual obligations and relating to the services by the Contractor under any of the acts / statutes / enactments or any rules, regulations, guidelines, orders or notifications including but not limited to laws relating to fire, environment, health and safety etc., as may be applicable from time to time, non-compliance of which may entail civil and criminal liabilities against the Company/Project during the tenure of the said Contract/Agreement.

I further undertake and confirm that M/s. _____ (Contractor) on whose behalf I am acting as authorized representative, shall be solely held accountable/responsible for any of the violations of aforesaid statutes/ enactments, rules, regulations etc. during the currency of the said Contract/ Agreement.

Signature_____

Name: _____

Designation:

Name of the Project:

19 Annexure 10 - List of Compliance

A. List of General Compliances

General building compliances are provided in this section. This List is indicative and not exhaustive. It is the sole responsibility of the Service Provider to determine and ensure compliances and prepare its own exhaustive list on behalf of the SPV/IICCL.

S No	Compliance Area /Act	Governing Authority	Periodicity	Remarks
	General Building Compliances			
1.	Occupancy certificate	Delhi Development Authority	One Time	
2.	Drawings & Designs	Delhi Development Authority/ Municipal Laws/ Local Laws	One Time	As & when required
3.	Renovation Alteration Approval	Municipal Law	-	
	Interior fit out (Done in accordance with Fire scheme, electrical scheme approvals, service plan estimates/any other local laws/building bylaws.)	Municipal laws, Acts, Rules & regulations etc.	-	As & when required
5.	Commercial Launch of Project	State/ Municipal laws, Acts, Rules & regulations etc.	-	As & when required
6.	Sewer Connection Approval (Sewer of the building connected to Municipal Sewer lines directly or through Sewage Treatment Plant)	Municipal Law/local laws	One Time	No discharge of sewerage/water done on open land/open nala without requisite approval
7.	Approval for Bore well (if required)	Delhi Jal Board	One Time	
8.	Water Connection Approval (if required)	Delhi Jal Board	One Time	
9.	Environmental Clearance (applicable if planned builtup area is more than 20,000sq. mtr and construction started after 2004)	State Environment Impact Assessment Authority (In Delhi Ministry of Environment & Forest)	One Time	

S No	Compliance Area /Act	Governing Authority	Periodicity	Remarks
	General Building Compliances			
10.	Installation of Sewage treatment plant	Delhi Pollution Control Committee	One Time (inspection yearly)	Wherever required
11.	Monitoring of stack emissions, influent & effluent of STP and noise level outside DG room, ground water, ambient air, soil, ES and submission of Six-monthly Report. (Adequate Green Belt is maintained for controlling noise levels around the periphery of the Building)	Delhi Pollution Control Committee	Half Yearly	(for Oct – March by 30 Sep with ES – Form V & April- Sep by 31 Jan – Test being done by SIMA Lab
12.	Submission of Environmental Statement (ES) in Form-V ES for previous financial year ending 31 st March) under Environment Protection Rules,1986	Delhi Pollution Control Committee	Annually	By 30 th Sep -ES for previous financial year ending 31 st March)
13.	Intimation of excess discharge of environmental pollutants	Environment Health Services	As & when required	
14.	Consent to Establish	Delhi Pollution Control Committee	One Time	
15.	Consent to Operate (CTO)	Delhi Pollution Control Committee	Annually	Renewal as per certificate
16.	Application for authorization of storage / disposal of Hazardous Waste – FORM 1(under Hazardous waste Management Rules,2008 as amended till date)	Delhi Pollution Control Committee	Yearly	Before expiry of certificate
17.	Return of sale of used batteries in Form-VIII & (Filing of return of Used Batteries in form-IX by 30 th June & 31 st December under Batteries (Management and handling) Rules, 2001)	Delhi Pollution Control Committee	Half Yearly	As for SI No 1

S No	Compliance Area /Act	Governing Authority	Periodicity	Remarks
	General Building Compliances			
18.	Submission of Annual Return for hazardous waste in Form-4 (under Hazardous waste Management Rules,2008 as amended till date)	Delhi Pollution Control Committee	Annually	Return for previous financial year ending 31 st March.
19.	Submission of Sample Testing Fee by DD of Rs 4200	Delhi Pollution Control Committee	Annually	In April
20.	Maintain Record of Hazardous Waste in Form 3(under Hazardous waste Management Rules,2008 as amended till date)	Delhi Pollution Control Committee	Regular	Instead of Form-3 a Register can be maintained with details as per Form-3
21.	Maintaining Inspection Book for site visit by SPCB Official	Delhi Pollution Control Committee	continual	
22.	Mark the container of Hazardous waste as Performa -12	Delhi Pollution Control Committee	One time	When a new container is used
23.	Send/ sell hazardous waste to an authorized recycler within 90 days and 1) Prepare 6 copies of manifest in Form-13 (Retain 2 copies, white & yellow copies, and rest 4 copies to be handed over to the transporter) 2) Provide relevant information (in Form-11) to the transporter	Delhi Pollution Control Committee	Once in 3 months	When the hazardous waste is sent/sold to authorized recycler – M/S Lubri Sales
24.	Submit white copy of the manifest (in Form-13) to SPCB (Intimation of transportation of hazardous waste to State Pollution Control Board), authorized vendor should have NOC from interstate for transportation of hazardous waste	Delhi Pollution Control Committee	Once in 3 months	Immediately after the hazardous waste is sent/sold to authorized recycler
25.	Occurrence of accident, unforeseen act or event resulting in discharge of poisonous, noxious or polluting matter into a stream or well or sewer or on land,	Central - Environment Health Services	On occurrence	

S No	Compliance Area /Act	Governing Authority	Periodicity	Remarks
	General Building Compliances			
26.	DG Set fitness certificate (if DG is operational in the building)	Chief Electrical Inspector	Renewal every Three Year	Inspection yearly
27.	DG Set should have label with their manf. Make, date, capacity etc (Records of maintenance of DG sets as per manufactures are available at site)	Delhi Pollution Control Committee	One Time	
28.	Maintain the diesel generator as per the preventive maintenance procedure in consultation with the DG set manufacturer on daily basis	Environment Health Services	Daily Basis	
29.	Provide Acoustic enclosure with an insertion loss of minimum 25 dB(A) in an acoustic room before operation of the Diesel Generator sets and thereafter	Environment Health Services	One Time	
30.	Keep noise levels below 65 dB(A) Leq during day time and 55 dB(A) Leq during night time for Commercial area and 75dB(A) Leq during day time and 70dB(A) Leq during night time for industrial area	Environment Health Services		
31.	Maintenance of emission standards for generator sets (more than 800 KW)	Environment Health Services		
32.	Lift _escalator installation approval	Chief Elec Inspector	One Time	As & when required
33.	Permission/Registration of Lift & Escalators operation	Chief Elec Inspector	One Time	Inspection yearly
34.	Renewal of Lift Permission	Chief Elec Inspector	Yearly	
35.	Electrical Sub Station Approval	Chief Elec Inspector	One Time	
36.	Renewal of Electrical substation approval	Chief Elec Inspector	Yearly	
37.	Electricity Scheme Approval	Municipal Law/ Chief Elec Inspector	One Time	

S No	Compliance Area /Act	Governing Authority	Periodicity	Remarks
	General Building Compliances			
38.	Ensure that person who appointed for Electrical Supervisor should have Certificate of Competency issued by the State Government	Electricity Act, 2003 and Indian Electricity Rules, 1956 rule 45		
39.	Records of all tests, tripping, maintenance works and repairs of all equipment, cables and supply lines shall be duly kept in such a way that these records can be compared with earlier ones	Electricity Act, 2003 and Indian Electricity Rules, 1956 – rule 65 A	On occurrence	
40.	Placing of High Voltage insulated mat inside all Lift Machine room & near all LT / HT Panel, approved as per IS 15652 :2006	Electricity Act, 2003 and Indian Electricity Rules, 1956		
41.	Danger notices are displayed at the establishment of medium and high voltages			
42.	Electrical shock instructions are displayed in DG, LT, Pump Room, Control room			
43.	Fire NOC	Delhi Fire Services-Sr Fire Offr/ Municipal Laws/ Local Laws	Yearly	
44.	Fire fighting scheme Approval	Delhi Fire Services	One Time	
45.	All the fire extinguishers should have proper level with date of inspection (should be checked by Agency Quarterly and marked on the same), Fire extinguishers are easily accessible hanged on proper locations.	Delhi Fire Services- Sr Fire Offr / Municipal Laws/ Local Laws	Yearly	
46.	Provide fire extinguishers near installations, service stations or storage sheds used for storage of petroleum	Central-Regulatory-Oil and Gas		

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

S No	Compliance Area /Act	Governing Authority	Periodicity	Remarks
	General Building Compliances			
47.	Indian Standard Code of Practice for Selection, Installation and Maintenance of Portable First Aid Fire Extinguishers and other fire fighting aids (record to be maintained for refilling & HPT carried out by Agency),	Environment Health Services	One Time	Yearly inspection
48.	Display the inspection card to the body of the extinguisher indicating the serial numbers of the extinguishers, date of initial charging and also the next due date for refilling immediately after refilling the fire extinguishers, ensure that fire extinguishers are refilled every year by an external agency.	Environment Health Services	Yearly	
49.	Submission of water cess Bill	Delhi Pollution Control Committee	Annually	On receipt of Bill
50.	Monthly Return for Water Cess in Form-1 (in form –XIII under water Cess Rules,1979)	Delhi Pollution Control Committee	Before 5th of calendar month	Return for water consumed in previous month
51.	Approval for rain water harvesting	Central Ground Water Authority	One Time	
52.	Approval for storm water connection	Municipal Law	One Time	
53.	Change Of Land Use	Land Revenue Act	One Time	
54.	Building Development License LC –V	Municipal Law	One Time	
55.	Explosive Substances Gas Petroleum Approval (HSD bulk storage- if more than 999 Liters / DG set)	Delhi Pollution Control Committee	One Time	
56.	License to play music in Public Places.	Municipal laws, Acts, rules, regulations etc.	Annual	Applicable if music is played in the building
57.	Approval/license from Indian performing rights society for public performance		Every three year	Applicable if public performance is carried on in the building
58.	License for Signages	Indian Copyright Act/Municipal Act/ Rules		wherever required

S No	Compliance Area /Act	Governing Authority	Periodicity	Remarks
	General Building Compliances			
59.	Kiosk Registration	Local Municipal Laws.	One Time	
60.	Third Party liability Insurance	The Public Liability Insurance Act, 1986.	Annual	
61.	Lease/ Rent	Rent Control Acts and rules/ Transfer of Property Act regulations/ notifications etc.		As & when required
62.	Shops & Establishment Registration	The Shops and Establishment Act (area/div labour inspector (Labour dept) for shops and establishments)	One Time (renewal every 3 Years)	Registration of shops under the Act has been repealed since 1989
63.	Layout zoning site plan Approval	Municipal Laws/ Local Laws	One Time	
64.	Building Plan Approval	Municipal Laws / Local Laws	One Time	
65.	Airport Height NoC	Aircraft Act	One Time	Wherever required
66.	Service Plan Estimates	Municipal and Local Laws	One Time	
67.	SEZ Notification	Special Economic Zone Act, 2005	One Time	Wherever required
68.	Export Processing Zone (EPZ) Approval	Ministry of Commerce and Industry (Dept. of Commerce – EPZ Section) Authorized Operations Commencement	One Time	Wherever required
69.	NHAI Approval	Control of National Highway Act, 2002	One Time	Wherever required
70.	Ancient Monument Approval	Ancient Monuments and Archaeological Sites and Remains Act, 1958/ Rules 1959	One Time	Wherever required
71.	No Encroachment	Municipal Laws/ Local Laws	One Time	
72.	Municipal Taxes	Municipal Laws/ Local Laws	As & when received notice received	

S No	Compliance Area /Act	Governing Authority	Periodicity	Remarks
	General Building Compliances			
73.	No Obstruction to Govt. Official	Municipal Laws/ Local Laws	As & when required	No govt. official duly authorized so obstructed from entering in to project site to perform his lawful duties
74.	Hoarding Approval	Municipal Laws/ Local Laws		Wherever applicable
75.	Coastal Regulation Zone (CRZ) Approval	CRZ Notification	One Time	Wherever applicable
76.	Protection of Trade Marks and Non Infringement of Trade Mark	Trade Mark Act, 1999	One Time	Wherever applicable (All marks, names, logos etc. concerned to the project)
77.	Copyright	Copyright Act, 1957	One Time	Wherever applicable
78.	Stamp Duty	Indian Stamp Act	One Time	Required at the time of registration
79.	Registration	Indian Registration Act	One Time	As & when required
80	Obtaining and renewal of Certifications/ Clearances for all the security devices related to radioactive / X-Ray equipment	AERB and Concerned Authorities	As & when required	Wherever applicable

B. List of Compliances for Hotels / Retail Area / Food Courts

General compliances for Hotels, Retail and Food court are provided in this section. This List is indicative and not exhaustive. It is the sole responsibility of the Service Provider to determine and ensure compliances for all occupants inside the project and prepare its own exhaustive list on behalf of the SPV.

S No	Compliance Area /Act	Governing Authority	Periodicity	Remarks
1	Police License / Registration.			
2	License under Shops & Establishments Act.	The Shops and Establishment Act (area/div labour inspector (Labour dept) for shops and establishments)	One Time	Renewal as per Govt policy
3	License under Prevention of Food Adulteration Act.	Food Safety and Standards Association of India administrated by the Ministry of Health & Family Welfare, Government of India	One Time	Applicable for all Hotels and Restaurants, Food Courts
4	Health Trade License	Food Safety and Standards Association of India administrated by the Ministry of Health & Family Welfare, Government of India	Annual	
5	Eating House License.	Police Commissioner, Delhi Police	Annual	Wherever applicable
6	Municipal Beer Bar License.	Local Excise Commissioner	Annual	Wherever applicable
7	Bar License (Foreign Liquor).	Local Excise Commissioner	Annual	Wherever applicable
8	Mild Liquor License.	Local Excise Commissioner	Annual	Wherever applicable
9	Central Excise License for Bakery Products.	Local Excise Commissioner	Annual	Wherever applicable
10	Copy Right License for Playing of Music.	Obtain a license in compliance to the Copyright Act of 1957 issued from Phonographic Performance Limited and Indian performing Right Society	Annual	Wherever applicable
11	Registration under the Luxury Tax Act.	Income Tax Department	One Time	Wherever applicable
12	GST Registration	Income Tax Department	One Time	Applicable for all Hotels and Restaurants, Food Courts

S No	Compliance Area /Act	Governing Authority	Periodicity	Remarks
13	Trademark Registration		One Time	Applicable for all Hotels and Restaurants, Food Courts
14	Registration under the Pollution Control Act.	Delhi Pollution Control Committee	Annual	Applicable for all Hotels and Restaurants, Food Courts
15	License for Chimney under the Smoke Nuisance Act.	Delhi Pollution Control Committee	Annual	Wherever applicable
16	License for storage of Diesel Oil.		Annual	Wherever applicable
17	License for storage of Kerosene & Compressed Gas (LPG).	Local / Municipal Laws / National Building Code	Annual	Wherever applicable
18	Cold Storage License, (if over 25 cubic ft.).	Local / Municipal Laws / National Building Code	Annual	Wherever applicable
19	License for Boiler & Generators and Mixers and Grinders.		Annual	Wherever applicable
20	Entertainment License on Festival Occasions		Annual	Wherever applicable
21	Registration under the Weights & Measures Act.	Legal Metrology Act, 2009	One Time	Wherever applicable
22	Factory License for Laundry.		As required	Wherever applicable
23	Registration & Permits under the Motor Vehicle Act for Tourist Coaches / Taxis.	RTO Office, New Delhi	One Time	Wherever applicable
24	Sign Board Directions, Neon Signs.	Municipal Laws/ Local Laws	One Time	Wherever applicable
25	License to deal in Foreign Exchange under FEMA.		Annual	Wherever applicable
26	Temporary License for Awnings & covering of Terrace during monsoon.	Municipal Laws/ Local Laws	Annual	Wherever applicable
27	Building Completion Certificate.	Municipal Laws/ Local Laws	One Time	Wherever applicable
28	Lodging House License	Department of Tourism	One Time	Wherever applicable
29	Approval from the Department of Tourism, Government of India.	Department of Tourism	One Time	Applicable for all Hotels
30	Classification of Hotel Category (Star Rating)	Department of Tourism	Annual	Applicable for all Hotels
31	Registration from GTDC for new projects under the Package Scheme of Incentives.	Department of Tourism	One Time	Wherever applicable

S No	Compliance Area /Act	Governing Authority	Periodicity	Remarks
32	Registration under the Contract Labour Act.	Department of Labour	One Time	Wherever applicable
33	Registration under the Apprentices Act.	Department of Labour	One Time	Wherever applicable
34	Registration under the Provident Fund Act.	Department of Labour	One Time	Wherever applicable
35	Registration under the ESI Act.	Department of Labour	One Time	Wherever applicable
	Consumer protection rights under Food Court	Consumer Protection Act	As required	Wherever applicable
	Monopolistic and Restrictive Trade Practices order Competition Order Food Court	Monopolistic & Restrictive Trade Practices Act	As required	Wherever applicable

C. List of Labour Compliances

Labour compliances are provided in this section. This List is indicative and not exhaustive. It is the sole responsibility of the Service Provider to determine and ensure compliances and prepare its own exhaustive list on behalf of the SPV.

S No	Compliance Area /Act	Governing Authority	Periodicity	Remarks
	Labour Law			
1	Contractor Compliance	Compliance certificate to be taken from each Contractors	Yearly	Applicable for all Contractors
2	Employees provident fund	Employees' Provident Funds & Misc. Provisions Act, 1952 & the Scheme	Yearly	As required (Contractor's responsibility)
3	Payment of equal remuneration	Equal Remuneration Act, 1976	Yearly	As required (Contractor's responsibility)
4	Contract Labour Act	Contract Labour (Regulation and Abolition) Act, 1970 and Rules, 1971[NOTE – Applicable to every establishment in which 20 or more workmen are employed or if a Contractor directly employs 20 or more workmen.]	Yearly	As required (Principal SPV's responsibility)
5	Interstate migrant workman	The Inter-State Migrant Workmen (Regulation of Employment) And Conditions of Service) Act, 1979		As required (both by Principal Employer's & Contractor's responsibility)

S No	Compliance Area /Act	Governing Authority	Periodicity	Remarks
	Labour Law			
6	Payment of wages	The Payment of Wages Act, 1936. [NOTE – Applicable if a workman draws wage upto Rs.6500/- per month]		As required (Contractor's responsibility)
7	Compensation in case of deaths	Employee Compensation Act, 1923 & Rules, 1924.[NOTE- This Act only applies where ESI Act is not applicable.]		As required (both by Principal Employer & Contractor's responsibility)
8	Bonus to workers	Payment of Bonus Act, 1965 & Rules, 1975	Yearly	As required (Contractor's responsibility)
9	Maternity benefits	Maternity Benefit Act, 1961		As required (Contractor's responsibility)
10	Payment of minimum wages	The Minimum Wages Act, 1948		On or before 7th of calendar month
11	Labor welfare fund Act	The Labour Welfare Fund Act, 1965 or any other Labour Welfare Fund State Act, rules, regulation etc.		As required (both by Principal SPV's & Contractor's responsibility)
12	Restriction of child employment	Prohibition of Child Labour Law		As required (Contractor's responsibility)
13	Contribution payable to be deposited with ESI authorities latest by 15th of every month	Employees' State Insurance Act, 1948		As required (Contractor's responsibility)
14	Payment of Gratuity	Payment of Gratuity Act, 1972		As & when required
15	Labour Grievance Redressal	Industrial Disputes Act, 1947		If applicable

D. List of Additional Compliances (as per applicability)

Labour compliances are provided in this section. This List is indicative and not exhaustive. It is the sole responsibility of the Service Provider to determine and ensure compliances and prepare its own exhaustive list on behalf of the SPV.

S No	Compliance Area /Act	Governing Authority	Periodicity	Remarks
	Additional Compliances			
1	Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act, 2003 and Prohibition of Smoking in Public Places Rules, 2008 - Display a warning as No Smoking Area prominently at the entrance of the public place in English or one Indian language	Environment Health Services		
2	Prohibit ashtrays, matches, lighters or other things designed to facilitate smoking in the public place	Environment Health Services		
3	Display the name of the person(s) to whom a complaint of any violation may be made	Environment Health Services		Display the name on contact person on hazardous display board
4	Ensure all accidents are recorded and records available	Register to be made and maintained by security	On occurrence	
5	Ensure all show cause notices are available and are replied to	Register/file to be maintained		As and when received
6	Gas Bank as per Gas Cylinder Act			(Required only where Gas Bank installed)
7	Use of SI units	Standard of Weights & Measures Act,1976		As & when required

20 Annexure 11 - Equipment and Utilities List

Based on the information available as on date, following data, which are fairly sufficient for the purpose of bidding may be considered. However, this list of equipment and utilities may vary, and it shall be updated during transition phase and shall be handed over to Service Provider. No claim of any additional cost on account of deviation in the list of equipment and utilities shall be admissible.

20.1 Electrical System for Common Area and Occupied Area

1. Electrical Sub Station 1 (ESS -1)

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
1.1.	APFC Panel	APFC Panel	KVAR	50.00	1	Tricolite / P2 Power		Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.2.	Battery Charger	Battery Charger	V AH	110 200	1	Caldyne (Chloride Power)		Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.3.	Distribution Board (DB)	ACDB	Amp	100.00	1	Tricolite		Operation & maintenance work under scope of Service Provider/ Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
1.4.	GIS Set	5 BAY GIS SET	KV	66.00	1	GE	F35	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.5.	HT Panel	LILO HT Panel	Amp	800.00	1	L&T	VK10L25H	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
1.6.	Isolator Panel	TP ISOLATOR PANEL	Amp	32.00	2	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
1.7.	Isolator Panel	TP ISOLATOR PANEL	Amp	63.00	2	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
1.8.	Lighting Panel	Emergency light O/G Panel	KW	8.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
1.9.	Main LT Panel	Main LT Panel	KW	131.00	1	Tricolite	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.10.	Power Distribution Panel	Ventilation Panel	KW	18.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
1.11.	Power Distribution Panel	Light & Power Panel	KW	41.49	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
1.12.	Power Distribution Panel	UPS O/G PANEL	KW	12.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
1.13.	Power Distribution Panel	EOT Crane	KW	2.20	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
1.14.	Transformers	HT / LT Transformer 11/.433KV, 50Hz	KVA	200.00	1	Volt amps	11/0.415kV	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.15.	Transformers	HT Transformers 66/11KV	MVA	50.00	1	Bharat Bijlee	66/11 KV	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.16.	UPS	UPS	KVA	20.00	4	EATON	93E	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.17.	Distribution Boards	LDB, UDB, PDB	Amps	32.00 63.00	5 2	L&T		Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
1.18.	Neutral Grounding Reactor	NGR	Amp	400.00	1	Resitech Electricals	R-PSS 304	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment					29			

2. Electrical Sub Station 2 (ESS 2)

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
2.1.	APFC Panel	APFC Panel	KVAR	50.00	1	Tricolite / P2 Power		Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
2.2.	Battery Charger	Battery Charger	V AH	110 200	1	Caldyne (Chloride Power)		Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
2.3.	Distribution Board (DB)	ACDB	Amp	100.00	1	Tricolite		Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
2.4.	GIS Set	5 BAY GIS SET	KV	66.00	1	GE	F35	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
2.5.	HT Panel	LILO HT Panel	Amp	800.00	1	L&T	VK10L25H	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
2.6.	Isolator Panel	TP ISOLATOR PANEL	Amp	32.00	2	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Provisions Contract
2.7.	Isolator Panel	TP ISOLATOR PANEL	Amp	63.00	2	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
2.8.	Lighting Panel	Emergency light O/G Panel	KW	8.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
2.9.	Main LT Panel	Main LT Panel	KW	131.00	1	Tricolite	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
2.10.	Power Distribution Panel	Ventilation Panel	KW	18.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
2.11.	Power Distribution Panel	Light & Power Panel	KW	41.49	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
2.12.	Power Distribution Panel	UPS O/G PANEL	KW	12.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Provisions Contract
2.13.	Power Distribution Panel	EOT Crane	KW	2.20	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
2.14.	Transformers	HT / LT Transformer 11/.433KV, 50Hz	KVA	200.00	1	Volt amps	11/0.415kV	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
2.15.	Transformers	HT Transformers 66/11KV	MVA	50.00	1	Bharat Bijlee	66/11 KV	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
2.16.	UPS	UPS	KVA	20.00	4	EATON	93E	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
2.17.	Distribution Boards	LDB, UDB, PDB	Amps	32.00 63.00	5 2	L&T		Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
2.18.	Neutral Reactor Grounding	NGR	Amp	400.00	1	Resitech Electricals	R-PSS 304	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment					29			

3. DG Yard

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
3.1.	APFC Panel	DG Building APFC PANEL-1 AND 2	KVAR	150.00	2	Tricolite / P2 Power		Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.2.	C&R Panel	C&R Panel; 09 Nos. DG's Relay set 01 no. PLC Logic controller BMS / SCADA			2	Captiva (Advance)		Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.3.	Cooling Tower	Cooling Towers @ 130 TR	TR	130.00	18	Paharpur		Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.4.	Cooling Tower	Cooling Towers @ 2400 TR for HVAC	TR	2,400.00	6	Bell	Model No-2BCTi-200XER	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.5.	DG Set	DG (Water Cooled) 11 KV	KVA	2,000.00	18	Diesel Engine - MTU Alternator - Leroy Somer	Diesel Engine - 16V4000G14F Alternator - LSA53.2XL9	Comprehensive AMC by SPV including B & C Check with spares and consumables; Routine Operation as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
3.6.	DG Synchronization Panel	DG SYNC PANEL 1 (11 KV)	KW	19394	1	L&T		Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.7.	DG Synchronization Panel	DG SYNC PANEL 2 (11 KV)	KW	18,348.00	1	L&T		Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.8.	HT Panel	HT Change Over panel 1 (DG Building)	Amp	800.00	1	L&T	VK10L25H	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.9.	HT Panel	HT Change Over panel 1B (Near ESS-1)	Amp	800.00	1	L&T	VK10L25H	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.10.	HT Panel	HT Change Over panel 2A (Convention Center)	Amp	800.00	1	L&T	VK10L25H	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.11.	HT Panel	HT Change Over panel 2B (Convention Center)	Amp	800.00	1	L&T	VK10L25H	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
3.12.	HT Panel	HT Change Over panel 3 (Grand Foyer-1&2)	Amp	800.00	1	L&T	VK10L25H	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.13.	HT Panel	HT Change Over panel 7 (EH-2)	Amp	800.00	1	L&T	VK10L25H	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.14.	HT Panel	HT Change Over panel 8 (EH-1)	Amp	800.00	1	L&T	VK10L25H	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.15.	HT Panel	HT Change Over panel 8A (External EH-1 SS)	Amp	800.00	1	L&T	VK10L25H	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.16.	HT Panel	HT Change Over panel 8B (External EH-2 SS)	Amp	800.00	1	L&T	VK10L25H	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.17.	Lighting Panel	DG Building LIGHTING PANEL	KW	27.42	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
3.18.	UPS Incoming Panel (Emg.)	DG Building 32A MCCB	KW	5.8	1	Tricolite	-	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
3.19.	UPS Incoming Panel (ELV)	DG Building 32A MCCB	KW	2.0	1	Tricolite	-	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
3.20.	NIC & NGR Panel	NIC & NGR Panel	Amp	11 KV / 60.5Ω, 10sec, 105A	2	National Resistors		Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.21.	Power Distribution Panel	DG Building COOLING TOWER PANEL-1	KW	60		Advance		Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
3.22.	Power Distribution Panel	DG Building COOLING TOWER PANEL-2	KW	60	1	Advance		Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
3.23.	Power Distribution Panel	DG Building EL UPS O/G PANEL	KW	5.18	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
3.24.	Power Distribution Panel	DG Building ELV UPS O/G PANEL	KW	2.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
3.25.	Power Distribution Panel	DG Building MAIN LT PANEL (DG Building)	KW	1136.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
3.26.	Power Distribution Panel	DG Building Power Distribution Panel	KW	29.30	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
3.27.	Power Distribution Panel	DG Building PUMP PANEL-1 & 2	KW	88.00	2	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
3.28.	Power Distribution Panel	DG Building VENTILATION PANEL-1	KW	220.00	1	Advance		Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
3.29.	Power Distribution Panel	DG Building VENTILATION PANEL-2	KW	242.00	1	Advance		Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
3.30.	Transformers	HT / LT Transformer 11/.433KV, 50Hz	KVA	630.00	2	Volt amps	(11 KV/433V)	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.31.	UPS	UPS	KVA	20.00	4	EATON	93E	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.32.	Power Distribution Panel	HVAC Cooling Tower Panel-1	KW	222	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
3.33.	Power Distribution Panel	HVAC Cooling Tower Panel-1	KW	148	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
3.34.	Distribution Boards	LDB PDB UDB ELDB	Amps	32.00 63.00 32.00 32.00	5 1 1 4	L&T		Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment					90			

4. HSD Yard

Sr. No	Description	Capacity	Qty	Unit	Annual Maintenance Contract Provisions
4.1.	HSD Storage Tanks - Underground	70 KL	1	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
4.2.	HSD Transfer pump	15 CMH	2	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
4.3.	Overflow return pump	15 CMH	2	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
4.4.	Control Panel		1	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment			6		

5. Electrical System- (HT / LT System) Exhibition Hall -3 Basement

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
5.1.	HPFC Panel	EH-3 500 KVAR HPFC PANEL	KVAR	500.00	4	Tricolite / P2 Power	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
5.2.	HT Panel	HT Change Over panel 6, 5, 4	Amp	800.00	3	L&T	VK10L25H	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
5.3.	Lighting Panel	EH-3 EMERGENCY LIGHTING PANEL (LOC: EX-HALL-3 LT PANEL ROOM)	KW	18.60	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.4.	Lighting Panel	EH-3 LIGHTING PANEL (LOC: EX-HALL-3 LT PANEL ROOM)	KW	56.70	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.5.	Local Control Panel	EH-3 FIRE PUMP ROOM VENTILATION LCP (LOC: FP ROOM) (W/M)**	KW	3.70	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.6.	Local Control Panel	EH-3 MEZZ CORRIDOR VENT LCP (LOC : MEZZ CORRIDOR)(W/M)**	KW	3.70	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
5.7.	Local Control Panel	EH-3 PRESSURIZATION PUMP LCP-1 (LOC: PUMP ROOM) (W/M)**	KW	4.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.8.	Local Control Panel	EH-3 PRESSURIZATION PUMP LCP-2 (LOC: PUMP ROOM) (W/M)**	KW	3.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.9.	Local Control Panel	EH-3 WTP ROOM VENT LCP (LOC: WTP ROOM) (W/M)**	KW	15.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.10.	Local Control Panel	EH3-ELECTRICAL CORRIDOR VENTILATION LCP (W/M)**	KW	3.70	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.11.	Local Control Panel	EH-3-EVACUATION CORRIDOR VENTILATION LCP-1 (W/M)**	KW	7.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.12.	Local Control Panel	EH-3-EVACUATION CORRIDOR VENTILATION LCP-2 (W/M)**	KW	7.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.13.	Local Control Panel	EH-3-EXHAUST ROOM LCP (LOC: FIRE CONTROL ROOM) (W/M)**	KW	4.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
5.14.	Local Control Panel	EH-3-HT AND LT PANEL ROOM VENTILATION LCP (W/M)**	KW	11.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.15.	Local Control Panel	EH-3-IRRIGATION PUMP LCP (W/M)**	KW	12.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.16.	Local Control Panel	EH-3-PNEUMATIC EQUIPMENT ROOM VENTILATION LCP-1 (W/M)**	KW	11.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.17.	Local Control Panel	EH-3-PNEUMATIC EQUIPMENT ROOM VENTILATION LCP-2 (W/M)**	KW	15.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.18.	Local Control Panel	EH-3-PNEUMATIC EQUIPMENT ROOM VENTILATION LCP-3 (W/M)**	KW	11.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.19.	Local Control Panel	EH-3-TRANSFORMER ROOM VENTILATION LCP (W/M)**	KW	18.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.20.	Local Control Panel	EH-3-UPS ROOM LCP (LOC: UPS ROOM) (W/M) **	KW	4.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
5.21.	Main LT Panel	EH-3 Main LT Panel (1/1)	KW	7,072.00	1	Tricolite	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
5.22.	Power Distribution Panel	EH-3 BASEMENT VENTILATION PANEL (LOC: EH3 LT PANEL ROOM)	KW	268.8	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.23.	Power Distribution Panel	EH-3 CONSTANT PRIMARY PUMP PANEL (LOC: HVAC PLANT ROOM)	KW	225.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.24.	Power Distribution Panel	EH-3 CONSTANT SPEED CONDEN PUMP PANEL (LOC: HVAC PLANT ROOM)	KW	660.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.25.	Power Distribution Panel	EH-3 FIRE MCC (LOC: FIRE PUMP ROOM)	KW	780.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.26.	Power Distribution Panel	EH-3 FLOOR UPS PANEL (LOC. EX-HALL-3 LT PANEL ROOM)	KW	23.60	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.27.	Power Distribution Panel	EH-3 MAIN PHE PANEL (LOC: PHE PUMP ROOM)	KW	182.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
5.28.	Power Distribution Panel	EH-3 PLANT ROOM VENTILATION PANEL (LOC: PLANT ROOM)	KW	111.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.29.	Power Distribution Panel	EH-3 PRIM. AND SECON. HOT WATER PUMP PANEL (LOC: PUMP ROOM)	KW	96.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.30.	Power Distribution Panel	EH-3 PUMP PANEL (LOC: PUMP ROOM)	KW	37.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.31.	Power Distribution Panel	EH-3 SOFT WATER FEED PUMP PANEL (LOC: PUMP ROOM)	KW	32.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.32.	Power Distribution Panel	EH-3 SOFT WATER LIFTING PUMP PANEL (LOC: PUMP ROOM)	KW	40.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.33.	Power Distribution Panel	EH-3 SOLID WASTE VENTILATION PANEL (LOC: SOLID WASTE ROOM)	KW	75.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.34.	Power Distribution Panel	EH-3 STP VENTILATION PANEL-1 (LOC: STP PLANT)	KW	93.30	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
5.35.	Power Distribution Panel	EH-3 STP VENTILATION PANEL-2 (LOC: STP PLANT)	KW	71.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.36.	Power Distribution Panel	EH-3 STP VENTILATION PANEL-3 (LOC: STP PLANT)	KW	97.40	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.37.	Power Distribution Panel	EH-3 VEHICLE DRIVEWAY VENTILATION PANEL (LOC: STP PLANT)	KW	63.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.38.	Power Distribution Panel	EH-3 VENTILATION PANEL- PHASE 2 (LOC: STP PLANT)	KW	178.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.39.	Power Distribution Panel	EH-3 POWER PANEL (LOC: HVAC PLANT ROOM)	KW	61.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.40.	Power Distribution Panel	EH-3 UTILITY PANEL (LOC: LT PANEL ROOM)	KW	160.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.41.	Power Distribution Panel	EH-3 TYP. FOR EH3-B1-PR-EF-AX- 45 AND 46 (W/M) **	KW	11.00	2	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
5.42.	Power Distribution Panel	EH-3 TYP. FOR EH3-B1-PR-EF-AX-39 TO 44, 48 & 49 (W/M)**	KW	18.50	8	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.43.	Power Distribution Panel	EH3-B1-ER-EF-CSAHU-07 (W/M)**	KW	4.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.44.	Power Distribution Panel	EH3-B1-PR-EF-AX-47 (W/M) **	KW	7.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.45.	Power Distribution Panel	EH3-B1-VD-50 TO EH3-B1-VD-55	KW	7.50	6	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.46.	Power Distribution Panel	EH3-RAMP06-AX-01	KW	18.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.47.	Transformers	HT / LT Transformer 11/.433KV, 50Hz	KVA	2,500.00	4	Voltamps	11/0.415kV	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
5.48.	UPS	UPS	KVA	20.00	2	EATON	93E	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
5.49.	UPS	UPS	KVA	30	2	EATON	93E	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
5.50.	Power Distribution Panel	Hydropneumatics Domestic Pump Panel	KW	30	1			Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
5.51.	Power Distribution Panel	Hydropneumatics Flushing Pump Panel	KW	22	1			Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
5.52.	Power Distribution Panel	Variable Secondary Hot Water Pump Panel	KW	74	1			Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
5.53.	Power Distribution Panel	EH-3-B1-H64/V22 Sewage Pump LCP-1	KW	0.62	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.54.	Power Distribution Panel	EH-3-B1-H51/V30 Sewage Pump LCP-2	KW	0.62	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.55.	Power Distribution Panel	Variable Primary Cold Water Pump Panel	KW	6.6	1			Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
5.56.	Power Distribution Panel	Engineering Maintenance Room CAHU Panel	KW	6.6	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
5.57.	Power Distribution Panel	Variable Secondary Pump Panel (F-4)	KW	672	1			Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
5.58.	Power Distribution Panel	STP Panel (F-13)	KW	345	1			Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
5.59.	Power Distribution Panel	Pneumatic Solid Waste Management Panel (F-20)	KW	700	1			Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
5.60.	Power Distribution Panel	Heat Pump (F-21, 26)	KW	589.2	2			Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
5.61.	Power Distribution Panel	SG EH-3 Main LT Panel (F-29)	KW	505	1			Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
5.62.	Distribution Boards	LDB PDB UDB ELDB	Amps	32.00 63.00 32.00 32.00	7 6 5 4	L&T		Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment					107			

6. Electrical System- (HT / LT System) Foyer Parking

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
6.1.	Distribution Board	VTPN DB – 1	KW	8.60	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.2.	Distribution Board	VTPN DB – 2	KW	9.70	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.3.	Distribution Board	VTPN DB – 3	KW	6.40	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.4.	Distribution Board	VTPN DB – 4	KW	5.90	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.5.	HPFC Panel	FOYER PARKING 500 KVAR HPFC PANEL	KVAR	500.00	2	Tricolite/P2 Power	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
6.6.	HT Panel	HT Change Over panel 3	Amp	800.00	1	L&T	VK10L25H	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
6.7.	Isolator Panel	FOYER PARKING- 100A TPN ISOLATOR KICTHEN	Amp	100.00	6	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.8.	Lighting Panel	FOYER BASE MAIN LIGHTING PANEL- 1(LOC: BASE-1 ELECT. ROOM)	KW	79.20	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.9.	Lighting Panel	FOYER BASEMENT MAIN LIGHTING PANEL- 2(LOC: B1 ELECT. ROOM)	KW	60.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.10.	Local Control Panel	BASEMENT SEWAGE / DEWATERING PUMP LCP (W/M)	KW	8.40 6.2	25 23	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.11.	Local Control Panel	BASEMENT SEWAGE / DEWATERING PUMP LCP (W/M)	KW	8.40	2	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.12.	Local Control Panel	EH1-3F-HRW-01 LCP (W/M)	KW	6.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.13.	Local Control Panel	EH1-B1-Z6-HRW-01 LCP (W/M)	KW	18.40	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
6.14.	Local Control Panel	EH1-B1-Z9-HRW-02 LCP(W/M)	KW	18.40	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.15.	Local Control Panel	EH1-FF-AC-CAHU-01 LCP (W/M)	KW	1.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.16.	Local Control Panel	EH1-FF-AC-CAHU-03 LCP (W/M)	KW	1.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.17.	Local Control Panel	EH1-GF-AC-CAHU-01 LCP (W/M)	KW	1.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.18.	Local Control Panel	EH1-SF-AC-CAHU-01 LCP (W/M)	KW	1.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.19.	Local Control Panel	EH1-SF-AC-CAHU-01 LCP (W/M) **	KW	1.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.20.	Local Control Panel	EH2-2F-AC-CAHU-02 LCP (W/M)	KW	4.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
6.21.	Local Control Panel	EH2-FF-AC-CAHU-01 LCP (W/M)	KW	4.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.22.	Local Control Panel	EH2-FF-AC-CAHU-02 LCP (W/M)	KW	4.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.23.	Local Control Panel	EH2-FF-AC-CAHU-04 LCP (W/M)	KW	4.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.24.	Local Control Panel	F2-3F-AC-AHU-01 & 02 LCP (W/M)	KW	22.00	2	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.25.	Local Control Panel	F2-3F-AC-AHU-03 & 04 LCP (W/M)	KW	22.00	2	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.26.	Local Control Panel	F2-3F-AC-CAHU-02 LCP (W/M)	KW	2.20	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.27.	Local Control Panel	F2-SF-AC-CAHU-01 LCP (W/M)	KW	2.20	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
6.28.	Local Control Panel	FP TYP LCP CL- 3.7 KW (FROM FO-AHU PANEL-3 & 4) (W/M) **	KW	3.70	2	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.29.	Local Control Panel	FP TYP LCP CL- 4, 2.2, 8.1 & 7.4 KW (FROM FO-AHU PANEL-2) (W/M) **	KW	4.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.30.	Local Control Panel	FP TYP LCP CL- 4, 2.2, 8.1 & 7.4 KW (FROM FO-AHU PANEL-2) (W/M) **	KW	2.20	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.31.	Local Control Panel	FP TYP LCP CL- 4, 2.2, 8.1 & 7.4 KW (FROM FO-AHU PANEL-2) (W/M) **	KW	8.10	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.32.	Local Control Panel	FP TYP LCP CL- 4, 2.2, 8.1 & 7.4 KW (FROM FO-AHU PANEL-2) (W/M) **	KW	7.40	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.33.	Local Control Panel	FP TYP LCP CL-26.7 (FROM FO-AHU PANEL-4) (W/M) **	KW	26.70	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.34.	Local Control Panel	FP TYP. LCP CL-22KW (FROM FO-AHU PANEL-3 & 4) (W/M) **	KW	22.00	4	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
6.35.	Local Control Panel	FP TYP. LCP CL-30KW (FROM FO-AHU PANEL-1 & 2) (W/M) **	KW	30.00	5	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.36.	Local Control Panel	FP-B1-Z1-HRW-01-LCP (W/M)	KW	30.75	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.37.	Local Control Panel	FP-B1-Z4-HRW-02 LCP (W/M)	KW	30.75	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.38.	Local Control Panel	LCP TYPE-1 (W/M)	KW	22.00	23 19	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.39.	Local Control Panel	LCP TYPE-2 (W/M)	KW	18.50	41 33	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.40.	Local Control Panel	LCP TYPE-3 (W/M)	KW	15.00	44	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.41.	Local Control Panel	LCP TYPE-4 (W/M)	KW	4.10	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
6.42.	Local Control Panel	LCP TYPE-5 (W/M)	KW	1.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.43.	Local Control Panel	LCP-FP-B1-Z2-IF-04/-Z4-IF-04/Z5-IF-07 (W/M) **	KW	1.50	3	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.44.	Main LT Panel	FOYER PARKING MAIN LT PANEL	KW	2,715.00	1	Tricolite	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
6.45.	Power Panel Distribution	FOYER BASEMENT PHE PUMP PANEL-1(LOC:BASEMENT-3)	KW	80.60	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.46.	Power Panel Distribution	FOYER BASEMENT PHE PUMP PANEL-2(LOC:BASEMENT-3)	KW	79.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.47.	Power Panel Distribution	VARIABLE TERTIARY CHILLED WATER PUMP PANEL – 1 & 2	KW	31.00	2	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.48.	Power Panel Distribution	FOYER BASE FIRE MODE VENT PANEL-ZONE-1(LOC:BASE-1 ELECT ROO	KW	212.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
6.49.	Power Panel Distribution	FOYER BASE FIRE MODE VENT PANEL-ZONE-2(LOC:BASE-1 ELECT ROO	KW	118.00 215.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.50.	Power Panel Distribution	FOYER BASE FIRE MODE VENT PANEL-ZONE-3(LOC:BASE-1 ELECT ROO	KW	118.00 236.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.51.	Power Panel Distribution	FOYER BASE FIRE MODE VENT PANEL-ZONE-4 (LOC:B1 ELECT ROOM)	KW	118.00 215.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.52.	Power Panel Distribution	FOYER BASE FIRE MODE VENT PANEL-ZONE-5(LOC:BASE-1 ELECT ROO	KW	104.00 237.5	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.53.	Power Panel Distribution	FOYER BASE FIRE MODE VENT PANEL-ZONE-6 (TYP ZONE-7 & 8)	KW	97.00 201.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.54.	Power Panel Distribution	FOYER BASE FIRE MODE VENT PANEL-ZONE-7	KW	187.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.55.	Power Panel Distribution	FOYER BASE FIRE MODE VENT PANEL-ZONE-8)	KW	190.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
6.56.	Power Panel Distribution	FOYER BASE FIRE MODE VENT PANEL-ZONE-9 (LOC:B1 ELECT ROOM)	KW	118.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.57.	Power Panel Distribution	FOYER BASE FO-AHU PANEL-3(FO-1) (TYP FOR FO-AHU PANEL-4(F-2))	KW	150.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.58.	Power Panel Distribution	FOYER BASEMENT EMER LIGH O/G PANEL(LOC:BASEMENT-1 UPS ROOM)	KW	47.37	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.59.	Power Panel Distribution	FOYER BASEMENT FO-AHU PANEL-1(FOYER-1) (LOC:ELECT. ROOM)	KW	128.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.60.	Power Panel Distribution	FOYER BASEMENT FO-AHU PANEL-2(FOYER-1) (LOC:ELECT ROOM)	KW	92.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.61.	Power Panel Distribution	FOYER BASEMENT FO-AHU PANEL-4(FOYER-2) (LOC:ELECT. ROOM)	KW	103.40	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.62.	Power Panel Distribution	FOYER BASEMENT MAIN POWER PANEL-1(LOC:BASE-1 ELECT. ROOM)	KW	120.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
6.63.	Power Panel Distribution	FOYER BASEMENT MAIN POWER PANEL-2(LOC:BASE-1 ELECT. ROOM)	KW	126.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.64.	Power Panel Distribution	FOYER BASEMENT UPS I/C PANEL(LOC:BASEMENT-1 UPS ROOM)	KW	94.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.65.	Power Panel Distribution	FOYER BASE ELV-UPS O/G CUM DIST PAN. L(LOC:BASE.-1 UPS RO)	KW	46.37	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
6.66.	Transformers	HT / LT Transformer 11/.433KV, 50Hz	KVA	2,500.00	2	Volt amps	11/0.415kV	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
6.67.	UPS	UPS	KVA	60.00	4	EATON		Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment					218			

7. Electrical System- (HT / LT System) Foyer 1 & 2

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
7.1.	HPFC Panel	FOYER 1 & 2 500 KVAR HPFC PANEL	KVAR	500.00	2	Tricolite	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
7.2.	Isolator Panel	FOYER 1& 2-32 3P ISOLATOR	Amp	32.00	24			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
7.3.	Isolator Panel	FOYER 1& 2-32 3P ISOLATOR (IP55)	Amp	32.00	22			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
7.4.	Isolator Panel	FOYER 1& 2-400 3P ISOLATOR	Amp	400.00	2			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
7.5.	Isolator Panel	FOYER 1& 2-63 3P ISOLATOR	Amp	63.00	21			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
7.6.	Isolator Panel	FOYER 1& 2-630 4P ISOLATOR	Amp	630.00	4			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
7.7.	Main LT Panel	FOYER-MAIN LT PANEL (FOYER-1 & 2)	KW	2582.00	1	Tricolite	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
7.8.	Power Distribution Panel	FOYER-FIRE MODE VENTILATION PANEL-2 (FOYER-2 SMOKE EXTRACT)	KW	49.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
7.9.	Power Distribution Panel	FOYER-ELV-UPS O/G CUM DIST PANEL (FO-1) LOC: FOYER 1 BASE 1	KW	153.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
7.10.	Power Distribution Panel	FOYER-ELV-UPS O/G CUM DIST PANEL (FO-1) LOC: FOYER 2 BASE 2	KW	106.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
7.11.	Power Distribution Panel	FOYER-EMER UPS O/G PANEL-1 (FO-1) LOC: FO 1 BASE-1 ELECT ROO	KW	4.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
7.12.	Power Distribution Panel	FOYER-EMER UPS O/G PANEL-2 (FO-2) LOC: FO 2 BASE-1 ELECT ROO	KW	13.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
7.13.	Power Distribution Panel	FOYER-FIRE MODE VENT PANEL-1 (FOYER-1 SMOKE EXTRACT)	KW	82.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
7.14.	Power Distribution Panel	FOYER-LIFT PANEL -1 (FO-1) LOC: FOYER-1 BASE-1 ELECT ROOM	KW	108.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
7.15.	Power Distribution Panel	FOYER-LIFT PANEL-2 (FO-2) LOC:FO-2 BASE-1 ELECT ROOM	KW	144.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
7.16.	Power Distribution Panel	FOYER-LIGH PANEL-2(FO-2) LOC: FOYER-2 BASE-1 ELECT ROOM	KW	60.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
7.17.	Power Distribution Panel	FOYER-LIGHT PANEL-1(FO-1) LOC: FOYER 1 BASE 1 ELECT ROOM	KW	18.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
7.18.	Power Distribution Panel	FOYER-LT PANEL-COMPRESSOR LOC: FOYER 2 BASE 2	KW	1,018.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
7.19.	Power Distribution Panel	FOYER-POW AND ESC PANEL(FO-2) LOC: FOYER-2 BASE-1 ELECT ROOM	KW	160.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
7.20.	Power Distribution Panel	FOYER-POW AND ESC PANEL-1(FO-1) LOC: FOYER-1 BASE-1 ELECT ROO	KW	165.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
7.21.	Power Distribution Panel	FOYER-TER PRESS PANEL-1(FO-1) LOC: FO 1 GR. FLOOR ELECT ROOM	KW	66.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
7.22.	Power Distribution Panel	FOYER-TERR PRESS PANEL-2(FO-2) LOC:FO 2 IST FLOOR ELECT ROOM	KW	88.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
7.23.	Solar Power System	Solar PV System 0.90 MW (Includes 2806 Nos. Solar PV Modules each of 320 W	MV	0.90	1			Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
7.24.	Transformers	HT / LT Transformer 11/.433KV, 50Hz	KVA	2,500.00	2	Volt amps	11/0.415kV	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
7.25.	UPS	UPS	KVA	200.00	2			Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment					96			

8. Electrical System- (HT / LT System) Service Gallery

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
8.1.	HPFC Panel	SG 125 KVAR HPFC PANEL	KVAR	125.00	4	Tricolite / P2 Power	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
8.2.	HT Panel	HT Change Over panel 1B	Amp	800.00	1	L&T	VK10L25H	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
8.3.	HT Panel	LILO HT Panel 1 &2 Ext SS near ESS; LILO HT Panel 3 &4 Ext SS near Arena	Amp	800.00	4	L&T	VK10L25H	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
8.4.	Lighting Panel	LIGHTING PANEL (SG ARENA SIDE)	KW	32.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
8.5.	Lighting Panel	LIGHTING PANEL(SG-ESS-SIDE)	KW	33.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
8.6.	Lighting Panel	SG-EH-3 SIDE LIGHTING PANEL	KW	18.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
8.7.	Local Control Panel	SG-BTR-02LCP	KW	4.10	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
8.8.	Local Control Panel	SG-BTR-03LCP	KW	5.20	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
8.9.	Local Control Panel	SG-BTR-1B LCP	KW	5.20	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
8.10.	Local Control Panel	SG-BTR-20 LCP	KW	35.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
8.11.	Local Control Panel	SG-DR-1 TO 17 LCP (W/M)**+ EX1-DR-1-LCP + EX2-DR-2-LCP	KW	2.30	19	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
8.12.	Local Control Panel	SG-EX-01LCP	KW	32.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
8.13.	Local Control Panel	SG-EX-02LCP	KW	22.20	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
8.14.	Local Control Panel	SG-EX-03LCP	KW	20.20	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
8.15.	Local Control Panel	SG-EX-04LCP	KW	22.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
8.16.	Local Control Panel	SG-EX-05LCP	KW	38.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
8.17.	Local Control Panel	SG-EX-06LCP	KW	22.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
8.18.	Local Control Panel	SG-EX-07LCP	KW	22.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
8.19.	Local Control Panel	SG-EX-08LCP	KW	24.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
8.20.	Local Control Panel	SG-EX-09LCP	KW	20.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
8.21.	Local Control Panel	SG-EX-10LCP	KW	20.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
8.22.	Local Control Panel	SG-FR-01LCP	KW	22.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
8.23.	Local Control Panel	SG-FR-02LCP	KW	18.40	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
8.24.	Local Control Panel	SG-FR-03LCP	KW	18.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
8.25.	Local Control Panel	SG-FR-04LCP	KW	24.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
8.26.	Local Control Panel	SG-FR-05LCP	KW	26.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
8.27.	Local Control Panel	SG-FR-06LCP	KW	22.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
8.28.	Local Control Panel	SG-FR-07LCP	KW	22.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
8.29.	Local Control Panel	SG-FR-08LCP	KW	28.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
8.30.	Local Control Panel	SG-FR-09LCP	KW	24.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
8.31.	Local Control Panel	SG-FR-10LCP	KW	14.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
8.32.	Local Control Panel	SG-TUNNEL CONNECTING TO EXH-3 LCP	KW	25.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
8.33.	Main LT Panel	MAIN LT PANEL (SG-ESS SIDE) (SERVICE GALLERY & EXTERNAL)	KW	898.00	1	Tricolite	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
8.34.	Main LT Panel	SG-ARENA MAIN LT PANEL	KW	864.00	1	Tricolite	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
8.35.	Main LT Panel	SG-EH-3 SIDE-MAIN LT PANEL	KW	568.00	1	Tricolite	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
8.36.	Power Distribution Panel	ESS-SUB PANEL	KW	358.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
8.37.	Power Distribution Panel	FROM ELV-UPS O/G PANEL-ESS (W/M)**	KW	2.90	2	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
8.38.	Transformers	HT / LT Transformer 11/.433KV, 50Hz	KVA	630.00	4	Volt amps	11/0.415kV	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
8.39.	Distribution Boards	LDB ELDB ELUDB LPDB	Amps	32.00 32.00 32.00 63.00	13 7 2 2	L&T		Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment					98			

9. Electrical System- (HT / LT System) Parking Area of Convention Center

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
9.1.	HPFC Panel	CCP 250 KVAR HPFC PANEL	KVAR	250.00	2	Tricolite/P2 Power	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
9.2.	HT Panel	LILO HT Panel 1 &2 - 11 KV	Amp	800.00	2	L&T	VK10L25H	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
9.3.	Isolator Panel	CCP-63A TPN ISOLATOR	Amp	63.00	4	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
9.4.	Lighting Panel	CCP LIGHTING PANEL-1	KW	22.30	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
9.5.	Lighting Panel	CCP LIGHTING PANEL-2	KW	25.45	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
9.6.	Local Control Panel	CCP BASEMENT DEWATERING PUMP LCP (W/M)**	KW	2.50	12	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
9.7.	Local Control Panel	CCP RAM03-DWP-LCP (W/M)**	KW	6.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
9.8.	Local Control Panel	CCP RAM04-AX-01LCP (W/M)**	KW	18.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
9.9.	Local Control Panel	CCP TYPE-1 LCP (W/M)**	KW	18.50	8	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
9.10.	Local Control Panel	CCP TYPE-2 LCP (W/M)**	KW	15.00	48	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
9.11.	Local Control Panel	CCP TYPE-3 LCP (W/M)**	KW	11.00	4	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
9.12.	Local Control Panel	CCP TYPE-4 LCP (W/M)**	KW	7.50	4	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
9.13.	Local Control Panel	CCP-B1-LTP-BF-EF-01-LCP & EF-02-LCP(W/M)**	KW	5.50	2	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
9.14.	Local Control Panel	CCP-BASEMENT SEWAGE PUMP LCP (W/M)**	KW	2.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
9.15.	Main LT Panel	CCP MAIN LT PANEL	KW	842.00	1	Tricolite	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
9.16.	Power Distribution Panel	CCP BASEMENT FIRE MODE SMOKE SPILL PANEL-1 (ZONE-1)	KW	272.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
9.17.	Power Distribution Panel	CCP LIFT PANEL	KW	60.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
9.18.	Power Distribution Panel	CCP Power Distribution Panel	KW	84.85	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
9.19.	Power Distribution Panel	CCP-ELV-UPS OUTGOING CUM DISTRIBUTION PANEL	KW	41.20	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
9.20.	Power Distribution Panel	CCP-EMERGENCY LIGHTING UPS O/G PANEL	KW	14.11	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
9.21.	Power Distribution Panel	CCP-FIRE MODE SMOKE SPILL PANEL-2 (ZONE-2)	KW	258.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
9.22.	Power Distribution Panel	CCP-FIRE MODE SMOKE SPILL PANEL-3 (ZONE-3)	KW	210.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
9.23.	Power Distribution Panel	CCP-FIRE MODE SMOKE SPILL PANEL-4 (ZONE-4)	KW	283.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
9.24.	Power Distribution Panel	CCP-LCP FROM Power Distribution Panel (W/M)**	KW	9.75	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
9.25.	Power Distribution Panel	CCP-PHE PUMP PANEL	KW	44.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
9.26.	Power Distribution Panel	CCP-UPS I/C PANEL	KW	55.30	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
9.27.	Transformers	HT / LT Transformer 11/.433KV, 50Hz	KVA	1,250.00	2	Volt amps	11/0.433kV	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
9.28.	UPS	EM. UPS	KVA	30.00	2			Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
9.29.	UPS	ELV UPS	KVA	60.00	2			Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
9.30.	CCP-VTPN DB-1	CCP-VTPN DB-1	KW	5.7	1	Tricolite		Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
9.31.	CCP-VTPN DB-2	CCP-VTPN DB-2	KW	7.4	1	Tricolite		Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
9.32.	Distribution Boards	LDB PDB UDB ELDB	Amps	32.00 63.00 63.00 32.00	19 9 4 10	L&T		Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment					155			

10. Electrical System- (HT / LT System) Convention Center

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
10.1.	ACB	3200A ACB FOR RISING MAINS SWICTH	Amp	3,200.00	2			Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
10.2.	HPFC Panel	CC- 500 KVAR HPFC PANEL	KVAR	500.00	4	Tricolite	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
10.3.	HT Panel	HT Change Over panel 2A,2B (VCB- 11 KV)	Amp	800.00	2	L&T	VK10L25H	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
10.4.	Lighting Panel	CC BASEMENT LIGHTING PANEL (P-02)	KW	58.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.5.	Lighting Panel	CC FIFTH FLOOR LIGHTING PANEL (P-14)	KW	34.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.6.	Lighting Panel	CC FIRST FLOOR LIGHTING PANEL (P-06)	KW	47.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
10.7.	Lighting Panel	CC FOURTH FLOOR LIGHTING PANEL (P-12)	KW	30.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.8.	Lighting Panel	CC GROUND FLOOR LIGHTING PANEL (P-04)	KW	26.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.9.	Lighting Panel	CC SECOND FLOOR LIGHTING PANEL (P-08)	KW	64.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.10.	Lighting Panel	CC SEVENTH FLOOR LIGHTING PANEL (P-18)	KW	30.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.11.	Lighting Panel	CC SIXTH FLOOR LIGHTING PANEL (P-16)	KW	9.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.12.	Lighting Panel	CC THIRD FLOOR LIGHTING PANEL (P-10)	KW	30.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.13.	Lighting Panel	STAGE LIGHTING PANEL – AUDITORIUM	KW	275.00	2	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
10.14.	Lighting Panel	STAGE LIGHTING PANEL – BALL ROOM	KW	300.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.15.	Local Control Panel	AHU-F5638-LCP	KW	20.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.16.	Local Control Panel	CC AHU-6612-LCP (W/M)**	KW	8.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.17.	Local Control Panel	CC AHU-B1163-LCP-1	KW	32.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.18.	Local Control Panel	CC AHU-B1163-LCP-2	KW	40.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.19.	Local Control Panel	CC AHU-B1600-LCP	KW	14.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.20.	Local Control Panel	CC AHU-B1638-LCP	KW	7.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
10.21.	Local Control Panel	CC AHU-B1657-LCP	KW	26.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.22.	Local Control Panel	CC AHU-B2131-LCP-1	KW	74.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.23.	Local Control Panel	CC AHU-B2131-LCP-2	KW	23.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.24.	Local Control Panel	CC AHU-B2132-LCP	KW	7.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.25.	Local Control Panel	CC AHU-B2687-LCP (W/M)**	KW	11.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.26.	Local Control Panel	CC AHU-F0607-LCP	KW	16.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.27.	Local Control Panel	CC AHU-F0627-LCP	KW	6.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
10.28.	Local Control Panel	CC AHU-F0633-LCP	KW	13.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.29.	Local Control Panel	CC AHU-F0635-LCP	KW	22.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.30.	Local Control Panel	CC AHU-F1150-LCP	KW	17.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.31.	Local Control Panel	CC AHU-F1151-LCP	KW	20.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.32.	Local Control Panel	CC AHU-F1153-LCP (W/M)**	KW	3.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.33.	Local Control Panel	CC AHU-F1601-LCP	KW	11.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.34.	Local Control Panel	CC AHU-F1620-LCP	KW	30.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
10.35.	Local Control Panel	CC AHU-F1671-LCP (W/M)**	KW	8.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.36.	Local Control Panel	CC AHU-F2151-LCP	KW	20.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.37.	Local Control Panel	CC AHU-F2154-LCP	KW	4.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.38.	Local Control Panel	CC AHU-F2155-LCP	KW	15.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.39.	Local Control Panel	CC AHU-F2509-LCP (W/M)**	KW	3.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.40.	Local Control Panel	CC AHU-F2610-LCP	KW	22.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.41.	Local Control Panel	CC AHU-F2633-LCP (W/M)**	KW	8.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
10.42.	Local Control Panel	CC AHU-F2641-LCP (W/M)**	KW	4.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.43.	Local Control Panel	CC AHU-F2644-LCP	KW	21.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.44.	Local Control Panel	CC AHU-F3141-LCP	KW	30.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.45.	Local Control Panel	CC AHU-F3142-LCP-1	KW	20.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.46.	Local Control Panel	CC AHU-F3142-LCP-2	KW	8.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.47.	Local Control Panel	CC AHU-F3143-LCP	KW	8.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.48.	Local Control Panel	CC AHU-F3612-LCP (W/M)**	KW	8.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
10.49.	Local Control Panel	CC AHU-F3634-LCP (W/M)**	KW	8.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.50.	Local Control Panel	CC AHU-F4137-LCP (W/M)**	KW	4.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.51.	Local Control Panel	CC AHU-F4138-LCP-1	KW	16.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.52.	Local Control Panel	CC AHU-F4138-LCP-2	KW	13.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.53.	Local Control Panel	CC AHU-F4139-LCP	KW	6.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.54.	Local Control Panel	CC AHU-F4613-LCP	KW	4.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.55.	Local Control Panel	CC AHU-F4642-LCP (W/M)**	KW	8.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
10.56.	Local Control Panel	CC AHU-F4644-LCP	KW	2.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.57.	Local Control Panel	CC AHU-F4687-LCP (W/M)**	KW	4.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.58.	Local Control Panel	CC AHU-F5136-LCP	KW	14.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.59.	Local Control Panel	CC AHU-F5617-LCP	KW	44.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.60.	Local Control Panel	CC AHU-F5627-LCP	KW	14.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.61.	Local Control Panel	CC AHU-F5628-LCP	KW	14.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.62.	Local Control Panel	CC AHU-F6603-LCP	KW	13.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
10.63.	Local Control Panel	CC AHU-F7116-LCP (W/M)**	KW	18.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.64.	Local Control Panel	CC AHU-F7124-LCP	KW	37.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.65.	Local Control Panel	CC AHU-F7124-LCP-1	KW	35.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.66.	Local Control Panel	CC AHU-F7124-LCP-2	KW	54.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.67.	Local Control Panel	CC AHU-F7125-LCP-1	KW	8.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.68.	Local Control Panel	CC AHU-F7125-LCP-2	KW	10.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.69.	Local Control Panel	CC AHU-F7625-LCP-1 (W/M)**	KW	8.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
10.70.	Local Control Panel	CC AHU-F7625-LCP-2	KW	6.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.71.	Local Control Panel	CC AHU-F7634-LCP (W/M)**	KW	4.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.72.	Local Control Panel	CC AHU-F8612-LCP (W/M)**	KW	2.20	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.73.	Local Control Panel	CC AHU-F8616-LCP (W/M)**	KW	2.20	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.74.	Local Control Panel	CC AHU-F8634-LCP	KW	4.40	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.75.	Local Control Panel	CC AHU-F8637-LCP (W/M)**	KW	2.20	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.76.	Local Control Panel	CC AIR WASHER PUMP LCP 1 (W/M)**	KW	1.10	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
10.77.	Local Control Panel	CC AIR WASHER PUMP LCP 2 (W/M)**	KW	1.10	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.78.	Local Control Panel	CC AIR WASHER PUMP LCP 3 (W/M)**	KW	1.10	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.79.	Local Control Panel	CC FM-1151-LCP	KW	9.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.80.	Local Control Panel	CC FM-2151-LCP (W/M)**	KW	11.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.81.	Local Control Panel	CC FM-3142-LCP (W/M)**	KW	5.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.82.	Local Control Panel	CC FM-3634-LCP	KW	7.40	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.83.	Local Control Panel	CC FM-4138-LCP (W/M)**	KW	2.20	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
10.84.	Local Control Panel	CC FM-4649-LCP	KW	4.40	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.85.	Local Control Panel	CC FM-F0674-LCP	KW	16.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.86.	Local Control Panel	CC FM-F1150-LCP	KW	29.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.87.	Local Control Panel	CC FM-F2154-LCP (W/M)**	KW	4.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.88.	Local Control Panel	CC FM-RF-LCP-1	KW	22.40	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.89.	Local Control Panel	CC FM-RF-LCP-2	KW	31.60	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.90.	Local Control Panel	CC FM-RF-LCP-3	KW	41.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
10.91.	Local Control Panel	CC FM-RF-LCP-4	KW	74.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.92.	Local Control Panel	CC KC-F5303-LCP (W/M)**	KW	8.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.93.	Local Control Panel	CC KC-F5304-LCP (W/M)**	KW	11.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.94.	Local Control Panel	CC SEWAGE / DEWATERING PUMP LCP (2.2KW) (W/M)	KW	2.20	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.95.	Local Control Panel	CC SEWAGE / DEWATERING PUMP LCP (5.5KW) (W/M)	KW	5.50	10	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.96.	Local Control Panel	CC SEWAGE / DEWATERING PUMP LCP (7.5KW) (W/M)	KW	7.50	3	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.97.	Local Control Panel	CC-F2-STPR-1 LCP (W/M)**	KW	18.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
10.98.	Local Control Panel	CC-B1PR-LCP-1		20.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.99.	Main Distribution Board	CC ELV-7609-Main Distribution Board-A	KW	170.00	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.100.	Main Distribution Board	CC ELV-F7600-Main Distribution Board-A	KW	170.00	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.101.	Main Distribution Board	CC ELV-F7600-Main Distribution Board-B	KW	170.00	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.102.	Main Distribution Board	CC ELV-F7600-Main Distribution Board-C	KW	119.00	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.103.	Main Distribution Board	CC ELV-F7609 -Main Distribution Board-C	KW	170.00	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.104.	Main Distribution Board	CC ELV-F7609-Main Distribution Board-B	KW	170.00	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type		Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
10.105.	Main Board	Distribution	CC ELV-F7635-Main Distribution Board-A	KW	119.00	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.106.	Main Board	Distribution	CC ELV-F7635-Main Distribution Board-B	KW	168.80	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.107.	Main Board	Distribution	CC ELV-F7635-Main Distribution Board-C	KW	170.00	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.108.	Main Board	Distribution	CC ELV-F8617-Main Distribution Board-A	KW	118.50	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.109.	Main Board	Distribution	CC ELV-F8617-Main Distribution Board-B	KW	170.00	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.110.	Main Board	Distribution	CC ELV-F8617-Main Distribution Board-C	KW	170.00	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.111.	Main Board	Distribution	CC ELV-F8631-Main Distribution Board-A	KW	119.00	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type		Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
10.112.	Main Board	Distribution	CC ELV-F8631-Main Distribution Board-B	KW	170.00	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.113.	Main Board	Distribution	CC ELV-F8631-Main Distribution Board-C	KW	170.00	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.114.	Main Board	Distribution	CC ELV-F8633-Main Distribution Board-A	KW	119.00	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.115.	Main Board	Distribution	CC ELV-F8633-Main Distribution Board-B	KW	134.00	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.116.	Main Board	Distribution	CC ELV-F8633-Main Distribution Board-C	KW	170.00	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.117.	Main Board	Distribution	CC ELV-F8633-Main Distribution Board-D	KW	119.00	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.118.	Main Board	Distribution	CC ELV-F8633-Main Distribution Board-E	KW	170.00	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
10.119.	Main Board Distribution	CC ELV-F8633-Main Distribution Board-F	KW	170.00	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.120.	Main Board Distribution	CC ELV-F8636-Main Distribution Board-A	KW	119.00	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.121.	Main Board Distribution	CC ELV-F8636-Main Distribution Board-B	KW	170.00	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.122.	Main Board Distribution	CC ELV-F8636-Main Distribution Board-C	KW	170.00	1			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.123.	Main LT Panel	CC-MAIN LT PANEL-1(P-01)	KW	5,426.00	1	Tricolite	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
10.124.	Main LT Panel	CC-MAIN LT PANEL-2(P-02)	KW	5,569.00	1	Tricolite	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
10.125.	MCCB	CC 250A 4P MCCB	Amp	250.00	2			Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
10.126.	Power Panel Distribution	CC F1-VELPDB-1 (W/M)**	KW	0.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.127.	Power Panel Distribution	CC F1-VLPDB-1	KW	9.70	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.128.	Power Panel Distribution	CC F7-VELPDB-1 (W/M)**	KW	1.10	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.129.	Power Panel Distribution	CC F7-VLPDB-1	KW	44.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.130.	Power Panel Distribution	CC 7F LED FASCADE Power Distribution Panel-1 (36A)	KW	916.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.131.	Power Panel Distribution	CC 7F LED FASCADE Power Distribution Panel-2 (36B)	KW	510.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.132.	Power Panel Distribution	CC 8F FASCADE LED PANEL-1 (P-37A)	KW	918.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
10.133.	Power Panel Distribution	CC 8F FASCADE LED PANEL-2 (P-37B)	KW	1,341.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.134.	Power Panel Distribution	CC BASEMENT POWER & AHU PANEL (P-03)	KW	334.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.135.	Power Panel Distribution	CC EIGHT FLOOR POWER & AHU PANEL (P-20)	KW	26.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.136.	Power Panel Distribution	CC ELV UPS I/C PANEL (P-21)	KW	680.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.137.	Power Panel Distribution	CC ELV UPS O/G PANEL (P-22)	KW	680.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.138.	Power Panel Distribution	CC EMERGENCY PANEL-1 (P-27)	KW	30.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.139.	Power Panel Distribution	CC EMERGENCY PANEL-2 (P-28)	KW	47.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
10.140.	Power Panel Distribution	CC EMERGENCY PANEL-3 (P-29)	KW	29.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.141.	Power Panel Distribution	CC EMERGENCY PANEL-4 (P-30)	KW	20.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.142.	Power Panel Distribution	CC EMERGENCY UPS O/G PANEL (P-26)	KW	128.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.143.	Power Panel Distribution	CC ESCALATOR PANEL-1 (P-31)	KW	144.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.144.	Power Panel Distribution	CC ESCALATOR PANEL-2 (P-32)	KW	81.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.145.	Power Panel Distribution	CC ESCALATOR PANEL-3 (P-33)	KW	72.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.146.	Power Panel Distribution	CC FIFTH FLOOR POWER & AHU PANEL (P-15)	KW	198.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
10.147.	Power Panel Distribution	CC FIRE MODE PRESSURIZATION PANEL (P-39)	KW	89.60	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.148.	Power Panel Distribution	CC FIRE MODE VENT PANEL (P-38)	KW	284.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.149.	Power Panel Distribution	CC FIRST FLOOR POWER & AHU PANEL (P-07)	KW	141.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.150.	Power Panel Distribution	CC FOURTH FLOOR POWER & AHU PANEL (P-13)	KW	90.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.151.	Power Panel Distribution	CC GROUND FLOOR POWER & AHU PANEL (P-05)	KW	169.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.152.	Power Panel Distribution	CC LIFT PANEL (FIRE MAIN LIFT) (P-35)	KW	55.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.153.	Power Panel Distribution	CC LIFT PANEL (NORMAL MODE) (P-34)	KW	245.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
10.154.	Power Panel Distribution	CC PHE PANEL (P-44)	KW	34.40	2	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.155.	Power Panel Distribution	CC SECOND FLOOR POWER & AHU PANEL (P-09)	KW	166.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.156.	Power Panel Distribution	CC SEVENTH FLOOR POWER & AHU PANEL (P-19)	KW	216.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.157.	Power Panel Distribution	CC SIXTH FLOOR POWER & AHU PANEL (P-17)	KW	55.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.158.	Power Panel Distribution	CC SUBSTATION AUXILIARY PANEL (P-41)	KW	82.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.159.	Power Panel Distribution	CC TERRACE FIRE MODE VENT/PRESSURIZATION PANEL (P-40)	KW	202.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.160.	Power Panel Distribution	CC THIRD FLOOR POWER & AHU PANEL (P-11)	KW	125.40	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
10.161.	Power Panel Distribution	CC UPS Power Panel-1 Distribution (P-23)	KW	264.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.162.	Power Panel Distribution	CC UPS Power Panel-2 Distribution (P-24)	KW	237.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.163.	Power Panel Distribution	CC UPS Power Panel-3 Distribution (P-25)	KW	179.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.164.	Power Panel Distribution	CC VARIABLE TERTIARY CHILLED WATER PUMP PANEL (P-42)	KW	112.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.165.	Power Panel Distribution	CC VARIABLE TERTIARY HOT WATER PUMP PANEL (P-43)	KW	12.40	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.166.	Power Panel Distribution	CC-B1-SS-CAHU-01 & 02 (W/M)**	KW	8.00	2	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.167.	Power Panel Distribution	CC-F2-SMEF-02 (W/M)**	KW	11.00	9	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
10.168.	Power Panel Distribution	CC-F2-SMEF-11 & 12 (W/M)**	KW	5.50	2	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.169.	Power Panel Distribution	DATA CENTRE MAIN PANEL	KW	737.00	1	Tricolite	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
10.170.	Power Panel Distribution	KITCHEN PANEL @ 2F	KW	158.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.171.	Power Panel Distribution	KITCHEN PANEL @ 5F	KW	170.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
10.172.	Power Panel Distribution	RETRACTABLE SEAT PANEL	KW	600.00	1	Tricolite	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
10.173.	Solar Power System	SOLAR PV SYSTEM 0.53 MW (INCLUDES 1664 NOS. SOLAR PV MODULE UNIT OF 320W EACH)	MW	0.53	1			Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
10.174.	Transformers	HT / LT Transformer 11/.433KV, 50Hz	KVA	2,500.00	4	Voltamps	11/0.415kV	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
10.175.	UPS	UPS	KVA	200.00	2			Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
10.176.	UPS	UPS	KVA	200.00	2			Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment					210			

11. Electrical System- (HT / LT System) Exhibition Hall -1

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provision
11.1.	HPFC Panel	EH-1 500 KVAR HPFC PANEL	KVAR	500.00	2	Tricolite	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.2.	HT Panel	HT Change Over panel 8 (VCB- 11 KV)	Amp	800.00	1	L&T	VK10L25H	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.3.	Isolator Panel	3P 32A TP ISOLATOR	Amp	32.00	66	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
11.4.	Isolator Panel	SERVICE LIFT -63A FP ISOLATOR	Amp	63.00	3	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
11.5.	Lighting Panel	EH-1 Main Lighting Panel-1	KW	110.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
11.6.	Lighting Panel	EH-1 Main Lighting Panel-2	KW	98.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
11.7.	Local Control Panel	DEWATERING PIT LCP (TYPICAL)	KW	2.50	6	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provision
11.8.	Local Control Panel	EH-1 Detail A (TYP LCP FOR AHU 01 TO 12)	KW	45.00	12	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
11.9.	Local Control Panel	EH-1 Detail -B (Typical)	KW	15.00	2	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
11.10.	Local Control Panel	EH-1 Detail -C (Typical)	KW	5.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
11.11.	Local Control Panel	EH-1 Detail -D (Typical)	KW	2.10	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
11.12.	Main LT Panel	EH-1 Main LT Panel	KW	9,567.00	1	Tricolite	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.13.	Power Distribution Panel	EH-1 ELV - UPS O/G CUM Distribution Panel	KW	86.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
11.14.	Power Distribution Panel	EH-1 ELV UPS I/C Panel	KW	86.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provision
11.15.	Power Distribution Panel	EH-1 Emergency UPS I/C Panel	KW	81.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
11.16.	Power Distribution Panel	EH-1 Emergency UPS O/G Cum Distribution Panel-1	KW	81.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
11.17.	Power Distribution Panel	EH-1 Power and AHU Panel-1	KW	141.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
11.18.	Power Distribution Panel	EH-1 Power and AHU Panel-2	KW	210.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
11.19.	Power Distribution Panel	EH-1 Power and AHU Panel-3	KW	172.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
11.20.	Power Distribution Panel	EH-1 Power and AHU Panel-4	KW	141.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
11.21.	Power Distribution Panel	EH-1 ROOF EXTRACTOR PANEL-1 (TYP FOR 2)	KW	138.00	2	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provision
11.22.	Power Distribution Panel	EH-1 ROOF EXTRACTOR PANEL-3	KW	88.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
11.23.	Power Distribution Panel	EH-1 Service Lift Panel-1	KW	39.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
11.24.	Power Distribution Panel	EH-1 Stal Po Dist Panel-2 (Typ. for 3, 6, 7, 10, 11,14,15)	KW	324.00	8	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
11.25.	Power Distribution Panel	EH-1 Stall Power Distribution Panel-1 (Typ. For 9)	KW	396.00	2	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
11.26.	Power Distribution Panel	EH-1 Stall Power Distribution Panel-4 (Typ. For 5,12,13)	KW	486.00	4	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
11.27.	Power Distribution Panel	EH-1 Stall Power Distribution Panel-8 (Typ. For 16)	KW	468.00	2	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
11.28.	Power Distribution Panel	EH-1 Stall Power Main Panel	KW	3,132.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provision
11.29.	Power Distribution Panel	EH-1 Substation Ventilation Panel	KW	52.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
11.30.	Power Distribution Panel	VARIABLE TERTIARY CHILLED WATER PUMP PANEL	KW	91.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
11.31.	Power Distribution Panel	KICTHEN MAIN PANEL	KW	515.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
11.32.	Transformers	HT / LT Transformer 11/.433KV, 50Hz	KVA	2,500.00	2	Volt amps	11/0.415kV	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.33.	UPS	UPS	KVA	100.00	4			Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment					135			

12. Electrical System- (HT / LT System) Exhibition Hall -2

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provision
12.1.	HPFC Panel	EH-2 500 KVAR HPFC PANEL	KVAR	500.00	2	Tricolite	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.2.	HT Panel	HT Change Over panel 7 (VCB- 11 KV)	Amp	800.00	1	L&T	VK10L25H	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.3.	Isolator Panel	4P 16A ISOLATOR	Amp	16.00	2	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.4.	Isolator Panel	4P 32A ISOLATOR	Amp	32.00	5	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.5.	Isolator Panel	4P 63A ISOLATOR	Amp	63.00	5	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.6.	Isolator Panel	TP 32A ISOLATOR	Amp	32.00	62	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.7.	Lighting Panel	EH-2 MAIN LIGHTING PANEL-1	KW	1,000.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provision
12.8.	Lighting Panel	EH-2 MAIN LIGHTING PANEL-2	KW	1,100.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.9.	Local Control Panel	DEWATERING PIT LCP	KW	900.00	6	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.10.	Local Control Panel	EH-2 Detail A (TYP LCP FOR AHU 01 TO 12)**	KW	45.00	12	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.11.	Local Control Panel	EH-2 Detail -B (Typical)	KW	15.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.12.	Local Control Panel	EH-2 Detail -C (Typical)	KW	5.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.13.	Local Control Panel	EH-2 Detail -D (Typical)	KW	2.10	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.14.	Main LT Panel	EH-2 Main LT Panel	KW	8,360.00	1	Tricolite	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provision
12.15.	Power Distribution Panel	EH-2 DATACENTRE MAIN PANEL	Amp	16.00	2	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.16.	Power Distribution Panel	EH-2 ELV UPS I/C PANEL	Amp	32.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.17.	Power Distribution Panel	EH-2 ELV UPS O/G CUM DISTRIBUTION PANEL	Amp	63.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.18.	Power Distribution Panel	EH-2 EMERGENCY UPS I/C PANEL	Amp	32.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.19.	Power Distribution Panel	EH-2 EMERGENCY UPS O/G CUM DISTRIBUTION PANEL-1	KW	56.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.20.	Power Distribution Panel	EH-2 EMERGENCY UPS O/G PANEL	KW	50.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.21.	Power Distribution Panel	EH-2 POWER AND AHU PANEL-1	KW	2.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provision
12.22.	Power Distribution Panel	EH-2 POWER AND AHU PANEL-2	KW	38.37	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.23.	Power Distribution Panel	EH-2 POWER AND AHU PANEL-3	KW	11.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.24.	Power Distribution Panel	EH-2 POWER AND AHU PANEL-4	KW	5.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.25.	Power Distribution Panel	EH-2 ROOF EXTRACTOR PANEL-1 (Typ. For 2)	KW	80.00	2	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.26.	Power Distribution Panel	EH-2 ROOF EXTRACTOR PANEL-3	KW	73.50	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.27.	Power Distribution Panel	EH-2 ROOF EXTRACTOR PANEL-4	KW	109.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.28.	Power Distribution Panel	EH-2 SERVICE LIFT PANEL-1	KW	89.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provision
12.29.	Power Distribution Panel	EH-2 Stall Po Dist Panl-2 (Typ. for 3,6,7,8,10,11,14,15,16)	KW	89.00	10	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.30.	Power Distribution Panel	EH-2 STALL POWER DISTRIBUTION PANEL-1 (Typ. for 9)	KW	48.00	2	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.31.	Power Distribution Panel	EH-2 Stall Power Distribution Panel-4 (Typ. For 5,12,13)	KW	48.00	4	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.32.	Power Distribution Panel	EH-2 STALL POWER MAIN PANEL	KW	48.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.33.	Power Distribution Panel	EH-2 SUBSTATION VENTILATION PANEL	KW	181.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.34.	Power Distribution Panel	EH-2 VARIABLE TERTIARY CHILLED WATER PUMP PANEL	KW	120.00	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.35.	Transformers	HT / LT Transformer 11/.433KV, 50Hz	KVA	2,500.00	2	Voltamps	11/0.415kV	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provision
12.36.	UPS	UPS	KVA	100.00	2			Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.37.	UPS	UPS	KVA	80.00	2			Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.38.	HPFC Panel	EH-1 HPFC PANEL 500 KVAR	KVAR	500.00	2	Tricolite	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.39.	HPFC Panel	EH-2 HPFC PANEL 500 KVAR	KVAR	500.00	2	Tricolite	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.40.	HT Panel	HT Change Over panel 8A	Amp	800.00	1	L&T	VK10L25H	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.41.	HT Panel	HT Change Over panel 8B	Amp	800.00	1	L&T	VK10L25H	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.42.	Lighting Panel	EMERGENCY LIGHTING I/G PANEL	KW	1	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.43.	Lighting Panel	EMERGENCY LIGHTING I/G PANEL	KW	1	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provision
12.44.	Lighting Panel	EMERGENCY LIGHTING O/G PANEL	KW	1	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.45.	Lighting Panel	EMERGENCY LIGHTING O/G PANEL	KW	1	1	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.46.	Main LT Panel	EH-1 Main LT Panel	KW	13,036.00	1	Tricolite	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.47.	Main LT Panel	EH-2 Main LT Panel	KW	13,033.00	1	Tricolite	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.48.	Power Distribution Panel	STALL POWER DISTRIBUTION PANEL-1 (TYPICAL FOR 2, 3, 6, 7 & 10)	KW	1100.00	6	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.49.	Power Distribution Panel	STALL POWER DISTRIBUTION PANEL-1 (TYPICAL FOR 2, 3, 6, 7 & 10)	KW	1100.00	6	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.50.	Power Distribution Panel	STALL POWER DISTRIBUTION PANEL-2 (TYPICAL FOR 11, 12, 13, 14 & 15)	KW	900.00	6	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provision
12.51.	Power Distribution Panel	STALL POWER DISTRIBUTION PANEL-2 (TYPICAL FOR 11, 12, 13, 14 & 15)	KW	900.00	6	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.52.	Power Distribution Panel	STALL POWER DISTRIBUTION PANEL-8 (TYPICAL FOR 4 & 5)	KW	1,350.00	3	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.53.	Power Distribution Panel	STALL POWER DISTRIBUTION PANEL-8 (TYPICAL FOR 4 & 5)	KW	1,350.00	3	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.54.	Power Distribution Panel	MAIN STALL POWER PANEL	KW	13,000.00	1	Tricolite	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.55.	Power Distribution Panel	MAIN STALL POWER PANEL	KW	13,000.00	1	Tricolite	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.56.	Power Distribution Panel	STALL POWER DISTRIBUTION PANEL-1 (TYPICAL FOR 1, 8, 9 & 16)	KW	1000.00	5	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
12.57.	Power Distribution Panel	STALL POWER DISTRIBUTION PANEL-1 (TYPICAL FOR 1, 8, 9 & 16)	KW	1000.00	5	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provision
12.58.	Transformers	HT / LT Transformer 11/.433KV, 50Hz	KVA	2,000.00	2	Volt amps	11/0.415kV	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.59.	Transformers	HT / LT Transformer 11/.433KV, 50Hz	KVA	2,000.00	2	Volt amps	11/0.415kV	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.60.	UPS	UPS	KVA	10.00	2			Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.61.	UPS	UPS	KVA	10.00	2			Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment					204			

13. Electrical System- (HT / LT System) Fire Station

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
13.1	Main LT Panel SG ESS side	Fire Station LT Panel	KW	93.3.00	1	Tricolite	BLOKSET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.2	Fire Station LT Panel	VTPN DB Lighting	KW	5.2.00	1	L&T	VK10L25H	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
13.3	Fire Station LT Panel	VTPN DB Power	KW	31.7	1	L&T	VK10L25H	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.4	Fire Station LT Panel	TPN Isolator	Amp	63.00	6	Tricolite	BLOKSET	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
13.5	Fire Station LT Panel	EM UPS	KVA	20.00	2	EATON		Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
13.6	Fire Station LT Panel	ELV UPS	KVA	20.00	2	EATON		Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
13.7	EM UPS Panel	EM UPS Panel	KW	3.3	1	Tricolite		Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
13.8	ELV UPS Panel	ELV UPS Panel	KW	6.00	1	Tricolite		Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
13.9	1F-AC-CAHU-1 LCP	1F-AC-CAHU-1 LCP	KW	1.5	1	Tricolite		Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
13.10	2F-AC-CAHU-1 LCP	2F-AC-CAHU-1 LCP	KW	1.5	1	Tricolite		Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
13.11	FS-TF-CH-WTP-1	FS-TF-CH-WTP-1	KW	11.25	1	Tricolite		Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
13.12	FS-TF-PU-LCP	FS-TF-PU-LCP	KW	0.55	1	Tricolite		Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
13.13	Ext. Sewage Pump	Ext. Sewage Pump	KW	2.5	1	Tricolite		Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
13.14	Terrace Booster Pump	Terrace Booster Pump	KW	15.00	1	Tricolite		Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	Equipment Type	Description of Items / Equipment	Unit	Capacity	Quantity	Make	Model	Annual Maintenance Contract Provisions
13.15	Distribution Boards	LDB ELDB EUDB PDB UDB)	Amp	32A 32A 32A 63A 32A	3 3 1 3 3	Tricolite		Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

20.2 HVAC System for Common Area and Occupied Area

1. HVAC Main Plant Room – EH 03 Basement

Sr. No	EQUIPMENT	DESCRIPTION	CAPACITY	QTY	UNIT	Annual Maintenance Contract Provision
1.1.	CHILLER	Water Cooled Centrifugal Chiller	2000 TR	6	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.2.	PUMP	Chilled water Primary Pumps	3000 GPM	6	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.3.		Chilled water Secondary Pumps with VFD	3076 GPM	7	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.4.		Condenser water Pumps	6000 GPM	6	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.5.	Additional Accessories	Air & Dirt separator	6152 GPM	3	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

Sr. No	EQUIPMENT	DESCRIPTION	CAPACITY	QTY	UNIT	Annual Maintenance Contract Provision
1.6.		Motorized Butterfly Valve	0.3 KW	12	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.7.		Expansion tank for chilled water line	5000 LITERS	3	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.8.		Pressurization unit with 2 Nos. pumps for Expansion tank		1	SET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.9.		Chemical Dosing system (Closed & Open circuit)		2	SET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.10.	Heat Pump	Heat Pump	2000KW	2	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.11.	PUMP	Hot water Condenser Secondary Pump with VFD	758 GPM	3	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.12.		Heat Pump Cooler Primary Pump	1152 GPM	3	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.13.		Heat Pump Condenser Primary Pump	758 GPM	3	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.14.	Additional Accessories	Air & Dirt separator		1	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

Sr. No	EQUIPMENT	DESCRIPTION	CAPACITY	QTY	UNIT	Annual Maintenance Contract Provision
1.15.		Motorized Butterfly Valve	0.3 KW	4	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.16.		Expansion tank for chilled water	5000 LITERS	1	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.17.		Pressurization unit with 2 Nos. pumps for Expansion tank		1	SET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.18.		Chemical Dosing system (Closed circuit)		1	SET	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment				65		

2. HVAC Pump Room – Exhibition Hall 1 and Foyer 1

Sr. No	DESCRIPTION	Location Served	CAPACITY KW	QTY	UNIT	Annual Maintenance Contract Provision
2.1.	Tertiary Variable Pumps with VFD	Exhibition hall 1	45	3	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
2.2.	Tertiary Variable Pumps with VFD	Foyer 1	15	3	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
2.3.	Pressurization Pump	Exhibition hall 1	1.1	2	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
2.4.	Pressurization Pump	Foyer 1	1.1	2	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
2.5.	Plate Type Heat Exchanger (PHEX)	Exhibition hall 1	1750 GPM	2	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
2.6.	Plate Type Heat Exchanger (PHEX)	Foyer 1	600 GPM	2	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
2.7.	Motorized Butterfly Valve	Exhibition hall 1	0.3 KW	2	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
2.8.	Motorized Butterfly Valve	Foyer 1	0.3 KW	2	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	DESCRIPTION	Location Served	CAPACITY KW	QTY	UNIT	Annual Maintenance Contract Provision
2.9.	Expansion Tank for chilled water	Exhibition hall 1 & Foyer 1		2	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
2.10.	Air & Dirt Separator	Exhibition hall 1 & Foyer 1		2	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
2.11.	Chemical Dosing system pump (Closed tertiary circuit)	Exhibition hall 1 & Foyer 1		2	sets	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment				24		

3. HVAC Pump Room – Exhibition Hall 2

Sr. No	DESCRIPTION	Location Served	CAPACITY	QTY	UNIT	Annual Maintenance Contract Provision
3.1.	Chilled Water Tertiary Variable Pumps with VFD Controller	Exhibition hall 2	45	3	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
3.2.	Chilled Water Tertiary Variable Pumps with VFD Controller	Foyer 2	11	3	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
3.3.	Pressurization Pump	Exhibition hall 2	1.1	2	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
3.4.	Pressurization Pump	Foyer 2	1.1	2	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
3.5.	Plate Type Heat Exchanger (PHEX)	Exhibition hall 2	1750 GPM	2	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
3.6.	Plate Type Heat Exchanger (PHEX)	Foyer 2	500 GPM	2	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
3.7.	Motorized Butterfly Valve	Exhibition hall 2	0.3 KW	2	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
3.8.	Motorized Butterfly Valve	Foyer 2	0.3 KW	2	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sr. No	DESCRIPTION	Location Served	CAPACITY	QTY	UNIT	Annual Maintenance Contract Provision
3.9.	Expansion Tank	Exhibition hall 2 & Foyer 2		2	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
3.10.	Air & Dirt Separator	Exhibition hall 2 & Foyer 2		2	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
3.11.	Chemical Dosing system pump (Closed tertiary circuit)	Exhibition hall 2 & Foyer 2		2	Sets	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment				24		

4. HVAC Pump Room – Convention Center

Sr. No	DESCRIPTION	Location Served	CAPACITY	QTY	UNIT	Annual Maintenance Contract Provision
4.1.	Chilled Water Tertiary Variable Pumps with VFD Controller	Convention Center - All Floors	37.5	4	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
4.2.	Hot Water Tertiary Variable Pumps with VFD Controller	Convention Center - All Floors	11.25	2	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
4.3.	Pressurization Pump	Convention Center - All Floors	0.55	2	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
4.4.	Pressurization Pump	Convention Center - All Floors	0.55	2	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
4.5.	Motorized Butterfly Valve	Convention Center - All Floors	0.3	2	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
4.6.	Expansion Tank	Convention Center - All Floors (Chilled Water Circuit & Cold Water Circuit)		2	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
4.7.	Air & Dirt Separator	Convention Center - All Floors (Chilled Water Circuit & Cold Water Circuit)		2	Nos.	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
4.8.	Chemical Dosing system pump (Closed tertiary circuit)	Convention Center - All Floors (Chilled Water Circuit & Cold Water Circuit)		2	Sets	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment				18		

5. HVAC Pump Room – Fire Station

Sr. No	DESCRIPTION	Location Served	CAPACITY	QTY	UNIT	Annual Maintenance Contract Provision
	Chilled Water Tertiary Variable Pumps with VFD Controller	Fire Station - All Floors	3.7	2	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	Pressurization Pump	Fire Station - All Floors	0.55	2	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	Motorized Butterfly Valve	Fire Station - All Floors	0.3	1	No.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	Plate Type Heat Exchanger (PHEX)	Fire Station - All Floors	90GPM	1	No.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	Expansion Tank	Fire Station - All Floors		1	No.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	Air & Dirt Separator	Fire Station - All Floors		1	No.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	Chemical Dosing system pump (Closed tertiary circuit)	Fire Station - All Floors		1	Set	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment				9		

6. Air conditioning Units – ESS 1

SL. No	Location	Area served & application	Unit type	Capacity	Qty	Annual Maintenance Contract Provision
6.1.	ESS 1	Control Room	Split DX A/C Unit	2.0 TR	6	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
6.2.	ESS 1	Battery Room	Split DX A/C Unit	1.5 TR	4	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
6.3.	ESS 1	SCADA Room	Split DX A/C Unit	1.5 TR	2	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment					12	

7. Air conditioning Units – ESS 2

SL. No	Location	Area served & application	Unit type	Capacity	Qty	Annual Maintenance Contract Provision
7.1.	ESS 2	Control Room	Split DX A/C Unit	2.0 TR	6	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
7.2.	ESS 2	Battery Room	Split DX A/C Unit	1.5 TR	4	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
7.3.	ESS 2	SCADA Room	Split DX A/C Unit	1.5 TR	2	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment					12	

8. Air conditioning Units – DG Building

SL. No	Location	Area served & application	Unit type	Capacity	Qty	Annual Maintenance Contract Provision
8.1.	DG Building	UPS Room	Split DX A/C Unit	1.5 TR	4	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
8.2.	DG Building	Battery Room	Split DX A/C Unit	2.0 TR	2	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
8.3.	DG Building	STR Room	Split DX A/C Unit	2.0 TR	2	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment					8	

9. Air conditioning Units – Fire Station

SL. No	Location	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
9.1.	Fire Station- Floor Grd	Consultant Room	Cassette	400 CFM / 1 TR	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
9.2.	Fire Station- Floor Grd	Discussion Room	Cassette	600 CFM / 1.5 TR	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
9.3.	Fire Station- Floor Grd	Fire Control Room	Cassette	800 CFM / 2.0 TR	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
9.4.	Fire Station- Floor Grd	Reception & Pharmacy	FCU	1000 CFM / 2.5 TR	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
9.5.	Fire Station- Floor Grd	Reception	FCU	1000 CFM / 2.5 TR	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
9.6.	Fire Station- Floor Grd	Corridor & Ward	FCU	1200 CFM / 3.0 TR	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

SL. No	Location	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
9.7.	Fire Station- Floor Grd	Trauma Room & Ward	FCU	1200 CFM / 3.0 TR	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
9.8.	Fire Station- Floor Grd	Clean & Dirty Room	Cabinet	140 CFM	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
9.9.	Fire Station- Floor 1	Corridor & Electrical Room	CAHU	3000 CFM / 7.5 TR	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
9.10.	Fire Station- Floor 1	Control Room & Warning Centre	Cassette	1200 CFM / 3.0 TR	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
9.11.	Fire Station- Floor 1	Control Room & Warning Centre	Cassette	1200 CFM / 3.0 TR	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
9.12.	Fire Station- Floor 1	Security Officer Room	Cassette	1000 CFM / 2.5 TR	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
9.13.	Fire Station- Floor 1	ELV Room	FCU	1200 CFM / 3.0 TR	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

SL. No	Location	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
9.14.	Fire Station- Floor 2	Corridor & Waiting Area	CAHU	3000 CFM / 7.5 TR	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
9.15.	Fire Station- Floor 2	Fire Officers Room	Cassette	800 CFM / 2.0 TR	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
9.16.	Fire Station- Floor 2	Operation Room	Cassette	1200 CFM / 3.0 TR	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
9.17.	Fire Station- Floor 2	Operation Room	Cassette	1200 CFM / 3.0 TR	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
9.18.	Fire Station- Floor 2	AD Fire Officer Room	Cassette	800 CFM / 2.0 TR	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
9.19.	Fire Station- Floor 2	Drill & Training Room	FCU	600 CFM / 1.5 TR	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
9.20.	Fire Station- Floor 2	UPS & Battery Room	FCU	1200 CFM / 3.0 TR	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
9.21.	Fire Station- Floor 2	Crew Room	FCU	1200 CFM / 3.0 TR	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
9.22.	Fire Station- Floor 2	Store Room	FCU	800 CFM / 2.0 TR	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
9.23.	Fire Station- Terrace	Change Room & Toilet	Cabinet	800 CFM	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
9.24.	Fire Station- Terrace	Change Room & Toilet	Cabinet	3100 CFM	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment					24	

10. Air conditioning Units – Exhibition Hall 3 Basement

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
10.1.	EH -3 Basement 1	EH3-B1-CPM-IDU-01 & 02	CPM Room	DX Split AC Unit	2.6 KW	2	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
10.2.	EH -3 Basement 1	EH3-B1-CR-IDU-03 to 05	Control Room inside AC Plant Room	DX Split AC Unit	2.5 KW	3	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
10.3.	EH -3 Basement 1	EH3-B1-STR-IDU-06 & 07	STR Room Grid H 71-72, V17-V17'	DX Split AC Unit	2.5 KW	2	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
10.4.	EH -3 Basement 1	EH3-B1-UPS-CSAHU-01	UPS Room -ph1	CSU	4500 CFM	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
10.5.	EH -3 Basement 1	EH3-B1-OR-IDU-08	Operator Room inside solid waste management Room	DX Split AC Unit	2.6 KW	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
10.6.	EH -3 Basement 1	EH3-B1-FCR-FCU-01	Fire Control Room (V23-23',H65)	FCU	1200 CFM	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
10.7.	EH -3 Floor Mez.	EH3-Mezz-STR-IDU 09 and 10	STR Room Grid H 64,65-V 21) at Mezzanine floor	DX Split AC Unit	2.5 KW	2	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
10.8.	EH -3 Basement 1	EH3-B1-ER-CSAHU-02	Exhauster Room in the Pneumatic Equipment Room-Basement 1	CSU	4500 CFM	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
10.9.	EH -3 Floor Mez.	EH3-Mezz-EMR-CSAHU-03 to 06	Engineering Maintenance Room (6 Nos of Rooms)	CSU	6000 CFM	6	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
10.10.	EH -3 Basement 1	EH3-B1-CR-IDU-11	CHEMICAL ROOM	DX Split AC Unit	2.5 KW	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
10.11.	EH -3 Basement 1	EH3-B1-CR-IDU-12	CONTROL ROOM basement near to solid waste mgm room	DX Split AC Unit	2.5 KW	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment						21	

11. Air conditioning Units – Foyer 2

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
11.1.	Foyer 2 - Floor Grd	F2-GF-AC-CASS-01 & 02	VIP Room - Supply	Cassette	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.2.	Foyer 2 - Floor Grd	F2-GF-AC-CASS-03 & 05	Meeting room - Supply	Cassette	0.74 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.3.	Foyer 2 - Floor Grd	F2-GF-AC-CASS-06	Traduction - Supply	Cassette	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.4.	Foyer 2 - Floor Grd	F2-GF-AC-CASS-07	Traduction - Supply	Cassette	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.5.	Foyer 2 - Floor Grd	F2-GF-AC-CASS-02,04,08 & 11	Corridor - Supply	Cassette	1.48 KW	4	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.6.	Foyer 2 - Floor Grd	F2-GF-AC-CASS-09 & 10	VIP Room - Supply	Cassette	0.74 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
11.7.	Foyer 2 - Floor Grd	F2-GF-AC-CASS-12	Ticket office - Supply	Cassette	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.8.	Foyer 2 - Floor Grd	F2-GF-AC-CASS-13	Cloak Room - Supply	Cassette	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.9.	Foyer 2 - Floor Grd	F2-GF-AC-FCU-01	ICT - Supply	FCU	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.10.	Foyer 2 - Floor Grd	F2-GF-AC-FCU-02	ICT - Supply	FCU	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.11.	Foyer 2 - Floor Grd	F2-GF-AC-CASS-14 & 15	Cloak Room - Supply	Cassette	0.74 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.12.	Foyer 2 - Floor Grd	F2-GF-AC-CASS-16 & 17	Ticket office - Supply	Cassette	0.74 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.13.	Foyer 2 - Floor Grd	F2-GF-AC-CASS-18	Concierge Room - Supply	Cassette	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
11.14.	Foyer 2 - Floor Grd	F2-GF-AC-CASS-26	First Aid Room - Supply	Cassette	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.15.	Foyer 2 - Floor Grd	F2-GF-AC-CASS-23,24 & 19	Corridor - Supply	Cassette	1.11 KW	3	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.16.	Foyer 2 - Floor Grd	F2-GF-AC-CASS-25	Pantry - Supply	Cassette	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.17.	Foyer 2 - Floor Grd	F2-GF-AC-CASS-20,21 & 22	Organizers Room & MEETING ROOMS - Supply	Cassette	1.11 KW	3	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.18.	Foyer 2 - Floor 1	F2-FF-AC-CASS-01	Pantry - Supply	Cassette	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.19.	Foyer 2 - Floor 1	F2-FF-AC-CASS-02	Meeting room - Supply	Cassette	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.20.	Foyer 2 - Floor 1	F2-FF-AC-CASS-03	Meeting room - Supply	Cassette	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
11.21.	Foyer 2 - Floor 1	F2-FF-AC-CASS-04	Meeting room - Supply	Cassette	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.22.	Foyer 2 - Floor 1	F2-FF-AC-CASS-05	Meeting room - Supply	Cassette	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.23.	Foyer 2 - Floor 1	F2-FF-AC-CASS-06 TO 12	Meeting room - Supply	Cassette	2.59 KW	7	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.24.	Foyer 2 - Floor 1	F2-FF-AC-FCU-01	Kitchen - Supply	FCU	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.25.	Foyer 2 - Floor 1	F2-FF-AC-FCU-02	Kitchen - Supply	FCU	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.26.	Foyer 2 - Floor 1	F2-FF-AC-CASS-13 TO 20	Meeting room - Supply	Cassette	2.96 KW	8	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.27.	Foyer 2 - Floor 1	F2-FF-AC-CASS-21	Meeting room - Supply	Cassette	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
11.28.	Foyer 2 - Floor 1	F2-FF-AC-CASS-22	Meeting room - Supply	Cassette	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.29.	Foyer 2 - Floor 1	F2-FF-AC-CASS-23	Meeting room - Supply	Cassette	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.30.	Foyer 2 - Floor 1	F2-FF-AC-CASS-24	Meeting room - Supply	Cassette	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.31.	Foyer 2 - Floor 1	F2-FF-AC-CASS-25	Pantry - Supply	Cassette	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.32.	Foyer 2 - Floor 2	F2-2F-AC-CAHU-01	Kitchen - Supply	CAHU	4 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.33.	Foyer 2 - Floor 2	F2-2F-AC-CAHU-02	Kitchen - Supply	CAHU	4 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.34.	Foyer 2 - Floor 2	F2-2F-AC-FCU-01	STR - Supply	FCU	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
11.35.	Foyer 2 - Floor 2	F2-2F-AC-FCU-02	STR - Supply	FCU	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.36.	Foyer 2 - Floor 3	F2-3F-AC-CAHU-01	Mocc room - Supply	CAHU	2.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.37.	Foyer 2 - Floor 3	F2-3F-AC-CAHU-02	SCC room - Supply	CAHU	2.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.38.	Foyer 2 - Floor 3	F2-3F-AC-FCU-01	ICT - Supply	FCU	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.39.	Foyer 2 - Floor 3	F2-3F-AC-FCU-02	Battery - Supply	FCU	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.40.	Foyer 2 - Floor 3	F2-3F-AC-FCU-03	UPS - Supply	FCU	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.41.	Foyer 2 - Floor 3	F2-3F-AC-AHU-15	Resturant F2- Supply	AHU with HRW	22 KW	4	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
11.42.	Foyer 2 - Floor 3	F2-3F-AC-AHU-15	Resturant F2- Outdoor	AHU with HRW	KW	0	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.43.	Foyer 2 - Floor 3	F2-3F-AC-AHU-15	Resturant F2- Exhaust	AHU with HRW	1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.44.	Foyer 2 - Floor 3	F2-3F-AC-AHU-15	Resturant F2- HRW	AHU with HRW	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.45.	Foyer 2 - Floor 3	F2-3F-AC-AHU- 16	Resturant F2- Supply	AHU with HRW	22 KW	4	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.46.	Foyer 2 - Floor 3	F2-3F-AC-AHU- 16	Resturant F2- Outdoor	AHU with HRW	KW	0	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.47.	Foyer 2 - Floor 3	F2-3F-AC-AHU- 16	Resturant F2- Exhaust	AHU with HRW	1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.48.	Foyer 2 - Floor 3	F2-3F-AC-AHU- 16	Resturant F2- HRW	AHU with HRW	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
11.49.	Foyer 2 - Floor 3	F2-3F-AC-AHU-13 & 14	Meeting F3- Supply	AHU with HRW	8 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.50.	Foyer 2 - Floor 3	F2-3F-AC-AHU-13 & 14	Meeting F3- Outdoor	AHU with HRW	KW	0	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.51.	Foyer 2 - Floor 3	F2-3F-AC-AHU-13 & 14	Meeting F3- Exhaust	AHU with HRW	1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.52.	Foyer 2 - Floor 3	F2-3F-AC-AHU-13 & 14	Meeting F3- HRW	AHU with HRW	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.53.	Foyer 2 - Floor 3	F2-3F-AC-AHU- 17	Resturant F2- Supply	AHU with HRW	22.5 KW	3	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.54.	Foyer 2 - Floor 3	F2-3F-AC-AHU- 17	Resturant F2- Outdoor	AHU with HRW	KW	0	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.55.	Foyer 2 - Floor 3	F2-3F-AC-AHU- 17	Resturant F2- Exhaust	AHU with HRW	4 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
11.56.	Foyer 2 - Floor 3	F2-3F-AC-AHU- 17	Resturant F2- HRW	AHU with HRW	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.57.	Foyer 2 - Floor 3	F2-3F-AC-AHU- 18	Resturant F2- Supply	AHU with HRW	22.5 KW	3	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.58.	Foyer 2 - Floor 3	F2-3F-AC-AHU- 18	Resturant F2- Outdoor	AHU with HRW	KW	0	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.59.	Foyer 2 - Floor 3	F2-3F-AC-AHU- 18	Resturant F2- Exhaust	AHU with HRW	4 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.60.	Foyer 2 - Floor 3	F2-3F-AC-AHU- 18	Resturant F2- HRW	AHU with HRW	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.61.	Foyer 2 - Floor 3	F2-3F-AC-HRW-01	Toilets - Outdoor	HRW	7.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.62.	Foyer 2 - Floor 3	F2-3F-AC-HRW-01	Toilets - Exhaust	HRW	7.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
11.63.	Foyer 2 - Floor 3	F2-3F-AC-HRW-01	Toilets - HRW	HRW	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.64.	Foyer 2 - Floor 3	F2-3F-AC-HRW-02	Toilets - Outdoor	HRW	7.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.65.	Foyer 2 - Floor 3	F2-3F-AC-HRW-02	Toilets - Exhaust	HRW	7.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.66.	Foyer 2 - Floor 3	F2-3F-AC-HRW-02	Toilets - HRW	HRW	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment						96	

12. Air conditioning Units – Exhibition Hall 1

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
12.1.	EH-1 Basement 1	FP-B1-Z1-AHU-01	Ground Floor (Supply)	AHU	36000 CFM	4	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.2.	EH-1 Basement 1	FP-B1-Z2-AHU-02	Ground Floor (Supply)	AHU	36000 CFM	4	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.3.	EH-1 Basement 1	FP-B1-Z3-AHU-03	Ground Floor (Supply)	AHU	36000 CFM	4	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.4.	EH-1 Basement 1	FP-B1-Z4-AHU-04	Ground Floor (Supply)	AHU	36000 CFM	4	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.5.	EH-1 Basement 1	FP-B1-Z5-AHU-05A	UPS & Battery Room - Zone 5 (Supply)	AHU	6700 CFM	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.6.	EH-1 Basement 1	FP-B1-Z5-AHU-05	Circulation	AHU	10000 CFM	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
12.7.	EH-1 Basement 1	FP-B1-Z5-AHU-06	Lounge	AHU	3000 CFM	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.8.	EH-1 Basement 1	EH1-B1-UPS-AHU-01	UPS - (Supply)	AHU	9182 CFM	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.9.	EH-1 Floor 3	EH1-3F-AC-AHU-13	Café Bar - Supply	AHU with HRW	12000 CFM	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.10.	EH-1 Floor 3		HRW Exhaust	AHU with HRW	3150 CFM	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.11.	EH-1 Floor 3	EH1-3F-AC-AHU-14	Café Bar - Supply	AHU with HRW	7278 CFM	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.12.	EH-1 Floor 3		HRW Exhaust	AHU with HRW	1979 CFM	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.13.	EH-1 Floor 3	EH1-3F-AHU- 01 TO 12	Exhibition Hall-1 - AHU Supply	AHU with HRW	50000 CFM	72	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
12.14.	EH-1 Floor 3		Exhibition Hall-1 - HRW Exhaust	AHU with HRW	9070 CFM	24	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.15.	EH-1 Floor 1	EH1-FF-AC-CAHU-01	F1-1F-Kitchen-F1114	CAHU	973 CFM	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.16.	EH-1 Floor 2	EH1-SF-AC-CAHU-01	F1-2F-Kitchen-F2201	CAHU	973 CFM	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.17.	EH-1 Mez. Floor	EH1-3F-AC-CAHU-01	EH1-3F-ELV Rm-F3104	CAHU	2400 CFM	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.18.	EH-1 Floor 1	EH1-FF-AC-CASS-01	F1-1F-Meeting Rm-F1208	Chilled Water Cassette Unit	1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.19.	EH-1 Floor 1	EH1-FF-AC-CASS-12	F1-1F-Meeting Rm-F1205	Chilled Water Cassette Unit	1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.20.	EH-1 Floor 1	EH1-FF-AC-CASS-11	F1-1F-Meeting Rm-F1206	Chilled Water Cassette Unit	1 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
12.21.	EH-1 Floor 1	EH1-FF-AC-CASS-10	F1-1F-Meeting Rm-F1207	Chilled Water Cassette Unit	1 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.22.	EH-1 Floor 1	EH1-FF-AC-CASS-09	F1-1F-Meeting Rm-F1211	Chilled Water Cassette Unit	1 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.23.	EH-1 Floor 1	EH1-FF-AC-CASS-08	F1-1F-Pantry-F1208	Chilled Water Cassette Unit	1 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.24.	EH-1 Floor 1	EH1-FF-AC-CASS-02 / 03 / 04 / 05 / 07	F1-1F-Meeting Rm-F1213	Chilled Water Cassette Unit	1.5 KW	5	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.25.	EH-1 Floor 1	EH1-FF-AC-CASS-06	F1-1F-Meeting Rm-F1212	Chilled Water Cassette Unit	1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.26.	EH-1 Floor 1	EH1-FF-AC-CASS-16	F1-1F-Lobby-F1215	Chilled Water Cassette Unit	1 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.27.	EH-1 Ground Floor	EH1-GF-AC-CASS-02 & 03	F1-GF-Organizer Rm-F0201	Chilled Water Cassette Unit	1.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
12.28.	EH-1 Ground Floor	EH1-GF-AC-CASS-04	F1-GF-Manager Rm-F0202	Chilled Water Cassette Unit	1 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.29.	EH-1 Ground Floor	EH1-GF-AC-CASS-09 / 10 / 11	F1-GF-Media Rm-F0131	Chilled Water Cassette Unit	1.5 KW	3	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.30.	EH-1 Ground Floor	EH1-GF-AC-CASS-12	F1-GF-Media Rm-F0129	Chilled Water Cassette Unit	1 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.31.	EH-1 Ground Floor	EH1-GF-AC-CASS-13	F1-GF-Media Rm-F0130	Chilled Water Cassette Unit	1 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.32.	EH-1 Ground Floor	EH1-GF-AC-CASS-05 / 06 / 07	F1-GF-Cloak Rm-F0203	Chilled Water Cassette Unit	1 KW	3	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.33.	EH-1 Ground Floor	EH1-GF-AC-CASS-22	F1-GF-Conceirge Rm-F0204	Chilled Water Cassette Unit	1 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.34.	EH-1 Ground Floor	EH1-GF-AC-CASS-08	F1-GF-VIP Rm-F0132	Chilled Water Cassette Unit	1 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
12.35.	EH-1 Ground Floor	EH1-GF-AC-CASS-21	F1-GF-Lift lobby-F0133	Chilled Water Cassette Unit	1 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.36.	EH-1 Ground Floor	EH1-GF-AC-CASS-01	F1-GF-FCR-F0200	Chilled Water Cassette Unit	1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.37.	EH-1 Ground Floor	EH1-GF-AC-CASS-23	F1-GF-First Aid Rm-F0142	Chilled Water Cassette Unit	1 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.38.	EH-1 Ground Floor	EH1-GF-AC-CASS-15 / 16 / 17	F1-GF-Ticket info-F0206	Chilled Water Cassette Unit	2 KW	3	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.39.	EH-1 Ground Floor	EH1-GF-AC-CASS-18/ 19	F1-GF-Ticket info-F0208	Chilled Water Cassette Unit	1.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.40.	EH-1 Ground Floor	EH1-GF-AC-CASS-20	F1-GF-Ticket info-F0213	Chilled Water Cassette Unit	1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.41.	EH-1 Ground Floor	EH1-GF-AC-CASS-42	F1-GF-Manager Rm-F0217	Chilled Water Cassette Unit	1 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
12.42.	EH-1 Ground Floor	EH1-GF-AC-CASS-43	F1-GF-Manager Rm-F0218	Chilled Water Cassette Unit	1 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.43.	EH-1 Ground Floor	EH1-GF-AC-CASS-40 & 41	F1-GF-Organiser Rm-F0216	Chilled Water Cassette Unit	1.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.44.	EH-1 Ground Floor	EH1-GF-AC-CASS-24	EH1-GF-STR Rm-F0119	Chilled Water Cassette Unit	2.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.45.	EH-1 Ground Floor	EH1-GF-AC-CASS-27	EH1-GF-Office-F0219	Chilled Water Cassette Unit	1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.46.	EH-1 Ground Floor	EH1-GF-AC-CASS-28	EH1-GF-Office-F0220	Chilled Water Cassette Unit	1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.47.	EH-1 Ground Floor	EH1-GF-AC-CASS-36	EH1-GF-Office-F0221	Chilled Water Cassette Unit	1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.48.	EH-1 Ground Floor	EH1-GF-AC-CASS-35	EH1-GF-Office-F0222	Chilled Water Cassette Unit	1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
12.49.	EH-1 Ground Floor	EH1-GF-AC-CASS-25& 26	EH1-GF-Office-F0223	Chilled Water Cassette Unit	1.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.50.	EH-1 Ground Floor	EH1-GF-AC-CASS- 29 &30	EH1-GF-Office-F0224	Chilled Water Cassette Unit	1.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.51.	EH-1 Ground Floor	EH1-GF-AC-CASS-37 & 38	EH1-GF-Office-F0225	Chilled Water Cassette Unit	1.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.52.	EH-1 Ground Floor	EH1-GF-AC-CASS-33 &34	EH1-GF-Office-F0226	Chilled Water Cassette Unit	1.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.53.	EH-1 Ground Floor	EH1-GF-AC-CASS-31	EH1-GF-Office-F0232	Chilled Water Cassette Unit	1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.54.	EH-1 Ground Floor	EH1-GF-AC-CASS-39	EH1-GF-Office-F0233	Chilled Water Cassette Unit	1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.55.	EH-1 Ground Floor	EH1-GF-AC-CASS-32	EH1-GF-Office-F0234	Chilled Water Cassette Unit	1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
12.56.	EH-1 Basement 1	EH1-B1-AC-FCU-04	EH1-B1-ICT Rm-B1143	FCU	1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.57.	EH-1 Basement 1	EH1-B1-AC-FCU-05	EH1-B1-ICT Rm-B1144	FCU	1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.58.	EH-1 Basement 1	EH1-B1-AC-FCU-06	EH1-B1-ICT Rm-B1145	FCU	1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.59.	EH-1 Floor 1	EH1-FF-AC-FCU-01	F1-1F-STR-F1112	FCU	2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.60.	EH-1 Ground Floor	EH1-GF-AC-FCU-04	F1-GF-STR Rm-F0134	FCU	2.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.61.	EH-1 Ground Floor	EH1-GF-AC-FCU-05	F1-GF-PTR Room-F0141	FCU	3 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.62.	EH-1 Ground Floor	EH1-GF-AC-FCU-02	EH1-GF-FCR Rm-F0103	FCU	1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
12.63.	EH-1 Ground Floor	EH1-GF-AC-FCU-01	EH1-GF-STR Rm-F0100	FCU	3 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.64.	EH-1 Ground Floor	EH1-GF-AC-FCU-03	EH1-GF-STR Rm-F0113	FCU	3 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.65.	EH-1 Mez. Floor	EH1-MF-AC-FCU-01 & 02	EH1-MF-OCC-FM111	FCU	3 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.66.	EH-1 Mez. Floor	EH1-MF-AC-FCU-04&05	EH1-MF-ICT Rm-FM101	FCU	3 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.67.	EH-1 Mez. Floor	EH1-MF-AC-FCU-03	EH1-MF-STR Rm-FM108	FCU	3 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.68.	EH-1 Mez. Floor	EH1-3F-AC-FCU-04	EH1-3F-UPS Rm-F3110	FCU	3 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.69.	EH-1 Mez. Floor	EH1-3F-AC-FCU-03	EH1-3F-Battery Rm-F3111	FCU	1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
12.70.	EH-1 Mez. Floor	EH1-3F-AC-FCU-01	EH1-3F-ELV Rm-F3103	FCU	1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.71.	EH-1 Basement 1	FP-B1-Z1-HRW-01	AHU ROOMS (Zone 1 & Zone 2)-HRW Outdoor	HRW	21955 CFM	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.72.	EH-1 Basement 1		AHU ROOMS (Zone 1 & Zone 2)-HRW Exhaust	HRW	18500 CFM	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.73.	EH-1 Basement 1	FP-B1-Z4-HRW-02	AHU ROOMS (Zone 3 & 4)-HRW supply	HRW	23500 CFM	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.74.	EH-1 Basement 1		AHU ROOMS (Zone 3 & 4)-HRW Exhaust	HRW	18500 CFM	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.75.	EH-1 Floor 3	EH1-3F-HRW-01	F1 & F2 Toilets - HRW Outdoor	HRW	2998 CFM	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.76.	EH-1 Floor 3		F1 & F2 Toilets - HRW Exhaust	HRW	3148 CFM	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
12.77.	EH-1 Basement 1	FP-B1-STR-ODU-01 & 02	STR Room	Indoor Unit	2 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.78.	EH-1 Basement 1	FP-B1-STR-ODU-01 & 02	STR Room	Indoor Unit	2 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.79.	EH-1 Basement 2	FP-B2-STR-IDU-03 & 04	STR Room	Indoor Unit	1.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.80.	EH-1 Basement 2	FP-B3-STR-IDU-03 & 04	STR Room	Indoor Unit	1.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.81.	EH-1 Mez. Floor	EH1-MF-AC-TFA-01	EH1-MF-Corridor-FM106	TFA	2800 CFM	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment						217	

13. Air conditioning Units – Exhibition Hall 2

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
13.1.	EH-2 Basement 3	FP-B3-Z8-ODU-01 & 02	STR Room	Split unit	2.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.2.	EH-2 Basement 2	FP-B2-Z8-ODU-01 & 02	STR Room	Split unit	2.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.3.	EH-2 Basement 1	FP-B1-Z6-AHU-01	Foyer 2 - GF - Supply	AHU	29200 CFM	3	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.4.	EH-2 Basement 1	FP-B1-Z7-AHU-01	Foyer 2 - GF - Supply	AHU	29200 CFM	3	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.5.	EH-2 Basement 1	FP-B1-Z9-AHU-01	Foyer 2 - GF - Supply	AHU	29200 CFM	3	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.6.	EH-2 Basement 1	FP-B1-Z9-AHU-02	Foyer 2 - GF - Supply	AHU	29200 CFM	3	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
13.7.	EH-2 Basement 1	FP-B1-Z6-HRW-01	Z6 & Z7 AHU-B1	HRW	13800 CFM	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.8.	EH-2 Basement 1		Z6 & Z7 AHU	HRW	6206 CFM	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.9.	EH-2 Basement 1		Z6 & Z7 AHU	HRW	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.10.	EH-2 Basement 1	FP-B1-Z9-HRW-02	Z9 AHU-B1	HRW	13800 CFM	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.11.	EH-2 Basement 1		Z9 AHU	HRW	6206 CFM	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.12.	EH-2 Basement 1		Z9 AHU	HRW	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.13.	EH-2 Basement 1	FP-B1-Z8-ODU-01 & 02	STR Room	Split unit	2.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
13.14.	EH-2 Basement 1	FP-B1-Z7-ODU-01 & 02	STR Room	Split unit	2.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.15.	EH-2 Basement 1	EH2-B1-AHU-01	UPS & Battery Room-Supply	AHU	7500 CFM	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.16.	EH-2 Floor Grd	EH2-GF-AC-FCU-01	STR - Supply	FCU	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.17.	EH-2 Floor Grd	EH2-GF-AC-FCU-02	STR - Supply	FCU	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.18.	EH-2 Floor Grd	EH2-GF-AC-FCU-03 & 04	FCR - Supply	FCU	0.74 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.19.	EH-2 Floor Grd	EH2-GF-AC-FCU-05	STR - Supply	FCU	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.20.	EH-2 Floor Grd	EH2-GF-AC-FCU-06	STR - Supply	FCU	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
13.21.	EH-2 Floor Mez.	EH2-GF-AC-FCU-07	STR - Supply	FCU	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.22.	EH-2 Floor Mez.	EH2-MF-AC-FCU-01	PTR - Supply	FCU	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.23.	EH-2 Floor Mez.	EH2-MF-AC-FCU-02	COR - Supply	FCU	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.24.	EH-2 Floor Mez.	EH2-MF-AC-FCU-03	STR - Supply	FCU	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.25.	EH-2 Floor Mez.	EH2-MF-AC-CAHU-01	Corridor - Supply	CAHU	2.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.26.	EH-2 Floor Mez.	EH2-MF-AC-FCU-04	Lift Lobby - Supply	FCU	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.27.	EH-2 Floor Mez.	EH2-MF-AC-PAHU-01 & 02	Data Centre - Supply	PAHU	15 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
13.28.	EH-2 Floor Mez.	EH2-MF-AC-AHU-01	Battery & UPS - Supply	AHU	5.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.29.	EH-2 Floor 1	EH2-FF-AC-FCU-01	Kitchen - Supply	FCU	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.30.	EH-2 Floor 1	EH2-FF-AC-FCU-02	Kitchen - Supply	FCU	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.31.	EH-2 Floor 1	EH2-FF-AC-FCU-03	Lift Lobby - Supply	FCU	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.32.	EH-2 Floor 1	EH2-FF-AC-CAHU-01	Café Bar - Supply	CAHU	2.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.33.	EH-2 Floor 3	EH2-3F-AC-FCU-01	STR - Supply	FCU	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.34.	EH-2 Floor 3	EH2-3F-AC-FCU-02	ICT - Supply	FCU	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
13.35.	EH-2 Floor 3	EH2-3F-AC-FCU-03	STR - Supply	FCU	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.36.	EH-2 Floor 3	EH2-3F-AC-FCU-04	ICT - Supply	FCU	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.37.	EH-2 Floor 3	EH2-3F-AHU-01 TO 12	Exhibition Hall 2 - AHU Supply	AHU with HRW	396 KW	72	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.38.	EH-2 Floor 3	EH2-3F-AHU-01 TO 12	Exhibition Hall 2 - HRW Outdoor	AHU with HRW	0 KW	0	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.39.	EH-2 Floor 3	EH2-3F-AHU-01 TO 12	Exhibition Hall 2 - HRW Exhaust	AHU with HRW	96 KW	24	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
13.40.	EH-2 Floor 3	EH2-3F-AHU-01 TO 12	Exhibition Hall 2 - HRW	AHU with HRW	4.44 KW	12	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment						158	

14. Air conditioning Units – Convention Center

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
14.1.	CC- Basement- 02	CC-B2-AHU-01	Basement 2 Circulation	AHU	15500 CFM / 5.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.2.	CC- Basement- 02	CC-B2-HRW-01	Basement 2 Circulation - HRW Outdoor	HRW	18098 CFM / 11 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Basement- 02		Basement 2 Circulation - HRW Exh	HRW	14541 CFM / 11 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Basement- 02		Basement 2 Circulation - HRW	HRW M	0.75 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.3.	CC- Basement- 02	CC-B2-AHU-02	Basement 2 Auditorium-Supply	AHU	17400 CFM / 7.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.4.	CC- Basement- 02	CC-B2-AHU-03	Basement 2 Auditorium-Supply	AHU	22100 CFM / 5.5 KW	3	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
14.5.	CC- Basement- 02	CC-B2-AHU-04	Basement 2 Auditorium-Supply	AHU	17400 CFM / 7.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.6.	CC- Basement- 02	CC-B2-AHU-05	Basement 2 Auditorium-Supply	AHU	22100 CFM / 5.5 KW	3	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.7.	CC- Basement- 02	CC-B2-AHU-HRW-01	B2 VIP Circulation-Supply	AHU HRW	6150 CFM / 5.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Basement- 02		B2 VIP Circulation - HRW Exh	AHU HRW	587 CFM / 1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Basement- 02		B2 VIP Circulation - HRW	AHU HRW	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.8.	CC- Basement- 02	CC-B2-AHU-06	Basement 2 Parking lift lobby	AHU	15500 CFM / 5.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.9.	CC- Basement- 02	CC-B2-CAHU-01	Main Security Control Room	Chilled Water Cassette Unit	0.3 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
14.10.	CC- Basement- 02	CC-B2-FCU-01 to 07	STR Room	FCU	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.11.	CC- Basement- 01	CC-B1-AHU-01	Basement 1 Circ - AHU	AHU	12050 CFM / 4 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.12.	CC- Basement- 01	CC-B1-HRW-01	Basement 1 Circ - HRW Outdoor	HRW	4410 CFM / 2.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Basement- 01		Basement 1 Circ - HRW Exh	HRW	4933 CFM / 3.7 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Basement- 01		Basement 1 Circ - HRW	HRW M	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.13.	CC- Basement- 01	CC-B1-AHU-02	B1 Circ - AHU	AHU	19000 CFM / 7.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.14.	CC- Basement- 01	CC-B1-AHU-03	B1 Circ - AHU	AHU	12800 CFM / 5.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
14.15.	CC- Basement- 01	CC-B1-AHU-04	Basement 1 Corr - AHU	AHU	2600 CFM / 1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.16.	CC- Basement- 01	CC-B1-AHU-HRW-01	Basement 1 Audi- AHU	AHU HRW	4500 CFM / 4 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Basement- 01		Basement 1 Audi- HRW Exh	AHU HRW	1038 CFM / 1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Basement- 01		Basement 1 Audi - HRW	AHU HRW	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.17.	CC- Basement- 01	CC-B1-AHU-05	Basement 2 Audi-AHU	AHU	24000 CFM / 7.5 KW	3	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.18.	CC- Basement- 01	CC-B1-HRW-02	Basement 2 Audi-HRW Outdoor	HRW	1268 CFM / 0.75 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Basement- 01		Basement 2 Audi-HRW Exhaust	HRW	1268 CFM / 1.1 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
	CC- Basement- 01		Basement 2 Audi - HRW	HRW M	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.19.	CC- Basement- 01	CC-B1-AHU-06	Basement 2 Audi-AHU	AHU	24000 CFM / 7.5 KW	3	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.20.	CC- Basement- 01	CC-B1-AHU-07	Basement 2 Circ-AHU	AHU	19500 CFM / 7.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.21.	CC- Basement- 01	CC-B1-HRW-03	Basement 2 Circ-HRW Outdoor	HRW	8200 CFM / 3.7 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Basement- 01		Basement 2 Circ-HRW Exhaust	HRW	8200 CFM / 5.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Basement- 01		Basement 2 Circ - HRW	HRW M	0.37 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.22.	CC- Basement- 01	CC-B1-FCU-01 to 03	STR Room	FCU	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
14.23.	CC- Substation	CC-B1-SS-CAHU-01&02	Battery Room& UPS Room	AHU	11150 CFM / 4 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.24.	CC- Ground Floor	CC-F0-AHU-01	GF Audi.Lobby - AHU Supply	AHU	14400 CFM / 5.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.25.	CC- Ground Floor	CC-F0-HRW-01	GF Audi.Lobby - HRW Outdoor	HRW	3386 CFM / 2.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Ground Floor		GF Audi.Lobby - HRW Exh	HRW	3491 CFM / 1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Ground Floor		GF Audi.Lobby - HRW	HRW M	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.26.	CC- Ground Floor	CC-F0-AHU-02	GF Audi.Outer Lobby - AHU Supply	AHU	12700 CFM / 5.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.27.	CC- Ground Floor	CC-F0-HRW-02	GF Audi.Outer Lobby - HRW Outdoor	HRW	1237 CFM / 0.75 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
	CC- Ground Floor		GF Audi.Outer Lobby - HRW Exh	HRW	982 CFM / 0.75 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Ground Floor		GF Audi.Outer Lobby - HRW	HRW M	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.28.	CC- Ground Floor	CC-F0-AHU-04	GF Circulation -AHU Supply	AHU	14900 CFM / 5.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.29.	CC- Ground Floor	Not Available	GF Circulation -AHU Supply	AHU	12300 CFM / 5.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.30.	CC- Ground Floor	CC-F0-AHU-HRW-01	Basement 1 Audi - AHU Supply	AHU	5000 CFM / 4 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.31.	CC- Ground Floor	CC-F0-AHU-05	GF Circ Audi - AHU Supply	AHU	2800 CFM / 1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.32.	CC- Ground Floor	CC-F0-FCU-01 to 05	PTR Room	FCU	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
14.33.	CC- Ground Floor	CC-F0-CCU-01 to 12	INTR. BOOTH	Chilled Water Cassette Unit	0.3 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.34.	CC- Floor 1	CC-F1-AHU-01	F0 Conf. Room- AHU Supply	AHU	12500 CFM / 4 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.35.	CC- Floor 1	CC-F1-HRW-01	F0 Conf. Room-HRW Outdoor	HRW	3832 CFM / 2.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Floor 1		F0 Conf. Room-HRW Exh	HRW	2574 CFM / 1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Floor 1		F0 Conf. Room-HRW	HRW M	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.36.	CC- Floor 1	CC-F1-AHU-02	F0 Conf. Room- AHU Supply	AHU	12500 CFM / 4 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.37.	CC- Floor 1	CC-F1-HRW-02	F0 Conf. Room-HRW Outdoor	HRW	6100 CFM / 5.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
	CC- Floor 1		F0 Conf. Room-HRW Exh	HRW	4626 CFM / 5.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Floor 1		F0 Conf. Room-HRW	HRW M	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.38.	CC- Floor 1	CC-F1-AHU-03	F2 Circulation - AHU Supply	AHU	15800 CFM / 4 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.39.	CC- Floor 1	CC-F1-AHU-04	F1 Circulation - Supply	AHU	16050 CFM / 5.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.40.	CC- Floor 1	CC-F1-HRW-04	F1 Circulation & Audi-HRW Outdoor	HRW	8078 CFM / 5.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Floor 1		F1 Circulation & Audi-HRW Exh	HRW	7336 CFM / 5.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Floor 1		F1 Circulation & Audi-HRW	HRW M	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
14.41.	CC- Floor 1	CC-F1-AHU-05	F1 Audi - AHU Supply	AHU	14100 CFM / 5.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.42.	CC- Floor 1	CC-F0-AHU-03	F1 Audi - AHU Supply	AHU	14100 CFM / 5.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.43.	CC- Floor 1	CC-F1-AHU-06	F1 Circ. - AHU Supply	AHU	15200 CFM / 4 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.44.	CC- Floor 1	CC-F1-AHU-07	F1 Lobby - AHU Supply	AHU	4300 CFM / 4 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.45.	CC- Floor 1	CC-F1-TFA-01	F0&F1 INTR.&CONTROL ROOMS	TFA	1200 CFM / 1.1 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.46.	CC- Floor 1	CC-F1-FCU-01 to 04	STR Room	FCU	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.47.	CC- Floor 1	CC-F1-CCU-01 to 06	INTR.& CONTROL ROOM	Chilled Water Cassette Unit	0.3 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
14.48.	CC- Floor 2	CC-F2-AHU-01	F2 Circ. - AHU Supply	AHU	14750 CFM / 4 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.49.	CC- Floor 2	CC-F2-HRW-01	F2 Circ. - HRW Outdoor	HRW	5960 CFM / 3.7 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Floor 2		F2 Circ. - HRW Exh	HRW	4653 CFM / 3.7 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Floor 2		F2 Circ. - HRW	HRW M	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.50.	CC- Floor 2	CC-F2-AHU-02	F1 Audi Circ. - AHU Supply	AHU	18300 CFM / 5.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.51.	CC- Floor 2	CC-F2-AHU-03	F2 Restaurant - AHU Supply	AHU	14300 CFM / 4 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.52.	CC- Floor 2	CC-F2-HRW-02	F2 Restaurant - HRW Outdoor	HRW	6160 CFM / 3.7 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
	CC- Floor 2		F2 Restaurant - HRW Exh	HRW	4771 CFM / 3.7 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Floor 2		F2 Restaurant - HRW	HRW M	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.53.	CC- Floor 2	CC-F2-AHU-04	F2 Corridor - AHU Supply	AHU	3100 CFM / 2.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.54.	CC- Floor 2	CC-F2-AHU-HRW-01	F2 Main Audi. - AHU Supply	AHU	1950 CFM / 1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.55.	CC- Floor 2	CC-F2-AHU-HRW-02	F3 Conf. Room - AHU Supply	AHU	7500 CFM / 4 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.56.	CC- Floor 2	CC-F2-AHU-HRW-04	F2 Main Audi. - AHU Supply	AHU	1950 CFM / 1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.57.	CC- Floor 2	CC-F2-AHU-05	F2 Conf. Room - AHU Supply	AHU	8050 CFM / 4 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
14.58.	CC- Floor 2	CC-F2-AHU-06	F2 Conf. Room - AHU Supply	AHU	6800 CFM / 4 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.59.	CC- Floor 2	-NA-	F2 Pub.Circ - AHU Supply	AHU	5900 CFM / 4 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.60.	CC- Floor 2	CC-F2-TFA-HRW-01	Kitchen	TFA	4000 CFM / 2.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.61.	CC- Floor 2	CC-F2-TFA-01	INTR.&CONTROL ROOMS	TFA	750 CFM / 0.75 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.62.	CC- Floor 2	CC-F2-CAHU-01	STR Room	CAHU	2600 CFM / 1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.63.	CC- Floor 2	CC-F2-FCU-01&02	STR Room	FCU	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.64.	CC- Floor 2	CC-F2-CCU-01 to 25	INTR.& CONTROL ROOM	Chilled Water Cassette Unit	0.3 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
14.65.	CC- Floor 3	CC-F3-AHU-01	F3 Circ. - AHU Supply	AHU	15600 CFM / 4 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.66.	CC- Floor 3	CC-F3-HRW-01	F3 Circ. - HRW Outdoor	HRW	2040 CFM / 1.1 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Floor 3		F3 Circ. - HRW Exh	HRW	1630 CFM / 1.1 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Floor 3		F3 Circ. - HRW	HRW M	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.67.	CC- Floor 3	CC-F3-AHU-02	F3 VVIP Lounge - AHU Supply	AHU	7500 CFM / 4 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.68.	CC- Floor 3	CC-F3-AHU-03	F3 Staff Circ. - AHU Supply	AHU	12500 CFM / 4 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.69.	CC- Floor 3	CC-F3-HRW-03	F3 Staff Circ. - HRW Outdoor	HRW	6660 CFM / 3.7 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
	CC- Floor 3		F3 Staff Circ. - HRW Exh	HRW	5328 CFM / 3.7 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Floor 3		F3 Staff Circ. - HRW	HRW M	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.70.	CC- Floor 3	CC-F3-AHU-04	F3 Circ. - AHU Supply	AHU	5300 CFM / 4 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.71.	CC- Floor 3	CC-F3-AHU-05	F3 Conf. Room 5 - AHU Supply	AHU	7300 CFM / 4 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.72.	CC- Floor 3	CC-F3-AHU-06	F3 Conf. Room 4 - AHU Supply	AHU	6300 CFM / 4 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.73.	CC- Floor 3	CC-F3-AHU-HRW-01	F3 Conf. Room - AHU Supply	AHU	4000 CFM / 4 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.74.	CC- Floor 3	CC-F2-AHU-HRW-03	F3 Conf. Room - AHU Supply	AHU	7200 CFM / 4 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
14.75.	CC- Floor 3	CC-F3-FCU-01 to 05	STR Room	FCU	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.76.	CC- Floor 4	CC-F4-AHU-01	F4 Conf. Room - AHU Supply	AHU	4400 CFM / 4 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.77.	CC- Floor 4	CC-F4-AHU-02	F4 Conf. Room - AHU Supply	AHU	4200 CFM / 4 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.78.	CC- Floor 4	CC-F4-AHU-03	F3 Staff Circ. - AHU Supply	AHU	11150 CFM / 4 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.79.	CC- Floor 4	CC-F4-AHU-04	F4 Circ. - AHU Supply	AHU	12100 CFM / 4 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.80.	CC- Floor 4	CC-F4-HRW-01	F4 Staff Circ - HRW Outdoor	HRW	3570 CFM / 2.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Floor 4		F4 Staff Circ - HRW Exh	HRW	3304 CFM / 2.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
	CC- Floor 4		F4 Staff Circ - HRW	HRW M	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.81.	CC- Floor 4	CC-F4-AHU-05	F4 Conf. Room - AHU Supply	AHU	5000 CFM / 4 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.82.	CC- Floor 4		F4 Conf. Room - AHU Supply	AHU	5000 CFM / 4 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.83.	CC- Floor 4	CC-F4-AHU-06	F4 VVIP Lounge - AHU Supply	AHU	7000 CFM / 4 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.84.	CC- Floor 4	CC-F4-HRW-03	F4 VVIP Lounge - HRW Outdoor	HRW	1021 CFM / 0.75 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Floor 4		F4 VVIP Lounge - HRW Exh	HRW	880 CFM / 0.75 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Floor 4		F4 VVIP Lounge - HRW	HRW M	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
14.85.	CC- Floor 4	CC-F4-AHU-07	F4 Circ. - AHU Supply	AHU	9400 CFM / 4 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.86.	CC- Floor 4	CC-F4-AHU-HRW-01	F4 Conf. Room - AHU Supply	AHU	3350 CFM / 2.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.87.	CC- Floor 4	CC-F4-AHU-HRW-02	F4 Conf. Room - AHU Supply	AHU	3850 CFM / 4 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.88.	CC- Floor 4	CC-F4-FCU-01&02	STR Room	FCU	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.89.	CC- Floor 5	CC-F5-AHU-01	F5 Staff Circ. - AHU Supply	AHU	12100 CFM / 4 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.90.	CC- Floor 5	CC-F5-HRW-01	F5 Staff Circ. - HRW Outdoor	HRW	2664 CFM / 1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Floor 5		F5 Staff Circ. - HRW Exh	HRW	2206 CFM / 1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
	CC- Floor 5		F5 Staff Circ. - HRW	HRW M	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.91.	CC- Floor 5	CC-F5-AHU-02	F5 Circ. - AHU Supply	AHU	26200 CFM / 5.5 KW	3	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.92.	CC- Floor 5	CC-F5-HRW-02	F5 Circ. - HRW Outdoor	HRW	2016 CFM / 1.1 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Floor 5		F5 Circ. - HRW Exh	HRW	1615 CFM / 1.1 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Floor 5		F5 Circ. - HRW	HRW M	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.93.	CC- Floor 5	CC-F5-AHU-03	F5 Circ. - AHU Supply	AHU	13600 CFM / 5.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.94.	CC- Floor 5	CC-F5-AHU-04	F5 Lounge - AHU Supply	AHU	9400 CFM / 4 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
14.95.	CC- Floor 5	CC-F5-CAHU-01	Battery Room	CAHU	4700 CFM / 4 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.96.	CC- Floor 5	CC-F5-TFA-HRW-01	KICTHEN	TFA	8000 CFM / 5.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.97.	CC- Floor 5	CC-F5-TFA-01	Meeting Room & Office spaces	TFA	2000 CFM / 1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.98.	CC- Floor 5	CC-F5-FCU-01 to 03	STR Room	FCU	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.99.	CC- Floor 5	CC-F5-CCU-01 to 92	Meeting Room & Office spaces	Chilled Water Cassette Unit	0.3 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.100.	CC- Floor 5	PAHU-CC-01 to 03	Datacenter	PAHU	5000 CFM / 5.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.101.	CC- Floor 6	CC-F6-AHU-01	F6 Staff Circ. - AHU Supply	AHU	16800 CFM / 5.5 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
14.102.	CC- Floor 6	CC-F6-HRW-01	F6 Staff Circ. - HRW Outdoor	HRW	1330 CFM / 0.75 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Floor 6		F6 Staff Circ. - HRW Exh	HRW	1064 CFM / 0.75 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Floor 6		F6 Staff Circ. - HRW	HRW M	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.103.	CC- Floor 6		F6 Sky Lobby - AHU Supply	AHU	8500 CFM / 4 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.104.	CC- Floor 6	CC-F6-AHU-02	F6 Sky Lobby - AHU Supply	AHU	11700 CFM / 4 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.105.	CC- Floor 6	CC-F6-FCU-01 & 02	STR Room & SERVERY	FCU	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.106.	CC- Floor 7	CC-F7-AHU-01	F7 Staff Circ. - AHU Supply	AHU	9500 CFM / 4 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
14.107.	CC- Floor 7	CC-F7-HRW-01	F7 Staff Circ. - HRW Outdoor	HRW	1330 CFM / 3.7 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Floor 7		F7 Staff Circ. - HRW Exh	HRW	1064 CFM / 2.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Floor 7		F7 Staff Circ. - HRW	HRW M	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.108.	CC- Floor 7	CC-F7-AHU-02	F7 Int Circ. - AHU Supply	AHU	12100 CFM / 4 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.109.	CC- Floor 7	CC-F7-AHU-03	F7 ELV Rack - AHU Supply	AHU	2650 CFM / 1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.110.	CC- Floor 7	CC-F7-AHU-04	F7 ELV Rack - AHU Supply	AHU	2800 CFM / 1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.111.	CC- Floor 7	CC-F7-AHU-05	F7 Staff Circ. - AHU Supply	AHU	3050 CFM / 1.5 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
14.112.	CC- Floor 7	CC-F7-AHU-06	F7 Satellite Equip. Room - AHU Supply	AHU	4450 CFM / 4 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.113.	CC- Floor 7	CC-F7-HRW-02	F6 Sky Lobby. - HRW Outdoor	HRW	3334 CFM / 2.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Floor 7		F6 Sky Lobby. - HRW Exh	HRW	2994 CFM / 2.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Floor 7		F6 Sky Lobby. - HRW	HRW M	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.114.	CC- Floor 7	CC-F7-AHU-HRW-01	F7 Grand Ball Room - AHU Supply	AHU HRW	27750 CFM / 7.5 KW	3	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Floor 7		F7 Grand Ball Room - HRW Exh	AHU HRW	4643 CFM / 4 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Floor 7		F7 Grand Ball Room - HRW	AHU HRW	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
14.115.	CC- Floor 7	CC-F7-AHU-HRW-02	F7 Grand Ball Room - AHU Supply	AHU HRW	27750 CFM / 7.5 KW	3	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Floor 7		F7 Grand Ball Room - HRW Exh	AHU HRW	4643 CFM / 4 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Floor 7		F7 Grand Ball Room - HRW	AHU HRW	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.116.	CC- Floor 7	CC-F7-AHU-HRW-03	F7 Grand Ball Room - AHU Supply	AHU HRW	27750 CFM / 7.5 KW	3	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Floor 7		F7 Grand Ball Room - HRW Exh	AHU HRW	4643 CFM / 4 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	CC- Floor 7		F7 Grand Ball Room - HRW	AHU HRW	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.117.	CC- Floor 7	CC-F7-TFA-01	INTR.& CONTROL ROOM	TFA	500 CFM / 0.75 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
14.118.	CC- Floor 7	CC-F7-FCU-01 to 05	STR Room	FCU	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.119.	CC- Floor 7	CC-F7-CCU-01 to 28	INTR.& CONTROL ROOM	Chilled Water Cassette Unit	0.3 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.120.	CC- Floor 8	CC-F8-AHU-01	F8 STR Room - AHU Supply	AHU	3500 CFM / 2.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.121.	CC- Floor 8	CC-F8-AHU-02	F8 ELV Rack - AHU Supply	AHU	3500 CFM / 2.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.122.	CC- Floor 8	CC-F8-AHU-03	F8 ELV Rack - AHU Supply	AHU	3500 CFM / 2.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.123.	CC- Floor 8	CC-F8-AHU-04	F8 ELV Rack - AHU Supply	AHU	3500 CFM / 2.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.124.	CC- Floor 8	CC-F8-AHU-05	F8 ELV Rack - AHU Supply	AHU	3500 CFM / 2.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
14.125.	EC - CC - Connecting Corridor	CC-EH-AHU-HRW-01	EH-CC Connecting Corridor	AHU HRW	13000 CFM / 4 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	EC - CC - Connecting Corridor		EH-CC Connecting Corridor - HRW Exh	AHU HRW	2710 CFM / 4 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	EC - CC - Connecting Corridor		EH-CC Connecting Corridor - HRW	AHU HRW	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.126.	EC - CC - Connecting Corridor	CC-EH-AHU-HRW-01	EH-CC Connecting Corridor	AHU HRW	13000 CFM / 4 KW	2	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	EC - CC - Connecting Corridor		EH-CC Connecting Corridor - HRW Exh	AHU HRW	2710 CFM / 4 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
	EC - CC - Connecting Corridor		EH-CC Connecting Corridor - HRW	AHU HRW	0.2 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
14.127.	EC - CC - Connecting Corridor	CC-F7-FCU-01 to 05	EH-CC Lift Lobby	Chilled Water Cassette Unit	0.3 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM / KW	Qty	Annual Maintenance Contract Provision
14.128.	EC - CC - Connecting Corridor	CC-F7-FCU-01 to 05	EH-CC Lift Lobby	Chilled Water Cassette Unit	0.3 KW	1	Comprehensive AMC by SPV/operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment						237	

15. Ventilation and Air Circulation Fans – ESS 1

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
15.1.	ESS -1		ESS Room	Axial Fan	7900 CFM	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
15.2.	ESS -1		Metering Room	Axial Fan	7900 CFM	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
15.3.	ESS -1		HT Panel Room	Axial Fan	11550 CFM	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
15.4.	ESS -1		Electrical Room	Axial Fan	1550 CFM	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
15.5.	ESS -1		Toilet	Axial Fan	550 CFM	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
15.6.	ESS -1		Transformer Room	Axial Fan	1650 CFM	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment						6	

16. Ventilation and Air Circulation Fans – ESS 2

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
16.1.	ESS -2		ESS Room	Axial Fan	7900 CFM	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
16.2.	ESS -2		Metering Room	Axial Fan	7900 CFM	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
16.3.	ESS -2		HT Panel Room	Axial Fan	11550 CFM	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
16.4.	ESS -2		Electrical Room	Axial Fan	1550 CFM	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
16.5.	ESS -2		Toilet	Axial Fan	550 CFM	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment						5	

17. Ventilation and Air Circulation Fans – DG Building

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
17.1.	DG Building		RMU Panel Room	Axial Fan	11300 CFM	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
17.2.	DG Building		RMU Panel Room	Axial Fan	11300 CFM	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
17.3.	DG Building		Metering Room	Axial Fan	9200 CFM	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
17.4.	DG Building		Toilet	Axial Fan	600 CFM	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment						4	

18. Ventilation and Air Circulation Fans – Service Gallery

Sl. No	Location	Equipment Tag	Area Served	Unit type	CFM	Qty	Annual Maintenance Contract Provision
18.1.	Service Gallery	SG-AX-EA-NM-01	Zone-01 Grid MH 10-MV 2 , MH 3 -MV2	Axial Fan (Normal Mode Fan)	11500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.2.	Service Gallery	SG-AX-EA-NM-02	Zone-01 Grid MH 10-MV 2 , MH 3 -MV2	Axial Fan (Normal Mode Fan)	11500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.3.	Service Gallery	SG-AX-EA-NM-03	Zone-02 Grid - MH 3-MV2, MH1-MV5	Axial Fan (Normal Mode Fan)	9000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.4.	Service Gallery	SG-AX-EA-NM-04	Zone-02 Grid - MH 3-MV2, MH1-MV5	Axial Fan (Normal Mode Fan)	9000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.5.	Service Gallery	SG-AX-EA-NM-05	Zone-03 Grid MH1-MV5, MH1-MV10	Axial Fan (Normal Mode Fan)	10600	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.6.	Service Gallery	SG-AX-EA-NM-06	Zone-03 Grid MH1-MV5, MH1-MV10	Axial Fan (Normal Mode Fan)	10600	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.7.	Service Gallery	SG-AX-EA-NM-07	Zone-04 Grid MH1-MV10, MH6-MV12	Axial Fan (Normal Mode Fan)	10100	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.8.	Service Gallery	SG-AX-EA-NM-08	Zone-04 Grid MH1-MV10, MH6-MV12	Axial Fan (Normal Mode Fan)	10100	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sl. No	Location	Equipment Tag	Area Served	Unit type	CFM	Qty	Annual Maintenance Contract Provision
18.9.	Service Gallery	SG-AX-EA-NM-09	Zone-05 Grid MH 6-MV 12,MH14-MV12	Axial Fan (Normal Mode Fan)	11800	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.10.	Service Gallery	SG-AX-EA-NM-10	Zone-05 Grid MH 6-MV 12,MH14-MV12	Axial Fan (Normal Mode Fan)	11800	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.11.	Service Gallery	SG-AX-EA-NM-11	Zone-06 Grid MH14-MV12, MH17-MV7	Axial Fan (Normal Mode Fan)	11800	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.12.	Service Gallery	SG-AX-EA-NM-12	Zone-06 Grid MH14-MV12, MH17-MV7	Axial Fan (Normal Mode Fan)	11800	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.13.	Service Gallery	SG-AX-EA-NM-13	Zone-07 Grid MH17-MV7, MH 17, MV 3	Axial Fan (Normal Mode Fan)	8500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.14.	Service Gallery	SG-AX-EA-NM-14	Zone-07 Grid MH17-MV7, MH 17, MV 3	Axial Fan (Normal Mode Fan)	8500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.15.	Service Gallery	SG-AX-EA-NM-15	Zone -08 Grid MH16-MV 2, MH10-MV2	Axial Fan (Normal Mode Fan)	13500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.16.	Service Gallery	SG-AX-EA-NM-16	Zone -08 Grid MH16-MV 2, MH10-MV2	Axial Fan (Normal Mode Fan)	13500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.17.	Service Gallery	SG-AX-EA-NM-17	Zone-09 Grid MH 16-MV 7, MH5-MV7	Axial Fan (Normal Mode Fan)	8200	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sl. No	Location	Equipment Tag	Area Served	Unit type	CFM	Qty	Annual Maintenance Contract Provision
18.18.	Service Gallery	SG-AX-EA-NM-18	Zone-09 Grid MH 16-MV 7, MH5-MV7	Axial Fan (Normal Mode Fan)	8200	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.19.	Service Gallery	SG-AX-EA-NM-19	Zone-09 Grid MH 16-MV 7, MH5-MV7	Axial Fan (Normal Mode Fan)	8200	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.20.	Service Gallery	SG-AX-EA-NM-20	Tunnel Connecting to EH3	Axial Fan (Normal Mode Fan)	32700	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.21.	Service Gallery	SG-AX-EA-NM-21	Tunnel Connecting to EH3	Axial Fan (Normal Mode Fan)	32700	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.22.	Service Gallery	SG-AX-EA-NM-22	BTR 1 B	Axial Fan (Normal Mode Fan)	4600	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.23.	Service Gallery	SG-AX-EA-NM-23	BTR 1 B	Axial Fan (Normal Mode Fan)	4600	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.24.	Service Gallery	SG-AX-EA-NM-24	BTR 2	Axial Fan (Normal Mode Fan)	6050	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.25.	Service Gallery	SG-AX-EA-NM-25	BTR 3	Axial Fan (Normal Mode Fan)	5570	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.26.	Service Gallery	SG-AX-EA-NM-26	BTR 3	Axial Fan (Normal Mode Fan)	5570	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sl. No	Location	Equipment Tag	Area Served	Unit type	CFM	Qty	Annual Maintenance Contract Provision
18.27.	Service Gallery	SG-AX-EA-NM-27	BTR 20 and Drive way area	Axial Fan (Normal Mode Fan)		1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.28.	Service Gallery	SG-AX-EA-NM-28	BTR 20 and Drive way area	Axial Fan (Normal Mode Fan)		1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.29.	Service Gallery	SG-AX-EA-NM-29	BTR 20 and Drive way area	Axial Fan (Normal Mode Fan)		1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.30.	Service Gallery	SG-AX-EA-NM-30	BTR 20 and Drive way area	Axial Fan (Normal Mode Fan)		1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.31.	Service Gallery	SG-AX-EA-FM-01F	Zone-01 Grid MH 10-MV 2 , MH 3 -MV2	Axial Fan (Fire Mode Fan)	34000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.32.	Service Gallery	SG-AX-EA-FM-02F	Zone-01 Grid MH 10-MV 2 , MH 3 -MV2	Axial Fan (Fire Mode Fan)	34000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.33.	Service Gallery	SG-AX-EA-FM-03F	Zone-02 Grid - MH 3-MV2, MH1-MV5	Axial Fan (Fire Mode Fan)	26650	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.34.	Service Gallery	SG-AX-EA-FM-04F	Zone-02 Grid - MH 3-MV2, MH1-MV5	Axial Fan (Fire Mode Fan)	26650	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.35.	Service Gallery	SG-AX-EA-FM-05F	Zone-03. Grid MH1-MV5, MH1-MV10	Axial Fan (Fire Mode Fan)	31750	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sl. No	Location	Equipment Tag	Area Served	Unit type	CFM	Qty	Annual Maintenance Contract Provision
18.36.	Service Gallery	SG-AX-EA-FM-06F	Zone-03. Grid MH1-MV5, MH1-MV10	Axial Fan (Fire Mode Fan)	31750	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.37.	Service Gallery	SG-AX-EA-FM-07F	Zone-04 Grid MH1-MV10, MH6-MV12	Axial Fan (Fire Mode Fan)	30300	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.38.	Service Gallery	SG-AX-EA-FM-08F	Zone-04 Grid MH1-MV10, MH6-MV12	Axial Fan (Fire Mode Fan)	30300	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.39.	Service Gallery	SG-AX-EA-FM-09F	Zone-05 Grid MH 6-MV 12,MH14-MV12	Axial Fan (Fire Mode Fan)	32200	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.40.	Service Gallery	SG-AX-EA-FM-10F	Zone-05 Grid MH 6-MV 12,MH14-MV12	Axial Fan (Fire Mode Fan)	32200	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.41.	Service Gallery	SG-AX-EA-FM-11F	Zone-06 Grid MH14-MV12, MH17-MV7	Axial Fan (Fire Mode Fan)	32200	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.42.	Service Gallery	SG-AX-EA-FM-12F	Zone-06 Grid MH14-MV12, MH17-MV7	Axial Fan (Fire Mode Fan)	32200	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.43.	Service Gallery	SG-AX-EA-FM-13F	Zone-07 Grid MH17-MV7, MH 17, MV 3	Axial Fan (Fire Mode Fan)	25000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.44.	Service Gallery	SG-AX-EA-FM-14F	Zone-07 Grid MH17-MV7, MH 17, MV 3	Axial Fan (Fire Mode Fan)	25000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sl. No	Location	Equipment Tag	Area Served	Unit type	CFM	Qty	Annual Maintenance Contract Provision
18.45.	Service Gallery	SG-AX-EA-FM-15F	Zone -08 Grid MH16-MV 2, MH10-MV2	Axial Fan (Fire Mode Fan)	40000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.46.	Service Gallery	SG-AX-EA-FM-16F	Zone -08 Grid MH16-MV 2, MH10-MV2	Axial Fan (Fire Mode Fan)	40000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.47.	Service Gallery	SG-AX-EA-FM-17F	Zone-09 Grid MH 16-MV 7, MH5-MV7	Axial Fan (Fire Mode Fan)	24450	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.48.	Service Gallery	SG-AX-EA-FM-18F	Zone-09 Grid MH 16-MV 7, MH5-MV7	Axial Fan (Fire Mode Fan)	24450	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.49.	Service Gallery	SG-AX-EA-FM-19F	Zone-09 Grid MH 16-MV 7, MH5-MV7	Axial Fan (Fire Mode Fan)	24450	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.50.	Service Gallery	SG-AX-FA-NM-01	Zone-01 Grid MH 10-MV 2 , MH 3 -MV2	Axial Fan (Fresh Air -Normal Mode)	11500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.51.	Service Gallery	SG-AX-FA-NM-02	Zone-01 Grid MH 10-MV 2 , MH 3 -MV2	Axial Fan (Fresh Air -Normal Mode)	11500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.52.	Service Gallery	SG-AX-FA-NM-03	Zone-02 Grid - MH 3-MV2, MH1-MV5	Axial Fan (Fresh Air -Normal Mode)	9000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.53.	Service Gallery	SG-AX-FA-NM-04	Zone-02 Grid - MH 3-MV2, MH1-MV5	Axial Fan (Fresh Air -Normal Mode)	9000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sl. No	Location	Equipment Tag	Area Served	Unit type	CFM	Qty	Annual Maintenance Contract Provision
18.54.	Service Gallery	SG-AX-FA-NM-05	Zone-03. Grid MH1-MV5, MH1-MV10	Axial Fan (Fresh Air -Normal Mode)	10600	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.55.	Service Gallery	SG-AX-FA-NM-06	Zone-03. Grid MH1-MV5, MH1-MV10	Axial Fan (Fresh Air -Normal Mode)	10600	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.56.	Service Gallery	SG-AX-FA-NM-07	Zone-04 Grid MH1-MV10, MH6-MV12	Axial Fan (Fresh Air -Normal Mode)	10100	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.57.	Service Gallery	SG-AX-FA-NM-08	Zone-04 Grid MH1-MV10, MH6-MV12	Axial Fan (Fresh Air -Normal Mode)	10100	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.58.	Service Gallery	SG-AX-FA-NM-09	Zone-05 Grid MH 6-MV 12,MH14-MV12	Axial Fan (Fresh Air -Normal Mode)	11800	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.59.	Service Gallery	SG-AX-FA-NM-10	Zone-05 Grid MH 6-MV 12,MH14-MV12	Axial Fan (Fresh Air -Normal Mode)	11800	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.60.	Service Gallery	SG-AX-FA-NM-11	Zone-06 Grid MH14-MV12, MH17-MV7	Axial Fan (Fresh Air -Normal Mode)	11800	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.61.	Service Gallery	SG-AX-FA-NM-12	Zone-06 Grid MH14-MV12, MH17-MV7	Axial Fan (Fresh Air -Normal Mode)	11800	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.62.	Service Gallery	SG-AX-FA-NM-13	Zone-07 Grid MH17-MV7, MH 17, MV 3	Axial Fan (Fresh Air -Normal Mode)	8500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sl. No	Location	Equipment Tag	Area Served	Unit type	CFM	Qty	Annual Maintenance Contract Provision
18.63.	Service Gallery	SG-AX-FA-NM-14	Zone-07 Grid MH17-MV7, MH 17, MV 3	Axial Fan (Fresh Air -Normal Mode)	8500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.64.	Service Gallery	SG-AX-FA-NM-15	Zone -08 Grid MH16-MV 2, MH10-MV2	Axial Fan (Fresh Air -Normal Mode)	13500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.65.	Service Gallery	SG-AX-FA-NM-16	Zone -08 Grid MH16-MV 2, MH10-MV2	Axial Fan (Fresh Air -Normal Mode)	13500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.66.	Service Gallery	SG-AX-FA-NM-17	Zone-09 Grid MH 16-MV 7, MH5-MV7	Axial Fan (Fresh Air -Normal Mode)	8200	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.67.	Service Gallery	SG-AX-FA-NM-18	Zone-09 Grid MH 16-MV 7, MH5-MV7	Axial Fan (Fresh Air -Normal Mode)	8200	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
18.68.	Service Gallery	SG-AX-FA-NM-19	Zone-09 Grid MH 16-MV 7, MH5-MV7	Axial Fan (Fresh Air -Normal Mode)	8200	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment						68	

19. Ventilation and Air Circulation Fans – Parking Area of Convention Center

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM	Qty	Annual Maintenance Contract Provision
19.1.	CC Car Parking Area		Parking Area	Axial Fan	7,800	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.2.	CC Car Parking Area		Parking Area	Axial Fan	13,000	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.3.	CC Car Parking Area		Parking Area	Axial Fan	20,850	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.4.	CC Car Parking Area		Parking Area	Axial Fan-Exhaust Air	25,000	6	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.5.	CC Car Parking Area		Parking Area	Axial Fan-Exhaust Air	25,400	6	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.6.	CC Car Parking Area		Parking Area	Axial Fan-Exhaust Air	26,800	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.7.	CC Car Parking Area		Parking Area	Axial Fan-Exhaust Air	27,300	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.8.	CC Car Parking Area		Parking Area	Axial Fan-Exhaust Air	28,100	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM	Qty	Annual Maintenance Contract Provision
19.9.	CC Car Parking Area		Parking Area	Axial Fan-Exhaust Air	30,200	6	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.10.	CC Car Parking Area		Parking Area	Axial Fan-Exhaust Air	30,500	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.11.	CC Car Parking Area		Parking Area	Axial Fan-Exhaust Air	30,700	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.12.	CC Car Parking Area		Parking Area	Axial Fan-Exhaust Air	30,800	6	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.13.	CC Car Parking Area		Parking Area	Axial Fan-Exhaust Air	33,200	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.14.	CC Car Parking Area		Parking Area	Axial Fan-Exhaust Air	33,500	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.15.	CC Car Parking Area		Parking Area	Axial Fan-Exhaust Air	34,580	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.16.	CC Car Parking Area		Parking Area	Axial Fan-Exhaust Air	35,300	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM	Qty	Annual Maintenance Contract Provision
19.17.	CC Car Parking Area		Parking Area	Axial Fan-Exhaust Air	25,000	6	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.18.	CC Car Parking Area		Parking Area	Axial Fan-Exhaust Air	25,400	6	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.19.	CC Car Parking Area		Parking Area	Axial Fan-Exhaust Air	26,800	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.20.	CC Car Parking Area		Parking Area	Axial Fan-Exhaust Air	27,300	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.21.	CC Car Parking Area		Parking Area	Axial Fan-Exhaust Air	28,100	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.22.	CC Car Parking Area		Parking Area	Axial Fan-Exhaust Air	30,200	6	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.23.	CC Car Parking Area		Parking Area	Axial Fan-Exhaust Air	30,500	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.24.	CC Car Parking Area		Parking Area	Axial Fan-Exhaust Air	30,700	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM	Qty	Annual Maintenance Contract Provision
19.25.	CC Car Parking Area		Parking Area	Axial Fan-Exhaust Air	30,800	6	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.26.	CC Car Parking Area		Parking Area	Axial Fan-Exhaust Air	33,200	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.27.	CC Car Parking Area		Parking Area	Axial Fan-Exhaust Air	33,500	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.28.	CC Car Parking Area		Parking Area	Axial Fan-Exhaust Air	34,580	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.29.	CC Car Parking Area		Parking Area	Axial Fan-Exhaust Air	35,300	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.30.	CC Car Parking Area		Parking Area	Circular Inline Fan	330	3	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.31.	CC Car Parking Area		Parking Area	Circular Inline Fan	600	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.32.	CC Car Parking Area		Parking Area	Circular Inline Fan	715	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM	Qty	Annual Maintenance Contract Provision
19.33.	CC Car Parking Area		Parking Area	Circular Inline Fan	749	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.34.	CC Car Parking Area		Parking Area	Circular Inline Fan	750	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.35.	CC Car Parking Area		Parking Area	Circular Inline Fan	868	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.36.	CC Car Parking Area		Parking Area	Circular Inline Fan	948	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.37.	CC Car Parking Area		Parking Area	Circular Inline Fan	950	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.38.	CC Car Parking Area		Parking Area	Circular Inline Fan	1,498	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.39.	CC Car Parking Area		Parking Area	Circular Inline Fan	1,500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.40.	CC Car Parking Area		Parking Area	Circular Inline Fan	1,604	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM	Qty	Annual Maintenance Contract Provision
19.41.	CC Car Parking Area		Parking Area	Circular Inline Fan	1,736	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.42.	CC Car Parking Area		Parking Area	Circular Inline Fan	2,248	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.43.	CC Car Parking Area		Parking Area	Propeller Fan	300	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.44.	CC Car Parking Area		Parking Area	Propeller Fan	500	3	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.45.	CC Car Parking Area		Parking Area	Propeller Fan	600	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.46.	CC Car Parking Area		Parking Area	Propeller Fan	654	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.47.	CC Car Parking Area		Parking Area	Propeller Fan	715	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.48.	CC Car Parking Area		Parking Area	Propeller Fan	715	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	Capacity in CFM	Qty	Annual Maintenance Contract Provision
19.49.	CC Car Parking Area		Parking Area	Propeller Fan	1,630	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
19.50.	CC Car Parking Area		Parking Area	Propeller Fan	2,100	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment						148	

20. Ventilation and Air Circulation Fans – Exhibition Hall 3 Basements

Sl. No	Location	Equipment Tag	Area Served	Unit type	CFM	Qty	Annual Maintenance Contract Provision
20.1.	EH -3 Basement 1	EH3-B1-PR-EF-AX-01 to 06	HVAC -Plant Room Phase 1 Area	Axial fans (Non Fire Rated)	37,600	6	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
20.2.	EH -3 Basement 1	EH3-B1-TR-EF-AX-07	Transformer Rooms - Phase 1	Axial fans (Non Fire Rated)	35,200	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
20.3.	EH -3 Basement 1	EH3-B1-PR-EF-AX-08	LT Panel Room Phase 1 and HT Panel Room Phase 1	Axial fans (Non Fire Rated)	20,000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
20.4.	EH -3 Basement 1	EH3-B1-SWS-EF-AX-09 & 13	Sold Waste management Storage Room	Axial fans (Non Fire Rated)	27,000	5	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
20.5.	EH -3 Basement 1	EH3-B1-PER-EF-AX-14	Pneumatic Equipment Room (for serving Mezzanine Level)	Axial fans (Non Fire Rated)	22,000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
20.6.	EH -3 Basement 1	EH3-B1-PER-EF-AX-15 & 16	Pneumatic Equipment Room (for serving B1 Level)	Axial fans (Non Fire Rated)	14,000	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sl. No	Location	Equipment Tag	Area Served	Unit type	CFM	Qty	Annual Maintenance Contract Provision
20.7.	EH -3 Basement 1	EH3-B1-PER-FF-AX-17	Pneumatic Equipment Room(Fresh Air supply for Mezzanine Level)	Axial fans (Non Fire Rated)	22,000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
20.8.	EH -3 Basement 1	EH3-B1-STP-EF-AX-18 to 22	STP Pump Room	Axial fans (Non Fire Rated)	29,200	5	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
20.9.	EH -3 Basement 1	EH3-B1-STP-EF-AX-23 to 31	STP Tank Room	Axial fans (Non Fire Rated)	25,500	9	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
20.10.	EH -3 Floor Mez.	EH3-MZ-CR-EF-AX-32	Mezzanine Corridor & Toilet	Axial fans (Non Fire Rated)	7,200	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
20.11.	EH -3 Floor Mez.	EH3-MZ-FPR-EF-AX-33	Fire Pump Room	Axial fans (Non Fire Rated)	8,800	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
20.12.	EH -3 Floor Mez.	EH3-B1-WTP-EF-AX-34	WTP Room including Toilet	Axial fans (Non Fire Rated)	24,650	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
20.13.	EH -3 Floor Mez.	EH3-B1-ER-EF-PF-35	Electrical Room inside solid waste management room	Propeller Fan	650	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sl. No	Location	Equipment Tag	Area Served	Unit type	CFM	Qty	Annual Maintenance Contract Provision
20.14.	EH -3 Floor Mez.	EH3-MZ-EC-EF-AX-36	Electrical Corridor	Axial fans (Non Fire Rated)	4,800	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
20.15.	EH -3 Floor Mez.	EH3-MZ-EC-37 & 38	Evacuation Corridor	Axial fans (Non Fire Rated)	9,000	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
20.16.	EH -3 Basement 1	EH3-B1-VD-50 to 55	Vehicle Driveway	Axial fans (Non Fire Rated)	15,000	6	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
20.17.	EH -3 Basement 1	EH3-B1-PR-EF-AX-39 to 44	HVAC -Plant Room Phase 2 Area	Axial fans (Non Fire Rated)	650	6	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
20.18.	EH -3 Basement 1	EH3-B1-PR-EF-AX-45	HT Panel Room and LT Panel Room (EH3 Phase 2)	Axial fans (Non Fire Rated)	38,650	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
20.19.	EH -3 Basement 1	EH3-B1-PR-EF-AX-46	Panel Rooms (Phase 2 Plant Room Area)	Axial fans (Non Fire Rated)	20,000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
20.20.	EH -3 Basement 1	EH3-B1-PR-EF-AX-47	EH3 HVAC Pump Room	Axial fans (Non Fire Rated)	20,000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

Sl. No	Location	Equipment Tag	Area Served	Unit type	CFM	Qty	Annual Maintenance Contract Provision
20.21.	EH -3 Basement 1	EH3-B1-TR-EF-AX-48	Transformer Rooms - Phase 2	Axial fans (Non Fire Rated)	35,200	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
20.22.	EH -3 Basement 1	EH3-B1-TR-EF-AX-49	Transformer Rooms - Phase 2	Axial fans (Non Fire Rated)	26,500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment						55	

21. Ventilation and Air Circulation Fans – Exhibition Hall 1

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
21.1.	EH -1 Ground Floor	EH1-GF-EX-IL-05	Toilet Male-Exhaust	Inline Fan	2600	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.2.	EH -1 Ground Floor	EH1-GF-EX-IL-04	Store Room	Inline Fan	750	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.3.	EH -1 Ground Floor	EH1-GF-EX-CF-01	Toilet Male-Exhaust	Cabinet Fan	3850	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.4.	EH -1 Ground Floor	EH1-GF-EX-IF-03	Toilet Female-Exhaust	Inline Fan	1350	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.5.	EH -1 Ground Floor	EH1-GF-EX-IL-02	Toilet Female-Exhaust	Inline Fan	1550	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.6.	EH -1 Ground Floor	EH1-GF-EX-CF-02	Toilet Male-Fresh air	Cabinet Fan	3860	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.7.	EH -1 Ground Floor	EH1-GF-EX-IL-01	Store Room	Inline Fan	1200	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.8.	EH -1 Ground Floor	EH1-GF-EX-IL-06	Toilet Female-Exhaust	Inline Fan	1150	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
21.9.	EH -1 Ground Floor	EH1-GF-EX-IL-08	Toilet Male-Exhaust	Inline Fan	2600	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.10.	EH -1 Ground Floor	EH1-GF-EX-IL-07	Toilet Female-Exhaust	Inline Fan	1150	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.11.	EH -1 Mez. Floor	EH1-MF-EX-IL-01	M&F / H & Janitors Toilet - Exhaust	Inline Fan	1710	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.12.	EH -1 Mez. Floor	EH1-MF-EX-PF-01	Storage	Propeller Fan	200	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.13.	EH -1 Mez. Floor	EH1-MF-EX-PF-02	Service room - Exhaust	Propeller Fan	230	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.14.	EH -1 First Floor	EH1-FF-EX-PF-01	Electrical Rm-Exhaust	Propeller Fan	500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.15.	EH -1 First Floor	EH1-FF-EX-PF-02	Storage - Exhaust	Propeller Fan	100	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.16.	EH -1 First Floor	EH1-FF-EX-PF-03	Female Toilet - Exhaust	Propeller Fan	102	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
21.17.	EH -1 First Floor	EH1-FF-EX-PF-04	M ale Toilet - Exhaust	Propeller Fan	171	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.18.	EH -1 First Floor	EH1-FF-EX-PF-05	M ale Toilet - Exhaust	Propeller Fan	172	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.19.	EH -1 First Floor	EH1-FF-EX-PF-06	H Toilet - Exhaust	Propeller Fan	101	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.20.	EH -1 First Floor	EH1-FF-EX-PF-07&08	M / F / H Toilet - Exhaust	Propeller Fan	85	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.21.	EH -1 First Floor	EH1-FF-EX-PF-09	kitchen-Exhaust	Propeller Fan	764	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.22.	EH -1 First Floor	EH1-FF-EX-PF-10	kitchen-Exhaust	Propeller Fan	487	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.23.	EH -1 Second Floor	EH1-SEF-3F-Z1-01 TO 03	Smoke Exhaust	Axial Fan	25550	3	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.24.	EH -1 Second Floor	EH1-SEF-3F-Z2-01 TO 02	Smoke Exhaust	Axial Fan	26000	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
21.25.	EH -1 Second Floor	EH1-SEF-3F-Z3-01 TO 04	Smoke Exhaust	Axial Fan	22900	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.26.	EH -1 Second Floor	EH1-SEF-3F-Z4-01 TO 02	Smoke Exhaust	Axial Fan	26000	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.27.	EH -1 Second Floor	EH1-SEF-3F-Z5-01 TO 04	Smoke Exhaust	Axial Fan	23700	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.28.	EH -1 Third Floor	EH1-3F-EX-IL-01	Electrical room 1 - Exhaust	Inline Fan	953	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.29.	EH -1 Third Floor	EH1-3F-EX-IL-02	Electrical room 2 - Exhaust	Inline Fan	757	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.30.	EH -1 Third Floor	EH1-3F-EX-IL-03	Electrical room 3 - Exhaust	Inline Fan	569	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.31.	EH -1 Third Floor	EH1-3F-EX-IL-04	Electrical room 4 - Exhaust	Inline Fan	1129	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.32.	EH -1 Basement 03	FP-B3-Z1-EA-NM-01	Smoke Exhaust from B3 Zone 1	Axial Fan	28100	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
21.33.	EH -1 Basement 03	FP-B3-Z1-FA-NM-01	Zone 1 - Supply	Axial Fan	28100	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.34.	EH -1 Basement 03	FP-B3-Z1-IF-01	Exhaust for Services	Inline Fan	868	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.35.	EH -1 Basement 03	FP-B3-Z1-IF-02	Exhaust for Services	Inline Fan	1736	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.36.	EH -1 Basement 03	FP-B3-Z1-PF-01	B3-Z1-Exhaust	Propeller Fan	300	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.37.	EH -1 Basement 03	FP-B3-Z1-PF-02	B3-Z1-Exhaust	Propeller Fan	600	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.38.	EH -1 Basement 03	FP-B3-Z2-EA-NM-02	Smoke Exhaust from B3 Zone 2	Axial Fan	32260	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.39.	EH -1 Basement 03	FP-B3-Z2-FA-NM-02	Zone 2 - Supply	Axial Fan	32260	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.40.	EH -1 Basement 03	FP-B3-Z2-IF-01 & 02	Exhaust for Services	Inline Fan	948	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
21.41.	EH -1 Basement 03	FP-B3-Z3-EA-NM-03	Smoke Exhaust from B3 Zone 3	Axial Fan	33500	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.42.	EH -1 Basement 03	FP-B3-Z3-FA-NM-03	Zone 3 - Supply	Axial Fan	33500	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.43.	EH -1 Basement 03	FP-B3-Z3-IF-01	Exhaust for Services	Inline Fan	749	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.44.	EH -1 Basement 03	FP-B3-Z3-IF-012	Exhaust for Services	Inline Fan	1498	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.45.	EH -1 Basement 03	FP-B3-Z3-PF-01	B3-Z3-Exhaust	Propeller Fan	650	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.46.	EH -1 Basement 03	FP-B3-Z4-EA-NM-04	Smoke Exhaust from B3 Zone 4	Axial Fan	30700	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.47.	EH -1 Basement 03	FP-B3-Z4-FA-NM-04	Zone 4 - Supply	Axial Fan	30700	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.48.	EH -1 Basement 03	FP-B3-Z4-IF-01	Exhaust for Services	Inline Fan	2248	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
21.49.	EH -1 Basement 03	FP-B3-Z5-FA-NM-05	Zone 5 - Supply	Axial Fan	35300	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.50.	EH -1 Basement 03	FP-B3-Z5-IF-01	Exhaust for Services	Inline Fan	1604	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.51.	EH -1 Basement 03	FP-B3-Z5-PF-01	B3-Z5-Exhaust	Propeller Fan	300	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.52.	EH -1 Basement 02	FP-B2-Z1-EA-NM-01	Smoke Exhaust from B2 Zone 1	Axial Fan	28100	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.53.	EH -1 Basement 02	FP-B2-Z1-FA-NM-01	Zone 1 - Supply	Axial Fan	28100	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.54.	EH -1 Basement 02	FP-B2-Z1-IF-01	Exhaust for Services	Inline Fan	870	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.55.	EH -1 Basement 02	FP-B2-Z1-IF-02	Exhaust for Services	Inline Fan	1740	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.56.	EH -1 Basement 02	FP-B2-Z1-PF-01	B2-Z1-Exhaust	Propeller Fan	200	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
21.57.	EH -1 Basement 02	FP-B2-Z1-PF-02	B2-Z1-Exhaust	Propeller Fan	654	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.58.	EH -1 Basement 02	FP-B2-Z2-EA-NM-02	Smoke Exhaust from B2 Zone 2	Axial Fan	32260	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.59.	EH -1 Basement 02	FP-B2-Z2-FA-NM-02	Zone 2 - Supply	Axial Fan	32260	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.60.	EH -1 Basement 02	FP-B2-Z2-IF-01 &02	Exhaust for Services	Inline Fan	950	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.61.	EH -1 Basement 02	FP-B2-Z3-EA-NM-03	Smoke Exhaust from B2 Zone 3	Axial Fan	33500	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.62.	EH -1 Basement 02	FP-B2-Z3-FA-NM-03	Zone 3 - Supply	Axial Fan	33500	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.63.	EH -1 Basement 02	FP-B2-Z3-IF-01	Exhaust for Services	Inline Fan	750	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.64.	EH -1 Basement 02	FP-B2-Z3-IF-012	Exhaust for Services	Inline Fan	1500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
21.65.	EH -1 Basement 02	FP-B2-Z4-EA-NM-04	Smoke Exhaust from B2 Zone 4	Axial Fan	30700	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.66.	EH -1 Basement 02	FP-B2-Z4-FA-NM-04	Zone 4 - Supply	Axial Fan	30700	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.67.	EH -1 Basement 02	FP-B2-Z4-IF-01	Exhaust for Services	Inline Fan	2250	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.68.	EH -1 Basement 02	FP-B2-Z4-PF-01	B2-Z4-Exhaust	Propeller Fan	400	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.69.	EH -1 Basement 02	FP-B2-Z5-FA-NM-05	Zone 5 - Supply	Axial Fan	35300	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.70.	EH -1 Basement 02	FP-B2-Z5-IF-01	Exhaust for Services	Inline Fan	1610	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.71.	EH -1 Basement 01	FP-B1-Z1-EA-NM-01	Smoke Exhaust from B1 Zone 1	Axial Fan	42500	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.72.	EH -1 Basement 01	FP-B1-Z1-FA-NM-01	Zone 1 - Supply	Axial Fan	42500	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
21.73.	EH -1 Basement 01	FP-B1-Z1-PR-01	Stair Pressurization - Zone 1	Axial Fan	20000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.74.	EH -1 Basement 01	FP-B1-Z1-IF-01 & 02	Exhaust for Services	Inline Fan	1688	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.75.	EH -1 Basement 01	FP-B1-Z2-EA-NM-02	Smoke Exhaust from B1 Zone 2	Axial Fan	38800	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.76.	EH -1 Basement 01	FP-B1-Z2-FA-NM-02	Zone 2 - Supply	Axial Fan	38800	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.77.	EH -1 Basement 01	FP-B1-Z2-IF-03&04	Exhaust for Services	Inline Fan	1184	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.78.	EH -1 Basement 01	FP-B1-Z2-PF-01&02	Exhaust for Electrical Room	Propeller Fan	1450	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.79.	EH -1 Basement 01	FP-B1-Z3-EA-NM-03	Smoke Exhaust from B1 Zone 3	Axial Fan	39700	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.80.	EH -1 Basement 01	FP-B1-Z3-FA-NM-03	Zone 3 - Supply	Axial Fan	39700	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
21.81.	EH -1 Basement 01	FP-B1-Z3-IF-05&06	Exhaust for Services	Inline Fan	1866	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.82.	EH -1 Basement 01	FP-B1-Z4-EA-NM-04	Smoke Exhaust from B1 Zone 4	Axial Fan	37800	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.83.	EH -1 Basement 01	FP-B1-Z4-FA-NM-04	Zone 4 - Supply	Axial Fan	37800	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.84.	EH -1 Basement 01	FP-B1-Z4-PF-03&04	Exhaust for Electrical Room	Propeller Fan	1450	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.85.	EH -1 Basement 01	FP-B1-Z4-IF-07	Exhaust for Services	Inline Fan	1350	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.86.	EH -1 Basement 01	FP-B1-Z5-FA-NM-05	Zone 5 - Supply	Axial Fan	40800	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.87.	EH -1 Basement 01	FP-B1-Z5-PF-07	Exhaust for battery room-Zone 5	Propeller Fan	450	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.88.	EH -1 Basement 01	FP-B1-Z5-PF-05&06	Exhaust for electrical room-Zone 5	Propeller Fan	1070	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
21.89.	EH -1 Basement 01	FP-B1-Z5-IF-08	Exhaust from B2 Driver's Toilet - Zone 5	Cabinet Fan	2625	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.90.	EH -1 Basement 01	EH1-B1-EC-EA-11	Exhaust from Evacuation Corridor	Axial Fan	10400	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.91.	EH -1 Basement 01	EH1-B1-EC-EG-12	Exhaust from Electrical Corridor	Axial Fan	6400	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.92.	EH -1 Basement 01	EH1-B1-LT-EA-08	Exhaust from LT panel room	Axial Fan	5600	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.93.	EH -1 Basement 01	EH1-B1-HT-EA-09	Exhaust from HT panel room	Axial Fan	1800	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.94.	EH -1 Basement 01	EH1-B1-TR-EA-10	Exhaust from Transformer room	Axial Fan	12400	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.95.	EH -1 Basement 01	EH1-B1-PS-EA-05	Exhaust from PS & UPS room	Axial Fan	9000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.96.	EH -1 Basement 01	EH1-B1-PUMP-EA-06	Exhaust from Pump room	Axial Fan	6900	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
21.97.	EH -1 Basement 01	EH1-B1-PUMP-EA-07	Exhaust from Pump room	Axial Fan	10700	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.98.	EH -1 Basement 01	EH1-B1-HT-EA-01	Exhaust from HT room	Axial Fan	2715	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.99.	EH -1 Basement 01	EH1-B1-TR-EA-02	Exhaust from Transformer room	Axial Fan	12350	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.100.	EH -1 Basement 01	EH1-B1-TR-EA-03	Exhaust from Transformer room	Axial Fan	12350	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.101.	EH -1 Basement 01	EH1-B1-LT-EA-04	Exhaust from LT panel room	Axial Fan	9100	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.102.	EH -1 Terrace Floor	F1-AF-TF-LLP-01	Pressurization Fans - Lift Lobby B3010	Axial Fan	30900	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.103.	EH -1 Terrace Floor	F1-AF-TF-LLP-02	Pressurization Fans - Lift Lobby B3009	Axial Fan	30600	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.104.	EH -1 Terrace Floor	F1-AF-TF-LLP-03	Pressurization Fans - Lift Lobby B3008	Axial Fan	27000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
21.105.	EH -1 Terrace Floor	EH1-AF-3F-LW-01	Pressurization Fans - Service Lift F0500	Axial Fan	7200	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.106.	EH -1 Terrace Floor	EH1-AF-3F-LW-02	Pressurization Fans - Service Lift F0502	Axial Fan	7200	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.107.	EH -1 Terrace Floor	EH1-AF-TF-LW-01	Pressurization Fans - Service Lift F0501	Axial Fan	7300	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.108.	EH -1 Terrace Floor	F1-AF-TF-STP-04	Pressurization Fans -C-14 / ST-25	Axial Fan	16000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.109.	EH -1 Terrace Floor	F1-AF-TF-STP-03	Pressurization Fans -C-10 / ST-19	Axial Fan	16000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.110.	EH -1 Terrace Floor	EH1-AF-TF-STP-05	Pressurization Fans -C-13 / ST-24	Axial Fan	16000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.111.	EH -1 Terrace Floor	EH1-AF-TF-STP-01	Pressurization Fans -C-09 / ST-14	Axial Fan	16000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.112.	EH -1 Terrace Floor	F1-AF-TF-STP-01	Pressurization Fans -C-03 / ST-02	Axial Fan	16350	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
21.113.	EH -1 Terrace Floor	F1-AF-TF-STP-02	Pressurization Fans -C-02 / ST-06	Axial Fan	16000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.114.	EH -1 Terrace Floor	EH1-AF-TF-STP-04 & EH1-AF-TF-STP-02	Pressurization Fans -C-06 & ST-11 & C-08 ST-13	Axial Fan	20500	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.115.	EH -1 Terrace Floor	EH1-AF-3F-STP-03	Pressurization Fans -C-12 ST-22	Axial Fan	14100	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.116.	EH -1 Terrace Floor	FP-B1-Z3-PR-02	Pressurization Fans -ST-21	Axial Fan	15000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.117.	EH -1 Terrace Floor	EH1-AF-TF-STP-03	Pressurization Fans -ST-12	Axial Fan	20900	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.118.	EH -1 Terrace Floor	EH1-SEF-TF-Z1-01 TO 03	Smoke Fans- Terrace	Axial Fan	25000	3	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.119.	EH -1 Terrace Floor	EH1-SEF-TF-Z2-01	Smoke Fans- Terrace	Axial Fan	19000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.120.	EH -1 Terrace Floor	EH1-SEF-TF-Z3-01 TO 04	Smoke Fans- Terrace	Axial Fan	21500	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
21.121.	EH -1 Terrace Floor	EH1-SEF-TF-Z4-01	Smoke Fans- Terrace	Axial Fan	19000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.122.	EH -1 Terrace Floor	EH1-SEF-TF-Z5-01 TO 03	Smoke Fans- Terrace	Axial Fan	22500	3	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.123.	EH -1 Terrace Floor	EH1-SEF-TF-Z6-01 TO 04	Smoke Fans- Terrace	Axial Fan	23500	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.124.	EH -1 Terrace Floor	EH1-SEF-TF-Z7-01	Smoke Fans- Terrace	Axial Fan	19000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.125.	EH -1 Terrace Floor	EH1-SEF-TF-Z8-01 TO 04	Smoke Fans- Terrace	Axial Fan	21500	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.126.	EH -1 Terrace Floor	EH1-SEF-TF-Z9-01	Smoke Fans- Terrace	Axial Fan	19000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.127.	EH -1 Terrace Floor	EH1-SEF-TF-Z10-01 TO 04	Smoke Fans- Terrace	Axial Fan	22000	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.128.	EH -1 Terrace Floor	EH1-SEF-TF-Z11-01 TO 04	Smoke Fans- Terrace	Axial Fan	19500	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
21.129.	EH -1 Terrace Floor	EH1-SEF-TF-Z12-01 TO 03	Smoke Fans- Terrace	Axial Fan	25000	3	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.130.	EH -1 Terrace Floor	EH1-SEF-TF-Z13-01	Smoke Fans- Terrace	Axial Fan	19000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.131.	EH -1 Terrace Floor	EH1-SEF-TF-Z14-01 TO 04	Smoke Fans- Terrace	Axial Fan	21500	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.132.	EH -1 Terrace Floor	EH1-SEF-TF-Z15-01	Smoke Fans- Terrace	Axial Fan	19000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.133.	EH -1 Terrace Floor	EH1-SEF-TF-Z16-01 TO 03	Smoke Fans- Terrace	Axial Fan	22500	3	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.134.	EH -1 Terrace Floor	EH1-SEF-TF-Z17-01 TO 04	Smoke Fans- Terrace	Axial Fan	22500	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.135.	EH -1 Terrace Floor	EH1-SEF-TF-Z18-01	Smoke Fans- Terrace	Axial Fan	19000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.136.	EH -1 Terrace Floor	EH1-SEF-TF-Z19-01 TO 04	Smoke Fans- Terrace	Axial Fan	23500	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
21.137.	EH -1 Terrace Floor	EH1-SEF-TF-Z20-01	Smoke Fans- Terrace	Axial Fan	19000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.138.	EH -1 Terrace Floor	EH1-SEF-TF-Z21-01 TO 04	Smoke Fans- Terrace	Axial Fan	19500	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
21.139.	EH -1 Terrace Floor	EH1-SEF-TF-Z22-01 TO 04	Smoke Fans- Terrace	Axial Fan	22000	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment						222	

22. Ventilation and Air Circulation Fans – Exhibition Hall 2

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM/ KW	Qty	Annual Maintenance Contract Provision
22.1.	EH -2 Basement 3	FP-B3-Z5-EA-NM-05	Smoke Exhaust from B3 Zone 5	Axial Fan	28100	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.2.	EH -2 Basement 3	FP-B3-Z5-EA-FM-05	Smoke Exhaust from B3 Zone 5	Axial Fan	28100	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.3.	EH -2 Basement 3	FP-B3-Z6-FA-NM-01	Zone 6 - Supply	Axial Fan	28100	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.4.	EH -2 Basement 3	FP-B3-Z6-FA-FM-01	Zone 6 - Supply	Axial Fan	28100	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.5.	EH -2 Basement 3	FP-B3-Z6-PF-01 TO 06	B3-Z6-Exhaust	Propeller Fan	1125	6	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.6.	EH -2 Basement 3	FP-B3-Z6-EA-NM-01	Smoke Exhaust from B3 Zone 6	Axial Fan	32260	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.7.	EH -2 Basement 3	FP-B3-Z6-EA-FM-01	Smoke Exhaust from B3 Zone 6	Axial Fan	32260	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.8.	EH -2 Basement 3	FP-B3-Z7-FA-NM-02	Zone 7 - Supply	Axial Fan	32260	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM/ KW	Qty	Annual Maintenance Contract Provision
22.9.	EH -2 Basement 3	FP-B3-Z7-FA-FM-02	Zone 7 - Supply	Axial Fan	32260	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.10.	EH -2 Basement 3	FP-B3-Z7-PF-01 TO 03	B3-Z7-Exhaust	Propeller Fan	950	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.11.	EH -2 Basement 3	FP-B3-Z7-EA-NM-02	Smoke Exhaust from B3 Zone 7	Axial Fan	33500	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.12.	EH -2 Basement 3	FP-B3-Z7-EA-FM-02	Smoke Exhaust from B3 Zone 7	Axial Fan	33500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.13.	EH -2 Basement 3	FP-B3-Z8-FA-NM-03	Zone 8 - Supply	Axial Fan	33500	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.14.	EH -2 Basement 3	FP-B3-Z8-FA-FM-03	Zone 8 - Supply	Axial Fan	33500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.15.	EH -2 Basement 3	FP-B3-Z8-PF-01 TO 05	B3-Z8-Exhaust	Propeller Fan	1125	5	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.16.	EH -2 Basement 3	FP-B3-Z8-EA-NM-03	Smoke Exhaust from B3 Zone 8	Axial Fan	30700	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM/ KW	Qty	Annual Maintenance Contract Provision
22.17.	EH -2 Basement 3	FP-B3-Z8-EA-FM-03	Smoke Exhaust from B3 Zone 8	Axial Fan	30700	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.18.	EH -2 Basement 3	FP-B3-Z9-FA-NM-04	Zone 9 - Supply	Axial Fan	30700	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.19.	EH -2 Basement 3	FP-B3-Z9-FA-FM-04	Zone 9 - Supply	Axial Fan	30700	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.20.	EH -2 Basement 3	FP-B3-Z9-PF-01 TO 05	B3-Z9-Exhaust	Propeller Fan	1125	5	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.21.	EH -2 Basement 3	FP-B3-Z9-EA-NM-04	Smoke Exhaust from B3 Zone 9	Axial Fan	35300	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.22.	EH -2 Basement 3	FP-B3-Z9-EA-FM-04	Smoke Exhaust from B3 Zone 9	Axial Fan	35300	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.23.	EH -2 Basement 2	FP-B2-Z5-EA-NM-05	Smoke Exhaust from B2 Zone 5	Axial Fan	28100	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.24.	EH -2 Basement 2	FP-B2-Z5-EA-FM-05		Axial Fan	28100	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM/ KW	Qty	Annual Maintenance Contract Provision
22.25.	EH -2 Basement 2	FP-B2-Z6-FA-NM-01	Zone 6 - Supply	Axial Fan	28100	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.26.	EH -2 Basement 2	FP-B2-Z6-FA-FM-01		Axial Fan	28100	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.27.	EH -2 Basement 2	FP-B2-Z6-PF-01 TO 06	B2-Z6-Exhaust	Propeller Fan	1300	6	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.28.	EH -2 Basement 2	FP-B2-Z6-EA-NM-01	Smoke Exhaust from B2 Zone 6	Axial Fan	32260	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.29.	EH -2 Basement 2	FP-B2-Z6-EA-FM-01		Axial Fan	32260	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.30.	EH -2 Basement 2	FP-B2-Z7-FA-NM-02	Zone 7 - Supply	Axial Fan	32260	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.31.	EH -2 Basement 2	FP-B2-Z7-FA-FM-02		Axial Fan	32260	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.32.	EH -2 Basement 2	FP-B2-Z7-PF-01 TO 03	B2-Z7-Exhaust	Propeller Fan	950	3	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM/ KW	Qty	Annual Maintenance Contract Provision
22.33.	EH -2 Basement 2	FP-B2-Z7-EA-NM-02	Smoke Exhaust from B2 Zone 7	Axial Fan	33500	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.34.	EH -2 Basement 2	FP-B2-Z7-EA-FM-02		Axial Fan	33500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.35.	EH -2 Basement 2	FP-B2-Z8-FA-NM-03	Zone 8 - Supply	Axial Fan	33500	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.36.	EH -2 Basement 2	FP-B2-Z8-FA-FM-03		Axial Fan	33500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.37.	EH -2 Basement 2	FP-B2-Z8-PF-01 TO 05	B2-Z8-Exhaust	Propeller Fan	1125	5	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.38.	EH -2 Basement 2	FP-B2-Z8-EA-NM-03	Smoke Exhaust from B2 Zone 8	Axial Fan	30700	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.39.	EH -2 Basement 2	FP-B2-Z8-EA-FM-03		Axial Fan	30700	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.40.	EH -2 Basement 2	FP-B2-Z9-FA-NM-04	Zone 9 - Supply	Axial Fan	30700	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM/ KW	Qty	Annual Maintenance Contract Provision
22.41.	EH -2 Basement 2	FP-B2-Z9-FA-FM-04		Axial Fan	30700	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.42.	EH -2 Basement 2	FP-B2-Z9-PF-01 TO 05	B2-Z9-Exhaust	Propeller Fan	1125	5	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.43.	EH -2 Basement 2	FP-B2-Z9-EA-NM-04	Smoke Exhaust from B2 Zone 9	Axial Fan	35300	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.44.	EH -2 Basement 2	FP-B2-Z9-EA-FM-04		Axial Fan	35300	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.45.	EH -2 Basement 1	FP-B1-Z6-EA-01 TO 07	B1-Z6-Exhaust	Propeller Fan	800	7	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.46.	EH -2 Basement 1	FP-B1-Z5-EA-NM-01	Smoke Exhaust from B1 Zone 5	Axial Fan	42500	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.47.	EH -2 Basement 1	FP-B1-Z6-EA-FM-01		Axial Fan	42500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.48.	EH -2 Basement 1	FP-B1-Z6-EA-NM-02	Smoke Exhaust from B1 Zone 6	Axial Fan	42500	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM/ KW	Qty	Annual Maintenance Contract Provision
22.49.	EH -2 Basement 1	FP-B1-Z6-EA-FM-02		Axial Fan	42500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.50.	EH -2 Basement 1	FP-B1-Z6-FA-NM-01	Zone 6 - Supply	Axial Fan	30700	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.51.	EH -2 Basement 1	FP-B1-Z6-FA-FM-01		Axial Fan	30700	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.52.	EH -2 Basement 1	FP-B1-Z7-EA-01 TO 07	B1-Z7-Exhaust	Propeller Fan	20000	7	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.53.	EH -2 Basement 1	FP-B1-Z7-EA-NM-01	Smoke Exhaust from B1 Zone 7	Axial Fan	38800	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.54.	EH -2 Basement 1	FP-B1-Z7-EA-FM-01		Axial Fan	38800	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.55.	EH -2 Basement 1	FP-B1-Z7-FA-NM-01	Zone 7 - Supply	Axial Fan	38800	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.56.	EH -2 Basement 1	FP-B1-Z7-FA-FM-01		Axial Fan	38800	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM/ KW	Qty	Annual Maintenance Contract Provision
22.57.	EH -2 Basement 1	FP-B1-Z8-EA-01 TO 09	B1-Z8-Exhaust	Propeller Fan	2650	9	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.58.	EH -2 Basement 1	FP-B1-Z8-EA-NM-01	Smoke Exhaust from B1 Zone 8	Axial Fan	39700	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.59.	EH -2 Basement 1	FP-B1-Z8-EA-FM-01		Axial Fan	39700	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.60.	EH -2 Basement 1	FP-B1-Z8-FA-NM-01	Zone 8 - Supply	Axial Fan	39700	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.61.	EH -2 Basement 1	FP-B1-Z8-FA-FM-01		Axial Fan	39700	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.62.	EH -2 Basement 1	FP-B1-Z9-EA-NM-01	Smoke Exhaust from B1 Zone 9	Axial Fan	37800	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.63.	EH -2 Basement 1	FP-B1-Z9-EA-FM-01		Axial Fan	37800	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.64.	EH -2 Basement 1	FP-B1-Z9-FA-NM-01	Zone 9 - Supply	Axial Fan	37800	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM/ KW	Qty	Annual Maintenance Contract Provision
22.65.	EH -2 Basement 1	FP-B1-Z9-FA-FM-01		Axial Fan	37800	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.66.	EH -2 Basement 1	FP-B1-Z9-EA-01 & 07	B1-Z9-Exhaust	Propeller Fan	2705	7	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.67.	EH -2 Basement 1	EH2-B1-EA-NM-01	HVAC Pump room - Exhaust	Axial Fan	5.5 KW	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.68.	EH -2 Basement 1	EH2-B1-EA-NM-02	Evacuation Corridor - Exhaust	Axial Fan	3.7 KW	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.69.	EH -2 Basement 1	EH2-B1-EA-FM-02	Electrical Corridor - Exhaust	Axial Fan	2.2 KW	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.70.	EH -2 Basement 1	EH2-B1-EA-NM-03	Transformer & HT Panel-Exhaust	Axial Fan	7.5 KW	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.71.	EH -2 Basement 1	EH2-B1-EA-FM-03	HT Panel-Exhaust	Axial Fan	2.2 KW	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.72.	EH -2 Basement 1	EH2-B1-EA-NM-04	HVAC Pump room - Exhaust	Axial Fan	3.7 KW	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM/ KW	Qty	Annual Maintenance Contract Provision
22.73.	EH -2 Basement 1	EH2-B1-EA-NM-05	Pneumatic screw tank - Exhaust	Axial Fan	5.5 KW	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.74.	EH -2 Floor- Grd	EH2-GF-EX-IL-01	M. Toilet - Exhaust	Inline Fan	0.55 KW	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.75.	EH -2 Floor- Grd	EH2-GF-EX-IL-02	F/H/ Toilet & Store - Exhaust	Inline Fan	0.37 KW	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.76.	EH -2 Floor- Grd	EH2-GF-EX-IL-03	M. Toilet - Exhaust	Inline Fan	0.55 KW	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.77.	EH -2 Floor- Grd	EH2-GF-EX-IL-04	F/H/ Toilet & Store & Janitor - Exhaust	Inline Fan	0.37 KW	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.78.	EH -2 Floor- Grd	EH2-GF-EX-IL-05	Toilet exhaust - VIP Lounge	Inline Fan	0.37 KW	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.79.	EH -2 Floor- Grd	EH2-GF-EX-PF-01	Store - Exhaust	Propeller Fan	0.37 KW	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.80.	EH -2 Floor- Grd	EH2-GF-EX-PF-02	Store - Exhaust	Propeller Fan	0.37 KW	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM/ KW	Qty	Annual Maintenance Contract Provision
22.81.	EH -2 Floor- Mez	EH2-MF-EX-IL-01	F. Toilet - Exhaust	Inline Fan	0.37 KW	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.82.	EH -2 Floor- Mez	EH2-MF-EX-IL-02	M. Toilet - Exhaust	Inline Fan	0.37 KW	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.83.	EH -2 Floor- 1	EH2-FF-EX-IL-01	M/F/H/ Toilet - Exhaust	Inline Fan	0.37 KW	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.84.	EH -2 Floor- 1	EH2-FF-EX-IL-02	F. Toilet - Exhaust	Inline Fan	0.37 KW	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.85.	EH -2 Floor- 2	EH2-SEF-TF-01	Zone 1 - Exhaust	Vane Axial Fan	5.5 KW	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.86.	EH -2 Floor- 2	EH2-SEF-TF-02	Zone 2 - Exhaust	Vane Axial Fan	5.5 KW	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.87.	EH -2 Floor- 2	EH2-SEF-TF-03	Zone 3 - Exhaust	Vane Axial Fan	5.5 KW	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.88.	EH -2 Floor- 2	EH2-SEF-TF-04	Zone 4 - Exhaust	Vane Axial Fan	5.5 KW	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM/ KW	Qty	Annual Maintenance Contract Provision
22.89.	EH -2 Floor- 2	EH2-SEF-TF-05	Zone 5 - Exhaust	Vane Axial Fan	5.5 KW	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.90.	EH -2 Floor- 2	EH2-SEF-TF-06	Zone 6 - Exhaust	Vane Axial Fan	5.5 KW	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.91.	EH -2 Floor- 2	EH2-SEF-TF-07	Zone 7 - Exhaust	Vane Axial Fan	5.5 KW	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.92.	EH -2 Floor- 2	EH2-SEF-TF-08	Zone 8 - Exhaust	Vane Axial Fan	5.5 KW	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.93.	EH -2 Floor- 2	EH2-SEF-TF-09	Zone 9 - Exhaust	Vane Axial Fan	5.5 KW	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.94.	EH -2 Floor- 2	EH2-SEF-TF-10	Zone 10 - Exhaust	Vane Axial Fan	5.5 KW	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.95.	EH -2 Floor- 2	EH2-SEF-TF-11	Zone 11 - Exhaust	Vane Axial Fan	5.5 KW	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.96.	EH -2 Floor- 2	EH2-SEF-TF-12	Zone 12 - Exhaust	Vane Axial Fan	5.5 KW	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM/ KW	Qty	Annual Maintenance Contract Provision
22.97.	EH -2 Floor- 2	EH2-SEF-TF-13	Zone 13 - Exhaust	Vane Axial Fan	5.5 KW	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.98.	EH -2 Floor- 2	EH2-SEF-TF-14	Zone 14 - Exhaust	Vane Axial Fan	5.5 KW	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.99.	EH -2 Floor- 2	F2-SEF-TF-01 TO 09	Foyer 2 - Exhaust	Vane Axial Fan	5.5 KW	9	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.100.	EH -2 Floor Terrace	EH2-AF-TF-01 TO 13	PRESSURISATION FANS	Axial Fan	7.5 KW	13	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
22.101.	EH -2 Floor Terrace	EH2-AF-TF-14 TO 19	PRESSURIZATION FANS	Axial Fan	5.5 KW	6	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment						250	

23. Ventilation and Air Circulation Fans – Convention Center

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
23.1.	CC- Basement- 02	CC-B2-PF-01	Sump room	Propeller fans	140	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.2.	CC- Basement- 02	CC-B2-EAF-01	Sump room	Inline Fan	470	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.3.	CC- Basement- 02	CC-B2-MAF-01	Sump room	Inline Fan	470	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.4.	CC- Basement- 01	CC-B1-PF-01	Store	Propeller fans	55	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.5.	CC- Basement- 01	CC-B1-MAF-01	Store	Inline Fan	470	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.6.	CC- Basement- 01	CC-B1-EAF-01	Store	Inline Fan	552	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.7.	CC- Basement- 01	CC-B1-EAF-02	Store	Inline Fan	280	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.8.	CC- Basement- 01	CC-B1-RAF-01	Lift lobby	Inline Fan	1366	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
23.9.	CC- Basement- 01	CC-B1-SS-MF-01	HT & LT Panel Room	Axial fans (Non Fire Rated)	19500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.10.	CC- Basement- 01	CC-B1-SS-MF-02	Transformer Room	Axial fans (Non Fire Rated)	27500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.11.	CC- Basement- 01	CC-B1-SS-EF-01	HT Panel Room	Axial fans (Non Fire Rated)	4900	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.12.	CC- Basement- 01	CC-B1-SS-EF-02	Transformer Room	Axial fans (Non Fire Rated)	32000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.13.	CC- Basement- 01	CC-B1-SS-EF-03	LT Panel Room	Axial fans (Non Fire Rated)	18000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.14.	CC- Basement- 01	CC-B1-SS-EF-04	Pump room	Axial fans (Non Fire Rated)	32800	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.15.	CC- Ground Floor	CC-F0-STPR-01	Staircase Pressurization	Axial fans (Non Fire Rated)	14300	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.16.	CC- Ground Floor	CC-F0-LL&LWPR-01	Lift Lobby & Lift well Pressurization	Axial fans (Non Fire Rated)	21500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
23.17.	CC- Ground Floor	CC-F0-EAF-01	Electrical rooms	Propeller fans	692	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.18.	CC- Ground Floor	CC-F0-EAF-02	Store	Propeller fans	186	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.19.	CC- Ground Floor	CC-F0-EAF-03	Store	Propeller fans	209	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.20.	CC- Ground Floor	CC-F0-EE-01	Electrical rooms	Axial fans (Non Fire Rated)	7500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.21.	CC- Ground Floor	CC-F0-EAF-04	B2-Waste Room	Inline Fan	1890	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.22.	CC- Ground Floor	CC-F0-MAF-01	B2-Waste Room	Inline Fan	1600	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.23.	CC- Floor 1	CC-F1-SMEF-01&02	Conference Room 1	Axial fans (Fire Rated)	30000	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.24.	CC- Floor 1	CC-F1-STPR-01	Staircase Pressurization	Axial fans (Non Fire Rated)	16000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
23.25.	CC- Floor 1	CC-F1-LL&LWPR-01	Lift Lobby & Lift well Pressurization	Axial fans (Non Fire Rated)	8900	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.26.	CC- Floor 1	CC-F1-LLPR-01	Lift Lobby Pressurization	Axial fans (Non Fire Rated)	13500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.27.	CC- Floor 1	CC-F1-EE-02 & 04	Electrical rooms& Toilets	Inline Fan	475 & 594	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.28.	CC- Floor 1	CC-F1-EE-01	Electrical rooms	Propeller fans	660	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.29.	CC- Floor 1	CC-F1-EE-03	Electrical rooms	Propeller fans	1980	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.30.	CC- Floor 2	CC-F2-SMEF-01	Conference Room 2&3	Axial fans (Fire Rated)	13500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.31.	CC- Floor 2	CC-F2-SMEF-02 to 12	Main Auditorium Hall	Axial fans (Fire Rated)	37000	11	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.32.	CC- Floor 2	CC-F2-STPR-01	Staircase Pressurization	Axial fans (Non Fire Rated)	44500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
23.33.	CC- Floor 2	CC-F2-LL&LWPR-01	Lift Lobby & Lift well Pressurization	Axial fans (Non Fire Rated)	8700	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.34.	CC- Floor 2	CC-F2-PF-01	Electrical rooms	Propeller fans	1980	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.35.	CC- Floor 2	CC-F2-PF-02	Electrical rooms	Propeller fans	800	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.36.	CC- Floor 2	CC-F2-PF-03	Electrical rooms	Propeller fans	720	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.37.	CC- Floor 2	CC-F2-PF-04	Electrical rooms	Propeller fans	837	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.38.	CC- Floor 2	CC-F2-MAF-01 to 02	Corr.	Inline Fan	900	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.39.	CC- Floor 2	CC-F2-EAF-01	Corr.	Inline Fan	1800	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.40.	CC- Floor 2	CC-F2-SR-01	Kitchen	SISW fans		1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
23.41.	CC- Floor 2	CC-F2-AW-01	Kitchen	DIDW fans		1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.42.	CC- Floor 3	CC-F3-SMEF-01	Conference Room 4&5	Axial fans (Fire Rated)	13000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.43.	CC- Floor 3	CC-F3-SMEF-02	Conference Room 8	Axial fans (Fire Rated)	8000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.44.	CC- Floor 3	CC-F3-SMEF-03	Conference Room 6&7	Axial fans (Fire Rated)	11500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.45.	CC- Floor 3	CC-F3-STPR-01	Staircase Pressurization	Axial fans (Non Fire Rated)	30000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.46.	CC- Floor 3	CC-F3-LL&LWPR-01	Lift Lobby & Lift well Pressurization	Axial fans (Non Fire Rated)	28500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.47.	CC- Floor 3	CC-F3-EE-01	Electrical rooms	Propeller fans	1980	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.48.	CC- Floor 3	CC-F3-EAF-01&02	Electrical rooms	Inline Fan	470	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
23.49.	CC- Floor 3	CC-F3-MAF-01&02	Stores	Inline Fan	470	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.50.	CC- Floor 4	CC-F4-SMEF-01	Conference Room 9&10	Axial fans (Fire Rated)	7500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.51.	CC- Floor 4	CC-F4-SMEF-02	Conference Room 11&12a	Axial fans (Fire Rated)	7500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.52.	CC- Floor 4	CC-F4-SMEF-03	Conference Room 12b & 13	Axial fans (Fire Rated)	7500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.53.	CC- Floor 4	CC-F4-PF-01 & 02	Electrical rooms & Finishing Kitchen	Propeller fans		2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.54.	CC- Floor 4	CC-F4-EAF-01	Stores	Inline Fan	470	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.55.	CC- Floor 4	CC-F4-MAF-01	Stores	Inline Fan	470	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.56.	CC- Floor 5	CC-F5-EAF-01	Toilets	Inline Fan	1488	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
23.57.	CC- Floor 5	CC-F5-EAF-02	Electrical room	Inline Fan	1980	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.58.	CC- Floor 5	CC-F5-SR-01	Kitchen	SISW fans	38000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.59.	CC- Floor 5	CC-F5-AW-01	Kitchen	DIDW fans	32000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.60.	CC- Floor 5	CC-F5-SR-02	Kitchen	SISW fans	12000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.61.	CC- Floor 5	CC-F5-AW-02	Kitchen	DIDW fans	9500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.62.	CC- Floor 5	CC-F5-LLPR-01	Lift Lobby Pressurization	Axial fans (Non Fire Rated)	25000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.63.	CC- Floor 6	CC-F6-PF-01 to 02	Electrical rooms	Propeller fans	1980	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.64.	CC- Floor 6	CC-F6-MAF-01	Toilets & Electrical rooms	Inline Fan	3192	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
23.65.	CC- Floor 6	CC-F6-EAF-01	Toilets	Inline Fan	1635	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.66.	CC- Floor 6	CC-F6-EAF-02	Toilets	Inline Fan	2420	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.67.	CC- Floor 6	CC-F6-EAF-03	Toilets	Inline Fan	1700	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.68.	CC- Floor 7	CC-F7-SMEF-01	Grand Ball Room	Axial fans (Fire Rated)	59000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.69.	CC- Floor 7	CC-F7-SMEF-02	Grand Ball Room	Axial fans (Fire Rated)	59000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.70.	CC- Floor 7	CC-F7-SMEF-03	Grand Ball Room	Axial fans (Fire Rated)	55500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.71.	CC- Floor 7	CC-F7-PF-01	Electrical rooms	Propeller fans	1980	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.72.	CC- Floor 7	CC-F7-MAF-01	Electrical rooms	Inline Fan	1683	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
23.73.	CC- Floor 7	CC-F7-LLPR-01	Staircase Pressurization	Axial fans (Non Fire Rated)	14000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.74.	CC- Floor 8	CC-F8-PF-01	Electrical rooms	Propeller fans	1980	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.75.	CC- Floor 8	CC-F8-MAF-01	Electrical rooms	Inline Fan	1683	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.76.	CC- Terrace Floor	CC-RF-STPR-01	Staircase Pressurization	Axial fans (Non Fire Rated)	32250	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.77.	CC- Terrace Floor	CC-RF-STPR-02	Staircase Pressurization	Axial fans (Non Fire Rated)	32250	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.78.	CC- Terrace Floor	CC-RF-STPR-03	Staircase Pressurization	Axial fans (Non Fire Rated)	24700	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.79.	CC- Terrace Floor	CC-RF-STPR-04&05	Staircase Pressurization	Axial fans (Non Fire Rated)	34750	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.80.	CC- Terrace Floor	CC-RF-STPR-06&07	Staircase Pressurization	Axial fans (Non Fire Rated)	31500	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18

SL. No	Location	Equipment Tag	Area served & application	Unit type	CFM	Qty	Annual Maintenance Contract Provision
23.81.	CC- Terrace Floor	CC-RF-LWPR-01 to 03	Lift well Pressurization	Axial fans (Non Fire Rated)	7500	3	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.82.	CC- Terrace Floor	CC-RF-LWPR-04	Lift well Pressurization	Axial fans (Non Fire Rated)	15000	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.83.	CC- Terrace Floor	CC-RF-LLPR-01	Lift Lobby Pressurization	Axial fans (Non Fire Rated)	7500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.84.	CC- Terrace Floor	CC-RF-LLPR-02	Lift Lobby Pressurization	Axial fans (Non Fire Rated)	24500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.85.	CC- Terrace Floor	CC-RF-LLPR-03	Lift Lobby Pressurization	Axial fans (Non Fire Rated)	7500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.86.	CC- Terrace Floor	CC-RF-LLPR-04	Lift Lobby Pressurization	Axial fans (Non Fire Rated)	21500	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
23.87.	CC- Terrace Floor	CC-RF-LL&LWPR-01 to 04	Lift Lobby & Lift well Pressurization	Axial fans (Non Fire Rated)	13000	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment						111	

20.3 Fire Fighting System for Common Area and Occupied Area

1. Main Fire Pump Room – EH 03 Basement

Sr. No	Location	Equipment Tag	Equipment Name	Unit Type	CAPACITY	QTY	Annual Maintenance Contract Provision
1.1.	EH -3 Floor- Mez.	FP-1/9	Common Standby Pump (Diesel Pump)	End Suction Pump	2850 LPM	2	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.2.	EH -3 Floor- Mez.	FP-2/10	Hydrant Pump -Main	End Suction Pump	2850 LPM	2	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.3.	EH -3 Floor- Mez.	FP-7/15	Sprinkler Pump-Main	End Suction Pump	2850 LPM	2	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.4.	EH -3 Floor- Mez.	FP-8/16	Water Curtain Pump	End Suction Pump	2850 LPM	2	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.5.	EH -3 Floor- Mez.	FP-3/4/11/12	Hydrant Pump -Jockey	End Suction Pump	280 LPM	4	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.6.	EH -3 Floor- Mez.	FP-5/6/13/14	Sprinkler Pump -Jockey	End Suction Pump	280 LPM	4	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No	Location	Equipment Tag	Equipment Name	Unit Type	CAPACITY	QTY	Annual Maintenance Contract Provision
1.7.	EH -3 Floor- Mez.		Diesel Tank		900 Liters	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
1.8.	Fire station -Terrace Floor		Booster pump	Booster Pump	900 LPM	1	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment						18	

2. Fire Alarm Panels – Common Areas

SL. No	Building Name	Equipment Tag	Area served & application	Unit location	Annual Maintenance Contract Provision
2.1.	Fire Station	Main Fire Alarm Panel - FACP 1	Fire station, Disaster management & Medical center	Fire Control Room - Ground Floor	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
2.2.	Exhibition Hall 3	Fire Alarm Panel - FACP 1	Mezzanine & Basement 1	Fire Control Room in Basement 1	
			Vehicular Ramp 6		
			Service Gallery & Vehicular Ramp 1		
2.3.	Convention Center Car Parking	Fire Alarm Panel - FACP 1	Basements	Guard Room - Basement 1	
			Service Gallery		
			Vehicular Ramp 3 & 4		
2.4.	External Substations	Fire Alarm Panel - FACP 1	Basement	Near ESS Building	
2.5.	External Substations	Fire Alarm Panel - FACP 1	Basement	Near Arena Building	
2.6.	ESS 1	Fire Alarm Panel - FACP 1	Cable Cellar and Ground Floor	Control Room	
2.7.	ESS 2	Fire Alarm Panel - FACP 1	Cable Cellar and Ground Floor	Control Room	
			Vehicular Ramp 5		
			Service Gallery		
2.8.	DG Building	Fire Alarm Panel - FACP 1	Mezzanine & Ground Floor	Ground Floor	

3. Fire Alarm Panels – Occupied Areas

SL. No	Building Name	Equipment Tag	Area served & application	Unit location	Annual Maintenance Contract Provision
3.1.	Convention Center	Fire Alarm Panel - FACP 1	Basement 2, Basement1, Ground and Vehicular Ramp 2	Fire Control Room - Ground Floor	Comprehensive AMC by SPV / operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.2.		Fire Alarm Panel - FACP 2	Ground, First, Second and Third Floor	Fire Control Room - Ground Floor	
3.3.		Fire Alarm Panel - FACP 3	Third, Fourth, Fifth and Sixth Floor	Fire Control Room - Ground Floor	
3.4.		Fire Alarm Panel - FACP 4	Seventh and Eighth Floor	Fire Control Room - Ground Floor	
3.5.	Exhibition Hall 1 - Ground Floor	Fire Alarm Panel - FACP 1	Foyer - 1 and its Basements	Fire Control Room	
3.6.		Fire Alarm Panel - FACP 3	Foyer- 1 Kitchen Area	Fire Control Room	
3.7.		Fire Alarm Panel - FACP 2	Exhibition Hall 1	Fire Control Room	
3.8.	Exhibition Hall 2 - Ground Floor	Fire Alarm Panel - FACP 1	Foyer - 2 and its Basements	Near Reception Area	
3.9.		Fire Alarm Panel - FACP 2	Exhibition Hall 2 & Foyer 2	Fire Control Room	

20.4 Plumbing and Sanitation System for Common Area / Occupied Area

1. Water Supply and Circulation Pumps

Sl. No	Location	Description	Specifications	Capacity	Qty	Annual Maintenance Contract Provision
1.1.	Exhibition 3 basement	Hydro pneumatic pump - Domestic pump	20 LPS	30 KW	3	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.2.	Exhibition 3 basement	Hydro pneumatic pump - Domestic pump	10 LPS	18.5 KW	2	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.3.	Exhibition 3 basement	Hydro pneumatic pump - Flushing pump	15 LPS	22 KW	3	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.4.	Exhibition 3 basement	Soft water lifting pump	25 LPS	22 KW	3	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
1.5.	Exhibition 3 basement	Irrigation Pump	17.5 LPS	30 KW	3	Operation & maintenance work under scope of Service Provider including spares as specified in Section 9.16, 9.17 and 9.18
1.6.	Convention center	Kitchen Calorifier-8 th floor	187500 Kcal	225 KW	1	Operation & maintenance work under scope of Service Provider including spares as specified in Section 9.16, 9.17 and 9.18
1.7.	Convention center	Hydro pneumatic pump (Kitchen Calorifier) 8 th floor			4	Operation & maintenance work under scope of Service Provider including spares as specified in Section 9.16, 9.17 and 9.18
1.8.	Convention center	Plate Heat Exchange -Hot water for Kitchen & Toilet			2	Operation & maintenance work under scope of Service Provider including spares as specified in Section 9.16, 9.17 and 9.18
1.9.	Exhibition-1 Kitchen	Gas water heater-Sub station	379 liters	379 liters	5	Operation & maintenance work under scope of Service Provider including spares as specified in Section 9.16, 9.17 and 9.18
1.10.	Exhibition-1 Kitchen	Horizontal Pump Gas water heater system-Sub station	0.28 LPS	0.28 LPS	2	Operation & maintenance work under scope of Service Provider including spares as specified in Section 9.16, 9.17 and 9.18
1.11.	Exhibition-1 Kitchen	Horizontal Pump Gas water heater system-Sub station	0.84 LPS	0.84 LPS	2	Operation & maintenance work under scope of Service Provider including spares as specified in Section 9.16, 9.17 and 9.18

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sl. No	Location	Description	Specifications	Capacity	Qty	Annual Maintenance Contract Provision
1.12.	Convention center , Foyer , Exhibition and other locations	Water cooler-20 Liter	20 Liter	20 Liter	51	Operation & maintenance work under scope of Service Provider including spares as specified in Section 9.16, 9.17 and 9.18
1.13.	Convention center , Foyer , Exhibition and other locations	Water cooler-40 Liter	40 Liter	40 Liter	10	Operation & maintenance work under scope of Service Provider including spares as specified in Section 9.16, 9.17 and 9.18
1.14.	External Area	Dry deck Water body Submersible Pump - Open exhibition area	1.1 KW	1.1 KW	34	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
1.15.	External Area	Dry deck Water body filtration Pump - Open exhibition area	1.5 KW	1.5 KW	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
1.16.	External Area	Pentagon Water body Submersible Pump -	1.1 KW	1.1 KW	60	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
1.17.	External Area	Pentagon Water body filtration dry Monoblock pumping system	4.6 LPS	1.1 KW	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
1.18.	External Area	Pergolas mist -Water body Pump			2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
1.19.	External Area	Linear Water body Pump			17	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment					212	

2. Storm and Drain Pumps

Sl. No	Location	Description	Specifications	Capacity	Qty	Annual Maintenance Contract Provision
2.1.	Exhibition 3 basement	Drainage sump pit submersible pump -Domestic pant room	No. of level : 2, Height of Sump : 1.5 m	8 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.2.	Exhibition 3 basement	Drainage sump pit submersible pump -Flushing plant room	No. of level : 2, Height of Sump : 1.5 m	2 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.3.	Exhibition 3 basement	Drainage sump pit submersible pump -Drive way-Left	No. of level : 2, Height of Sump : 12 m	2 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.4.	Exhibition 3 basement	Drainage sump pit submersible pump -Drive way-Right	No. of level : 2, Height of Sump : 13 m	2 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.5.	Exhibition 3 basement	Drainage sump pit submersible pump -- OWC room	No. of level : 2, Height of Sump : 1.5 m	2 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.6.	Exhibition 3 basement	Drainage sump pit submersible pump -- OWC room	No. of level : 2, Height of Sump : 1.5 m	2 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.7.	Exhibition 3 basement	Drainage sump pit submersible pump -- HVAC plant room	No. of level : 2, Height of Sump : 1.5 m	2 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.8.	Exhibition 3 Basement	Drainage sump pit submersible pump -- HVAC plant room	No. of level :2, Height of tank : 1.5 m	2 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.9.	Exhibition 3 Basement-	Drainage sump pit submersible pump -- HVAC plant room	No. of level :2, Height of tank : 1.5m	2 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.

Sl. No	Location	Description	Specifications	Capacity	Qty	Annual Maintenance Contract Provision
2.10.	Exhibition 3 Basement-	Drainage sump pit submersible pump – Ramp 1	No. of level :2, Height of tank : 1.5m	15 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.11.	Exhibition 3 Basement-	Drainage sump pit submersible pump – Ramp 2	No. of level :2, Height of tank : 1.5m	3 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.12.	Exhibition 3 Basement-	Sewage submersible sump- Drive Way	No. of level :2, Height of tank : 1.5m	5 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.13.	Exhibition 3 Basement-	Sewage submersible sump- STP Plant room	No. of level :2, Height of tank : 2.85 m	2 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.14.	Foyer 1 basement	Basement Drainage submersible sump pit pump	No. of level : 3, Height of Sump : 1.1 m	2 LPS	20	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.15.	Foyer 1 basement	Sewage submersible sump pump	No. of level : 3, Height of Sump : 1.1 m	3 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.16.	Foyer 2 Basement	Basement Drainage submersible sump pit pump	No. of level : 3 & 4, Height of Sump : 1.1 m	2 LPS	24	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.17.	CC Parking B4 level	Basement Drainage submersible sump pit pump	No. of level :4, Height of Sump : 1.1 m	2 LPS	24	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.

Sl. No	Location	Description	Specifications	Capacity	Qty	Annual Maintenance Contract Provision
2.18.	CC Parking B4 level	Sewage submersible sump	No. of level :4, Height of Sump : 1.1 m	2 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.19.	Convention Centre basement-B1	Basement Drainage submersible sump pit pump - Open area	No. of level : 2, Height of Sump : 1.5 m	20 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.20.	Convention center basement - B1	Basement Drainage sump pit submersible pump -Open area	No. of level :2, Height of Sump : 1.5m	25 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.21.	Convention center basement - B1	Basement Drainage sump pit submersible pump -Open area	No. of level :2, Height of Sump : 1.150m	25 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.22.	Convention center basement - B1	Basement Drainage sump pit submersible pump -Open area	No. of level :2, Height of Sump : 1.150m	25 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.23.	Convention center basement - B1	Basement Drainage sump pit submersible pump -Open area- Ramp staircase	No. of level :2, Height of Sump : 1.8m	4.5 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.24.	Convention center basement	Basement Drainage sump pit submersible pump -HVAC	No. of level :2, Height of Sump : 1.8m	2.5 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.25.	Convention center basement	Basement Drainage sump pit submersible pump -Inside Auditorium	No. of level :2, Height of Sump :	30 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.

Sl. No	Location	Description	Specifications	Capacity	Qty	Annual Maintenance Contract Provision
2.26.	Convention center basement	Basement Drainage submersible sump pit pump	No. of level :2, Height of Sump :1.5	5 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.27.	Convention center basement	Basement-2 Drainage sump pit submersible pump Corridor Area	No. of level :2, Height of Sump :1.6	5.5 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.28.	Convention center basement	Basement Drainage sump pit submersible pump -Loading & unloading Area	No. of level :2, Height of Sump :1.8	22 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.29.	Convention center basement	Basement Drainage sump pit submersible pump -Loading & unloading Area	No. of level :2, Height of Sump :1.5	2 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.30.	Convention center basement	Basement Drainage sump pit submersible pump -Loading & unloading Area	No. of level :2, Height of Sump :1.5	4 LPS	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.31.	Convention center basement	Sewage sump pit submersible pump	No. of level :4, Height of Sump : 1.5 m	7 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.32.	Convention center basement	Sewage sump pit submersible pump	No. of level :4, Height of Sump : 1.7 m	3.5 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.33.	Convention center basement	Sewage sump pit submersible pump	No. of level :4, Height of Sump : 1.3 m	4 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.

Sl. No	Location	Description	Specifications	Capacity	Qty	Annual Maintenance Contract Provision
2.34.	Convention center basement	Sewage sump pit submersible pump	No. of level :4, Height of Sump : 1.8 m	4 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.35.	Convention center basement	Sewage sump pit submersible pump	No. of level :4, Height of Sump : 1.6 m	2.5 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.36.	Convention center basement	Sewage sump pit submersible pump	No. of level :4, Height of Sump : 2.0 m	4.0 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.37.	Convention center basement	Sewage sump pit submersible pump	No. of level :4, Height of Sump : 1.65 m	1 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.38.	Convention center basement-	Sewage sump pit submersible pump	No. of level :4, Height of Sump : 1.8 m	1 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.39.	Exhibition Hall 1	Drainage sump pit submersible pump --Sub station area	No. of level :2, Height of Sump : 1.5	13 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.40.	Exhibition Hall 1	Drainage sump pit submersible pump -- Sub station area	No. of level :2, Height of Sump : 1.5	6 LPS	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.41.	Exhibition Hall 1	Drainage sump pit submersible pump - B/w EH1 & EH2 area	No. of level :2, Height of Sump : 1.5	6 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.

Sl. No	Location	Description	Specifications	Capacity	Qty	Annual Maintenance Contract Provision
2.42.	Exhibition Hall 1	Drainage sump pit submersible pump -- Trench area	No. of level :2, Height of Sump : 2.2	9 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.43.	Exhibition Hall 1	Drainage sump pit submersible pump-- Trench area	No. of level :2, Height of Sump : 2.2	6 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.44.	Exhibition Hall 2	Drainage sump pit submersible pump-Sub station area	No. of level :2, Height of Sump : 1.5	13 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.45.	Exhibition Hall 2	Drainage sump pit submersible pump - Sub station area	No. of level :2, Height of Sump : 1.5	6 LPS	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.46.	Exhibition Hall 2	Drainage sump pit submersible pump - B/w EH1 & EH2 area	No. of level :2, Height of Sump : 1.5	6 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.47.	Exhibition Hall 2	Drainage sump pit submersible pump - Trench area	No. of level :2, Height of Sump : 2.2	6 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.48.	Exhibition Hall 2	Drainage sump pit submersible pump - Trench area	No. of level :2, Height of Sump : 2.2	6 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.49.	Service tunnel	Service tunnel Drainage sump pit submersible pump	No. of level :2, Height of tank : 1.5m	2 LPS	34	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.

Sl. No	Location	Description	Specifications	Capacity	Qty	Annual Maintenance Contract Provision
2.50.	Service tunnel-Sub station area	Drainage sump pit submersible pump	No. of level :2, Height of tank : 4m	2 LPS	4	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.51.	Ramp-1	Drainage sump pit submersible pump -Ramp 1A	No. of level :2, Height of tank : 1.5m	8 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.52.	Ramp-1	Drainage sump pit submersible pump -Ramp 1B	No. of level :2, Height of tank : 1.5m	12 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.53.	Ramp-1	Drainage sump pit submersible pump -Ramp 1C	No. of level :2, Height of tank : 1.5m	2 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.54.	Ramp-2	Drainage sump pit submersible pump -Ramp 2	No. of level :2, Height of tank : 1.5m	13 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.55.	Ramp-3	Drainage sump pit submersible pump -Ramp 3	No. of level :2, Height of tank : 1.5m	7 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.56.	Ramp-4	Drainage sump pit submersible pump -Ramp 4A	No. of level :2, Height of tank : 1.5m	13 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.57.	Ramp-4	Drainage sump pit submersible pump -Ramp 4B	No. of level :2, Height of tank : 1.5m	2 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.

Sl. No	Location	Description	Specifications	Capacity	Qty	Annual Maintenance Contract Provision
2.58.	Ramp-5	Drainage sump pit submersible pump -Ramp 5A	No. of level :2, Height of tank : 1.5m	16 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.59.	Ramp-5	Drainage sump pit submersible pump -Ramp 5B	No. of level :2, Height of tank : 1.5m	23 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.60.	Ramp-5	Drainage sump pit submersible pump -Ramp 5C	No. of level :2, Height of tank : 1.5m	6 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.61.	Ramp-6	Drainage sump pit submersible pump -Ramp 6A	No. of level :2, Height of tank : 1.5m	18 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.62.	Ramp-6	Drainage sump pit submersible pump -Ramp 6B	No. of level :2, Height of tank : 1.5m	2 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.63.	External storm	Drainage sump pit submersible pump -Ramp 6B	No. of level :2, Height of tank : 1.5m	60 LPS	21	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.64.	External Sewage	Sewage sump pit submersible pump P1	No. of level :2, Height of tank : 2.5m	3.78 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.65.	External Sewage	Sewage sump pit submersible pump P2	No. of level :2, Height of tank : 1.5m	3 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.

Sl. No	Location	Description	Specifications	Capacity	Qty	Annual Maintenance Contract Provision
2.66.	External Sewage	Sewage sump pit submersible pump P3	No. of level :2, Height of tank : 1.5m	3.45 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.67.	External Sewage	Sewage sump pit submersible pump P4	No. of level :2, Height of tank : 1.8m	8.65 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.68.	External Sewage	Sewage sump pit submersible pump P5	No. of level :2, Height of tank : 1.8m	8.73 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.69.	External Sewage	Sewage sump pit submersible pump P6	No. of level :2, Height of tank : 1.8m	9.18 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.70.	External Sewage	Sewage sump pit submersible pump P7	No. of level :2, Height of tank : 1.5m	12.35 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.71.	External Sewage	Sewage sump pit submersible pump P8	No. of level :2, Height of tank : 1.5m	11.66 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.72.	External Sewage	Sewage sump pit submersible pump P9	No. of level :2, Height of tank : 1.5m	12.16 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.73.	External Sewage	Sewage sump pit submersible pump P10	No. of level :2, Height of tank : 1.5m	12.16 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.

Sl. No	Location	Description	Specifications	Capacity	Qty	Annual Maintenance Contract Provision
2.74.	External Sewage	Sewage sump pit submersible pump P11	No. of level :2, Height of tank : 2.5m	5.13 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.75.	External Sewage	Sewage sump pit submersible pump P14	No. of level :2, Height of tank : 1.5m	4.83 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.76.	External Sewage	Sewage sump pit submersible pump P15	No. of level :2, Height of tank : 1.5m	3.18 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.77.	Exhibition Hall 1 Kitchen	Drainage sump pit submersible pump -	No. of level :2, Height of tank : 1.5m	14 LPS	6	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
2.78.	Exhibition Hall 1 Kitchen	Sewage sump pit submersible pump P15	No. of level :2, Height of tank : 1.5m	3 LPS	2	Operation & maintenance work under scope of Service Provider / Operator Company including spares as specified in Section 9.16, 9.17 and 9.18.
Total No of Equipment					281	

3. Sewage Treatment Plant

Sl. No	Location	Equipment	Description	Capacity	Qty	Annual Maintenance Contract Provision
3.1.	Exhibition 3 basement	Screen	Mechanical Step Screen-Automatic Cleaning System	1000X800 (WXd)	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.2.	Exhibition 3 basement	Blower	Air Blower- Process	1366 CMH	4	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.3.	Exhibition 3 basement	Blower	Air Blower- Biological Treatment	1850 CMH	4	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.4.	Exhibition 3 basement	Blower	Air Blower- MBR	800 CMH	4	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.5.	Exhibition 3 basement	Pump	Raw Sewage Transfer pump	84 CMH	4	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.6.	Exhibition 3 basement	Pump	Sludge Recycling pump	336 CMH	3	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

Sl. No	Location	Equipment	Description	Capacity	Qty	Annual Maintenance Contract Provision
3.7.	Exhibition 3 basement	Pump	Sludge Feed pump	10 CMH	2	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.8.	Exhibition 3 basement	Pump	Permeate Suction pump	84 CMH	3	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.9.	Exhibition 3 basement	Pump	WTP Plant -Softener- Feed pump	100 CMH	2	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.10.	Exhibition 3 basement	Pump	Softening System Softener -WTP Plant	2 MLD	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.11.	Exhibition 3 basement	Misc.	MBR Module	2X2000 KLD	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.12.	Exhibition 3 basement	Misc.	Filter Press	1200X1200	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

Sl. No	Location	Equipment	Description	Capacity	Qty	Annual Maintenance Contract Provision
3.13.	Exhibition 3 basement	Misc.	Softener Electrical Control Panel		1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.14.	Exhibition 3 basement	Misc.	PLC Panel – MBR System		1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.15.	Exhibition 3 basement	Misc.	UV System	170 CMH	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.16.	Exhibition 3 basement	Misc.	Air Compressor-100 liter	1 HP	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.17.	Exhibition 3 basement	Misc.	Mixer	1400 RPM	2	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.18.	Exhibition 3 basement	Misc.	CIP System, Dosing System, Diffuser, Flow meter, Froth Pump etc	2X2000 KLD	1	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment					34	

20.5 Mobile equipment and Motor Vehicles

Mono Rail Cranes						
Sl. No	Location	Equipment	Capacity	Qty	Unit	Annual Maintenance Contract Provision
1.	Exhibition Halls and Convention Center	MR1 ,MR4,MR5	6.5 MT	3	Nos.	Comprehensive AMC by SPV / operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
2.		MR2 ,MR3	1.5 MT	2	Nos.	Comprehensive AMC by SPV / operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.		MR6	3 MT	1	Nos.	Comprehensive AMC by SPV / operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
4.		MR7 ,MR8, MR9,MR10	1 MT	4	Nos.	Comprehensive AMC by SPV / operator company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment				10		

Electrically Operated Cranes						
Sl. No	Location	Equipment	Capacity	Qty	Unit	Annual Maintenance Contract Provision
1.	ESS -1	EOT Crane	5 T	1	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
2.	ESS - 2	EOT Crane	5 T	1	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.	DG Building	EOT Crane	10 T	1	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment				3		

20.6 Critical Environment Systems – Data Centers

Sr. No.	Minimum Quantity for Data Centre Critical and Environment Monitoring Systems			Nos	Annual Maintenance Contract Provision
1	LCP In-Rack Cooling Units with the Accessories with N+1 Redundancy.	Rittal	7030250	60	Comprehensive AMC by SPV / Operator Company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
2	RiZone Monitoring Software	Rittal	RiZone	2	Comprehensive AMC by SPV / Operator Company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3	Temperature, Humidity and smoke Monitoring	Rittal	RiZone	2	Comprehensive AMC by SPV / Operator Company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
4	Water Leakage Detection system	Rittal	7030440	2	Comprehensive AMC by SPV / Operator Company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
5	Digital Rodent repellent System	Rittal (MASER)	VHFP LP 20	2	Comprehensive AMC by SPV / Operator Company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
6	Gas Suppression System	ANSUL (Tyco)		2 sets	Comprehensive AMC by SPV / Operator Company for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment				70	

20.7 Waste Management and Recycling System

Sl. No	Location	Description	Capacity	Qty	UNIT	Annual Maintenance Contract Provision
1.	Exhibition 3 basement	AIR Compressor	14 LPS	1	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
2.	Exhibition 3 basement	Air waste Separator	7.5kW	2	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.	Exhibition 3 basement	OWC Processing Unit	5 Ton	2	Set	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
4.	Exhibition 3 basement	Waste Compactor	7.5kW	2	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
5.	Exhibition 3 basement	Exhauster	110kW	5	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
6.	Exhibition 3 basement	Belt Conveyor System	2.2 / 1.1 kW	5	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
7.	Exhibition 3 basement	Loaders & Trucks - LCV	2 Ton	1	Nos.	Non Comprehensive AMC by SPV for services and maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment				18		

20.8 Lifts, Escalators and Travellators

Sl. No	Location	Description	Capacity	Qty	UNIT	Annual Maintenance Contract Provision
1.	Convention Centre	Elevator (Thyssenkrupp)	13/15/20/21 PAX; 2000 kgs	24	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
2.	Exhibition Hall & Foyer 1	Elevator (Thyssenkrupp)	13/15/20/21 PAX; 2000 kgs	10	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
3.	Exhibition Hall Kitchen	Elevator (Thyssenkrupp)	13/15/20/21 PAX; 2000 kgs	2	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
4.	Exhibition Hall & Foyer 2	Elevator (Thyssenkrupp)	13/15/20/21 PAX; 2000 kgs	13	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
5.	CC Car Parking	Elevator (Thyssenkrupp)	13/15/20/21 PAX; 2000 kgs	4	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
6.	Fire Station Building	Elevator (Thyssenkrupp)	13/15/20/21 PAX; 2000 kgs	2	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
7.	Convention Centre	Escalator (Thyssenkrupp)	0.5m/s; 30/35 deg.	33	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18

Sl. No	Location	Description	Capacity	Qty	UNIT	Annual Maintenance Contract Provision
8.	Exhibition Hall & Foyer 1	Escalator (Thyssenkrupp)	0.5m/s; 30/35 deg.	4	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
9.	Exhibition Hall & Foyer 2	Escalator (Thyssenkrupp)	0.5m/s; 30/35 deg.	2	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
10.	Foyer	Travellator (Thyssenkrupp)	72 mtr	2	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
11.	Foyer	Inclined ramp (Thyssenkrupp)	32 mtr	2	Nos.	Comprehensive AMC by SPV for maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
12.	Convention Centre	Hydraulic platform (Thyssenkrupp)	4 Ton	2	Nos.	Comprehensive AMC by SPV for services and maintenance; Routine Operation and Maintenance as specified in Section 9.16, 9.17 and 9.18
Total No of Equipment				100		

20.9 Kitchen Equipment

Equipment No	Location	Description	Qty	Unit
		BASEMENT FLOOR		
		HAND WASHING AREA		
HW1	Exhibition Hall 1 Basement	HAND WASHING SINK WITH SANITATION / STERILIZER SET	2	Nos
HW2	Exhibition Hall 1 Basement	SS COUNTER WITH DRYER/ TOWEL HANGER	1	Nos
HW3	Exhibition Hall 1 Basement	SS WALL CABINET WITH DOOR	1	Nos
		WEIGHING AREA		
1	Exhibition Hall 1 Basement	WEIGHING MACHINE	2	Nos
2	Exhibition Hall 1 Basement	WEIGHING MACHINE	2	Nos
3	Exhibition Hall 1 Basement	PLATFORM TROLLY	4	Nos
5	Exhibition Hall 1 Basement	INSECTOCUTOR	2	Nos
6	Exhibition Hall 1 Basement	GARBAGE BIN	25	Nos
8	Exhibition Hall 1 Basement	INSECTOCUOR	4	Nos
		PRE WASHING & SEGRGATION AREA -VEG		
9	Exhibition Hall 1 Basement	PRE WASH SINK	1	Nos
11	Exhibition Hall 1 Basement	VEGETABLE WASHING MACHINE	2	Nos
12	Exhibition Hall 1 Basement	RICE WASHING MACHINE	1	Nos
13	Exhibition Hall 1 Basement	WORK TABLE WITH UNDER SHELF ON WHEELS	3	Nos
15	Exhibition Hall 1 Basement	INSECTOCUOR	2	Nos
		MASALA / GRINDING AREA		
17	Exhibition Hall 1 Basement	POTATO PEELER	2	Nos
18	Exhibition Hall 1 Basement	PULVARISER	2	Nos
19	Exhibition Hall 1 Basement	TILTING WET GRINDER	2	Nos

Equipment No	Location	Description	Qty	Unit
20	Exhibition Hall 1 Basement	TILTING WET GRINDER	2	Nos
		PRE-PREPARATION- VEG		
22	Exhibition Hall 1 Basement	PRE WASH SINK	2	Nos
23	Exhibition Hall 1 Basement	WORK TABLE WITH UNDER SHELF	6	Nos
24	Exhibition Hall 1 Basement	WALL CABINET WITH DOOR	3	Nos
25	Exhibition Hall 1 Basement	VEGETABLE CUTTING MACHINE	2	Nos
26	Exhibition Hall 1 Basement	SS STORAGE RACK-4-TIER	3	Nos
27	Exhibition Hall 1 Basement	SS VEG CRATE TROLLEY	4	Nos
28	Exhibition Hall 1 Basement	VEGETABLE CUTTING MACHINE STAND ALONE	1	Nos
30	Exhibition Hall 1 Basement	INSECTOCUOR	3	Nos
32	Exhibition Hall 1 Basement	PRE FABRICATED CHILLER ROOM (INNER & OUTER MADE OF SS)	1	Nos
33	Exhibition Hall 1 Basement	SS RACK FOR CHILLER ROOM	8	Nos
35	Exhibition Hall 1 Basement	PRE FABRICATED FREEZER ROOM (INNER & OUTER MADE OF SS)	1	Nos
36	Exhibition Hall 1 Basement	SS RACK FOR FREEZER ROOM	6	Nos
37	Exhibition Hall 1 Basement	SS RACK FOR FREEZER ROOM	4	Nos
		DRY STORE ROOM		
39	Exhibition Hall 1 Basement	SS STORAGE RACK WITH 5 TIER	8	Nos
40	Exhibition Hall 1 Basement	SS PALLET (LOW HT PLATFORM RACK)	4	Nos
41	Exhibition Hall 1 Basement	PVC BIN FOR FLOUR STORAGE	6	Nos
42	Exhibition Hall 1 Basement	WORK TABLE WITH ONE UNDER SHELF	2	Nos
44	Exhibition Hall 1 Basement	INSECTOCUOR	2	Nos
		NON VEG RECEIVING & PRE PREPARATION		
45	Exhibition Hall 1 Basement	WEIGHING MACHINE	1	Nos
46	Exhibition Hall 1 Basement	PRE WASH SINK	1	Nos
47	Exhibition Hall 1 Basement	SS WORK TABLE WITH 2 UNDER SHELVES	2	Nos
48	Exhibition Hall 1 Basement	SS WORK TABLE WITH 2 UNDER SHELVES	5	Nos
49	Exhibition Hall 1 Basement	SS WALL CABINET WITH DOOR	3	Nos
50	Exhibition Hall 1 Basement	SS SINGLE BOWL SINK STAND ALONE	2	Nos
51	Exhibition Hall 1 Basement	FISH CUTTING MACHINE	1	Nos

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Equipment No	Location	Description	Qty	Unit
52	Exhibition Hall 1 Basement	MEAT MINCER	1	Nos
53	Exhibition Hall 1 Basement	MEAT SLICER	1	Nos
54	Exhibition Hall 1 Basement	WORK TOP UNDER FREEZER	1	Nos
57	Exhibition Hall 1 Basement	INSECTOCUOR	3	Nos
		REFRIGERATION EQUIPMENT		
58	Exhibition Hall 1 Basement	FOUR DOOR (4 HALF DOOR) VERTICAL CHILLER	1	Nos
59	Exhibition Hall 1 Basement	FOUR DOOR (4 HALF DOOR) VERTICAL FREEZER	1	Nos
		TROLLEYS		
60	Exhibition Hall 1 Basement	SS NON- VEG TRANSPORT TROLLEY (IN THE NON VEG PREPARATION ROOM)	2	Nos
61	Exhibition Hall 1 Basement	SS BUSSING TROLLEY	4	Nos
62	Exhibition Hall 1 Basement	PLATFORM TROLLY	2	Nos
		RICE/ FLOUR (IN THE DRY STORE ROOM)		
63	Exhibition Hall 1 Basement	PVC PALLET	8	Nos
65	Exhibition Hall 1 Basement	PRE FABRICATED FREEZER ROOM FOR NON VEG STORE (INNER & OUTER MADE OF SS)	1	Nos
66	Exhibition Hall 1 Basement	PRE FABRICATED CHILLER ROOM FOR NON VEG STORE (INNER & OUTER MADE OF SS)	1	Nos
67	Exhibition Hall 1 Basement	SS RACK FOR CHILLER ROOM (FOR BOTH THE ROOMS)	26	Nos
		MISCELLANEOUS		
70	Exhibition Hall 1 Basement	INSECTOCUTOR IN COMMON AREA	4	Nos
71	Exhibition Hall 1 Basement	STEAM CLEANER	2	Nos
72	Exhibition Hall 1 Basement	HOSE REEL	2	Nos
73	Exhibition Hall 1 Basement	AIR CURTAIN WITH SENSOR (APPX QTY AS SUITABLE TO THE SITE CONDITION)	6	Nos
		GROUND FLOOR		
		HAND WASH		
1	Exhibition Hall 1 Ground Floor	HAND WASHING SINK WITH SANITATION / STERILIZER SET	1	Nos
2	Exhibition Hall 1 Ground Floor	SS WORK TABLE WITH UNDER SHELF - COUNTER MODEL	1	Nos
3	Exhibition Hall 1 Ground Floor	WALL CABINET WITH DOOR	1	Nos
		PREPARATION ZONE		

Equipment No	Location	Description	Qty	Unit
4	Exhibition Hall 1 Ground Floor	VEGETABLE CUTTING MACHINE	2	Nos
5	Exhibition Hall 1 Ground Floor	PRE WASH SINK	2	Nos
5A	Exhibition Hall 1 Ground Floor	JET SPRAYER	2	Nos
6	Exhibition Hall 1 Ground Floor	POTATO BIN-SS	3	Nos
7	Exhibition Hall 1 Ground Floor	GARLIC BIN-SS	1	Nos
8	Exhibition Hall 1 Ground Floor	ONION BIN-SS	3	Nos
9	Exhibition Hall 1 Ground Floor	WORK TABLE WITH UNDER SHELF	3	Nos
10	Exhibition Hall 1 Ground Floor	WALL CABINET WITH DOOR	2	Nos
13	Exhibition Hall 1 Ground Floor	INSECTOCUTOR	1	Nos
		STEAMER KITCHEN		
14	Exhibition Hall 1 Ground Floor	TILTING BOILING PAN- 150 LTS CAP	3	Nos
15	Exhibition Hall 1 Ground Floor	COMBI STEAMER (1/1X 20 X 20) 20 X 2 ELECTRICAL MODEL	2	Nos
16	Exhibition Hall 1 Ground Floor	COMBI STEAMER ADDITIONAL TROLLEY	2	Nos
17	Exhibition Hall 1 Ground Floor	HAND WASHING SINK	1	Nos
20	Exhibition Hall 1 Ground Floor	SS BULK FOOD TRANSPORT TROLLY 2 TIER	4	Nos
		RICE & OIL STORAGE		
21	Exhibition Hall 1 Ground Floor	SS STORAGE RACK-3-TIER	8	Nos
23	Exhibition Hall 1 Ground Floor	INSECTOCUTOR	2	Nos
		REFRIGERATION		
24	Exhibition Hall 1 Ground Floor	FOUR DOOR (4 HALF DOOR) VERTICAL CHILLER	2	Nos
25	Exhibition Hall 1 Ground Floor	FOUR DOOR (4 HALF DOOR) VERTICAL FREEZER	1	Nos
		FOOD TROLLEY		
26	Exhibition Hall 1 Ground Floor	SS GN PAN TROLLEY	5	Nos
		DISH WASHING & POT WASH		
27	Exhibition Hall 1 Ground Floor	POT RACK-3 TIER	4	Nos
28	Exhibition Hall 1 Ground Floor	PLATE RACK-5 TIER	4	Nos
29	Exhibition Hall 1 Ground Floor	PLATE/ CROCKERY / CUTLERY RACK-5 TIER	8	Nos
30	Exhibition Hall 1 Ground Floor	SS POT WASH SINK	1	Nos
31	Exhibition Hall 1 Ground Floor	JET SPRAYER	1	Nos

Equipment No	Location	Description	Qty	Unit
32	Exhibition Hall 1 Ground Floor	GARBAGE BIN -PVC-	6	Nos
33	Exhibition Hall 1 Ground Floor	SOIL DISH LANDING TABLE WITH CHUTE	1	Nos
34	Exhibition Hall 1 Ground Floor	PRE RINSE TABLE WITH 2 SINK BOWL	1	Nos
35	Exhibition Hall 1 Ground Floor	JET SPRAYER	1	Nos
36	Exhibition Hall 1 Ground Floor	HEAVY DUTY 900 PLATES PER /HR WASHING MACHINE	1	Nos
37	Exhibition Hall 1 Ground Floor	CLEAN DISH LANDING TABLE WITH 2 UNDER SHELVES	1	Nos
38	Exhibition Hall 1 Ground Floor	INSECTOCUTOR	3	Nos
40	Exhibition Hall 1 Ground Floor	SPREADER TABLE WITH UNDER SHELF	1	Nos
		TROLLEYS		
41	Exhibition Hall 1 Ground Floor	INSULATED FOOD PACK TROLLEY	5	Nos
		MISCELLANEOUS		
43	Exhibition Hall 1 Ground Floor	INSECTOCUTOR IN THE COMMON AREA	5	Nos
44	Exhibition Hall 1 Ground Floor	AIR CURTAIN WITH SENSOR	10	Nos
45	Exhibition Hall 1 Ground Floor	STEAM CLEANER	2	Nos
46	Exhibition Hall 1 Ground Floor	HOSE REEL	2	Nos
		EXHAUST HOOD		
47	Exhibition Hall 1 Ground Floor	SS EXHAUST HOOD WITH SS BAFFLE FILTERS FOR TILTING BOILING PAN-DOUBLE SKIN	1	Nos
47A	Exhibition Hall 1 Ground Floor	SUPPRESSION SYSTEM FOR THE ABOVE HOOD	1	Nos
48	Exhibition Hall 1 Ground Floor	SS EXHAUST HOOD WITH SS BAFFLE FILTERS FOR COMBI STEAMER-DOUBLE SKIN	2	Nos
48A	Exhibition Hall 1 Ground Floor	SUPPRESSION SYSTEM FOR THE ABOVE HOOD	2	Nos
49	Exhibition Hall 1 Ground Floor	SS EXHAUST VAPOUR HOOD FOR DISH WASHING MACHINE	2	Nos
		FIRST FLOOR		
1	Exhibition Hall 1 First Floor	HAND WASHING SINK WITH SANITATION / STERILIZER SET	2	Nos
2	Exhibition Hall 1 First Floor	SS WORK TABLE WITH UNDER SHELF - COUNTER MODEL	1	Nos
3	Exhibition Hall 1 First Floor	WALL CABINET WITH DOOR	1	Nos
4	Exhibition Hall 1 First Floor	STORAGE RACK-4-TIER	1	Nos
		CHAPATHY / HOT FRY KITCHEN		
5	Exhibition Hall 1 First Floor	BUSING TROLLEY	5	Nos

Equipment No	Location	Description	Qty	Unit
6	Exhibition Hall 1 First Floor	WORK TABLE WITH UNDER SHELVES	5	Nos
7	Exhibition Hall 1 First Floor	BATTER TABLE WITH CONTAINERS	3	Nos
8	Exhibition Hall 1 First Floor	CHAPATHY MAKING SEMI AUTOMATIC MACHINE	1	Nos
9	Exhibition Hall 1 First Floor	DOSA / CHAPATH PLATE WITH PUFFER	3	Nos
10	Exhibition Hall 1 First Floor	SIDE TABLE WITH UNDER SHELVES	3	Nos
11	Exhibition Hall 1 First Floor	WORK TABLE WITH UNDER SHELF & OHS	4	Nos
12	Exhibition Hall 1 First Floor	STORAGE RACK-4-TIER	1	Nos
13	Exhibition Hall 1 First Floor	SINGLE BOWL SINK	1	Nos
14	Exhibition Hall 1 First Floor	WORK TOP UNDER CHILLER	1	Nos
15	Exhibition Hall 1 First Floor	WORK TOP UNDER FREEZER	1	Nos
16	Exhibition Hall 1 First Floor	SINGLE BURNER GAS RANGE FOR BULK COOKING	2	Nos
17	Exhibition Hall 1 First Floor	BRAT PAN (BRAISING PAN)-90-100 LTS CAP	2	Nos
18	Exhibition Hall 1 First Floor	WORK TABLE WITH UNDER SHELF & OHS	3	Nos
20	Exhibition Hall 1 First Floor	SINGLE BOWL SINK	2	Nos
21	Exhibition Hall 1 First Floor	DOUGH SHEETING TABLE WITH UNDER SHELVES	2	Nos
22	Exhibition Hall 1 First Floor	DOUGH SHEETING MACHINE	1	Nos
23	Exhibition Hall 1 First Floor	DOUGH BALL CUTTING MACHINE	1	Nos
24	Exhibition Hall 1 First Floor	DOUGH KNEADING MACHINE	2	Nos
25	Exhibition Hall 1 First Floor	WALL CABINET WITH DOOR	1	Nos
		HOT KITCHEN VEG		
26	Exhibition Hall 1 First Floor	SINGLE BOWL SINK	1	Nos
27	Exhibition Hall 1 First Floor	SS COVERING TANDOOR POT GAS MODEL	3	Nos
28	Exhibition Hall 1 First Floor	DOUBLE BURNER GAS RANGE	1	Nos
28A	Exhibition Hall 1 First Floor	SINGLE BURNER GAS RANGE	2	Nos
28B	Exhibition Hall 1 First Floor	SIDE TABLE WITH UNDER SHELVES	1	Nos
29	Exhibition Hall 1 First Floor	WORK TABLE WITH UNDER SHELF & OHS	1	Nos
30	Exhibition Hall 1 First Floor	WORK TABLE WITH UNDER SHELF	4	Nos
31	Exhibition Hall 1 First Floor	WORK TOP UNDER CHILLER	1	Nos
31A	Exhibition Hall 1 First Floor	WORK TOP UNDER FREEZER	1	Nos

Equipment No	Location	Description	Qty	Unit
32	Exhibition Hall 1 First Floor	TWO BURNER CHINESE GAS RANGE WITH STOCK POT	1	Nos
33	Exhibition Hall 1 First Floor	SINGLE BURNER CHINESE GAS RANGE / STOCK POT	2	Nos
		BAKERY KITCHEN		
34	Exhibition Hall 1 First Floor	PLANATERY MIXER	1	Nos
35	Exhibition Hall 1 First Floor	3 DECK BAKING OVEN	1	Nos
36	Exhibition Hall 1 First Floor	WORK TABLE WITH UNDER SHELF	3	Nos
37	Exhibition Hall 1 First Floor	WALL CABINET WITH DOOR	1	Nos
38	Exhibition Hall 1 First Floor	SINGLE BOWL SINK	2	Nos
39	Exhibition Hall 1 First Floor	STORAGE RACK-4 TIER	2	Nos
40	Exhibition Hall 1 First Floor	DOUGH SHEETER MACHINE	1	Nos
41	Exhibition Hall 1 First Floor	DOUGH PROVING	1	Nos
42	Exhibition Hall 1 First Floor	DOUGHNET FRYER	1	Nos
43	Exhibition Hall 1 First Floor	BREAD SLICER	1	Nos
44	Exhibition Hall 1 First Floor	SHEET TRAY RACK ON WHEELS	2	Nos
45	Exhibition Hall 1 First Floor	WORK TOP UNDER CHILLER	1	Nos
46	Exhibition Hall 1 First Floor	FOUR DOOR VERTICAL FREEZER	1	Nos
47	Exhibition Hall 1 First Floor	FOUR DOOR VERTICAL CHILLER	1	Nos
48	Exhibition Hall 1 First Floor	PRE FABRICATED COMBO - CHILLER ROOM FOR BAKERY KITCHEN (INNER & OUTER MADE OF SS)	1	Nos
49	Exhibition Hall 1 First Floor	BAKERY TRAY HOLDING RACK -SS	15	Nos
		COLD ROOM FOR VEG		
50	Exhibition Hall 1 First Floor	PRE FABRICATED CHILLER ROOM FOR COOKED FOOD (INNER & OUTER MADE OF SS)	1	Nos
51	Exhibition Hall 1 First Floor	SS RACK FOR CHILLER ROOM	3	Nos
52	Exhibition Hall 1 First Floor	SS RACK FOR CHILLER ROOM	8	Nos
		COLD ROOM FOR NON-VEG		
53	Exhibition Hall 1 First Floor	PRE FABRICATED CHILLER ROOM FOR COOKED FOOD (INNER & OUTER MADE OF SS)	1	Nos
54	Exhibition Hall 1 First Floor	SS RACK FOR CHILLER ROOM	3	Nos
55	Exhibition Hall 1 First Floor	SS RACK FOR CHILLER ROOM	9	Nos
		POT WASH		

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Equipment No	Location	Description	Qty	Unit
56	Exhibition Hall 1 First Floor	POT RACK-3-TIER	2	Nos
57	Exhibition Hall 1 First Floor	POT RACK-4 TIER	8	Nos
58	Exhibition Hall 1 First Floor	POT WASH SINK	1	Nos
59	Exhibition Hall 1 First Floor	JET SPRAYER	1	Nos
		SERVICE		
60	Exhibition Hall 1 First Floor	INSULATED FOOD PACK TROLLEY	8	Nos
63	Exhibition Hall 1 First Floor	FLY CATCHER	11	Nos
64	Exhibition Hall 1 First Floor	AIR CURTAIN appx qty	6	Nos
65	Exhibition Hall 1 First Floor	STEAM CLEANER	2	Nos
66	Exhibition Hall 1 First Floor	HOSE REEL	2	Nos
		NON VEG HOT KITCHEN		
67	Exhibition Hall 1 First Floor	BRAT PAN (BRAISING PAN)-90-100 LTS CAP	2	Nos
68	Exhibition Hall 1 First Floor	WORK TABLE WITH UNDER SHELF & OHS	2	Nos
70	Exhibition Hall 1 First Floor	SS COVERING TANDOOR POT GAS MODEL	3	Nos
71	Exhibition Hall 1 First Floor	SS SIDE TABLE WITH 2 UNDER SHELVES FOR TANDOOR	2	Nos
72	Exhibition Hall 1 First Floor	GRIDDLE PLATE	2	Nos
73	Exhibition Hall 1 First Floor	SS SIDE TABLE WITH 2 UNDER SHELVES FOR GRIDDLE PLATE	1	Nos
74	Exhibition Hall 1 First Floor	SINGLE BURNER CHINESE GAS RANGE / STOCK POT	1	Nos
75	Exhibition Hall 1 First Floor	TWO BURNER CHINESE GAS RANGE / STOCK POT	1	Nos
76	Exhibition Hall 1 First Floor	SINGLE BURNER GAS RANGE FOR BULK COOKING / FRYING	4	Nos
77	Exhibition Hall 1 First Floor	SINGLE BOWL SINK	1	Nos
78	Exhibition Hall 1 First Floor	WORK TABLE WITH UNDER SHELF & OHS	2	Nos
79	Exhibition Hall 1 First Floor	WORK TOP UNDER CHILLER	1	Nos
		EXHAUST HOOD		
80	Exhibition Hall 1 First Floor	SS EXHAUST HOOD WITH BAFFLE TYPE FILTER FOR CHAPATHY MACHINE	1	Nos
80A	Exhibition Hall 1 First Floor	SUPPRESSION SYSTEM FOR THE ABOVE HOOD	1	Nos
81	Exhibition Hall 1 First Floor	SS EXHAUST HOOD WITH BAFFLE TYPE FILTER FOR DOSA / CHAPATHY PLATE	1	Nos
81A	Exhibition Hall 1 First Floor	SUPPRESSION SYSTEM FOR THE ABOVE HOOD	1	Nos
82	Exhibition Hall 1 First Floor	SS EXHAUST HOOD WITH BAFFLE TYPE FILTER FOR HOT FRY KITCHEN	1	Nos

Equipment No	Location	Description	Qty	Unit
82A	Exhibition Hall 1 First Floor	SUPPRESSION SYSTEM FOR THE ABOVE HOOD	1	Nos
83	Exhibition Hall 1 First Floor	SS EXHAUST HOOD WITH BAFFLE TYPE FILTER FOR HOT KITCHEN	1	Nos
83A	Exhibition Hall 1 First Floor	SUPPRESSION SYSTEM FOR THE ABOVE HOOD	1	Nos
84	Exhibition Hall 1 First Floor	SS EXHAUST HOOD WITH BAFFLE TYPE FILTER FOR HOT KITCHEN	1	Nos
84A	Exhibition Hall 1 First Floor	SUPPRESSION SYSTEM FOR THE ABOVE HOOD	1	Nos
85	Exhibition Hall 1 First Floor	SS EXHAUST HOOD WITH BAFFLE TYPE FILTER FOR 3 DECK BAKING OVEN	1	Nos
85A	Exhibition Hall 1 First Floor	SUPPRESSION SYSTEM FOR THE ABOVE HOOD	1	Nos
86	Exhibition Hall 1 First Floor	SS EXHAUST HOOD WITH BAFFLE TYPE FILTER FOR BRAT PAN - NON VEG KITCHEN	1	Nos
86A	Exhibition Hall 1 First Floor	SUPPRESSION SYSTEM FOR THE ABOVE HOOD	1	Nos
87	Exhibition Hall 1 First Floor	SS EXHAUST HOOD WITH BAFFLE TYPE FILTER FOR - NON VEG TANDOOR KITCHEN	1	Nos
87A	Exhibition Hall 1 First Floor	SUPPRESSION SYSTEM FOR THE ABOVE HOOD	1	Nos
88	Exhibition Hall 1 First Floor	SS EXHAUST HOOD WITH BAFFLE TYPE FILTER FOR - NON VEG BULK - CHINES KITCHEN	1	Nos
88A	Exhibition Hall 1 First Floor	SUPPRESSION SYSTEM FOR THE ABOVE HOOD	1	Nos
		F5 (CONVENTION CENTER)		
		HAND WASHING		
HW1	Convention Centre Fifth Floor	HAND WASHING SINK WITH SOAP DISPENSER/ SANITIZATION	1	Nos
HW2	Convention Centre Fifth Floor	WALL CABINET WITH DOOR	1	Nos
		VEG- RECEIVING ZONE		
VR1	Convention Centre Fifth Floor	WEIGHING MACHINE	2	Nos
VR2	Convention Centre Fifth Floor	SS WORK TABLE WITH 2 UNDER SHELVES	1	Nos
VR3	Convention Centre Fifth Floor	PLATFORM TROLLY	2	Nos
VR4	Convention Centre Fifth Floor	SS GRATING WITH BOTTOM BOXING & SS FILTER	1	Nos
		NON-VEG- RECEIVING ZONE		
NVR1	Convention Centre Fifth Floor	WEIGHING MACHINE	2	Nos
NVR2	Convention Centre Fifth Floor	SS WORK TABLE WITH 2 UNDER SHELVES	1	Nos
NVR3	Convention Centre Fifth Floor	PLATFORM TROLLY	1	Nos
NVR4	Convention Centre Fifth Floor	SS GRATING WITH BOTTOM BOXING & SS FILTER	1	Nos
		VEG-PRE WASH & PREPARATION ROOM		

Equipment No	Location	Description	Qty	Unit
PP1	Convention Centre Fifth Floor	WORK TABLE WITH 2 UNDER SHELVES	1	Nos
PP2	Convention Centre Fifth Floor	RICE WASHING MACHINE-COMMERCIAL MODEL	1	Nos
PP3	Convention Centre Fifth Floor	TILTING WET GRINDER	2	Nos
PP4	Convention Centre Fifth Floor	POTATO PEELER	1	Nos
PP5	Convention Centre Fifth Floor	PULVARIZER	1	Nos
PP6	Convention Centre Fifth Floor	VEGETABLE CUTTING MACHINE STAND ALONE	1	Nos
PP7	Convention Centre Fifth Floor	WORK TABLE WITH 2 UNDER SHELVES	1	Nos
PP8	Convention Centre Fifth Floor	WALL CABINET WITH DOOR	1	Nos
PP9	Convention Centre Fifth Floor	VEGETABLE CUTTING MACHINE	1	Nos
PP10	Convention Centre Fifth Floor	SINGLE BOWL SINK - STAND ALONE	1	Nos
PP11	Convention Centre Fifth Floor	VEGETABLE WASHING MACHINE	1	Nos
PP12	Convention Centre Fifth Floor	WORK TABLE WITH 2 UNDER SHELVES	2	Nos
PP13	Convention Centre Fifth Floor	SS GRATING FULLY BOX TYPE WITH MODULAR TOP	2	Nos
PP14	Convention Centre Fifth Floor	SS GRATING FULLY BOX TYPE WITH MODULAR TOP	4	Nos
PP15	Convention Centre Fifth Floor	SS GRATING FULLY BOX TYPE WITH MODULAR TOP	1	Nos
PP16	Convention Centre Fifth Floor	WORK TOP UNDER CHILLER	1	Nos
PP17	Convention Centre Fifth Floor	REACH IN CHILLER (4 DOOR VERTICAL CHILLER)	1	Nos
PP18	Convention Centre Fifth Floor	REACH IN FREEZER (4 DOOR VERTICAL FREEZER)	1	Nos
PP19	Convention Centre Fifth Floor	REACH IN FREEZER (2 DOOR VERTICAL FREEZER)	1	Nos
		NON-VEG-PRE WASH & PREPARATION ROOM		
NPP1	Convention Centre Fifth Floor	SS WORK TOP TABLE	1	Nos
NPP2	Convention Centre Fifth Floor	SS WORK TABLE WITH 2 UNDER SHELVES	2	Nos
NPP3	Convention Centre Fifth Floor	SS WORK TABLE WITH 2 UNDER SHELVES	2	Nos
NPP4	Convention Centre Fifth Floor	SS WALL CABINET WITH DOOR	1	Nos
NPP5	Convention Centre Fifth Floor	SS SINGLE BOWL SINK STAND ALONE	2	Nos
NPP6	Convention Centre Fifth Floor	FISH CUTTING MACHINE-SLICER	1	Nos
NPP7	Convention Centre Fifth Floor	MEAT MINCER	2	Nos
NPP8	Convention Centre Fifth Floor	MEAT SLICER	2	Nos
NPP9	Convention Centre Fifth Floor	WORK TOP UNDER FREEZER	1	Nos

Equipment No	Location	Description	Qty	Unit
NPP10	Convention Centre Fifth Floor	REACH IN CHILLER (4 DOOR VERTICAL CHILLER)	1	Nos
NPP11	Convention Centre Fifth Floor	REACH IN FREEZER (4 DOOR VERTICAL FREEZER)	1	Nos
NPP12	Convention Centre Fifth Floor	REACH IN FREEZER (2 DOOR VERTICAL FREEZER)	1	Nos
NPP13	Convention Centre Fifth Floor	CHEST FREEZER	1	Nos
NPP14	Convention Centre Fifth Floor	SS GRATING WITH BOTTOM BOXING & SS FILTER PLATE AND TOP MODULAR	1	Nos
NPP15	Convention Centre Fifth Floor	SS GRATING WITH BOTTOM BOXING & SS FILTER PLATE AND TOP MODULAR	2	Nos
		BEVERAGES KITCHEN		
BK1	Convention Centre Fifth Floor	TWO DOOR VERTICAL CHILLER	1	Nos
BK2	Convention Centre Fifth Floor	TWO DOOR VERTICAL FREEZER	1	Nos
BK3	Convention Centre Fifth Floor	UNDER FREEZER ICE CREAM CABINET WITH GN PANS	1	Nos
BK4	Convention Centre Fifth Floor	WORK TOP UNDER CHILLER	1	Nos
BK5	Convention Centre Fifth Floor	WORK TABLE WITH SINK	1	Nos
BK6	Convention Centre Fifth Floor	SS GRATING FULLY BOX TYPE WITH MODULAR TOP	3	Nos
BK7	Convention Centre Fifth Floor	JUICER	2	Nos
BK8	Convention Centre Fifth Floor	MIXER	2	Nos
BK9	Convention Centre Fifth Floor	BLENDER	2	Nos
		DRY STORE		
DS1	Convention Centre Fifth Floor	STORAGE RACK-5-TIER	10	Nos
DS2	Convention Centre Fifth Floor	SS PALLET (LOW PLATFORM)	3	Nos
DS3	Convention Centre Fifth Floor	FLOUR BIN	6	Nos
DS4	Convention Centre Fifth Floor	WORK TABLE WITH UNDER SHELVES	1	Nos
DS5	Convention Centre Fifth Floor	WEIGHING MACHINE	1	Nos
		COMBO COLD ROOM CHILLER / FREEZER FOR VEG STORAGE		
CR1	Convention Centre Fifth Floor	COMBO COLD ROOM CHILLER / FREEZER	1	Nos
CR2	Convention Centre Fifth Floor	COLD ROOM RACK FOR CRATES-5 TIER	5	Nos
CR3	Convention Centre Fifth Floor	COLD ROOM RACK 5- TIER	8	Nos
CR4	Convention Centre Fifth Floor	SS GRATING FULLY BOX TYPE WITH MODULAR TOP	2	Nos
		COMBO COLD ROOM CHILLER / FREEZER FOR NON-VEG STORAGE		

Equipment No	Location	Description	Qty	Unit
NCR1	Convention Centre Fifth Floor	COMBO COLD ROOM CHILLER / FREEZER	1	Nos
NCR2	Convention Centre Fifth Floor	COLD ROOM RACK FOR CRATES-5 TIER	5	Nos
NCR3	Convention Centre Fifth Floor	COLD ROOM RACK 5- TIER	8	Nos
NCR4	Convention Centre Fifth Floor	SS GRATING FULLY BOX TYPE WITH MODULAR TOP	2	Nos
		POT WASH		
PW1	Convention Centre Fifth Floor	POT RACK-4-TIER	3	Nos
PW2	Convention Centre Fifth Floor	POT STORAGE RACK-4-TIER	2	Nos
PW3	Convention Centre Fifth Floor	POT SINK	1	Nos
PW4	Convention Centre Fifth Floor	JET SPRAYER	1	Nos
PW5	Convention Centre Fifth Floor	SS GRATING FULLY BOX TYPE WITH MODULAR TOP	4	Nos
PW6	Convention Centre Fifth Floor	SS GRATING FULLY BOX TYPE WITH MODULAR TOP	1	Nos
		INDIAN / ASIAN KITCHEN		
IK1	Convention Centre Fifth Floor	TILTING BOILING STEAMER	2	Nos
IK2	Convention Centre Fifth Floor	COMBI STEAMER (1/1X 20 X 20) 20 X 2 ELECTRICAL MODEL	2	Nos
IK2 A	Convention Centre Fifth Floor	COMBI STEAMER ADDITIONAL TROLLEY	2	Nos
IK3	Convention Centre Fifth Floor	BULK GAS RANGE	2	Nos
IK4	Convention Centre Fifth Floor	BRAT PAN - FRYING PAN-GAS MODEL	2	Nos
IK5	Convention Centre Fifth Floor	PICKUP COUNTER WITH U/S & OHS	1	Nos
IK6	Convention Centre Fifth Floor	WORK TOP UNDER CHILLER WITH OHS	1	Nos
IK7	Convention Centre Fifth Floor	WORK TOP UNDER FREEZER WITH OHS	1	Nos
IK8	Convention Centre Fifth Floor	SS GRATING FULLY BOX TYPE WITH MODULAR TOP	2	Nos
IK9	Convention Centre Fifth Floor	SS GRATING FULLY BOX TYPE WITH MODULAR TOP	4	Nos
IK10	Convention Centre Fifth Floor	SPICE TROLLEY WITH GN PAN	3	Nos
		VEG- HOT KITCHEN		
HK1	Convention Centre Fifth Floor	SS COVERING TANDOOR POT	4	Nos
HK1A	Convention Centre Fifth Floor	SPREADER TABLE WITH UNDER SHELF	1	Nos
HK2	Convention Centre Fifth Floor	SS SINGLE BURNER GAS RANGE	2	Nos
HK3	Convention Centre Fifth Floor	CHINESE SINGLE WOK	1	Nos
HK4	Convention Centre Fifth Floor	CHINESE WOK RANGE	1	Nos

Equipment No	Location	Description	Qty	Unit
HK5	Convention Centre Fifth Floor	SIDE TABLE WITH UNDER SHELVES	1	Nos
HK6	Convention Centre Fifth Floor	WORKING TABLE WITH U/S & OHS	2	Nos
HK6A	Convention Centre Fifth Floor	WORKING TABLE WITH SINK, U/S & OHS	1	Nos
HK7	Convention Centre Fifth Floor	WORK TOP UNDER CHILLER WITH OHS	1	Nos
HK8	Convention Centre Fifth Floor	WORK TOP UNDER FREEZER WITH OHS	1	Nos
HK9	Convention Centre Fifth Floor	SINGLE BOWL SINK - STAND ALONE	1	Nos
HK10	Convention Centre Fifth Floor	DOUBLE BURNER GAS RANGE	1	Nos
HK11	Convention Centre Fifth Floor	TWIN TANK ELECTRICAL MODEL DEEP FAT FRYER	2	Nos
HK12	Convention Centre Fifth Floor	ELECTRICAL MODEL 4 IN RANGE	1	Nos
HK13	Convention Centre Fifth Floor	GRIDDLE PLATE GAS MODEL	2	Nos
HK14	Convention Centre Fifth Floor	SS GRATING FULLY BOX TYPE WITH MODULAR TOP	8	Nos
		NON-VEG- HOT KITCHEN		
NHK1	Convention Centre Fifth Floor	SS COVERING TANDOOR POT	4	Nos
NHK2	Convention Centre Fifth Floor	SS SINGLE BURNER GAS RANGE	1	Nos
NHK3	Convention Centre Fifth Floor	CHINESE SINGLE WOK	1	Nos
NHK4	Convention Centre Fifth Floor	CHINESE DOUBLE BURNER WOK	1	Nos
NHK5	Convention Centre Fifth Floor	SIDE TABLE WITH UNDER SHELVES	1	Nos
NHK6	Convention Centre Fifth Floor	WORKING TABLE WITH U/S & OHS	1	Nos
NHK7	Convention Centre Fifth Floor	WORKING TABLE WITH SINK, U/S & OHS	1	Nos
NHK8	Convention Centre Fifth Floor	WORK TOP UNDER CHILLER WITH OHS	1	Nos
NHK9	Convention Centre Fifth Floor	WORK TOP UNDER FREEZER WITH OHS	1	Nos
NHK10	Convention Centre Fifth Floor	SINGLE BOWL SINK - STAND ALONE	1	Nos
NHK11	Convention Centre Fifth Floor	DOUBLE BURNER GAS RANGE	1	Nos
NHK12	Convention Centre Fifth Floor	GAS RANGE FOR BULK COOKING / FRY	1	Nos
NHK13	Convention Centre Fifth Floor	COMBI STEAMER 6-1 E MODEL	1	Nos
NHK14	Convention Centre Fifth Floor	SS WORK TABLE WITH 2 UNDER SHELVES	1	Nos
NHK15	Convention Centre Fifth Floor	GRIDDLE PLATE GAS MODEL	2	Nos
NHK16	Convention Centre Fifth Floor	SS GRATING FULLY BOX TYPE WITH MODULAR TOP	8	Nos
		DISH WASHING AREA		

Equipment No	Location	Description	Qty	Unit
DW1	Convention Centre Fifth Floor	SOIL DISH RECEIVING TABLE WITH CHUTE	1	Nos
DW2	Convention Centre Fifth Floor	SPREADER TABLE WITH UNDER SHELF	1	Nos
DW3	Convention Centre Fifth Floor	PRE WASH SINK- 2 SINK	1	Nos
DW4	Convention Centre Fifth Floor	DISH WASHING MACHINE CONVEYOR TYPE	1	Nos
DW5	Convention Centre Fifth Floor	JET SPRAYER	1	Nos
DW6	Convention Centre Fifth Floor	CLEAN DISH LANDING TABLE WITH 2 UNDER SHELVES	1	Nos
DW7	Convention Centre Fifth Floor	DRAIN GRATINGS -SS-BOX TYPE	3	Nos
DW8	Convention Centre Fifth Floor	STORAGE RACK-5-TIER	4	Nos
DW9	Convention Centre Fifth Floor	CRATE HOLDING TROLLEY	3	Nos
DW10	Convention Centre Fifth Floor	VAPOUR HOOD FOR DISH WASHING MACHINE	1	Nos
		UTILITY ITEMS		
UT1	Convention Centre Fifth Floor	AIR CURTAIN - 2000 mm Length	5	Nos
UT2	Convention Centre Fifth Floor	FLY CATCHER	20	Nos
UT3	Convention Centre Fifth Floor	STEAM CLEANER	2	Nos
UT4	Convention Centre Fifth Floor	HOSE REEL	2	Nos
		EXHAUST HOOD- 304 GRADE SS SHEET- DOUBLE SKIN MODEL		
EH1	Convention Centre Fifth Floor	EXHAUST HOOD WITH SS FILTERS MADE OF SS 202 GRADE 20 SWG SS SHEET FOR IK1& IK2	1	Nos
EH1A	Convention Centre Fifth Floor	SUPPRESSION SYSTEM FOR THE ABOVE HOOD	1	Nos
EH2	Convention Centre Fifth Floor	EXHAUST HOOD WITH SS FILTERS MADE OF SS 202 GRADE 20 SWG SS SHEET FOR IK3& IK4	1	Nos
EH2A	Convention Centre Fifth Floor	SUPPRESSION SYSTEM FOR THE ABOVE HOOD	1	Nos
EH3	Convention Centre Fifth Floor	EXHAUST HOOD WITH SS FILTERS MADE OF SS 202 GRADE 20 SWG SS SHEET FOR HK 10,11,2,12&13	1	Nos
EH3A	Convention Centre Fifth Floor	SUPPRESSION SYSTEM FOR THE ABOVE HOOD	1	Nos
EH4	Convention Centre Fifth Floor	EXHAUST HOOD WITH SS FILTERS MADE OF SS 202 GRADE 20 SWG SS SHEET FOR HK 1,2,3 &4	1	Nos
EK4A	Convention Centre Fifth Floor	SUPPRESSION SYSTEM FOR THE ABOVE HOOD	1	Nos
EH5	Convention Centre Fifth Floor	EXHAUST HOOD WITH SS FILTERS MADE OF SS 202 GRADE 20 SWG SS SHEET FOR NHK1,2,3&4	1	Nos
EH5A	Convention Centre Fifth Floor	SUPPRESSION SYSTEM FOR THE ABOVE HOOD	1	Nos

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Equipment No	Location	Description	Qty	Unit
EH6	Convention Centre Fifth Floor	EXHAUST HOOD WITH SS FILTERS MADE OF SS 202 GRADE 20 SWG SS SHEET FOR NHK11,12,13&15	1	Nos
EH6A	Convention Centre Fifth Floor	SUPPRESSION SYSTEM FOR THE ABOVE HOOD	1	Nos
		SERVICE EQUIPMENTS		
1	Convention Centre Fifth Floor	INSULATED FOOD PACK TROLLEY	16	Nos
2	Convention Centre Fifth Floor	FOOD SERVICE COUNTER WITH GN PAN	4	Nos
3	Convention Centre Fifth Floor	SALAD COUNTER (AMBIENCE TEMP)	4	Nos
4	Convention Centre Fifth Floor	CROCKERY / CUTLERY / PLATE COUNTER	4	Nos
5	Convention Centre Fifth Floor	SOUP POT (ELECTRICAL)	4	Nos
6	Convention Centre Fifth Floor	CHAFING DISH INDUCTION CHAFFER	20	Nos
7	Convention Centre Fifth Floor	WATER COOLER WITH COLD & PLAIN TAPS	6	Nos
8	Convention Centre Fifth Floor	WATER GLASS (USED/ UNUSED) RACK	6	Nos
		F6 (CONVENTION CENTER)		
		PANTRY		
B-01	Convention Centre Sixth Floor	SPREADER TABLE	2	Nos
B-02	Convention Centre Sixth Floor	TANDOOR	3	Nos
B-03	Convention Centre Sixth Floor	SPREADER TABLE	1	Nos
B-04	Convention Centre Sixth Floor	WORK TOP WITH UNDER COUNTER CHILLER WITH O.H.S	1	Nos
B-05	Convention Centre Sixth Floor	WORK COUNTER WITH O.H.S	2	Nos
B-06	Convention Centre Sixth Floor	SPREADER TABLE	2	Nos
B-07	Convention Centre Sixth Floor	TWIN TANK ELECTRICAL MODEL DEEP FAT FRYER	2	Nos
B-11	Convention Centre Sixth Floor	WORK TABLE WITH SINK & O.H.S	1	Nos
B-12	Convention Centre Sixth Floor	SS GRATING WITH BOTTOM BOXING & SS FILTER PLATE AND TOP MODULAR	1	Nos
B-13	Convention Centre Sixth Floor	SS EXHAUST HOOD WITH BAFFLE TYPE FILTER FOR - TANDOOR	1	Nos
B-13A	Convention Centre Sixth Floor	SUPPRESSION SYSTEM FOR THE ABOVE HOOD	1	Nos
B-14	Convention Centre Sixth Floor	SS EXHAUST HOOD WITH BAFFLE TYPE FILTER FOR - FRYERS	1	Nos
B-14A	Convention Centre Sixth Floor	SUPPRESSION SYSTEM FOR THE ABOVE HOOD	1	Nos
B-15	Convention Centre Sixth Floor	SS EXHAUST HOOD WITH BAFFLE TYPE FILTER FOR - SINGLE BURNER RANGE	1	Nos
B-15A	Convention Centre Sixth Floor	SUPPRESSION SYSTEM FOR THE ABOVE HOOD	1	Nos

Equipment No	Location	Description	Qty	Unit
B-16	Convention Centre Sixth Floor	SINGLE BURNER RANGE	3	Nos
B-17	Convention Centre Sixth Floor	SS VERTICAL CUPBOARD	1	Nos
B-18	Convention Centre Sixth Floor	SS FIVE TIER STORAGE RACK	2	Nos
B-19	Convention Centre Sixth Floor	TWO DOOR VERTICAL FREEZER	2	Nos
B-20	Convention Centre Sixth Floor	TWO DOOR VERTICAL CHILLER	2	Nos
B-21	Convention Centre Sixth Floor	ICE BIN STORAGE INSULATED	1	Nos
B-22	Convention Centre Sixth Floor	WORK COUNTER	1	Nos
B-23	Convention Centre Sixth Floor	WORK TOP WITH UNDER COUNTER STORAGE CABINET	1	Nos
B-24	Convention Centre Sixth Floor	UNDER COUNTER BOTTLE CHILLER	2	Nos
B-25	Convention Centre Sixth Floor	WORK TOP WITH UNDER COUNTER STORAGE CABINET	1	Nos
B-26	Convention Centre Sixth Floor	WORK TOP WITH UNDER COUNTER STORAGE CABINET	1	Nos
B-27	Convention Centre Sixth Floor	WORK TOP WITH GLASS RACK	1	Nos
B-28	Convention Centre Sixth Floor	COCKTAIL STATION	1	Nos
B-29	Convention Centre Sixth Floor	BLENDER	1	Nos
B-30	Convention Centre Sixth Floor	SINK	1	Nos
B-31	Convention Centre Sixth Floor	GARBAGE UNIT	1	Nos
B-32	Convention Centre Sixth Floor	UNDER COUNTER GLASS WASHER	1	Nos
B-33	Convention Centre Sixth Floor	WORK TOP WITH UNDER COUNTER STORAGE CABINET	1	Nos
A	Exhibition Hall 1 - Basement, Ground & First Floor	PNG GAS SYSTEM shall include all items required to complete the system but not limited to the items mentioned below:	1	LS
		M.S.Pipe ERW heavy duty with Schedule 40 Seamless fittings duly welded etc and 1 coat of red oxide and 2 coat enamel golden yellow .		
		(MSL) Size - 50mm NB		
		(MSL) Size - 40mm NB		
		3pc designed screwed end valve Size-50mm NB (L&T)		
		3pc designed screwed end valve Size-40mm NB (L&T)		
		Mainline 15mm Valve For Connection (L&T/RN)		
		Safety Device Flash Back Arrestor (Vanaz)		

Equipment No	Location	Description	Qty	Unit
		M.S.Flanges ASA Class 150 with Fittings		
		Adjustable Regulator (0-20Psi) (United/HPC)		
		Supporting Clamps with Iron Angle dash fastener (L-Fabrct)		
		Pressure Gauge 0 to 2kg/hr. (H-Guru)		
		Miscellaneous Brass/MS fittings etc. (Gasys)		
		Weld Neck Flange with Fittings		
B	Convention Centre Fifth & Sixth Floor	PNG LEAK DETECTION SYSTEM shall include all items required to complete the system but not limited to the items mentioned below:	1	LS
		Tnsl Control Panel TPCP08B-8 Zone Model		
		Tnsl Control Panel TPCP16B-16 Zone Model		
		PNG Wall-Hung Type-1 TPGS0101BM1P (24 DC)		
		Industrial Hooter TPHB2 (24V DC)		
		Ball Valve Shut Off Type Valve Size -40mm NB (L&T)		
		Special Bullnose nut with brass adopter fittings		
		Mechanism Solenoid Valve with fittings		
C	Convention Centre Fifth Floor	SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF RO SYSTEM		
1		Online Packaged RO water treatment (200 Ltr / Hour) with UV disinfection unit with all necessary requirements like membrane, pressure tube, pH corrector, flow meter, level switch etc. comprising the following. Includes angle valves, cutting and making good the walls and floors, etc with all necessary accessories as directed by Engineer in charge.	1	Nos.
		a) Water inlet with stop cock.		
		b) ABS Food Grade Plastic body.		
		c) Sediment, Carbon Block Filter, UF and Post Carbon Filter.		
		d) Thin Film Composite RO Membrane Type.		

Equipment No	Location	Description	Qty	Unit
		e) UV Lamp of minimum 8W.		
		f) Gaskets and seals, LED indicators for water level.		
		g) UV chamber shall be resistant to UV, non-degradable and non-leaching type.		
		h) Supply cable with adaptor.		
		i) Storage capacity in liters ____ 50 L ____		
		j) Permeate Flow rate in LPH ____ 50 ____		
2		SS (304 grade) tank - 1000 lt capacity	1	Nos.
3		Booster pump (to give output of 2 bar pressure)	1	Nos.
4		SS (304 grade) Piping (1")	200	rmt
5		SS (304 grade) Piping (1/2")	150	rmt
6		Mainline 25mm Valve	6	nos
7		Subsidiary line 12mm Valve	12	nos

21 Annexure 12 - List of Drawings

All PDF drawings can be downloaded from link given below:

<https://www.nicdc.in/index.php/tenders/tenders.html> and on CPP Portal.

21.1 Architectural Drawings

LIST OF DRAWINGS- ARCHITECTURAL DETAIL		
Building	Drawing Title	Drawing No.
Master Plan	MASTER PLAN	O17203-A-SP-00-WD-0003
Combined Basement	COMBINED BASEMENT -4 OVERALL PLAN	O17203-A-SP-00-WD-0051
Combined Basement	COMBINED BASEMENT -3 OVERALL PLAN	O17203-A-SP-00-WD-0052
Combined Basement	COMBINED BASEMENT -2 OVERALL PLAN	O17203-A-SP-00-WD-0053
Combined Basement	COMBINED BASEMENT -1 OVERALL PLAN	O17203-A-SP-00-WD-0054
CONVENTION CENTRE	BASEMENT-1 PLAN	O17203-A-SP-07-WD-0010
CONVENTION CENTRE	BASEMENT-2 PLAN	O17203-A-SP-07-WD-0020
CONVENTION CENTRE	GROUND FLOOR PLAN	O17203-A-SP-07-WD-0030
CONVENTION CENTRE	FIRST FLOOR PLAN	O17203-A-SP-07-WD-0040
CONVENTION CENTRE	SECOND FLOOR PLAN	O17203-A-SP-07-WD-0050
CONVENTION CENTRE	THIRD FLOOR PLAN	O17203-A-SP-07-WD-0060
CONVENTION CENTRE	FOURTH FLOOR PLAN	O17203-A-SP-07-WD-0070
CONVENTION CENTRE	FIFTH FLOOR PLAN	O17203-A-SP-07-WD-0080
CONVENTION CENTRE	SIXTH FLOOR PLAN	O17203-A-SP-07-WD-0090
CONVENTION CENTRE	SEVENTH FLOOR PLAN	O17203-A-SP-07-WD-0100
CONVENTION CENTRE	EIGHTH FLOOR PLAN	O17203-A-SP-07-WD-0110
CONVENTION CENTRE	ROOF PLAN	O17203-A-SP-07-WD-0120
CONVENTION CENTRE	ROOF FAN ROOM PLAN	O17203-A-SP-07-WD-0130
CONVENTION CENTRE	ELEVATIONS	O17203-A-SP-07-WD-0201

LIST OF DRAWINGS- ARCHITECTURAL DETAIL		
Building	Drawing Title	Drawing No.
CONVENTION CENTRE	ELEVATIONS	O17203-A-SP-07-WD-0202
CONVENTION CENTRE	SECTION XX & YY	O17203-A-SP-07-WD-0301
CONVENTION CENTRE	SECTION ZZ	O17203-A-SP-07-WD-0302
CONVENTION CENTRE	FINISHING SCHEDULE	O17203-A-SP-07-WD-0606
EXHIBITION HALL-1	FOYER BASEMENT 3 FLOOR PLAN	O17203-A-SP-01-WD-0001
EXHIBITION HALL-1	FOYER BASEMENT 2 FLOOR PLAN	O17203-A-SP-01-WD-0002
EXHIBITION HALL-1	FOYER BASEMENT 1 FLOOR PLAN	O17203-A-SP-01-WD-0003
EXHIBITION HALL-1	GROUND FLOOR PLAN	O17203-A-SP-01-WD-0004-R0
EXHIBITION HALL-1	MEZZANINE FLOOR PLAN	O17203-A-SP-01-WD-0005-R0
EXHIBITION HALL-1	FIRST FLOOR PLAN	O17203-A-SP-01-WD-0006-R0
EXHIBITION HALL-1	SECOND FLOOR PLAN	O17203-A-SP-01-WD-0007-R0
EXHIBITION HALL-1	THIRD FLOOR PLAN	O17203-A-SP-01-WD-0008-R0
EXHIBITION HALL-1	ROOF PLAN	O17203-A-SP-01-WD-0009-R0
EXHIBITION HALL-1	ELEVATION NORTH EAST	O17203-A-SP-01-WD-0201
EXHIBITION HALL-1	ELEVATION SOUTH WEST	O17203-A-SP-01-WD-0202
EXHIBITION HALL-1	ELEVATION NORTH WEST & SOUTH EAST	O17203-A-SP-01-WD-0203
EXHIBITION HALL-1	SECTION AA	O17203-A-SP-01-WD-0301
EXHIBITION HALL-1	SECTION BB	O17203-A-SP-01-WD-0302
EXHIBITION HALL-1	SECTION CC & DD	O17203-A-SP-01-WD-0303
EXHIBITION HALL-1	SECTION EE	O17203-A-SP-01-WD-0304
EXHIBITION HALL-1	FINISHING SCHEDULE B-1	O17203-A-SP-01-WD-0457

LIST OF DRAWINGS- ARCHITECTURAL DETAIL		
Building	Drawing Title	Drawing No.
EXHIBITION HALL-1	FINISHING SCHEDULE B-2,3	O17203-A-SP-01-WD-0458
EXHIBITION HALL-1	FINISHING SCHEDULE	O17203-I-SP-01-WD-0510
EXHIBITION HALL-2	FOYER BASEMENT 3,4FLOOR PLAN	O17203-A-SP-02-WD-0001
EXHIBITION HALL-2	FOYER BASEMENT 2 FLOOR PLAN	O17203-A-SP-02-WD-0002
EXHIBITION HALL-2	FOYER BASEMENT 1 FLOOR PLAN	O17203-A-SP-02-WD-0003
EXHIBITION HALL-2	GROUND FLOOR PLAN	O17203-A-SP-02-WD-0004
EXHIBITION HALL-2	MEZZANINE FLOOR PLAN	O17203-A-SP-02-WD-0005
EXHIBITION HALL-2	FIRST FLOOR PLAN	O17203-A-SP-02-WD-0006
EXHIBITION HALL-2	SECOND FLOOR PLAN	O17203-A-SP-02-WD-0007
EXHIBITION HALL-2	THIRD FLOOR PLAN	O17203-A-SP-02-WD-0008
EXHIBITION HALL-2	ROOF PLAN	O17203-A-SP-02-WD-0009
EXHIBITION HALL-2	ELEVATION NORTH EAST	O17203-A-SP-02-WD-0201
EXHIBITION HALL-2	ELEVATION SOUTH WEST	O17203-A-SP-02-WD-0202
EXHIBITION HALL-2	ELEVATION NORTH WEST & SOUTH EAST	O17203-A-SP-02-WD-0203
EXHIBITION HALL-2	SECTION AA	O17203-A-SP-02-WD-0301
EXHIBITION HALL-2	SECTION BB	O17203-A-SP-02-WD-0302
EXHIBITION HALL-2	SECTION CC & DD	O17203-A-SP-02-WD-0303
EXHIBITION HALL-2	FINISHING SCHEDULE B-1	O17203-A-SP-02-WD-0440
EXHIBITION HALL-2	FINISHING SCHEDULE B-2,3	O17203-A-SP-02-WD-0441
EXHIBITION HALL-2	FINISHING SCHEDULE	O17203-I-SP-02-WD-0908
EXHIBITION HALL-3	BASEMENT-1 PLAN	O17203-A-SP-03-WD-0001
EXHIBITION HALL-3	BASEMENT-1 MEZZANINE PLAN	O17203-A-SP-03-WD-0002
EXHIBITION HALL-3	GROUND FLOOR PLAN	O17203-A-SP-03-WD-0003
EXHIBITION HALL-3	ELEVATION A,B,C,D	O17203-A-SP-03-WD-0201
EXHIBITION HALL-3	SECTIONS	O17203-A-SP-03-WD-0301
EXHIBITION HALL-3	SECTIONS	O17203-A-SP-03-WD-0302
EXHIBITION HALL-3	FINISHING SCHEDULE	O17203-A-SP-03-WD-0577-R0

LIST OF DRAWINGS- ARCHITECTURAL DETAIL		
Building	Drawing Title	Drawing No.
CC CAR PARK	GROUND FLOOR PLAN	O17203-A-SP-38-WD-0002
CC CAR PARK	BASEMENT-1 PLAN	O17203-A-SP-38-WD-0003
CC CAR PARK	BASEMENT-2 PLAN	O17203-A-SP-38-WD-0004-R0
CC CAR PARK	BASEMENT-3 PLAN	O17203-A-SP-38-WD-0005-R0
CC CAR PARK	BASEMENT-4 PLAN	O17203-A-SP-38-WD-0006-R0
CC CAR PARK	SECTION-1-1	O17203-A-SP-38-WD-0301
CC CAR PARK	SECTION-2-2,3-3,5-5	O17203-A-SP-38-WD-0302
CC CAR PARK	SECTION 4-4, LOUVER DETAIL	O17203-A-SP-38-WD-0303-R1
CC CAR PARK	WALL DETAIL SECTION	O17203-A-SP-38-WD-0304-R0
CC CAR PARK	FINISHING SCHEDULE	O17203-A-SP-01-DC-0907
DG BUILDING	GROUND FLOOR PLAN	O17203-A-SP-30-WD-0101
DG BUILDING	MEZZANINE FLOOR PLAN	O17203-A-SP-30-WD-0102
DG BUILDING	LOWER TERRACE FLOOR PLAN	O17203-A-SP-30-WD-0103
DG BUILDING	UPPER TERRACE FLOOR PLAN	O17203-A-SP-30-WD-0104
DG BUILDING	ELEVATION A	O17203-A-SP-30-WD-0202
DG BUILDING	ELEVATION B	O17203-A-SP-30-WD-0203
DG BUILDING	SECTIONS	O17203-A-SP-30-WD-0302
DG BUILDING	FINISHING SCHEDULE	O17203-A-SP-30-WD-0514
ESS -1 ,2	BASEMENT & TERRACE PLAN-ESS-2	O17203-A-SP-30-WD-0004
ESS -1 ,2	GROUND FLOOR PLAN-ESS-2	O17203-A-SP-30-WD-0003
ESS -1 ,2	GROUND FLOOR PLAN-ESS-1	O17203-A-SP-30-WD-0001
ESS -1 ,2	ELEVATIONS A, B, C, D-ESS-1	O17203-A-SP-30-WD-0201
ESS -1 ,2	ELEVATIONS A, B, C, D-ESS-2	O17203-A-SP-30-WD-0202
ESS -1 ,2	SECTION-ESS-1	O17203-A-SP-30-WD-0301
ESS -1 ,2	SECTION-ESS-2	O17203-A-SP-30-WD-0302
Fire Station	GROUND FLOOR PLAN	O17203-A-SP-31-WD-0002
Fire Station	FIRST FLOOR PLAN	O17203-A-SP-31-WD-0003

LIST OF DRAWINGS- ARCHITECTURAL DETAIL		
Building	Drawing Title	Drawing No.
Fire Station	SECOND FLOOR PLAN	O17203-A-SP-31-WD-0004
Fire Station	TERRACE FLOOR PLAN	O17203-A-SP-31-WD-0005
Fire Station	ELEVATIONS	O17203-A-SP-31-WD-0201
Fire Station	ELEVATIONS	O17203-A-SP-31-WD-0202
Fire Station	ELEVATIONS	O17203-A-SP-31-WD-0203
Fire Station	SECTIONS	O17203-A-SP-31-WD-0301
Fire Station	SECTIONS	O17203-A-SP-31-WD-0302
External Work	SITE TOILET DETAIL	O17203-A-SP-00-WD-0087A- TYPE-3_SWACHH_SHEET-2
External Work	SITE TOILET DETAIL	O17203-A-SP-00-WD-0087- TYPE-3 SWACHH_SHEET-1
External Work	SITE TOILET DETAIL	O17203-A-SP-00-WD-0088- TYPE-3_SWACHH_SHEET-3
External Work	SERVICE TOILETS	O17203-A-SP-00-WD- 0089_TYPE-2_SERVICE TOILET
External Work	SITE TOILET MALE	O17203-A-SP-00-WD-0090A- TYPE-1_OPEN EXHIBITION AREA_MALE
External Work	SITE TOILET FEMALE	O17203-A-SP-00-WD-0090- TYPE-1_OPEN EXHIBITION AREA_FEMALE
Service Gallery	GROUND FLOOR PLAN	O17203-A-SP-0A-WD-0002
Service Gallery	OVERALL PLAN	O17203-A-SP-0A-WD-0001
Service Gallery	SECTIONS	O17203-A-SP-0A-WD-0102
Service Gallery	SECTIONS	O17203-A-SP-0A-WD-0102A
Service Gallery	ADJACENT TO EH3 PLANS	O17203-A-SP-0A-WD-0116
Service Gallery	ADJACENT TO EH3 SECTIONS	O17203-A-SP-0A-WD-0117
Gate Offices	TYPICAL DETAIL CABIN-1	O17203-N-SP-00-WD-0050- SECURITY CABIN-1

LIST OF DRAWINGS- ARCHITECTURAL DETAIL		
Building	Drawing Title	Drawing No.
Gate Offices	TYPICAL DETAIL CABIN-2	O17203-N-SP-00-WD-0051- SECURITY CABIN-2
Gate Offices	TYPICAL PILL BOX DETAIL-1	O17203-N-SP-00-WD-0052- PILL BOX-1
Gate Offices	TYPICAL PILL BOX DETAIL-2	O17203-N-SP-00-WD-0053- PILL BOX -2
Gate Offices	JOINERY SCHEDULE	O17203-N-SP-00-WD-0054- JOINERY SCHEDULE
LANDSCAPE	PLANTING PLAN:UPPER CANOPY OVERALL	O17203-N-SP-00-WD-0500
LANDSCAPE	PLANTING PLAN:LOWER CANOPY OVERALL	O17203-N-SP-00-WD-0800
LANDSCAPE	ROOF GARDEN EH-1	O17203-N-SP-00-WD-1700
LANDSCAPE	ROOF GARDEN EH-2	O17203-N-SP-00-WD-1701
LANDSCAPE	ROOF GARDEN EH-1,2 TYPICAL DETAILS	O17203-N-SP-00-WD-1702
LANDSCAPE	PLANTING PLAN:LOWER CANOPY-ZONE-14	O17203-N-SP-00-WD-0814
LANDSCAPE	PLANTING PLAN:LOWER CANOPY-ZONE-15	O17203-N-SP-00-WD-0815
LANDSCAPE	PLANTING PLAN:LOWER CANOPY-ZONE-16	O17203-N-SP-00-WD-0816
LANDSCAPE	PLANTING PLAN:LOWER CANOPY-MODULE	O17203-N-SP-00-WD-0817
LANDSCAPE	PLANTING PLAN:LOWER CANOPY-ZONE-13	O17203-N-SP-00-WD-0813
LANDSCAPE	PLANTING PLAN:LOWER CANOPY-ZONE-11	O17203-N-SP-00-WD-0811
LANDSCAPE	PLANTING PLAN:LOWER CANOPY-ZONE-10	O17203-N-SP-00-WD-0810
LANDSCAPE	PLANTING PLAN:LOWER CANOPY-ZONE-09	O17203-N-SP-00-WD-0809
LANDSCAPE	PLANTING PLAN:LOWER CANOPY-ZONE-07	O17203-N-SP-00-WD-0807
LANDSCAPE	PLANTING PLAN:LOWER CANOPY-ZONE-06	O17203-N-SP-00-WD-0806
LANDSCAPE	PLANTING PLAN:LOWER CANOPY-ZONE-05	O17203-N-SP-00-WD-0805
LANDSCAPE	PLANTING PLAN:LOWER CANOPY-ZONE-04	O17203-N-SP-00-WD-0804
LANDSCAPE	PLANTING PLAN:LOWER CANOPY-ZONE-03	O17203-N-SP-00-WD-0803
LANDSCAPE	PLANTING PLAN:LOWER CANOPY-ZONE-02	O17203-N-SP-00-WD-0802
DG BUILDING	DG YARD Building Elevation C&D	O17203-A-SP-30-WD-0204

LIST OF DRAWINGS- ARCHITECTURAL DETAIL		
Building	Drawing Title	Drawing No.
ESS -1 ,2	Electrical Substation - 1&2 Toilet details	017203-A-SP-30-WD-0403
ESS -1 ,2	Electrical Substation - 1&2 Joinery details sheet 3	017203-A-SP-30-WD-0500
LANDSCAPE	Landscape planning plan upper canopy zone 1	017203-N-SP-00-WD-0501
LANDSCAPE	Landscape planning plan upper canopy zone 2	017203-N-SP-00-WD-0502
LANDSCAPE	Landscape planning plan upper canopy zone 3	017203-N-SP-00-WD-0503
LANDSCAPE	Landscape planning plan upper canopy zone 4	017203-N-SP-00-WD-0504
LANDSCAPE	Landscape planning plan upper canopy zone 5	017203-N-SP-00-WD-0505
LANDSCAPE	Landscape planning plan upper canopy zone 6	017203-N-SP-00-WD-0506
LANDSCAPE	Landscape planning plan upper canopy zone 7	017203-N-SP-00-WD-0507
LANDSCAPE	PLANTING PLAN:UPPER CANOPY-ZONE-08	017203-N-SP-00-WD-0508
LANDSCAPE	PLANTING PLAN:UPPER CANOPY-ZONE-09	017203-N-SP-00-WD-0509
LANDSCAPE	PLANTING PLAN:UPPER CANOPY-ZONE-10	017203-N-SP-00-WD-0510
LANDSCAPE	PLANTING PLAN:UPPER CANOPY-ZONE-11	017203-N-SP-00-WD-0511
LANDSCAPE	PLANTING PLAN:UPPER CANOPY-ZONE-12	017203-N-SP-00-WD-0512
LANDSCAPE	PLANTING PLAN:UPPER CANOPY-ZONE-13	017203-N-SP-00-WD-0513
LANDSCAPE	PLANTING PLAN:UPPER CANOPY-ZONE-14	017203-N-SP-00-WD-0514
LANDSCAPE	PLANTING PLAN:UPPER CANOPY-ZONE-15	017203-N-SP-00-WD-0515
LANDSCAPE	PLANTING PLAN:UPPER CANOPY-ZONE-16	017203-N-SP-00-WD-0516
LANDSCAPE	PLANTING PLAN:LOWER CANOPY-ZONE-01	017203-N-SP-00-WD-0801
FENCING	FENCING DETAILS	017203-N-SP-00-WD-0003 017203-N-SP-00-SH-00-01-505

21.2 MEP Package Drawings

LIST OF DRAWINGS MEP			
S. No.	Building	Drawing Title	Drawing No.
1	Service Gallery	Service Gallery & External - Master Single Line Diagram	O17203-E-SP-0A-1L-0026
2	DG YARD	DG YARD: HT DG Master Single Line Diagram-Sheet 1 of 2	O17203-E-SP-0B-1L-0063
3	DG YARD	DG YARD: HT DG Master Single Line Diagram Sheet 2 of 2	O17203-E-SP-0B-1L-0064
4	EXHIBITION HALL-1	EXHIBITION HALL 1-MASTER SINGLE LINE DIAGRAM 1/2	O17203-E-SP-01-1L-0081
5	FOYER - 1&2	FOYER - 1&2MASTER SINGLE LINE DIAGRAM	O17203-E-SP-01-1L-0082
6	FOYER Parking	FOYER PARKING – Master Single Line Diagram	O17203-E-SP-01-1L-0083
7	EXHIBITION HALL-1	EXHIBITION HALL 1-MASTER SINGLE LINE DIAGRAM 2/2	O17203-E-SP-01-1L-0181
8	EXHIBITION HALL 2	EXHIBITION HALL-2 MASTER SINGLE LINE DIAGRAM - 1/2	O17203-E-SP-02-1L-0079
9	EXHIBITION HALL 2	EXHIBITION HALL-2 MASTER SINGLE LINE DIAGRAM - 2/2	O17203-E-SP-02-1L-0080
10	EXHIBITION HALL 3	Ex-Hall-3 Master Single Line Diagram Sheet 1 of 2	O17203-E-SP-03-1L-0016
11	EXHIBITION HALL 3	Ex-Hall-3 Master Single Line Diagram Sheet 2 of 2	O17203-E-SP-03-1L-0017
12	Convention Center	Convention Center Master single Line Diagram- 4 OF 5	O17203-E-SP-07-1L-0326
13	Convention Center	Convention Center Master single Line Diagram- 5 OF 5	O17203-E-SP-07-1L-0327
14	Convention Center	Convention Center Master single Line Diagram- 1 OF 5	O17203-E-SP-07-1L-0341
15	Convention Center	Convention Center Master single Line Diagram- 2 OF 5	O17203-E-SP-07-1L-0342
16	Convention Center	Convention Center Master single Line Diagram- 3 OF 5	O17203-E-SP-07-1L-0343
17	DG Yard	DG Yard – LT Master Single Line Diagram (Sheet 2 Of 2)	O17203-E-SP-30-1L-0003
18	DG Yard	DG Yard – LT Master Single Line Diagram (Sheet 1 Of 2)	O17203-E-SP-30-1L-0064
19	Exhibition Hall 1	Exhibition Hall - 1 Master Single Line Diagram - 3/3	O17203-E-SP-30-1L-0227
20	Exhibition Hall 2	Exhibition Hall - 2 Master Single Line Diagram - 3/3	O17203-E-SP-30-1L-0229
21	CC Parking	CC PARKING – Master Single Line Diagram	O17203-E-SP-38-1L-0019
22	EXHIBITION HALL 3	EXHIBITION HALL -03 PLANT ROOM CHILLED WATER SCHEMATIC LAYOUT (PHASE -01)	O17203-V-SP-03-SC-0001
23	EXHIBITION HALL 3	EXHIBITION HALL -03 HVAC PLANT ROOM PIPING LAYOUT BASEMENT 1 AND MEZZANINE	O17203-V-SP-03-CH-0001

LIST OF DRAWINGS MEP			
S. No.	Building	Drawing Title	Drawing No.
24	EXHIBITION HALL 3	EXHIBITION HALL -03 HVAC PLANT ROOM PIPING LAYOUT PHASE -01	O17203-V-SP-03-CH-0002
25	EXHIBITION HALL 3	EXHIBITION HALL -03 AC PLANT EQUIPMENT GENERAL ARRANGEMENT LAYOUT AT BASEMENT 01	O17203-V-SP-03-CH-0003
26	EXHIBITION HALL 3	EXHIBITION HALL -03 OVERALL PLANT ROOM 3 D VIEW	O17203-V-SP-03-CH-0007
27	EXHIBITION HALL 3	EXHIBITION HALL -03 HVAC PLANT ROOM DUCTING LAYOUT PART 01	O17203-V-SP-03-VS-0004
28	EXHIBITION HALL 3	EXHIBITION HALL -03 – HVAC PLANT ROOM 3D VIEW	O17203-V-SP-03-VS-0010
29	EXHIBITION HALL 3	Exhibition Hall -03- Sewage treatment plant Layout	O17203-U-SP-03-ST-0001
30	EXHIBITION HALL 3	Exhibition Hall -03- Sewage treatment plant Piping Layout	O17203-U-SP-03-ST-0003
31	EXHIBITION HALL 3	Exhibition Hall 3: Layouts of Pumps and Equipment inside Pump Room	O17203-F-SP-03-PL-0011
32	EXHIBITION HALL 3	Piping layout and General arrangement of fire fighting pump and sump at Pump room	O17203-F-SP-03-PL-0009
33	EXHIBITION HALL 3	Sections of fire fighting pump and sump at Pump room - Sheet 1 of 2	O17203-F-SP-03-PL-0010
34	EXHIBITION HALL 3	Sections of fire fighting pump and sump at Pump room - Sheet 2 of 2	O17203-F-SP-03-PL-0012
35	EXHIBITION HALL 3	P & ID for Fire Fighting Pumps	O17203-F-SP-03-PI-0013
36	EXHIBITION HALL 1 + FOYER 1	Roof Solar Panel Electrical Equipment and Cable tray Layout	E-01-0004-R0
37	CONVENTION CENTRE	Solar Panel with Location	E-01-0006-R2

21.3 Information, Communication and Technology Package Drawings

Building	Drawing Title	Drawing No.
CC Parking	CC-Parking- B1 ELV System layout 1/2	O17203-L-SP-38-LV-1111
CC Parking	CC-Parking- B1 ELV System layout 2/2	O17203-L-SP-38-LV-1122
CC Parking	CC-Parking- B2 ELV System layout 1/2	O17203-L-SP-38-LV-1211
CC Parking	CC-Parking- B2 ELV System layout 2/2	O17203-L-SP-38-LV-1222
CC Parking	CC-Parking- B3 ELV System layout 1/2	O17203-L-SP-38-LV-1311
CC Parking	CC-Parking- B3 ELV System layout 2/2	O17203-L-SP-38-LV-1322
CC Parking	CC-Parking- B4 ELV System layout 1 Of 2	O17203-L-SP-38-LV-1300
CC Parking	CC-Parking- B4 ELV System layout 2 of 2	O17203-L-SP-38-LV-1200
Foyer 1 Parking	Foyer-1 Basement-1 Overall ELV System layout	O17203-L-SP-01-LV-1500
Foyer 1 Parking	Foyer-1 Basement-2 Overall ELV System layout	O17203-L-SP-01-LV-1600
Foyer 1 Parking	Foyer-1 Basement-3 Overall ELV System layout	O17203-L-SP-01-LV-1700
Foyer 2 Parking	Foyer-2 Basement-1 Overall ELV System layout	O17203-L-SP-02-LV-1500
Foyer 2 Parking	Foyer-2 Basement-2 Overall ELV System layout	O17203-L-SP-02-LV-1600
Foyer 2 Parking	Foyer-2 Basement-3 Overall ELV System layout	O17203-L-SP-02-LV-1700
DG BUILDING	DG Building-GF- ELV System layout-Sheet-01	O17203-L-SP-30-LV-1311
DG BUILDING	DG Building-1F- ELV System layout-Sheet-01	O17203-L-SP-30-LV-1322
DG BUILDING	DG Building-GF & 1F - ELV System layout-Sheet-02	O17203-L-SP-30-LV-1333
DG BUILDING	Terrace Floor - ELV System Layout	O17203-L-SP-30-LV-1211
ESS 1 & 2	ESS-1-GF-ELV System layout	O17203-L-SP-30-LV-1122
ESS 1 & 2	ESS-2-GF- ELV System layout	O17203-L-SP-30-LV-1222
ESS 1 & 2	EXTERNAL SUBSTATION (NEAR ESS, ARENA) ELV EQUIPMENT LAYOUT	O17203-L-SP-30-LV-1111
ESS 1 & 2	Terrace Floor - ELV System Layout (Sheet 1 of 2)	O17203-L-SP-30-LV-1133

Building	Drawing Title	Drawing No.
ESS 1 & 2	Terrace Floor - ELV System Layout (Sheet 2 of 2)	O17203-L-SP-30-LV-1133
EH1-Substation	ELECTRICAL SUBSTATION - EH 1-ELV SYSTEM LAYOUT	O17203-L-SP-00-LV-0101
EH2 - Substation	ELECTRICAL SUBSTATION - EH 2-ELV SYSTEM LAYOUT	O17203-L-SP-00-LV-0102
Fire Station Building	Fire Station, Disaster Management Medical Center, Security – ELV Layouts	O17203-L-SP-31-LV-1011
Fire Station Building	Fire Station, Disaster Management Medical Center, Security – Data Voice Layouts	O17203-L-SP-31-DV-1022
Service Gallery	Service Gallery - Over All ELV System layout	O17203-L-SP-0A-LV-1000
External	Over All External ELV System Layout	O17203-L-SP-00-LV-0100
Exhibition Hall 1	Exhibition Hall 1 + Foyer GF Over All Data & Voice Layout	O17203-L-SP-01-DV-2000
Exhibition Hall 1	Exhibition Hall 1 + Foyer Mezzanine Over All Data & Voice Layout	O17203-L-SP-01-DV-2900
Exhibition Hall 1	Exhibition Hall 1 + Foyer -1 FIRST FLOOR Over All Data & Voice Layout	O17203-L-SP-01-DV-2100
Exhibition Hall 1	Exhibition Hall 1 + Foyer-1 Second Floor OVER all Data & voice Layout	O17203-L-SP-01-DV-2211
Exhibition Hall 1	Exhibition Hall 1 + Foyer GF Over All ELV System Layout	O17203-L-SP-01-LV-1000
Exhibition Hall 1	Exhibition Hall 1 + Foyer Mezzanine Over All ELV System Layout	O17203-L-SP-01-LV-1910
Exhibition Hall 1	Exhibition Hall 1 + Foyer-1-FIRST FLOOR Over All ELV System Layout	O17203-L-SP-01-LV-1100
Exhibition Hall 1	Exhibition Hall 1 + Foyer-1 Second floor Over All ELV System Layout	O17203-L-SP-01-LV-1211
Exhibition Hall 1	Exhibition Hall 1 + Foyer-1 3F Over All ELV & DV System Layout	O17203-L-SP-01-LV-1300
Exhibition Hall 1	Exhibition Hall 1 + Foyer Terrace ELV & DV Overall Layout	O17203-L-SP-01-LV-1400
Exhibition Hall 1	Exhibition Hall 1 + Foyer OCC ROOM Layout	O17203-L-SP-01-LE-5003

Building	Drawing Title	Drawing No.
Exhibition Hall 1	Exhibition Hall 1 + Foyer GF & MEZZANIN PTR rooms Layout	O17203-L-SP-01-LE-5002
Exhibition Hall 1	Exhibition Hall 1 + Foyer GF & MEZZANIN STR rooms Layout	O17203-L-SP-01-LE-5000
Exhibition Hall 1	Exhibition Hall 1 + Foyer 1F&3F STR rooms Layout	O17203-L-SP-01-LE-5300
Exhibition Hall 1	Exhibition Hall 1 + GROUND FLOOR BACK GROUND MUSIC LAYOUT	O17203-L-SP-01-LV-3004
Exhibition Hall 1	Exhibition Hall 1 + MEZZANINE FLOOR BACK GROUND MUSIC LAYOUT	O17203-L-SP-01-LV-3005
Exhibition Hall 1	Exhibition Hall 1 + FIRST FLOOR BACK GROUND MUSIC LAYOUT	O17203-L-SP-01-LV-3006
Exhibition Hall 1	Exhibition Hall 1 + SECOND FLOOR BACK GROUND MUSIC LAYOUT	O17203-L-SP-01-LV-3007
Exhibition Hall 1	Exhibition Hall 1 + GROUND FLOOR DIGITAL SIGNAGE SYSTEM LAYOUT	O17203-L-SP-01-LV-3011
Exhibition Hall 1	Exhibition Hall 1 + FIRST FLOOR DIGITAL SIGNAGE SYSTEM LAYOUT	O17203-L-SP-01-LV-3012
Exhibition Hall 1	Exhibition Hall 1 + SECOND FLOOR DIGITAL SIGNAGE SYSTEM LAYOUT	O17203-L-SP-01-LV-3013
Exhibition Hall 1	EH 1-100 PAX MEETING ROOM /MEDIA AUDIO VISUAL SYSTEM LAYOUT	O17203-L-SP-01-LV-3010
Exhibition Hall 1	EH1-KITCHEN -ELV SYSTEM LAYOUT-BASEMENT_1, GROUND FLOOR & FIRST FLOOR-KINTEX	O17203-L-SP-01-LV-4401
Exhibition Hall 2	Exhibition Hall 2 + Foyer GF Data & Voice Over All Layout	O17203-L-SP-02-DV-2000
Exhibition Hall 2	Exhibition Hall 2 + Foyer Mezzanine Over All Data & Voice Layout	O17203-L-SP-02-DV-2900
Exhibition Hall 2	Exhibition Hall 2 + Foyer 1F Over All Data & Voice Layout	O17203-L-SP-02-DV-2100

Building	Drawing Title	Drawing No.
Exhibition Hall 2	Exhibition Hall 2 + Foyer 2F Over All Data & Voice Layout	O17203-L-SP-02-DV-2200
Exhibition Hall 2	Exhibition Hall 2 + Foyer 3F Over All Data & Voice Layout	O17203-L-SP-02-DV-2300
Exhibition Hall 2	Exhibition Hall 2 + Foyer GF Over All ELV System Layout	O17203-L-SP-02-LV-1000
Exhibition Hall 2	Exhibition Hall 2 + Foyer Mezzanine Over All ELV System Layout	O17203-L-SP-02-LV-1910
Exhibition Hall 2	Exhibition Hall 2 + Foyer 1F Over All ELV System Layout	O17203-L-SP-02-LV-1100
Exhibition Hall 2	Exhibition Hall 2 + Foyer 2F ELV System Layout	O17203-L-SP-02-LV-1200
Exhibition Hall 2	Exhibition Hall 2 + Foyer 3F Over All ELV System Layout	O17203-L-SP-02-LV-1300
Exhibition Hall 2	Exhibition Hall 2 + Foyer Terrace ELV& DV Over All Layout	O17203-L-SP-02-LV-1400
Exhibition Hall 2	Exhibition Hall 2 + Foyer BACKUP DATACENTER LAYOUT	O17203-L-SP-02-DC-2001
Exhibition Hall 2	Exhibition Hall 2 + Foyer MOCC Layout	O17203-L-SP-02-LE-5003
Exhibition Hall 2	Exhibition Hall 2 + Foyer SCC Layout	O17203-L-SP-02-LE-5004
Exhibition Hall 2	Exhibition Hall 2 + Foyer PTR rooms Layout	O17203-L-SP-02-LE-5002
Exhibition Hall 2	Exhibition Hall 2 + Foyer GF STR rooms Layout	O17203-L-SP-02-LE-5000
Exhibition Hall 2	Exhibition Hall 2 + Foyer 1F 2F & 3F STR rooms Layout	O17203-L-SP-02-LE-5200
Exhibition Hall 2	Exhibition Hall 2 + GROUND FLOOR BACK GROUND MUSIC LAYOUT	O17203-L-SP-02-LV-3004
Exhibition Hall 2	Exhibition Hall 2 + FIRST FLOOR BACK GROUND MUSIC LAYOUT	O17203-L-SP-02-LV-3005
Exhibition Hall 2	Exhibition Hall 2 + SECOND FLOOR BACK GROUND MUSIC LAYOUT	O17203-L-SP-02-LV-3007

Building	Drawing Title	Drawing No.
Exhibition Hall 2	Exhibition Hall 2 + THIRD FLOOR BACK GROUND MUSIC LAYOUT	O17203-L-SP-02-LV-3011
Exhibition Hall 2	Exhibition Hall 2 + GROUND FLOOR DIGITAL SIGNAGE SYSTEM LAYOUT	O17203-L-SP-02-LV-3006
Exhibition Hall 2	Exhibition Hall 2 + FIRST FLOOR DIGITAL SIGNAGE SYSTEM LAYOUT	O17203-L-SP-02-LV-3008
Exhibition Hall 2	Exhibition Hall 2 + SECOND FLOOR DIGITAL SIGNAGE SYSTEM LAYOUT	O17203-L-SP-02-LV-3009
Exhibition Hall 2	Exhibition Hall 2 + THIRD FLOOR DIGITAL SIGNAGE SYSTEM LAYOUT	O17203-L-SP-02-LV-3010
Exhibition Hall 3	Ex-Hall-3-Mezzanine Over All ELV System layout	O17203-L-SP-03-LV-1100
Exhibition Hall 3	Ex-Hall-3-Basement-1 Over All ELV System layout	O17203-L-SP-03-LV-1200
Convention Centre	Convention Centre - Basement 2 – Over All Data & Voice layout	O17203-L-SP-07-DV-2901
Convention Centre	Convention Centre - Basement 1–Over All Data & Voice layout	O17203-L-SP-07-DV-2902
Convention Centre	Convention Center -GF-Over All Data & Voice layout	O17203-L-SP-07-DV-2000
Convention Centre	Convention Center -FF- Over All Data & Voice layout	O17203-L-SP-07-DV-2100
Convention Centre	Convention Center -2F- Over All Data & Voice layout	O17203-L-SP-07-DV-2200
Convention Centre	Convention Center -3F- Over All Data & Voice layout	O17203-L-SP-07-DV-2300
Convention Centre	Convention Center -4F- Over All Data & Voice layout	O17203-L-SP-07-DV-2400
Convention Centre	Convention Center -5F- Over All Data & Voice layout	O17203-L-SP-07-DV-2500
Convention Centre	Convention Center -6F- Over All Data & Voice layout	O17203-L-SP-07-DV-2600
Convention Centre	Convention Center -7F- Over All Data & Voice layout	O17203-L-SP-07-DV-2700
Convention Centre	Convention Center -8F- Over All Data & Voice layout	O17203-L-SP-07-DV-2800
Convention Centre	Convention Centre - Basement 2 – Over All ELV System layout	O17203-L-SP-07-LV-1901

Building	Drawing Title	Drawing No.
Convention Centre	Convention Centre - Basement 1–Over All ELV System layout	O17203-L-SP-07-LV-1902
Convention Centre	Convention Center -GF-Over All ELV System layout	O17203-L-SP-07-LV-1000
Convention Centre	Convention Center -FF- Over All ELV System layout	O17203-L-SP-07-LV-1100
Convention Centre	Convention Center -2F- Over All ELV System layout	O17203-L-SP-07-LV-1200
Convention Centre	Convention Center -3F- Over All ELV System layout	O17203-L-SP-07-LV-1300
Convention Centre	Convention Center -4F- Over All ELV System layout	O17203-L-SP-07-LV-1400
Convention Centre	Convention Center -5F- Over All ELV System layout	O17203-L-SP-07-LV-1500
Convention Centre	Convention Center -6F- Over All ELV System layout	O17203-L-SP-07-LV-1600
Convention Centre	Convention Center -7F- Over All ELV System layout	O17203-L-SP-07-LV-1700
Convention Centre	Convention Center -8F- Over All ELV System layout	O17203-L-SP-07-LV-1800
Convention Centre	Convention Center -Terrace- ELV System layout	O17203-L-SP-07-LV-1900
Convention Centre	Convention Center - BASEMENT-2 – SECURITY CHECK EQUIPMENT LAYOUT	O17203-L-SP-07-LV-6400
Convention Centre	Convention Center - BASEMENT-1 – SECURITY CHECK EQUIPMENT LAYOUT	O17203-L-SP-07-LV-6300
Convention Centre	Convention Center – GROUND FLOOR – SECURITY CHECK EQUIPMENT LAYOUT	O17203-L-SP-07-LV-6000
Convention Centre	Convention Center – FIRST FLOOR – SECURITY CHECK EQUIPMENT LAYOUT (SHEET 1 OF 2)	O17203-L-SP-07-LV-6100
Convention Centre	Convention Center – SECOND FLOOR – SECURITY CHECK EQUIPMENT LAYOUT (SHEET 2 OF 2)	O17203-L-SP-07-LV-6100
Convention Centre	Convention Center – 5F- MDC-ELV system Layout	O17203-L-SP-07-DC-2002
Convention Centre	Convention Centre - Basement 2 – Main Security Room ELV layout	O17203-L-SP-07-LE-5003
Convention Centre	Convention Center – 5F- OCC -ELV system Layout	O17203-L-SP-07-LE-5004
Convention Centre	Convention Centre - Basement 2 – COR ELV layout	O17203-L-SP-07-LV-5005
Convention Centre	Convention Center - BASEMENT-2 - BACK GROUND MUSIC LAYOUT	O17203-L-SP-07-PA-3052

Building	Drawing Title	Drawing No.
Convention Centre	Convention Center - BASEMENT-1 - BACK GROUND MUSIC LAYOUT	O17203-L-SP-07-PA-3051
Convention Centre	Convention Center – GROUND FLOOR - BACK GROUND MUSIC LAYOUT	O17203-L-SP-07-PA-3053
Convention Centre	Convention Center – FIRST FLOOR - BACK GROUND MUSIC LAYOUT	O17203-L-SP-07-PA-3054
Convention Centre	Convention Center – SECOND FLOOR - BACK GROUND MUSIC LAYOUT	O17203-L-SP-07-PA-3055
Convention Centre	Convention Center – THIRD FLOOR - BACK GROUND MUSIC LAYOUT	O17203-L-SP-07-PA-3056
Convention Centre	Convention Center – FOURTH FLOOR - BACK GROUND MUSIC LAYOUT	O17203-L-SP-07-PA-3057
Convention Centre	Convention Center – FIFTH FLOOR - BACK GROUND MUSIC LAYOUT	O17203-L-SP-07-PA-3058
Convention Centre	Convention Center – SIXTH FLOOR - BACK GROUND MUSIC LAYOUT	O17203-L-SP-07-PA-3059
Convention Centre	Convention Center – SEVENTH FLOOR - BACK GROUND MUSIC LAYOUT	O17203-L-SP-07-PA-3060
Convention Centre	Convention Center - BACK GROUND MUSIC LAYOUT FOR EIGHTH FLOOR	O17203-L-SP-07-PA-3061
Convention Centre	Convention Center - BASEMENT-2 – DIGITAL SIGNAGE layout	O17203-L-SP-07-LV-3052
Convention Centre	Convention Center - BASEMENT-1 – DIGITAL SIGNAGE layout	O17203-L-SP-07-LV-3051
Convention Centre	Convention Center – GROUND FLOOR – DIGITAL SIGNAGE layout	O17203-L-SP-07-LV-3053
Convention Centre	Convention Center – FIRST FLOOR – DIGITAL SIGNAGE layout	O17203-L-SP-07-LV-3054
Convention Centre	Convention Center – SECOND FLOOR – DIGITAL SIGNAGE layout	O17203-L-SP-07-LV-3055
Convention Centre	Convention Center – THIRD FLOOR – DIGITAL SIGNAGE layout	O17203-L-SP-07-LV-3056
Convention Centre	Convention Center – FOURTH FLOOR – DIGITAL SIGNAGE LAYOUT	O17203-L-SP-07-LV-3057

Building	Drawing Title	Drawing No.
Convention Centre	Convention Center – FIFTH FLOOR – DIGITAL SIGNAGE LAYOUT	O17203-L-SP-07-LV-3058
Convention Centre	Convention Center – SIXTH FLOOR – DIGITAL SIGNAGE SYSTEM LAYOUT	O17203-L-SP-07-LV-3059
Convention Centre	Convention Center -LED FAÇADE LAYOUT	O17203-L-SP-07-AV-3015
Convention Centre	Convention Center - Audio Visual System Layout For Conference Room-1	O17203-L-SP-07-AV-3001
Convention Centre	Convention Center - Audio Visual System Layout For Conference Room-2	O17203-L-SP-07-AV-3002
Convention Centre	Convention Center - Audio Visual System Layout For Conference Room-3	O17203-L-SP-07-AV-3003
Convention Centre	Convention Center - Audio Visual System Layout For Conference Room - 4 & 5	O17203-L-SP-07-AV-3004
Convention Centre	Convention Center - Audio Visual System Layout For Conference Room - 6	O17203-L-SP-07-AV-3005
Convention Centre	Convention Center - Audio Visual System Layout For Conference Room - 7 & 8	O17203-L-SP-07-AV-3006
Convention Centre	Convention Center - Audio Visual System Layout For Conference Room - 9 & 10	O17203-L-SP-07-AV-3007
Convention Centre	Convention Center - Audio Visual System Layout For Conference Room - 11 & 13	O17203-L-SP-07-AV-3009
Convention Centre	Convention Center - Audio Visual System Layout For Conference Room - 12	O17203-L-SP-07-AV-3010
Convention Centre	Convention Center - Audio Visual System Layout For Grand Ball Room	O17203-L-SP-07-AV-3008
Convention Centre	Convention Center - Audio Visual System Layout For Meeting Room - 8 Pax	O17203-L-SP-07-AV-3032
Convention Centre	Convention Center - Audio Visual System Layout For Meeting Room - 10 Pax	O17203-L-SP-07-AV-3033
Convention Centre	Convention Center - Audio Visual System Layout For Auditorium (B1, B2 & Ground)	O17203-L-SP-07-AV-3011
Convention Centre	Convention Center - Audio Visual System Layout For Auditorium (1F & 2F)	O17203-L-SP-07-AV-3022

Building	Drawing Title	Drawing No.
Convention Centre	Convention Center – Auditorium Various configurations annexures (SHEET 1,2 OF 11)	O17203-L-SP-07-DC-0001
Convention Centre	Convention Center – Auditorium Various configurations annexures (SHEET 3 TO 11)	O17203-L-SP-07-DC-0001
Convention Centre	ENLAREGD MEDIA ROOM LAYOUTS & ELEVATIONS	O17203 - AV_1000
Convention Centre	CONVENTION CENTER -SECOND FLOOR MAIN HALL & STAGE SECURITY CONTROL ROOM ELV LAYOUT	O17203-L-SP-07-LE-5013
CC Parking	CC PARKING_BACK GROUND MUSIC LAYOUT_B1 TO B4	O17203-L-SP-38-LV-3001

22 Annexure 13 - IO Summary (73 pages)

Annexure 13 - IO Summary

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

(Note : I/O summary may be subject to revision depending on final equipment list & scheme)

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.				
PARTICULAR	BMS IO Summary						0				
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details	
			AI	AO	DI	DO	Soft IO				
A	FLOOR MOUNTED AIR HANDLING UNIT (CC-B2-AHU-01, 02, 03, 04, 05 & 06)	6									
	With Two Fans (CC-B2-AHU-01, 02, 04 & 06)										
1	FAHU Fan On/Off Command	4				8		Relay Contact	6C X 1 Sq.mm	AHU-01&03_CC-B2-ENCL1/FAC1, AHU-04&05_CC-B2-ENCL2/FAC2, AHU-06_CC-B2-ENCL3/DDC1, AHU-02_CC-B2-ENCL6/FAC3	
2	FAHU Motor trip status				8			Pot Free Contact			
3	FAHU Auto/Manual Status				8			Pot Free Contact			
4	FAHU's VFD Speed feed back					8		VFD	2C X 1 Sq.mm		
5	FAHU's VFD Speed Control			8				VFD			
6	FAHU Fan Run Status			4				DP Switch			
	With Three Fans (CC-B2-AHU- 03 & 05)										
7	FAHU Fan On/Off Command	2				6		Relay Contact	6C X 1 Sq.mm		
8	FAHU Motor trip status				6			Pot Free Contact			
9	FAHU Auto/Manual Status				6			Pot Free Contact			
10	FAHU's VFD Speed feed back					6		VFD	2C X 1 Sq.mm		
11	FAHU's VFD Speed Control			6				VFD			
12	FAHU Fan Run Status			2				DP Switch			
	AHU Common points										
13	Pressure Drop across Pre Filter Status				6			DP Switch	2C X 1 Sq.mm		
14	Supply Air Temperature Monitoring	6						Temperature Sensor(Duct)	2C X 1 Sq.mm		
15	Return Air Temperature Monitoring	6						Temperature Sensor(Duct)	2C X 1 Sq.mm		
16	Chilled Water Control Valve Modulation Command			6				Relay Contact	6C X 1 Sq.mm		
17	Chilled Water Control Valve Feedback			6				Modulating Valve			
18	Duct Supply Static Pressure Feedback			6				Pressure transmitter(duct static)			4C X 1 Sq.mm
19	Return Air CO ₂ level			6				CO2 Sensor(Duct)	4C X 1 Sq.mm		
20	Fresh Air Damper control				6			Relay Contact	6C X 1 Sq.mm		
21	Fresh Air Damper feedback			6				Modulating Damper			
22	Return Air Relative Humidity monitoring			6				Humidity Sensor(Duct)			4C X 1 Sq.mm
23	Supply Air Fire Damper Status					6		Fire Damper	2C X 1 Sq.mm		
24	Return Air Fire Damper Status					6		Fire Damper	2C X 1 Sq.mm		
25	Chilled Water Inlet Temperature Monitoring			6				Imm temp sensor	2C X 1 Sq.mm		
26	Chilled Water Outlet Temperature Monitoring			6				Imm temp sensor	2C X 1 Sq.mm		
	AHU With HW Coil (AHU- 01,02, 03, 04,05 & 06)	6									
27	Hot Water Control Valve Modulation Command	6		6				Relay Contact	6C X 1 Sq.mm		
28	Hot Water Control Valve Feedback			6				Modulating Valve			
29	Hot Water Inlet Temperature Monitoring			6				Imm temp sensor			2C X 1 Sq.mm
30	Hot Water Outlet Temperature Monitoring			6				Imm temp sensor	2C X 1 Sq.mm		
	Total		72	32	52	14	14				
B	FLOOR MOUNTED AIR HANDLING UNIT with HRW (CC-B2-AHU-HRW-01)	1									
1	FAHU Fan (Supply and Exhaust) On/Off Command	1				2		Relay Contact	6C X 1 Sq.mm	CC-B2-ENCL4/DDC2	
2	FAHU Fan (Supply and Exhaust) trip status				2			Pot Free Contact			
3	FAHU Fan (Supply and Exhaust) Auto/Manual Status				2			Pot Free Contact			
4	FAHU's Fan (Supply and Exhaust) VFD Speed feed back					2		VFD	2C X 1 Sq.mm		
5	FAHU's Fan (Supply and Exhaust) VFD Speed Control			2				VFD			
6	FAHU Fan Fan (Supply and Exhaust) Run Status				2			DP Switch			
7	Pressure Drop across Pre Filter Status				1			DP Switch	2C X 1 Sq.mm		
8	Pressure Drop across Fine Filter Status				1			DP Switch	2C X 1 Sq.mm		
9	Supply Air Temperature Monitoring	1						Temperature Sensor(Duct)	2C X 1 Sq.mm		
10	Return Air Temperature Monitoring	1						Temperature Sensor(Duct)	2C X 1 Sq.mm		
11	Chilled Water Control Valve Modulation Command			1				Relay Contact	6C X 1 Sq.mm		
12	Chilled Water Control Valve Feedback	1						Modulating Valve			
13	FA Duct Supply Static Pressure Feedback			1				Pressure transmitter(duct static)			4C X 1 Sq.mm
14	EX Duct Supply Static Pressure Feedback			1				Pressure transmitter(duct static)	4C X 1 Sq.mm		
15	Return Air CO ₂ level			1				CO2 Sensor(Duct)	4C X 1 Sq.mm		
16	Fresh Air Damper control				1			Relay Contact	6C X 1 Sq.mm		
17	Fresh Air Damper feedback			1				Modulating Damper			
18	Return Air Relative Humidity monitoring			1				Humidity Sensor(Duct)			4C X 1 Sq.mm
19	Supply Air Fire Damper Status					1		Fire Damper	2C X 1 Sq.mm		
20	Return Air Fire Damper Status					1		Fire Damper	2C X 1 Sq.mm		
21	Chilled Water Inlet Temperature Monitoring			1				Imm temp sensor	2C X 1 Sq.mm		
22	Chilled Water Outlet Temperature Monitoring			1				Imm temp sensor	2C X 1 Sq.mm		
23	Hot Water Control Valve Modulation Command				1			Relay Contact	6C X 1 Sq.mm		
24	Hot Water Control Valve Feedback			1				Modulating Valve			
25	Hot Water Inlet Temperature Monitoring			1				Imm temp sensor			2C X 1 Sq.mm
26	Hot Water Outlet Temperature Monitoring			1				Imm temp sensor	2C X 1 Sq.mm		
27	Exhaust Air Temperature Status - After Heat Recovery Wheel			1				Temperature Sensor(Duct)	2C X 1 Sq.mm		
28	Wheel Status					1		PANEL	2C X 1 Sq.mm		
	Total		14	5	11	2	2				
C	HEAT RECOVERY UNIT (CC-B2-HRW-01)	1									
1	Fresh Air Fan On/Off Command					1		Relay Contact	6C X 1 Sq.mm	CC-B2-ENCL2/FAC2	
2	Fresh Air Fan Motor Trip sts				1			Pot Free Contact			
3	Fresh Air Fan Auto/Manual Status				1			Pot Free Contact			
4	Fresh Air Fan Run Status				1			DP SWITCH	2C X 1 Sq.mm		
5	Fresh Air Damper control			1				Relay Contact	6C X 1 Sq.mm		
6	Fresh Air Damper feedback			1				DAMPER			
7	Fresh Air Header Pressure Status			1				Pressure transmitter(duct static)			4C X 1 Sq.mm
8	Fresh Air Temperature Monitoring			1				Temperature Sensor(Duct)	2C X 1 Sq.mm		
9	Fresh Air Fan VFD Speed Control			1				VFD	6C X 1 Sq.mm		
10	Exhaust Air Fan On/Off Command					1		Relay Contact			
11	Exhaust Air Fan Motor Trip sts				1			Pot Free Contact			
12	Exhaust Air Fan Auto/Manual Status				1			Pot Free Contact	2C X 1 Sq.mm		
13	Exhaust Air Fan Run Status				1			DP SWITCH			
14	Exhaust Air Damper control			1				Relay Contact			6C X 1 Sq.mm
15	Exhaust Air Damper feedback			1				DAMPER	4C X 1 Sq.mm		
16	Exhaust Air Header Pressure Status			1				Pressure transmitter(duct static)			
17	Exhaust Air Temperature Monitoring			1				Temperature Sensor(Duct)			2C X 1 Sq.mm
18	Exhaust Air Fan VFD Speed Control				1			VFD	2C X 1 Sq.mm		
19	Exhaust Air Temperature Status - After Heat Recovery Wheel			1				Temperature Sensor(Duct)			
20	Wheel Status				1			Pot Free Contact			2C X 1 Sq.mm
	Total		7	4	7	2	0				

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA							Rev.		
PARTICULAR	BMS IO Summary							0		
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
			AI	AO	DI	DO	Soft IO			
D	Treated Fresh Air unit without VFD (CC-B2-TFA-01)	1								
1	TFA Fan On/Off Command					1		Relay Contact	6C X 1 Sq.mm	CC-B2-ENCL5/NAC1
2	TFA Motor trip status				1			Pot Free Contact		
3	TFA Auto/Manual Status				1			Pot Free Contact		
4	TFA Run Status				1			DP Switch		
5	Supply Air Temperature Monitoring		1					Temperature Sensor(Duct)		
6	Pressure Drop across Pre Filter Status				1			DP Switch		
7	Pressure Drop across Fine Filter Status				1			DP Switch		
8	Modulating Valve Control Output			1				Relay Contact		
9	Modulating Valve Position Feedback		1					Modulating Valve	6C X 1 Sq.mm	
	Total		2	1	5	1	0			
E	HVAC RELATED VFD's	18								
1	HVAC Related VFD's Speed Feedback						18	VFD	RS485 Communication Cable	
2	HVAC Related VFD's Frequency						18			
3	HVAC Related VFD's Current						18			
4	HVAC Related VFD's Voltage						18			
5	HVAC Related VFD's Power						18			
6	HVAC Related VFD's Run Time						18			
	TOTAL		0	0	0	0	108			
F	Dewatering sump Pump LCP 5,8,9,10,12,13,14 (W+S)	7								
1	Pump high level alarm				7			LCP Panel	2C X 1 Sq.mm	Pit-08 & 13_CC-B2-ENCL1/FAC1, Pit-14_CC-B2-ENCL3/DDC1, Pit 12&15_CC-B2-ENCL4/DDC2, Pit-10_CC-B2-ENCL5/NAC1
2	Pump On/Off Status				14			LCP Panel	4C X 1 Sq.mm	
3	Pump Trip Status				14			LCP Panel		
	TOTAL		0	0	35	0	0			
G	Sewage Pump LCP-1,2,3,4,5,6 (W+S)	6								
1	Pump high level alarm				6			LCP Panel	2C X 1 Sq.mm	SWG-03_CC-B2-ENCL1/FAC1, SWG-06_CC-B2-ENCL2/FAC2, SWG-05_CC-B2-ENCL3/DDC1, SWG-01_CC-B2-ENCL5/NAC1, SWG-04_CC-B2-ENCL7/FAC4
2	Pump On/Off Status				12			LCP Panel	4C X 1 Sq.mm	
3	Pump Trip Status				12			LCP Panel		
	TOTAL		0	0	30	0	0			
H	Electrical Panel									
i	Power and AHU PANEL (P03)	1								
1	On / Off Status of Panel Incomers.				1			POWER & AHU PANEL	4C X 1 Sq.mm	CC-B2-ENCL5/NAC1
2	Trip Status of Panel Incomers.				1			POWER & AHU PANEL		
ii	UPS Power PANEL (P23)	1								
1	On / Off Status of Utility(I/C) Panel Incomers.				1			UPS Power PANEL	4C X 1 Sq.mm	CC-B2-ENCL5/NAC1
2	Trip Status of Utility(I/C) Panel Incomers.				1			UPS Power PANEL		
iii	CC PHE PANEL (P-44)									
1	On / Off Status of PHE Panel Incomers.	1			1			PHE Panel	4C X 1 Sq.mm	CC-B2-ENCL5/NAC1
2	Trip Status of PHE Panel Incomers.				1			PHE Panel		
	TOTAL		0	0	6	0	0			
I	ENERGY METER(EEM)	3								
1	Average Current						3	Energy Meter	RS485 Communication Cable	
2	Voltage						3			
3	Kilowatt						3			
4	Run hour						3			
5	Power Factor						3			
6	Forward Active Energy						3			
7	Power Factor Average						3			
8	Line to Line Voltage Average						3			
9	Line to Line Neutral Average						3			
10	Frequency						3			
	Total		0	0	0	0	30			
J	VAV units	13								
1	VAV Zone Temperature Set Point						13	VAV	RS485 Communication Cable	
2	VAV Zone Temperature						13			
3	VAV Damper opening						13			
4	Pressure across VAV unit						13			
5	VAV Actual Flow Rate of Actuator						13			
6	VAV Actuator Warning Signal						13			
7	VAV Modulating signal(2-10v) Output in %						13			
8	VAV Economy/Normal Mode Status						13			
	Total		0	0	0	0	104			
K	FCU Unit	7								
1	Valve Feedback		7	0	0	0	0	Valve Actuator	2C X 1 Sq.mm	FCU-5,6&7_CC-B2-ENCL7/FAC4
	Total		7	0	0	0	0			
L	Exhaust fan CC-B2-SMEF-01,02,03	3								
1	Fan On/Off status				3			Panel	6C X 1 Sq.mm	FAN -01_CC-B2-ENCL2/FAC2, FAN-03_CC-B2-ENCL3/DDC1, FAN-02_CC-B2-ENCL4/DDC2
2	Fan Trip status				3			Panel		
3	Fan A/M status				3			Panel		
	Total		0	0	9	0	0			
M	Makeup Fan (CC-B2-MAF-01 & 02)	2								
1	Fan On/Off status				2			Panel	6C X 1 Sq.mm	FAN-01_CC-B2-ENCL2/FAC2, FAN-02_CC-B2-ENCL3/DDC1,
2	Fan Trip status				2			Panel		
3	Fan A/M status				2			Panel		
	Total		0	0	6	0	0			
N	Gala Systems	1								
1	On/Off Status		0	0	1	0	0	Panel	4C X 1 Sq.mm	CC-B2-ENCL6/FAC3
2	Alarm Status		0	0	1	0	0	Panel		
	Total		0	0	2	0	0			
	Grand total		102	42	163	19	258			
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA							Rev.		
PARTICULAR	CC-B1-BMS I/O SUMMARY							17203-L-SP-07-DC-4000	0	
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
			AI	AO	DI	DO	Soft IO			
A	FLOOR MOUNTED AIR HANDLING UNIT (CC-B1-AHU-01, 02, 03, 04, 05, 06 & 07)	7								
	With Single Fans (CC-B1-AHU-04)									
1	FAHU Fan On/Off Command	1				1		Relay Contact	6C X 1 Sq.mm	
2	FAHU Motor trip status				1			Pot Free Contact		
3	FAHU Auto/Manual Status				1			Pot Free Contact		
4	FAHU's VFD Speed feed back						1	VFD		
5	FAHU's VFD Speed Control			1				VFD		
6	FAHU Fan Run Status				1			DP Switch	2C X 1 Sq.mm	

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.				
PARTICULAR	BMS IO Summary						0				
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details	
			AI	AO	DI	DO	Soft IO				
	With Two Fans (CC-B1-AHU-01, 02, 03,& 07)										
7	FAHU Fan On/Off Command	4				8		Relay Contact	6C X 1 Sq.mm		
8	FAHU Motor trip status				8			Pot Free Contact			
9	FAHU Auto/Manual Status				8			Pot Free Contact			
10	FAHU's VFD Speed feed back					8		VFD			
11	FAHU's VFD Speed Control			8				VFD			
12	FAHU Fan Run Status				4			DP Switch			2C X 1 Sq.mm
	With Three Fans (CC-B1-AHU-05&06)										
13	FAHU Fan On/Off Command	2				6		Relay Contact	6C X 1 Sq.mm		
14	FAHU Motor trip status				6			Pot Free Contact			
15	FAHU Auto/Manual Status				6			Pot Free Contact			
16	FAHU's VFD Speed feed back					6		VFD			
17	FAHU's VFD Speed Control			6				VFD			
18	FAHU Fan Run Status				2			DP Switch			2C X 1 Sq.mm
	AHU Common points										
19	Pressure Drop across Pre Filter Status				7			DP Switch	2C X 1 Sq.mm		
20	Supply Air Temperature Monitoring		7					Temperature Sensor(Duct)	2C X 1 Sq.mm		
21	Return Air Temperature Monitoring		7					Temperature Sensor(Duct)	2C X 1 Sq.mm		
22	Chilled Water Control Valve Modulation Command			7				Relay Contact	6C X 1 Sq.mm		
23	Chilled Water Control Valve Feedback		7					Modulating Valve			
24	Duct Supply Static Pressure Feedback		7					Pressure transmitter(duct static)			4C X 1 Sq.mm
25	Return Air CO ₂ level		7					CO2 Sensor(Duct)	4C X 1 Sq.mm		
26	Fresh Air Damper control			7				Relay Contact	6C X 1 Sq.mm		
27	Fresh Air Damper feedback		7					Modulating Damper			
28	Return Air Relative Humidity monitoring		7					Humidity Sensor(Duct)			4C X 1 Sq.mm
29	Supply Air Fire Damper Status				7			Fire Damper	2C X 1 Sq.mm		
30	Return Air Fire Damper Status				7			Fire Damper	2C X 1 Sq.mm		
31	Chilled Water Inlet Temperature Monitoring		7					Imm temp sensor	2C X 1 Sq.mm		
32	Chilled Water Outlet Temperature Monitoring		7					Imm temp sensor	2C X 1 Sq.mm		
	AHU With HW Coil (CC-B1-AHU- 01 to 07)										
35	Hot Water Control Valve Modulation Command	7		7				Relay Contact	6C X 1 Sq.mm		
36	Hot Water Control Valve Feedback		7					Modulating Valve			
37	Hot Water Inlet Temperature Monitoring		7					Imm temp sensor			2C X 1 Sq.mm
38	Hot Water Outlet Temperature Monitoring		7					Imm temp sensor	2C X 1 Sq.mm		
	Total		84	36	58	15	15				
B	FLOOR MOUNTED AIR HANDLING UNIT with HW Coil & HRW (CC-B1-AHU-HRW-01)	1									
1	FAHU Fan (Supply and Exhaust) On/Off Command	1				2		Relay Contact	6C X 1 Sq.mm		
2	FAHU Fan (Supply and Exhaust) trip status				2			Pot Free Contact			
3	FAHU Fan (Supply and Exhaust) Auto/Manual Status				2			Pot Free Contact			
4	FAHU's Fan (Supply and Exhaust) VFD Speed feed back					2		VFD			
5	FAHU's Fan (Supply and Exhaust) VFD Speed Control			2				VFD			
6	FAHU Fan Fan (Supply and Exhaust) Run Status				2			DP Switch			2C X 1 Sq.mm
7	Pressure Drop across Pre Filter Status				1			DP Switch	2C X 1 Sq.mm		
8	Pressure Drop across Fine Filter Status				1			DP Switch	2C X 1 Sq.mm		
9	Supply Air Temperature Monitoring		1					Temperature Sensor(Duct)	2C X 1 Sq.mm		
10	Return Air Temperature Monitoring		1					Temperature Sensor(Duct)	2C X 1 Sq.mm		
11	Chilled Water Control Valve Modulation Command			1				Relay Contact	6C X 1 Sq.mm		
12	Chilled Water Control Valve Feedback		1					Modulating Valve			
13	FA Duct Supply Static Pressure Feedback		1					Pressure transmitter(duct static)			4C X 1 Sq.mm
14	EX Duct Supply Static Pressure Feedback		1					Pressure transmitter(duct static)	4C X 1 Sq.mm		
15	Return Air CO ₂ level		1					CO2 Sensor(Duct)	4C X 1 Sq.mm		
16	Fresh Air Damper control			1				Relay Contact	6C X 1 Sq.mm		
17	Fresh Air Damper feedback		1					Modulating Damper			
18	Return Air Relative Humidity monitoring		1					Humidity Sensor(Duct)			4C X 1 Sq.mm
19	Supply Air Fire Damper Status				1			Fire Damper	2C X 1 Sq.mm		
20	Return Air Fire Damper Status				1			Fire Damper	2C X 1 Sq.mm		
21	Chilled Water Inlet Temperature Monitoring		1					Imm temp sensor	2C X 1 Sq.mm		
22	Chilled Water Outlet Temperature Monitoring		1					Imm temp sensor	2C X 1 Sq.mm		
23	Hot Water Control Valve Modulation Command			1				Relay Contact	6C X 1 Sq.mm		
24	Hot Water Control Valve Feedback		1					Modulating Valve			
25	Hot Water Inlet Temperature Monitoring		1					Imm temp sensor			2C X 1 Sq.mm
26	Hot Water Outlet Temperature Monitoring		1					Imm temp sensor	2C X 1 Sq.mm		
27	Exhaust Air Temperature Status - After Heat Recovery Wheel		1					Temperature Sensor(Duct)	2C X 1 Sq.mm		
28	Wheel Status				1			Pot Free Contact	2C X 1 Sq.mm		
	Total		14	5	11	2	2				
C	HEAT RECOVERY UNIT (CC-B1-HRW-01, 02 & 03)	3									
1	Fresh Air Fan On/Off Command					3		Relay Contact	6C X 1 Sq.mm		
2	Fresh Air Fan Motor Trip sts				3			Pot Free Contact			
3	Fresh Air Fan Auto/Manual Status				3			Pot Free Contact			
4	Fresh Air Fan Run Status				3			DP Switch	2C X 1 Sq.mm		
5	Fresh Air Damper control			3				Relay Contact	6C X 1 Sq.mm		
6	Fresh Air Damper feedback		3					DAMPER			
7	Fresh Air Header Pressure Status		3					Pressure transmitter(duct static)			4C X 1 Sq.mm
8	Fresh Air Temperature Monitoring		3					Temperature Sensor(Duct)	2C X 1 Sq.mm		
9	Fresh Air Fan VFD Speed Control			3				VFD			
10	Exhaust Air Fan On/Off Command					3		Relay Contact	6C X 1 Sq.mm		
11	Exhaust Air Fan Motor Trip sts				3			Pot Free Contact			
12	Exhaust Air Fan Auto/Manual Status				3			Pot Free Contact			
13	Exhaust Air Fan Run Status				3			DP Switch	2C X 1 Sq.mm		
14	Exhaust Air Damper control			3				Relay Contact	6C X 1 Sq.mm		
15	Exhaust Air Damper feedback		3					DAMPER			
16	Exhaust Air Header Pressure Status		3					Pressure transmitter(duct static)			4C X 1 Sq.mm
17	Exhaust Air Temperature Monitoring		3					Temperature Sensor(Duct)	2C X 1 Sq.mm		
18	Exhaust Air Fan VFD Speed Control			3				VFD			
19	Exhaust Air Temperature Status - After Heat Recovery Wheel		3					Temperature Sensor(Duct)	2C X 1 Sq.mm		
20	Wheel Status				3			Pot Free Contact	2C X 1 Sq.mm		
	Total		21	12	21	6	0				

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.			
PARTICULAR	BMS IO Summary						0			
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
			AI	AO	DI	DO	Soft IO			
D	HVAC RELATED VFD's	24								
1	HVAC Related VFD's Speed Feedback						0	VFD	RS485 Communication Cable	
2	HVAC Related VFD's Frequency						0			
3	HVAC Related VFD's Current						0			
4	HVAC Related VFD's Voltage						0			
5	HVAC Related VFD's Power						0			
6	HVAC Related VFD's Run Time						0			
	TOTAL		0	0	0	0	0			
E	Drainage Pump LCP-1 (2W)	1								
1	Pump high level alarm				1			LCP Panel	2C X 1 Sq.mm	Dewatering/ Drainage/ Sewage pumps will be run by its own float switch. No provision for command & Auto/Manual
2	Pump On/Off Status				2			LCP Panel	4C X 1 Sq.mm	
3	Pump Trip Status				2			LCP Panel		
	TOTAL		0	0	5	0	0			
F	Drainage Pump LCP-2 (2W)	1								
1	Pump high level alarm				1			LCP Panel	2C X 1 Sq.mm	Dewatering/ Drainage/ Sewage pumps will be run by its own float switch. No provision for command & Auto/Manual
2	Pump On/Off Status				2			LCP Panel	4C X 1 Sq.mm	
3	Pump Trip Status				2			LCP Panel		
	TOTAL		0	0	5	0	0			
G	Drainage Pump LCP-3 (2W)	1								
1	Pump high level alarm				1			LCP Panel	2C X 1 Sq.mm	Dewatering/ Drainage/ Sewage pumps will be run by its own float switch. No provision for command & Auto/Manual
2	Pump On/Off Status				2			LCP Panel		
3	Pump Trip Status				2			LCP Panel	4C X 1 Sq.mm	
	TOTAL		0	0	5	0	0			
H	Drainage Pump LCP-4 (2W)	1								
1	Pump high level alarm				1			LCP Panel	2C X 1 Sq.mm	Dewatering/ Drainage/ Sewage pumps will be run by its own float switch. No provision for command & Auto/Manual
2	Pump On/Off Status				2			LCP Panel	4C X 1 Sq.mm	
3	Pump Trip Status				2			LCP Panel		
	TOTAL		0	0	5	0	0			
I	Sewage Pump LCP-7,8	2								Not found in layout for additional Pump
1	Pump high level alarm				2			LCP Panel	2C X 1 Sq.mm	Dewatering/ Drainage/ Sewage pumps will be run by its own float switch. No provision for command & Auto/Manual
2	Pump On/Off Status				4			LCP Panel		
3	Pump Trip Status				4			LCP Panel	4C X 1 Sq.mm	
	TOTAL		0	0	10	0	0			
J	Electrical Panel									
i	Escalator electrical Panel (P-31)	1								
1	On / Off Status of Lift Panel Incomer				1			ESCALATOR PANEL	4C X 1 Sq.mm	
2	Trip Status of Lift Panel Incomer				1			ESCALATOR PANEL		
ii	Lighting PANEL (P02)	1								
1	On / Off Status of Panel Incomers.				1			LIGHTING Panel	4C X 1 Sq.mm	
2	Trip Status of Panel Incomers.				1			LIGHTING Panel		
iii	Emergency Panel(ELECTRICAL)(P-27)	1								
1	On / Off Status of Emergency Panel Incomer				1			Emergency Panel	4C X 1 Sq.mm	
2	Trip Status of Emergency Panel Incomer				1			Emergency Panel		
	TOTAL		0	0	6	0	0			
K	FCU Unit	7								
1	Valve Feedback		7	0	0	0	0	Valve Actuator	2C X 1 Sq.mm	Valve Actuator connection to be confirmed from valve OEM.
	Total		7	0	0	0	0			
L	ENERGY METER(EEM)	3								
1	Average Current						3	Energy Meter	RS485 Communication Cable	
2	Voltage						3			
3	Kilowatt						3			
4	Run hour						3			
5	Power Factor						3			
6	Forward Active Energy						3			
7	Power Factor Average						3			
8	Line to Line Voltage Average						3			
9	Line to Line Neutral Average						3			
10	Frequency						3			
	Total		0	0	0	0	30			
M	Escalator	2								
1	Inspection Status (Normal/Maintenance)						2	Escalator Manager	RS485 Communication Cable	
2	Emergency Stop Status						2			
3	Fault Indication						2			
4	Fireman Switch Status						2			
5	Escalator Auto/Manual Status						2			
6	Escalator Run Status						2			
7	Escalator Load status						2			
	Total		0	0	0	0	14			
N	Lift	2								
1	Floor Position						0	Lift Control Manager	RS485 Communication Cable	
2	Door fully Closed Signal						0			
3	Status of Landing Floor (Open/Close)						0			
4	Inspection Status (Normal/Maintenance)						0			
5	Emergency Stop Status						0			
6	Fault Indication						0			
7	Fireman Switch Status						0			
8	Lift Auto/Manual Status						0			
9	Lift Run Status						0			
	Total		0	0	0	0	0			
O	Exhaust fan CC-B1-SMEF-01	1								
1	Fan On/Off status				1			Panel		
2	Fan Trip status				1			Panel		
3	Fan A/M status				1			Panel		
	Total		0	0	3	0	0			
P	Makeup Fan (CC-B1-MAF-01)	1								
1	Fan On/Off status				1			Panel		
2	Fan Trip status				1			Panel		
3	Fan A/M status				1			Panel		
	Total		0	0	3	0	0			

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Rev.				
PARTICULAR	BMS IO Summary					0				
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
			AI	AO	DI	DO	Soft IO			
B1 Kitchen										
Q	Treated Fresh Air unit without VFD(CC-B1-TFA-01)	1								
1	TFA Fan On/Off Command					1		Relay Contact	6C X 1 Sq.mm	
2	TFA Motor trip status				1			Pot Free Contact		
3	TFA Auto/Manual Status				1			Pot Free Contact		
4	TFA Run Status				1			DP Switch		
5	Supply Air Temperature Monitoring		1					Temperature Sensor(Duct)		
6	Pressure Drop across Pre Filter Status				1			DP Switch		
7	Pressure Drop across Fine Filter Status				1			DP Switch		
8	Modulating Valve Control Output			1				Relay Contact		
9	Modulating Valve Position Feedback		1					Modulating Valve	6C X 1 Sq.mm	
	Total		2	1	5	1	0			
R	CEILING SUSPENDED AHU (CC-B1-CSU-01)	1								
1	CAHU Fan On/Off Command					1		Relay Contact	6C X 1 Sq.mm	
2	CAHU Motor trip status				1			Pot Free Contact		
3	CAHU Auto/Manual Status				1			Pot Free Contact		
4	CAHU Run Status				1			DP Switch		
5	CAHU's VFD Speed feed back						1	VFD		
6	CAHU's VFD Speed Control			1				VFD		
7	CAHU Filter Status				1			DP Switch	2C X 1 Sq.mm	
8	Supply Air Temperature Monitoring		1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
9	Return Air Temperature Monitoring		1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
10	Chilled Water Control Valve Modulation Command			1				Relay Contact	6C X 1 Sq.mm	
11	Chilled Water Control Valve Feedback		1					Modulating Valve		
12	Chilled Water Inlet Temperature Monitoring		1					Imm temp sensor	2C X 1 Sq.mm	
13	Chilled Water Outlet Temperature Monitoring		1					Imm temp sensor	2C X 1 Sq.mm	
14	Duct Supply Static Pressure Feedback		1					Pressure transmitter(duct static)	4C X 1 Sq.mm	
15	Return Air CO ₂ level		1					CO2 Sensor(Duct)	4C X 1 Sq.mm	
16	Fresh Air Damper control			1				Relay Contact	6C X 1 Sq.mm	
17	Fresh Air Damper feedback		1					Modulating Damper		
18	Return Air Relative Humidity monitoring		1					Humidity Sensor(Duct)	4C X 1 Sq.mm	
19	Supply Air Fire Damper Status				1			Fire Damper	2C X 1 Sq.mm	
20	Return Air Fire Damper Status				1			Fire Damper	2C X 1 Sq.mm	
	Total		9	3	6	1	1			
S	Air Washer/Scrubber (CC-B1-SR-01 , CC-B1-AW-01)	2								
1	Fan On/Off command					2		Relay Contact	8C X 1 Sq.mm	
2	Fan On/Off status				2			Pot Free Contact		
3	Fan Trip status				2			Pot Free Contact		
4	Fan A/M status				2			Pot Free Contact		
5	Filter Status				2			DP Switch	2C X 1 Sq.mm	
	Total		0	0	8	2	0			
	Grand total		137	57	151	27	62			
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Doc Number		Rev.		
PARTICULAR	CC-B1-SUBSTATION-BMS I/O SUMMARY					17203-L-SP-07-DC-4000		0		
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosre Details
			AI	AO	DI	DO	Soft IO			
A	FLOOR MOUNTED AIR HANDLING UNIT CC-B1-SS-AHU-01	1								
With Two Fans (CC-B1-SS-AHU-01)										
1	FAHU Fan On/Off Command	1				2		Relay Contact	6C X 1 Sq.mm	
2	FAHU Motor trip status				2			Pot Free Contact		
3	FAHU Auto/Manual Status				2			Pot Free Contact		
4	FAHU's VFD Speed feed back						2	VFD		
5	FAHU's VFD Speed Control			2				VFD		
6	FAHU Fan Run Status				1			DP Switch	2C X 1 Sq.mm	
AHU Common points										
7	Pressure Drop across Pre Filter Status				1			DP Switch	2C X 1 Sq.mm	
8	Supply Air Temperature Monitoring		1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
9	Return Air Temperature Monitoring		1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
10	Chilled Water Control Valve Modulation Command			1				Relay Contact	6C X 1 Sq.mm	
11	Chilled Water Control Valve Feedback		1					Modulating Valve		
12	Duct Supply Static Pressure Feedback		1					Pressure transmitter(duct static)	4C X 1 Sq.mm	
13	Return Air CO ₂ level		1					CO2 Sensor(Duct)	4C X 1 Sq.mm	
14	Fresh Air Damper control			1				Relay Contact	6C X 1 Sq.mm	
15	Fresh Air Damper feedback		1					Modulating Damper		
16	Return Air Relative Humidity monitoring		1					Humidity Sensor(Duct)	4C X 1 Sq.mm	
17	Supply Air Fire Damper Status				1			Fire Damper	2C X 1 Sq.mm	
18	Return Air Fire Damper Status				1			Fire Damper	2C X 1 Sq.mm	
19	Chilled Water Inlet Temperature Monitoring		1					Imm temp sensor	2C X 1 Sq.mm	
20	Chilled Water Outlet Temperature Monitoring		1					Imm temp sensor	2C X 1 Sq.mm	
	Total		9	4	8	2	2			
B	HVAC RELATED VFD's	8								
1	HVAC Related VFD's Speed Feedback						0	VFD	RS485 Communication Cable	
2	HVAC Related VFD's Speed Feedback						0			
3	HVAC Related VFD's Current						0			
4	HVAC Related VFD's Voltage						0			
5	HVAC Related VFD's Power						0			
6	HVAC Related VFD's Run Time						0			
	TOTAL		0	0	0	0	0			
C	VENTILATION FAN (CC-B1-SS-EF-01,02,03,04), CC-B1-MF-01,02	6								
1	Fan On/Off command					6		Relay Contact	8C X 1 Sq.mm	
2	Fan On/Off status				6			Pot Free Contact		
3	Fan Trip status				6			Pot Free Contact		
4	Fan A/M status				6			Pot Free Contact		
	Total		0	0	18	6	0			

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.				
PARTICULAR	BMS IO Summary						0				
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details	
			AI	AO	DI	DO	Soft IO				
D	Tertiary PUMPS (CC-B1-CHWTP-01 to 04 & CC-B1-HWTP-01 to 02)	6									
1	Teritary Pump On/Off Command					0		Relay Contact	8C X 1 Sq.mm	Added Supply Temp.	
2	Teritary Pump On/Off Status				0			Pot Free Contact			
3	Teritary Pump Trip Status				0			Pot Free Contact			
4	Teritary Pump A/M Status				0			Pot Free Contact			
5	Teritary Pump's VFD Speed control			6				VFD			
6	Pressure Sensor for pump load estimation		2					Pressure Transmitter	2C X 1 Sq.mm		
7	Chilled Water header Supply / Retrun Temperature Monitoring		2					Imm temp sensor	2C X 1 Sq.mm - 2 run		
	Heat Exchanger secondary side										
8	Chilled Water Control Valve Modulation Command			1				Modulating Valve	6C X 1 Sq.mm		
9	Chilled Water Control Valve Feedback		1					Modulating Valve			
	TOTAL		5	7	0	0	0				
E	Pressurization Pump (CC-SS-PR-01,02)	4									
1	Pump Trip Status						4	Pump PLC	Cat6 Cable	System is working on PLC. Hardwiring Integration provision not there. Soft intgeration can be done	
2	Pump Auto/Manual Status						4				
3	Pump On/Off Status						4				
	TOTAL		0	0	0	0	12				
F	BTU meter-CC Hot water -1no,chilled water-1no	2									
1	Inlet Temp						2	BTU meter	RS485 Communication Cable		
2	Outlet Temp						2				
3	Flow Rate						2				
4	Net Heat.						2				
5	Flow Total						2				
6	Net Heat Total						2				
	Total		0	0	0	0	12				
G	Water Meter-2nos	2									
1	Flow rate						2	Water Meter-plant room (3rd party)	RS485 Communication Cable	soft integration points will be confirmed.	
2	Consumption						2				
	Total		0	0	0	0	4				
H	Dewatering sump Pump LCP 6,11 (2W)	2									
1	Pump high level alarm				2			LCP Panel	2C X 1 Sq.mm	Dewatering/ Drainage/ Sewage pumps will be run by its own float switch. No provision for command & Auto/Manual	
2	Pump On/Off Status				4			LCP Panel	4C X 1 Sq.mm		
3	Pump Trip Status				4			LCP Panel			
	TOTAL		0	0	10	0	0				
I	ELECTRICAL PANEL										
i	SUBSTATION EQUIPMENTS CC MAIN LT PANEL-1 (P-01)	1									
1	LT Panel I/C Breaker On/Off Status	2			2			Main LT Panel	4C X 1 Sq.mm		
2	LT Panel I/C Breaker Trip Status				2			Main LT Panel			
3	LT Panel O/G Breaker On/Off Status	30			30			Main LT Panel	4C X 1 Sq.mm		
4	LT Panel O/G Breaker Trip Status				30			Main LT Panel			
5	LT Panel Bus Coupler On/Off Status	1			1			Main LT Panel	4C X 1 Sq.mm		
6	LT Panel Bus Coupler Trip Status				1			Main LT Panel			
5	Voltage presence	30					30	Main LT Panel			
	Total		0	0	66	0	30				
ii	SUBSTATION EQUIPMENTS CC MAIN LT PANEL-2 (P-02)	1									
1	LT Panel I/C Breaker On/Off Status	3			3			Main LT Panel	4C X 1 Sq.mm		
2	LT Panel I/C Breaker Trip Status				3			Main LT Panel			
3	LT Panel O/G Breaker On/Off Status	22			22			Main LT Panel	4C X 1 Sq.mm		
4	LT Panel O/G Breaker Trip Status				22			Main LT Panel			
5	LT Panel Bus Coupler On/Off Status	1			1			Main LT Panel	4C X 1 Sq.mm		
6	LT Panel Bus Coupler Trip Status				1			Main LT Panel			
5	Voltage presence	22					22	Main LT Panel			
	Total		0	0	52	0	22				
iii	VARIABLE TERTIARY CHILLED WATER PUMP PANEL (P42)	1									
1	On / Off Status of Panel Incomers.				1			PUMP PANEL	4C X 1 Sq.mm		
2	Trip Status of Panel Incomers.				1			PUMP PANEL			
	TOTAL		0	0	2	0	0				
iv	VARIABLE TERTIARY HOT WATER PUMP PANEL (P43)	1									
1	On / Off Status of Panel Incomers.				1			PUMP PANEL	4C X 1 Sq.mm		
2	Trip Status of Panel Incomers.				1			PUMP PANEL			
	TOTAL		0	0	2	0	0				
v	Substation Auxillary Panel (P-41)	1									
1	On / Off Status of Auxillary Panel Incomer				1			AUX PANEL	4C X 1 Sq.mm		
2	Trip Status of Auxillary panel I/C				1			AUX PANEL			
	TOTAL		0	0	2	0	0				
vi	ELV UPS I/C PANEL (P21)	2									
1	On / Off Status of UPS I/C Panel				2			UPS I/C Panel	4C X 1 Sq.mm		
2	Trip Status of UPS I/C Panel				2			UPS I/C Panel			
	TOTAL		0	0	4	0	0				
vii	ELV UPS O/G PANEL(P22)	4									
1	On / Off Status of UPS O/G Panel Incomers.				4			UPS O/G Panel	4C X 1 Sq.mm		
2	Trip Status of UPS O/G Panel Incomers.				4			UPS O/G Panel			
	TOTAL		0	0	8	0	0				
viii	EMG UPS I/C PANEL (P21A)	2									
1	On / Off Status of UPS I/C Panel				2			UPS I/C Panel	4C X 1 Sq.mm		
2	Trip Status of UPS I/C Panel				2			UPS I/C Panel			
	TOTAL		0	0	4	0	0				
ix	EMG UPS O/G PANEL(P26)	4									
1	On / Off Status of UPS O/G Panel Incomers.				4			UPS O/G Panel	4C X 1 Sq.mm		
2	Trip Status of UPS O/G Panel Incomers.				4			UPS O/G Panel			
	TOTAL		0	0	8	0	0				

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.				
PARTICULAR	BMS IO Summary						0				
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details	
			AI	AO	DI	DO	Soft IO				
J	ENERGY METER(EEM)	74						Energy Meter	RS485 Communication Cable		
1	Average Current						74				
2	Voltage						74				
3	Kilowatt						74				
4	Run hour						74				
5	Power Factor						74				
6	Forward Active Energy						74				
7	Power Factor Average						74				
8	Line to Line Voltage Average						74				
9	Line to Line Neutral Average						74				
10	Frequency						74				
	Total		0	0	0	0	740				
K	TRIVECTOR METER(MFM)	5						Trivector Meter	RS485 Communication Cable		
1	Active Power						5				
2	Apparent Power						5				
3	Reactive Power						5				
4	Active Energy						5				
5	Apparent Energy						5				
6	Reactive Energy						5				
7	Line to Line Voltage						5				
8	line to Neutral Voltage						5				
9	Average Current						5				
10	Power Factor						5				
11	Frequency						5				
	TOTAL		0	0	0	0	55				
L	UPS	6						UPS	RS485 Communication Cable		
1	Communication Status						6				
2	I/P Voltage - RY						6				
3	I/P Voltage - YB						6				
4	I/P Voltage - BR						6				
5	O/P Voltage - R						6				
6	O/P Voltage - Y						6				
7	O/P Voltage - B						6				
8	O/P Current - R						6				
9	O/P Current - Y						6				
10	O/P Current - Y						6				
11	Battery Voltage						6				
12	Battery Charge Remaining						6				
13	Loading Percentage						6				
14	Frequency						6				
15	Alarm Status						6				
	Total		0	0	0	0	90				
M	Transformer(2500kva)	4						Transformer	2C X 1 Sq.mm		
	Winding Temperature		8								
	Total		8	0	0	0	0				
	Grand total		22	11	184	8	967				
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Doc Number		Rev.		DDC Enclosure Details
PARTICULAR	CC-F0-BMS I/O SUMMARY						17203-L-SP-07-DC-4000		0		
SI.NO	PARTICULARS		AI	AO	DI	DO	Soft IO	Equipment	Type of Cable		
A	FLOOR MOUNTED AIR HANDLING UNIT (CC-B1-AHU-01, 02, 04, 05, 06 & 07)	6									
	With Single Fans (CC-F0-AHU-05&06)										
1	FAHU Fan On/Off Command	2				2		Relay Contact	6C X 1 Sq.mm		
2	FAHU Motor trip status				2			Pot Free Contact			
3	FAHU Auto/Manual Status				2			Pot Free Contact			
4	FAHU's VFD Speed feed back						2	VFD	2C X 1 Sq.mm		
5	FAHU's VFD Speed Control			2				VFD	2C X 1 Sq.mm		
6	FAHU Fan Run Status				2			DP Switch	2C X 1 Sq.mm		
	With Two Fans (CC-F0-AHU-01,02,04,)										
7	FAHU Fan On/Off Command	3				6		Relay Contact	6C X 1 Sq.mm		
8	FAHU Motor trip status				6			Pot Free Contact			
9	FAHU Auto/Manual Status				6			Pot Free Contact			
11	FAHU's VFD Speed feed back						6	VFD	2C X 1 Sq.mm		
12	FAHU's VFD Speed Control			6				VFD	2C X 1 Sq.mm		
13	FAHU Fan Run Status				3			DP Switch	2C X 1 Sq.mm		
	With Three Fans (CC-F0-AHU-07)										
14	FAHU Fan On/Off Command	1				3		Relay Contact	6C X 1 Sq.mm		
15	FAHU Motor trip status				3			Pot Free Contact			
16	FAHU Auto/Manual Status				3			Pot Free Contact			
18	FAHU's VFD Speed feed back						3	VFD	2C X 1 Sq.mm		
19	FAHU's VFD Speed Control			3				VFD	2C X 1 Sq.mm		
20	FAHU Fan Run Status				1			DP Switch	2C X 1 Sq.mm		
	AHU Common points										
21	Pressure Drop across Pre Filter Status				6			DP Switch	2C X 1 Sq.mm		
22	Supply Air Temperature Monitoring		6					Temperature Sensor(Duct)	2C X 1 Sq.mm		
23	Return Air Temperature Monitoring		6					Temperature Sensor(Duct)	2C X 1 Sq.mm		
24	Chilled Water Control Valve Modulation Command			6				Relay Contact	6C X 1 Sq.mm		
25	Chilled Water Control Valve Feedback		6					Modulating Valve			
26	Duct Supply Static Pressure Feedback		6					Pressure transmitter(duct static)	4C X 1 Sq.mm		
27	Return Air CO ₂ level		6					CO2 Sensor(Duct)	4C X 1 Sq.mm		
28	Fresh Air Damper control			6				Relay Contact	6C X 1 Sq.mm		
29	Fresh Air Damper feedback		6					Modulating Damper			
30	Return Air Relative Humidity monitoring		6					Humidity Sensor(Duct)	4C X 1 Sq.mm		
31	Supply Air Fire Damper Status				6			Fire Damper	2C X 1 Sq.mm		
32	Return Air Fire Damper Status				6			Fire Damper	2C X 1 Sq.mm		
33	Chilled Water Inlet Temperature Monitoring		6					Imm temp sensor	2C X 1 Sq.mm		
34	Chilled Water Outlet Temperature Monitoring		6					Imm temp sensor	2C X 1 Sq.mm		
	AHU With HW Coil (AHU- 01 to 2 & 4 to 7)										
35	Hot Water Control Valve Modulation Command	6		6				Relay Contact	6C X 1 Sq.mm		
36	Hot Water Control Valve Feedback		6					Modulating Valve			
37	Hot Water Inlet Temperature Monitoring		6					Imm temp sensor	2C X 1 Sq.mm		
38	Hot Water Outlet Temperature Monitoring		6					Imm temp sensor	2C X 1 Sq.mm		
	Total		72	29	46	11	11				

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.			
PARTICULAR	BMS IO Summary						0			
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
			AI	AO	DI	DO	Soft IO			
B	HEAT RECOVERY UNIT (CC-F0-HRW-01 & 02)	2								
1	Fresh Air Fan On/Off Command					2		Relay Contact	6C X 1 Sq.mm	
2	Fresh Air Fan Motor Trip sts				2			PANEL		
3	Fresh Air Fan Auto/Manual Status				2			PANEL		
4	Fresh Air Fan Run Status				2			DP SWICTH		
5	Fresh Air Damper control			2				Relay Contact	6C X 1 Sq.mm	
6	Fresh Air Damper feedback		2					DAMPER		
7	Fresh Air Header Pressure Status		2					Pressure transmitter(duct static)	4C X 1 Sq.mm	
8	Fresh Air Temperature Monitoring		2					Temperature Sensor(Duct)	2C X 1 Sq.mm	
11	Fresh Air Fan VFD Speed Control			2				VFD	2C X 1 Sq.mm	
12	Exhaust Air Fan On/Off Command					2		Relay Contact	6C X 1 Sq.mm	
13	Exhaust Air Fan Motor Trip sts				2			PANEL		
14	Exhaust Air Fan Auto/Manual Status				2			PANEL		
15	Exhaust Air Fan Run Status				2			DP SWICTH		
16	Exhaust Air Damper control			2				Relay Contact	6C X 1 Sq.mm	
17	Exhaust Air Damper feedback		2					DAMPER		
18	Exhaust Air Header Pressure Status		2					Pressure transmitter(duct static)	4C X 1 Sq.mm	
19	Exhaust Air Temperature Monitoring		2					Temperature Sensor(Duct)	2C X 1 Sq.mm	
22	Exhaust Air Fan VFD Speed Control			2				VFD	2C X 1 Sq.mm	
23	Exhaust Air Temperature Status - After Heat Recovery Wheel		2					Temperature Sensor(Duct)	2C X 1 Sq.mm	
24	Wheel Status				2			PANEL	2C X 1 Sq.mm	
	Total		14	8	14	4	0			
C	HVAC RELATED VFD's	15								
1	HVAC Related VFD's Speed Feedback						15	VFD	RS485 Communication Cable	
2	HVAC Related VFD's Frequency						15			
3	HVAC Related VFD's Current						15			
4	HVAC Related VFD's Voltage						15			
5	HVAC Related VFD's Power						15			
6	HVAC Related VFD's Run Time						15			
	TOTAL		0	0	0	0	90			
D	Exhaust fan CC-F0-EE-01	1								
1	Fan On/Off command					1		Relay Contact	8C X 1 Sq.mm	
2	Fan On/Off status				1			Panel		
3	Fan Trip status				1			Panel		
4	Fan A/M status				1			Panel		
	Total		0	0	3	1	0			
E	Pressurization fan CC-F0-LL&LWPR-01&CC-F0-STPR-01	2								
1	Fan On/Off status				2			Panel	6C X 1 Sq.mm	
2	Fan Trip status				2			Panel		
3	Fan A/M status				2			Panel		
	Total		0	0	6	0	0			
F	ELECTRICAL PANEL									
i	Power and AHU PANEL (P05)	2								
1	On / Off Status of Panel Incomers.				2			POWER & AHU PANEL	4C X 1 Sq.mm	
2	Trip Status of Panel Incomers.				2			POWER & AHU PANEL		
ii	Lighting PANEL (P04)	2								
1	On / Off Status of Panel Incomers.				2			LIGHTING Panel	4C X 1 Sq.mm	
2	Trip Status of Panel Incomers.				2			LIGHTING Panel		
iii	Escalator electrical Panel (P-32)	1								
1	On / Off Status of Lift Panel Incomer				1			ESCALATOR PANEL	4C X 1 Sq.mm	
2	Trip Status of Lift Panel Incomer				1			ESCALATOR PANEL		
iv	LIFT electrical Panel (P-34)	1								
1	On / Off Status of Lift Panel Incomer				1			Lift Panel	4C X 1 Sq.mm	
2	Trip Status of Lift Panel Incomer				1			Lift Panel		
v	LIFT electrical Panel (P-35)	1								
1	On / Off Status of Lift Panel Incomer				1			Lift Panel	4C X 1 Sq.mm	
2	Trip Status of Lift Panel Incomer				1			Lift Panel		
	TOTAL		0	0	14	0	0			
G	ENERGY METER(EEM)	5								
1	Average Current						5	Energy Meter	RS485 Communication Cable	
2	Voltage						5			
3	Kilowatt						5			
4	Run hour						5			
5	Power Factor						5			
6	Forward Active Energy						5			
7	Power Factor Average						5			
8	Line to Line Voltage Average						5			
9	Line to Line Neutral Average						5			
10	Frequency						5			
	Total		0	0	0	0	50			
H	Escalator	6								
1	Inspection Status (Normal/Maintenance)						6	Escalator Manager	RS485 Communication Cable	
2	Emergency Stop Status						6			
3	Fault Indication						6			
4	Fireman Switch Status						6			
5	Escalator Auto/Manual Status						6			
6	Escalator Run Status						6			
7	Escalator Load status						6			
	Total		0	0	0	0	42			
I	Fire Alarm Panel	3								
1	FAP Communication status						3	FIRE ALARM PANEL	CAT6 Cable	
2	Zone-Wise Fire Status						26			
3	Zone-Wise Fault Status						26			
4	Control Module Status						26			
5	Input Module Status						26			
6	Zone-Wise Loop Continuity						26			
7	Ground Fault						3			
	Total		0	0	0	0	136			
J	FCU Unit	5								
1	Valve Feedback		5	0	0	0	0	Valve Actuator	2C X 1 Sq.mm	Valve Actuator connection to be confirmed from valve OEM
	Total		5	0	0	0	0			
	Grand total		91	37	83	16	329			

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.		
PARTICULAR	BMS IO Summary						0		
SI.NO	PARTICULARS	I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
		AI	AO	DI	DO	Soft IO			
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.		
PARTICULAR	CC-F1-BMS I/O SUMMARY						0		
SI.NO	PARTICULARS	I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
		AI	AO	DI	DO	Soft IO			
A	FLOOR MOUNTED AIR HANDLING UNIT (CC-F1-AHU-01, 02, 03, 04, 05, 06, 07&08)	8							
	With Two Fans								
1	FAHU Fan On/Off Command	8				16	Relay Contact	6C X 1 Sq.mm	
2	FAHU Motor trip status				16		Pot Free Contact		
3	FAHU Auto/Manual Status				16		Pot Free Contact		
4	FAHU's VFD Speed feed back					16	VFD	4C X 1 Sq.mm	
5	FAHU's VFD Speed Control			16			VFD		
6	FAHU Fan Run Status				8		DP Switch	2C X 1 Sq.mm	
	AHU Common points								
7	Pressure Drop across Pre Filter Status				8		DP Switch	2C X 1 Sq.mm	
8	Supply Air Temperature Monitoring		8				Temperature Sensor(Duct)	2C X 1 Sq.mm	
9	Return Air Temperature Monitoring		8				Temperature Sensor(Duct)	2C X 1 Sq.mm	
10	Chilled Water Control Valve Modulation Command			8			Relay Contact	6C X 1 Sq.mm	
11	Chilled Water Control Valve Feedback		8				Modulating Valve		
12	Duct Supply Static Pressure Feedback		8				Pressure transmitter(duct static)	4C X 1 Sq.mm	
13	Return Air CO ₂ level		8				CO2 Sensor(Duct)	4C X 1 Sq.mm	
14	Fresh Air Damper control			8			Relay Contact	6C X 1 Sq.mm	
15	Fresh Air Damper feedback		8				Modulating Damper		
16	Return Air Relative Humidity monitoring		8				Humidity Sensor(Duct)	4C X 1 Sq.mm	
17	Supply Air Fire Damper Status				8		Fire Damper	2C X 1 Sq.mm	
18	Return Air Fire Damper Status				8		Fire Damper	2C X 1 Sq.mm	
19	Chilled Water Inlet Temperature Monitoring		8				Imm temp sensor	2C X 1 Sq.mm	
20	Chilled Water Outlet Temperature Monitoring		8				Imm temp sensor	2C X 1 Sq.mm	
	AHU With HW Coil (AHU- 01 to 08)								
21	Hot Water Control Valve Modulation Command	8		8			Relay Contact	6C X 1 Sq.mm	
22	Hot Water Control Valve Feedback		8				Modulating Valve		
23	Hot Water Inlet Temperature Monitoring		8				Imm temp sensor	2C X 1 Sq.mm	
24	Hot Water Outlet Temperature Monitoring		8				Imm temp sensor	2C X 1 Sq.mm	
	Total		96	40	64	16			
B	HEAT RECOVERY UNIT (CC-F1-HRW-01, 02, 03)	3							
1	Fresh Air Fan On/Off Command					3	Relay Contact	6C X 1 Sq.mm	
2	Fresh Air Fan Motor Trip sts				3		Pot Free Contact		
3	Fresh Air Fan Auto/Manual Status				3		Pot Free Contact		
4	Fresh Air Fan Run Status				3		DP Switch	2C X 1 Sq.mm	
5	Fresh Air Damper control			3			Relay Contact	6C X 1 Sq.mm	
6	Fresh Air Damper feedback		3				DAMPER		
7	Fresh Air Header Pressure Status		3				Pressure transmitter(duct static)	4C X 1 Sq.mm	
8	Fresh Air Temperature Monitoring		3				Temperature Sensor(Duct)	2C X 1 Sq.mm	
9	Fresh Air Fan VFD Speed Control			3			VFD	2C X 1 Sq.mm	
10	Exhaust Air Fan On/Off Command					3	Relay Contact	6C X 1 Sq.mm	
11	Exhaust Air Fan Motor Trip sts				3		Pot Free Contact		
12	Exhaust Air Fan Auto/Manual Status				3		Pot Free Contact	2C X 1 Sq.mm	
13	Exhaust Air Fan Run Status				3		DP Switch		
14	Exhaust Air Damper control			3			Relay Contact	6C X 1 Sq.mm	
15	Exhaust Air Damper feedback		3				DAMPER	4C X 1 Sq.mm	
16	Exhaust Air Header Pressure Status		3				Pressure transmitter(duct static)		
17	Exhaust Air Temperature Monitoring		3				Temperature Sensor(Duct)	2C X 1 Sq.mm	
18	Exhaust Air Fan VFD Speed Control			3			VFD	2C X 1 Sq.mm	
19	Exhaust Air Temperature Status - After Heat Recovery Wheel		3				Temperature Sensor(Duct)	2C X 1 Sq.mm	
20	Wheel Status				3		Pot Free Contact	2C X 1 Sq.mm	
	Total		21	12	21	6	0		
C	Treated Fresh Air unit (CC-F1-TFA-01)	1							
1	TFA Fan On/Off Command					0	Relay Contact	6C X 1 Sq.mm	
2	TFA Motor trip status				0		Pot Free Contact		
3	TFA Auto/Manual Status				0		Pot Free Contact	2C X 1 Sq.mm	
4	TFA Run Status				0		DP Switch		
5	Supply Air Temperature Monitoring		0				Temperature Sensor(Duct)	2C X 1 Sq.mm	
6	Duct Static Pressure sensor		0				Pressure transmitter(duct static)	4C X 1 Sq.mm	
7	TFA's VFD Speed control			1			VFD Pot Free Contact	2C X 1 Sq.mm	
8	Pressure Drop across Pre Filter Status				0		DP Switch	2C X 1 Sq.mm	
9	Pressure Drop across Fine Filter Status				1		DP Switch	2C X 1 Sq.mm	
10	Modulating Valve Control Output			0			Relay Contact	6C X 1 Sq.mm	
11	Modulating Valve Position Feedback		0				Modulating Valve		
12	TFA Fire Tripping						-	-	
13	TFA shutdown on fan Door open						-	-	
	Total		0	1	1	0	0		
D	HVAC RELATED VFD's	23							
1	HVAC Related VFD's Speed Feedback					0	VFD	RS485 Communication Cable	
2	HVAC Related VFD's Frequency					0			
3	HVAC Related VFD's Current					0			
4	HVAC Related VFD's Voltage					0			
5	HVAC Related VFD's Power					0			
6	HVAC Related VFD's Run Time					0			
	TOTAL		0	0	0	0			
E	Smoke extraction fan /Pressurization Fan (CC-F1-SMEF-01,02,03,04,	4							
1	Fan On/Off status				0		Pot Free Contact	6C X 1 Sq.mm	
2	Fan Trip status				0		Pot Free Contact		
3	Fan A/M status				0		Pot Free Contact		
	Total		0	0	0	0			

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA							Rev.		
PARTICULAR	BMS IO Summary							0		
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
			AI	AO	DI	DO	Soft IO			
F	PRESSURIZATION FAN CC-F1-LLPR-01, CC-F1-LL&LWPR-01, CC-F1-STPR-01)	3			0					
1	Fan On/Off status				0			Pot Free Contact	6C X 1 Sq.mm	
2	Fan Trip status				0			Pot Free Contact		
3	Fan A/M status				0			Pot Free Contact		
	Total		0	0	0	0	0			
G	ELECTRICAL PANEL									
i	Power and AHU PANEL (P07)	2								
1	On / Off Status of Panel Incomers.				2			POWER & AHU PANEL	4C X 1 Sq.mm	
2	Trip Status of Panel Incomers.				2			POWER & AHU PANEL		
ii	Lighting PANEL (P06)	2								
1	On / Off Status of Panel Incomers.				2			LIGHTING Panel	4C X 1 Sq.mm	
2	Trip Status of Panel Incomers.				2			LIGHTING Panel		
iii	Emergency Panel(ELECTRICAL) (P-28)	1								
1	On / Off Status of Emergency Panel Incomer				1			Emergency Panel	4C X 1 Sq.mm	
2	Trip Status of Emergency Panel Incomer				1			Emergency Panel		
	TOTAL		0	0	10	0	0			
H	ENERGY METER(EEM)	3								
1	Average Current						5	Energy Meter	RS485 Communication Cable	
2	Voltage						5			
3	Kilowatt						5			
4	Run hour						5			
5	Power Factor						5			
6	Forward Active Energy						5			
7	Power Factor Average						5			
8	Line to Line Voltage Average						5			
9	Line to Line Neutral Average						5			
10	Frequency						5			
	Total		0	0	0	0	50			
I	Escalator	2								
1	Inspection Status (Normal/Maintenance)						0	Escalator Manager	RS485 Communication Cable	
2	Emergency Stop Status						0			
3	Fault Indication						0			
4	Fireman Switch Status						0			
5	Escalator Auto/Manual Status						0			
6	Escalator Run Status						0			
7	Escalator Load status						0			
	Total		0	0	0	0	0			
J	Lift	6								
1	Floor Position						0	Lift Control Manager	RS485 Communication Cable	
2	Door fully Closed Signal						0			
3	Status of Landing Floor (Open/Close)						0			
4	Inspection Status (Normal/Maintenance)						0			
5	Emergency Stop Status						0			
6	Fault Indication						0			
7	Fireman Switch Status						0			
8	Lift Auto/Manual Status						0			
9	Lift Run Status						0			
	Total		0	0	0	0	0			
K	FCU Unit	5								
1	Valve Feedback		5	0	0	0	0	Valve Actuator	2C X 1 Sq.mm	
	Total		5	0	0	0	0			
	Grand total		122	53	96	22	66			
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA		Doc Number					Rev.		
PARTICULAR	CC-F2-BMS I/O SUMMARY		17203-L-SP-07-DC-4000					0		
SI.NO	PARTICULARS		I/O DETAILS					Equipments	Type of Cable	DDC Enclosure Details
			AI	AO	DI	DO	Soft IO			
A	FLOOR MOUNTED AIR HANDLING UNIT (CC-F2-AHU-01, 02, 03, 04, 06, 07, 08, 09,10 & 11)	10								
	With Single Fans (CC-F2-AHU-01,04,06, 09, 10 & 11)									
1	FAHU Fan On/Off Command	6				6		Relay Contact	6C X 1 Sq.mm	
2	FAHU Motor trip status				6			Pot Free Contact		
3	FAHU Auto/Manual Status				6			Pot Free Contact		
4	FAHU's VFD Speed feed back						6	VFD	2C X 1 Sq.mm	
5	FAHU's VFD Speed Control			6				VFD	2C X 1 Sq.mm	
6	FAHU Fan Run Status				6			DP Switch	2C X 1 Sq.mm	
	With Two Fans (CC-F2-AHU-02, 03, 07 & 08)									
7	FAHU Fan On/Off Command	4				8		Relay Contact	6C X 1 Sq.mm	
8	FAHU Motor trip status				8			Pot Free Contact		
9	FAHU Auto/Manual Status				8			Pot Free Contact		
10	FAHU's VFD Speed feed back						8	VFD	2C X 1 Sq.mm	
11	FAHU's VFD Speed Control			8				VFD	2C X 1 Sq.mm	
12	FAHU Fan Run Status				4			DP Switch	2C X 1 Sq.mm	
	AHU Common points									
13	Pressure Drop across Pre Filter Status				10			DP Switch	2C X 1 Sq.mm	
14	Supply Air Temperature Monitoring		10					Temperature Sensor(Duct)	2C X 1 Sq.mm	
15	Return Air Temperature Monitoring		10					Temperature Sensor(Duct)	2C X 1 Sq.mm	
16	Chilled Water Control Valve Modulation Command			10				Relay Contact	6C X 1 Sq.mm	
17	Chilled Water Control Valve Feedback		10					Modulating Valve		
18	Duct Supply Static Pressure Feedback		10					Pressure transmitter(duct static)	4C X 1 Sq.mm	
19	Return Air CO2 level		10					CO2 Sensor(Duct)	4C X 1 Sq.mm	
20	Fresh Air Damper control			10				Relay Contact	6C X 1 Sq.mm	
21	Fresh Air Damper feedback		10					Modulating Damper		
22	Return Air Relative Humidity monitoring		10					Humidity Sensor(Duct)	4C X 1 Sq.mm	
23	Supply Air Fire Damper Status				10			Fire Damper	2C X 1 Sq.mm	
24	Return Air Fire Damper Status				10			Fire Damper	2C X 1 Sq.mm	
25	Chilled Water Inlet Temperature Monitoring		10					Imm temp sensor	2C X 1 Sq.mm	
26	Chilled Water Outlet Temperature Monitoring		10					Imm temp sensor	2C X 1 Sq.mm	

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA							Rev.		
PARTICULAR	BMS IO Summary							0		
SI.NO	PARTICULARS	I/O DETAILS						Equipment	Type of Cable	DDC Enclosure Details
		AI	AO	DI	DO	Soft IO				
	AHU With HW Coil (AHU- 01 & 10)									
27	Hot Water Control Valve Modulation Command	10	10					Relay Contact	6C X 1 Sq.mm	
28	Hot Water Control Valve Feedback	10						Modulating Valve		
29	Hot Water Inlet Temperature Monitoring	10						Imm temp sensor		
30	Hot Water Outlet Temperature Monitoring	10						Imm temp sensor		
	Total	120	44	68	14	14				
E	HEAT RECOVERY UNIT (CC-F2-HRW-01 & 02)	2								
1	Fresh Air Fan On/Off Command				2			Relay Contact	6C X 1 Sq.mm	
2	Fresh Air Fan Motor Trip sts			2				Pot Free Contact		
3	Fresh Air Fan Auto/Manual Status			2				Pot Free Contact		
4	Fresh Air Fan Run Status			2				DP Switch		
5	Fresh Air Damper control		2					Relay Contact	6C X 1 Sq.mm	
6	Fresh Air Damper feedback	2						DAMPER		
7	Fresh Air Header Pressure Status	2						Pressure transmitter(duct static)	4C X 1 Sq.mm	
8	Fresh Air Temperature Monitoring	2						Temperature Sensor(Duct)	2C X 1 Sq.mm	
11	Fresh Air Fan VFD Speed Control		2					VFD	2C X 1 Sq.mm	
12	Exhaust Air Fan On/Off Command				2			Relay Contact	6C X 1 Sq.mm	
13	Exhaust Air Fan Motor Trip sts			2				Pot Free Contact		
14	Exhaust Air Fan Auto/Manual Status			2				Pot Free Contact	2C X 1 Sq.mm	
15	Exhaust Air Fan Run Status			2				DP Switch		
16	Exhaust Air Damper control		2					Relay Contact	6C X 1 Sq.mm	
17	Exhaust Air Damper feedback	2						DAMPER		
18	Exhaust Air Header Pressure Status	2						Pressure transmitter(duct static)	4C X 1 Sq.mm	
19	Exhaust Air Temperature Monitoring	2						Temperature Sensor(Duct)	2C X 1 Sq.mm	
20	Exhaust Air Fan VFD Speed Control		2					VFD	2C X 1 Sq.mm	
21	Exhaust Air Temperature Status - After Heat Recovery Wheel	2						Temperature Sensor(Duct)	2C X 1 Sq.mm	
22	Wheel Status			2				Pot Free Contact	2C X 1 Sq.mm	
	Total	14	8	14	4	0				
D	Treated Fresh Air unit without VFD(CC-F2-TFA-01,02)	2								
1	TFA Fan On/Off Command				0			Relay Contact	6C X 1 Sq.mm	
2	TFA Motor trip status			0				Pot Free Contact		
3	TFA Auto/Manual Status			0				Pot Free Contact		
4	TFA Run Status			0				DP Switch		
5	Supply Air Temperature Monitoring	0						Temperature Sensor(Duct)	2C X 1 Sq.mm	
6	Pressure Drop across Pre Filter Status			0				DP Switch	2C X 1 Sq.mm	
7	Pressure Drop across Fine Filter Status			0				DP Switch	2C X 1 Sq.mm	
8	Modulating Valve Control Output		0					Relay Contact	6C X 1 Sq.mm	
9	Modulating Valve Position Feedback	0						Modulating Valve		
	Total	0	0	0	0	0				
E	CEILING SUSPENDED AHU (CC-F2-CAHU-01)	1								
1	CAHU Fan On/Off Command				1			Relay Contact	6C X 1 Sq.mm	
2	CAHU Motor trip status			1				Pot Free Contact		
3	CAHU Auto/Manual Status			1				Pot Free Contact		
4	CAHU Run Status			1				DP Switch		
6	CAHU's VFD Speed feed back					1		VFD	2C X 1 Sq.mm	
7	CAHU's VFD Speed Control		1					VFD	2C X 1 Sq.mm	
8	CAHU Filter Status			1				DP Switch	2C X 1 Sq.mm	
9	Supply Air Temperature Monitoring	1						Temperature Sensor(Duct)	2C X 1 Sq.mm	
10	Return Air Temperature Monitoring	1						Temperature Sensor(Duct)	2C X 1 Sq.mm	
11	Chilled Water Control Valve Modulation Command		1					Relay Contact	6C X 1 Sq.mm	
12	Chilled Water Control Valve Feedback	1						Modulating Valve		
13	Chilled Water Inlet Temperature Monitoring	1						Imm temp sensor	2C X 1 Sq.mm	
14	Chilled Water Outlet Temperature Monitoring	1						Imm temp sensor	2C X 1 Sq.mm	
15	Duct Supply Static Pressure Feedback	1						Pressure transmitter(duct static)	4C X 1 Sq.mm	
16	Return Air CO ₂ level	1						CO ₂ Sensor(Duct)	4C X 1 Sq.mm	
17	Fresh Air Damper control		1					Relay Contact	6C X 1 Sq.mm	
18	Fresh Air Damper feedback	1						Modulating Damper		
19	Return Air Relative Humidity monitoring	1						Humidity Sensor(Duct)	4C X 1 Sq.mm	
20	Supply Air Fire Damper Status			1				Fire Damper	2C X 1 Sq.mm	
21	Return Air Fire Damper Status			1				Fire Damper	2C X 1 Sq.mm	
	Total	9	3	6	1	1				
F	HVAC RELATED VFD's	21								
1	HVAC Related VFD's Speed Feedback					1		VFD	RS485 Communication Cable	
2	HVAC Related VFD's Frequency					1				
3	HVAC Related VFD's Current					1				
4	HVAC Related VFD's Voltage					1				
5	HVAC Related VFD's Power					1				
6	HVAC Related VFD's Run Time					1				
	TOTAL	0	0	0	0	6				
G	Smoke Exhaust Fan (CC-F2-SMEF-01 to 14)	14								
1	Fan On/Off status			0				Pot Free Contact	6C X 1 Sq.mm	
2	Fan Trip status			0				Pot Free Contact		
3	Fan A/M status			0				Pot Free Contact		
	Total	0	0	0	0	0				
H	PRESSURIZATION FAN (CC-F2-STPR-01/CC-F2-LL&LWPR-01)	2								
1	Fan On/Off status			13				Pot Free Contact	6C X 1 Sq.mm	
2	Fan Trip status			13				Pot Free Contact		
3	Fan A/M status			13				Pot Free Contact		
	Total	0	0	39	0	0				
I	Air Washer/Scrubber (CC-F2-SR-01 , CC-F2-AW-01)	2								
1	Fan On/Off command				2			Relay Contact	8C X 1 Sq.mm	
2	Fan On/Off status			2				Pot Free Contact		
3	Fan Trip status			2				Pot Free Contact		
4	Fan A/M status			2				Pot Free Contact		
5	Filter Status			2				DP Switch		
	Total	0	0	8	2	0				

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.		
PARTICULAR	BMS IO Summary						0		
SI.NO	PARTICULARS	I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
		AI	AO	DI	DO	Soft IO			
J	ELECTRICAL PANEL								
i	Power and AHU PANEL (P09)	2							
1	On / Off Status of Panel Incomers.			2			Power & AHU Panel	4C X 1 Sq.mm	
2	Trip Status of Panel Incomers.			2			Power & AHU Panel		
ii	Lighting PANEL (P08)	2							
1	On / Off Status of Panel Incomers.			2			Lighting Panel	4C X 1 Sq.mm	
2	Trip Status of Panel Incomers.			2			Lighting Panel		
iii	UPS POWER PANEL - 2 (P-24)	1							
1	On / Off Status of Panel Incomers.			1			UPS PANEL	4C X 1 Sq.mm	
2	Trip Status of Panel Incomers.			1			UPS PANEL		
iv	Fire Mode Ventilation ELEC Panel (P-38)								
1	On / Off Status of Ventilation Panel Incomer	1		1			Ventilation Panel	4C X 1 Sq.mm	
2	Trip Status of Ventilation Panel Incomer			1			Ventilation Panel		
	TOTAL		0	0	12	0			
K	ENERGY METER(EEM)	4							
1	Average Current					4	Energy Meter	RS485 Communication Cable	
2	Voltage					4			
3	Kilowatt					4			
4	Run hour					4			
5	Power Factor					4			
6	Forward Active Energy					4			
7	Power Factor Average					4			
8	Line to Line Voltage Average					4			
9	Line to Line Neutral Average					4			
10	Frequency					4			
	Total		0	0	0	40			
L	Escalator	1							
1	Inspection Status (Normal/Maintenance)					4	Escalator Manager	RS485 Communication Cable	
2	Emergency Stop Status					4			
3	Fault Indication					4			
4	Fireman Switch Status					4			
5	Escalator Auto/Manual Status					4			
6	Escalator Run Status					4			
7	Escalator Load status					4			
	Total		0	0	0	28			
M	FCU Unit	2							
1	Valve Feedback		2	0	0	0	Valve Actuator	2C X 1 Sq.mm	Valve Actuator connection to be confirmed from valve OEM.
	Total		2	0	0	0			
N	Makeup Fan (CC-F2-MAF-01 & 02)	2							
1	Fan On/Off status			2			Panel	6C X 1 Sq.mm	
2	Fan Trip status			2			Panel		
3	Fan A/M status			2			Panel		
	Total		0	0	6	0			
	Grand total		145	55	153	21			
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA	Doc Number					Rev.		
PARTICULAR	CC-F3-BMS I/O SUMMARY	17203-L-SP-07-DC-4000					0		
SI.NO	PARTICULARS	I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
		AI	AO	DI	DO	Soft IO			
A	FLOOR MOUNTED AIR HANDLING UNIT (CC-F3-AHU-01, 02, 03, 04, 05, 06, 07 & 08)	8							
	With Single Fans (CC-F3-AHU- 02, 04, 05, 06, 07 & 08)								
1	FAHU Fan On/Off Command	6			6		Relay Contact	6C X 1 Sq.mm	
2	FAHU Motor trip status			6			Pot Free Contact		
3	FAHU Auto/Manual Status			6			Pot Free Contact		
4	FAHU's VFD Speed Control		6				VFD		
5	FAHU Fan Run Status			6			DP Switch	2C X 1 Sq.mm	
	With Two Fans (CC-F3-AHU-01 & 03)								
6	FAHU Fan On/Off Command	2			4		Relay Contact	6C X 1 Sq.mm	
7	FAHU Motor trip status			4			Pot Free Contact		
8	FAHU Auto/Manual Status			4			Pot Free Contact		
9	FAHU's VFD Speed feed back					4	VFD	2C X 1 Sq.mm	
10	FAHU's VFD Speed Control		4				VFD	2C X 1 Sq.mm	
11	FAHU Fan Run Status			2			DP Switch	2C X 1 Sq.mm	
	AHU Common points								
12	Pressure Drop across Pre Filter Status			8			DP Switch	2C X 1 Sq.mm	
13	Supply Air Temperature Monitoring		8				Temperature Sensor(Duct)	2C X 1 Sq.mm	
14	Return Air Temperature Monitoring		8				Temperature Sensor(Duct)	2C X 1 Sq.mm	
15	Chilled Water Control Valve Modulation Command		8				Relay Contact	6C X 1 Sq.mm	
16	Chilled Water Control Valve Feedback		8				Modulating Valve		
17	Duct Supply Static Pressure Feedback		8				Pressure transmitter(duct static)	4C X 1 Sq.mm	
18	Return Air CO ₂ level		8				CO2 Sensor(Duct)	4C X 1 Sq.mm	
19	Fresh Air Damper control			8			Relay Contact	6C X 1 Sq.mm	
20	Fresh Air Damper feedback		8				Modulating Damper		
21	Return Air Relative Humidity monitoring		8				Humidity Sensor(Duct)	4C X 1 Sq.mm	
22	Supply Air Fire Damper Status			8			Fire Damper	2C X 1 Sq.mm	
23	Return Air Fire Damper Status			8			Fire Damper	2C X 1 Sq.mm	
24	Chilled Water Inlet Temperature Monitoring		8				Imm temp sensor	2C X 1 Sq.mm	
25	Chilled Water Outlet Temperature Monitoring		8				Imm temp sensor	2C X 1 Sq.mm	
	AHU With HW Coil								
26	Hot Water Control Valve Modulation Command	8		8			Relay Contact	6C X 1 Sq.mm	
27	Hot Water Control Valve Feedback		8				Modulating Valve		
28	Hot Water Inlet Temperature Monitoring		8				Imm temp sensor	2C X 1 Sq.mm	
29	Hot Water Outlet Temperature Monitoring		8				Imm temp sensor	2C X 1 Sq.mm	
	Total		96	34	52	10			

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.			
PARTICULAR	BMS IO Summary						0			
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
			AI	AO	DI	DO	Soft IO			
B	HEAT RECOVERY UNIT (CC-F3-HRW-01 & 02)	2								
1	Fresh Air Fan On/Off Command					2		Relay Contact	6C X 1 Sq.mm	
2	Fresh Air Fan Motor Trip sts				2			Pot Free Contact		
3	Fresh Air Fan Auto/Manual Status				2			Pot Free Contact		
4	Fresh Air Fan Run Status				2			DP Switch	2C X 1 Sq.mm	
5	Fresh Air Damper control			2				Relay Contact	6C X 1 Sq.mm	
6	Fresh Air Damper feedback		2					DAMPER		
7	Fresh Air Header Pressure Status		2					Pressure transmitter(duct static)	2C X 1 Sq.mm	
8	Fresh Air Temperature Monitoring		2					Temperature Sensor(Duct)	2C X 1 Sq.mm	
9	Fresh Air Fan VFD Speed Control			2				VFD	2C X 1 Sq.mm	
10	Exhaust Air Fan On/Off Command					2		Relay Contact	6C X 1 Sq.mm	
11	Exhaust Air Fan Motor Trip sts				2			Pot Free Contact		
12	Exhaust Air Fan Auto/Manual Status				2			Pot Free Contact		
13	Exhaust Air Fan Run Status				2			DP Switch	2C X 1 Sq.mm	
14	Exhaust Air Damper control			2				Relay Contact	6C X 1 Sq.mm	
15	Exhaust Air Damper feedback		2					DAMPER		
16	Exhaust Air Header Pressure Status		2					Pressure transmitter(duct static)	4C X 1 Sq.mm	
17	Exhaust Air Temperature Monitoring		2					Temperature Sensor(Duct)	2C X 1 Sq.mm	
18	Exhaust Air Fan VFD Speed Control			2				VFD	2C X 1 Sq.mm	
19	Exhaust Air Temperature Status - After Heat Recovery Wheel		2					Temperature Sensor(Duct)	2C X 1 Sq.mm	
20	Wheel Status				2			Pot Free Contact	2C X 1 Sq.mm	
	Total		14	8	14	4	0			
C	HVAC RELATED VFD's	14								
1	HVAC Related VFD's Speed Feedback						14	VFD	RS485 Communication Cable	
2	HVAC Related VFD's Frequency						14			
3	HVAC Related VFD's Current						14			
4	HVAC Related VFD's Voltage						14			
5	HVAC Related VFD's Power						14			
6	HVAC Related VFD's Run Time						14			
	TOTAL		0	0	0	0	84			
D	Smoke Exhaust Fan (CC-F3-SMEF-01,02,03)	3								
1	Fan On/Off status				3			Pot Free Contact	6C X 1 Sq.mm	
2	Fan Trip status				3			Pot Free Contact		
3	Fan A/M status				3			Pot Free Contact		
	Total		0	0	9	0	0			
E	PRESSURIZATION FAN (CC-F3-STPR-01,CC-F3-LL&LWPR-01)	2								
1	Fan On/Off status				0			Pot Free Contact	6C X 1 Sq.mm	
2	Fan Trip status				0			Pot Free Contact		
3	Fan A/M status				0			Pot Free Contact		
	Total		0	0	0	0	0			
F	ELECTRICAL PANEL									
i	Power and AHU PANEL (P11)	2								
1	On / Off Status of Panel Incomers.				2			Power & AHU Panel	4C X 1 Sq.mm	
2	Trip Status of Panel Incomers.				2			Power & AHU Panel		
ii	Lighting PANEL (P10)	2								
1	On / Off Status of Panel Incomers.				2			Lighting Panel	4C X 1 Sq.mm	
2	Trip Status of Panel Incomers.				2			Lighting Panel		
iii	Escalator electrical Panel (P-33)	1								
1	On / Off Status of Lift Panel Incomer				1			Lift Panel	4C X 1 Sq.mm	
2	Trip Status of Lift Panel Incomer				1			Lift Panel		
	TOTAL		0	0	10	0	0			
G	ENERGY METER(EEM)	3								
1	Average Current						3	Energy Meter	RS485 Communication Cable	
2	Voltage						3			
3	Kilowatt						3			
4	Run hour						3			
5	Power Factor						3			
6	Forward Active Energy						3			
7	Power Factor Average						3			
8	Line to Line Voltage Average						3			
9	Line to Line Neutral Average						3			
10	Frequency						3			
	Total		0	0	0	0	30			
H	Escalator	1								
1	Inspection Status (Normal/Maintenance)						1	Escalator Manager	RS485 Communication Cable	
2	Emergency Stop Status						1			
3	Fault Indication						1			
4	Fireman Switch Status						1			
5	Escalator Auto/Manual Status						1			
6	Escalator Run Status						1			
7	Escalator Load status						1			
	Total		0	0	0	0	7			
I	Lift	1								
1	Floor Position						1	Lift Control Manager	RS485 Communication Cable	
2	Door fully Closed Signal						1			
3	Status of Landing Floor (Open/Close)						1			
4	Inspection Status (Normal/Maintenance)						1			
5	Emergency Stop Status						1			
6	Fault Indication						1			
7	Fireman Switch Status						1			
8	Lift Auto/Manual Status						1			
9	Lift Run Status						1			
	Total		0	0	0	0	9			
J	FCU Unit	5								
1	Valve Feedback		5	0	0	0	0	Valve Actuator	2C X 1 Sq.mm	Valve Actuator connection to be confirmed from valve OEM.
	Total		5	0	0	0	0			
K	Makeup Fan (CC-F3-MAF-01 & 02)	2								
1	Fan On/Off status				2			Panel	6C X 1 Sq.mm	
2	Fan Trip status				2			Panel		
3	Fan A/M status				2			Panel		
	Total		0	0	6	0	0			

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA							Rev.		
PARTICULAR	BMS IO Summary							0		
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
			AI	AO	DI	DO	Soft IO			
	CC and EH1 Connection Corridor									
L	FLOOR MOUNTED AIR HANDLING UNIT with HW Coil & HRW (CC-EH-AHU-HRW-01,02)	2								
1	FAHU Fan (Supply and Exhaust) On/Off Command	6				6		Relay Contact	6C X 1 Sq.mm	3 (2+1)FAN IN 1 SET OF AHU AS PER HVAC DETAILS
2	FAHU Fan (Supply and Exhaust) trip status				6			Pot Free Contact		
3	FAHU Fan (Supply and Exhaust) Auto/Manual Status				6			Pot Free Contact		
4	FAHU's Fan (Supply and Exhaust) VFD Speed feed back						6	VFD	2C X 1 Sq.mm	
5	FAHU's Fan (Supply and Exhaust) VFD Speed Control			6				VFD	2C X 1 Sq.mm	
6	FAHU Fan Fan (Supply and Exhaust) Run Status				4			DP Switch	2C X 1 Sq.mm	
7	Pressure Drop across Pre Filter Status				2			DP Switch	2C X 1 Sq.mm	
8	Pressure Drop across Fine Filter Status				2			DP Switch	2C X 1 Sq.mm	
9	Supply Air Temperature Monitoring		2					Temperature Sensor(Duct)	2C X 1 Sq.mm	
10	Return Air Temperature Monitoring		2					Temperature Sensor(Duct)	2C X 1 Sq.mm	
11	Chilled Water Control Valve Modulation Command			2				Relay Contact	6C X 1 Sq.mm	
12	Chilled Water Control Valve Feedback		2					Modulating Valve		
13	FA Duct Supply Static Pressure Feedback		2					Pressure transmitter(duct static)	4C X 1 Sq.mm	
14	EX Duct Supply Static Pressure Feedback		2					Pressure transmitter(duct static)	4C X 1 Sq.mm	
15	Return Air CO ₂ level		2					CO2 Sensor(Duct)	4C X 1 Sq.mm	
16	Fresh Air Damper control			2				Relay Contact	6C X 1 Sq.mm	
17	Fresh Air Damper feedback		2					Modulating Damper		
18	Return Air Relative Humidity monitoring		2					Humidity Sensor(Duct)	4C X 1 Sq.mm	
19	Supply Air Fire Damper Status				2			Fire Damper	2C X 1 Sq.mm	
20	Return Air Fire Damper Status				2			Fire Damper	2C X 1 Sq.mm	
21	Chilled Water Inlet Temperature Monitoring		2					Imm temp sensor	2C X 1 Sq.mm	
22	Chilled Water Outlet Temperature Monitoring		2					Imm temp sensor	2C X 1 Sq.mm	
23	Hot Water Control Valve Modulation Command			2				Relay Contact	6C X 1 Sq.mm	
24	Hot Water Control Valve Feedback		2					Modulating Valve		
25	Hot Water Inlet Temperature Monitoring		2					Imm temp sensor	2C X 1 Sq.mm	
26	Hot Water Outlet Temperature Monitoring		2					Imm temp sensor	2C X 1 Sq.mm	
27	Exhaust Air Temperature Status - After Heat Recovery Wheel		2					Temperature Sensor(Duct)	2C X 1 Sq.mm	
28	Wheel Status				2			Pot Free Contact	2C X 1 Sq.mm	
	Total		28	12	26	6	6			
M	HVAC RELATED VFD's	6								
1	HVAC Related VFD's Speed Feedback						6	VFD	RS485 Communication Cable	
2	HVAC Related VFD's Frequency						6			
3	HVAC Related VFD's Current						6			
4	HVAC Related VFD's Voltage						6			
5	HVAC Related VFD's Power						6			
6	HVAC Related VFD's Run Time						6			
	TOTAL		0	0	0	0	36			
	Grand total		143	54	117	20	176			
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA							Rev.		
PARTICULAR	CC-F4-BMS I/O SUMMARY							0		
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
			AI	AO	DI	DO	Soft IO			
A	FLOOR MOUNTED AIR HANDLING UNIT (CC-F4-AHU-01, 02, 03, 04, 05, 06, 07, 08, 09, & 10)	10								
	With Single Fans (CC-F4-AHU-01, 02, 05, 06, 07, 08 & 09)									
1	FAHU Fan On/Off Command	7				7		Relay Contact	6C X 1 Sq.mm	
2	FAHU Motor trip status				7			Pot Free Contact		
3	FAHU Auto/Manual Status				7			Pot Free Contact		
4	FAHU's VFD Speed feed back						7	VFD	2C X 1 Sq.mm	
5	FAHU's VFD Speed Control			7				VFD	2C X 1 Sq.mm	
6	FAHU Fan Run Status				7			DP Switch	2C X 1 Sq.mm	
	With Two Fans(CC-F4-AHU-03, 04, 10)									
7	FAHU Fan On/Off Command	3				6		Relay Contact	6C X 1 Sq.mm	
8	FAHU Motor trip status				6			Pot Free Contact		
9	FAHU Auto/Manual Status				6			Pot Free Contact		
10	FAHU's VFD Speed feed back						6	VFD	2C X 1 Sq.mm	
11	FAHU's VFD Speed Control			6				VFD	2C X 1 Sq.mm	
12	FAHU Fan Run Status				3			DP Switch	2C X 1 Sq.mm	
	AHU Common points									
13	Pressure Drop across Pre Filter Status				10			DP Switch	2C X 1 Sq.mm	
14	Supply Air Temperature Monitoring		10					Temperature Sensor(Duct)	2C X 1 Sq.mm	
15	Return Air Temperature Monitoring		10					Temperature Sensor(Duct)	2C X 1 Sq.mm	
16	Chilled Water Control Valve Modulation Command			10				Relay Contact	6C X 1 Sq.mm	
17	Chilled Water Control Valve Feedback		10					Modulating Valve		
18	Duct Supply Static Pressure Feedback		10					Pressure transmitter(duct static)	4C X 1 Sq.mm	
19	Return Air CO ₂ level		10					CO2 Sensor(Duct)	4C X 1 Sq.mm	
20	Fresh Air Damper control			10				Relay Contact	6C X 1 Sq.mm	
21	Fresh Air Damper feedback		10					Modulating Damper		
22	Return Air Relative Humidity monitoring		10					Humidity Sensor(Duct)	4C X 1 Sq.mm	
23	Supply Air Fire Damper Status				10			Fire Damper	2C X 1 Sq.mm	
24	Return Air Fire Damper Status				10			Fire Damper	2C X 1 Sq.mm	
25	Chilled Water Inlet Temperature Monitoring		10					Imm temp sensor	2C X 1 Sq.mm	
26	Chilled Water Outlet Temperature Monitoring		10					Imm temp sensor	2C X 1 Sq.mm	
	AHU With HW Coil									
29	Hot Water Control Valve Modulation Command	10		10				Relay Contact	6C X 1 Sq.mm	
30	Hot Water Control Valve Feedback		10					Modulating Valve		
31	Hot Water Inlet Temperature Monitoring		10					Imm temp sensor	2C X 1 Sq.mm	
32	Hot Water Outlet Temperature Monitoring		10					Imm temp sensor	2C X 1 Sq.mm	
	Total		120	43	66	13	13			

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.				
PARTICULAR	BMS IO Summary						0				
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details	
			AI	AO	DI	DO	Soft IO				
B	HEAT RECOVERY UNIT (CC-F4-HRW-01 & 02)	2									
1	Fresh Air Fan On/Off Command					2		Relay Contact	6C X 1 Sq.mm		
2	Fresh Air Fan Motor Trip sts				2			Pot Free Contact			
3	Fresh Air Fan Auto/Manual Status				2			Pot Free Contact			
4	Fresh Air Fan Run Status				2			DP Switch			
5	Fresh Air Damper control			2				Relay Contact			
6	Fresh Air Damper feedback		2					DAMPER			
7	Fresh Air Header Pressure Status		2					Pressure transmitter(duct static)			
8	Fresh Air Temperature Monitoring		2					Temperature Sensor(Duct)			
9	Fresh Air Fan VFD Speed Control			2				VFD			
10	Exhaust Air Fan On/Off Command					2		Relay Contact			
11	Exhaust Air Fan Motor Trip sts				2			Pot Free Contact			
12	Exhaust Air Fan Auto/Manual Status				2			Pot Free Contact			
13	Exhaust Air Fan Run Status				2			DP Switch			
14	Exhaust Air Damper control			2				Relay Contact			
15	Exhaust Air Damper feedback		2					DAMPER			
16	Exhaust Air Header Pressure Status		2					Pressure transmitter(duct static)			
17	Exhaust Air Temperature Monitoring		2					Temperature Sensor(Duct)			
18	Exhaust Air Fan VFD Speed Control			2				VFD			
19	Exhaust Air Temperature Status - After Heat Recovery Wheel		2					Temperature Sensor(Duct)			
20	Wheel Status				2			Pot Free Contact			
	Total		14	8	14	4	0				
C	HVAC RELATED VFD's	17									
1	HVAC Related VFD's Speed Feedback						17	VFD	RS485 Communication Cable		
2	HVAC Related VFD's Frequency						17				
3	HVAC Related VFD's Current						17				
4	HVAC Related VFD's Voltage						17				
5	HVAC Related VFD's Power						17				
6	HVAC Related VFD's Run Time						17				
	TOTAL		0	0	0	0	102				
D	Smoke Exhaust Fan (CC-F4-SMEF-01,02,03)	3									
1	Fan On/Off status				3			Pot Free Contact	6C X 1 Sq.mm		
2	Fan Trip status				3			Pot Free Contact			
3	Fan A/M status				3			Pot Free Contact			
	Total		0	0	9	0	0				
E	ELECTRICAL PANEL										
i	Power and AHU PANEL (P13)	2									
1	On / Off Status of Panel Incomers.				2			Power & AHU Panel	4C X 1 Sq.mm		
2	Trip Status of Panel Incomers.				2			Power & AHU Panel			
ii	Lighting PANEL(P12)	2									
1	On / Off Status of Panel Incomers.				2			Lighting Panel	4C X 1 Sq.mm		
2	Trip Status of Panel Incomers.				2			Lighting Panel			
iii	Emergency Panel(ELECTRICAL) (P-29)	1									
1	On / Off Status of Emergency Panel Incomer				1			Emergency Panel	4C X 1 Sq.mm		
2	Trip Status of Emergency Panel Incomer				1			Emergency Panel			
	TOTAL		0	0	10	0	0				
F	FCU Unit	3									
1	Valve Feedback		3	0	0	0	0	Valve Actuator	2C X 1 Sq.mm	Valve Actuator connection to be confirmed from valve OEM.	
	Total		3	0	0	0	0				
G	ENERGY METER(EEM)	3									
1	Average Current						3	Energy Meter	RS485 Communication Cable		
2	Voltage						3				
3	Kilowatt						3				
4	Run hour						3				
5	Power Factor						3				
6	Forward Active Energy						3				
7	Power Factor Average						3				
8	Line to Line Voltage Average						3				
9	Line to Line Neutral Average						3				
10	Frequency						3				
	Total		0	0	0	0	30				
H	Makeup Fan (CC-F4-MAF-01 & 02)	2									
1	Fan On/Off status				2			Panel	6C X 1 Sq.mm		
2	Fan Trip status				2			Panel			
3	Fan A/M status				2			Panel			
	Total		0	0	6	0	0				
	Grand total		137	51	105	17	145				
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Doc Number		Rev.		
PARTICULAR	CC-F5-BMS I/O SUMMARY						17203-L-SP-07-DC-4000		0		
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details	
			AI	AO	DI	DO	Soft IO				
A	FLOOR MOUNTED AIR HANDLING UNIT (CC-F5-AHU-01, 02, 03 & 04)	4									
	With Two Fans (CC-F5-AHU-01,03 & 04)										
1	FAHU Fan On/Off Command	3				6		Relay Contact	6C X 1 Sq.mm		
2	FAHU Motor trip status				6			Pot Free Contact			
3	FAHU Auto/Manual Status				6			Pot Free Contact			
4	FAHU's VFD Speed feed back						6	VFD			
5	FAHU's VFD Speed Control			6				VFD			
6	FAHU Fan Run Status				3			DP Switch			
	With Three Fans (CC-F5-AHU- 02)										
7	FAHU Fan On/Off Command	1				3		Relay Contact	6C X 1 Sq.mm		
8	FAHU Motor trip status				3			Pot Free Contact			
9	FAHU Auto/Manual Status				3			Pot Free Contact			
10	FAHU's VFD Speed feed back						3	VFD	2C X 1 Sq.mm		
11	FAHU's VFD Speed Control			3				VFD	2C X 1 Sq.mm		
12	FAHU Fan Run Status				1			DP Switch	2C X 1 Sq.mm		

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.			
PARTICULAR	BMS IO Summary						0			
SI.NO	PARTICULARS	I/O DETAILS						Equipment	Type of Cable	DDC Enclosure Details
		AI	AO	DI	DO	Soft IO				
	AHU Common points									
13	Pressure Drop across Pre Filter Status			4			DP Switch	2C X 1 Sq.mm		
14	Supply Air Temperature Monitoring	4					Temperature Sensor(Duct)	2C X 1 Sq.mm		
15	Return Air Temperature Monitoring	4					Temperature Sensor(Duct)	2C X 1 Sq.mm		
16	Chilled Water Control Valve Modulation Command		4				Relay Contact	6C X 1 Sq.mm		
17	Chilled Water Control Valve Feedback	4					Modulating Valve			
18	Duct Supply Static Pressure Feedback	4					Pressure transmitter(duct static)	4C X 1 Sq.mm		
19	Return Air CO ₂ level	4					CO2 Sensor(Duct)	4C X 1 Sq.mm		
20	Fresh Air Damper control		4				Relay Contact	6C X 1 Sq.mm		
21	Fresh Air Damper feedback	4					Modulating Damper			
22	Return Air Relative Humidity monitoring	4					Humidity Sensor(Duct)	4C X 1 Sq.mm		
23	Supply Air Fire Damper Status			4			Fire Damper	2C X 1 Sq.mm		
24	Return Air Fire Damper Status			4			Fire Damper	2C X 1 Sq.mm		
25	Chilled Water Inlet Temperature Monitoring	4					Imm temp sensor	2C X 1 Sq.mm		
26	Chilled Water Outlet Temperature Monitoring	4					Imm temp sensor	2C X 1 Sq.mm		
27	AHU Fire Tripping						—	—		
28	AHU shutdown on fan Door open						—	—		
	AHU With HW Coil									
29	Hot Water Control Valve Modulation Command	4	4				Relay Contact	6C X 1 Sq.mm		
30	Hot Water Control Valve Feedback		4				Modulating Valve			
31	Hot Water Inlet Temperature Monitoring	4					Imm temp sensor	2C X 1 Sq.mm		
32	Hot Water Outlet Temperature Monitoring	4					Imm temp sensor	2C X 1 Sq.mm		
	Total	48	21	34	9	9				
B	HEAT RECOVERY UNIT (CC-F5-HRW-01 & 02	2								
1	Fresh Air Fan On/Off Command				2		Relay Contact	6C X 1 Sq.mm		
2	Fresh Air Fan Motor Trip sts			2			Pot Free Contact			
3	Fresh Air Fan Auto/Manual Status			2			Pot Free Contact			
4	Fresh Air Fan Run Status			2			DP Switch	2C X 1 Sq.mm		
5	Fresh Air Damper control		2				Relay Contact	6C X 1 Sq.mm		
6	Fresh Air Damper feedback	2					DAMPER			
7	Fresh Air Header Pressure Status	2					Pressure transmitter(duct static)	2C X 1 Sq.mm		
8	Fresh Air Temperature Monitoring	2					Temperature Sensor(Duct)	2C X 1 Sq.mm		
9	Fresh Air Fan VFD Speed Control		2				VFD	2C X 1 Sq.mm		
10	Exhaust Air Fan On/Off Command				2		Relay Contact	6C X 1 Sq.mm		
11	Exhaust Air Fan Motor Trip sts			2			Pot Free Contact			
12	Exhaust Air Fan Auto/Manual Status			2			Pot Free Contact			
13	Exhaust Air Fan Run Status			2			DP Switch	2C X 1 Sq.mm		
14	Exhaust Air Damper control		2				Relay Contact	6C X 1 Sq.mm		
15	Exhaust Air Damper feedback	2					DAMPER			
16	Exhaust Air Header Pressure Status	2					Pressure transmitter(duct static)	2C X 1 Sq.mm		
17	Exhaust Air Temperature Monitoring	2					Temperature Sensor(Duct)	2C X 1 Sq.mm		
18	Exhaust Air Fan VFD Speed Control		2				VFD	2C X 1 Sq.mm		
19	Exhaust Air Temperature Status - After Heat Recovery Wheel	2					Temperature Sensor(Duct)	2C X 1 Sq.mm		
20	Wheel Status			2			Pot Free Contact	2C X 1 Sq.mm		
	Total	14	8	14	4	0				
C	CEILING SUSPENDED AHU (CC-F5-CAHU-01)	1								
1	CAHU Fan On/Off Command				1		Relay Contact	6C X 1 Sq.mm		
2	CAHU Motor trip status			1			Pot Free Contact			
3	CAHU Auto/Manual Status			1			Pot Free Contact			
4	CAHU Run Status			1			DP Switch	2C X 1 Sq.mm		
5	CAHU's VFD Speed feed back					1	VFD	2C X 1 Sq.mm		
6	CAHU's VFD Speed Control		1				VFD	2C X 1 Sq.mm		
7	CAHU Filter Status			1			DP Switch	2C X 1 Sq.mm		
8	Supply Air Temperature Monitoring	1					Temperature Sensor(Duct)	2C X 1 Sq.mm		
9	Return Air Temperature Monitoring	1					Temperature Sensor(Duct)	2C X 1 Sq.mm		
10	Chilled Water Control Valve Modulation Command		1				Relay Contact	6C X 1 Sq.mm		
11	Chilled Water Control Valve Feedback	1					Modulating Valve			
12	Chilled Water Inlet Temperature Monitoring	1					Imm temp sensor	2C X 1 Sq.mm		
13	Chilled Water Outlet Temperature Monitoring	1					Imm temp sensor	2C X 1 Sq.mm		
14	Duct Supply Static Pressure Feedback	1					Pressure transmitter(duct static)	4C X 1 Sq.mm		
15	Return Air CO ₂ level	1					CO2 Sensor(Duct)	4C X 1 Sq.mm		
16	Fresh Air Damper control		1				Relay Contact	6C X 1 Sq.mm		
17	Fresh Air Damper feedback	1					Modulating Damper			
18	Return Air Relative Humidity monitoring	1					Humidity Sensor(Duct)	4C X 1 Sq.mm		
19	Supply Air Fire Damper Status			1			Fire Damper	2C X 1 Sq.mm		
20	Return Air Fire Damper Status			1			Fire Damper	2C X 1 Sq.mm		
	Total	9	3	6	1	1				
D	Treated Fresh Air unit without VFD (CC-F5-TFA-01,02)	2								
1	TFA Fan On/Off Command				2		Relay Contact	6C X 1 Sq.mm		
2	TFA Motor trip status			2			Pot Free Contact			
3	TFA Auto/Manual Status			2			Pot Free Contact			
4	TFA Run Status			2			DP Switch	2C X 1 Sq.mm		
5	Supply Air Temperature Monitoring	2					Temperature Sensor(Duct)	2C X 1 Sq.mm		
6	Pressure Drop across Pre Filter Status			2			DP Switch	2C X 1 Sq.mm		
7	Pressure Drop across Fine Filter Status			2			DP Switch	2C X 1 Sq.mm		
8	Modulating Valve Control Output		2				Relay Contact	6C X 1 Sq.mm		
9	Modulating Valve Position Feedback	2					Modulating Valve			
	Total	4	2	10	2	0				
E	HVAC RELATED VFD's	14								
1	HVAC Related VFD's Speed Feedback					14	VFD	RS485 Communication Cable		
2	HVAC Related VFD's Frequency					14				
3	HVAC Related VFD's Current					14				
4	HVAC Related VFD's Voltage					14				
5	HVAC Related VFD's Power					14				
6	HVAC Related VFD's Run Time					14				
	TOTAL	0	0	0	0	84				

Kitchen-1no,Office-1no only provided by HVAC.

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.				
PARTICULAR	BMS IO Summary						0				
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details	
			AI	AO	DI	DO	Soft IO				
F	Smoke extraction fan, Pressurization Fan (CC-F5-SMEF-01,02,03/ CC-F5-LLPR-01)	4									
1	Fan On/Off status				4			Pot Free Contact	6C X 1 Sq.mm		
2	Fan Trip status				4			Pot Free Contact			
3	Fan A/M status				4			Pot Free Contact			
	Total		0	0	12	0	0				
G	Makeup Fan (CC-F5-MAF-01)	1									
1	Fan On/Off status				1			Panel	6C X 1 Sq.mm		
2	Fan Trip status				1			Panel			
3	Fan A/M status				1			Panel			
	Total		0	0	3	0	0				
H	Air Washer/Scrubber (CC-F5-SR-01,02/CC-F5-AW-01,02)	4									
1	Fan On/Off command					4		Relay Contact	8C X 1 Sq.mm		
2	Fan On/Off status				4			Pot Free Contact			
3	Fan Trip status				4			Pot Free Contact			
4	Fan A/M status				4			Pot Free Contact			
5	Filter Status				4			DP Switch			
	Total		0	0	16	4	0				
I	ELECTRICAL PANEL										
i	Power and AHU PANEL (P15)	2									
1	On / Off Status of Panel Incomers.				2			Power & AHU Panel	4C X 1 Sq.mm		
2	Trip Status of Panel Incomers.				2			Power & AHU Panel			
ii	Lighting PANEL (P14)	2									
1	On / Off Status of Panel Incomers.				2			Lighting Panel	4C X 1 Sq.mm		
2	Trip Status of Panel Incomers.				2			Lighting Panel			
iii	Pressurisation ELEC Panel (P-39)										
1	On / Off Status of Ventilation Panel Incomer	1			1			Ventilation Panel	4C X 1 Sq.mm		
2	Trip Status of Ventilation Panel Incomer				1			Ventilation Panel			
	TOTAL		0	0	10	0	0				
J	FCU Unit	4									
1	Valve Feedback		4	0	0	0	0	Valve Actuator	2C X 1 Sq.mm	Valve Actuator connection to be confirmed from valve OEM.	
	Total		4	0	0	0	0				
K	ENERGY METER(EEM)	3									
1	Average Current						3	Energy Meter	RS485 Communication Cable		
2	Voltage						3				
3	Kilowatt						3				
4	Run hour						3				
5	Power Factor						3				
6	Forward Active Energy						3				
7	Power Factor Average						3				
8	Line to Line Voltage Average						3				
9	Line to Line Neutral Average						3				
10	Frequency						3				
	Total		0	0	0	0	30				
L	Escalator	18									
1	Inspection Status (Normal/Maintenance)						18	Escalator Manager	RS485 Communication Cable		
2	Emergency Stop Status						18				
3	Fault Indication						18				
4	Fireman Switch Status						18				
5	Escalator Auto/Manual Status						18				
6	Escalator Run Status						18				
7	Escalator Load status						18				
	Total		0	0	0	0	126				
M	Lift	4									
1	Floor Position						4	Lift Control Manager	RS485 Communication Cable		
2	Door fully Closed Signal						4				
3	Status of Landing Floor (Open/Close)						4				
4	Inspection Status (Normal/Maintenance)						4				
5	Emergency Stop Status						4				
6	Fault Indication						4				
7	Fireman Switch Status						4				
8	Lift Auto/Manual Status						4				
9	Lift Run Status						4				
	Total		0	0	0	0	36				
N	PNG Gas Shutoff Valve Feedback	1									
1	Valve Feedback		0	0	1	0	0	Valve Actuator	2C X 1 Sq.mm	Valve Actuator connection to be confirmed from valve OEM.	
	Total		0	0	1	0	0				
O	DATA CENTER MAIN LT PANEL	1								Datacenter Equipment under approval will be confirmed after approval.	
1	LT Panel I/C Breaker On/Off Status	1			1			Main LT Panel	4C X 1 Sq.mm		
2	LT Panel I/C Breaker Trip Status				1			Main LT Panel			
3	LT Panel O/G Breaker On/Off Status	10			10			Main LT Panel	4C X 1 Sq.mm		
4	LT Panel O/G Breaker Trip Status				10			Main LT Panel			
P	DATA CENTER UPS DISTRIBUTION PANEL I/C-1&2	2									
1	I/C Breaker On/Off Status				2			Elec. Panel	4C X 1 Sq.mm		
2	I/C Breaker Trip Status				2			Elec. Panel			
Q	DATA CENTER UTILITY PANEL I/C	1									
1	I/C Breaker On/Off Status				1			Elec. Panel	4C X 1 Sq.mm		
2	I/C Breaker Trip Status				1			Elec. Panel			
R	DATA CENTER LCP DB I/C	2									
1	I/C Breaker On/Off Status				2			Elec. Panel	4C X 1 Sq.mm		
2	I/C Breaker Trip Status				2			Elec. Panel			
S	CHILLER PANEL I/C	1									
1	I/C Breaker On/Off Status				1			Elec. Panel	4C X 1 Sq.mm		
2	I/C Breaker Trip Status				1			Elec. Panel			
	Total		0	0	34	0	0				

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Rev.		
PARTICULAR	BMS IO Summary					0		
SI.NO	PARTICULARS		I/O DETAILS					DDC Enclosure Details
			AI	AO	DI	DO	Soft IO	
T	DATA CENTER ENERGY METER	7						
1	Average Current						3	Energy Meter
2	Voltage						3	
3	Kilowatt						3	
4	Run hour						3	
5	Power Factor						3	
6	Forward Active Energy						3	
7	Power Factor Average						3	
8	Line to Line Voltage Average						3	
9	Line to Line Neutral Average						3	
10	Frequency						3	
	Total		0	0	0	0	30	
U	PAHU	2						
1	Fan ON						2	PAHU
2	Smoke Detected						2	
3	High Room Temperature						2	
4	Low Room Temperature						2	
5	High Room Humidity						2	
6	Low Room Humidity						2	
7	Return Temperature						2	
8	Supply Temperature						2	
9	Return Humidity						2	
10	Fan Run Hours						2	
	Total		0	0	0	0	20	
V	Water leak detection Monitoring	1						
1	Alarm Status				1			WLD Panel
2	Fault status				1			WLD Panel
	TOTAL		0	0	2	0	0	
	Grand total		79	34	142	20	336	
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Rev.		
PARTICULAR	CC-F6-BMS I/O SUMMARY					0		
SI.NO	PARTICULARS	QTY	I/O DETAILS					DDC Enclosure Details
			AI	AO	DI	DO	Soft IO	
A	FLOOR MOUNTED AIR HANDLING UNIT (CC-F6-AHU-01, 02)	2						
	With Two Fans							
1	FAHU Fan On/Off Command	2				4		Relay Contact
2	FAHU Motor trip status				4			Pot Free Contact
3	FAHU Auto/Manual Status				4			Pot Free Contact
4	FAHU's VFD Speed feed back						4	VFD
5	FAHU's VFD Speed Control			4				VFD
6	FAHU Fan Run Status				2			DP Switch
	AHU Common points							
8	Pressure Drop across Pre Filter Status				2			DP Switch
9	Supply Air Temperature Monitoring		2					Temperature Sensor(Duct)
10	Return Air Temperature Monitoring		2					Temperature Sensor(Duct)
11	Chilled Water Control Valve Modulation Command			2				Relay Contact
12	Chilled Water Control Valve Feedback		2					Modulating Valve
13	Duct Supply Static Pressure Feedback		2					Pressure transmitter(duct static)
14	Return Air CO ₂ level		2					CO2 Sensor(Duct)
15	Fresh Air Damper control			2				Relay Contact
16	Fresh Air Damper feedback		2					Modulating Damper
17	Return Air Relative Humidity monitoring		2					Humidity Sensor(Duct)
18	Supply Air Fire Damper Status				2			Fire Damper
19	Return Air Fire Damper Status				2			Fire Damper
20	Chilled Water Inlet Temperature Monitoring		2					Imm temp sensor
21	Chilled Water Outlet Temperature Monitoring		2					Imm temp sensor
	AHU With HW Coil							
22	Hot Water Control Valve Modulation Command	2		2				Relay Contact
23	Hot Water Control Valve Feedback		2					Modulating Valve
24	Hot Water Inlet Temperature Monitoring		2					Imm temp sensor
25	Hot Water Outlet Temperature Monitoring		2					Imm temp sensor
	Total		24	10	16	4	4	
B	HEAT RECOVERY UNIT (CC-F6-HRW-01)	1						
1	Fresh Air Fan On/Off Command					1		Relay Contact
2	Fresh Air Fan Motor Trip sts				1			Pot Free Contact
3	Fresh Air Fan Auto/Manual Status				1			Pot Free Contact
4	Fresh Air Fan Run Status				1			DP SWITCH
5	Fresh Air Damper control			1				Relay Contact
6	Fresh Air Damper feedback		1					DAMPER
7	Fresh Air Header Pressure Status		1					Pressure transmitter(duct static)
8	Fresh Air Temperature Monitoring		1					Temperature Sensor(Duct)
9	Fresh Air Fan VFD Speed Control			1				VFD
10	Exhaust Air Fan On/Off Command					1		Relay Contact
11	Exhaust Air Fan Motor Trip sts				1			Pot Free Contact
12	Exhaust Air Fan Auto/Manual Status				1			Pot Free Contact
13	Exhaust Air Fan Run Status				1			DP SWITCH
14	Exhaust Air Damper control			1				Relay Contact
15	Exhaust Air Damper feedback		1					DAMPER
16	Exhaust Air Header Pressure Status		1					Pressure transmitter(duct static)
17	Exhaust Air Temperature Monitoring		1					Temperature Sensor(Duct)
18	Exhaust Air Fan VFD Speed Control			1				VFD
19	Exhaust Air Temperature Status - After Heat Recovery Wheel		1					Temperature Sensor(Duct)
20	Wheel Status				1			Pot Free Contact
	Total		7	4	7	2	0	
C	Exhaust fan (CC-F6-EXF-01 & 02)	2						
1	Fan On/Off status				2			Panel
2	Fan Trip status				2			Panel
3	Fan A/M status				2			Panel
	Total		0	0	6	0	0	
D	Makeup Fan (CC-F6-MAF- 02)	1						
1	Fan On/Off status				1			Panel
2	Fan Trip status				1			Panel
3	Fan A/M status				1			Panel
	Total		0	0	3	0	0	

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.				
PARTICULAR	BMS IO Summary						0				
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details	
			AI	AO	DI	DO	Soft IO				
E	HVAC RELATED VFD's	6						VFD	RS485 Communication Cable		
1	HVAC Related VFD's Speed Feedback						6				
2	HVAC Related VFD's Frequency						6				
3	HVAC Related VFD's Current						6				
4	HVAC Related VFD's Voltage						6				
5	HVAC Related VFD's Power						6				
6	HVAC Related VFD's Run Time						6				
	TOTAL		0	0	0	0	36				
F	ELECTRICAL PANEL										
i	UPS POWER PANEL - 3 (P-25)	1									
1	On / Off Status				1			UPS Power Panel	4C X 1 Sq.mm		
0	Trip Status				1			UPS Power Panel			
ii	Power and AHU PANEL (P17)	2									
1	On / Off Status of Panel Incomers.				2			Power & AHU Panel	4C X 1 Sq.mm		
2	Trip Status of Panel Incomers.				2			Power & AHU Panel			
iii	Lighting PANEL (P16)	2									
1	On / Off Status of Panel Incomers.				2			Lighting Panel	4C X 1 Sq.mm		
2	Trip Status of Panel Incomers.				2			Lighting Panel			
iv	Emergency Lighting Panel(ELECTRICAL) (P-30)	1									
1	On / Off Status of Emergency Panel Incomer				1			Emergency Panel	4C X 1 Sq.mm		
2	Trip Status of Emergency Panel Incomer				1			Emergency Panel			
	TOTAL		0	0	12	0	0				
G	ENERGY METER(EEM)	4									
1	Average Current						4	Energy Meter	RS485 Communication Cable		
2	Voltage						4				
3	Kilowatt						4				
4	Run hour						4				
5	Power Factor						4				
6	Forward Active Energy						4				
7	Power Factor Average						4				
8	Line to Line Voltage Average						4				
9	Line to Line Neutral Average						4				
10	Frequency						4				
	Total		0	0	0	0	40				
H	Escalator	3									
1	Inspection Status (Normal/Maintenance)						3	Escalator Manager	RS485 Communication Cable		
2	Emergency Stop Status						3				
3	Fault Indication						3				
4	Fireman Switch Status						3				
5	Escalator Auto/Manual Status						3				
6	Escalator Run Status						3				
7	Escalator Load status						3				
	Total		0	0	0	0	21				
I	Lift	3									
1	Floor Position						3	Lift Control Manager	RS485 Communication Cable		
2	Door fully Closed Signal						3				
3	Status of Landing Floor (Open/Close)						3				
4	Inspection Status (Normal/Maintenance)						3				
5	Emergency Stop Status						3				
6	Fault Indication						3				
7	Fireman Switch Status						3				
8	Lift Auto/Manual Status						3				
9	Lift Run Status						3				
	Total		0	0	0	0	27				
J	FCU Unit	5									
1	Valve Feedback		5	0	0	0	0	Valve Actuator	2C X 1 Sq.mm	Valve Actuator connection to be confirmed from valve OEM.	
	Total		5	0	0	0	0				
	Grand total		36	14	44	6	128				
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Doc Number		Rev.		
PARTICULAR	CC-F7-BMS I/O SUMMARY						17203-L-SP-07-DC-4001		0		
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details	
			AI	AO	DI	DO	Soft IO				
A	FLOOR MOUNTED AIR HANDLING UNIT (CC-F7-AHU-01, 02, 03, 04, 05,06 & 07)	7									
	With Single Fans (CC-F7-AHU-03, 04, 05 & 06)										
1	FAHU Fan On/Off Command	4				4		Relay Contact	6C X 1 Sq.mm		
2	FAHU Motor trip status				4			Pot Free Contact			
3	FAHU Auto/Manual Status				4			Pot Free Contact			
4	FAHU's VFD Speed feed back						4	VFD	2C X 1 Sq.mm		
5	FAHU's VFD Speed Control			4				VFD	2C X 1 Sq.mm		
6	FAHU Fan Run Status				4			DP Switch	2C X 1 Sq.mm		
	With Two Fans (CC-F7-AHU-01,02 & 07)										
7	FAHU Fan On/Off Command	3				6		Relay Contact	6C X 1 Sq.mm		
8	FAHU Motor trip status				6			Pot Free Contact			
9	FAHU Auto/Manual Status				6			Pot Free Contact			
10	FAHU's VFD Speed feed back						6	VFD	2C X 1 Sq.mm		
11	FAHU's VFD Speed Control			6				VFD	2C X 1 Sq.mm		
12	FAHU Fan Run Status				3			DP Switch	2C X 1 Sq.mm		
	AHU Common points										
13	Pressure Drop across Pre Filter Status				7			DP Switch	2C X 1 Sq.mm		
14	Supply Air Temperature Monitoring		7					Temperature Sensor(Duct)	2C X 1 Sq.mm		
15	Return Air Temperature Monitoring		7					Temperature Sensor(Duct)	2C X 1 Sq.mm		
16	Chilled Water Control Valve Modulation Command			7				Relay Contact	6C X 1 Sq.mm		
17	Chilled Water Control Valve Feedback		7					Modulating Valve			
18	Duct Supply Static Pressure Feedback		7					Pressure transmitter(duct static)	4C X 1 Sq.mm		
19	Return Air CO2 level		7					CO2 Sensor(Duct)	4C X 1 Sq.mm		
20	Fresh Air Damper control			7				Relay Contact	6C X 1 Sq.mm		
21	Fresh Air Damper feedback		7					Modulating Damper			
22	Return Air Relative Humidity monitoring		7					Humidity Sensor(Duct)	4C X 1 Sq.mm		
23	Supply Air Fire Damper Status				7			Fire Damper	2C X 1 Sq.mm		
24	Return Air Fire Damper Status				7			Fire Damper	2C X 1 Sq.mm		
25	Chilled Water Inlet Temperature Monitoring		7					Imm temp sensor	2C X 1 Sq.mm		
26	Chilled Water Outlet Temperature Monitoring		7					Imm temp sensor	2C X 1 Sq.mm		

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.			
PARTICULAR	BMS IO Summary						0			
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
			AI	AO	DI	DO	Soft IO			
	AHU With HW Coil AHU-01 & 07									
27	Hot Water Control Valve Modulation Command	2		2				Relay Contact	6C X 1 Sq.mm	
28	Hot Water Control Valve Feedback		2					Modulating Valve		
29	Hot Water Inlet Temperature Monitoring		2					Imm temp sensor		
30	Hot Water Outlet Temperature Monitoring		2					Imm temp sensor		
	Total		69	26	48	10	10			
B	FLOOR MOUNTED AIR HANDLING UNIT with HW Coil & HRW (CC-F7-AHU-HRW-01, 02 & 03)	3								
1	FAHU Fan (Supply and Exhaust) On/Off Command	12				12		Relay Contact	6C X 1 Sq.mm	4 FAN IN 1 SET OF AHU AS PER HVAC DETAILS
2	FAHU Fan (Supply and Exhaust) trip status				12			Pot Free Contact		
3	FAHU Fan (Supply and Exhaust) Auto/Manual Status				12			Pot Free Contact		
4	FAHU's Fan (Supply and Exhaust) VFD Speed feed back					12		VFD		
5	FAHU's Fan (Supply and Exhaust) VFD Speed Control			12				VFD		
6	FAHU Fan Fan (Supply and Exhaust) Run Status				6			DP Switch		
7	Pressure Drop across Pre Filter Status				3			DP Switch		
8	Pressure Drop across Fine Filter Status				3			DP Switch		
9	Supply Air Temperature Monitoring		3					Temperature Sensor(Duct)		
10	Return Air Temperature Monitoring		3					Temperature Sensor(Duct)		
11	Chilled Water Control Valve Modulation Command			3				Relay Contact		
12	Chilled Water Control Valve Feedback		3					Modulating Valve		
13	FA Duct Supply Static Pressure Feedback		3					Pressure transmitter(duct static)		
14	EX Duct Supply Static Pressure Feedback		3					Pressure transmitter(duct static)		
15	Return Air CO ₂ level		3					CO2 Sensor(Duct)		
16	Fresh Air Damper control			3				Relay Contact		
17	Fresh Air Damper feedback		3					Modulating Damper		
18	Return Air Relative Humidity monitoring		3					Humidity Sensor(Duct)		
19	Supply Air Fire Damper Status				3			Fire Damper		
20	Return Air Fire Damper Status				3			Fire Damper		
21	Chilled Water Inlet Temperature Monitoring		3					Imm temp sensor		
22	Chilled Water Outlet Temperature Monitoring		3					Imm temp sensor		
23	Hot Water Control Valve Modulation Command			3				Relay Contact		
24	Hot Water Control Valve Feedback		3					Modulating Valve		
25	Hot Water Inlet Temperature Monitoring		3					Imm temp sensor		
26	Hot Water Outlet Temperature Monitoring		3					Imm temp sensor		
27	Exhaust Air Temperature Status - After Heat Recovery Wheel		3					Temperature Sensor(Duct)		
28	Wheel Status				3			Pot Free Contact		
	Total		42	21	45	12	12			
C	HEAT RECOVERY UNIT (CC-F7-HRW-01 & 02)	2								
1	Fresh Air Fan On/Off Command					2		Relay Contact	6C X 1 Sq.mm	
2	Fresh Air Fan Motor Trip sts				2			Pot Free Contact		
3	Fresh Air Fan Auto/Manual Status				2			Pot Free Contact		
4	Fresh Air Fan Run Status				2			Pot Free Contact		
5	Fresh Air Damper control			2				Relay Contact		
6	Fresh Air Damper feedback	2						DAMPER		
7	Fresh Air Header Pressure Status		2					Pressure transmitter(duct static)		
8	Fresh Air Temperature Monitoring		2					Temperature Sensor(Duct)		
9	Fresh Air Fan VFD Speed Control			2				VFD		
10	Exhaust Air Fan On/Off Command					2		Relay Contact		
11	Exhaust Air Fan Motor Trip sts				2			Pot Free Contact		
12	Exhaust Air Fan Auto/Manual Status				2			Pot Free Contact		
13	Exhaust Air Fan Run Status				2			DP Switch		
14	Exhaust Air Damper control			2				Relay Contact		
15	Exhaust Air Damper feedback	2						DAMPER		
16	Exhaust Air Header Pressure Status		2					Pressure transmitter(duct static)		
17	Exhaust Air Temperature Monitoring		2					Temperature Sensor(Duct)		
18	Exhaust Air Fan VFD Speed Control			2				VFD		
19	Exhaust Air Temperature Status - After Heat Recovery Wheel	2						Temperature Sensor(Duct)		
20	Wheel Status				2			Pot Free Contact		
	Total		14	8	14	4	0			
D	Treated Fresh Air unit without VFD CC-F7-TFA-01	1								
1	TFA Fan On/Off Command					1		Relay Contact	6C X 1 Sq.mm	
2	TFA Motor trip status				1			Pot Free Contact		
3	TFA Auto/Manual Status				1			Pot Free Contact		
4	TFA Run Status				1			DP Switch		
5	Supply Air Temperature Monitoring	1						Temperature Sensor(Duct)		
6	Pressure Drop across Pre Filter Status				1			DP Switch		
7	Pressure Drop across Fine Filter Status				1			DP Switch		
8	Modulating Valve Control Output			1				Relay Contact		
9	Modulating Valve Position Feedback		1					Modulating Valve		
	Total		2	1	5	1	0			
E	HVAC RELATED VFD's	26								
1	HVAC Related VFD's Speed Feedback						26	VFD	RS485 Communication Cable	
2	HVAC Related VFD's Frequency						26			
3	HVAC Related VFD's Current						26			
4	HVAC Related VFD's Voltage						26			
5	HVAC Related VFD's Power						26			
6	HVAC Related VFD's Run Time						26			
	TOTAL		0	0	0	0	156			
F	Smoke extraction fan / Presuurization Fan CC-F7-SMEF-01,02,03;CC-F7-LWPR-01	4								
1	Fan On/Off status				4			Pot Free Contact	6C X 1 Sq.mm	
2	Fan Trip status				4			Pot Free Contact		
3	Fan A/M status				4			Pot Free Contact		
	Total		0	0	12	0	0			

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.				
PARTICULAR	BMS IO Summary						0				
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details	
			AI	AO	DI	DO	Soft IO				
G	Make Up Fan (CC-F7-MAF-01 & 02)	2									
1	Fan On/Off status				2			Pot Free Contact	6C X 1 Sq.mm		
2	Fan Trip status				2			Pot Free Contact			
3	Fan A/M status				2			Pot Free Contact			
	Total		0	0	6	0	0				
H	ELECTRICAL PANEL										
i	Power and AHU PANEL (P19)	2									
1	On / Off Status of Panel Incomers.				2			Power & AHU Panel	4C X 1 Sq.mm		
2	Trip Status of Panel Incomers.				2			Power & AHU Panel			
ii	Lighting PANEL (P18)	2									
1	On / Off Status of Panel Incomers.				2			Lighting Panel	4C X 1 Sq.mm		
2	Trip Status of Panel Incomers.				2			Lighting Panel			
iii	LED Façade power panel-1 (P-36A)	1									
1	On / Off Status of LED Façade Panel Incomer				1			Power Panel	4C X 1 Sq.mm		
2	Trip Status of LED Facade Panel Incomer				1			Power Panel			
iv	LED Façade power panel-2 (P-36B)	1									
1	On / Off Status of LED Façade Panel Incomer				1			Power Panel	4C X 1 Sq.mm		
2	Trip Status of LED Facade Panel Incomer				1			Power Panel			
v	Main distribution Board (MDB)	9									
21	On / Off Status of Main distribution board I/C				9			MDB PANEL	4C X 1 Sq.mm		
22	Trip Status of Main distribution board I/C				9			MDB PANEL			
	TOTAL		0	0	30	0	0				
I	ENERGY METER(EEM)	13									
1	Average Current						13	Energy Meter	RS485 Communication Cable		
2	Voltage						13				
3	Kilowatt						13				
4	Run hour						13				
5	Power Factor						13				
6	Forward Active Energy						13				
7	Power Factor Average						13				
8	Line to Line Voltage Average						13				
9	Line to Line Neutral Average						13				
10	Frequency						13				
	Total		0	0	0	0	130				
J	Lift	8									
1	Floor Position						8	Lift Control Manager	RS485 Communication Cable		
2	Door fully Closed Signal						8				
3	Status of Landing Floor (Open/Close)						8				
4	Inspection Status (Normal/Maintenance)						8				
5	Emergency Stop Status						8				
6	Fault Indication						8				
7	Fireman Switch Status						8				
8	Lift Auto/Manual Status						8				
9	Lift Run Status						8				
	Total		0	0	0	0	72				
K	FCU Unit	4									
1	Valve Feedback		4	0	0	0	0	Valve Actuator	2C X 1 Sq.mm	Valve Actuator connection to be confirmed from valve OEM.	
	Total		4	0	0	0	0				
L	Lighting control system PLC integration	1									
1	On / Off Control						5	LIGHTING PLC	Modbus/IP	final soft points will be confirmed from LCMS vendor	
2	On / Off Status monitoring						5				
3	alarm /Failure monitoring						1				
	Total		0	0	0	0	11				
	Grand total		131	56	160	27	391				
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Doc Number		Rev.		
PARTICULAR	CC-F8-BMS I/O SUMMARY						17203-L-SP-07-DC-4001		0		
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details	
			AI	AO	DI	DO	Soft IO				
A	FLOOR MOUNTED AIR HANDLING UNIT (CC-F8-AHU-01, 02, 03, 04 & 05)	5									
	With Single Fans (CC-F8-AHU-01, 02, 03, 04 & 05)										
1	FAHU Fan On/Off Command	5				5		Relay Contact	6C X 1 Sq.mm		
2	FAHU Motor trip status				5			Pot Free Contact			
3	FAHU Auto/Manual Status				5			Pot Free Contact	4C X 1 Sq.mm		
4	FAHU's VFD/Bypass Status				5			VFD			
5	FAHU's VFD Speed feed back							VFD			
6	FAHU's VFD Speed Control			5				VFD			
7	FAHU Fan Run Status				5			DP Switch	2C X 1 Sq.mm		
	AHU Common points										
8	Pressure Drop across Pre Filter Status				5			DP Switch	2C X 1 Sq.mm		
9	Supply Air Temperature Monitoring		5					Temperature Sensor(Duct)	2C X 1 Sq.mm		
10	Return Air Temperature Monitoring		5					Temperature Sensor(Duct)	2C X 1 Sq.mm		
11	Chilled Water Control Valve Modulation Command			5				Relay Contact	6C X 1 Sq.mm		
12	Chilled Water Control Valve Feedback		5					Modulating Valve			
13	Duct Supply Static Pressure Feedback		5					Pressure transmitter(duct static)	4C X 1 Sq.mm		
14	Return Air CO2 level		5					CO2 Sensor(Duct)	4C X 1 Sq.mm		
15	Fresh Air Damper control			5				Relay Contact	6C X 1 Sq.mm		
16	Fresh Air Damper feedback		5					Modulating Damper			
17	Return Air Relative Humidity monitoring		5					Humidity Sensor(Duct)	4C X 1 Sq.mm		
18	Supply Air Fire Damper Status				5			Fire Damper	2C X 1 Sq.mm		
19	Return Air Fire Damper Status				5			Fire Damper	2C X 1 Sq.mm		
20	Chilled Water Inlet Temperature Monitoring		5					Imm temp sensor	2C X 1 Sq.mm		
21	Chilled Water Outlet Temperature Monitoring		5					Imm temp sensor	2C X 1 Sq.mm		
	Total		45	15	35	5	0				
B	HVAC RELATED VFD's	5									
1	HVAC Related VFD's Speed Feedback						5	VFD	RS485 Communication Cable		
2	HVAC Related VFD's Frequency						5				
3	HVAC Related VFD's Current						5				
4	HVAC Related VFD's Voltage						5				
5	HVAC Related VFD's Power						5				
6	HVAC Related VFD's Run Time						5				
	TOTAL		0	0	0	0	30				

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA							Rev.		
PARTICULAR	BMS IO Summary							0		
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
			AI	AO	DI	DO	Soft IO			
C	Supply / Exhaust / Smoke extraction fan CC-F8-SMEF-01,02	2								
1	Fan On/Off status				2			Pot Free Contact	6C X 1 Sq.mm	
2	Fan Trip status				2			Pot Free Contact		
3	Fan A/M status				2			Pot Free Contact		
	Total		0	0	6	0	0			
D	ELECTRICAL PANEL									
i	Power and AHU PANEL (P20)	2								
1	On / Off Status of Panel Incomers.				2			Power & AHU Panel	4C X 1 Sq.mm	
2	Trip Status of Panel Incomers.				2			Power & AHU Panel		
ii	TERRACE FIRE MODE VENT/PRESSURISATION (P-40)	1								
1	On / Off Status of Ventilation Panel Incomer				1			Ventilation Panel	4C X 1 Sq.mm	
2	Trip Status of Ventilation Panel Incomer				1			Ventilation Panel		
iii	IED Façade power panel (P-37A)	1								
1	On / Off Status of LED Façade Panel Incomer				1			Power Panel	4C X 1 Sq.mm	
2	Trip Status of LED Façade Panel Incomer				1			Power Panel		
iv	IED Façade power panel (P-37B)	1								
1	On / Off Status of LED Façade Panel Incomer				1			Power Panel	4C X 1 Sq.mm	
2	Trip Status of LED Façade Panel Incomer				1			Power Panel		
v	Main distribution Board (MDB)	15								
1	On / Off Status of Main distribution board I/C				15			MDB PANEL	4C X 1 Sq.mm	
2	Trip Status of Main distribution board I/C				15			MDB PANEL		
	TOTAL		0	0	40	0	0			
E	Hot Water Generator	1								
1	On / Off Status				1			HWG Panel	4C X 1 Sq.mm	will be confirmed with generator vendor
2	Trip Status				1			HWG Panel		
	TOTAL		0	0	2	0	0			
F	ENERGY METER(EEM)	19								
1	Average Current						19	Energy Meter	RS485 Communication Cable	
2	Voltage						19			
3	Kilowatt						19			
4	Run hour						19			
5	Power Factor						19			
6	Forward Active Energy						19			
7	Power Factor Average						19			
8	Line to Line Voltage Average						19			
9	Line to Line Neutral Average						19			
10	Frequency						19			
	Total		0	0	0	0	190			
G	Solar Panel	1								final soft points will be confirmed from vendor
1	Soft Points						10	Solar Panel Controller	Cat 6 Cable	
H	BOILER ROOM FAN (MAKEUP & EXHAUST FAN) CC-F8-BR-FA-01, CC-F8-BR-EX-01	2								
1	Fan On/Off Commond					2		Pot Free Contact	8C X 1 Sq.mm	
1	Fan On/Off status				2			Pot Free Contact		
2	Fan Trip status				2			Pot Free Contact		
3	Fan A/M status				2			Pot Free Contact		
	Total		0	0	6	2	0			
Kitchen Equipments										
I	Treated Fresh Air unit without VFD(CC-F8-TFA-01)	1								
1	TFA Fan On/Off Command					1		Relay Contact	6C X 1 Sq.mm	
2	TFA Motor trip status				1			Pot Free Contact		
3	TFA Auto/Manual Status				1			Pot Free Contact		
4	TFA Run Status				1			DP Switch		
5	Supply Air Temperature Monitoring		1					Temperature Sensor(Duct)		
6	Pressure Drop across Pre Filter Status				1			DP Switch		
7	Pressure Drop across Fine Filter Status				1			DP Switch		
8	Modulating Valve Control Output			1				Relay Contact		
9	Modulating Valve Position Feedback		1					Modulating Valve	6C X 1 Sq.mm	
	Total		2	1	5	1	0			
J	Air Washer/Scrubber (CC-F8-SR-01 , CC-F8-AW-01)	2								
1	Fan On/Off command					2		Relay Contact	8C X 1 Sq.mm	
2	Fan On/Off status				2			Pot Free Contact		
3	Fan Trip status				2			Pot Free Contact		
4	Fan A/M status				2			Pot Free Contact		
5	Filter Status				2			DP Switch		
	Total		0	0	8	2	0			
K	OVERHEAD TANK	1								
1	Water Level in tank		1	1				Level Transmitter	4C X 1 Sq.mm	
2	Motorised Butterfly valve Control		1			1		Valve Actuator	4C X 1 Sq.mm	
	Total		1	0	0	1	0			
	Grand total		48	16	102	11	225			
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA	Doc Number						Rev.		
PARTICULAR	CC-TF-BMS I/O SUMMARY	17203-L-SP-07-DC-4001						0		
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
			AI	AO	DI	DO	Soft IO			
A	Lift well Pressurization Fan (CC-RF-LWPR-01,02,03,04,05)	5								
1	Fan On/Off status				5			Pot Free Contact	6C X 1 Sq.mm	
2	Fan Trip status				5			Pot Free Contact		
3	Fan A/M status				5			Pot Free Contact		
	Total		0	0	15	0	0			
B	Lift Lobby Pressurization Fan CC-RF-LLPR-01,02,03,04	4								
1	Fan On/Off status				4			Pot Free Contact	6C X 1 Sq.mm	
2	Fan Trip status				4			Pot Free Contact		
3	Fan A/M status				4			Pot Free Contact		
	Total		0	0	12	0	0			
C	Lift Lobby & Lift well Pressurization Fan CC-RF-LL&LWPR-01,02,03	3								
1	Fan On/Off status				3			Pot Free Contact	6C X 1 Sq.mm	
2	Fan Trip status				3			Pot Free Contact		
3	Fan A/M status				3			Pot Free Contact		
	Total		0	0	9	0	0			
D	Makeup Fan (CC-RF-PR-01,02)	2								
1	Fan On/Off status				2			Pot Free Contact	6C X 1 Sq.mm	
2	Fan Trip status				2			Pot Free Contact		
3	Fan A/M status				2			Pot Free Contact		
	Total		0	0	6	0	0			

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Rev.		
PARTICULAR	BMS IO Summary					0		
SI.NO	PARTICULARS		I/O DETAILS			Equipment	Type of Cable	DDC Enclosure Details
			AI	AO	DI			
E	Stairecase Pressurization Fan CC-RF-STPR-01 TO 07	7						
1	Fan On/Off status				7	Pot Free Contact	6C X 1 Sq.mm	
2	Fan Trip status				7	Pot Free Contact		
3	Fan A/M status				7	Pot Free Contact		
	Total		0	0	21	0	0	
F	VRF	13						final soft points will be confirmed from vendor. Shifted from 8th floor as OD unit is at terrace and only OD unit having comm port
1	Soft Points					VRF	RS485 Communication Cable	
	TOTAL		0	0	0	0	65	
	Grand total		0	0	63	0	65	
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Doc number	Rev No	
PARTICULAR	ESS-1-BMS I/O SUMMARY					1		
SI.NO	PARTICULARS		I/O DETAILS			Equipment / Field Device	Type of Cable	Remarks
			AI	AO	DI			
A	ESS Room (ESS1-GF-CF-01 & 02)	2						
1	Fan On/Off command				2	Relay Contact	8C X 1 Sq.mm	ESS1-ENCL2/DDC-02
2	Fan On/Off status			2		PFC		
3	Fan Trip status			2		PFC		
4	Fan A/M status			2		PFC		
	Total		0	0	6	2	0	
B	Metering Room (ESS1-GF-CF-03 & 04)	2						
1	Fan On/Off command				2	Relay Contact	8C X 1 Sq.mm	ESS1-ENCL2/DDC-02
2	Fan On/Off status			2		PFC		
3	Fan Trip status			2		PFC		
4	Fan A/M status			2		PFC		
	Total		0	0	6	2	0	
C	HT Panel Rooms fan(ESS1-GF-CF-05)	1						
1	Fan On/Off command				1	Relay Contact	8C X 1 Sq.mm	ESS1-ENCL1/DDC-01
2	Fan On/Off status			1		PFC		
3	Fan Trip status			1		PFC		
4	Fan A/M status			1		PFC		
	Total		0	0	3	1	0	
	ELECTRICAL PANEL							
D	SUBSTATION EQUIPMENTS (MAIN LT PANEL)	1						
1	LT Panel I/C Breaker On/Off Status	1			1	Main LT Panel	4C X 1 Sq.mm	ESS1-ENCL1/DDC-01
2	LT Panel I/C Breaker Trip Status			1		Main LT Panel		
3	LT Panel O/G Breaker On/Off Status	15			15	Main LT Panel		
4	LT Panel O/G Breaker Trip Status			15		Main LT Panel		
5	Voltage presence	15				Main LT Panel	2C X 1 Sq.mm	
	Total		0	0	32	0	15	
E	APFC PANEL	1						
1	On / Off Status			1		ELEC Panel	4C X 1 Sq.mm	ESS1-ENCL1/DDC-01
2	Trip Status			1		ELEC Panel		
	Total		0	0	2	0	0	
F	ESS-1 UPS O/G PANEL	2						
1	On / Off Status			2		UPS O/G Panel	4C X 1 Sq.mm	ESS1-ENCL1/DDC-01
2	Trip Status			2		UPS O/G Panel		
	TOTAL		0	0	4	0	0	
G	ESS-1 Lighting & Power Panel	1						
1	On / Off Status			1		Lighting & Power Panel	4C X 1 Sq.mm	ESS1-ENCL1/DDC-01
2	Trip Status			1		Lighting & Power Panel		
	TOTAL		0	0	2	0	0	
H	ESS-1 Ventilation Panel	1						
1	On / Off Status			1		Ventilation Panel	4C X 1 Sq.mm	ESS1-ENCL1/DDC-01
2	Trip Status			1		Ventilation Panel		
	TOTAL		0	0	2	0	0	
I	ESS-1 Emergency Lighting Outgoing Panel	2						
1	On / Off Status			2		Emg Lighting Panel	4C X 1 Sq.mm	ESS1-ENCL1/DDC-01
2	Trip Status			2		Emg Lighting Panel		
	TOTAL		0	0	4	0	0	
J	ENERGY METER(EEM)	20						
1	Voltage-v					Energy Meter	RS485 Communication Cable	ESS1-ENCL1/DDC-01 & 02
2	Current-a							
3	Kilowatt-kw							
4	Reactive Power-kvar							
5	Apparent Power-kva							
6	Power Factor-PF							
7	active energy-KWH							
8	KVArH							
9	Frequency							
10	THD							
	Total		0	0	0	0	200	
K	TRIVECTOR METER(MFM)	2						
1	Active Power					MFM	RS485 Communication Cable	ESS1-ENCL1/DDC-01 & 02
2	Apparent Power							
3	Reactive Power							
4	Active Energy							
5	Apparent Energy							
6	Reactive Energy							
7	Line to Line Voltage							
8	line to Neutral Voltage							
9	Average Current							
10	Power Factor							
11	Frequency							
	Total		0	0	0	0	22	
L	UPS	4						
1	Communication Status					UPS	RS485 Communication Cable	ESS1-ENCL1/DDC-01 & 02
2	I/P Voltage - RY							
3	I/P Voltage - YB							
4	I/P Voltage - BR							
5	O/P Voltage - R							
6	O/P Voltage - Y							
7	O/P Voltage - B							
8	O/P Current - R							
9	O/P Current - Y							
10	O/P Current - Y							
11	Battery Voltage							
12	Battery Charge Remaining							
13	Loading Percentage							
14	Frequency							
15	Alarm Status							
	Total		0	0	0	0	60	

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Rev.		
PARTICULAR	BMS IO Summary					0		
SI.NO	PARTICULARS		I/O DETAILS				Equipment	Type of Cable
			AI	AO	DI	DO		
M	Fire Alarm Panel	1						
1	FAP Communication status						FIRE ALARM PANEL	LAN Cable
2	Zone-Wise Fire Status							
3	Zone-Wise Fault Status							
4	Control Module Status							
5	Input Module Status							
6	Zone-Wise Loop Continuity							
7	Ground Fault							
	Total		0	0	0	0		
N	Transformer (200kva)	1						
1	Winding Temperature		2				Transformer	2C X 1 Sq.mm
	Total		2	0	0	0		
	Grand total		2	0	61	5		
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Doc number	Rev No	
PARTICULAR	ESS-1-BMS I/O SUMMARY					p	1	
SI.NO	PARTICULARS		I/O DETAILS				Equipment / Field Device	Type of Cable
			AI	AO	DI	DO		
A	ESS Room (ESS2-GF-CF-01 & 02)	2						
1	Fan On/Off command					2	Relay Contact	8C X 1 Sq.mm
2	Fan On/Off status				2		PFC	
3	Fan Trip status				2		PFC	
4	Fan A/M status				2		PFC	
	Total		0	0	6	2		
B	Metering Room (ESS2-GF-CF-03 & 04)	2						
1	Fan On/Off command					2	Relay Contact	8C X 1 Sq.mm
2	Fan On/Off status				2		PFC	
3	Fan Trip status				2		PFC	
4	Fan A/M status				2		PFC	
	Total		0	0	6	2		
C	HT Panel Rooms fan(ESS2-GF-CF-05)	1						
1	Fan On/Off command					1	Relay Contact	8C X 1 Sq.mm
2	Fan On/Off status				1		PFC	
3	Fan Trip status				1		PFC	
4	Fan A/M status				1		PFC	
	Total		0	0	3	1		
	ELECTRICAL PANEL							
D	SUBSTATION EQUIPMENTS (MAIN LT PANEL)	1						
1	LT Panel I/C Breaker On/Off Status	1			1		Main LT Panel	4C X 1 Sq.mm
2	LT Panel I/C Breaker Trip Status				1		Main LT Panel	4C X 1 Sq.mm
3	LT Panel O/G Breaker On/Off Status	15			15		Main LT Panel	4C X 1 Sq.mm
4	LT Panel O/G Breaker Trip Status				15		Main LT Panel	4C X 1 Sq.mm
5	Voltage presence	15					Main LT Panel	2C X 1 Sq.mm
	Total		0	0	32	0		
E	APFC PANEL	1						
1	On / Off Status				1		ELEC Panel	4C X 1 Sq.mm
2	Trip Status				1		ELEC Panel	4C X 1 Sq.mm
	Total		0	0	2	0		
F	ESS-2 UPS O/G PANEL	2						
1	On / Off Status				2		UPS O/G Panel	4C X 1 Sq.mm
2	Trip Status of				2		UPS O/G Panel	4C X 1 Sq.mm
	TOTAL		0	0	4	0		
G	ESS-2 Lighting & Power Panel	1						
1	On / Off Status				1		Lighting & Power Panel	4C X 1 Sq.mm
2	Trip Status				1		Lighting & Power Panel	4C X 1 Sq.mm
	TOTAL		0	0	2	0		
H	ESS-2 Ventilation Panel	1						
1	On / Off Status				1		Ventilation Panel	4C X 1 Sq.mm
2	Trip Status				1		Ventilation Panel	4C X 1 Sq.mm
	TOTAL		0	0	2	0		
I	ESS-2 Emergency Lighting Outgoing Panel	2						
1	On / Off Status				2		Emg Lighting Panel	4C X 1 Sq.mm
2	Trip Status				2		Emg Lighting Panel	4C X 1 Sq.mm
	TOTAL		0	0	4	0		
J	ENERGY METER(EEM)	20						
1	Voltage-v						Energy Meter	RS485 Communication Cable
2	Current-a							
3	Kilowatt-kw							
4	Reactive Power-kvar							
5	Apparent Power-kva							
6	Power Factor-PF							
7	active energy-KWH							
8	KVAh							
9	Frequency							
10	THD							
	Total		0	0	0	0		
K	TRIVECTOR METER(MFM)	2						
1	Active Power					2	MFM	RS485 Communication Cable
2	Apparent Power					2		
3	Reactive Power					2		
4	Active Energy					2		
5	Apparent Energy					2		
6	Reactive Energy					2		
7	Line to Line Voltage					2		
8	line to Neutral Voltage					2		
9	Average Current					2		
10	Power Factor					2		
	Frequency					2		
	Total		0	0	0	0		
L	UPS	4						
1	Communication Status					4	UPS	RS485 Communication Cable
2	I/P Voltage - RY					4		
3	I/P Voltage - YB					4		
4	I/P Voltage - BR					4		
5	O/P Voltage - R					4		
6	O/P Voltage - Y					4		
7	O/P Voltage - B					4		
8	O/P Current - R					4		
9	O/P Current - Y					4		
10	O/P Current - Y					4		
11	Battery Voltage					4		
12	Battery Charge Remaining					4		
13	Loading Percentage					4		
14	Frequency					4		
	Alarm Status					4		
	Total		0	0	0	0		

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Rev.		
PARTICULAR	BMS IO Summary					0		
SI.NO	PARTICULARS		I/O DETAILS				Equipment	Type of Cable
			AI	AO	DI	DO		
M	Fire Alarm Panel	1						
1	FAP Communication status						FIRE ALARM PANEL	LAN Cable
2	Zone-Wise Fire Status							
3	Zone-Wise Fault Status							
4	Control Module Status							
5	Input Module Status							
6	Zone-Wise Loop Continuity							
7	Ground Fault							
	Total		0	0	0	0		
N	Transformer (200kva)	1						
	Winding Temperature		2				Transformer	2C X 1 Sq.mm
	Total		2	0	0	0		
O	SCADA	1						
	Soft Points by OPC from SCADA (Referred SCADA IO Summary)						SCADA Server	LAN Cable
	Total		0	0	0	0		
	Grand total		2	0	61	5		
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Doc number	Rev No	
PARTICULAR	DG BUILDING-BMS I/O SUMMARY						1	
SI.NO	PARTICULARS		I/O DETAILS				Equipment	Type of Cable
			AI	AO	DI	DO		
A	RMU Panel Room fan	2						
1	Fan On/Off command					2	Relay Contact	8C X 1 Sq.mm
2	Fan On/Off status				2		Panel	
3	Fan Trip status				2		Panel	
4	Fan A/M status				2		Panel	
	Total		0	0	6	2	0	
B	Metering Room fan	2						
1	Fan On/Off command					2	Relay Contact	8C X 1 Sq.mm
2	Fan On/Off status				2		Panel	
3	Fan Trip status				2		Panel	
4	Fan A/M status				2		Panel	
	Total		0	0	6	2	0	
C	Transformer Room fan	1						
1	Fan On/Off command					1	Relay Contact	8C X 1 Sq.mm
2	Fan On/Off status				1		Panel	
3	Fan Trip status				1		Panel	
4	Fan A/M status				1		Panel	
	Total		0	0	3	1	0	
D	HT Panel Room fan	1						
1	Fan On/Off command					1	Relay Contact	8C X 1 Sq.mm
2	Fan On/Off status				1		Panel	
3	Fan Trip status				1		Panel	
4	Fan A/M status				1		Panel	
	Total		0	0	3	1	0	
E	Ventilaion Fan (DG-01 TO DG-18)	36						
1	Fan On/Off command					36	Relay Contact	8C X 1 Sq.mm
2	Fan On/Off status				36		Panel	
3	Fan Trip status				36		Panel	
4	Fan A/M status				36		Panel	
	Total		0	0	108	36	0	
	ELECTRICAL PANELS							
F	SUBSTATION EQUIPMENTS (MAIN LT PANEL)	1						
1	LT Panel I/C Breaker On/Off Status	2			2		Main LT panel	4C X 1 Sq.mm
2	LT Panel I/C Breaker Trip Status				2		Main LT panel	
3	LT Panel O/G Breaker On/Off Status	24			24		Main LT panel	
4	LT Panel O/G Breaker Trip Status				24		Main LT panel	
5	LT Panel Bus Coupler On/Off Status	2			2		Main LT panel	
6	LT Panel Bus Coupler Trip Status				2		Main LT panel	
7	Voltage presence	24					Main LT panel	
	Total		0	0	56	0	24	
G	CPM Cooling Tower	6						
1	CT SOFT INTEGRATION AS PER CPM IO SUMMARY					0	CPM CONTROLLER	LAN Cable
5	Outside Air Temperature Monitoring		1				OA Temperature Sensor	2C X 1 Sq.mm
6	Outside Air Relative Humidity monitoring		1				OA Humidity Sensor	4C X 1 Sq.mm
7	Ambient CO ₂ level		1				OA CO2 Sensor	4C X 1 Sq.mm
	Total		3	0	0	0		
H	VENTILATION PANEL-1	1						
1	I/C _On / Off Status				1		ELEC Panel	4C X 1 Sq.mm
2	I/C _Trip Status				1		ELEC Panel	
	Total		0	0	2	0	0	
I	VENTILATION PANEL-2	1						
1	I/C _On / Off Status				1		ELEC Panel	4C X 1 Sq.mm
2	I/C _Trip Status				1		ELEC Panel	
	Total		0	0	2	0	0	
J	APFC PANEL-1	1						
1	I/C _On / Off Status				1		APFC Panel	4C X 1 Sq.mm
2	I/C _Trip Status				1		APFC Panel	
	Total		0	0	2	0	0	
K	APFC PANEL-2	1						
1	I/C _On / Off Status				1		APFC Panel	4C X 1 Sq.mm
2	I/C _Trip Status				1		APFC Panel	
	Total		0	0	2	0	0	
L	Power Panel	1						
1	I/C _On / Off Status				1		Power Panel	4C X 1 Sq.mm
2	I/C _Trip Status				1		Power Panel	
	Total		0	0	2	0	0	
M	Lighting PANEL	1						
1	I/C _On / Off Status				1		Lighting Panel	4C X 1 Sq.mm
2	I/C _Trip Status				1		Lighting Panel	
	Total		0	0	2	0	0	
N	PUMP Panel-1	1						
1	I/C _On / Off Status				1		PUMP Panel	4C X 1 Sq.mm
2	I/C _Trip Status				1		PUMP Panel	
	Total		0	0	2	0	0	
O	PUMP Panel-2	1						
1	I/C _On / Off Status				1		PUMP Panel	4C X 1 Sq.mm
2	I/C _Trip Status				1		PUMP Panel	
	Total		0	0	2	0	0	

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.			
PARTICULAR	BMS IO Summary						0			
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
			AI	AO	DI	DO	Soft IO			
P	DG Set Cooling Tower Panel-1	1								
1	I/C _On / Off Status				1			PUMP Panel	4C X 1 Sq.mm	DG-TF-ENCL1/DDC1
2	I/C _Trip Status				1			PUMP Panel		
	Total		0	0	2	0	0			
Q	DG Set Cooling Tower Panel-2	1								
1	I/C _On / Off Status				1			PUMP Panel	4C X 1 Sq.mm	DG-TF-ENCL1/DDC1
2	I/C _Trip Status				1			PUMP Panel		
	Total		0	0	2	0	0			
R	Cooling Tower Panel-1	1								
1	I/C _On / Off Status				1			PUMP Panel	4C X 1 Sq.mm	DG-TF-ENCL1/DDC1
2	I/C _Trip Status				1			PUMP Panel		
	Total		0	0	2	0	0			
S	Cooling Tower Panel-2	1								
1	I/C _On / Off Status				1			PUMP Panel	4C X 1 Sq.mm	DG-TF-ENCL1/DDC1
2	I/C _Trip Status				1			PUMP Panel		
	Total		0	0	2	0	0			
T	ELV UPS I/C PANEL	2								
1	On / Off Status of UPS O/G Panel				2			UPS I/C Panel	4C X 1 Sq.mm	DG-1F-ENCL1/DDC1
2	Trip Status of UPS O/GPanel				2			UPS I/C Panel		
	TOTAL		0	0	4	0	0			
U	ELV UPS O/G PANEL (5 EM)	5								
1	On / Off Status of UPS O/G Panel				5			UPS O/G Panel	4C X 1 Sq.mm	DG-1F-ENCL1/DDC1
2	Trip Status of UPS O/GPanel				5			UPS O/G Panel		
	TOTAL		0	0	10	0	0			
V	EL UPS I/C PANEL	2								
1	On / Off Status of UPS O/G Panel				2			UPS I/C Panel	4C X 1 Sq.mm	DG-1F-ENCL1/DDC1
2	Trip Status of UPS O/GPanel				2			UPS I/C Panel		
	TOTAL		0	0	4	0	0			
W	EL UPS O/G PANEL 2	2								
1	On / Off Status of UPS O/G Panel				2			UPS O/G Panel	4C X 1 Sq.mm	DG-1F-ENCL1/DDC1
2	Trip Status of UPS O/Gpanel				2			UPS O/G Panel		
	TOTAL		0	0	4	0	0			
X	Transformer	2								
1	Winding Temperature		4					Transformer	2C X 1 Sq.mm	DG-GF-ENCL3/DDC2
	Total		4	0	0	0	0			
Y	ENERGY METER(EEM)	42								
1	Voltage-v						42	Energy Meter	RS485 Communication Cable	DG-GF-ENCL1/INAC1, DG-GH-ENCL3/DDC2
2	Current-a						42			
3	Kilowatt-kw						42			
4	Reactive Power-kvar						42			
5	Apparent Power-kva						42			
6	Power Factor-PF						42			
7	active energy-KWH						42			
8	KVAh						42			
9	Frequency						42			
10	THD						42			
	Total		0	0	0	0	420			
Z	MFM METER	2								
1	Active Power						2	Energy Meter	RS485 Communication Cable	DG-GF-ENCL1/INAC1, DG-GH-ENCL3/DDC2
2	Apparent Power						2			
3	Reactive Power						2			
4	Active Energy						2			
5	Apparent Energy						2			
6	Reactive Energy						2			
7	Line to Line Voltage						2			
8	line to Neutral Voltage						2			
9	Average Current						2			
10	Power Factor						2			
11	Frequency						2			
	TOTAL		0	0	0	0	22			
AA	UPS	4								
1	Communication Status						4	UPS	RS485 Communication Cable	DG-1F-ENCL1/DDC1
2	I/P Voltage - RY						4			
3	I/P Voltage - YB						4			
4	I/P Voltage - BR						4			
5	O/P Voltage - R						4			
6	O/P Voltage - Y						4			
7	O/P Voltage - B						4			
8	O/P Current - R						4			
9	O/P Current - Y						4			
10	O/P Current - Y						4			
11	Battery Voltage						4			
12	Battery Charge Remaining						4			
13	Loading Percentage						4			
14	Frequency						4			
15	Alarm Status						4			
	Total		0	0	0	0	60			
AB	Diesel Generator	18								
1	DG - Lube Oil Pressure						18	C&R Panel	RS485 Communication Cable	DG-GF-ENCL2/DDC1
2	DG - Water Temperature						7			
3	DG - Engine Common Shutdown						7			
4	DG - Engine Common Alarm						7			
5	DG - Engine Speed						7			
6	DG - Engine Fail to Start						7			
7	DG - day tank fuel levels	18					36			
8	DG - Active Power						7			
9	DG - Apparent Power						7			
10	DG - Reactive Power						7			
11	DG - Active Energy						7			
12	DG - Apparent Energy						7			
13	DG - Reactive Energy						7			
14	DG - Line to Line Voltage						7			
15	DG - line to Neutral Voltage						7			
16	DG - Average Current						7			
17	DG - Power Factor						7			
18	DG - Frequency						7			
	Total		0	0	0	0	166			
AC	Diesel Pump	4								
1	DG - Diesel Pump On/Of Status				4			Ventilation Panel-1	6C X 1 Sq.mm	DG-GF-ENCL1/INAC1
2	DG - Diesel Pump Auto Manual Status				4			Ventilation Panel-1		
3	DG - Diesel Pump Trip Status				4			Ventilation Panel-1		
	Total		0	0	12	0	0			
AD	DG Tank (HSD Tank)	1								
1	DG Tank Level Monitoring		1					Flame Proof Level Transmitter	4C X 1 Sq.mm	FS-1F-ENCL2/DDC2
AE	Buffer Tank (4nos),	4								
1	Tank High/Low Level				8			Ventilation Panel	4C X 1 Sq.mm	DG-GF-ENCL2/DDC1

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA							Rev.			
PARTICULAR	BMS IO Summary							0			
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details	
			AI	AO	DI	DO	Soft IO				
AF	Overflow Tank(1nos)	1									
1	Tank High/Low Level				2			Ventilation Panel	4C X 1 Sq.mm	DG-GF-ENCL2/DDC1	
AG	Softwater Tank(OHT)	2									
1	Tank High/Low Level				4			Level Switch	4C X 1 Sq.mm	DG-TF-ENCL1/DDC1	
2	Tank Valve Control					2		Valve Actuator	2C X 1 Sq.mm		
	Total		1	0	14	2	0				
AH	DG Set Cooling Tower	18									
1	DG Cooling Tower On/Off Status						18	C&R Panel	RS485 Communication Cable	DG-GF-ENCL2/DDC1	
2	DG Cooling Tower Command						18	C&R Panel			
3	Cooling Tower Pump On/Off Status						18	C&R Panel			
4	DG Cooling Tower Auto/Manual				18			DG Set Cooling Tower Panel	4C X 1 Sq.mm	DG-TF-ENCL1/DDC1	
5	DG Cooling Tower Trip				18						
6	Chilled Water header Temperature Monitoring		4					Imm temp sensor	2C X 1 Sq.mm		
	Total		4	0	36	0	54				
AI	Fire Alarm Panel	1									
1	FAP Communication status						1	FIRE ALARM PANEL	LAN Cable		
2	Zone-Wise Fire Status						2				
3	Zone-Wise Fault Status						2				
4	Control Module Status						2				
5	Input Module Status						2				
6	Zone-Wise Loop Continuity						2				
7	Ground Fault						1				
	Total		0	0	0	0	12				
	Grand total		12	0	290	44	758				
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA							Doc number	Rev No		
PARTICULAR	Fire station Building I/O SUMMARY								1		
SI.NO	PARTICULARS		I/O DETAILS					Equipment / Field Devices	Type of Cable	Remarks	
			AI	AO	DI	DO	Soft IO				
A	AIR HANDLING UNIT (FS-1F-AC-CAHU- 01)	1								FS-1F-ENCL2/DDC2	
1	CAHU Fan On/Off Command					1		Relay Contact	6C X 1 Sq.mm		
2	CAHU Motor trip status				1			PFC			
3	CAHU Auto/Manual Status				1			PFC			
4	CAHU Run Status				1			DP Switch	2C X 1 Sq.mm		
5	CAHU's VFD Command					1		VFD	6C X 1 Sq.mm		
6	CAHU's VFD/Bypass Status				1			VFD			
7	CAHU's VFD Speed feed back						1	VFD			
8	CAHU's VFD Speed Control			1				VFD	2C X 1 Sq.mm		
9	CAHU Filter Status				1			DP Switch			
10	Supply Air Temperature Monitoring		1					Temperature Sensor(Duct)	2C X 1 Sq.mm		
11	Return Air Temperature Monitoring		1					Temperature Sensor(Duct)	2C X 1 Sq.mm		
12	Chilled Water Control Valve Modulation Command			1				Modulating Valve	6C X 1 Sq.mm		
13	Chilled Water Control Valve Feedback		1					Modulating Valve	2C X 1 Sq.mm		
14	Chilled Water Inlet Temperature Monitoring		1					Imm temp sensor	2C X 1 Sq.mm		
15	Chilled Water Outlet Temperature Monitoring		1					Imm temp sensor	2C X 1 Sq.mm		
16	Duct Supply Static Pressure Feedback		1					Pressure transmitter(duct static)	4C X 1 Sq.mm		
17	Return Air CO ₂ level		1					CO2 Sensor(Duct)	4C X 1 Sq.mm		
18	Fresh Air Damper control			1				Modulating Damper	6C X 1 Sq.mm		
19	Fresh Air Damper feedback		1					Modulating Damper	4C X 1 Sq.mm		
20	Return Air Relative Humidity monitoring		1					Humidity Sensor(Duct)	2C X 1 Sq.mm		
21	Supply Air Fire Damper Status				1			Fire Damper	2C X 1 Sq.mm		
22	Return Air Fire Damper Status				1			Fire Damper	2C X 1 Sq.mm		
	Total		9	3	7	2	1				
B	AIR HANDLING UNIT (FS-2F-AC-CAHU- 01)	1								FS-2F-ENCL3/DDC3	
1	CAHU Fan On/Off Command					1		Relay Contact	6C X 1 Sq.mm		
2	CAHU Motor trip status				1			PFC			
3	CAHU Auto/Manual Status				1			PFC			
4	CAHU Run Status				1			DP Switch	2C X 1 Sq.mm		
5	CAHU's VFD Command					1		VFD	6C X 1 Sq.mm		
6	CAHU's VFD/Bypass Status				1			VFD			
7	CAHU's VFD Speed feed back						1	VFD			
8	CAHU's VFD Speed Control			1				VFD	2C X 1 Sq.mm		
9	CAHU Filter Status				1			DP Switch			
10	Supply Air Temperature Monitoring		1					Temperature Sensor(Duct)	2C X 1 Sq.mm		
11	Return Air Temperature Monitoring		1					Temperature Sensor(Duct)	2C X 1 Sq.mm		
12	Chilled Water Control Valve Modulation Command			1				Modulating Valve	6C X 1 Sq.mm		
13	Chilled Water Control Valve Feedback		1					Modulating Valve	2C X 1 Sq.mm		
14	Chilled Water Inlet Temperature Monitoring		1					Imm temp sensor	2C X 1 Sq.mm		
15	Chilled Water Outlet Temperature Monitoring		1					Imm temp sensor	2C X 1 Sq.mm		
16	Duct Supply Static Pressure Feedback		1					Pressure transmitter(duct static)	4C X 1 Sq.mm		
17	Return Air CO ₂ level		1					CO2 Sensor(Duct)	4C X 1 Sq.mm		
18	Fresh Air Damper control			1				Modulating Damper	6C X 1 Sq.mm		
19	Fresh Air Damper feedback		1					Modulating Damper	4C X 1 Sq.mm		
20	Return Air Relative Humidity monitoring		1					Humidity Sensor(Duct)	2C X 1 Sq.mm		
21	Supply Air Fire Damper Status				1			Fire Damper	2C X 1 Sq.mm		
22	Return Air Fire Damper Status				1			Fire Damper	2C X 1 Sq.mm		
	Total		9	3	7	2	1				
C	TERITIARY PUMP (FS-TF-CHWTP-01&2) W+S	2								FS-TF-ENCL4/DDC4	
1	TERITIARY Pump On/Off Command					2		Relay Contact	6C X 1 Sq.mm		
2	TERITIARY Pump Trip Status				2			PFC			
3	TERITIARY Pump Auto/Manual Status				2			PFC			
4	TERITIARY Pump Run Status				2			PFC	2C X 1 Sq.mm		
5	TERITIARY Pump's VFD Command					2		VFD Panel	6C X 1 Sq.mm		
6	TERITIARY Pump's VFD Bypass Status				2			VFD Panel			
7	TERITIARY Pump's VFD Speed control			2				VFD Panel			
8	Pressure Sensor for pump load estimation		2					Pressure Transmitter	2C X 1 Sq.mm		
9	Chilled Water header SUPPLY Temperature Monitoring		1					Imm temp sensor	2C X 1 Sq.mm		
10	Chilled Water header retrun Temperature Monitoring		1					Imm temp sensor	2C X 1 Sq.mm		
	Heat Exchanger secondary side										
11	Chilled Water Control Valve Modulation Command			1				Modulating Valve	6C X 1 Sq.mm		
12	Chilled Water Control Valve Feedback		1					Modulating Valve			
	Total		5	3	8	4	0				
D	Pressurization pump (CH-PU-PUMP-01&02) (W+S)	2									
1	Pump On/Off Command						2	Pump PLC	Cat 6A Cable		
2	Pump Trip Status						2				
3	Pump Auto/Manual Status						2				
4	Pump On/Off Status						2				
	Total		0	0	0	0	8				
E	Booster pump	1								FS-TF-ENCL4/DDC4	
1	Booster Pump On/Off Command					1		Relay Contact	6C X 1 Sq.mm		
2	Booster Pump Trip Status				1			PFC			
3	Booster Pump Auto/Manual Status				1			PFC			
4	Booster Pump On/Off Status				1			PFC			
	Total		0	0	3	1	0				

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.		
PARTICULAR	BMS IO Summary						0		
SI.NO	PARTICULARS		I/O DETAILS				Equipment	Type of Cable	DDC Enclosure Details
			AI	AO	DI	DO			
F	Sewage pump	2							
1	Sewage Pump On/Off Command					2	Relay Contact	8C X 1 Sq.mm	FS-GF-ENCL1/DDC1
2	Sewage Pump Trip Status				2		PFC		
3	Sewage Pump Auto/Manual Status				2		PFC		
4	Sewage Pump On/Off Status				2		PFC		
	Total		0	0	6	2	0		
G	VFD units	4							
1	HVAC Related VFD's Speed Feedback							RS485 Communication Cable	FS-TF-ENCL4/DDC4
2	HVAC Related VFD's Frequency								
3	HVAC Related VFD's Current								
4	HVAC Related VFD's Voltage								
5	HVAC Related VFD's Power								
6	HVAC Related VFD's Run Time								
	Total		0	0	0	0	24		
	ELECTRICAL PANEL								
H	SUBSTATION EQUIPMENTS (FS MAIN LT PANEL)	1							
1	LT Panel I/C Breaker On/Off Status	1			1		FS MAIN LT PANEL	4C X 1 Sq.mm	FS-GF-ENCL1/DDC1
2	LT Panel I/C Breaker Trip Status				1		FS MAIN LT PANEL		
3	LT Panel O/G Breaker On/Off Status	16			16		FS MAIN LT PANEL		
4	LT Panel O/G Breaker Trip Status				16		FS MAIN LT PANEL		
5	LT Panel Bus Coupler On/Off Status	0			0		FS MAIN LT PANEL		
6	LT Panel Bus Coupler Trip Status				0		FS MAIN LT PANEL		
7	Voltage presence	16					FS MAIN LT PANEL		
	Total		0	0	34	0	0		
I	EMG UPS PANEL	2							
1	On / Off Status				2		EMG UPS Panel	4C X 1 Sq.mm	FS-GF-ENCL1/DDC1
2	Trip Status				2		EMG UPS Panel		
	TOTAL		0	0	4	0	0		
J	ELV UPS PANEL	2							
1	On / Off Status				2		ELV UPS Panel	4C X 1 Sq.mm	FS-GF-ENCL1/DDC1
2	Trip Status				2		ELV UPS Panel		
	TOTAL		0	0	4	0	0		
K	ENERGY METER(EEM)	21							
1	Voltage-v							RS485 Communication Cable	FS-GF-ENCL1/DDC1
2	Current-a								
3	Kilowatt-kw								
4	Reactive Power-kvar								
5	Apparent Power-kva								
6	Power Factor-PF								
7	active energy-KWH								
8	KVAh								
9	Frequency								
10	THD								
	Total		0	0	0	0	210		
L	UPS	4							
1	Communication Status							RS485 Communication Cable	FS-GF-ENCL1/DDC1
2	I/P Voltage - RY								
3	I/P Voltage - YB								
4	I/P Voltage - BR								
5	O/P Voltage - R								
6	O/P Voltage - Y								
7	O/P Voltage - B								
8	O/P Current - R								
9	O/P Current - Y								
10	O/P Current - Y								
11	Battery Voltage								
12	Battery Charge Remaining								
13	Loading Percentage								
14	Frequency								
15	Alarm Status								
	Total		0	0	0	0	60		
M	Fire Alarm Panel	1							
1	FAP Communication status							FIRE ALARM PANEL	LAN Cable
2	Zone-Wise Fire Status								
3	Zone-Wise Fault Status								
4	Control Module Status								
5	Input Module Status								
6	Zone-Wise Loop Continuity								
7	Ground Fault								
	Total		0	0	0	0	17		
N	Lift	2							
1	Floor Position							Lift Control Manager	RS485 Communication Cable
2	Door fully Closed Signal								
3	Status of Landing Floor (Open/Close)								
4	Inspection Status (Normal/Maintenance)								
5	Emergency Stop Status								
6	Fault Indication								
7	Fireman Switch Status								
8	Lift Auto/Manual Status								
9	Lift Run Status								
	Total		0	0	0	0	117		
O	Over Head Tank	1							
1	Tank Low/High Level Monitoring		0	0	2	0	Level Switch	4C X 1 Sq.mm	FS-TF-ENCL4/DDC4
	Total		0	0	2	0	0		
P	FCU Unit	11							
1	Valve Feedback		11	0	0	0	Valve Actuator	2C X 1 Sq.mm	4 Nos_FS-GF-ENCL1/DDC1, 2 Nos_FS-1F-ENCL2/DDC2, 5 Nos_FS-2F-ENCL3/DDC3
	Total		11	0	0	0	0		
Q	BTU meter-1no	1							
1	Inlet Temp							BTU meter	RS485 Communication Cable
2	Outlet Temp								
3	Flow Rate								
4	Net Heat.								
5	Flow Total								
6	Net Heat Total								
	Total		0	0	0	0	6		
	Grand total		34	9	75	11	452		
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA		Doc number				Rev No		
PARTICULAR	CC PARKING BMS IO Summary -B1						1		
S.NO	PARTICULARS	Qty	I/O DETAILS				Equipment / Field Devices	Type of Cable	Remarks
			AI	AO	DI	DO			

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Rev.		
PARTICULAR	BMS IO Summary					0		
SI.NO	PARTICULARS		I/O DETAILS					DDC Enclosure Details
			AI	AO	DI	DO	Soft IO	
A	CCP-B1-Z1-FA-NM/FM-01	2						
1	Fan On/Off command					1		8C X 1 Sq.mm
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	2C X 1Sq.mm
B	CCP-B1-Z2-FA-NM/FM-02	2						
1	Fan On/Off command					1		8C X 1 Sq.mm
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	2C X 1Sq.mm
C	CCP-B1-Z3-FA-NM/FM-03	2						
1	Fan On/Off command					1		8C X 1 Sq.mm
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	2C X 1Sq.mm
D	CCP-B1-Z4-FA-NM/FM-04	2						
1	Fan On/Off command					1		8C X 1 Sq.mm
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	2C X 1Sq.mm
E	CCP-B1-Z1-EA-NM/FM-01	2						
1	Fan On/Off command					1		8C X 1 Sq.mm
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	2C X 1Sq.mm
F	CCP-B1-Z2-EA-NM/FM-02	2						
1	Fan On/Off command					1		8C X 1 Sq.mm
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	2C X 1Sq.mm
G	CCP-B1-Z3-EA-NM/FM-03	2						
1	Fan On/Off command					1		8C X 1 Sq.mm
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	2C X 1Sq.mm
H	CCP-B1-Z4-EA-NM/FM-04	2						
1	Fan On/Off command					1		8C X 1 Sq.mm
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	2C X 1Sq.mm
I	CCP-GF-Z1-SP-01 -04	4						
1	Fan On/Off command					4		8C X 1 Sq.mm
2	Fan On/Off status				4			
3	Fan Trip status				4			
4	Fan A/M status				4			
	Total		0	0	12	4	0	
J	CCP-GF-Z1-LLP-01 -04	4						
1	Fan On/Off command					4		8C X 1 Sq.mm
2	Fan On/Off status				4			
3	Fan Trip status				4			
4	Fan A/M status				4			
	Total		0	0	12	4	0	
Q	SUBSTATION EQUIPMENTS-(H1'-H3' / V65-V67)							
1	LT Panel I/C On/Off Status				2			4C X 1 Sq.mm
2	LT Panel I/C Trip Status				2			
3	LT Panel O/G On/Off Status				18			4C X 1 Sq.mm
4	LT Panel O/G Trip Status				18			
5	LT Panel Bus Coupler On/Off Status				1			4C X 1 Sq.mm
6	LT Panel Bus Coupler Trip Status				1			
7	LT Panel Voltage Presence Status						18	4C X 1 Sq.mm
	Total		0	0	42	0	18	
R	HPFC PANEL 1 & 2-(H1'-H3' / V65-V67)	2						
1	On / Off Status				2			4C X 1 Sq.mm
2	Trip Status				2			
	Total		0	0	4	0	0	
S	FIRE MODE SMOKE SPILL PANEL-1-(H22'-H20' / V69-V70) (Z1)	1						
1	I/C _On / Off Status				1			4C X 1 Sq.mm
2	I/C _Trip Status				1			
	Total		0	0	2	0	0	
T	FIRE MODE SMOKE SPILL PANEL-2-(H22'-H20' / V69-V70)	1						
1	I/C _On / Off Status				1			4C X 1 Sq.mm
2	I/C _Trip Status				1			
	Total		0	0	2	0	0	
U	FIRE MODE SMOKE SPILL PANEL-3-(H15'-H14' / V66-V67) (Z3)	1						
1	I/C _On / Off Status				1			4C X 1 Sq.mm
2	I/C _Trip Status				1			
	Total		0	0	2	0	0	
V	FIRE MODE SMOKE SPILL PANEL-4-(H1'-H3' / V65-V67)	1						
1	I/C _On / Off Status				1			4C X 1 Sq.mm
2	I/C _Trip Status				1			
	Total		0	0	2	0	0	
W	POWER PANEL -1-(H20'-H19' / V67) (Z3)	1						
1	I/C _On / Off Status				1			4C X 1 Sq.mm
2	I/C _Trip Status				1			
	Total		0	0	2	0	0	

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA							Rev.		
PARTICULAR	BMS IO Summary							0		
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
			AI	AO	DI	DO	Soft IO			
X	UPS I/C PANEL-(H7'-H5' / V62'-V63)	1								
1	On / Off Status of UPS I/C Panel				1			UPS I/C Panel	4C X 1 Sq.mm	CCP-B1-ENCL5/DDC1
2	Trip Status of UPS I/C Panel				1			UPS I/C Panel		
	Total		0	0	2	0	0			
Y	LIFT PANEL-(H1'-H3' / V65-V67)	1								
1	I/C _On / Off Status				1			Panel	4C X 1 Sq.mm	CCP-B1-ENCL5/DDC1
2	I/C _Trip Status				1			Panel		
	Total		0	0	2	0	0			
Z	LIGHTING PANEL -1-(H22'-H20' / V69-V70) (Z1)	1								
1	I/C _On / Off Status				1			Panel	4C X 1 Sq.mm	CCP-B1-ENCL1/FAC1
2	I/C _Trip Status				1			Panel		
	Total		0	0	2	0	0			
AA	LIGHTING PANEL -2-(H15'-H14' / V66-V67) (Z3)	1								
1	I/C _On / Off Status				1			Panel	4C X 1 Sq.mm	CCP-B1-ENCL3/FAC3
2	I/C _Trip Status				1			Panel		
	Total		0	0	2	0	0			
AB	EMERGENCY LTG UPS O/G PANEL-(H7'-H5' / V62'-V63)	2								
1	On / Off Status of UPS O/G Panel Incomers.				2			UPS O/G Panel	4C X 1 Sq.mm	CCP-B1-ENCL5/DDC1
2	Trip Status of UPS O/G Panel Incomers.				2			UPS O/G Panel		
	Total		0	0	4	0	0			
AC	ELV-UPS O/G PANEL CUM DISTRIBUTION-(H7'-H5' / V62'-V63)	2								
1	On / Off Status of UPS O/G Panel Incomers.				2			UPS O/G Panel	4C X 1 Sq.mm	CCP-B1-ENCL5/DDC1
2	Trip Status of UPS O/G Panel Incomers.				2			UPS O/G Panel		
	Total		0	0	4	0	0			
AD	ENERGY METER(EEM)	32								
1	Voltage-v						32	ENERGY METER	RS485 COMMUNICATION CABLE	CCP-B1-ENCL5/DDC1,CCP-B2-ENCL4/DDC2
2	Current-a						32			
3	Kilowatt-kw						32			
4	Reactive Power-kvar						32			
5	Apparent Power-kva						32			
6	Power Factor-PF						32			
7	active energy-KWH						32			
8	KVAh						32			
9	Frequency						32			
10	THD						32			
	Total		0	0	0	0	320			
AE	Zone CO	4								
1	Zone Co Monitoring	4	4					CO Sensor	4C X 1 Sq.mm	CCP-B1-ENCL1/FAC1, CCP-B1-ENCL2/FAC2, CCP-B1-ENCL3/FAC3, CCP-B1-ENCL4/NAC1
	Total		4	0	0	0	0			
AF	Fire Alarm Panel-(H3'-H4' / V62'-V63)	1								
1	FAP Communication status						1	Fire alarm panel	CAT 6 CABLE	
2	Zone-Wise Fire Status	16					16			
3	Zone-Wise Fault Status						16			
4	Control Module Status						1			
5	Input Module Status						1			
6	Zone-Wise Loop Continuity						16			
7	Ground Fault						1			
	Total						52			
AG	MULTI FUNCTION METER(MFM)-(H1'-H3' / V65-V67)	2								
1	Active Power						2	Multi Function Meter	RS485 Communication Cable	CCP-B1-ENCL5/DDC1,CCP-B2-ENCL4/DDC2
2	Apparent Power						2			
3	Reactive Power						2			
4	Active Energy						2			
5	Apparent Energy						2			
6	Reactive Energy						2			
7	Line to Line Voltage						2			
8	line to Neutral Voltage						2			
9	Average Current						2			
10	Power Factor						2			
11	Frequency						2			
	TOTAL		0	0	0	0	22			
AH	LIFT_1 TO LIFT_4	4								
1	Floor Position						4	Lift Control Manager	RS485 Communication Cable	CCP-B2-ENCL1/DDC1
2	Door fully Closed Signal						4			
3	Status of Landing Floor (Open/Close)						4			
4	Inspection Status (Normal/Maintenance)						4			
5	Emergency Stop Status						4			
6	Fault Indication						4			
7	Fireman Switch Status						4			
8	Lift Auto/Manual Status						4			
9	Lift Run Status						4			
	TOTAL		0	0	0	0	36			
AI	LIGHTING PANEL-1 OUTGOING-(H22'-H20' / V69-V70) (Z3)	5								
1	Panel On/Off command					5		Relay Contact	8C X 1 Sq.mm	CCP-B1-ENCL3/FAC3
2	Panel On/Off status				5			Panel		
3	Panel Trip status				5			Panel		
4	Panel A/M status				5			Panel		
	TOTAL		0	0	15	5	0			
AJ	LIGHTING PANEL-2 OUTGOING-(H15'-H14' / V66-V67) (Z1)	1								
1	Panel On/Off command					1		Relay Contact	8C X 1 Sq.mm	CCP-B1-ENCL1/FAC1
2	Panel On/Off status				1			Panel		
3	Panel Trip status				1			Panel		
4	Panel A/M status				1			Panel		
	TOTAL		0	0	3	1	0			
AK	VENTILATION FAN-(H1'-H3' / V65-V67) CCP-B1-LTP-EF-01 & 02	2								
1	Fan On/Off command					2		Relay Contact	8C X 1 Sq.mm	CCP-B1-ENCL5/DDC1
2	Fan On/Off status				2			Panel		
3	Fan Trip status				2			Panel		
4	Fan A/M status				2			Panel		
	Total		0	0	6	2	0			
AL	VENTILATION FAN-CCP-B1-ST-EA-01 & CCP-B1-ST-FA-01	2								
1	Fan On/Off command					2		Relay Contact	8C X 1 Sq.mm	ST-EA-01_CCP-B1-ENCL1/FAC1, ST-FA-01_CCP-B1-ENCL2/FAC2
2	Fan On/Off status				2			Panel		
3	Fan Trip status				2			Panel		
4	Fan A/M status				2			Panel		
	TOTAL		0	0	6	2	0			
AM	DUCTABLE SPLIT UNIT-(H7'-H5' / V62'-V63) -3phase	1								
1	Fan On/Off command					1		Relay Contact	8C X 1 Sq.mm	CCP-B1-ENCL4/NAC1
2	Fan On/Off status				1			Panel		
3	Fan Trip status				1			Panel		
4	Fan A/M status				1			Panel		
	Total		0	0	3	1	0			

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Rev.		
PARTICULAR	BMS IO Summary					0		
SI.NO	PARTICULARS		I/O DETAILS					DDC Enclosure Details
			AI	AO	DI	DO	Soft IO	
AN	Transformer(1250kva)	2						
1	Winding Temperature		4					CCP-B1-ENCL5/DDC1
AO	Transformer(1250kva)	2						
1	Communication Status						4	CCP-B1-ENCL4/NAC1
2	I/P Voltage - RY						4	
3	I/P Voltage - YB						4	
4	I/P Voltage - BR						4	
5	O/P Voltage - R						4	
6	O/P Voltage - Y						4	
7	O/P Voltage - B						4	
8	O/P Current - R						4	
9	O/P Current - Y						4	
10	O/P Current - Y						4	
11	Battery Voltage						4	
12	Battery Charge Remaining						4	
13	Loading Percentage						4	
14	Frequency						4	
15	Alarm Status						4	
	Total		0	0	0	0	60	
	Floor Total		6	0	185	27	508	
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Doc number	Rev NO	
PARTICULAR	CC PARKING BMS IO Summary -B2						1	
SI.NO	PARTICULARS	Qty	I/O DETAILS					REMARKS
			AI	AO	DI	DO	Soft IO	
A	CCP-B2-Z1-FA-NM/FM-01	2						
1	Fan On/Off command					1		CCP-B2-ENCL1/DDC1
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	
B	CCP-B2-Z2-FA-NM/FM-02	2						
1	Fan On/Off command					1		CCP-B2-ENCL2/FAC1
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	
C	CCP-B2-Z3-FA-NM/FM-03	2						
1	Fan On/Off command					1		CCP-B2-ENCL3/FAC2
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	
D	CCP-B2-Z4-FA-NM/FM-04	2						
1	Fan On/Off command					1		CCP-B2-ENCL4/DDC2
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	
E	CCP-B2-Z1-EA-NM/FM-01	2						
1	Fan On/Off command					1		CCP-B2-ENCL1/DDC1
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	
F	CCP-B2-Z2-EA-NM/FM-02	2						
1	Fan On/Off command					1		CCP-B2-ENCL2/FAC1
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	
G	CCP-B2-Z3-EA-NM/FM-03	2						
1	Fan On/Off command					1		CCP-B2-ENCL3/FAC2
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	
H	CCP-B2-Z4-EA-NM/FM-04	2						
1	Fan On/Off command					1		CCP-B2-ENCL4/DDC2
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	
I	Zone CO	4						
1	Zone Co Monitoring	4	4					CCP-B2-ENCL1/DDC1, CCP-B2-ENCL2/FAC1, CCP-B2-ENCL3/FAC2, CCP-B2-ENCL4/DDC2
	Total		4	0	0	0	0	
	Floor Total		4	0	56	8	0	
	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Doc number	Rev No	
	CC PARKING BMS IO Summary -B3						1	
SI.NO	PARTICULARS	Qty	I/O DETAILS					Remarks
			AI	AO	DI	DO	Soft IO	
A	CCP-B3-Z1-FA-NM/FM-01	2						
1	Fan On/Off command					1		CCP-B3-ENCL1/FAC1
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Rev.		
PARTICULAR	BMS IO Summary					0		
SI.NO	PARTICULARS		I/O DETAILS					DDC Enclosure Details
			AI	AO	DI	DO	Soft IO	
B	CCP-B3-Z2-FA-NM/FM-02	2				1		
1	Fan On/Off command					1		CCP-B3-ENCL2/FAC2
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	
C	CCP-B3-Z3-FA-NM/FM-03	2						
1	Fan On/Off command					1		CCP-B3-ENCL3/FAC3
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	
D	CCP-B3-Z4-FA-NM/FM-04	2						
1	Fan On/Off command					1		CCP-B3-ENCL4/FAC4
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	
E	CCP-B3-Z1-EA-NM/FM-01	2						
1	Fan On/Off command					1		CCP-B3-ENCL1/FAC1
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	
F	CCP-B3-Z2-EA-NM/FM-02	2						
1	Fan On/Off command					1		CCP-B3-ENCL2/FAC2
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	
G	CCP-B3-Z3-EA-NM/FM-03	2						
1	Fan On/Off command					1		CCP-B3-ENCL3/FAC3
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	
H	CCP-B3-Z4-EA-NM/FM-04	2						
1	Fan On/Off command					1		CCP-B3-ENCL4/FAC4
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	
I	Zone CO	4						
1	Zone Co Monitoring	4	4					CCP-B3-ENCL1/FAC1, CCP-B3-ENCL2/FAC2, CCP-B3-ENCL3/FAC3, CCP-B3-ENCL4/FAC4
	Total		4	0	0	0	0	
	Floor Total		4	0	56	8	0	
	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Doc number	Rev No	
	CC PARKING BMS IO Summary -B4						1	
SI.NO	PARTICULARS	Qty	I/O DETAILS					Remarks
			AI	AO	DI	DO	Soft IO	
A	CCP-B4-Z1-FA-NM/FM-01	2						
1	Fan On/Off command					1		CCP-B4-ENCL1/DDC1
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	
B	CCP-B4-Z2-FA-NM/FM-02	2						
1	Fan On/Off command					1		CCP-B4-ENCL2/FAC1
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	
C	CCP-B4-Z3-FA-NM/FM-03	2						
1	Fan On/Off command					1		CCP-B4-ENCL3/FAC2
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	
D	CCP-B4-Z4-FA-NM/FM-04	2						
1	Fan On/Off command					1		CCP-B4-ENCL4/FAC3
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	
E	CCP-B4-Z1-EA-NM/FM-01	2						
1	Fan On/Off command					1		CCP-B4-ENCL1/DDC1
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	
F	CCP-B4-Z2-EA-NM/FM-02	2						
1	Fan On/Off command					1		CCP-B4-ENCL2/FAC1
2	Fan On/Off status				2			
3	Fan Trip status				2			
4	Fan A/M status				2			
5	MSFD Status				1			
	Total		0	0	7	1	0	

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.				
PARTICULAR	BMS IO Summary						0				
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details	
			AI	AO	DI	DO	Soft IO				
G	CCP-B4-Z3-EA-NM/FM-03	2									
1	Fan On/Off command					1		Relay Contact	8C X 1 Sq.mm	CCP-B4-ENCL3/FAC2	
2	Fan On/Off status				2			LCP Panel			
3	Fan Trip status				2			LCP Panel			
4	Fan A/M status				2			LCP Panel			
5	MSFD Status				1			MSFD	2C X 1Sq.mm		
	Total		0	0	7	1	0				
H	CCP-B4-Z4-EA-NM/FM-04	2									
1	Fan On/Off command					1		Relay Contact	8C X 1 Sq.mm	CCP-B4-ENCL4/FAC3	
2	Fan On/Off status				2			LCP Panel			
3	Fan Trip status				2			LCP Panel			
4	Fan A/M status				2			LCP Panel			
5	MSFD Status				1			MSFD	2C X 1Sq.mm		
	Total		0	0	7	1	0				
I	Sewage pumps	2									
1	Sump high level alarm				1			LCP Panel	2C X 1 Sq.mm	CCP-B4-ENCL1/DDC1	
2	Pump On/Off Status				2			LCP Panel	4C X 1 Sq.mm		
3	Pump Trip Status				2			LCP Panel			
	Total		0	0	5	0	0				
J	Basement Dewatering sump pump	24									
1	Sump high level alarm				12			LCP Panel	2C X 1 Sq.mm	LCP 01,02,11,12_CCP-B4-ENCL1/DDC1, LCP 03,10_CCP-B4-ENCL2/FAC1, LCP04,09_CCP-B4-ENCL3/FAC2, LCP 05,06,07,08_CCP-B4-ENCL4/FAC3	
2	Pump On/Off Status				24			LCP Panel	4C X 1 Sq.mm		
3	Pump Trip Status				24			LCP Panel			
	Total		0	0	60	0	0				
K	PHE PUMP PANEL-(H11' / V68-V69)	1									
1	Pump On/Off Status/Command				1	1		PHE PUMP PANEL	8C X 1 Sq.mm	CCP-B4-ENCL3/FAC2	
2	Pump Trip Status				1			PHE PUMP PANEL			
3	Pump A/M Status				1			PHE PUMP PANEL			
	Total		0	0	3	1	0				
L	Zone CO	4									
1	Zone Co Monitoring	4	4					CO Sensor	4C X 1 Sq.mm	CCP-B4-ENCL1/DDC1, CCP-B4-ENCL2/FAC1, CCP-B4-ENCL3/FAC2, CCP-B4-ENCL4/FAC3	
	Total		4	0	0	0	0				
M	ENERGY METER(EEM)	1									
1	Voltage-v						1	ENERGY METER	RS485 COMMUNICATION CABLE	CCP-B1-ENCL5/DDC1,CCP-B2-ENCL4/DDC2	
2	Current-a						1				
3	Kilowatt-kw						1				
4	Reactive Power-kvar						1				
5	Apparent Power-kva						1				
6	Power Factor-PF						1				
7	active energy-KWH						1				
8	KVArH						1				
9	Frequency						1				
10	THD						1				
	Total		0	0	0	0	10				
	Floor Total		4	0	124	9	10				
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA							Doc number	Rev No:1		
PARTICULAR	External Substation near ESS BMS I/O SUMMARY								1		
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable		
			AI	AO	DI	DO	Soft IO				
A	SUBSTATION EQUIPMENTS (SG-ESS SIDE -MAIN LT PANEL)	1									
1	LT Panel I/C Breaker On/Off Status	2			2			SG-ESS SIDE -MAIN LT	4C X 1 Sq.mm		
2	LT Panel I/C Breaker Trip Status				2			SG-ESS SIDE -MAIN LT			
3	LT Panel O/G Breaker On/Off Status	25			25			SG-ESS SIDE -MAIN LT	4C X 1 Sq.mm		
4	LT Panel O/G Breaker Trip Status				25			SG-ESS SIDE -MAIN LT			
5	LT Panel Bus Coupler On/Off Status	3			3			SG-ESS SIDE -MAIN LT	4C X 1 Sq.mm		
6	LT Panel Bus Coupler Trip Status				3			SG-ESS SIDE -MAIN LT			
7	Voltage presence	25					25		RS485 Communication Cable		
	Total		0	0	60	0	25				
B	ENERGY METER(EEM)	26									
1	Voltage-v						26	Energy Meter	RS485 Communication Cable		
2	Current-a						26				
3	Kilowatt-kw						26				
4	Reactive Power-kvar						26				
5	Apparent Power-kva						26				
6	Power Factor-PF						26				
7	active energy-KWH						26				
8	KVArH						26				
9	Frequency						26				
10	THD						26				
	Total		0	0	0	0	260				
C	MFM METER	2									
1	Active Power						2	Energy Meter	RS485 Communication Cable		
2	Apparent Power						2				
3	Reactive Power						2				
4	Active Energy						2				
5	Apparent Energy						2				
6	Reactive Energy						2				
7	Line to Line Voltage						2				
8	line to Neutral Voltage						2				
9	Average Current						2				
10	Power Factor						2				
11	Frequency						2				
	TOTAL		0	0	0	0	22				
D	LIGHTING PANEL (SG-ESS SIDE)	1									
1	I/C _On / Off Status	1			1			ELEC Panel	4C X 1 Sq.mm		
2	I/C _Trip Status				1			ELEC Panel			
	Total		0	0	2	0	0				
E	Exhaust Air Fan GF-EX-SS-AX-01	1									
1	Fan On/Off command					1		Relay Contact	8C X 1 Sq.mm		
2	Fan On/Off status				1			Pot Free Contact			
3	Fan Trip status				1			Pot Free Contact			
4	Fan A/M status				1			Pot Free Contact			
	Total		0	0	3	1	0				

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Rev.		
PARTICULAR	BMS IO Summary					0		
SI.NO	PARTICULARS		I/O DETAILS				Equipment	Type of Cable
			AI	AO	DI	DO		
F	Fresh Air Fan GF-FA-SS-AX-02	1						
1	Fan On/Off command					1	Relay Contact	8C X 1 Sq.mm
2	Fan On/Off status				1		Pot Free Contact	
3	Fan Trip status				1		Pot Free Contact	
4	Fan A/M status				1		Pot Free Contact	
	Total		0	0	3	1	0	
G	DEWATERING PUMP EX1-DR-1 (W+S)	1						
1	Dewatering Pump On/Off Command	2				2	DDC Panel	8C X 1 Sq.mm
2	Dewatering Pump On/Off Status				2		LCP Panel	
3	Dewatering Pump Trip Status				2		LCP Panel	
4	Dewatering Pump A/M Status				2		LCP Panel	
	Total		0	0	6	2	0	
N	Transformer	2						
1	Winding Temperature		4				Transformer	2C X 1 Sq.mm
	Grand total		2	0	74	4	307	
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Doc number	Rev No:1	
PARTICULAR	External Substation near Arena BMS I/O SUMMARY						1	
SI.NO	PARTICULARS		I/O DETAILS				Equipment	Type of Cable
			AI	AO	DI	DO		
H	SUBSTATION EQUIPMENTS (SG-ARENA SIDE -MAIN LT PANEL)	1						
1	LT Panel I/C Breaker On/Off Status	2			2		SG-ARENA SIDE -MAIN LT	4C X 1 Sq.mm
2	LT Panel I/C Breaker Trip Status				2		SG-ARENA SIDE -MAIN LT	
3	LT Panel O/G Breaker On/Off Status	29			29		SG-ARENA SIDE -MAIN LT	4C X 1 Sq.mm
4	LT Panel O/G Breaker Trip Status				29		SG-ARENA SIDE -MAIN LT	
5	LT Panel Bus Coupler On/Off Status	3			3		SG-ARENA SIDE -MAIN LT	4C X 1 Sq.mm
6	LT Panel Bus Coupler Trip Status				3		SG-ARENA SIDE -MAIN LT	
7	Voltage presence	29					SG-ARENA SIDE -MAIN LT	RS485 Communication Cable
	Total		0	0	68	0	29	
I	ENERGY METER(EEM)	30						
1	Voltage-v					0	Energy Meter	RS485 Communication Cable
2	Current-a					0		
3	Kilowatt-kw					0		
4	Reactive Power-kvar					0		
5	Apparent Power-kva					0		
6	Power Factor-PF					0		
7	active energy-KWH					0		
8	KVArH					0		
9	Frequency					0		
10	THD					0		
	Total		0	0	0	0	0	
J	MFM METER	2						
1	Active Power					2	Energy Meter	RS485 Communication Cable
2	Apparent Power					2		
3	Reactive Power					2		
4	Active Energy					2		
5	Apparent Energy					2		
6	Reactive Energy					2		
7	Line to Line Voltage					2		
8	line to Neutral Voltage					2		
9	Average Current					2		
10	Power Factor					2		
11	Frequency					2		
	TOTAL		0	0	0	0	22	
K	LIGHTING PANEL (SG. ARENA SIDE)	1						
1	I/C _On / Off Status	1			1		ELEC Panel	4C X 1 Sq.mm
2	I/C _Trip Status				1		ELEC Panel	
	Total		0	0	2	0	0	
L	Exhaust Air Fan GF-EX-SS-AX-01	1						
1	Fan On/Off command					1	Relay Contact	8C X 1 Sq.mm
2	Fan On/Off status				1		Pot Free Contact	
3	Fan Trip status				1		Pot Free Contact	
4	Fan A/M status				1		Pot Free Contact	
	Total		0	0	3	1	0	
M	Fresh Air Fan GF-FA-SS-AX-02	1						
1	Fan On/Off command					1	Relay Contact	8C X 1 Sq.mm
2	Fan On/Off status				1		Pot Free Contact	
3	Fan Trip status				1		Pot Free Contact	
4	Fan A/M status				1		Pot Free Contact	
	Total		0	0	3	1	0	
N	DEWATERING PUMP EX2-DR-2 (W+S)	1						
1	Dewatering Pump On/Off Command	2				2	Relay Contact	8C X 1 Sq.mm
2	Dewatering Pump On/Off Status				2		Pot Free Contact	
3	Dewatering Pump Trip Status				2		Pot Free Contact	
4	Dewatering Pump A/M Status				2		Pot Free Contact	
	Total		0	0	6	2	0	
N	Transformer	2						
1	Winding Temperature		4				Transformer	2C X 1 Sq.mm
	Grand total		2	0	82	4	51	
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Doc number	Rev No:0	
PARTICULAR	EH3_BASEMENT1-BMS I/O SUMMARY					#REF!		Enclouser Details
Sr. No.	PARTICULARS	Qty	AI	AO	DI	DO	Equipment	Type of Cable
A	UPS Room AHU(EH3-B1-UPS-CSAHU-01)	1						
1	CAHU Fan On/Off Command					0	Relay Contact	6C X 1 Sq.mm
2	CAHU Motor trip status				0		Pot Free Contact	
3	CAHU Auto/Manual Status				0		Pot Free Contact	
4	CAHU Run Status				0		DP Switch	2C X 1 Sq.mm
5	CAHU Filter Status				0		DP Switch	2C X 1 Sq.mm
6	Supply Air Temperature Monitoring		0				Temperature Sensor(Duct)	2C X 1 Sq.mm
7	Return Air Temperature Monitoring		0				Temperature Sensor(Duct)	2C X 1 Sq.mm
8	Chilled Water Control Valve Modulation Command			0			Relay Contact	6C X 1 Sq.mm
9	Chilled Water Control Valve Feedback		0				Modulating Valve	
10	Chilled Water Inlet Temperature Monitoring		0				Imm temp sensor	2C X 1 Sq.mm
11	Chilled Water Outlet Temperature Monitoring		0				Imm temp sensor	2C X 1 Sq.mm
	Total		0	0	0	0	0	

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.			
PARTICULAR	BMS IO Summary						0			
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
			AI	AO	DI	DO	Soft IO			
B	EXHAUSTER Room AHU(EH3-B1-ER-CSAHU-02)	1								
1	CAHU Fan On/Off Command					0		Relay Contact	6C X 1 Sq.mm	EH3-B1-ENCL2/FAC1
2	CAHU Motor trip status				0			Pot Free Contact		
3	CAHU Auto/Manual Status				0			Pot Free Contact		
4	CAHU Run Status				0			DP Switch		
5	CAHU Filter Status				0			DP Switch		
6	Supply Air Temperature Monitoring		0					Temperature Sensor(Duct)		
7	Return Air Temperature Monitoring		0					Temperature Sensor(Duct)		
8	Chilled Water Control Valve Modulation Command			0				Relay Contact		
9	Chilled Water Control Valve Feedback		0					Modulating Valve		
10	Chilled Water Inlet Temperature Monitoring		0					Imm temp sensor		
11	Chilled Water Outlet Temperature Monitoring		0					Imm temp sensor		
	Total		0	0	0	0	0			
C	HVAC Plant Room fan(EH3-B1-PR-EF-AX-01 TO 06 ,39 TO 44)	12								
1	Fan On/Off command					12		Relay Contact	8C X 1 Sq.mm	FAN 1-6_EH3-B1-ENCL4/FAC2 ENCL1/DDC1 FAN 39-44_EH3-B1-ENCL1/DDC1
2	Fan On/Off status				12			Pot Free Contact		
3	Fan Trip status				12			Pot Free Contact		
4	Fan A/M status				12			Pot Free Contact		
	Total		0	0	36	12	0			
D	Transformer Rooms fan(EH3-B1-TR-EF-AX-07,48,49)	3								
1	Fan On/Off command					3		Relay Contact	8C X 1 Sq.mm	FAN 7_EH3-B1-ENCL5/DDC3 49_EH3-B1-ENCL1/DDC1 FAN 48 & 49_EH3-B1-ENCL1/DDC1
2	Fan On/Off status				3			Pot Free Contact		
3	Fan Trip status				3			Pot Free Contact		
4	Fan A/M status				3			Pot Free Contact		
	Total		0	0	9	3	0			
E	HT Panel and LT Panel Rooms fan(EH3-B1-PR-EF-AX-08,45)	2								
1	Fan On/Off command					2		Relay Contact	8C X 1 Sq.mm	FAN 8_EH3-B1-ENCL5/DDC3 45_EH3-B1-ENCL1/DDC1 FAN 46-47_EH3-B1-ENCL1/DDC1
2	Fan On/Off status				2			Pot Free Contact		
3	Fan Trip status				2			Pot Free Contact		
4	Fan A/M status				2			Pot Free Contact		
	Total		0	0	6	2	0			
F	Sold Waste management Storage Room fan (EH3-B1-SWS-EF-AX-09 TO 13)	5								
1	Fan On/Off command					5		Relay Contact	8C X 1 Sq.mm	EH3-B1-ENCL9/FAC5
2	Fan On/Off status				5			Pot Free Contact		
3	Fan Trip status				5			Pot Free Contact		
4	Fan A/M status				5			Pot Free Contact		
	Total		0	0	15	5	0			
G	Pneumatic Equipment Room-Exhaust Fans (EH3-B1-PER-EF-AX-14 TO 16)	3								
1	Fan On/Off command					3		Relay Contact	8C X 1 Sq.mm	EH3-B1-ENCL9/FAC5
2	Fan On/Off status				3			Pot Free Contact		
3	Fan Trip status				3			Pot Free Contact		
4	Fan A/M status				3			Pot Free Contact		
	Total		0	0	9	3	0			
H	Pneumatic Equipment Room-Supply Fans (EH3-B1-PER-FF-AX-17)	1								
1	Fan On/Off command					1		Relay Contact	8C X 1 Sq.mm	EH3-B1-ENCL1/DDC1
2	Fan On/Off status				1			Pot Free Contact		
3	Fan Trip status				1			Pot Free Contact		
4	Fan A/M status				1			Pot Free Contact		
	Total		0	0	3	1	0			
I	STP Pump Room fan EH3-B1-STP-EF-AX-18 to 22	5								
1	Fan On/Off command					5		Relay Contact	8C X 1 Sq.mm	EH3-B1-ENCL8/NAC1
2	Fan On/Off status				5			Pot Free Contact		
3	Fan Trip status				5			Pot Free Contact		
4	Fan A/M status				5			Pot Free Contact		
	Total		0	0	15	5	0			
J	WTP Room fan EH3-B1-WTP-EF-AX-34	1								
1	Fan On/Off command					1		Relay Contact	8C X 1 Sq.mm	EH3-B1-ENCL6/FAC3
2	Fan On/Off status				1			Pot Free Contact		
3	Fan Trip status				1			Pot Free Contact		
4	Fan A/M status				1			Pot Free Contact		
	Total		0	0	3	1	0			
K	Vehicle Driveway EH3-B1-VD-50 to 55	6								
1	Fan On/Off command					6		Relay Contact	8C X 1 Sq.mm	EH3-B1-ENCL6/FAC3
2	Fan On/Off status				6			Pot Free Contact		
3	Fan Trip status				6			Pot Free Contact		
4	Fan A/M status				6			Pot Free Contact		
	Total		0	0	18	6	0			
L	Panel Rooms EH3-B1-PR-EF-AX-46	1								
1	Fan On/Off command					1		Relay Contact	8C X 1 Sq.mm	EH3-B1-ENCL1/DDC1
2	Fan On/Off status				1			Pot Free Contact		
3	Fan Trip status				1			Pot Free Contact		
4	Fan A/M status				1			Pot Free Contact		
	Total		0	0	3	1	0			
M	HVAC PUMP ROOM EH3-B1-PR-EF-AX-47	1								
1	Fan On/Off command					1		Relay Contact	8C X 1 Sq.mm	EH3-B1-ENCL1/DDC1
2	Fan On/Off status				1			Pot Free Contact		
3	Fan Trip status				1			Pot Free Contact		
4	Fan A/M status				1			Pot Free Contact		
	Total		0	0	3	1	0			
N	Solid waste Management Room EH3-B1-ER-CSAHU-07(FUTURE PROVISION)	1								
1	CAHU Fan On/Off Command					1		Relay Contact	6C X 1 Sq.mm	Future Provision (Captured in EH3-B1-ENCL2/FAC1)
2	CAHU Motor trip status				1			Pot Free Contact		
3	CAHU Auto/Manual Status				1			Pot Free Contact		
4	CAHU Run Status				1			DP Switch		
5	CAHU Filter Status				1			DP Switch		
6	Supply Air Temperature Monitoring		1					Temperature Sensor(Duct)		
7	Return Air Temperature Monitoring		1					Temperature Sensor(Duct)		
8	Chilled Water Control Valve Modulation Command			1				Relay Contact		
9	Chilled Water Control Valve Feedback		1					Modulating Valve		
10	Chilled Water Inlet Temperature Monitoring		1					Imm temp sensor		
11	Chilled Water Outlet Temperature Monitoring		1					Imm temp sensor		
	Total		5	1	4	1	0			
O	DOMESTIC WATER TANK-5NOS ,SOFT WATER TANK- 3NOS									
1	Water Level in tank	8	8					Level Transmitter	4C X 1 Sq.mm	Dom Tank 1-3 Nos_EH3-B1-ENCL6/FAC3 & Dom 4-5 & Soft 1&2_EH3-B1-ENCL7/FAC4, Soft 3_EH3-B1-ENCL8/NAC1
2	Water flow metering (power by Electrical)	2	2					Water meter	4C X 1 Sq.mm	EH3-B1-ENCL6/FAC3
3	Motorised Butterfly valve Control	3				3		Valve Actuator	2C X 1 Sq.mm	
4	WTP Plant On / Off Status	2			2			WTP panel	2C X 1 Sq.mm	EH3-B1-ENCL6/FAC3

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.		
PARTICULAR	BMS IO Summary						0		
SI.NO	PARTICULARS	I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
		AI	AO	DI	DO	Soft IO			
P	TREATED WATER TANK								
1	Water Level in tank	4	4				Level Transmitter	4C X 1 Sq.mm	EH3-B1-ENCL8/NAC1
2	Water flow metering (power by Electrical)	1	1				Water meter	4C X 1 Sq.mm	
3	STP Plant On / Off Status	1		1			STP panel	2C X 1 Sq.mm	
Q	Hydropneumatic pump - Domestic pump Panel	1							
1	On / Off Status of Panel Incomers.			1			Pot Free Contact	4C X 1 Sq.mm	EH3-B1-ENCL6/FAC3
2	Trip Status of Panel Incomers.			1			Pot Free Contact		
R	Hydropneumatic pump - Flushing pump Panel	1							
1	On / Off Status of Panel Incomers.			1			Pot Free Contact	4C X 1 Sq.mm	EH3-B1-ENCL8/NAC1
2	Trip Status of Panel Incomers.			1			Pot Free Contact		
S	SOFT WATER FEED PUMP PANEL	1							
1	On / Off Status of Panel Incomers.			1			Pot Free Contact	4C X 1 Sq.mm	EH3-B1-ENCL6/FAC3
2	Trip Status of Panel Incomers.			1			Pot Free Contact		
T	SOFT WATER FEED PUMP (4W+4S)	8							
3	Pump On/Off Command				8		Relay Contact	8C X 1 Sq.mm	EH3-B1-ENCL6/FAC3
4	Pump On/Off Status			8			Pot Free Contact		
5	Pump Trip Status			8			Pot Free Contact		
6	Pump A/M Status			8			Pot Free Contact		
U	SOFT WATER LIFTING PUMP PANEL	1							
1	On / Off Status of Panel Incomers.			1			Pot Free Contact	4C X 1 Sq.mm	EH3-B1-ENCL7/FAC4
2	Trip Status of Panel Incomers.			1			Pot Free Contact		
V	SOFT WATER LIFTING PUMP (2W+1S)	3							
3	Pump On/Off Command				3		Relay Contact	8C X 1 Sq.mm	EH3-B1-ENCL7/FAC4
4	Pump On/Off Status			3			Pot Free Contact		
5	Pump Trip Status			3			Pot Free Contact		
6	Pump A/M Status			3			Pot Free Contact		
W	STP DEWATERING SUMP PIT	1							
1	Sump high level alarm			1			Level Controller	2C X 1 Sq.mm	PIT 1_EH3-B1-ENCL8/NAC1
2	Dewatering Pump On/Off Status (1W+1S)			2			Pot Free Contact	4C X 1 Sq.mm	
3	Dewatering Pump Trip Status (1W+1S)			2			Pot Free Contact		
X	OWC DEWATERING SUMP PIT	2							
1	Sump high level alarm			2			Level Controller	2C X 1 Sq.mm	Pit 1_EH3-B1-ENCL1/DDC1, B1-ENCL2/FAC1
2	Dewatering Pump On/Off Status (1W+1S)			4			Pot Free Contact	4C X 1 Sq.mm	
3	Dewatering Pump Trip Status (1W+1S)			4			Pot Free Contact		
Y	AC DEWATERING SUMP PIT	2							
1	Sump high level alarm			2			Level Controller	2C X 1 Sq.mm	EH3-B1-ENCL4/FAC2
2	Dewatering Pump On/Off Status (1W+1S)			4			Pot Free Contact	4C X 1 Sq.mm	
3	Dewatering Pump Trip Status (1W+1S)			4			Pot Free Contact		
Z	CORRIDOR DEWATERING SUMP PIT	2							
1	Sump high level alarm			2			Level Controller	2C X 1 Sq.mm	PIT 1_EH3-B1-ENCL8/NAC1 B1-ENCL9/FAC5
2	Dewatering Pump On/Off Status (1W+1S)			4			Pot Free Contact	4C X 1 Sq.mm	
3	Dewatering Pump Trip Status (1W+1S)			4			Pot Free Contact		
AA	PUMP ROOM DEWATERING SUMP PIT	1							
1	Sump high level alarm			1			Level Controller	2C X 1 Sq.mm	EH3-B1-ENCL7/FAC4
2	Dewatering Pump On/Off Status (1W+1S)			2			Pot Free Contact	4C X 1 Sq.mm	
3	Dewatering Pump Trip Status (1W+1S)			2			Pot Free Contact		
AB	TIOLET DEWATERING SUMP PIT LCP 8	1							
1	Sump high level alarm			1			Level Controller	2C X 1 Sq.mm	EH3-B1-ENCL4/FAC2
2	Dewatering Pump On/Off Status (1W+1S)			2			Pot Free Contact	4C X 1 Sq.mm	
3	Dewatering Pump Trip Status (1W+1S)			2			Pot Free Contact		
AC	DEWATERING SUMP PIT LCP 10, 11	2							
1	Sump high level alarm			2			Level Controller	2C X 1 Sq.mm	PIT 10_EH3-B1-ENCL6/FAC3 B1-ENCL3/DDC2
2	Dewatering Pump On/Off Status (1W+1S)			4			Pot Free Contact	4C X 1 Sq.mm	
3	Dewatering Pump Trip Status (1W+1S)			4			Pot Free Contact		
AD	SEWAGE PUMP LCP	2							
1	Sump high level alarm			2			Level Controller	2C X 1 Sq.mm	PIT 1_EH3-B1-ENCL6/FAC3 B1-ENCL8/NAC1
2	Dewatering Pump On/Off Status (1W+1S)			4			Pot Free Contact	4C X 1 Sq.mm	
3	Dewatering Pump Trip Status (1W+1S)			4			Pot Free Contact		
AE	IRRIGATION PUMP PLC (2W+1S)	3							
1	Irrigation Pump On/Off Command					3	Pump PLC	Cat6 Cable	Backnet Over IP
2	Irrigation Pump On/Off Status					3			
3	Irrigation Pump Trip Status					3			
4	Irrigation Pump A/M Status					3			
	TOTAL		15	0	109	14			
AF	Pressurization Pump Chilled Water(EH3-B1-PSU-01) 3W+1S	4							
1	Pressurization Chilled Water Pump On/Off Command					4	Pump PLC	Cat6 Cable	Backnet Over IP
2	Pressurization Chilled Water Pump Trip Status					4			
3	Pressurization Chilled Water Pump Auto/Manual Status					4			
4	Pressurization Chilled Water Pump On/Off Status					4			
AG	Pressurization Pump Hot water(EH3-B1-PSU-02) 2W +1S	3							
1	Pressurization Hot water Pump On/Off Command					4	Pump PLC	Cat6 Cable	Backnet Over IP
2	Pressurization Hot water Pump Trip Status					4			
3	Pressurization Hot water Pump Auto/Manual Status					4			
4	Pressurization Hot water Pump On/Off Status					4			
	Total		0	0	0	0			
AH	Sewage Treatement plant (2+2)MLD	2							
1	SOFT IO					0	STP	RS485 Communication Cable	Backnet Over IP
AI	Pneumatic solid waste management system PLC	1							
1	SOFT IO					100	PLC(TCP/IP)	Cat 6 Cable	Backnet Over IP
AJ	Organic waste converter (5 tons - 2 Nos) PLC	1							
1	SOFT IO					0	PLC(TCP/IP)	Cat 6 Cable	Backnet Over IP
	TOTAL		0	0	0	0			
AK	Hydro pneumatic pumps PLC - Domestic & Flushing - (5+5)=10 nos	1							
1	SOFT IO					100	PLC(TCP/IP)	Cat 6 Cable	Backnet Over IP
AL	Heat Pump PLC	1							
1	SOFT IO					100	PLC(TCP/IP)	Cat 6 Cable	Backnet Over IP
	TOTAL		0	0	0	0			
AM	UPS EMG LIGHTING O/G PANEL	2							
1	On / Off Status of UPS O/G Panel - (W & S)			0			UPS I/C Panel	4C X 1 Sq.mm	EH3-B1-ENCL3/DDC2
2	Trip Status of UPS O/G Panel - (W & S)			0			UPS I/C Panel		
	TOTAL		0	0	0	0			
AN	Floor (ELV) UPS O/G PANEL	2							
1	On / Off Status of UPS O/G Panel Incomers.			0			UPS O/G Panel	4C X 1 Sq.mm	EH3-B1-ENCL3/DDC2
2	Trip Status of UPS O/G Panel Incomers.			0			UPS O/G Panel		
	TOTAL		0	0	0	0			
AO	MAIN PHE PANEL	1							
1	On / Off Status of PHE Panel Incomers.	1		1			PHE Panel	4C X 1 Sq.mm	EH3-B1-ENCL3/DDC2
2	Trip Status of PHE Panel Incomers.			1			PHE Panel		
	TOTAL		0	0	2	0			
AP	ELECTRICAL PANEL								
	Transformer(2500kva)	4							
	Winding Temperature		8				Transformer	2C X 1 Sq.mm	EH3-B1-ENCL5/DDC3

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.		
PARTICULAR	BMS IO Summary						0		
SI.NO	PARTICULARS	I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
		AI	AO	DI	DO	Soft IO			
AQ	SUBSTATION EQUIPMENTS (MAIN LT PANEL)	1							
1	LT Panel I/C Breaker On/Off Status	4		4			Main LT Panel	4C X 1 Sq.mm	EH3-B1-ENCL5/DDC3
2	LT Panel I/C Breaker Trip Status			4			Main LT Panel		
3	LT Panel O/G Breaker On/Off Status	32		32			Main LT Panel	4C X 1 Sq.mm	
4	LT Panel O/G Breaker Trip Status			32			Main LT Panel		
5	LT Panel Bus Coupler On/Off Status	3		3			Main LT Panel	4C X 1 Sq.mm	
6	LT Panel Bus Coupler Trip Status			3			Main LT Panel		
7	Voltage presence	32				26			
	Total		8	0	78	0	26		
AR	SG - EH-3 SIDE -MAIN LT PANEL	1							
1	LT Panel I/C Breaker On/Off Status	1		1			Main LT Panel	4C X 1 Sq.mm	EH3-B1-ENCL10/DDC4
2	LT Panel I/C Breaker Trip Status			1			Main LT Panel		
3	LT Panel O/G Breaker On/Off Status	20		20			Main LT Panel	4C X 1 Sq.mm	
4	LT Panel O/G Breaker Trip Status			20			Main LT Panel		
5	Voltage presence	20				21			
	Total		0	0	42	0	21		
AS	SG - EH-3 SIDE -LIGHTING PANEL	1							
1	On / Off Status of Panel Incomers.			1			LIT Panel	4C X 1 Sq.mm	EH3-B1-ENCL10/DDC4
2	Trip Status of Panel Incomers.			1			LIT Panel		
AT	Utility(I/C) PANEL	1							
1	On / Off Status of Utility(I/C) Panel Incomers.			1			UTL_IC Panel	4C X 1 Sq.mm	EH3-B1-ENCL3/DDC2
2	Trip Status of Utility(I/C) Panel Incomers.			1			UTL_IC Panel		
AU	CONSTANT SPEED CONDENSER PUMP PANEL	1							
1	On / Off Status of Panel Incomers.			1			Pump Panel	4C X 1 Sq.mm	EH3-B1-ENCL3/DDC2
2	Trip Status of Panel Incomers.			1			Pump Panel		
AV	CONSTANT PRIMARY PUMP PANEL	1							
1	On / Off Status of Panel Incomers.			1			Pump Panel	4C X 1 Sq.mm	EH3-B1-ENCL3/DDC2
2	Trip Status of Panel Incomers.			1			Pump Panel		
AW	Primary & Secondary hot water pump Panel	1							
1	On / Off Status of Panel Incomers.			1			Pump Panel	4C X 1 Sq.mm	EH3-B1-ENCL10/DDC4
2	Trip Status of Panel Incomers.			1			Pump Panel		
AX	Power PANEL	1							
1	On / Off Status of Panel Incomers.			1			Pump Panel	4C X 1 Sq.mm	EH3-B1-ENCL3/DDC2
2	Trip Status of Panel Incomers.			1			Pump Panel		
AY	Lighting PANEL	1							
1	On / Off Status of Panel Incomers.			1			LIT Panel	4C X 1 Sq.mm	EH3-B1-ENCL3/DDC2
2	Trip Status of Panel Incomers.			1			LIT Panel		
AZ	Plant Room Ventilation Panel	1							
1	On / Off Status of Ventilation Panel Incomer			1			Ventilation Panel	4C X 1 Sq.mm	EH3-B1-ENCL4/FAC2
2	Trip Status of Ventilation Panel Incomer			1			Ventilation Panel		
BA	STP Ventilation Panel1	1							
1	On / Off Status of Ventilation Panel Incomer			1			Ventilation Panel	4C X 1 Sq.mm	EH3-B1-ENCL8/NAC1
2	Trip Status of Ventilation Panel Incomer			1			Ventilation Panel		
BB	VEHICLE DRIVEWAY VENTILATION PANEL	1							
1	On / Off Status of Ventilation Panel Incomer			1			Ventilation Panel	4C X 1 Sq.mm	EH3-B1-ENCL6/FAC3
2	Trip Status of Ventilation Panel Incomer			1			Ventilation Panel		
BC	EH3 BASEMENT VENTILATION PANEL Ph 1								
1	On / Off Status of Ventilation Panel Incomer	1		1			Ventilation Panel	4C X 1 Sq.mm	EH3-B1-ENCL3/DDC2
2	Trip Status of Ventilation Panel Incomer			1			Ventilation Panel		
BD	Solid waste Ventilation Panel								
1	On / Off Status of Ventilation Panel Incomer	1		1			Ventilation Panel	4C X 1 Sq.mm	EH3-B1-ENCL9/FAC5
2	Trip Status of Ventilation Panel Incomer			1			Ventilation Panel		
BE	Ventilation Panel - Ph2								
1	On / Off Status of Ventilation Panel Incomer	1		1			Ventilation Panel	4C X 1 Sq.mm	EH3-B1-ENCL5/DDC3
2	Trip Status of Ventilation Panel Incomer			1			Ventilation Panel		
	Total		0	0	26	0	0		
BF	ENERGY METER(EEM)	70							
1	Voltage-v					70	Energy Meter	RS485 Communication Cable	EH3-B1-ENCL3/DDC2, EH3-B1-ENCL5/DDC3, EH3-B1-ENCL10/DDC4
2	Current-a					70			
3	Kilowatt-kw					70			
4	Reactive Power-kvar					70			
5	Apparent Power-kva					70			
6	Power Factor-PF					70			
7	active energy-KWH					70			
8	KVAh					70			
9	Frequency					70			
10	THD					70			
	Total		0	0	0	0	742		
BG	MFM METER	5							
1	Active Power					5	Energy Meter	RS485 Communication Cable	EH3-B1-ENCL3/DDC2, EH3-B1-ENCL5/DDC3
2	Apparent Power					5			
3	Reactive Power					5			
4	Active Energy					5			
5	Apparent Energy					5			
6	Reactive Energy					5			
7	Line to Line Voltage					5			
8	line to Neutral Voltage					5			
9	Average Current					5			
10	Power Factor					5			
11	Frequency					5			
	TOTAL		0	0	0	0	55		
BH	UPS	4							
1	Communication Status					4	UPS	RS485 Communication Cable	EH3-B1-ENCL3/DDC2
2	I/P Voltage - RY					4			
3	I/P Voltage - YB					4			
4	I/P Voltage - BR					4			
5	O/P Voltage - R					4			
6	O/P Voltage - Y					4			
7	O/P Voltage - B					4			
8	O/P Current - R					4			
9	O/P Current - Y					4			
10	O/P Current - Y					4			
11	Battery Voltage					4			
12	Battery Charge Remaining					4			
13	Loading Percentage					4			
14	Frequency					4			
15	Alarm Status					4			
	Total		0	0	0	0	60		

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.				
PARTICULAR	BMS IO Summary						0				
SI.NO	PARTICULARS		I/O DETAILS				Equipment	Type of Cable	DDC Enclosure Details		
			AI	AO	DI	DO				Soft IO	
BI	Fire Alarm Panel	1									
1	FAP Communication status						1	FIRE ALARM PANEL	LAN Cable	Backnet Over IP	
2	Zone-Wise Fire Status						7				
3	Zone-Wise Fault Status						7				
4	Control Module Status						7				
5	Input Module Status						7				
6	Zone-Wise Loop Continuity						7				
7	Ground Fault						1				
	Total		0	0	0	0	37				
BJ	FCU Unit	2									
1	Valve Feedback		2	0	0	0	0	Valve Actuator	2C X 1 Sq.mm	EH3-B1-ENCL3/DDC2	
	Total		2	0	0	0	0				
BK	CPM SOFT INTEGRATION	1									
1	SOFT INTEGRATION AS PER CPM IO SUMMARY							CPM CONTROLLER	Cat 6A	Backnet Over IP	
	Total		0	0	0	0	570				
BL	Heat pump plant SOFT INTEGRATION	1									
1	Heat pump plant SOFT INTEGRATION AS PER Heat Pump IO SUMMARY							CPM CONTROLLER	Cat 6A	Backnet Over IP	
	Total		0	0	0	0	210				
BM	Water Meter	4									
1	Flow rate						4	Water Meter-plant room (3rd party)	RS485 Communication Cable	EH3-B1-ENCL8/NAC1	
2	Consumption						4				
	Total		0	0	0	0	8				
BN	BTU Meter (Engineering Maintenance Room)	1									
1	Inlet Temperature						1	Engineering Maintenance Room	RS485 Communication Cable	EH3-B1-ENCL8/NAC1	
2	Outlet Temp						1				
3	Flow Rate						1				
4	Net Heat.						1				
5	Flow Total						1				
6	Net Heat Total						1				
	Total		0	0	0	0	6				
	Floor total		30	1	381	55	1665				
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Doc number		Rev No:0		Encloser Details
PARTICULAR	EH3_MEZZNINE-BMS I/O SUMMARY									Type of Cable	
Sr. No	PARTICULARS	Qty	AI	AO	DI	DO	Soft IO	Equipment			
A	Engineering Maintenance Room TFA (EH3-B1-MF-SOF-TFA-01)	1									
1	TFA Fan On/Off Command					1		Relay Contact	6C X 1 Sq.mm	EH3-MF-ENCL1/FAC1	
2	TFA Motor trip status				1			Pot Free Contact			
3	TFA Auto/Manual Status				1			Pot Free Contact			
4	TFA Run Status				1			DP Switch			
5	Supply Air Temperature Monitoring		1					Temperature Sensor(Duct)			
6	Pressure Drop across Pre Filter Status				1			DP Switch			
7	Pressure Drop across Fine Filter Status				1			DP Switch			
8	Modulating Valve Control Output			1				Contacts			
9	Modulating Valve Position Feedback		1					Modulating Valve	6C X 1 Sq.mm		
	Total		2	1	5	1	0				
B	STP Tank Room fanEH3-B1-STP-EF-AX-23 to 26	4									
1	Fan On/Off command					4		Relay Contact	8C X 1 Sq.mm	EH3-MF-ENCL4/FAC4	
2	Fan On/Off status				4			Pot Free Contact			
3	Fan Trip status				4			Pot Free Contact			
4	Fan A/M status				4			Pot Free Contact			
	Total		0	0	12	4	0				
C	STP Tank Room fanEH3-B1-STP-EF-AX-27 to 31	5									
1	Fan On/Off command					5		Relay Contact	8C X 1 Sq.mm	EH3-MF-ENCL4/FAC4	
2	Fan On/Off status				5			Pot Free Contact			
3	Fan Trip status				5			Pot Free Contact			
4	Fan A/M status				5			Pot Free Contact			
	Total		0	0	15	5	0				
D	Mezz Corridor fan EH3-MZ-CR-EF-AX-32	1									
1	Fan On/Off command					1		Relay Contact	8C X 1 Sq.mm	EH3-MF-ENCL2/FAC2	
2	Fan On/Off status				1			Pot Free Contact			
3	Fan Trip status				1			Pot Free Contact			
4	Fan A/M status				1			Pot Free Contact			
	Total		0	0	3	1	0				
E	Fire Pump Room fan EH3-MZ-FPR-EF-AX-33	1									
1	Fan On/Off command					1		Relay Contact	8C X 1 Sq.mm	EH3-MF-ENCL2/FAC2	
2	Fan On/Off status				1			Pot Free Contact			
3	Fan Trip status				1			Pot Free Contact			
4	Fan A/M status				1			Pot Free Contact			
	Total		0	0	3	1	0				
F	ELECTRICAL Corridor fan EH3-MZ-EC-EF-AX-36	1									
1	Fan On/Off command					1		Relay Contact	8C X 1 Sq.mm	EH3-MF-ENCL3/FAC3	
2	Fan On/Off status				1			Pot Free Contact			
3	Fan Trip status				1			Pot Free Contact			
4	Fan A/M status				1			Pot Free Contact			
	Total		0	0	3	1	0				
G	Evacuation Corridor fan EH3-MZ-EC-37 & 38	2									
1	Fan On/Off command					2		Relay Contact	8C X 1 Sq.mm	EH3-MF-ENCL3/FAC3	
2	Fan On/Off status				2			Pot Free Contact			
3	Fan Trip status				2			Pot Free Contact			
4	Fan A/M status				2			Pot Free Contact			
	Total		0	0	6	2	0				
H	Engineering Maintenance Room CAHU Panel	1									
1	On / Off Status of Panel Incomers.				1			CAHU Panel	4C X 1 Sq.mm	EH3-MF-ENCL1/FAC1	
2	Trip Status of Panel Incomers.				1			CAHU Panel			
	Total		0	0	2	0	0				
I	Fire Fighting PANEL (FIRE MCC)	2									
1	On / Off Status of Fire Fighting Panel Incomers.				2			FF Panel	4C X 1 Sq.mm	EH3-MF-ENCL2/FAC2	
2	Trip Status of Fire Fighting Panel Incomers.				2			FF Panel			
3	Bus Coupler On/Off Status	1			1			Main LT Panel	4C X 1 Sq.mm		
4	Bus Coupler Trip Status				1			Main LT Panel			
	Total		0	0	6	0	0				
J	STP Ventilation Panel 2&3	2									
1	On / Off Status of Ventilation Panel Incomer				2			Ventilation Panel	4C X 1 Sq.mm	EH3-MF-ENCL4/FAC4	
2	Trip Status of Ventilation Panel Incomer				2			Ventilation Panel			
	Total		0	0	4	0	0				

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.			
PARTICULAR	BMS IO Summary						0			
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
			AI	AO	DI	DO	Soft IO			
K	FIRE FIGHTING SYSTEMS									
1	Sprinkler Header Pressure Monitoring	1	1					Pressure Transmitter	4C X 1 Sq.mm	EH3-MF-ENCL2/FAC2
2	Hydrant Header Pressure Monitoring	1	1					Pressure Transmitter	4C X 1 Sq.mm	
3	Fire Tank Level Monitoring	2	2					Level Transmitter	4C X 1 Sq.mm	
4	Diesel Tank Level Monitoring	1	1					Flameproof Level Transmitter	4C X 1 Sq.mm	
i	Main Pump Hydrant- 1&2 AND Sprinkler 1&2	4								
1	Pump On/Off Status				4			DP Switch(water)	2C X 1 Sq.mm	EH3-MF-ENCL2/FAC2
2	Pump Trip Status				4			Pot Free Contact	6C X 1 Sq.mm	
3	Pump A/M Status				4			Pot Free Contact		
4	Pump Dry Run Alarm status				4			Pot Free Contact		
ii	JOCKEY Pump-1 TO 8	8								
1	Pump On/Off Status				8			DP Switch(water)	2C X 1 Sq.mm	EH3-MF-ENCL2/FAC2
2	Pump Trip Status				8			Pot Free Contact	6C X 1 Sq.mm	
3	Pump A/M Status				8			Pot Free Contact		
4	Pump Dry Run Alarm status				8			Pot Free Contact		
iii	Water Curtain Pumps	2								
1	Pump On/Off Status				2			DP Switch(water)	2C X 1 Sq.mm	EH3-MF-ENCL2/FAC2
2	Pump Trip Status				2			Pot Free Contact	6C X 1 Sq.mm	
3	Pump A/M Status				2			Pot Free Contact		
4	Pump Dry Run Alarm status				2			Pot Free Contact		
iv	Diesel Engine Operated Pump	2								
1	Pump On/Off Status				2			DP Switch(water)	2C X 1 Sq.mm	EH3-MF-ENCL2/FAC2
	Total		5	0	58	0	0			
L	ENERGY METER(EEM)	4								
1	Voltage-v						0	Energy Meter	RS485 Communication Cable	EH3-B1-ENCL3/DDC2, EH3-B1-ENCL10/DDC4
2	Current-a						0			
3	Kilowatt-kw						0			
4	Reactive Power-kvar						0			
5	Apparent Power-kva						0			
6	Power Factor-PF						0			
7	active energy-KWH						0			
8	KVAh						0			
9	Frequency						0			
10	THD						0			
	Total		0	0	0	0	0			
	Floor total		7	1	117	15	0			
PROJECT	DWICC_EXHIBITION HALL 02 & FOYER 02									
PARTICULAR	TYPICAL I/O SUMMARY BASEMENT 01									
SI.NO	PARTICULARS	QTY	I/O DETAILS					Equipment	Type of Cable	
			AI	AO	DI	DO	Soft IO			
	Foyer-02 Basement-1									
A	Smoke Exhaust fan B1 Zone 5 NORMAL (FP-B1-Z5-EA-NM-05)	1								
1	Fan On/Off command					1		RELAY CONTACT	8C X 1 Sq.mm	
2	Fan On/Off status				1			LCP		
3	Fan Trip status				1			LCP		
4	Fan A/M status				1			LCP		
5	MSFD Status				1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	1	0			
B	Smoke Exhaust fan B1 Zone 5 Fire (FP-B1-Z5-EA-FM-05)	1								
1	Fan On/Off status				1			RELAY CONTACT	6C X 1 Sq.mm	
2	Fan Trip status				1			LCP		
3	Fan A/M status				1			LCP		
5	MSFD Status				1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	0	0			
C	Supply Fan B1 Zone 6 Normal (FP-B1-Z6-FA-NM-01)	1								
1	Fan On/Off command					1		RELAY CONTACT	8C X 1 Sq.mm	
2	Fan On/Off status				1			LCP		
3	Fan Trip status				1			LCP		
4	Fan A/M status				1			LCP		
5	MSFD Status				1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	1	0			
D	Supply Fan B1 Zone 6 Fire (FP-B1-Z6-FA-FM-01)	1								
1	Fan On/Off status				1			RELAY CONTACT	6C X 1 Sq.mm	
2	Fan Trip status				1			LCP		
3	Fan A/M status				1			LCP		
5	MSFD Status				1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	0	0			
E	Smoke Exhaust fan B1 Zone 6 Normal (FP-B1-Z6-EA-NM-01)	1								
1	Fan On/Off command					1		RELAY CONTACT	8C X 1 Sq.mm	
2	Fan On/Off status				1			LCP		
3	Fan Trip status				1			LCP		
4	Fan A/M status				1			LCP		
5	MSFD Status				1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	1	0			
F	Smoke Exhaust fan B1 Zone 6 Fire (FP-B1-Z6-EA-FM-01)	1								
1	Fan On/Off status				1			RELAY CONTACT	6C X 1 Sq.mm	
2	Fan Trip status				1			LCP		
3	Fan A/M status				1			LCP		
5	MSFD Status				1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	0	0			
G	Supply Fan B1 Zone 7 Normal (FP-B1-Z7-FA-NM-02)	1								
1	Fan On/Off command					1		RELAY CONTACT	8C X 1 Sq.mm	
2	Fan On/Off status				1			LCP		
3	Fan Trip status				1			LCP		
4	Fan A/M status				1			LCP		
5	MSFD Status				1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	1	0			

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.			
PARTICULAR	BMS IO Summary						0			
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
			AI	AO	DI	DO	Soft IO			
H	Supply Fan B1 Zone 7 Fire (FP-B1-Z7-FA-NM-02)	1								
1	Fan On/Off status				1			RELAY CONTACT	6C X 1 Sq.mm	
2	Fan Trip status				1			LCP		
3	Fan A/M status				1			LCP		
5	MSFD Status				1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	0	0			
I	Smoke Exhaust fan B1 Zone 7 Normal (FP-B1-Z7-EA-NM-02)	1								
1	Fan On/Off command					1		RELAY CONTACT	8C X 1 Sq.mm	
2	Fan On/Off status				1			LCP		
3	Fan Trip status				1			LCP		
4	Fan A/M status				1			LCP		
5	MSFD Status				1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	1	0			
J	Smoke Exhaust fan B1 Zone 7 Fire (FP-B1-Z7-EA-FM-02)	1								
1	Fan On/Off status				1			RELAY CONTACT	6C X 1 Sq.mm	
2	Fan Trip status				1			LCP		
3	Fan A/M status				1			LCP		
5	MSFD Status				1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	0	0			
K	Supply Fan B1 Zone 8 Normal (FP-B1-Z8-FA-NM-03)	1								
1	Fan On/Off command					1		RELAY CONTACT	8C X 1 Sq.mm	
2	Fan On/Off status				1			LCP		
3	Fan Trip status				1			LCP		
4	Fan A/M status				1			LCP		
5	MSFD Status				1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	1	0			
L	Supply Fan B1 Zone 8 Fire (FP-B1-Z8-FA-FM-03)	1								
1	Fan On/Off status				1			RELAY CONTACT	6C X 1 Sq.mm	
2	Fan Trip status				1			LCP		
3	Fan A/M status				1			LCP		
5	MSFD Status				1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	0	0			
M	Smoke Exhaust fan B1 Zone 8 Normal (FP-B1-Z8-EA-NM-03)	1								
1	Fan On/Off command					1		RELAY CONTACT	8C X 1 Sq.mm	
2	Fan On/Off status				1			LCP		
3	Fan Trip status				1			LCP		
4	Fan A/M status				1			LCP		
5	MSFD Status				1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	1	0			
N	Smoke Exhaust fan B1 Zone 8 Fire (FP-B1-Z8-EA-FM-03)	1								
1	Fan On/Off status				1			RELAY CONTACT	6C X 1 Sq.mm	
2	Fan Trip status				1			LCP		
3	Fan A/M status				1			LCP		
5	MSFD Status				1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	0	0			
O	Supply Fan B1 Zone 9 Normal FP-B1-Z9-FA-NM-04)	1								
1	Fan On/Off command					1		RELAY CONTACT	8C X 1 Sq.mm	
2	Fan On/Off status				1			LCP		
3	Fan Trip status				1			LCP		
4	Fan A/M status				1			LCP		
5	MSFD Status				1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	1	0			
P	Supply Fan B1 Zone 9 Fire (FP-B1-Z9-FA-FM-04)	1								
1	Fan On/Off status				1			RELAY CONTACT	6C X 1 Sq.mm	
2	Fan Trip status				1			LCP		
3	Fan A/M status				1			LCP		
5	MSFD Status				1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	0	0			
Q	Supply Fan B1 Zone 9 Normal (FP-B1-Z9-EA-NM-04)	1								
1	Fan On/Off command					1		RELAY CONTACT	8C X 1 Sq.mm	
2	Fan On/Off status				1			LCP		
3	Fan Trip status				1			LCP		
4	Fan A/M status				1			LCP		
5	MSFD Status				1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	1	0			
R	Supply Fan B1 Zone 9 Fire (FP-B1-Z9-EA-FM-04)	1								
1	Fan On/Off status				1			RELAY CONTACT	6C X 1 Sq.mm	
2	Fan Trip status				1			LCP		
3	Fan A/M status				1			LCP		
5	MSFD Status				1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	0	0			
S	Zone CO	4								
1	Zone Co Monitoring		4					CO Sensor	2C X 1Sq.mm	
	Total		4	0	0	0	0			

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.		
PARTICULAR	BMS IO Summary						0		
SI.NO	PARTICULARS	I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
		AI	AO	DI	DO	Soft IO			
T	FLOOR MOUNTED AIR HANDLING UNIT (FP-B1-Z6/Z9-AHU-01&02) with 3 FAN - 4NOS	4							
1	FAHU Fan On/Off Command				12		RELAY CONTACT	6C X 1 Sq.mm	
2	FAHU Motor trip status			12			LCP		
3	FAHU Auto/Manual Status			12			LCP		
4	FAHU's VFD Command				12		VFD	6C X 1 Sq.mm	
5	FAHU's VFD/Bypass Status			12			VFD		
6	FAHU's VFD Speed feed back					12	VFD		
7	FAHU's VFD Speed Control		12				RELAY CONTACT		
8	FAHU Fan Run Status			12			DP Switch	2C X 1 Sq.mm	
9	Pressure Drop across Pre Filter Status			4			DP Switch	2C X 1 Sq.mm	
10	Pressure Drop across Fine Filter Status			4			DP Switch	2C X 1 Sq.mm	
11	Supply Air Temperature Monitoring	4					Temperature Sensor(Duct)	2C X 1 Sq.mm	
12	Return Air Temperature Monitoring	4					Temperature Sensor(Duct)	2C X 1 Sq.mm	
13	Chilled Water Control Valve Modulation Command		4				Modulating Valve	6C X 1 Sq.mm	
14	Chilled Water Control Valve Feedback	4					Modulating Valve		
15	Duct Supply Static Pressure Feedback	4					Pressure transmitter(duct static)	4C X 1 Sq.mm	
16	Return Air CO ₂ level	4					CO2 Sensor(Duct)	4C X 1 Sq.mm	
17	Fresh Air Damper control		4				Modulating Damper	6C X 1 Sq.mm	
18	Fresh Air Damper feedback	4					Modulating Damper		
19	Return Air Relative Humidity monitoring	4					Humidity Sensor(Duct)	4C X 1 Sq.mm	
20	Supply Air Fire Damper Status			4			Fire Damper	2C X 1 Sq.mm	
21	Return Air Fire Damper Status			4			Fire Damper	2C X 1 Sq.mm	
22	Chilled Water Inlet Temperature Monitoring	4					Imm temp sensor	2C X 1 Sq.mm	
23	Chilled Water Outlet Temperature Monitoring	4					Imm temp sensor	2C X 1 Sq.mm	
	Total	36	20	64	24	12			
U	VFD units(AHU & HRW)	16							
1	HVAC Related VFD's Speed Feedback					16	VFD	RS485 Communication Cable	
2	HVAC Related VFD's Frequency					16			
3	HVAC Related VFD's Current					16			
4	HVAC Related VFD's Voltage					16			
5	HVAC Related VFD's Power					16			
6	HVAC Related VFD's Run Time					16			
	Total	0	0	0	0	96			
V	HEAT RECOVERY UNIT (FP-B1-Z6 / Z9-HRW-01 / 02)	2							
1	Fresh Air Fan On/Off Command				2		RELAY CONTACT	6C X 1 Sq.mm	
2	Fresh Air Fan Motor Trip sts			2			LCP		
3	Fresh Air Fan Auto/Manual Status			2			LCP		
4	Fresh Air Fan Run Status			2			DP Swith	2C X 1 Sq.mm	
5	Fresh Air Damper control		2				DAMPER	6C X 1 Sq.mm	
6	Fresh Air Damper feedback	2					DAMPER		
7	Fresh Air Header Pressure Status	2					Pressure transmitter(duct static)	2C X 1 Sq.mm	
8	Fresh Air Temperature Monitoring	2					Temperature Sensor(Duct)	2C X 1 Sq.mm	
9	Fresh Air Fan VFD Command				2		VFD	4C X 1 Sq.mm	
10	Fresh Air Fan VFD Bypass sts			2			VFD		
11	Fresh Air Fan VFD Speed feed back						VFD		
12	Fresh Air Fan VFD Speed Control		2				VFD	2C X 1 Sq.mm	
13	Exhaust Air Fan On/Off Command				2		RELAY CONTACT	6C X 1 Sq.mm	
14	Exhaust Air Fan Motor Trip sts			2			LCP		
15	Exhaust Air Fan Auto/Manual Status			2			LCP		
16	Exhaust Air Fan Run Status			2			DP Swith	2C X 1 Sq.mm	
17	Exhaust Air Damper control		2				DAMPER	6C X 1 Sq.mm	
18	Exhaust Air Damper feedback	2					DAMPER		
19	Exhaust Air Header Pressure Status	2					Pressure transmitter(duct static)	2C X 1 Sq.mm	
20	Exhaust Air Temperature Monitoring	2					Temperature Sensor(Duct)	2C X 1 Sq.mm	
21	Exhaust Air Fan VFD Command				2		VFD	4C X 1 Sq.mm	
22	Exhaust Air Fan VFD Bypass sts			2			VFD		
23	Exhaust Air Fan VFD Speed Control		2				VFD	2C X 1 Sq.mm	
24	Exhaust Air Temperature Status - After Heat Recovery Wheel	2					Temperature Sensor(Duct)	2C X 1 Sq.mm	
25	Wheel Status			2			LCP	2C X 1 Sq.mm	
	Total	14	8	18	8	0			
AA	FIRE MODE VENTILATION PANEL - ZONE - 6	1							
1	I/C _On / Off Status			1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status			1			ELEC Panel		
	Total	0	0	2	0	0			
AB	FIRE MODE VENTILATION PANEL - ZONE - 7	1							
1	I/C _On / Off Status			1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status			1			ELEC Panel		
	Total	0	0	2	0	0			
AC	FIRE MODE VENTILATION PANEL - ZONE - 8	1							
1	I/C _On / Off Status			1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status			1			ELEC Panel		
	Total	0	0	2	0	0			
AD	FIRE MODE VENTILATION PANEL - ZONE - 9	1							
1	I/C _On / Off Status			1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status			1			ELEC Panel		
	Total	0	0	2	0	0			
AE	FO-AHU PANEL-3	1							
1	On / Off Status of AHU Panel			1			ELEC Panel	4C X 1 Sq.mm	
2	Trip Status of AHU Panel			1			ELEC Panel		
	Total	0	0	2	0	0			
AF	FO-AHU PANEL-4	1							
1	On / Off Status of AHU Panel			1			ELEC Panel	4C X 1 Sq.mm	
2	Trip Status of AHU Panel			1			ELEC Panel		
	Total	0	0	2	0	0			
AG	FOYER LIGHTING PANEL -2	1							
1	I/C _On / Off Status			1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status			1			ELEC Panel		
AH	FOYER BASEMENT MAIN POWER PANEL-2	1							
1	On / Off Status of UPS I/C Panel			1			ELEC Panel	4C X 1 Sq.mm	
2	Trip Status of UPS I/C Panel			1			ELEC Panel		
	Total	0	0	2	0	0			
AI	FOYER BASEMENT MAIN LIGHTING PANEL-2	1							
1	I/C _On / Off Status			1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status			1			ELEC Panel		
	Total	0	0	2	0	0			

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Rev.		
PARTICULAR	BMS IO Summary					0		
SI.NO	PARTICULARS		I/O DETAILS					DDC Enclosure Details
			AI	AO	DI	DO	Soft IO	
AJ	FO-POWER & ESCALATOR PANEL-2	1						
1	I/C _On / Off Status				1			ELEC Panel
2	I/C _Trip Status				1			ELEC Panel
	Total		0	0	2	0	0	
AK	AIR DRYER-1	1						
1	Fan On/Off command					1		RELAY CONTACT
2	Fan On/Off status				1			LCP
3	Fan Trip status				1			LCP
4	Fan A/M status				1			LCP
	Total		0	0	3	1	0	
AL	AIR DRYER-2	1						
1	Fan On/Off command					1		RELAY CONTACT
2	Fan On/Off status				1			LCP
3	Fan Trip status				1			LCP
4	Fan A/M status				1			LCP
	Total		0	0	3	1	0	
AM	AIR DRYER-3	1						
1	Fan On/Off command					1		RELAY CONTACT
2	Fan On/Off status				1			LCP
3	Fan Trip status				1			LCP
4	Fan A/M status				1			LCP
	Total		0	0	3	1	0	
AN	AIR DRYER-4	1						
1	Fan On/Off command					1		RELAY CONTACT
2	Fan On/Off status				1			LCP
3	Fan Trip status				1			LCP
4	Fan A/M status				1			LCP
	Total		0	0	3	1	0	
AO	COMPRESSOR EXHAUST AIR NORMAL MODE	1						
1	Fan On/Off command					1		RELAY CONTACT
2	Fan On/Off status				1			LCP
3	Fan Trip status				1			LCP
4	Fan A/M status				1			LCP
	Total		0	0	3	1	0	
AP	FO EMR UPS O/G PANEL	2						
1	On / Off Status of UPS O/G Panel Incomers.				2			UPS O/G Panel
2	Trip Status of UPS O/G Panel Incomers.				2			UPS O/G Panel
	Total		0	0	4	0	0	
AQ	FO ELV-UPS O/G PANEL CUM DISTRIBUTION	2						
1	On / Off Status of UPS O/G Panel Incomers.				2			UPS O/G Panel
2	Trip Status of UPS O/G Panel Incomers.				2			UPS O/G Panel
	Total		0	0	4	0	0	
AR	FO LIFT PANEL	1						
1	On / Off Status of Lift Panel.				1			ELEC Panel
2	Trip Status of Lift Panel.				1			ELEC Panel
	Total		0	0	2	0	0	
AS	ENERGY METER(EEM)	15						
1	Voltage-v						15	Energy Meter
2	Current-a						15	
3	Kilowatt-kw						15	
4	Reactive Power-kvar						15	
5	Apparent Power-kva						15	
6	Power Factor-PF						15	
7	active energy-KWH						15	
8	KVArH						15	
9	Frequency						15	
10	THD						15	
	Total		0	0	0	0	150	
AA	UPS	4						
1	Communication Status						4	UPS
2	I/P Voltage - RY						4	
3	I/P Voltage - YB						4	
4	I/P Voltage - BR						4	
5	O/P Voltage - R						4	
6	O/P Voltage - Y						4	
7	O/P Voltage - B						4	
8	O/P Current - R						4	
9	O/P Current - Y						4	
10	O/P Current - Y						4	
11	Battery Voltage						4	
12	Battery Charge Remaining						4	
13	Loading Percentage						4	
14	Frequency						4	
15	Alarm Status						4	
	Total		0	0	0	0	60	
	Grand Total		54	28	198	46	258	
PROJECT	DWICC_EXHIBITION HALL 02 & FOYER 02							
PARTICULAR	TYPICAL I/O SUMMARY BASEMENT 02							
SI.NO	PARTICULARS	QTY	I/O DETAILS					DDC Enclosure Details
			AI	AO	DI	DO	Soft IO	
	Foyer-02 Basement-2							
A	Smoke Exhaust fan B2 Zone 5 NORMAL (FP-B2-Z5-EA-NM-05)	1						
1	Fan On/Off command					1		RELAY CONTACT
2	Fan On/Off status				1			LCP
3	Fan Trip status				1			LCP
4	Fan A/M status				1			LCP
5	MSFD Status				1			MSFD
	Total		0	0	4	1	0	

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.		
PARTICULAR	BMS IO Summary						0		
SI.NO	PARTICULARS	I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
		AI	AO	DI	DO	Soft IO			
B	Smoke Exhaust fan B2 Zone 5 Fire (FP-B2-Z5-EA-FM-05)	1							
1	Fan On/Off status			1			RELAY CONTACT	6C X 1 Sq.mm	
2	Fan Trip status			1			LCP		
3	Fan A/M status			1			LCP		
5	MSFD Status			1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	0			
C	Supply Fan B2 Zone 6 Normal (FP-B2-Z6-FA-NM-01)	1							
1	Fan On/Off command				1		RELAY CONTACT	8C X 1 Sq.mm	
2	Fan On/Off status			1			LCP		
3	Fan Trip status			1			LCP		
4	Fan A/M status			1			LCP		
5	MSFD Status			1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	1			
D	Supply Fan B2 Zone 6 Fire (FP-B2-Z6-FA-FM-01)	1							
1	Fan On/Off status			1			RELAY CONTACT	6C X 1 Sq.mm	
2	Fan Trip status			1			LCP		
3	Fan A/M status			1			LCP		
5	MSFD Status			1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	0			
E	Smoke Exhaust fan B2 Zone 6 Normal (FP-B2-Z6-EA-NM-01)	1							
1	Fan On/Off command				1		RELAY CONTACT	8C X 1 Sq.mm	
2	Fan On/Off status			1			LCP		
3	Fan Trip status			1			LCP		
4	Fan A/M status			1			LCP		
5	MSFD Status			1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	1			
F	Smoke Exhaust fan B2 Zone 6 Fire (FP-B2-Z6-EA-FM-01)	1							
1	Fan On/Off status			1			RELAY CONTACT	6C X 1 Sq.mm	
2	Fan Trip status			1			LCP		
3	Fan A/M status			1			LCP		
5	MSFD Status			1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	0			
G	Supply Fan B2 Zone 7 Normal (FP-B2-Z7-FA-NM-02)	1							
1	Fan On/Off command				1		RELAY CONTACT	8C X 1 Sq.mm	
2	Fan On/Off status			1			LCP		
3	Fan Trip status			1			LCP		
4	Fan A/M status			1			LCP		
5	MSFD Status			1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	1			
H	Supply Fan B2 Zone 7 Fire (FP-B2-Z7-FA-FM-02)	1							
1	Fan On/Off status			1			RELAY CONTACT	6C X 1 Sq.mm	
2	Fan Trip status			1			LCP		
3	Fan A/M status			1			LCP		
5	MSFD Status			1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	0			
I	Smoke Exhaust fan B2 Zone 7 Normal (FP-B2-Z7-EA-NM-02)	1							
1	Fan On/Off command				1		RELAY CONTACT	8C X 1 Sq.mm	
2	Fan On/Off status			1			LCP		
3	Fan Trip status			1			LCP		
4	Fan A/M status			1			LCP		
5	MSFD Status			1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	1			
J	Smoke Exhaust fan B2 Zone 7 Fire (FP-B2-Z7-EA-FM-02)	1							
1	Fan On/Off status			1			RELAY CONTACT	6C X 1 Sq.mm	
2	Fan Trip status			1			LCP		
3	Fan A/M status			1			LCP		
5	MSFD Status			1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	0			
K	Supply Fan B2 Zone 8 Normal (FP-B2-Z8-FA-NM-03)	1							
1	Fan On/Off command				1		RELAY CONTACT	8C X 1 Sq.mm	
2	Fan On/Off status			1			LCP		
3	Fan Trip status			1			LCP		
4	Fan A/M status			1			LCP		
5	MSFD Status			1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	1			
L	Supply Fan B2 Zone 8 Fire (FP-B2-Z8-FA-FM-03)	1							
1	Fan On/Off status			1			RELAY CONTACT	6C X 1 Sq.mm	
2	Fan Trip status			1			LCP		
3	Fan A/M status			1			LCP		
5	MSFD Status			1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	0			
M	Smoke Exhaust fan B2 Zone 8 Normal (FP-B2-Z8-EA-NM-03)	1							
1	Fan On/Off command				1		RELAY CONTACT	8C X 1 Sq.mm	
2	Fan On/Off status			1			LCP		
3	Fan Trip status			1			LCP		
4	Fan A/M status			1			LCP		
5	MSFD Status			1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	1			
N	Smoke Exhaust fan B2 Zone 8 Fire (FP-B2-Z8-EA-FM-03)	1							
1	Fan On/Off status			1			RELAY CONTACT	6C X 1 Sq.mm	
2	Fan Trip status			1			LCP		
3	Fan A/M status			1			LCP		
5	MSFD Status			1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	0			
O	Supply Fan B2 Zone 9 Normal (FP-B2-Z9-FA-NM-04)	1							
1	Fan On/Off command				1		RELAY CONTACT	8C X 1 Sq.mm	
2	Fan On/Off status			1			LCP		
3	Fan Trip status			1			LCP		
4	Fan A/M status			1			LCP		
5	MSFD Status			1			MSFD	2C X 1 Sq.mm	
	Total		0	0	4	1			

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Rev.		
PARTICULAR	BMS IO Summary					0		
SI.NO	PARTICULARS		I/O DETAILS					Equipment
			AI	AO	DI	DO	Soft IO	
P	Supply Fan B2 Zone 9 Fire (FP-B2-Z9-FA-FM-04)	1						
1	Fan On/Off status				1			RELAY CONTACT
2	Fan Trip status				1			LCP
3	Fan A/M status				1			LCP
5	MSFD Status				1			MSFD
	Total		0	0	4	0	0	
Q	Supply Fan B2 Zone 9 Normal (FP-B2-Z9-EA-NM-04)	1						
1	Fan On/Off command					1		RELAY CONTACT
2	Fan On/Off status				1			LCP
3	Fan Trip status				1			LCP
4	Fan A/M status				1			LCP
5	MSFD Status				1			MSFD
	Total		0	0	4	1	0	
R	Supply Fan B2 Zone 9 Fire (FP-B2-Z9-EA-FM-04)	1						
1	Fan On/Off status				1			RELAY CONTACT
2	Fan Trip status				1			LCP
3	Fan A/M status				1			LCP
5	MSFD Status				1			MSFD
	Total		0	0	4	0	0	
S	Zone CO	4						
1	Zone Co Monitoring		4					CO Sensor
	Total		4	0	0	0	0	
	Total		4	0	72	9	0	
PROJECT	DWICC_EXHIBITION HALL 02 & FOYER 02							
PARTICULAR	TYPICAL I/O SUMMARY BASEMENT 03							
SI.NO	PARTICULARS	QTY	I/O DETAILS					Equipment
			AI	AO	DI	DO	Soft IO	
	Foyer-02 Basement-3							
A	Smoke Exhaust fan B3 Zone 5 NORMAL (FP-B3-Z5-EA-NM-05)	1						
1	Fan On/Off command					1		RELAY CONTACT
2	Fan On/Off status				1			LCP
3	Fan Trip status				1			LCP
4	Fan A/M status				1			LCP
5	MSFD Status				1			MSFD
	Total		0	0	4	1	0	
B	Smoke Exhaust fan B3 Zone 5 Fire (FP-B3-Z5-EA-FM-05)	1						
1	Fan On/Off status				1			RELAY CONTACT
2	Fan Trip status				1			LCP
3	Fan A/M status				1			LCP
4	MSFD Status				1			MSFD
	Total		0	0	4	0	0	
C	Supply Fan B3 Zone 6 Normal (FP-B3-Z6-FA-NM-01)	1						
1	Fan On/Off command					1		RELAY CONTACT
2	Fan On/Off status				1			LCP
3	Fan Trip status				1			LCP
4	Fan A/M status				1			LCP
5	MSFD Status				1			MSFD
	Total		0	0	4	1	0	
D	Supply Fan B3 Zone 6 Fire (FP-B3-Z6-FA-FM-01)	1						
1	Fan On/Off status				1			RELAY CONTACT
2	Fan Trip status				1			LCP
3	Fan A/M status				1			LCP
4	MSFD Status				1			MSFD
	Total		0	0	4	0	0	
E	Smoke Exhaust fan B3 Zone 6 Normal (FP-B3-Z6-EA-NM-01)	1						
1	Fan On/Off command					1		RELAY CONTACT
2	Fan On/Off status				1			LCP
3	Fan Trip status				1			LCP
4	Fan A/M status				1			LCP
5	MSFD Status				1			MSFD
	Total		0	0	4	1	0	
F	Smoke Exhaust fan B3 Zone 6 Fire (FP-B3-Z6-EA-FM-01)	1						
1	Fan On/Off status				1			RELAY CONTACT
2	Fan Trip status				1			LCP
3	Fan A/M status				1			LCP
4	MSFD Status				1			MSFD
	Total		0	0	4	0	0	
G	Supply Fan B3 Zone 7 Normal (FP-B3-Z7-FA-NM-02)	1						
1	Fan On/Off command					1		RELAY CONTACT
2	Fan On/Off status				1			LCP
3	Fan Trip status				1			LCP
4	Fan A/M status				1			LCP
5	MSFD Status				1			MSFD
	Total		0	0	4	1	0	
H	Supply Fan B3 Zone 7 Fire (FP-B3-Z7-FA-FM-02)	1						
1	Fan On/Off status				1			RELAY CONTACT
2	Fan Trip status				1			LCP
3	Fan A/M status				1			LCP
4	MSFD Status				1			MSFD
	Total		0	0	4	0	0	
I	Smoke Exhaust fan B3 Zone 7 Normal (FP-B3-Z7-EA-NM-02)	1						
1	Fan On/Off command					1		RELAY CONTACT
2	Fan On/Off status				1			LCP
3	Fan Trip status				1			LCP
4	Fan A/M status				1			LCP
5	MSFD Status				1			MSFD
	Total		0	0	4	1	0	

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Rev.		
PARTICULAR	BMS IO Summary					0		
SI.NO	PARTICULARS		I/O DETAILS					DDC Enclosure Details
			AI	AO	DI	DO	Soft IO	
J	Smoke Exhaust fan B3 Zone 7 Fire (FP-B3-Z7-EA-FM-02)	1						
1	Fan On/Off status				1			RELAY CONTACT
2	Fan Trip status				1			LCP
3	Fan A/M status				1			LCP
4	MSFD Status				1			MSFD
	Total		0	0	4	0	0	
K	Supply Fan B3 Zone 8 Normal (FP-B3-Z8-FA-NM-03)	1						
1	Fan On/Off command					1		RELAY CONTACT
2	Fan On/Off status				1			LCP
3	Fan Trip status				1			LCP
4	Fan A/M status				1			LCP
5	MSFD Status				1			MSFD
	Total		0	0	4	1	0	
L	Supply Fan B3 Zone 8 Fire (FP-B3-Z8-FA-FM-03)	1						
1	Fan On/Off status				1			RELAY CONTACT
2	Fan Trip status				1			LCP
3	Fan A/M status				1			LCP
4	MSFD Status				1			MSFD
	Total		0	0	4	0	0	
M	Smoke Exhaust fan B3 Zone 8 Normal (FP-B3-Z8-EA-NM-03)	1						
1	Fan On/Off command					1		RELAY CONTACT
2	Fan On/Off status				1			LCP
3	Fan Trip status				1			LCP
4	Fan A/M status				1			LCP
5	MSFD Status				1			MSFD
	Total		0	0	4	1	0	
N	Smoke Exhaust fan B3 Zone 8 Fire (FP-B3-Z8-EA-FM-03)	1						
1	Fan On/Off status				1			RELAY CONTACT
2	Fan Trip status				1			LCP
3	Fan A/M status				1			LCP
4	MSFD Status				1			MSFD
	Total		0	0	4	0	0	
O	Supply Fan B3 Zone 9 Normal (FP-B3-Z9-FA-NM-04)	1						
1	Fan On/Off command					1		RELAY CONTACT
2	Fan On/Off status				1			LCP
3	Fan Trip status				1			LCP
4	Fan A/M status				1			LCP
5	MSFD Status				1			MSFD
	Total		0	0	4	1	0	
P	Supply Fan B3 Zone 9 Fire (FP-B3-Z9-FA-FM-04)	1						
1	Fan On/Off status				1			RELAY CONTACT
2	Fan Trip status				1			LCP
3	Fan A/M status				1			LCP
4	MSFD Status				1			MSFD
	Total		0	0	4	0	0	
Q	Supply Fan B3 Zone 9 Normal (FP-B3-Z9-EA-NM-04)	1						
1	Fan On/Off command					1		RELAY CONTACT
2	Fan On/Off status				1			LCP
3	Fan Trip status				1			LCP
4	Fan A/M status				1			LCP
5	MSFD Status				1			MSFD
	Total		0	0	4	1	0	
R	Supply Fan B3 Zone 9 Fire (FP-B3-Z9-EA-FM-04)	1						
1	Fan On/Off status				1			RELAY CONTACT
2	Fan Trip status				1			LCP
3	Fan A/M status				1			LCP
4	MSFD Status				1			MSFD
	Total		0	0	4	0	0	
S	Zone CO	4						
1	Zone Co Monitoring		4					CO Sensor
	Total		4	0	0	0	0	
T	BASEMENT DEWATERING SUMP PUMP-24 nos(W+S)	24						
1	Sump high level alarm				12			Level Controller
2	Dewatering Pump On/Off Status (1W+1S)				24			Pot Free Contact
3	Dewatering Pump Trip Status (1W+1S)				24			Pot Free Contact
	Total		0	0	60	0	0	
V	PHE PUMP PANEL-2	1						
1	On / Off Status				1			ELEC Panel
2	Trip Status				1			ELEC Panel
	Total		0	0	2	0	0	
W	ENERGY METER(EEM)	1						
1	Voltage-v						1	Energy Meter
2	Current-a						1	
3	Kilowatt-kw						1	
4	Reactive Power-kvar						1	
5	Apparent Power-kva						1	
6	Power Factor-PF						1	
7	active energy-KWH						1	
8	KVAh						1	
9	Frequency						1	
10	THD						1	
	Total		0	0	0	0	10	
	Total		4	0	134	9	10	
PROJECT	DWICC. EXHIBITION HALL 02 Basement							
PARTICULAR	TYPICAL I/O SUMMARY GROUND FLOOR							
SI.NO	PARTICULARS	QTY	I/O DETAILS					Remarks
			AI	AO	DI	DO	Soft IO	

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.		
PARTICULAR	BMS IO Summary						0		
SI.NO	PARTICULARS	I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
		AI	AO	DI	DO	Soft IO			
A	FLOOR MOUNTED AIR HANDLING UNIT (EH2-B1-AHU-01)	1							
1	FAHU Fan On/Off Command				1		RELAY CONTACT	6C X 1 Sq.mm	
2	FAHU Motor trip status			1			LCP		
3	FAHU Auto/Manual Status			1			LCP		
4	FAHU's VFD Command				1		VFD	6C X 1 Sq.mm	
5	FAHU's VFD/Bypass Status			1			VFD		
6	FAHU's VFD Speed feed back					1	VFD		
7	FAHU's VFD Speed Control		1				VFD		
8	FAHU Fan Run Status			1			DP Switch	2C X 1 Sq.mm	
9	Pressure Drop across Pre Filter Status			2			DP Switch	2C X 1 Sq.mm	
10	Pressure Drop across Fine Filter Status			1			DP Switch	2C X 1 Sq.mm	
11	Supply Air Temperature Monitoring	1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
12	Return Air Temperature Monitoring	1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
13	Chilled Water Control Valve Modulation Command		1				Modulating Valve	6C X 1 Sq.mm	
14	Chilled Water Control Valve Feedback	1					Modulating Valve		
15	Duct Supply Static Pressure Feedback	1					Pressure transmitter(duct static)	4C X 1 Sq.mm	
16	Return Air CO ₂ level	1					CO2 Sensor(Duct)	4C X 1 Sq.mm	
17	Fresh Air Damper control		1				Modulating Damper	6C X 1 Sq.mm	
18	Fresh Air Damper feedback	1					Modulating Damper		
19	Return Air Relative Humidity monitoring	1					Humidity Sensor(Duct)	4C X 1 Sq.mm	
20	Supply Air Fire Damper Status			1			Fire Damper	2C X 1 Sq.mm	
21	Return Air Fire Damper Status			1			Fire Damper	2C X 1 Sq.mm	
22	Chilled Water Inlet Temperature Monitoring	1					Imm temp sensor	2C X 1 Sq.mm	
23	Chilled Water Outlet Temperature Monitoring	1					Imm temp sensor	2C X 1 Sq.mm	
	Total	9	3	9	2	1			
B	Tertiary PUMP (EH2-B1-CHWTP-01, 02&03)	3							
1	Teritary Pump On/Off Command				3		RELAY CONTACT	6C X 1 Sq.mm	
2	Teritary Pump Trip Status			3			LCP		
3	Teritary Pump Auto/Manual Status			3			LCP		
4	Teritary Pump Run Status			3			DP Switch(water)	2C X 1 Sq.mm	
5	Teritary Pump's VFD Command				3		VFD	6C X 1 Sq.mm	
6	Teritary Pump's VFD Bypass Status			3			VFD		
7	Teritary Pump's VFD Speed control		3				VFD		
8	Pressure Sensor for pump load estimation		2				Pressure Transmitter	2C X 1 Sq.mm	
C	Tertiary PUMP (F2-B1-CHWTP-01, 02&03)	3							
1	Teritary Pump On/Off Command				3		RELAY CONTACT	6C X 1 Sq.mm	
2	Teritary Pump Trip Status			3			LCP		
3	Teritary Pump Auto/Manual Status			3			LCP		
4	Teritary Pump Run Status			3			DP Switch(water)	2C X 1 Sq.mm	
5	Teritary Pump's VFD Command				3		VFD	6C X 1 Sq.mm	
6	Teritary Pump's VFD Bypass Status			3			VFD		
7	Teritary Pump's VFD Speed control		3				VFD		
8	Pressure Sensor for pump load estimation		2				Pressure Transmitter	2C X 1 Sq.mm	
9	Chilled Water header retrun Temperature Monitoring		1				Imm temp sensor	2C X 1 Sq.mm	
	Heat Exchanger secondary side								
10	Chilled Water Control Valve Modulation Command		1				Modulating Valve	6C X 1 Sq.mm	
11	Chilled Water Control Valve Feedback		1				Modulating Valve		
D	Pressurization pump (EH2-B1-ET-01)	2							
	Pump On/Off Command				0	2	Relay Contact	6C X 1 Sq.mm	System is working on PLC. Hardwiring Integration provision not there. Soft intgertaion can be done
2	Pump Trip Status			0		2	Pot Free Contact		
3	Pump Auto/Manual Status			0		2	Pot Free Contact		
4	Pump On/Off Status			0		2	DP Switch(water) (by HVAC Vendor	2C X 1 Sq.mm	
E	Pressurization pump (F2-B1-ET-02)	2							
1	Pump On/Off Command				0	2	Relay Contact	6C X 1 Sq.mm	System is working on PLC. Hardwiring Integration provision not there. Soft intgertaion can be done
2	Pump Trip Status			0		2	Pot Free Contact		
3	Pump Auto/Manual Status			0		2	Pot Free Contact		
4	Pump On/Off Status			0		2	DP Switch(water) (by HVAC Vendor	2C X 1 Sq.mm	
	Total		6	7	24	12	16		
F	VFD units(TERITARY PUMP (EH2-B1-CHWTP-01, 02&03))	3							
1	HVAC Related VFD's Speed Feedback					3	VFD	RS485 Communication Cable	
2	HVAC Related VFD's Frequency					3			
3	HVAC Related VFD's Current					3			
4	HVAC Related VFD's Voltage					3			
5	HVAC Related VFD's Power					3			
6	HVAC Related VFD's Run Time					3			
	Total		0	0	0	0	18		
G	VFD units((F2-B1-CHWTP-01, 02&03)PUMP ROOM)	3							
1	HVAC Related VFD's Speed Feedback					3	VFD	RS485 Communication Cable	
2	HVAC Related VFD's Frequency					3			
3	HVAC Related VFD's Current					3			
4	HVAC Related VFD's Voltage					3			
5	HVAC Related VFD's Power					3			
6	HVAC Related VFD's Run Time					3			
	Total		0	0	0	0	18		
H	VFD units(AHU)	1							
1	HVAC Related VFD's Speed Feedback					1	VFD	RS485 Communication Cable	
2	HVAC Related VFD's Frequency					1			
3	HVAC Related VFD's Current					1			
4	HVAC Related VFD's Voltage					1			
5	HVAC Related VFD's Power					1			
6	HVAC Related VFD's Run Time					1			
	Total		0	0	0	0	6		
I	Smoke Exhaust fan Normal Mode EH2-B1-EA-NM-01,02,03,05	4							
1	Fan On/Off command				4		DDC	8C X 1 Sq.mm	
2	Fan On/Off status			4			LCP Panel		
3	Fan Trip status			4			LCP Panel		
4	Fan A/M status			4			LCP Panel		
5	MSFD Status			4			LCP Panel	2C X 1 Sq.mm	
	Total		0	0	16	4	0		
J	Smoke Exhaust fan Fire Mode EH2-B1-EA-FM-02,03	2							
1	Fan On/Off status			2			LCP Panel	6C X 1 Sq.mm	
2	Fan Trip status			2			LCP Panel		
3	Fan A/M status			2			LCP Panel		
4	MSFD Status			2			LCP Panel	2C X 1 Sq.mm	
	Total		0	0	8	0	0		
K	EH2-GF-EX-CF-01,Toilet - Exhaust	1							
1	Fan On/Off command				1		RELAY CONTACT	8C X 1 Sq.mm	LCP at Basment-1
2	Fan On/Off status			1			LCP Panel		
3	Fan Trip status			1			LCP Panel		
4	Fan A/M status			1			LCP Panel		
	Total		0	0	3	1	0		
L	EH2-GF-EX-CF-02,Toilet - Exhaust	1							

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.		
PARTICULAR	BMS IO Summary						0		
SI.NO	PARTICULARS	I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
		AI	AO	DI	DO	Soft IO			
1	Fan On/Off command				1		RELAY CONTACT	8C X 1 Sq.mm	LCP at Basment-1
2	Fan On/Off status			1			LCP Panel		
3	Fan Trip status			1			LCP Panel		
4	Fan A/M status			1			LCP Panel		
	Total	0	0	3	1	0			
M	BASEMENT DEWATERING SUMP PIT-6 (W+S)	12							
1	Sump high level alarm			6			Level Controller	2C X 1 Sq.mm	
2	Dewatering Pump On/Off Status (1W+1S)			12			Pot Free Contact	4C X 1 Sq.mm	
3	Dewatering Pump Trip Status (1W+1S)			12			Pot Free Contact		
	Total	0	0	30	0	0			
O	SUBSTATION EQUIPMENTS (MAIN LT PANEL)	1							
1	LT Panel I/C Breaker On/Off Status	3		3			Main LT Panel	4C X 1 Sq.mm	
2	LT Panel I/C Breaker Trip Status			3			Main LT Panel		
3	LT Panel O/G Breaker On/Off Status	40		40			Main LT Panel	4C X 1 Sq.mm	
4	LT Panel O/G Breaker Trip Status			40			Main LT Panel		
5	LT Panel Bus Coupler On/Off Status	1		1			Main LT Panel	4C X 1 Sq.mm	
6	LT Panel Bus Coupler Trip Status			1			Main LT Panel		
7	Voltage presence	40				40	Main LT Panel	2C X 1 Sq.mm	
	Total	0	0	88	0	40			
P	APFC PANEL -1	1							
1	I/C _On / Off Status			1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status			1			ELEC Panel	4C X 1 Sq.mm	
Q	APFC PANEL-2	1							
1	I/C _On / Off Status			1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status			1			ELEC Panel	4C X 1 Sq.mm	
R	EXHIBITION HALL - 2 SUBSTATION VENTILATION PANEL	1							
1	I/C _On / Off Status			1			Ventilation Panel	4C X 1 Sq.mm	
2	I/C _Trip Status			1			Ventilation Panel		
S	EXHIBITION HALL-2 SERVICE LIFT PANEL - 1	1							
1	On / Off Status of Lift Panel.			1			Lift Panel	4C X 1 Sq.mm	
2	Trip Status of Lift Panel.			1			Lift Panel		
T	EH2-EMG UPS I/C PANEL	2							
1	On / Off Status of UPS I/C Panel			2			EMG UPS I/C Panel	4C X 1 Sq.mm	
2	Trip Status of UPS I/C Panel			2			EMG UPS I/C Panel		
U	EH2-EMERGENCY UPS O/G PANEL	2							
1	On / Off Status of UPS O/G Panel Incomers.			2			EMG UPS O/G Panel	4C X 1 Sq.mm	
2	Trip Status of UPS O/G Panel Incomers.			2			EMG UPS O/G Panel		
V	Stall Power Distribution Panel-1-16	16							
1	I/C _On / Off Status			16			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status			16			Pot. Free Contact		
W	Stall Power Main Panel	1							
1	I/C _On / Off Status	2		2			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status			2			Pot. Free Contact		
3	Bus Coupler On/Off Status	1		1			ELEC Panel	4C X 1 Sq.mm	
4	Bus Coupler Trip Status			1			Pot. Free Contact		
Z	Stall Bulk Power Panel	4							
1	I/C _On / Off Status			4			ELEC Panel		
2	I/C _Trip Status			4			Pot. Free Contact	4C X 1 Sq.mm	
	Total	0	0	54	0	0			
AA	VARIABLE TERTIARY CHILLED WATER PUMP PANEL FOR EH2 AND FOYER2	2							
1	I/C _On / Off Status			2			ELEC Panel		
2	I/C _Trip Status			2			Pot. Free Contact	4C X 1 Sq.mm	
	Total	0	0	119	0	0			
X	Transformer(2500kva)	0							
	Winding Temperature	0					Transformer	2C X 1 Sq.mm	
	Total	0	0	0	0	0			
Y	ENERGY METER(EEM)	70							
1	Voltage-v					2	Energy Meter	RS485 Communication Cable	
2	Current-a					2			
3	Kilowatt-kw					2			
4	Reactive Power-kvar					2			
5	Apparent Power-kva					2			
6	Power Factor-PF					2			
7	active energy-KWH					2			
8	KVAh					2			
9	Frequency					2			
10	THD					2			
	Total	0	0	0	0	20			
Z	MFM METER	3							
1	Active Power					3	Trivector Meter	RS485 Communication Cable	
2	Apparent Power					3			
3	Reactive Power					3			
4	Active Energy					3			
5	Apparent Energy					3			
6	Reactive Energy					3			
7	Line to Line Voltage					3			
8	line to Neutral Voltage					3			
9	Average Current					3			
10	Power Factor					3			
11	Frequency					3			
	TOTAL	0	0	0	0	33			
AA	UPS	2							
1	Communication Status					2	UPS	RS485 Communication Cable	
2	I/P Voltage - RY					2			
3	I/P Voltage - YB					2			
4	I/P Voltage - BR					2			
5	O/P Voltage - R					2			
6	O/P Voltage - Y					2			
7	O/P Voltage - B					2			
8	O/P Current - R					2			
9	O/P Current - Y					2			
10	O/P Current - Y					2			
11	Battery Voltage					2			
12	Battery Charge Remaining					2			
13	Loading Percentage					2			
14	Frequency					2			
15	Alarm Status					2			
	Total	0	0	0	0	30			

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.				
PARTICULAR	BMS IO Summary						0				
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details	
			AI	AO	DI	DO	Soft IO				
AB	FCU Unit	3								Valve Actuator connection to be confirmed from valve OEM.	
1	Valve Feedback		3	0	0	0	0	Valve Actuator	2C X 1 Sq.mm		
	Total		3	0	0	0	0				
AF	Escalator	4									
1	Inspection Status (Normal/Maintenance)						4	Escalator Manager	RS485 Communication Cable		
2	Emergency Stop Status						4				
3	Fault Indication						4				
4	Fireman Switch Status						4				
5	Escalator Auto/Manual Status						4				
6	Escalator Run Status						4				
7	Escalator Load status						4				
	Total		0	0	0	0	28				
AF	Travelator	2									
1	Inspection Status (Normal/Maintenance)						2	Escalator Manager	RS485 Communication Cable		
2	Emergency Stop Status						2				
3	Fault Indication						2				
4	Fireman Switch Status						2				
5	Auto/Manual Status						2				
6	Run Status						2				
7	Load status						2				
	Total		0	0	0	0	14				
AG	BTU meter-Eh2-1no,Foyer-2-1no	2									
1	Inlet Temp						2	BTU meter	RS485 Communication Cable		
2	Outlet Temp						2				
3	Flow Rate						2				
4	Net Heat.						2				
5	Flow Total						2				
6	Net Heat Total						2				
	Total		0	0	0	0	12				
AC	Water Meter EH 02 KINTEX TRENCH-4nos	4									
1	Flow rate						4	Water Meter-plant room (3rd party)	RS485 Communication Cable	soft integration points will be confirmed.	
2	Consumption						4				
	Total		0	0	0	0	8				
AC	Water Meter	4									
	Exhibition hall -02-Service gallery BTR-2nos FOYER 02-Service gallery BTR-2nos							Water Meter	RS485 Communication Cable		
1	Flow rate						4				
2	Consumption						4				
	TOTAL		0	0	0	0	8				
	Ground Total		18	10	300.5	20	182				
PROJECT.	DWICC_EXHIBITION HALL 02										
Des	GROUND MEZZANINE FLOOR BMS IO SUMMARY										
SI No	Description	Qty	AI	AO	DI	DO	SOFT	Equipment	Type of Cable		
A	FLOOR MOUNTED AIR HANDLING UNIT (EH2-MF-AC-AHU-01)	1									
1	FAHU Fan On/Off Command					1		RELAY CONTACT	6C X 1 Sq.mm		
2	FAHU Motor trip status				1			LCP			
3	FAHU Auto/Manual Status				1			LCP			
4	FAHU's VFD Command					1		VFD	6C X 1 Sq.mm		
5	FAHU's VFD/Bypass Status				1			VFD			
6	FAHU's VFD Speed feed back						1	VFD			
7	FAHU's VFD Speed Control			1				VFD			
8	FAHU Fan Run Status				1			DP Switch	2C X 1 Sq.mm		
9	Pressure Drop across Pre Filter Status				1			DP Switch	2C X 1 Sq.mm		
10	Pressure Drop across Fine Filter Status				1			DP Switch	2C X 1 Sq.mm		
11	Supply Air Temperature Monitoring		1					Temperature Sensor(Duct)	2C X 1 Sq.mm		
12	Return Air Temperature Monitoring		1					Temperature Sensor(Duct)	2C X 1 Sq.mm		
13	Chilled Water Control Valve Modulation Command			1				Modulating Valve	6C X 1 Sq.mm		
14	Chilled Water Control Valve Feedback		1					Modulating Valve			
15	Duct Supply Static Pressure Feedback		1					Pressure transmitter(duct)	4C X 1 Sq.mm		
16	Return Air CO2 level		1					CO2 Sensor(Duct)	4C X 1 Sq.mm		
17	Fresh Air Damper control			1				Modulating Damper	6C X 1 Sq.mm		
18	Fresh Air Damper feedback		1					Modulating Damper			
19	Return Air Relative Humidity monitoring		1					Humidity Sensor(Duct)	4C X 1 Sq.mm		
20	Supply Air Fire Damper Status				1			Fire Damper	2C X 1 Sq.mm		
21	Return Air Fire Damper Status				1			Fire Damper	2C X 1 Sq.mm		
22	Chilled Water Inlet Temperature Monitoring		1					Imm temp sensor	2C X 1 Sq.mm		
23	Chilled Water Outlet Temperature Monitoring		1					Imm temp sensor	2C X 1 Sq.mm		
	TOTAL		9	3	8	2	1				
B	VFD units(AHU)	1									
1	HVAC Related VFD's Speed Feedback						1	VFD	RS485 Communication Cable		
2	HVAC Related VFD's Frequency						1				
3	HVAC Related VFD's Current						1				
4	HVAC Related VFD's Voltage						1				
5	HVAC Related VFD's Power						1				
6	HVAC Related VFD's Run Time						1				
	Total		0	0	0	0	6				
J	DATA CENTER MAIN LT PANEL	1									
1	LT Panel I/C Breaker On/Off Status	1			1			Main LT Panel	4C X 1 Sq.mm	Datacenter Equipment under approval will be confirmed after approval.	
2	LT Panel I/C Breaker Trip Status				1			Main LT Panel			
3	LT Panel O/G Breaker On/Off Status	10			10			Main LT Panel	4C X 1 Sq.mm		
4	LT Panel O/G Breaker Trip Status				10			Main LT Panel			
K	DATA CENTER UPS DISTRIBUTION PANEL I/C-1&2	1									
1	I/C Breaker On/Off Status				1			Elec. Panel	4C X 1 Sq.mm		
2	I/C Breaker Trip Status				1			Elec. Panel			
L	DATA CENTER UTILITY PANEL I/C	1									
1	I/C Breaker On/Off Status				1			Elec. Panel	4C X 1 Sq.mm		
2	I/C Breaker Trip Status				1			Elec. Panel			
M	DATA CENTER LCP DB I/C	2									
1	I/C Breaker On/Off Status				2			Elec. Panel	4C X 1 Sq.mm		
2	I/C Breaker Trip Status				2			Elec. Panel			
M	CHILLER PANEL I/C	1									
1	I/C Breaker On/Off Status				1			Elec. Panel	4C X 1 Sq.mm		
2	I/C Breaker Trip Status				1			Elec. Panel			
	Total		0	0	30	0	0				

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.			
PARTICULAR	BMS IO Summary						0			
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
			AI	AO	DI	DO	Soft IO			
N	DATA CENTER ENERGY METER	7						Energy Meter	RS485 Communication Cable	
1	Average Current						3			
2	Voltage						3			
3	Kilowatt						3			
4	Run hour						3			
5	Power Factor						3			
6	Forward Active Energy						3			
7	Power Factor Average						3			
8	Line to Line Voltage Average						3			
9	Line to Line Neutral Average						3			
10	Frequency						3			
	Total		0	0	0	0	30			
AT	Water leak detection Monitoring	1								
1	Alarm Status				1			WLD Panel	DDC	
2	Fault status				1			WLD Panel	DDC	
	TOTAL		0	0	2	0	0			
C	PAHU (EH2-MF-AC-PAHU-01&02)	2						PAHU	RS485 Communication Cable	
1	Fan ON						2			
2	Smoke Detected						2			
3	High Room Temperature						2			
4	Low Room Temperature						2			
5	High Room Humidity						2			
6	Low Room Humidity						2			
7	Return Temperature						2			
8	Supply Temperature						2			
9	Return Humidity						2			
10	Fan Run Hours						2			
	Total		0	0	0	0	20			
F	FCU Unit	3								
1	Valve Feedback		3	0	0	0	0	Valve Actuator	2C X 1 Sq.mm	
	Total		3	0	0	0	0			
	GRAND TOTAL		12	3	41	2	57			
PROJECT.	DWICC_EXHIBITION HALL 02									
Des	FIRST FLOOR BMS IO SUMMARY									
SI No	Description	Qty	AI	AO	DI	DO	SOFT	Field Device	Type of Cable	
A	EH2-FF-EX-CF-01,02,03,04 Toilet - Exhaust	4								
1	Fan On/Off command					4		DDC	8C X 1 Sq.mm	
2	Fan On/Off status				4			LCP		
3	Fan Trip status				4			LCP		
4	Fan A/M status				4			LCP		
	TOTAL		0	0	12	4	0			
B	FY2-1F-CAFE-SEF-01 &02	2								
2	Fan On/Off status				2			LCP	6C X 1 Sq.mm	
3	Fan Trip status				2			LCP		
4	Fan A/M status				2			LCP		
	TOTAL		0	0	6	0	0			
C	EH2-FF-AC-CAHU-01 to 04	4								
1	Supply Air Temperature Monitoring		4					Temperature Sensor(Du	2C X 1 Sq.mm	
2	Return Air Temperature Monitoring		4					Temperature Sensor(Du	2C X 1 Sq.mm	
3	Chilled Water Control Valve Feedback		4					From Valve Actuator	6C X 1 Sq.mm	
4	Chilled Water Control Valve Modulation Command			4				two way valve Actuator	6C X 1 Sq.mm	
5	SUPPLY Fan Auto Manual				4			Pot. Free Contact		
7	SUPPLY Fan Trip Status				4			Pot. Free Contact		
8	FAHU Fan On/Off Command					4		Relay Contact		
6	SUPPLY Fan Run Status				4			DP Switch		
9	Pressure Drop across Pre Filter Status				4			DP Switch		2C X 1 Sq.mm
10	Chilled Water Inlet Temperature Monitoring		4					Imm temp sensor	2C X 1 Sq.mm	
11	Chilled Water Outlet Temperature Monitoring		4					Imm temp sensor	2C X 1 Sq.mm	
	TOTAL		20	4	16	4	0			
D	KITCHEN PANEL-2	3								
1	I/C _On / Off Status				1			Kitchen LCP	4C X 1 Sq.mm	
2	I/C _Trip Status				1			Kitchen LCP		
	TOTAL		0	0	2	0	0			
E	Treated Fresh Air unit without VFD	2								
1	TFA Fan On/Off Command					2		DDC	6C X 1 Sq.mm	
2	TFA Motor trip status				2			LCP		
3	TFA Auto/Manual Status				2			LCP		
4	TFA Run Status				2			DP Switch	2C X 1 Sq.mm	
5	Supply Air Temperature Monitoring		2					Temperature Sensor(Du	2C X 1 Sq.mm	
6	Pressure Drop across Pre Filter Status				2			DP Switch	2C X 1 Sq.mm	
7	Pressure Drop across Fine Filter Status				2			DP Switch	2C X 1 Sq.mm	
8	Modulating Valve Control Output			2				DDC	6C X 1 Sq.mm	
9	Modulating Valve Position Feedback		2					modulating Valve		
	TOTAL		4	2	10	2	0			
F	Air Washer/Scrubber with VFD	4								
1	Fan On/Off command					4		DDC	8C X 1 Sq.mm	
2	Fan On/Off status				4			LCP		
3	Fan Trip status				4			LCP		
4	Fan A/M status				4			LCP		
5	Filter Status				4			DP Switch	2C X 1 Sq.mm	
	TOTAL		0	0	16	4	0			
G	FO- TERRACE PRESS PANEL-2(FOYER-2)	3								
1	I/C _On / Off Status				1			Press Panel	4C X 1 Sq.mm	
2	I/C _Trip Status				1			Press Panel		
	PRESSURIAZATION FAN	18								
3	Fan On/Off status				0			Pot. Free Contact	6C X 1 Sq.mm	
4	Fan Trip status				0			Pot. Free Contact		
5	Fan A/M status				0			Pot. Free Contact		
H	FO-FIRE MODE VENTILATION PANEL-2 (Foyer-2)	3								
1	I/C _On / Off Status				1			Press Panel	4C X 1 Sq.mm	
2	I/C _Trip Status				1			Press Panel		
	FIRE MODE VENTILATION FAN	19								
3	Fan On/Off status				0			Pot. Free Contact	6C X 1 Sq.mm	
4	Fan Trip status				0			Pot. Free Contact		
5	Fan A/M status				0			Pot. Free Contact		
	Total		0	0	4	0	0			

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.			
PARTICULAR	BMS IO Summary						0			
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
			AI	AO	DI	DO	Soft IO			
I	HVAC RELATED VFD's	4						VFD	RS485 Communication Cable	
1	HVAC Related VFD's Speed Feedback						4			
2	HVAC Related VFD's Frequency						4			
3	HVAC Related VFD's Current						4			
4	HVAC Related VFD's Voltage						4			
5	HVAC Related VFD's Power						4			
6	HVAC Related VFD's Run Time						4			
	TOTAL		0	0	0	0	24			
J	Lift	5						Lift Control Manager	RS485 Communication Cable	
1	Floor Position						5			
2	Door fully Closed Signal						5			
3	Status of Landing Floor (Open/Close)						5			
4	Inspection Status (Normal/Maintenance)						5			
5	Emergency Stop Status						5			
6	Fault Indication						5			
7	Fireman Switch Status						5			
8	Lift Auto/Manual Status						5			
9	Lift Run Status						5			
	TOTAL		0	0	0	0	45			
F	FCU Unit	2								
1	Valve Feedback		2	0	0	0	0	Valve Actuator	2C X 1 Sq.mm	
	Total		2	0	0	0	0			
	GRAND TOTAL		26	6	66	14	69			
PROJECT.	DWICC_EXHIBITION HALL 02									
Des	EH2 SECOND FLOOR BMS IO SUMMARY									
SI No	Description	Qty	AI	AO	BI	BO	SOFT	Field Device	Type of Cable	
A	EH2-2F-AC-CAHU-01	3								
1	Supply Air Temperature Monitoring		1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
2	Return Air Temperature Monitoring		1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
3	Chilled Water Control Valve Feedback		1					From Valve Actuator	6C X 1 Sq.mm	
4	Chilled Water Control Valve Modulation Command			1				Two Way Valve Actuator		
5	SUPPLY Fan Auto Manual				1			Pot. Free Contact	6C X 1 Sq.mm	
7	SUPPLY Fan Trip Status				1			Pot. Free Contact		
8	FAHU Fan On/Off Command					1		Relay Contact		
6	SUPPLY Fan Run Status				1			DP Switch		
9	Pressure Drop across Pre Filter Status				1			DP Switch	2C X 1 Sq.mm	
10	Chilled Water Inlet Temperature Monitoring		1					Imm temp sensor	2C X 1 Sq.mm	
	Chilled Water Outlet Temperature Monitoring		1					Imm temp sensor	2C X 1 Sq.mm	
	TOTAL		5	1	4	1	0			
B	EH2-2F-AC-CAHU-02	3								
1	Supply Air Temperature Monitoring		1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
2	Return Air Temperature Monitoring		1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
3	Chilled Water Control Valve Feedback		1					From Valve Actuator	6C X 1 Sq.mm	
4	Chilled Water Control Valve Modulation Command			1				Two Way Valve Actuator		
5	SUPPLY Fan Auto Manual				1			Pot. Free Contact	6C X 1 Sq.mm	
7	SUPPLY Fan Trip Status				1			Pot. Free Contact		
8	FAHU Fan On/Off Command					1		Relay Contact		
6	SUPPLY Fan Run Status				1			DP Switch	2C X 1 Sq.mm	
9	Pressure Drop across Pre Filter Status				1			DP Switch	2C X 1 Sq.mm	
10	Chilled Water Inlet Temperature Monitoring		1					Imm temp sensor	2C X 1 Sq.mm	
	Chilled Water Outlet Temperature Monitoring		1					Imm temp sensor	2C X 1 Sq.mm	
	TOTAL		5	1	4	1	0			
C	KITCHEN PANEL-3	3								
1	I/C_On / Off Status				1			Kitchen LCP	4C X 1 Sq.mm	
2	I/C_Trip Status				1			Kitchen LCP		
	TOTAL		0	0	2	0	0			
D	Treated Fresh Air unit without VFD	2								
1	TFA Fan On/Off Command					2		Relay Contact	6C X 1 Sq.mm	
2	TFA Motor trip status				2			LCP		
3	TFA Auto/Manual Status				2			LCP		
4	TFA Run Status				2			DP Switch	2C X 1 Sq.mm	
5	Supply Air Temperature Monitoring		2					Temperature Sensor(Duct)	2C X 1 Sq.mm	
6	Pressure Drop across Pre Filter Status				2			DP Switch	2C X 1 Sq.mm	
7	Pressure Drop across Fine Filter Status				2			DP Switch	2C X 1 Sq.mm	
8	Modulating Valve Control Output			2				DDC modulating Valve	6C X 1 Sq.mm	
9	Modulating Valve Position Feedback		2							
	TOTAL		4	2	10	2	0			
E	Air Washer/Scrubber with VFD	4								
1	Fan On/Off command					4		Relay Contact	8C X 1 Sq.mm	
2	Fan On/Off status				4			LCP		
3	Fan Trip status				4			LCP		
4	Fan A/M status				4			LCP		
	Filter Status				4			DP Switch	2C X 1 Sq.mm	
	TOTAL		0	0	16	4	0			
F	EH2-2F-SEF-AF-10&11, EH2-SEF-3F-Z5a-01&EH2-SEF-3F-Z15a-01	4								
2	Fan On/Off status				4			LCP	6C X 1 Sq.mm	
3	Fan Trip status				4			LCP		
4	Fan A/M status				4			LCP		
	Pressurization Fan at Terrace	2								
3	Fan On/Off status				2			Pot. Free Contact	6C X 1 Sq.mm	
4	Fan Trip status				2			Pot. Free Contact		
5	Fan A/M status				2			Pot. Free Contact		
	TOTAL		0	0	12	0	0			
G	HVAC RELATED VFD's	4								
1	HVAC Related VFD's Speed Feedback						1	VFD	RS485 Communication Cable	
2	HVAC Related VFD's Frequency						1			
3	HVAC Related VFD's Current						1			
4	HVAC Related VFD's Voltage						1			
5	HVAC Related VFD's Power						1			
6	HVAC Related VFD's Run Time						1			
	TOTAL		0	0	0	0	6			

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Rev.		
PARTICULAR	BMS IO Summary					0		
SI.NO	PARTICULARS		I/O DETAILS				Equipment	Type of Cable
			AI	AO	DI	DO		
H	Lift	4						
1	Floor Position					0	Lift Control Manager	RS485 Communication Cable
2	Door fully Closed Signal					0		
3	Status of Landing Floor (Open/Close)					0		
4	Inspection Status (Normal/Maintenance)					0		
5	Emergency Stop Status					0		
6	Fault Indication					0		
7	Fireman Switch Status					0		
8	Lift Auto/Manual Status					0		
9	Lift Run Status					0		
	TOTAL		0	0	0	0		
F	FCU Unit	2						
1	Valve Feedback		2	0	0	0	Valve Actuator	2C X 1 Sq.mm
	Total		2	0	0	0		
	GRAND TOTAL		16	4	51	8	6	
PROJECT	DWICC, EXHIBITION HALL 012							
PARTICULAR	TYPICAL I/O SUMMARY THIRD FLOOR AND TERRACE							
SI.NO	PARTICULARS	QTY	I/O DETAILS				Equipment	Type of Cable
			AI	AO	DI	DO		
A	FLOOR MOUNTED AIR HANDLING UNIT (EH2-3F-AHU- 01 to 12)(4 Supply FANS, 2 EXHAUST FAN)	12						
1	FAHU Fan On/Off Command					48	RELAY CONTACT	6C X 1 Sq.mm
2	FAHU Motor trip status				48		LCP	
3	FAHU Auto/Manual Status				48		LCP	
4	FAHU's VFD Command					48	VFD	6C X 1 Sq.mm
5	FAHU's VFD/Bypass Status				48		VFD	
6	FAHU's VFD Speed feed back					48	VFD	
7	FAHU's VFD Speed Control			48			VFD	
8	FAHU Fan Run Status				0		DP Switch	2C X 1 Sq.mm
9	Pressure Drop across Pre Filter Status				36		DP Switch	2C X 1 Sq.mm
10	Pressure Drop across Fine Filter Status				0		DP Switch	2C X 1 Sq.mm
11	Supply Air Temperature Monitoring		0				Temperature Sensor(Duct)	2C X 1 Sq.mm
12	Return Air Temperature Monitoring		0				Temperature Sensor(Duct)	2C X 1 Sq.mm
13	Chilled Water Control Valve Modulation Command			0			Modulating Valve	6C X 1 Sq.mm
14	Chilled Water Control Valve Feedback		0				Modulating Valve	
15	Duct Supply Static Pressure Feedback		0				Pressure transmitter(duct static)	4C X 1 Sq.mm
16	Return Air CO ₂ level		0				CO2 Sensor(Duct)	4C X 1 Sq.mm
17	Fresh Air Damper control			0			Modulating Damper	6C X 1 Sq.mm
18	Fresh Air Damper feedback		0				Modulating Damper	
19	Return Air Relative Humidity monitoring		0				Humidity Sensor(Duct)	4C X 1 Sq.mm
20	Supply Air Damper control			0			Modulating Damper	6C X 1 Sq.mm
21	Supply Air Damper feedback		0				Modulating Damper	
22	Return Air Damper control			0			Modulating Damper	6C X 1 Sq.mm
23	Return Air Damper feedback		0				Modulating Damper	
24	Supply Air Fire Damper Status				0		Fire Damper	2C X 1 Sq.mm
25	Return Air Fire Damper Status				0		Fire Damper	2C X 1 Sq.mm
26	Chilled Water Inlet Temperature Monitoring		0				Imm temp sensor	2C X 1 Sq.mm
27	Chilled Water Outlet Temperature Monitoring		0				Imm temp sensor	2C X 1 Sq.mm
28	Exhaust Air Fan On/Off Command					24	LCP	6C X 1 Sq.mm
29	Exhaust Air Fan Motor Trip sts				24		LCP	
30	Exhaust Air Fan Auto/Manual Status				24		LCP	
31	Exhaust Air Fan Run Status				0		DP Switch	2C X 1 Sq.mm
32	Exhaust Air Header Pressure Status		0				Pressure transmitter(duct static)	4C X 1 Sq.mm
33	Exhaust Air Fan VFD Command					24	LCP	6C X 1 Sq.mm
34	Exhaust Air Fan VFD Bypass sts				24		LCP	
35	Exhaust Air Fan VFD Speed Control			24			LCP	
36	Fresh Air Temperature Status - After Heat Recovery Wheel		0				Temperature Sensor(Duct)	2C X 1 Sq.mm
37	HRW Wheel On/Off Command					0	LCP	8C X 1 Sq.mm
38	HRW Wheel Motor Trip sts				0		LCP	
39	HRW Wheel Auto/Manual Status				0		LCP	
40	HRW Wheel Run/Filter Status				0		LCP	
41	HRW Wheel ON/OFF Status				0		LCP	2C X 1 Sq.mm
	Total		0	72	252	144	48	
B	FLOOR MOUNTED AIR HANDLING UNIT (EH2-3F-AHU- 13, 14)(3 Supply & 1 Exhaust FANS)	2						
1	FAHU Fan On/Off Command					6	RELAY CONTACT	6C X 1 Sq.mm
2	FAHU Motor trip status				6		LCP	
3	FAHU Auto/Manual Status				6		LCP	
4	FAHU's VFD Command					6	VFD	6C X 1 Sq.mm
5	FAHU's VFD/Bypass Status				6		VFD	
6	FAHU's VFD Speed feed back					6	VFD	
7	FAHU's VFD Speed Control			6			VFD	
8	FAHU Fan Run Status				0		DP Switch	2C X 1 Sq.mm
9	Pressure Drop across Pre Filter Status				0		DP Switch	2C X 1 Sq.mm
10	Pressure Drop across Fine Filter Status				0		DP Switch	2C X 1 Sq.mm
11	Supply Air Temperature Monitoring		0				Temperature Sensor(Duct)	2C X 1 Sq.mm
12	Return Air Temperature Monitoring		0				Temperature Sensor(Duct)	2C X 1 Sq.mm
13	Chilled Water Control Valve Modulation Command			0			Modulating Valve	6C X 1 Sq.mm
14	Chilled Water Control Valve Feedback		0				Modulating Valve	
15	Duct Supply Static Pressure Feedback		0				Pressure transmitter(duct static)	4C X 1 Sq.mm
16	Return Air CO ₂ level		0				CO2 Sensor(Duct)	4C X 1 Sq.mm
17	Fresh Air Damper control			0			Modulating Damper	6C X 1 Sq.mm
18	Fresh Air Damper feedback		0				Modulating Damper	
19	Return Air Relative Humidity monitoring		0				Humidity Sensor(Duct)	4C X 1 Sq.mm
20	Supply Air Damper control			0			Modulating Damper	6C X 1 Sq.mm
21	Supply Air Damper feedback		0				Modulating Damper	
22	Return Air Damper control			0			Modulating Damper	6C X 1 Sq.mm
23	Return Air Damper feedback		0				Modulating Damper	
24	Supply Air Fire Damper Status				0		Fire Damper	2C X 1 Sq.mm
25	Return Air Fire Damper Status				0		Fire Damper	2C X 1 Sq.mm

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.		
PARTICULAR	BMS IO Summary						0		
SI.NO	PARTICULARS	I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
		AI	AO	DI	DO	Soft IO			
26	Chilled Water Inlet Temperature Monitoring	0					Imm temp sensor	2C X 1 Sq.mm	
27	Chilled Water Outlet Temperature Monitoring	0					Imm temp sensor	2C X 1 Sq.mm	
28	Exhaust Air Fan On/Off Command				0		LCP	8C X 1 Sq.mm	
29	Exhaust Air Fan Motor Trip sts			0			LCP		
30	Exhaust Air Fan Auto/Manual Status			0			LCP		
31	Exhaust Air Fan Run Status			0			DP Switch	2C X 1 Sq.mm	
32	Exhaust Air Header Pressure Status	0					Pressure transmitter(duct static)	2C X 1 Sq.mm	
33	Exhaust Air Fan VFD Command				0		LCP	6C X 1 Sq.mm	
34	Exhaust Air Fan VFD Bypass sts			0			LCP		
35	Exhaust Air Fan VFD Speed Control		0				LCP		
36	Fresh Air Temperature Status - After Heat Recovery Wheel	0					Temperature Sensor(Duct)	2C X 1 Sq.mm	
37	HRW Wheel On/Off Command				0		LCP	8C X 1 Sq.mm	
38	HRW Wheel Motor Trip sts			0			LCP		
39	HRW Wheel Auto/Manual Status			0			LCP		
40	HRW Wheel Run/Filter Status			0			LCP		
41	HRW Wheel ON/OFF Status			0			LCP	2C X 1 Sq.mm	
	Total	0	6	18	12	6			
C	FLOOR MOUNTED AIR HANDLING UNIT (EH2-3F-AHU- 15, 16)(4 SUPPLY FANS 1 EXHAUST FAN)	2							
1	FAHU Fan On/Off Command				0		RELAY CONTACT	6C X 1 Sq.mm	
2	FAHU Motor trip status			0			LCP		
3	FAHU Auto/Manual Status			0			LCP		
4	FAHU's VFD Command				0		VFD	6C X 1 Sq.mm	
5	FAHU's VFD/Bypass Status			0			VFD		
6	FAHU's VFD Speed feed back						VFD		
7	FAHU's VFD Speed Control		0				VFD		
8	FAHU Fan Run Status			0			DP Switch	2C X 1 Sq.mm	
9	Pressure Drop across Pre Filter Status			0			DP Switch	2C X 1 Sq.mm	
10	Pressure Drop across Fine Filter Status			0			DP Switch	2C X 1 Sq.mm	
11	Supply Air Temperature Monitoring	0					Temperature Sensor(Duct)	2C X 1 Sq.mm	
12	Return Air Temperature Monitoring	0					Temperature Sensor(Duct)	2C X 1 Sq.mm	
13	Chilled Water Control Valve Modulation Command		0				Modulating Valve	6C X 1 Sq.mm	
14	Chilled Water Control Valve Feedback	0					Modulating Valve		
15	Duct Supply Static Pressure Feedback	0					Pressure transmitter(duct static)	4C X 1 Sq.mm	
16	Return Air CO ₂ level	0					CO ₂ Sensor(Duct)	4C X 1 Sq.mm	
17	Fresh Air Damper control		0				Modulating Damper	6C X 1 Sq.mm	
18	Fresh Air Damper feedback	0					Modulating Damper		
19	Return Air Relative Humidity monitoring	0					Humidity Sensor(Duct)	4C X 1 Sq.mm	
20	Supply Air Damper control		0				Modulating Damper	6C X 1 Sq.mm	
21	Supply Air Damper feedback	0					Modulating Damper		
22	Return Air Damper control		0				Modulating Damper	6C X 1 Sq.mm	
23	Return Air Damper feedback	0					Modulating Damper		
24	Supply Air Fire Damper Status			0			Fire Damper	2C X 1 Sq.mm	
25	Return Air Fire Damper Status			0			Fire Damper	2C X 1 Sq.mm	
26	Chilled Water Inlet Temperature Monitoring	0					Imm temp sensor	2C X 1 Sq.mm	
27	Chilled Water Outlet Temperature Monitoring	0					Imm temp sensor	2C X 1 Sq.mm	
28	Exhaust Air Fan On/Off Command				0		LCP	8C X 1 Sq.mm	
29	Exhaust Air Fan Motor Trip sts			0			LCP		
30	Exhaust Air Fan Auto/Manual Status			0			LCP		
31	Exhaust Air Fan Run Status			0			DP Switch	2C X 1 Sq.mm	
32	Exhaust Air Header Pressure Status	0					Pressure transmitter(duct static)	2C X 1 Sq.mm	
33	Exhaust Air Fan VFD Command				0		LCP	8C X 1 Sq.mm	
34	Exhaust Air Fan VFD Bypass sts			0			LCP		
35	Exhaust Air Fan VFD Speed Control		0				LCP		
36	Fresh Air Temperature Status - After Heat Recovery Wheel	0					Temperature Sensor(Duct)	2C X 1 Sq.mm	
37	HRW Wheel On/Off Command				0		LCP	8C X 1 Sq.mm	
38	HRW Wheel Motor Trip sts			0			LCP		
39	HRW Wheel Auto/Manual Status			0			LCP		
40	HRW Wheel Run/Filter Status			0			LCP		
41	HRW Wheel ON/OFF Status			0			LCP	2C X 1 Sq.mm	
	Total	0	0	0	0	0			
D	FLOOR MOUNTED AIR HANDLING UNIT (EH2-3F-AHU- 17, 18)(3 SUPPLY FANS & 1 EXHAUST FAN)	2							
1	FAHU Fan On/Off Command				0		RELAY CONTACT	6C X 1 Sq.mm	
2	FAHU Motor trip status			0			LCP		
3	FAHU Auto/Manual Status			0			LCP		
4	FAHU's VFD Command				0		VFD	6C X 1 Sq.mm	
5	FAHU's VFD/Bypass Status			0			VFD		
6	FAHU's VFD Speed feed back						VFD		
7	FAHU's VFD Speed Control		0				VFD		
8	FAHU Fan Run Status			0			DP Switch	2C X 1 Sq.mm	
9	Pressure Drop across Pre Filter Status			0			DP Switch	2C X 1 Sq.mm	
10	Pressure Drop across Fine Filter Status			0			DP Switch	2C X 1 Sq.mm	
11	Supply Air Temperature Monitoring	0					Temperature Sensor(Duct)	2C X 1 Sq.mm	
12	Return Air Temperature Monitoring	0					Temperature Sensor(Duct)	2C X 1 Sq.mm	
13	Chilled Water Control Valve Modulation Command		0				Modulating Valve	6C X 1 Sq.mm	
14	Chilled Water Control Valve Feedback	0					Modulating Valve		
15	Duct Supply Static Pressure Feedback	0					Pressure transmitter(duct static)	4C X 1 Sq.mm	
16	Return Air CO ₂ level	0					CO ₂ Sensor(Duct)	4C X 1 Sq.mm	
17	Fresh Air Damper control		0				Modulating Damper	6C X 1 Sq.mm	
18	Fresh Air Damper feedback	0					Modulating Damper		
19	Return Air Relative Humidity monitoring	0					Humidity Sensor(Duct)	4C X 1 Sq.mm	
20	Supply Air Damper control		0				Modulating Damper	6C X 1 Sq.mm	
21	Supply Air Damper feedback	0					Modulating Damper		
22	Return Air Damper control		0				Modulating Damper	6C X 1 Sq.mm	
23	Return Air Damper feedback	0					Modulating Damper		
24	Supply Air Fire Damper Status			0			Fire Damper	2C X 1 Sq.mm	
25	Return Air Fire Damper Status			0			Fire Damper	2C X 1 Sq.mm	
26	Chilled Water Inlet Temperature Monitoring	0					Imm temp sensor	2C X 1 Sq.mm	
27	Chilled Water Outlet Temperature Monitoring	0					Imm temp sensor	2C X 1 Sq.mm	
28	Exhaust Air Fan On/Off Command				0		LCP	6C X 1 Sq.mm	
29	Exhaust Air Fan Motor Trip sts			0			LCP		
30	Exhaust Air Fan Auto/Manual Status			0			LCP		
31	Exhaust Air Fan Run Status			0			DP Switch	2C X 1 Sq.mm	
32	Exhaust Air Header Pressure Status	0					Pressure transmitter(duct static)	2C X 1 Sq.mm	
33	Exhaust Air Fan VFD Command				0		LCP	6C X 1 Sq.mm	
34	Exhaust Air Fan VFD Bypass sts			0			LCP		

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.		
PARTICULAR	BMS IO Summary						0		
SI.NO	PARTICULARS	I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
		AI	AO	DI	DO	Soft IO			
35	Exhaust Air Fan VFD Speed Control		0				LCP		
36	Fresh Air Temperature Status - After Heat Recovery Wheel	0					Temperature Sensor(Duct)	2C X 1 Sq.mm	
37	HRW Wheel On/Off Command				0		LCP	8C X 1 Sq.mm	
38	HRW Wheel Motor Trip sts			0			LCP		
39	HRW Wheel Auto/Manual Status			0			LCP		
40	HRW Wheel Run/Filter Status			0			LCP		
41	HRW Wheel ON/OFF Status			0			LCP	2C X 1 Sq.mm	
	Total	0	0	0	0	0			
E	AIR HANDLING UNIT (EH2-3F-CAHU- 01)	1							
1	Supply Air Temperature Monitoring	1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
2	Return Air Temperature Monitoring	1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
3	Chilled Water Control Valve Feedback	1					From Valve Actuator	6C X 1 Sq.mm	
4	Chilled Water Control Valve Modulation Command		1				two way valve Actuator		
5	SUPPLY Fan Auto Manual			1			Pot. Free Contact	6C X 1 Sq.mm	
6	FAHU Fan On/Off Command				1		Relay Contact		
7	SUPPLY Fan Trip Status			1			Pot. Free Contact		
8	SUPPLY Fan Run Status			1			DP Switch	2C X 1 Sq.mm	
9	Pressure Drop across Pre Filter Status			1			DP Switch	2C X 1 Sq.mm	
10	Chilled Water Inlet Temperature Monitoring	1					Imm temp sensor	2C X 1 Sq.mm	
11	Chilled Water Outlet Temperature Monitoring	1					Imm temp sensor	2C X 1 Sq.mm	
	Total	5	1	4	1	0			
F	AIR HANDLING UNIT (EH2-3F-CAHU- 02)	1							
1	Supply Air Temperature Monitoring	1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
2	Return Air Temperature Monitoring	1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
3	Chilled Water Control Valve Feedback	1					From Valve Actuator	6C X 1 Sq.mm	
4	Chilled Water Control Valve Modulation Command		1				two way valve Actuator		
5	SUPPLY Fan Auto Manual			1			Pot. Free Contact	6C X 1 Sq.mm	
6	FAHU Fan On/Off Command				1		Relay Contact		
7	SUPPLY Fan Trip Status			1			Pot. Free Contact		
8	SUPPLY Fan Run Status			1			DP Switch	2C X 1 Sq.mm	
9	Pressure Drop across Pre Filter Status			1			DP Switch	2C X 1 Sq.mm	
10	Chilled Water Inlet Temperature Monitoring	1					Imm temp sensor	2C X 1 Sq.mm	
11	Chilled Water Outlet Temperature Monitoring	1					Imm temp sensor	2C X 1 Sq.mm	
	Total	5	1	4	1	0			
G	HEAT RECOVERY UNIT (EH2-3F-HRW-01&02)	2							
1	Fresh Air Fan On/Off Command				2		RELAY CONTACT	6C X 1 Sq.mm	
2	Fresh Air Fan Motor Trip sts			2			LCP LCP		
3	Fresh Air Fan Auto/Manual Status			2			LCP LCP		
4	Fresh Air Fan Run Status			2			DP Switch	2C X 1 Sq.mm	
5	Fresh Air Damper control		2				DAMPER	6C X 1 Sq.mm	
6	Fresh Air Damper feedback	2					DAMPER		
7	Fresh Air Header Pressure Status	2					Pressure transmitter(duct static)	2C X 1 Sq.mm	
8	Fresh Air Temperature Monitoring	2					Temperature Sensor(Duct)	2C X 1 Sq.mm	
9	Fresh Air Fan VFD Command				2		VFD	8C X 1 Sq.mm	
10	Fresh Air Fan VFD Bypass sts			2			VFD		
11	Fresh Air Fan VFD Speed feed back						VFD		
12	Fresh Air Fan VFD Speed Control		2				VFD	6C X 1 Sq.mm	
13	Exhaust Air Fan On/Off Command				2		LCP LCP		
14	Exhaust Air Fan Motor Trip sts			2			LCP LCP		
15	Exhaust Air Fan Auto/Manual Status			2			LCP LCP		
16	Exhaust Air Fan Run Status			2			DP Switch	2C X 1 Sq.mm	
17	Exhaust Air Damper control		2				RELAY CONTACT	6C X 1 Sq.mm	
18	Exhaust Air Damper feedback	2					DAMPER		
19	Exhaust Air Header Pressure Status	2					Pressure transmitter(duct static)	2C X 1 Sq.mm	
20	Exhaust Air Temperature Monitoring	2					Temperature Sensor(Duct)	2C X 1 Sq.mm	
21	Exhaust Air Fan VFD Command				2		VFD	4C X 1 Sq.mm	
22	Exhaust Air Fan VFD Bypass sts			2			VFD		
23	Exhaust Air Fan VFD Speed Control		2				VFD	2C X 1 Sq.mm	
24	Exhaust Air Temperature Status - After Heat Recovery Wheel	2					Temperature Sensor(Duct)	2C X 1 Sq.mm	
25	Wheel Status			2			LCP	2C X 1 Sq.mm	
	Total	14	8	18	8	0			
H	VFD units	102							
1	HVAC Related VFD's Speed Feedback					102	VFD	RS485 Communication Cable	
2	HVAC Related VFD's Frequency					102			
3	HVAC Related VFD's Current					102			
4	HVAC Related VFD's Voltage					102			
5	HVAC Related VFD's Power					102			
6	HVAC Related VFD's Run Time					102			
	Total	0	0	0	0	612			
I	EXHIBITION HALL-2 MAIN LIGHTING PANEL-1	1							
1	I/C _On / Off Status	1		1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status			1			ELEC Panel		
	Total	0	0	2	0	0			
J	EXHIBITION HALL-2 MAIN LIGHTING PANEL-2	1							
1	I/C _On / Off Status	1		1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status			1			ELEC Panel		
	Total	0	0	2	0	0			
K	EH-02 MAIN POWER & AHU PANEL-1	1							
1	I/C _On / Off Status			1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status			1			ELEC Panel		
	Total	0	0	2	0	0			
L	EH-02 MAIN POWER & AHU PANEL-2	1							
1	I/C _On / Off Status			1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status			1			ELEC Panel		
	Total	0	0	2	0	0			
M	EH-02 MAIN POWER & AHU PANEL-3	1							
1	I/C _On / Off Status			1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status			1			ELEC Panel		
	Total	0	0	2	0	0			
N	EH-02 MAIN POWER & AHU PANEL-4	1							
1	I/C _On / Off Status			1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status			1			ELEC Panel		
	Total	0	0	2	0	0			
O	Exhibition Hall 2 Roof Extractor Panel - 1	1							
1	I/C _On / Off Status			1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status			1			ELEC Panel		

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Rev.		
PARTICULAR	BMS IO Summary					0		
SI.NO	PARTICULARS		I/O DETAILS					DDC Enclosure Details
			AI	AO	DI	DO	Soft IO	
	Roof Smoke Extractor Fan	10						
2	FAN On/Off status				10			Pot. Free Contact
3	FAN Trip status				10			Pot. Free Contact
4	FAN A/M status				10			Pot. Free Contact
	Pressurization Fan at Terrace	4						2nos LCP at 2F,2nos in 1F
	Total		0	0	32	0	0	
P	Exhibition Hall 2 Roof Extractor Panel - 2	1						
1	I/C _On / Off Status				1			ELEC Panel
2	I/C _Trip Status				1			ELEC Panel
	Roof Smoke Extractor Fan	10						
2	FAN On/Off status				10			Pot. Free Contact
3	FAN Trip status				10			Pot. Free Contact
4	FAN A/M status				10			Pot. Free Contact
	Pressurization Fan at Terrace	5						LCP at 1F
	Total		0	0	32	0	0	
Q	Exhibition Hall 2 Roof Extractor Panel - 3	1						
1	I/C _On / Off Status				1			ELEC Panel
2	I/C _Trip Status				1			ELEC Panel
	Roof Smoke Extractor Fan	19						
3	FAN On/Off status				19			Pot. Free Contact
4	FAN Trip status				19			Pot. Free Contact
5	FAN A/M status				19			Pot. Free Contact
	Pressurization Fan at third	5						LCP at 1F
	Total		0	0	59	0	0	
R	Exhibition Hall 2 Roof Extractor Panel - 4	1						
1	I/C _On / Off Status				1			ELEC Panel
2	I/C _Trip Status				1			ELEC Panel
	Roof Smoke Extractor Fan	19						
3	FAN On/Off status				19			Pot. Free Contact
4	FAN Trip status				19			Pot. Free Contact
5	FAN A/M status				19			Pot. Free Contact
	Pressurization Fan at third	4						LCP at 1F
	Total		0	0	59	0	0	
S	Roof Makeup Air Fan	14						
1	FAN On/Off status				14			Pot. Free Contact
2	FAN Trip status				14			Pot. Free Contact
3	FAN A/M status				14			Pot. Free Contact
	Total		0	0	42	0	0	
T	ELV-UPS O/G CUM DISTRIBUTION PANEL	2						
1	On / Off Status of UPS O/G Panel Incomers.				2			UPS O/G Panel
2	Trip Status of UPS O/G Panel Incomers.				2			UPS O/G Panel
	Total		0	0	4	0	0	
U	EXHIBITION HALL-2 ELV UPS I/C PANEL	2						
1	On / Off Status of UPS I/C Panel Incomers.				2			UPS O/G Panel
2	Trip Status of UPS I/C Panel Incomers.				2			UPS O/G Panel
	Total		0	0	4	0	0	
V	UPS	2						
1	Communication Status						2	UPS
2	I/P Voltage - RY						2	
3	I/P Voltage - YB						2	
4	I/P Voltage - BR						2	
5	O/P Voltage - R						2	
6	O/P Voltage - Y						2	
7	O/P Voltage - B						2	
8	O/P Current - R						2	
9	O/P Current - Y						2	
10	O/P Current - Y						2	
11	Battery Voltage						2	
12	Battery Charge Remaining						2	
13	Loading Percentage						2	
14	Frequency						2	
15	Alarm Status						2	
	Total		0	0	0	0	30	
W	ENERGY METER(EEM)-LT PANEL	13						
1	Voltage-v						13	Energy Meter
2	Current-a						13	
3	Kilowatt-kw						13	
4	Reactive Power-kvar						13	
5	Apparent Power-kva						13	
6	Power Factor-PF						13	
7	active energy-KWH						13	
8	KVAh						13	
9	Frequency						13	
10	THD						13	
	Total		0	0	0	0	130	
X	OVERHEAD TANK	1						
1	Water Level in tank	1	1					Level Transmitter
2	Motorised Butterfly valve Control					1		Valve Actuator
	Total		1	0	0	1	0	
Y	Lift	4						
1	Floor Position						0	Lift Control Manager
2	Door fully Closed Signal						0	
3	Status of Landing Floor (Open/Close)						0	
4	Inspection Status (Normal/Maintenance)						0	
5	Emergency Stop Status						0	
6	Fault Indication						0	
7	Fireman Switch Status						0	
8	Lift Auto/Manual Status						0	
9	Lift Run Status						0	
	Total		0	0	0	0	0	
Z	FCU Unit	7						
1	Valve Feedback		7	0	0	0	0	Valve Actuator
	Total		7	0	0	0	0	
AA	Solar Panel	1						
1	Soft Points						10	Solar Panel Controller
	GRAND TOTAL		32	88	540	167	826	
PROJECT	DWICC_SERVICE GALLERY & External Area							
PARTICULAR	TYPICAL I/O SUMMARY							
SI.NO	PARTICULARS		I/O DETAILS					DDC Enclosure Details
			AI	AO	DI	DO	Soft IO	

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.				
PARTICULAR	BMS IO Summary						0				
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details	
			AI	AO	DI	DO	Soft IO				
	SERVICE GALLERY										
A	Exhaust fan Normal Mode (SG-AX-EA-NM-01 TO 30)	30									
1	Fan On/Off command					30		DDC Panel	8C X 1 Sq.mm		
2	Fan On/Off status				30			LCP Panel			
3	Fan Trip status				30			LCP Panel			
4	Fan A/M status				30			LCP Panel			
5	MSFD Status				30			MSFD	2C X 1 Sq.mm		
6	Co2 Monitoring		30					CO2 Sensor	2C X 1 Sq.mm		
7	VFD Control			30				LCP Panel	2C X 1 Sq.mm		
	Total		30	30	120	30	0				
B	Exhaust fan Fire Mode (SG-AX-EA-FM-01F TO 19F)	19									
1	Fan On/Off status				19			DDC Panel	6C X 1 Sq.mm		
2	Fan Trip status				19			LCP Panel			
3	Fan A/M status				19			LCP Panel			
4	MSFD Status				19			LCP Panel	2C X 1 Sq.mm		
	Total		0	0	76	0	0				
C	FRESH AIR SUPPLY FAN NORMAL MODE (SG-AX-FA-NM-01 TO 19)	19									
1	Fan On/Off command					19		DDC Panel	8C X 1 Sq.mm		
2	Fan On/Off status				19			LCP Panel			
3	Fan Trip status				19			LCP Panel			
4	Fan A/M status				19			LCP Panel			
5	MSFD Status				19			MSFD	2C X 1 Sq.mm		
6	Co2 Monitoring		19					CO2 Sensor	2C X 1 Sq.mm		
7	VFD Control			19				LCP Panel	2C X 1 Sq.mm		
	Total		19	19	76	19	0				
D	VFD units	49									
1	HVAC Related VFD's Speed Feedback						49	VFD	RS485 Communication Cable		
2	HVAC Related VFD's Frequency						49				
3	HVAC Related VFD's Current						49				
4	HVAC Related VFD's Voltage						49				
5	HVAC Related VFD's Power						49				
6	HVAC Related VFD's Run Time						49				
	Total		0	0	0	0	294				
E	DEWATERING PUMP PIT-1 TO 17	17									
1	Sump high level alarm				17			Level Controller	2C X 1 Sq.mm		
2	Dewatering Pump On/Off Status (1W+1S)				34			Pot Free Contact	4C X 1 Sq.mm		
3	Dewatering Pump Trip Status (1W+1S)				34			Pot Free Contact			
	Total		0	0	85	0	0				
F	External Sewage Pump	15									
1	Sump high level alarm				15			Level Controller	2C X 1 Sq.mm		
2	Sewage Pump On/Off Status (1W+1S)				30			Pot Free Contact	4C X 1 Sq.mm		
3	Sewage Pump Trip Status (1W+1S)				30			Pot Free Contact			
	Total		0	0	75	0	0				
G	External Strom Water Pump	8									
1	Sump high level alarm				8			Level Controller	2C X 1 Sq.mm		
2	Sewage Pump On/Off Status (2W+1S)				0			Pot Free Contact	4C X 1 Sq.mm		
3	Sewage Pump Trip Status (2W+1S)				0			Pot Free Contact			
	Total		0	0	8	0	0				
H	ESS-SUB PANEL	1									
1	I/C _On / Off Status				1			ELEC Panel	4C X 1 Sq.mm		
2	I/C _Trip Status				1			ELEC Panel			
	Total		0	0	2	0	0				
I	Axial Fan RAMP05-AX-01,02,03,04	4									
1	Fan On/Off command					4		DDC Panel	8C X 1 Sq.mm		
2	Fan On/Off status				4			LCP Panel			
3	Fan Trip status				4			LCP Panel			
4	Fan A/M status				4			LCP Panel			
	Total		0	0	12	4	0				
J	ENERGY METER(EEM)	1									
1	Voltage-v						1	Energy Meter	RS485 Communication Cable		
2	Current-a						1				
3	Kilowatt-kw						1				
4	Reactive Power-kvar						1				
5	Apparent Power-kva						1				
6	Power Factor-PF						1				
7	active energy-KWH						1				
8	KVAh						1				
9	Frequency						1				
10	THD						1				
	Total		0	0	0	0	10				
K	Dry deck PLC	2									
	Soft Points						20	PLC	Cat6 Cable		
L	Linear PLC	3									
	Soft Points						30	PLC	Cat6 Cable		
M	Pentagon PLC	6									
	Soft Points						60	PLC	Cat6 Cable		
N	Pergola PLC	1									
	Soft Points						10	PLC	Cat6 Cable		
O	Irrigation Systems PLC	1									
	Soft Points						10	PLC	Cat6 Cable		
AC	Water Meter	3									
	OPEN EXHIBITION HALL AREA-2no DJB water entry external-1no							Water Meter	RS485 Communication Cable		
1	Flow rate						3				
2	Consumption						3				
	TOTAL		0	0	0	0	6				
AH	Lighting control system for External feeder	13									
1	On/Off status				13			External feeder Piller	4C X 1 Sq.mm		
2	trip status				13			DDC			
	Total		0	0	26	0	0				
	GRAND TOTAL		49	49	454	53	369				
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Doc number		Rev No:1		
PARTICULAR	FOYER-1-BASEMENT-1-BMS I/O SUMMARY						#REF!		1		
SI.NO	PARTICULARS	QTY	I/O DETAILS					Equipment	Type of Cable	Remarks	
			AI	AO	DI	DO	Soft IO				

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.		
PARTICULAR	BMS IO Summary						0		
SI.NO	PARTICULARS	I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
		AI	AO	DI	DO	Soft IO			
	Foyer-1 Basement-1								
A	Smoke Exhaust fan B1 Zone 1 NORMAL (FP-B1-Z1-EA-NM-01)	1							
1	Fan On/Off command				1		Contacts	8C X 1 Sq.mm	
2	Fan On/Off status			1			Pot Free Contact		
3	Fan Trip status			1			Pot Free Contact		
4	Fan A/M status			1			Pot Free Contact		
5	MSFD Status			1			Pot Free Contact	2C X 1Sq.mm	
	Total	0	0	4	1	0			
B	Smoke Exhaust fan B1 Zone 1 Fire (FP-B1-Z1-EA-FM-01)	1							
1	Fan On/Off status			1			Contacts	6C X 1 Sq.mm	
2	Fan Trip status			1			Pot Free Contact		
3	Fan A/M status			1			Pot Free Contact		
4	MSFD Status			1			Pot Free Contact	2C X 1Sq.mm	
	Total	0	0	4	0	0			
C	Supply Fan B1 Zone 1 Normal (FP-B1-Z1-FA-NM-01)	1							
1	Fan On/Off command				1		Contacts	8C X 1 Sq.mm	
2	Fan On/Off status			1			Pot Free Contact		
3	Fan Trip status			1			Pot Free Contact		
4	Fan A/M status			1			Pot Free Contact		
5	MSFD Status			1			Pot Free Contact	2C X 1Sq.mm	
	Total	0	0	4	1	0			
D	Supply Fan B1 Zone 1 Fire (FP-B1-Z1-FA-FM-01)	1							
1	Fan On/Off status			1			Contacts	6C X 1 Sq.mm	
2	Fan Trip status			1			Pot Free Contact		
3	Fan A/M status			1			Pot Free Contact		
4	MSFD Status			1			Pot Free Contact	2C X 1Sq.mm	
	Total	0	0	4	0	0			
E	Smoke Exhaust fan B1 Zone 2 Normal (FP-B1-Z2-EA-NM-02)	1							
1	Fan On/Off command				1		Contacts	8C X 1 Sq.mm	
2	Fan On/Off status			1			Pot Free Contact		
3	Fan Trip status			1			Pot Free Contact		
4	Fan A/M status			1			Pot Free Contact		
5	MSFD Status			1			Pot Free Contact	2C X 1Sq.mm	
	Total	0	0	4	1	0			
F	Smoke Exhaust fan B1 Zone 2 Fire (FP-B1-Z2-EA-FM-02)	1							
1	Fan On/Off status			1			Contacts	6C X 1 Sq.mm	
2	Fan Trip status			1			Pot Free Contact		
3	Fan A/M status			1			Pot Free Contact		
4	MSFD Status			1			Pot Free Contact	2C X 1Sq.mm	
	Total	0	0	4	0	0			
G	Supply Fan B1 Zone 2 Normal (FP-B1-Z2-FA-NM-02)	1							
1	Fan On/Off command				1		Contacts	8C X 1 Sq.mm	
2	Fan On/Off status			1			Pot Free Contact		
3	Fan Trip status			1			Pot Free Contact		
4	Fan A/M status			1			Pot Free Contact		
5	MSFD Status			1			Pot Free Contact	2C X 1Sq.mm	
	Total	0	0	4	1	0			
H	Supply Fan B1 Zone 2 Fire (FP-B1-Z2-FA-FM-02)	1							
1	Fan On/Off status			1			Contacts	6C X 1 Sq.mm	
2	Fan Trip status			1			Pot Free Contact		
3	Fan A/M status			1			Pot Free Contact		
4	MSFD Status			1			Pot Free Contact	2C X 1Sq.mm	
	Total	0	0	4	0	0			
I	Smoke Exhaust fan B1 Zone 3 Normal (FP-B1-Z3-EA-NM-03)	1							
1	Fan On/Off command				1		Contacts	8C X 1 Sq.mm	
2	Fan On/Off status			1			Pot Free Contact		
3	Fan Trip status			1			Pot Free Contact		
4	Fan A/M status			1			Pot Free Contact		
5	MSFD Status			1			Pot Free Contact	2C X 1Sq.mm	
	Total	0	0	4	1	0			
J	Smoke Exhaust fan B1 Zone 3 Fire (FP-B1-Z3-EA-FM-03)	1							
1	Fan On/Off status			1			Contacts	6C X 1 Sq.mm	
2	Fan Trip status			1			Pot Free Contact		
3	Fan A/M status			1			Pot Free Contact		
4	MSFD Status			1			Pot Free Contact	2C X 1Sq.mm	
	Total	0	0	4	0	0			
K	Supply Fan B1 Zone 3 Normal (FP-B1-Z3-FA-NM-03)	1							
1	Fan On/Off command				1		Contacts	8C X 1 Sq.mm	
2	Fan On/Off status			1			Pot Free Contact		
3	Fan Trip status			1			Pot Free Contact		
4	Fan A/M status			1			Pot Free Contact		
5	MSFD Status			1			Pot Free Contact	2C X 1Sq.mm	
	Total	0	0	4	1	0			
L	Supply Fan B1 Zone 3 Fire (FP-B1-Z3-FA-FM-03)	1							
1	Fan On/Off status			1			Contacts	6C X 1 Sq.mm	
2	Fan Trip status			1			Pot Free Contact		
3	Fan A/M status			1			Pot Free Contact		
4	MSFD Status			1			Pot Free Contact	2C X 1Sq.mm	
	Total	0	0	4	0	0			
M	Smoke Exhaust fan B1 Zone 4 Normal (FP-B1-Z4-EA-NM-04)	1							
1	Fan On/Off command				1		Contacts	8C X 1 Sq.mm	
2	Fan On/Off status			1			Pot Free Contact		
3	Fan Trip status			1			Pot Free Contact		
4	Fan A/M status			1			Pot Free Contact		
5	MSFD Status			1			Pot Free Contact	2C X 1Sq.mm	
	Total	0	0	4	1	0			

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.			
PARTICULAR	BMS IO Summary						0			
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
			AI	AO	DI	DO	Soft IO			
N	Smoke Exhaust fan B1 Zone 4 Fire (FP-B1-Z4-EA-FM-04)	1								
1	Fan On/Off status				1			Contacts	6C X 1 Sq.mm	
2	Fan Trip status				1			Pot Free Contact		
3	Fan A/M status				1			Pot Free Contact		
4	MSFD Status				1			Pot Free Contact	2C X 1Sq.mm	
	Total		0	0	4	0	0			
O	Supply Fan B1 Zone 4 Normal (FP-B1-Z4-FA-NM-04)	1								
1	Fan On/Off command					1		Contacts	8C X 1 Sq.mm	
2	Fan On/Off status				1			Pot Free Contact		
3	Fan Trip status				1			Pot Free Contact		
4	Fan A/M status				1			Pot Free Contact	2C X 1Sq.mm	
5	MSFD Status				1			Pot Free Contact		
	Total		0	0	4	1	0			
P	Supply Fan B1 Zone 4 Fire (FP-B1-Z4-FA-FM-04)	1								
1	Fan On/Off status				1			Contacts	6C X 1 Sq.mm	
2	Fan Trip status				1			Pot Free Contact		
3	Fan A/M status				1			Pot Free Contact		
4	MSFD Status				1			Pot Free Contact	2C X 1Sq.mm	
	Total		0	0	4	0	0			
Q	Supply Fan B1 Zone 5 Normal (FP-B1-Z5-FA-NM-05)	1								
1	Fan On/Off command					1		Contacts	8C X 1 Sq.mm	
2	Fan On/Off status				1			Pot Free Contact		
3	Fan Trip status				1			Pot Free Contact		
4	Fan A/M status				1			Pot Free Contact	2C X 1Sq.mm	
5	MSFD Status				1			Pot Free Contact		
	Total		0	0	4	1	0			
R	Supply Fan B1 Zone 5 Fire (FP-B1-Z5-FA-FM-05)	1								
1	Fan On/Off status				1			Contacts	6C X 1 Sq.mm	
2	Fan Trip status				1			Pot Free Contact		
3	Fan A/M status				1			Pot Free Contact		
4	MSFD Status				1			Pot Free Contact	2C X 1Sq.mm	
	Total		0	0	4	0	0			
U	Zone CO	5								
1	Zone Co Monitoring		5					CO Sensor	2C X 1Sq.mm	
	Total		5	0	0	0	0			
V	STAIRCASE PRESSURIZATION FAN (FP-B1-Z1-PR-01)	1								
1	Fan On/Off status & Command				0	1		Pot Free Contact	8C X 1 Sq.mm	
2	Fan Trip status				0			Pot Free Contact		
3	Fan A/M status				0			Pot Free Contact		
W	STAIRCASE PRESSURIZATION FAN (FP-B1-Z3-PR-02)	1								
1	Fan On/Off status & Command				0	1		Pot Free Contact	8C X 1 Sq.mm	
2	Fan Trip status				0			Pot Free Contact		
3	Fan A/M status				0			Pot Free Contact		
	Total		0	0	0	2	0			
X	Exhaust for Drivers Toilet (FP-B1-Z5-IF-08)	1								
1	Fan On/Off command					1		Contacts	8C X 1 Sq.mm	
2	Fan On/Off status				1			Pot Free Contact		
3	Fan Trip status				1			Pot Free Contact		
4	Fan A/M status				1			Pot Free Contact		
	Total		0	0	3	1	0			
Y	FLOOR MOUNTED AIR HANDLING UNIT (FP-B1-Z1-AHU-01)(4 FANS)	1								
1	FAHU Fan On/Off Command					4		Contacts	6C X 1 Sq.mm	
2	FAHU Motor trip status				4			Pot Free Contact		
3	FAHU Auto/Manual Status				4			Pot Free Contact		
4	FAHU's VFD Command					4		Contacts	6C X 1 Sq.mm	
5	FAHU's VFD/Bypass Status				4			VFD		
6	FAHU's VFD Speed feed back						4	VFD		
7	FAHU's VFD Speed Control			4				Contacts		
8	FAHU Fan Run Status				4			DP Switch	2C X 1 Sq.mm	
9	Pressure Drop across Pre Filter Status				2			DP Switch	2C X 1 Sq.mm	
10	Pressure Drop across Fine Filter Status				1			DP Switch	2C X 1 Sq.mm	
11	Supply Air Temperature Monitoring		1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
12	Return Air Temperature Monitoring		1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
13	Chilled Water Control Valve Modulation Command			1				Contacts	6C X 1 Sq.mm	
14	Chilled Water Control Valve Feedback		1					Modulating Valve		
15	Duct Supply Static Pressure Feedback		1					Pressure transmitter(duct static)	4C X 1 Sq.mm	
16	Return Air CO ₂ level		1					CO2 Sensor(Duct)	4C X 1 Sq.mm	
17	Fresh Air Damper control			1				Contacts	6C X 1 Sq.mm	
18	Fresh Air Damper feedback		1					Modulating Damper		
19	Return Air Relative Humidity monitoring		1					Humidity Sensor(Duct)	4C X 1 Sq.mm	
20	Supply Air Fire Damper Status				1			Fire Damper	2C X 1 Sq.mm	
21	Return Air Fire Damper Status				1			Fire Damper	2C X 1 Sq.mm	
22	Chilled Water Inlet Temperature Monitoring		1					Imm temp sensor	2C X 1 Sq.mm	
23	Chilled Water Outlet Temperature Monitoring		1					Imm temp sensor	2C X 1 Sq.mm	
24	AHU Fire Tripping							—	—	
25	AHU shutdown on fan Door open							—	—	
	Total		9	6	21	8	4			
Z	FLOOR MOUNTED AIR HANDLING UNIT (FP-B1-Z2-AHU-02)(4 FANS)	1								
1	FAHU Fan On/Off Command					4		Contacts	6C X 1 Sq.mm	
2	FAHU Motor trip status				4			Pot Free Contact		
3	FAHU Auto/Manual Status				4			Pot Free Contact		
4	FAHU's VFD Command					4		Contacts	6C X 1 Sq.mm	
5	FAHU's VFD/Bypass Status				4			VFD		
6	FAHU's VFD Speed feed back						1	VFD		
7	FAHU's VFD Speed Control			4				Contacts		
8	FAHU Fan Run Status				4			DP Switch	2C X 1 Sq.mm	

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.		
PARTICULAR	BMS IO Summary						0		
SI.NO	PARTICULARS	I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
		AI	AO	DI	DO	Soft IO			
9	Pressure Drop across Pre Filter Status			2			DP Switch	2C X 1 Sq.mm	
10	Pressure Drop across Fine Filter Status			1			DP Switch	2C X 1 Sq.mm	
11	Supply Air Temperature Monitoring	1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
12	Return Air Temperature Monitoring	1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
13	Chilled Water Control Valve Modulation Command		1				Contacts	6C X 1 Sq.mm	
14	Chilled Water Control Valve Feedback	1					Modulating Valve		
15	Duct Supply Static Pressure Feedback	1					Pressure transmitter(duct static)	4C X 1 Sq.mm	
16	Return Air CO ₂ level	1					CO2 Sensor(Duct)	4C X 1 Sq.mm	
17	Fresh Air Damper control		1				Contacts	6C X 1 Sq.mm	
18	Fresh Air Damper feedback	1					Modulating Damper		
19	Return Air Relative Humidity monitoring	1					Humidity Sensor(Duct)	4C X 1 Sq.mm	
20	Supply Air Fire Damper Status			1			Fire Damper	2C X 1 Sq.mm	
21	Return Air Fire Damper Status			1			Fire Damper	2C X 1 Sq.mm	
22	Chilled Water Inlet Temperature Monitoring	1					Imm temp sensor	2C X 1 Sq.mm	
23	Chilled Water Outlet Temperature Monitoring	1					Imm temp sensor	2C X 1 Sq.mm	
24	AHU Fire Tripping						—	—	
25	AHU shutdown on fan Door open						—	—	
Total		9	6	21	8	1			
AA	FLOOR MOUNTED AIR HANDLING UNIT (FP-B1-Z3-AHU-03)(4 FANS)	1							
1	FAHU Fan On/Off Command				4		Contacts	6C X 1 Sq.mm	
2	FAHU Motor trip status			4			Pot Free Contact		
3	FAHU Auto/Manual Status			4			Pot Free Contact		
4	FAHU's VFD Command				4		Contacts	6C X 1 Sq.mm	
5	FAHU's VFD/Bypass Status			4			VFD		
6	FAHU's VFD Speed feed back					4	VFD		
7	FAHU's VFD Speed Control		4				Contacts		
8	FAHU Fan Run Status			4			DP Switch	2C X 1 Sq.mm	
9	Pressure Drop across Pre Filter Status			2			DP Switch	2C X 1 Sq.mm	
10	Pressure Drop across Fine Filter Status			1			DP Switch	2C X 1 Sq.mm	
11	Supply Air Temperature Monitoring	1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
12	Return Air Temperature Monitoring	1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
13	Chilled Water Control Valve Modulation Command		1				Contacts	6C X 1 Sq.mm	
14	Chilled Water Control Valve Feedback	1					Modulating Valve		
15	Duct Supply Static Pressure Feedback	1					Pressure transmitter(duct static)	4C X 1 Sq.mm	
16	Return Air CO ₂ level	1					CO2 Sensor(Duct)	4C X 1 Sq.mm	
17	Fresh Air Damper control		1				Contacts	6C X 1 Sq.mm	
18	Fresh Air Damper feedback	1					Modulating Damper		
19	Return Air Relative Humidity monitoring	1					Humidity Sensor(Duct)	4C X 1 Sq.mm	
20	Supply Air Fire Damper Status			1			Fire Damper	2C X 1 Sq.mm	
21	Return Air Fire Damper Status			1			Fire Damper	2C X 1 Sq.mm	
22	Chilled Water Inlet Temperature Monitoring	1					Imm temp sensor	2C X 1 Sq.mm	
23	Chilled Water Outlet Temperature Monitoring	1					Imm temp sensor	2C X 1 Sq.mm	
24	AHU Fire Tripping						—	—	
25	AHU shutdown on fan Door open						—	—	
Total		9	6	21	8	4			
AB	FLOOR MOUNTED AIR HANDLING UNIT (FP-B1-Z4-AHU-04)(4 FANS)	1							
1	FAHU Fan On/Off Command				4		Contacts	6C X 1 Sq.mm	
2	FAHU Motor trip status			4			Pot Free Contact		
3	FAHU Auto/Manual Status			4			Pot Free Contact		
4	FAHU's VFD Command				4		Contacts	6C X 1 Sq.mm	
5	FAHU's VFD/Bypass Status			4			VFD		
6	FAHU's VFD Speed feed back					4	VFD		
7	FAHU's VFD Speed Control		4				Contacts		
8	FAHU Fan Run Status			4			DP Switch	2C X 1 Sq.mm	
9	Pressure Drop across Pre Filter Status			2			DP Switch	2C X 1 Sq.mm	
10	Pressure Drop across Fine Filter Status			1			DP Switch	2C X 1 Sq.mm	
11	Supply Air Temperature Monitoring	1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
12	Return Air Temperature Monitoring	1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
13	Chilled Water Control Valve Modulation Command		1				Contacts	6C X 1 Sq.mm	
14	Chilled Water Control Valve Feedback	1					Modulating Valve		
15	Duct Supply Static Pressure Feedback	1					Pressure transmitter(duct static)	4C X 1 Sq.mm	
16	Return Air CO ₂ level	1					CO2 Sensor(Duct)	4C X 1 Sq.mm	
17	Fresh Air Damper control		1				Contacts	6C X 1 Sq.mm	
18	Fresh Air Damper feedback	1					Modulating Damper		
19	Return Air Relative Humidity monitoring	1					Humidity Sensor(Duct)	4C X 1 Sq.mm	
20	Supply Air Fire Damper Status			1			Fire Damper	2C X 1 Sq.mm	
21	Return Air Fire Damper Status			1			Fire Damper	2C X 1 Sq.mm	
22	Chilled Water Inlet Temperature Monitoring	1					Imm temp sensor	2C X 1 Sq.mm	
23	Chilled Water Outlet Temperature Monitoring	1					Imm temp sensor	2C X 1 Sq.mm	
24	AHU Fire Tripping						—	—	
25	AHU shutdown on fan Door open						—	—	
Total		9	6	21	8	4			
AC	FLOOR MOUNTED AIR HANDLING UNIT (FP-B1-Z5-AHU-05)(2 FANS)	1							
1	FAHU Fan On/Off Command				2		Contacts	6C X 1 Sq.mm	
2	FAHU Motor trip status			2			Pot Free Contact		
3	FAHU Auto/Manual Status			2			Pot Free Contact		
4	FAHU's VFD Command				2		Contacts	6C X 1 Sq.mm	
5	FAHU's VFD/Bypass Status			2			VFD		
6	FAHU's VFD Speed feed back					2	VFD		
7	FAHU's VFD Speed Control		2				Contacts		
8	FAHU Fan Run Status			2			DP Switch	2C X 1 Sq.mm	
9	Pressure Drop across Pre Filter Status			2			DP Switch	2C X 1 Sq.mm	
10	Pressure Drop across Fine Filter Status			1			DP Switch	2C X 1 Sq.mm	
11	Supply Air Temperature Monitoring	1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
12	Return Air Temperature Monitoring	1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
13	Chilled Water Control Valve Modulation Command		1				Contacts	6C X 1 Sq.mm	
14	Chilled Water Control Valve Feedback	1					Modulating Valve		

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.		
PARTICULAR	BMS IO Summary						0		
SI.NO	PARTICULARS	I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
		AI	AO	DI	DO	Soft IO			
15	Duct Supply Static Pressure Feedback	1					Pressure transmitter(duct static)	4C X 1 Sq.mm	
16	Return Air CO ₂ level	1					CO2 Sensor(Duct)	4C X 1 Sq.mm	
17	Fresh Air Damper control		1				Contacts	6C X 1 Sq.mm	
18	Fresh Air Damper feedback	1					Modulating Damper	6C X 1 Sq.mm	
19	Return Air Relative Humidity monitoring	1					Humidity Sensor(Duct)	4C X 1 Sq.mm	
20	Supply Air Fire Damper Status			1			Fire Damper	2C X 1 Sq.mm	
21	Return Air Fire Damper Status			1			Fire Damper	2C X 1 Sq.mm	
22	Chilled Water Inlet Temperature Monitoring	1					Imm temp sensor	2C X 1 Sq.mm	
23	Chilled Water Outlet Temperature Monitoring	1					Imm temp sensor	2C X 1 Sq.mm	
	Total	9	4	13	4	2			
AD	FLOOR MOUNTED AIR HANDLING UNIT (FP-B1-Z5-AHU-05A)	1							
1	FAHU Fan On/Off Command				1		Contacts	6C X 1 Sq.mm	
2	FAHU Motor trip status			1			Pot Free Contact		
3	FAHU Auto/Manual Status			1			Pot Free Contact		
4	FAHU's VFD Command				1		Contacts	6C X 1 Sq.mm	
5	FAHU's VFD/Bypass Status			1			VFD		
6	FAHU's VFD Speed feed back					1	VFD		
7	FAHU's VFD Speed Control		1				Contacts		
8	FAHU Fan Run Status			1			DP Switch	2C X 1 Sq.mm	
9	Pressure Drop across Pre Filter Status			2			DP Switch	2C X 1 Sq.mm	
10	Pressure Drop across Fine Filter Status			1			DP Switch	2C X 1 Sq.mm	
11	Supply Air Temperature Monitoring	1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
12	Return Air Temperature Monitoring	1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
13	Chilled Water Control Valve Modulation Command		1				Contacts	6C X 1 Sq.mm	
14	Chilled Water Control Valve Feedback	1					Modulating Valve		
15	Duct Supply Static Pressure Feedback	1					Pressure transmitter(duct static)	4C X 1 Sq.mm	
16	Return Air CO ₂ level	1					CO2 Sensor(Duct)	4C X 1 Sq.mm	
17	Fresh Air Damper control		1				Actuator	6C X 1 Sq.mm	
18	Fresh Air Damper feedback	1					Modulating Damper		
19	Return Air Relative Humidity monitoring	1					Humidity Sensor(Duct)	4C X 1 Sq.mm	
20	Supply Air Fire Damper Status			1			Fire Damper	2C X 1 Sq.mm	
21	Return Air Fire Damper Status			1			Fire Damper	2C X 1 Sq.mm	
22	Chilled Water Inlet Temperature Monitoring	1					Imm temp sensor	2C X 1 Sq.mm	
23	Chilled Water Outlet Temperature Monitoring	1					Imm temp sensor	2C X 1 Sq.mm	
24	AHU Fire Tripping						—	—	
25	AHU shutdown on fan Door open						—	—	
	Total	9	3	9	2	1			
AE	FLOOR MOUNTED AIR HANDLING UNIT (FP-B1-Z5-AHU-06)	1							
1	FAHU Fan On/Off Command				1		Contacts	6C X 1 Sq.mm	
2	FAHU Motor trip status			1			Pot Free Contact		
3	FAHU Auto/Manual Status			1			Pot Free Contact		
4	FAHU's VFD Command				1		Contacts	6C X 1 Sq.mm	
5	FAHU's VFD/Bypass Status			1			VFD		
6	FAHU's VFD Speed feed back					1	VFD		
7	FAHU's VFD Speed Control		1				VFD		
8	FAHU Fan Run Status			1			DP Switch	2C X 1 Sq.mm	
9	Pressure Drop across Pre Filter Status			2			DP Switch	2C X 1 Sq.mm	
10	Pressure Drop across Fine Filter Status			1			DP Switch	2C X 1 Sq.mm	
11	Supply Air Temperature Monitoring	1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
12	Return Air Temperature Monitoring	1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
13	Chilled Water Control Valve Modulation Command		1				Actuator	6C X 1 Sq.mm	
14	Chilled Water Control Valve Feedback	1					Modulating Valve		
15	Duct Supply Static Pressure Feedback	1					Pressure transmitter(duct static)	4C X 1 Sq.mm	
16	Return Air CO ₂ level	1					CO2 Sensor(Duct)	4C X 1 Sq.mm	
17	Fresh Air Damper control		1				Actuator	6C X 1 Sq.mm	
18	Fresh Air Damper feedback	1					Modulating Damper		
19	Return Air Relative Humidity monitoring	1					Humidity Sensor(Duct)	4C X 1 Sq.mm	
20	Supply Air Fire Damper Status			1			Fire Damper	2C X 1 Sq.mm	
21	Return Air Fire Damper Status			1			Fire Damper	2C X 1 Sq.mm	
22	Chilled Water Inlet Temperature Monitoring	1					Imm temp sensor	2C X 1 Sq.mm	
23	Chilled Water Outlet Temperature Monitoring	1					Imm temp sensor	2C X 1 Sq.mm	
24	AHU Fire Tripping						—	—	
25	AHU shutdown on fan Door open						—	—	
	Total	9	3	9	2	1			
AF	VFD units(AHU & HRW)	28							
1	HVAC Related VFD's Speed Feedback					28	VFD	RS485 Communication Cable	
2	HVAC Related VFD's Frequency					28			
3	HVAC Related VFD's Current					28			
4	HVAC Related VFD's Voltage					28			
5	HVAC Related VFD's Power					28			
6	HVAC Related VFD's Run Time					28			
	Total	0	0	0	0	168			
AG	HEAT RECOVERY UNIT (FP-B1-Z1-HRW-01)	1							
1	Fresh Air Fan On/Off Command				2		Contacts	6C X 1 Sq.mm	
2	Fresh Air Fan Motor Trip sts			2			Pot Free Contact		
3	Fresh Air Fan Auto/Manual Status			2			Pot Free Contact		
4	Fresh Air Fan Run Status			2			Pot Free Contact	2C X 1 Sq.mm	
5	Fresh Air Damper control		1				Contacts	6C X 1 Sq.mm	
6	Fresh Air Damper feedback	1					DAMPER		
7	Fresh Air Header Pressure Status	1					Pressure transmitter(duct static)	4C X 1 Sq.mm	
8	Fresh Air Temperature Monitoring	1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
9	Fresh Air Fan VFD Command				2		Contacts	4C X 1 Sq.mm	
10	Fresh Air Fan VFD Bypass sts			2			Contacts		
11	Fresh Air Fan VFD Speed feed back					2	VFD		

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.		
PARTICULAR	BMS IO Summary						0		
SI.NO	PARTICULARS	I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
		AI	AO	DI	DO	Soft IO			
12	Fresh Air Fan VFD Speed Control		2				Actuator	2C X 1 Sq.mm	
13	Exhaust Air Fan On/Off Command				2		Contacts	6C X 1 Sq.mm	
14	Exhaust Air Fan Motor Trip sts			2			Pot Free Contact		
15	Exhaust Air Fan Auto/Manual Status			2			Pot Free Contact		
16	Exhaust Air Fan Run Status			2			Pot Free Contact	2C X 1 Sq.mm	
17	Exhaust Air Damper control		1				Contacts	6C X 1 Sq.mm	
18	Exhaust Air Damper feedback	1					DAMPER		
19	Exhaust Air Header Pressure Status	1					Pressure transmitter(duct static)	2C X 1 Sq.mm	
20	Exhaust Air Temperature Monitoring	1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
21	Exhaust Air Fan VFD Command				2		Contacts	4C X 1 Sq.mm	
22	Exhaust Air Fan VFD Bypass sts			2			Contacts		
23	Exhaust Air Fan VFD Speed feed back					2	VFD		
24	Exhaust Air Fan VFD Speed Control		2				Contacts	2C X 1 Sq.mm	
25	Exhaust Air Temperature Status - After Heat Recovery Wheel	1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
26	Wheel Status			1			PANEL	2C X 1 Sq.mm	
	Total	7	6	17	8	4			
AH	HEAT RECOVERY UNIT (FP-B1-Z4-HRW-02)	1							
1	Fresh Air Fan On/Off Command				2		Contacts	6C X 1 Sq.mm	
2	Fresh Air Fan Motor Trip sts			2			Pot Free Contact		
3	Fresh Air Fan Auto/Manual Status			2			Pot Free Contact		
4	Fresh Air Fan Run Status			2			Pot Free Contact	2C X 1 Sq.mm	
5	Fresh Air Damper control		1				Contacts	6C X 1 Sq.mm	
6	Fresh Air Damper feedback	1					DAMPER		
7	Fresh Air Header Pressure Status	1					Pressure transmitter(duct static)	4C X 1 Sq.mm	
8	Fresh Air Temperature Monitoring	1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
9	Fresh Air Fan VFD Command				2		Contacts	4C X 1 Sq.mm	
10	Fresh Air Fan VFD Bypass sts			2			Contacts		
11	Fresh Air Fan VFD Speed feed back					2	VFD		
12	Fresh Air Fan VFD Speed Control		2				Contacts	2C X 1 Sq.mm	
13	Exhaust Air Fan On/Off Command				2		Contacts	6C X 1 Sq.mm	
14	Exhaust Air Fan Motor Trip sts			2			Pot Free Contact		
15	Exhaust Air Fan Auto/Manual Status			2			Pot Free Contact		
16	Exhaust Air Fan Run Status			2			Pot Free Contact	2C X 1 Sq.mm	
17	Exhaust Air Damper control		1				Contacts	6C X 1 Sq.mm	
18	Exhaust Air Damper feedback	1					DAMPER		
19	Exhaust Air Header Pressure Status	1					Pressure transmitter(duct static)	2C X 1 Sq.mm	
20	Exhaust Air Temperature Monitoring	1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
21	Exhaust Air Fan VFD Command				2		Contacts	4C X 1 Sq.mm	
22	Exhaust Air Fan VFD Bypass sts			2			Contacts		
23	Fresh Air Fan VFD Speed feed back					2	VFD		
24	Exhaust Air Fan VFD Speed Control		2				Contacts	2C X 1 Sq.mm	
25	Exhaust Air Temperature Status - After Heat Recovery Wheel	1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
26	Wheel Status			1			PANEL	2C X 1 Sq.mm	
	Total	7	6	17	8	4			
AI	FOYER BASEMENT MAIN LIGHTING PANEL -1	1							
1	I/C _On / Off Status			1			Electrical Panel	4C X 1 Sq.mm	
2	I/C _Trip Status			1			Electrical Panel		
AJ	FIRE MODE VENTILATION PANEL - ZONE - 1	1							
1	I/C _On / Off Status			1			Electrical Panel	4C X 1 Sq.mm	
2	I/C _Trip Status			1			Electrical Panel		
AK	FIRE MODE VENTILATION PANEL - ZONE - 2	1							
1	I/C _On / Off Status			1			Electrical Panel	4C X 1 Sq.mm	
2	I/C _Trip Status			1			Electrical Panel		
AL	FIRE MODE VENTILATION PANEL - ZONE - 3	1							
1	I/C _On / Off Status			1			Electrical Panel	4C X 1 Sq.mm	
2	I/C _Trip Status			1			Electrical Panel		
AM	FIRE MODE VENTILATION PANEL - ZONE - 4	1							
1	I/C _On / Off Status			1			Electrical Panel	4C X 1 Sq.mm	
2	I/C _Trip Status			1			Electrical Panel		
AN	FIRE MODE VENTILATION PANEL - ZONE - 5	1							
1	I/C _On / Off Status			1			Electrical Panel	4C X 1 Sq.mm	
2	I/C _Trip Status			1			Electrical Panel		
AO	FOYER BASEMENT MAIN POWER PANEL-1	1							
1	I/C _On / Off Status			1			Electrical Panel	4C X 1 Sq.mm	
2	I/C _Trip Status			1			Electrical Panel		
AP	FO-POWER & ESCALATOR PANEL-1	1							
1	I/C _On / Off Status			1			Electrical Panel	4C X 1 Sq.mm	
2	I/C _Trip Status			1			Electrical Panel		
AQ	FO-POWER PANEL-1	1							
1	I/C _On / Off Status			1			Electrical Panel	4C X 1 Sq.mm	
2	I/C _Trip Status			1			Electrical Panel		
AR	FO-AHU PANEL-1	1							
1	On / Off Status of AHU Panel			1			Electrical Panel	4C X 1 Sq.mm	
2	Trip Status of AHU Panel			1			Electrical Panel		
AS	FO-AHU PANEL-2	1							
1	On / Off Status of AHU Panel			1			Electrical Panel	4C X 1 Sq.mm	
2	Trip Status of AHU Panel			1			Electrical Panel		
AT	FO-UPS I/C PANEL	1							
1	On / Off Status of UPS I/C Panel			1			Electrical Panel	4C X 1 Sq.mm	
2	Trip Status of UPS I/C Panel			1			Electrical Panel		
AU	EMERGENCY UPS O/G PANEL-1	1							
1	On / Off Status of UPS O/G Panel Incomers.			2			Electrical Panel	4C X 1 Sq.mm	
2	Trip Status of UPS O/G Panel Incomers.			2			Electrical Panel		
AV	ELV-UPS O/G PANEL CUM DISTRIBUTION	1							
1	On / Off Status of UPS O/G Panel Incomers.			2			Electrical Panel	4C X 1 Sq.mm	
2	Trip Status of UPS O/G Panel Incomers.			2			Electrical Panel		
AW	FO LIFT PANEL	1							
1	On / Off Status of Lift Panel.			1			Electrical Panel	4C X 1 Sq.mm	
2	Trip Status of Lift Panel.			1			Electrical Panel		
	Total	0	0	34	0	0			

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Rev.		
PARTICULAR	BMS IO Summary					0		
SI.NO	PARTICULARS		I/O DETAILS				Equipment	Type of Cable
			AI	AO	DI	DO		
AX	ENERGY METER(EEM)	16						
1	Voltage-v						Energy Meter	RS485 Communication Cable
2	Current-a							
3	Kilowatt-kw							
4	Reactive Power-kvar							
5	Apparent Power-kva							
6	Power Factor-PF							
7	active energy-KWH							
8	KVArH							
9	Frequency							
10	THD							
	Total		0	0	0	0		
AY	UPS	4						
1	Communication Status						UPS	RS485 Communication Cable
2	I/P Voltage - RY							
3	I/P Voltage - YB							
4	I/P Voltage - BR							
5	O/P Voltage - R							
6	O/P Voltage - Y							
7	O/P Voltage - B							
8	O/P Current - R							
9	O/P Current - Y							
10	O/P Current - Y							
11	Battery Voltage							
12	Battery Charge Remaining							
13	Loading Percentage							
14	Frequency							
15	Alarm Status							
	Total		0	0	0	0		
AZ	Transformer	4						
	Winding Temperature		8				Transformer	2C X 1 Sq.mm
	Total		8	0	0	0		Added as per Aecom Comments
BA	FCU Unit	3						
1	Valve Feedback		3	0	0	0	Valve Actuator	2C X 1 Sq.mm
	Total		3	0	0	0		Valve Actuator connection to be confirmed from valve OEM.
	Floor total		93	46	258	68		
	Building total		#####	#####	#####	#####	#REF!	
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Doc number	Rev No:1	
PARTICULAR	FOYER-1-BASEMENT-2-BMS I/O SUMMARY					#REF!	1	
SI.NO	PARTICULARS	QTY	I/O DETAILS				Equipment	Type of Cable
			AI	AO	DI	DO		
	Foyer-1 Basement-2							
A	Smoke Exhaust fan B2 Zone 1 NORMAL (FP-B2-Z1-EA-NM-01)	1						
1	Fan On/Off command					1	Contacts	8C X 1 Sq.mm
2	Fan On/Off status				1		Pot Free Contact	
3	Fan Trip status				1		Pot Free Contact	
4	Fan A/M status				1		Pot Free Contact	
5	MSFD Status				1		Pot Free Contact	2C X 1 Sq.mm
	Total		0	0	4	1		
B	Smoke Exhaust fan B2 Zone 1 Fire (FP-B2-Z1-EA-FM-01)	1						
1	Fan On/Off status				1		Contacts	6C X 1 Sq.mm
2	Fan Trip status				1		Pot Free Contact	
3	Fan A/M status				1		Pot Free Contact	
4	MSFD Status				1		Pot Free Contact	
	Total		0	0	4	0		
C	Supply Fan B2 Zone 1 Normal (FP-B2-Z1-FA-NM-01)	1						
1	Fan On/Off command					1	Contacts	8C X 1 Sq.mm
2	Fan On/Off status				1		Pot Free Contact	
3	Fan Trip status				1		Pot Free Contact	
4	Fan A/M status				1		Pot Free Contact	
5	MSFD Status				1		Pot Free Contact	2C X 1 Sq.mm
	Total		0	0	4	1		
D	Supply Fan B2 Zone 1 Fire (FP-B2-Z1-FA-FM-01)	1						
1	Fan On/Off status				1		Contacts	6C X 1 Sq.mm
2	Fan Trip status				1		Pot Free Contact	
3	Fan A/M status				1		Pot Free Contact	
4	MSFD Status				1		Pot Free Contact	
	Total		0	0	4	0		
E	Smoke Exhaust fan B2 Zone 2 Normal (FP-B2-Z2-EA-NM-02)	1						
1	Fan On/Off command					1	Contacts	8C X 1 Sq.mm
2	Fan On/Off status				1		Pot Free Contact	
3	Fan Trip status				1		Pot Free Contact	
4	Fan A/M status				1		Pot Free Contact	
5	MSFD Status				1		Pot Free Contact	2C X 1 Sq.mm
	Total		0	0	4	1		
F	Smoke Exhaust fan B2 Zone 2 Fire (FP-B2-Z2-EA-FM-02)	1						
1	Fan On/Off status				1		Contacts	6C X 1 Sq.mm
2	Fan Trip status				1		Pot Free Contact	
3	Fan A/M status				1		Pot Free Contact	
4	MSFD Status				1		Pot Free Contact	
	Total		0	0	4	0		
G	Supply Fan B2 Zone 2 Normal (FP-B2-Z2-FA-NM-02)	1						
1	Fan On/Off command					1	Contacts	8C X 1 Sq.mm
2	Fan On/Off status				1		Pot Free Contact	
3	Fan Trip status				1		Pot Free Contact	
4	Fan A/M status				1		Pot Free Contact	
5	MSFD Status				1		Pot Free Contact	2C X 1 Sq.mm
	Total		0	0	4	1		

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.				
PARTICULAR	BMS IO Summary						0				
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details	
			AI	AO	DI	DO	Soft IO				
H	Supply Fan B2 Zone 2 Fire (FP-B2-Z2-FA-FM-02)	1									
1	Fan On/Off status				1			Contacts	6C X 1 Sq.mm		
2	Fan Trip status				1			Pot Free Contact			
3	Fan A/M status				1			Pot Free Contact			
5	MSFD Status				1			Pot Free Contact	2C X 1 Sq.mm		
	Total		0	0	4	0	0				
I	Smoke Exhaust fan B2 Zone 3 Normal (FP-B2-Z3-EA-NM-03)	1									
1	Fan On/Off command					1		Contacts	8C X 1 Sq.mm		
2	Fan On/Off status				1			Pot Free Contact			
3	Fan Trip status				1			Pot Free Contact			
4	Fan A/M status				1			Pot Free Contact			
5	MSFD Status				1			Pot Free Contact	2C X 1 Sq.mm		
	Total		0	0	4	1	0				
J	Smoke Exhaust fan B2 Zone 3 Fire (FP-B2-Z3-EA-FM-03)	1									
1	Fan On/Off status				1			Contacts	6C X 1 Sq.mm		
2	Fan Trip status				1			Pot Free Contact			
3	Fan A/M status				1			Pot Free Contact			
5	MSFD Status				1			Pot Free Contact	2C X 1 Sq.mm		
	Total		0	0	4	0	0				
K	Supply Fan B2 Zone 3 Normal (FP-B2-Z3-FA-NM-03)	1									
1	Fan On/Off command					1		Contacts	8C X 1 Sq.mm		
2	Fan On/Off status				1			Pot Free Contact			
3	Fan Trip status				1			Pot Free Contact			
4	Fan A/M status				1			Pot Free Contact			
5	MSFD Status				1			Pot Free Contact	2C X 1 Sq.mm		
	Total		0	0	4	1	0				
L	Supply Fan B2 Zone 3 Fire (FP-B2-Z3-FA-FM-03)	1									
1	Fan On/Off status				1			Contacts	6C X 1 Sq.mm		
2	Fan Trip status				1			Pot Free Contact			
3	Fan A/M status				1			Pot Free Contact			
4	MSFD Status				1			Pot Free Contact	2C X 1 Sq.mm		
	Total		0	0	4	0	0				
M	Smoke Exhaust fan B2 Zone 4 Normal (FP-B2-Z4-EA-NM-04)	1									
1	Fan On/Off command					1		Contacts	8C X 1 Sq.mm		
2	Fan On/Off status				1			Pot Free Contact			
3	Fan Trip status				1			Pot Free Contact			
4	Fan A/M status				1			Pot Free Contact			
5	MSFD Status				1			Pot Free Contact	2C X 1 Sq.mm		
	Total		0	0	4	1	0				
N	Smoke Exhaust fan B2 Zone 4 Fire (FP-B2-Z4-EA-FM-04)	1									
1	Fan On/Off status				1			Contacts	6C X 1 Sq.mm		
2	Fan Trip status				1			Pot Free Contact			
3	Fan A/M status				1			Pot Free Contact			
4	MSFD Status				1			Pot Free Contact	2C X 1 Sq.mm		
	Total		0	0	4	0	0				
O	Supply Fan B2 Zone 4 Normal (FP-B2-Z4-FA-NM-04)	1									
1	Fan On/Off command					1		Contacts	8C X 1 Sq.mm		
2	Fan On/Off status				1			Pot Free Contact			
3	Fan Trip status				1			Pot Free Contact			
4	Fan A/M status				1			Pot Free Contact			
5	MSFD Status				1			Pot Free Contact	2C X 1 Sq.mm		
	Total		0	0	4	1	0				
P	Supply Fan B2 Zone 4 Fire (FP-B2-Z4-FA-FM-04)	1									
1	Fan On/Off status				1			Contacts	6C X 1 Sq.mm		
2	Fan Trip status				1			Pot Free Contact			
3	Fan A/M status				1			Pot Free Contact			
4	MSFD Status				1			Pot Free Contact	2C X 1 Sq.mm		
	Total		0	0	4	0	0				
Q	Supply Fan B2 Zone 5 Normal (FP-B2-Z5-FA-NM-05)	1									
1	Fan On/Off command					1		Contacts	8C X 1 Sq.mm		
2	Fan On/Off status				1			Pot Free Contact			
3	Fan Trip status				1			Pot Free Contact			
4	Fan A/M status				1			Pot Free Contact			
5	MSFD Status				1			Pot Free Contact	2C X 1 Sq.mm		
	Total		0	0	4	1	0				
R	Supply Fan B2 Zone 5 Fire (FP-B2-Z5-FA-FM-05)	1									
1	Fan On/Off status				1			Contacts	6C X 1 Sq.mm		
2	Fan Trip status				1			Pot Free Contact			
3	Fan A/M status				1			Pot Free Contact			
4	MSFD Status				1			Pot Free Contact	2C X 1 Sq.mm		
	Total		0	0	4	0	0				
S	Zone CO	5									
1	Zone Co Monitoring		5					CO Sensor	2C X 1Sq.mm		
	Total		5	0	0	0	0				
	Floor total		5	0	72	9	0				
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Doc number		Rev No:1		
PARTICULAR	FOYER-1-BASEMENT-3-BMS I/O SUMMARY						#REF!		1		
SI.NO	PARTICULARS	QTY	I/O DETAILS					Equipment	Type of Cable	Remarks	
			AI	AO	DI	DO	Soft IO				
	Foyer-1 Basement-3										
A	Smoke Exhaust fan B3 Zone 1 NORMAL (FP-B3-Z1-EA-NM-01)	1									
1	Fan On/Off command					1		Contacts	8C X 1 Sq.mm		
2	Fan On/Off status				1			Pot Free Contact			
3	Fan Trip status				1			Pot Free Contact			
4	Fan A/M status				1			Pot Free Contact			
5	MSFD Status				1			Pot Free Contact	2C X 1Sq.mm		
	Total		0	0	4	1	0				

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.			
PARTICULAR	BMS IO Summary						0			
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
			AI	AO	DI	DO	Soft IO			
B	Smoke Exhaust fan B3 Zone 1 Fire (FP-B3-Z1-EA-FM-01)	1								
1	Fan On/Off status				1			Contacts	6C X 1 Sq.mm	
2	Fan Trip status				1			Pot Free Contact		
3	Fan A/M status				1			Pot Free Contact		
4	MSFD Status				1			Pot Free Contact	2C X 1Sq.mm	
	Total		0	0	4	0	0			
C	Supply Fan B3 Zone 1 Normal (FP-B3-Z1-FA-NM-01)	1								
1	Fan On/Off command					1		Contacts	8C X 1 Sq.mm	
2	Fan On/Off status				1			Pot Free Contact		
3	Fan Trip status				1			Pot Free Contact		
4	Fan A/M status				1			Pot Free Contact	2C X 1Sq.mm	
5	MSFD Status				1			Pot Free Contact		
	Total		0	0	4	1	0			
D	Supply Fan B3 Zone 1 Fire (FP-B3-Z1-FA-FM-01)	1								
1	Fan On/Off status				1			Contacts	6C X 1 Sq.mm	
2	Fan Trip status				1			Pot Free Contact		
3	Fan A/M status				1			Pot Free Contact		
4	MSFD Status				1			Pot Free Contact	2C X 1Sq.mm	
	Total		0	0	4	0	0			
E	Smoke Exhaust fan B3 Zone 2 Normal (FP-B3-Z2-EA-NM-02)	1								
1	Fan On/Off command					1		Contacts	8C X 1 Sq.mm	
2	Fan On/Off status				1			Pot Free Contact		
3	Fan Trip status				1			Pot Free Contact		
4	Fan A/M status				1			Pot Free Contact	2C X 1Sq.mm	
5	MSFD Status				1			Pot Free Contact		
	Total		0	0	4	1	0			
F	Smoke Exhaust fan B3 Zone 2 Fire (FP-B3-Z2-EA-FM-02)	1								
1	Fan On/Off status				1			Contacts	6C X 1 Sq.mm	
2	Fan Trip status				1			Pot Free Contact		
3	Fan A/M status				1			Pot Free Contact		
5	MSFD Status				1			Pot Free Contact	2C X 1Sq.mm	
	Total		0	0	4	0	0			
G	Supply Fan B3 Zone 2 Normal (FP-B3-Z2-FA-NM-02)	1								
1	Fan On/Off command					1		Contacts	8C X 1 Sq.mm	
2	Fan On/Off status				1			Pot Free Contact		
3	Fan Trip status				1			Pot Free Contact		
4	Fan A/M status				1			Pot Free Contact	2C X 1Sq.mm	
5	MSFD Status				1			Pot Free Contact		
	Total		0	0	4	1	0			
H	Supply Fan B3 Zone 2 Fire (FP-B3-Z2-FA-FM-02)	1								
1	Fan On/Off status				1			Contacts	6C X 1 Sq.mm	
2	Fan Trip status				1			Pot Free Contact		
3	Fan A/M status				1			Pot Free Contact		
4	MSFD Status				1			Pot Free Contact	2C X 1Sq.mm	
	Total		0	0	4	0	0			
I	Smoke Exhaust fan B3 Zone 3 Normal (FP-B3-Z3-EA-NM-03)	1								
1	Fan On/Off command					1		Contacts	8C X 1 Sq.mm	
2	Fan On/Off status				1			Pot Free Contact		
3	Fan Trip status				1			Pot Free Contact		
4	Fan A/M status				1			Pot Free Contact	2C X 1Sq.mm	
5	MSFD Status				1			Pot Free Contact		
	Total		0	0	4	1	0			
J	Smoke Exhaust fan B3 Zone 3 Fire (FP-B3-Z3-EA-FM-03)	1								
1	Fan On/Off status				1			Contacts	6C X 1 Sq.mm	
2	Fan Trip status				1			Pot Free Contact		
3	Fan A/M status				1			Pot Free Contact		
4	MSFD Status				1			Pot Free Contact	2C X 1Sq.mm	
	Total		0	0	4	0	0			
K	Supply Fan B3 Zone 3 Normal (FP-B3-Z3-FA-NM-03)	1								
1	Fan On/Off command					1		Contacts	8C X 1 Sq.mm	
2	Fan On/Off status				1			Pot Free Contact		
3	Fan Trip status				1			Pot Free Contact		
4	Fan A/M status				1			Pot Free Contact	2C X 1Sq.mm	
5	MSFD Status				1			Pot Free Contact		
	Total		0	0	4	1	0			
L	Supply Fan B3 Zone 3 Fire (FP-B3-Z3-FA-FM-03)	1								
1	Fan On/Off status				1			Contacts	6C X 1 Sq.mm	
2	Fan Trip status				1			Pot Free Contact		
3	Fan A/M status				1			Pot Free Contact		
4	MSFD Status				1			Pot Free Contact	2C X 1Sq.mm	
	Total		0	0	4	0	0			
M	Smoke Exhaust fan B3 Zone 4 Normal (FP-B3-Z4-EA-NM-04)	1								
1	Fan On/Off command					1		Contacts	8C X 1 Sq.mm	
2	Fan On/Off status				1			Pot Free Contact		
3	Fan Trip status				1			Pot Free Contact		
4	Fan A/M status				1			Pot Free Contact	2C X 1Sq.mm	
5	MSFD Status				1			Pot Free Contact		
	Total		0	0	4	1	0			
N	Smoke Exhaust fan B3 Zone 4 Fire (FP-B3-Z4-EA-FM-04)	1								
1	Fan On/Off status				1			Contacts	6C X 1 Sq.mm	
2	Fan Trip status				1			Pot Free Contact		
3	Fan A/M status				1			Pot Free Contact		
4	MSFD Status				1			Pot Free Contact	2C X 1Sq.mm	
	Total		0	0	4	0	0			

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.		
PARTICULAR	BMS IO Summary						0		
SI.NO	PARTICULARS		I/O DETAILS				Equipment	Type of Cable	DDC Enclosure Details
			AI	AO	DI	DO			
O	Supply Fan B3 Zone 4 Normal (FP-B3-Z4-FA-NM-04)	1							
1	Fan On/Off command					1	Contacts	8C X 1 Sq.mm	
2	Fan On/Off status				1		Pot Free Contact		
3	Fan Trip status				1		Pot Free Contact		
4	Fan A/M status				1		Pot Free Contact		
5	MSFD Status				1		Pot Free Contact	2C X 1Sq.mm	
	Total		0	0	4	1	0		
P	Supply Fan B3 Zone 4 Fire (FP-B3-Z4-FA-FM-04)	1							
1	Fan On/Off status				1		Contacts	6C X 1 Sq.mm	
2	Fan Trip status				1		Pot Free Contact		
3	Fan A/M status				1		Pot Free Contact		
4	MSFD Status				1		Pot Free Contact		2C X 1Sq.mm
	Total		0	0	4	0	0		
Q	Supply Fan B3 Zone 5 Normal (FP-B3-Z5-FA-NM-05)	1							
1	Fan On/Off command					1	Contacts	8C X 1 Sq.mm	
2	Fan On/Off status				1		Pot Free Contact		
3	Fan Trip status				1		Pot Free Contact		
4	Fan A/M status				1		Pot Free Contact		
5	MSFD Status				1		Pot Free Contact	2C X 1Sq.mm	
	Total		0	0	4	1	0		
R	Supply Fan B3 Zone 5 Fire (FP-B3-Z5-FA-FM-05)	1							
1	Fan On/Off status				1		Contacts	6C X 1 Sq.mm	
2	Fan Trip status				1		Pot Free Contact		
3	Fan A/M status				1		Pot Free Contact		
4	MSFD Status				1		Pot Free Contact		2C X 1Sq.mm
	Total		0	0	4	0	0		
S	Zone CO	5							
1	Zone Co Monitoring		5				CO Sensor	2C X 1Sq.mm	
	Total		5	0	0	0	0		
T	BASEMENT DEWATERING SUMP PUMP-12(W+W)	24							
1	Sump high level alarm				12		Level Controller	2C X 1 Sq.mm	Dewatering/ Drainage/ Sewage pumps will be run by its own float switch. No provision for command & Auto/Manual
2	Pump On/Off Status				24		Pot Free Contact	4C X 1 Sq.mm	
3	Pump Trip Status				24		Pot Free Contact		
	Total		0	0	60	0	0		
U	BASEMENT SEWAGE SUMP PUMP-(W+W)	2							
1	Sump high level alarm				1		Level Controller	2C X 1 Sq.mm	Dewatering/ Drainage/ Sewage pumps will be run by its own float switch. No provision for command & Auto/Manual
2	Pump On/Off Status				2		Pot Free Contact	4C X 1 Sq.mm	
3	Pump Trip Status				2		Pot Free Contact		
	Total		0	0	5	0	0		
V	PHE PUMP PANEL-1	1							
1	On / Off Status				1		ELEC Panel	4C X 1 Sq.mm	
2	Trip Status				1		ELEC Panel		
	Total		0	0	2	0	0		
W	ENERGY METER(EEM)	1							
1	Voltage-v					1	Energy Meter	RS485 Communication Cable	
2	Current-a					1			
3	Kilowatt-kw					1			
4	Reactive Power-kvar					1			
5	Apparent Power-kva					1			
6	Power Factor-PF					1			
7	active energy-KWH					1			
8	KVAh					1			
9	Frequency					1			
10	THD					1			
	Total		0	0	0	0	10		
	Floor total		5	0	139	9	10		
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Doc number		Rev No:1
PARTICULAR	EH1 Basement-1-BMS I/O SUMMARY						#REF!		1
SI.NO	PARTICULARS	QTY	I/O DETAILS				Equipment	Type of Cable	Remarks
			AI	AO	DI	DO			
A	Exhaust Fan Evacuation Corridor as per load(EH1-B1-EC-EA-11)	1							
1	Fan On/Off command					1	Contacts	8C X 1 Sq.mm	
2	Fan On/Off status				1		Pot Free Contact		
3	Fan Trip status				1		Pot Free Contact		
4	Fan A/M status				1		Pot Free Contact		
	Total		0	0	3	1	0		
B	Exhaust Fan Corridor as per load(EH1-B1-EC-EG-12)	1							
1	Fan On/Off command					1	Contacts	8C X 1 Sq.mm	
2	Fan On/Off status				1		Pot Free Contact		
3	Fan Trip status				1		Pot Free Contact		
4	Fan A/M status				1		Pot Free Contact		
	Total		0	0	3	1	0		
C	Exhaust Fan LT panel room as per load(EH1-B1-LT-EA-08,EH1-B1-LT-EA-04)	2							
1	Fan On/Off command					2	Contacts	8C X 1 Sq.mm	
2	Fan On/Off status				2		Pot Free Contact		
3	Fan Trip status				2		Pot Free Contact		
4	Fan A/M status				2		Pot Free Contact		
	Total		0	0	6	2	0		
D	Exhaust Fan HT panel room as per load(EH1-B1-HT-EA-01,EH1-B1-HT-EA-09)	2							
1	Fan On/Off command					2	Contacts	8C X 1 Sq.mm	
2	Fan On/Off status				2		Pot Free Contact		
3	Fan Trip status				2		Pot Free Contact		
4	Fan A/M status				2		Pot Free Contact		
	Total		0	0	6	2	0		

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.				
PARTICULAR	BMS IO Summary						0				
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details	
			AI	AO	DI	DO	Soft IO				
E	Exhaust Fan Pump room as per load (EH1-B1-PUMP-EA-06,07)	2									
1	Fan On/Off command					2		Contacts	8C X 1 Sq.mm		
2	Fan On/Off status				2			Pot Free Contact			
3	Fan Trip status				2			Pot Free Contact			
4	Fan A/M status				2			Pot Free Contact			
	Total		0	0	6	2	0				
F	Exhaust Fan for Tansformar room as per Load EH1-B1-TR-EA-02,03&10	3									
1	Fan On/Off command					3		Contacts	8C X 1 Sq.mm		
2	Fan On/Off status				3			Pot Free Contact			
3	Fan Trip status				3			Pot Free Contact			
4	Fan A/M status				3			Pot Free Contact			
	Total		0	0	9	3	0				
G	Exhaust Fan for PS & UPS room as per Load EH1-B1-PS-EA-05	1									
1	Fan On/Off command					1		Contacts	8C X 1 Sq.mm		
2	Fan On/Off status				1			Pot Free Contact			
3	Fan Trip status				1			Pot Free Contact			
4	Fan A/M status				1			Pot Free Contact			
	Total		0	0	3	1	0				
H	FLOOR MOUNTED AIR HANDLING UNIT (EH1-B1-UPS-AHU-01)	1									
1	FAHU Fan On/Off Command					2		Contacts	6C X 1 Sq.mm		
2	FAHU Motor trip status				2			Pot Free Contact			
3	FAHU Auto/Manual Status				2			Pot Free Contact			
4	FAHU's VFD Command					2		Contacts	6C X 1 Sq.mm		
5	FAHU's VFD/Bypass Status				2			VFD			
6	FAHU's VFD Speed feed back						2	VFD			
7	FAHU's VFD Speed Control			2				Contacts	2C X 1 Sq.mm		
8	FAHU Fan Run Status				2			DP Switch			
9	Pressure Drop across Pre Filter Status				2			DP Switch			
10	Pressure Drop across Fine Filter Status				0			DP Switch	2C X 1 Sq.mm		
11	Supply Air Temperature Monitoring		0					Temperature Sensor(Duct)	2C X 1 Sq.mm		
12	Return Air Temperature Monitoring		0					Temperature Sensor(Duct)	2C X 1 Sq.mm		
13	Chilled Water Control Valve Modulation Command			0				Contacts	6C X 1 Sq.mm		
14	Chilled Water Control Valve Feedback		0					Modulating Valve			
15	Duct Supply Static Pressure Feedback		0					Pressure transmitter(duct static)	4C X 1 Sq.mm		
16	Return Air CO ₂ level		0					CO2 Sensor(Duct)	4C X 1 Sq.mm		
17	Fresh Air Damper control			0				Contacts	6C X 1 Sq.mm		
18	Fresh Air Damper feedback		0					Modulating Damper			
19	Return Air Relative Humidity monitoring		0					Humidity Sensor(Duct)	4C X 1 Sq.mm		
20	Supply Air Fire Damper Status				0			Fire Damper	2C X 1 Sq.mm		
21	Return Air Fire Damper Status				0			Fire Damper	2C X 1 Sq.mm		
22	Chilled Water Inlet Temperature Monitoring		0					Imm temp sensor	2C X 1 Sq.mm		
23	Chilled Water Outlet Temperature Monitoring		0					Imm temp sensor	2C X 1 Sq.mm		
	Total		0	2	10	4	2				
I	Tertiary PUMP (EH1-B1-CHWTP-01, 02&03)	3									
1	Teritary Pump On/Off Command					3		DDC	6C X 1 Sq.mm		
2	Teritary Pump Trip Status				3			Panel			
3	Teritary Pump Auto/Manual Status				3			Panel			
4	Teritary Pump Run Status				3			DP Switch(water)	2C X 1 Sq.mm		
5	Teritary Pump's VFD Command					3		DDC	6C X 1 Sq.mm		
6	Teritary Pump's VFD Bypass Status				3			VFD Panel			
7	Teritary Pump's VFD Speed control			3				DDC			
8	Pressure Sensor for pump load estimation		2					Pressure Transmitter	2C X 1 Sq.mm		
9	Chilled Water header retrun Temperature Monitoring		2					Imm temp sensor	2C X 1 Sq.mm	Increased by 1 as per HVAC Comment	
10	Chilled Water header supply Temperature Monitoring		2					Imm temp sensor	2C X 1 Sq.mm	Added as per HVAC Comment	
	Heat Exchanger secondary side	2								1 No added as per PHE schematic	
11	Chilled Water Control Valve Modulation Command			2				Modulating Valve	6C X 1 Sq.mm		
12	Chilled Water Control Valve Feedback		2					Modulating Valve			
J	Tertiary PUMP (F1-B1-CHWTP-01, 02&03)	3									
1	Teritary Pump On/Off Command					3		DDC	6C X 1 Sq.mm		
2	Teritary Pump Trip Status				3			Panel			
3	Teritary Pump Auto/Manual Status				3			Panel			
4	Teritary Pump Run Status				3			DP Switch(water)	2C X 1 Sq.mm		
5	Teritary Pump's VFD Command					3		DDC	6C X 1 Sq.mm		
6	Teritary Pump's VFD Bypass Status				3			VFD Panel			
7	Teritary Pump's VFD Speed control			3				DDC			
8	Pressure Sensor for pump load estimation		2					Pressure Transmitter	4C X 1 Sq.mm		
9	Chilled Water header retrun Temperature Monitoring		2					Imm temp sensor	2C X 1 Sq.mm	Increased by 1 as per HVAC Comment	
10	Chilled Water header supply Temperature Monitoring		2					Imm temp sensor	2C X 1 Sq.mm	Added as per HVAC Comment	
	Heat Exchanger secondary side	2								1 No added as per PHE schematic	
11	Chilled Water Control Valve Modulation Command			2				Modulating Valve	6C X 1 Sq.mm		
12	Chilled Water Control Valve Feedback		2					Modulating Valve			
K	Pressurization pump (EH1-B1-ET-01&02)	2									
1	Pump Trip Status						2	Pump PLC	Network cable	System is working on PLC. Hardwiring Integration provision not there. Soft intergertaion can be done	
2	Pump Auto/Manual Status						2				
3	Pump On/Off Status						2				
L	Pressurization pump (F1-B1-ET-01&02)	2						Pump PLC	Network cable		
1	Pump Trip Status						2				
2	Pump Auto/Manual Status						2				
3	Pump On/Off Status						2				
	Total		16	10	24	12	12				
M	BASEMENT DEWATERING SUMP PIT- Pump 12 NOS (W+W)	12									
1	Sump high level alarm				6			Level Controller	2C X 1 Sq.mm	Dewatering/ Drainage/ Sewage pumps will be run by its own float switch. No provision for command & Auto/Manual	
2	Pump On/Off Status				12			Pot Free Contact	4C X 1 Sq.mm		
3	Pump Trip Status				12			Pot Free Contact			
	Total		0	0	30	0	0				
N	VFD units TERITARY PUMP	6									
1	HVAC Related VFD's Speed Feedback						6	VFD	RS485 Communication Cable		
2	HVAC Related VFD's Frequency						6				
3	HVAC Related VFD's Current						6				
4	HVAC Related VFD's Voltage						6				
5	HVAC Related VFD's Power						6				
6	HVAC Related VFD's Run Time						6				
	Total		0	0	0	0	36				

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA							Rev.		
PARTICULAR	BMS IO Summary							0		
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
			AI	AO	DI	DO	Soft IO			
O	VFD units AHU	2								
1	HVAC Related VFD's Speed Feedback						2	VFD	RS485 Communication Cable	
2	HVAC Related VFD's Frequency						2			
3	HVAC Related VFD's Current						2			
4	HVAC Related VFD's Voltage						2			
5	HVAC Related VFD's Power						2			
6	HVAC Related VFD's Run Time						2			
	Total		0	0	0	0	12			
P	MAIN LT PANEL FOYER PARKING - Foyer-1	1								
1	LT Panel I/C Breaker On/Off Status	2			2			Foyer Main LT Panel	4C X 1 Sq.mm	
2	LT Panel I/C Breaker Trip Status				2			Foyer Main LT Panel		
3	LT Panel O/G Breaker On/Off Status	43			43			Foyer Main LT Panel	4C X 1 Sq.mm	
4	LT Panel O/G Breaker Trip Status				43			Foyer Main LT Panel		
5	LT Panel Bus Coupler On/Off Status	1			1			Foyer Main LT Panel	4C X 1 Sq.mm	
6	LT Panel Bus Coupler Trip Status				1			Foyer Main LT Panel		
7	Voltage presence	43					43	Foyer Main LT Panel		
	Total		0	0	92	0	43			
Q	FO MAIN LT PANEL- Foyer -1&2	1								
1	LT Panel I/C Breaker On/Off Status	2			2			Foyer Main LT Panel	4C X 1 Sq.mm	
2	LT Panel I/C Breaker Trip Status				2			Foyer Main LT Panel		
3	LT Panel O/G Breaker On/Off Status	26			26			Foyer Main LT Panel	4C X 1 Sq.mm	
4	LT Panel O/G Breaker Trip Status				26			Foyer Main LT Panel		
5	LT Panel Bus Coupler On/Off Status	1			1			Foyer Main LT Panel	4C X 1 Sq.mm	
6	LT Panel Bus Coupler Trip Status				1			Foyer Main LT Panel		
7	Voltage presence	26					26	Foyer Main LT Panel		
	Total		0	0	58	0	26			
R	SUBSTATION EQUIPMENTS (MAIN LT PANEL) - EH1	1								
1	LT Panel I/C Breaker On/Off Status	3			3			EH1 Main LT Panel	4C X 1 Sq.mm	
2	LT Panel I/C Breaker Trip Status				3			EH1 Main LT Panel		
3	LT Panel O/G Breaker On/Off Status	43			43			EH1 Main LT Panel	4C X 1 Sq.mm	To be checked in revised MSLD
4	LT Panel O/G Breaker Trip Status				43			EH1 Main LT Panel		
5	LT Panel Bus Coupler On/Off Status	1			1			EH1 Main LT Panel	4C X 1 Sq.mm	
6	LT Panel Bus Coupler Trip Status				1			EH1 Main LT Panel		
7	Voltage presence	43					28	EH1 Main LT Panel		
	Total		0	0	94	0	28			
S	APFC PANEL -1	1								
1	I/C _On / Off Status				1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status				1			ELEC Panel		
T	APFC PANEL-2	1								
1	I/C _On / Off Status				1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status				1			ELEC Panel		
U	EH1 SERVICE LIFT PANEL	1								
1	On / Off Status of Lift Panel.				1			ELEC Panel	4C X 1 Sq.mm	
2	Trip Status of Lift Panel.				1			ELEC Panel		
V	EH1-UPS I/C PANEL	2								
1	On / Off Status of UPS I/C Panel				2			UPS I/C Panel	4C X 1 Sq.mm	
2	Trip Status of UPS I/C Panel				2			UPS I/C Panel		
W	EH1-EMERGENCY UPS O/G PANEL	2								
1	On / Off Status of UPS O/G Panel Incomers.				2			UPS O/G Panel	4C X 1 Sq.mm	
2	Trip Status of UPS O/G Panel Incomers.				2			UPS O/G Panel		
X	Stall Power Distribution Panel-1-16	16								
1	I/C _On / Off Status				16			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status				16			Pot. Free Contact		
Y	Substation Ventilation Panel	1								
1	I/C _On / Off Status				1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status				1			Pot. Free Contact		
Z	Stall Power Main Panel	2								
1	I/C _On / Off Status				2			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status				2			Pot. Free Contact		
3	Bus Coupler On/Off Status	1			1			ELEC Panel	4C X 1 Sq.mm	
4	Bus Coupler Trip Status				1			Pot. Free Contact		
AA	Stall Bulk Power Panel	4								
1	I/C _On / Off Status				4			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status				4			Pot. Free Contact		
AB	VARIABLE TERTIARY CHILLED WATER PUMP PANEL FOR EH1 AND FOYER1	2								
1	I/C _On / Off Status				2			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status				2			Pot. Free Contact		
	Total		0	0	66	0	0			
AC	UPS	2								
1	Communication Status						2	UPS	RS485 Communication Cable	
2	I/P Voltage - RY						2			
3	I/P Voltage - YB						2			
4	I/P Voltage - BR						2			
5	O/P Voltage - R						2			
6	O/P Voltage - Y						2			
7	O/P Voltage - B						2			
8	O/P Current - R						2			
9	O/P Current - Y						2			
10	O/P Current - Y						2			
11	Battery Voltage						2			
12	Battery Charge Remaining						2			
13	Loading Percentage						2			
14	Frequency						2			
15	Alarm Status						2			
	Total		0	0	0	0	30			
AD	ENERGY METER(EEM)	139								
1	Voltage-v						139	Energy Meter	RS485 Communication Cable	
2	Current-a						139			
3	Kilowatt-kw						139			
4	Reactive Power-kvar						139			
5	Apparent Power-kva						139			
6	Power Factor-PF						139			
7	active energy-KWH						139			
8	KVAh						139			
9	Frequency						139			
10	THD						139			
	Total		0	0	0	0	1390			

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Rev.		
PARTICULAR	BMS IO Summary					0		
SI.NO	PARTICULARS		I/O DETAILS				Equipment	Type of Cable
			AI	AO	DI	DO		
AE	MFM METER	7						
1	Active Power					7	MFM METER	RS485 Communication Cable
2	Apparent Power					7		
3	Reactive Power					7		
4	Active Energy					7		
5	Apparent Energy					7		
6	Reactive Energy					7		
7	Line to Line Voltage					7		
8	line to Neutral Voltage					7		
9	Average Current					7		
10	Power Factor					7		
11	Frequency					7		
	TOTAL		0	0	0	77		
AF	Transformer	2						
	Winding Temperature		4				Transformer	2C X 1 Sq.mm
	Total		4	0	0	0		Added as per Aecom Comments
AG	Escalator	4						
1	Inspection Status (Normal/Maintenance)					0	Escalator Manager	RS485 Communication Cable
2	Emergency Stop Status					0		
3	Fault Indication					0		
4	Fireman Switch Status					0		
5	Escalator Auto/Manual Status					0		
6	Escalator Run Status					0		
7	Escalator Load status					0		
	Total		0	0	0	0		
AH	BTU meter-Eh1-1no,Foyer-1-1no	2						
1	Inlet Temp					2	BTU meter	RS485 Communication Cable
2	Outlet Temp					2		
3	Flow Rate					2		
4	Net Heat.					2		
5	Flow Total					2		
6	Net Heat Total					2		
	Total		0	0	0	12		
AI	Water Meter -EH 01 KINTEX TRENCH-4nos	4						
1	Flow rate					4	Water Meter-plant room (3rd party)	RS485 Communication Cable
2	Consumption					4		
	Total		0	0	0	8		
AJ	Water Meter	7						
	Exhibition hall -01-Service gallery BTR-2nos FOYER 01-Service gallery BTR-2nos EH 01 KINTEX KITCHEN-BTR 1b-3nos						Water Meter	RS485 Communication Cable
1	Flow rate					7		
2	Consumption					7		
	TOTAL		0	0	0	14		
	Floor total		20	12	410	28	1690	
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Doc number	Rev No:1	
PARTICULAR	EH1-GF-BMS I/O SUMMARY					#REF!	1	
SI.NO	PARTICULARS	QTY	I/O DETAILS				Equipment	Type of Cable
			AI	AO	DI	DO		
A	EH1-GF-EX-CF-01,Toilet - Exhaust	1						
1	Fan On/Off command					1	Contacts	8C X 1 Sq.mm
2	Fan On/Off status				1		Pot Free Contact	
3	Fan Trip status				1		Pot Free Contact	
4	Fan A/M status				1		Pot Free Contact	
	Total		0	0	3	1	0	
B	EH1-GF-EX-CF-02. Toilet - Fresh	1						
1	Fan On/Off command					1	Contacts	8C X 1 Sq.mm
2	Fan On/Off status				1		Pot Free Contact	
3	Fan Trip status				1		Pot Free Contact	
4	Fan A/M status				1		Pot Free Contact	
	Total		0	0	3	1	0	
C	FY1-GF-FM-SEF-01, FY1-GF-FM-SSF-01 Smoke Mode supply and Exhaust	2						
1	Fan On/Off status				2		Pot Free Contact	6C X 1 Sq.mm
2	Fan Trip status				2		Pot Free Contact	
3	Fan A/M status				2		Pot Free Contact	
	Total		0	0	6	0	0	
D	Lift	1						
1	Floor Position					1	Lift Control Manager	RS485 Communication Cable
2	Door fully Closed Signal					1		
3	Status of Landing Floor (Open/Close)					1		
4	Inspection Status (Normal/Maintenance)					1		
5	Emergency Stop Status					1		
6	Fault Indication					1		
7	Fireman Switch Status					1		
8	Lift Auto/Manual Status					1		
9	Lift Run Status					1		
	Total		0	0	0	0	9	
E	FCU Unit	6						
1	Valve Feedback		6	0	0	0	Valve Actuator	2C X 1 Sq.mm
	Total		6	0	0	0		Valve Actuator connection to be confirmed from valve OEM.
	Floor total		6	0	12	2	9	
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Doc number	Rev No:1	
PARTICULAR	EH1-MEZZANINE-BMS I/O SUMMARY					#REF!	1	
SI.NO	PARTICULARS	QTY	I/O DETAILS				Equipment	Type of Cable
			AI	AO	DI	DO		
A	Treated Fresh Air unit without VFD	1						
1	TFA Fan On/Off Command					1	Contacts	6C X 1 Sq.mm
2	TFA Motor trip status				1		PANEL	
3	TFA Auto/Manual Status				1		PANEL	
4	TFA Run Status				1		DP Switch	2C X 1 Sq.mm
5	Supply Air Temperature Monitoring		1				Temperature Sensor(Duct)	2C X 1 Sq.mm
6	Pressure Drop across Pre Filter Status				1		DP Switch	2C X 1 Sq.mm
7	Pressure Drop across Fine Filter Status				1		DP Switch	2C X 1 Sq.mm
8	Modulating Valve Control Output			1			Valve Actuator	6C X 1 Sq.mm
9	Modulating Valve Position Feedback		1				Valve Actuator	
	Total		2	1	5	1	0	
B	FCU Unit	5						
1	Valve Feedback		5	0	0	0	Valve Actuator	2C X 1 Sq.mm
	Total		5	0	0	0		Valve Actuator connection to be confirmed from valve OEM.
	Floor total		7	1	5	1	0	
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Doc number	Rev No:1	
PARTICULAR	EH1-1F-BMS I/O SUMMARY					#REF!	1	
SI.NO	PARTICULARS	QTY	I/O DETAILS				Equipment	Type of Cable
			AI	AO	DI	DO		

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.				
PARTICULAR	BMS IO Summary						0				
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details	
			AI	AO	DI	DO	Soft IO				
A	KITCHEN PANEL-1	1									
1	I/C _On / Off Status				1			Kitchen Panel	4C X 1 Sq.mm		
2	I/C _Trip Status				1			Kitchen Panel			
	Total		0	0	2	0	0				
B	Treated Fresh Air unit without VFD -EH1-1F-FKX-TFA-01	1									
1	TFA Fan On/Off Command					1		Contacts	6C X 1 Sq.mm		
2	TFA Motor trip status				1			Pot. Free Contact			
3	TFA Auto/Manual Status				1			Pot. Free Contact			
4	TFA Run Status				1			DP Switch	2C X 1 Sq.mm		
5	Supply Air Temperature Monitoring		1					Temperature Sensor(Duct)	2C X 1 Sq.mm		
6	Pressure Drop across Pre Filter Status				1			DP Switch	2C X 1 Sq.mm		
7	Pressure Drop across Fine Filter Status				1			DP Switch	2C X 1 Sq.mm		
8	Modulating Valve Control Output			1				Valve Actuator	6C X 1 Sq.mm		
9	Modulating Valve Position Feedback		1					Valve Actuator			
	Total		2	1	5	1	0				
C	Air Washer with VFD (EH1-1F-FKX-AW-01)	1								Qty reduced to 1 from 5 as per HVAC	
1	Fan On/Off command					1		Contacts	8C X 1 Sq.mm	Kintex	
2	Fan On/Off status				1			Pot. Free Contact			
3	Fan Trip status				1			Pot. Free Contact			
4	Fan A/M status				1			Pot. Free Contact			
5	Filter Status				1			DP Switch	2C X 1 Sq.mm		
	Total		0	0	4	1	0				
D	Scrubber with VFD (EH1-1F-FKX-SCR-01)	1								Qty reduced to 1 from 6 as per HVAC	
1	Fan On/Off command					1		Contacts	8C X 1 Sq.mm	Kintex	
2	Fan On/Off status				1			Pot. Free Contact			
3	Fan Trip status				1			Pot. Free Contact			
4	Fan A/M status				1			Pot. Free Contact			
5	Filter Status				1			DP Switch	2C X 1 Sq.mm		
	Total		0	0	4	1	0				
E	HVAC RELATED VFD's	2									
1	HVAC Related VFD's Speed Feedback						2	VFD	RS485 Communication Cable	Kintex	
2	HVAC Related VFD's Frequency						2				
3	HVAC Related VFD's Current						2				
4	HVAC Related VFD's Voltage						2				
5	HVAC Related VFD's Power						2				
6	HVAC Related VFD's Run Time						2				
	Total		0	0	0	0	12				
F	Lift	4									
1	Floor Position						0	Lift Control Manager	RS485 Communication Cable		
2	Door fully Closed Signal						0				
3	Status of Landing Floor (Open/Close)						0				
4	Inspection Status (Normal/Maintenance)						0				
5	Emergency Stop Status						0				
6	Fault Indication						0				
7	Fireman Switch Status						0				
8	Lift Auto/Manual Status						0				
9	Lift Run Status						0				
	Total		0	0	0	0	0				
	Floor total		2	1	15	3	12				
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Doc number		Rev No:1		
PARTICULAR	EH1-2F-BMS I/O SUMMARY						#REF!		1		
SI.NO	PARTICULARS	QTY	I/O DETAILS					Equipment	Type of Cable	Remarks	
			AI	AO	DI	DO	Soft IO				
A	KITCHEN PANEL-1	1									
1	I/C _On / Off Status				1			Kitchen Panel	4C X 1 Sq.mm		
2	I/C _Trip Status				1			Kitchen Panel			
	Total		0	0	2	0	0				
B	FO- TERRACE PRESS PANEL-1(FOYER-1)	1									
1	I/C _On / Off Status				1			Press Panel	4C X 1 Sq.mm		
2	I/C _Trip Status				1			Press Panel			
	Total		0	0	2	0	0				
C	Pressurization Fan at Terrace (LCP at 2nd Floor Electrical Room)	12									
1	Fan On/Off status				12			Pot. Free Contact	6C X 1 Sq.mm		
2	Fan Trip status				12			Pot. Free Contact			
3	Fan A/M status				12			Pot. Free Contact			
	Total		0	0	36	0	0				
D	Treated Fresh Air unit without VFD (EH1-2F-FKX-TFA-02)	1									
1	TFA Fan On/Off Command					1		Contacts	6C X 1 Sq.mm		
2	TFA Motor trip status				1			Pot. Free Contact			
3	TFA Auto/Manual Status				1			Pot. Free Contact			
4	TFA Run Status				1			DP Switch	2C X 1 Sq.mm		
5	Supply Air Temperature Monitoring		1					Temperature Sensor(Duct)	2C X 1 Sq.mm		
6	Pressure Drop across Pre Filter Status				1			DP Switch	2C X 1 Sq.mm		
7	Pressure Drop across Fine Filter Status				1			DP Switch	2C X 1 Sq.mm		
8	Modulating Valve Control Output			1				To Valve Actuator	6C X 1 Sq.mm		
9	Modulating Valve Position Feedback		1					From Valve Actuator			
	Total		2	1	3	0	0				
E	Air Washer with VFD (EH1-2F-FKX-AW-02)	1									
1	Fan On/Off command					1		Contacts	8C X 1 Sq.mm		
2	Fan On/Off status				1			Pot. Free Contact			
3	Fan Trip status				1			Pot. Free Contact			
4	Fan A/M status				1			Pot. Free Contact			
5	Filter Status				1			DP Switch	2C X 1 Sq.mm		
	Total		0	0	4	1	0				
F	Scrubber with VFD (EH1-2F-FKX-SCR-02)	1									
1	Fan On/Off command					1		Contacts	8C X 1 Sq.mm		
2	Fan On/Off status				1			Pot. Free Contact			
3	Fan Trip status				1			Pot. Free Contact			
4	Fan A/M status				1			Pot. Free Contact			
5	Filter Status				1			DP Switch	2C X 1 Sq.mm		
	Total		0	0	4	1	0				
G	HVAC RELATED VFD's	2									
1	HVAC Related VFD's Speed Feedback						2	VFD	RS485 Communication Cable		
2	HVAC Related VFD's Frequency						2				
3	HVAC Related VFD's Current						2				
4	HVAC Related VFD's Voltage						2				
5	HVAC Related VFD's Power						2				
6	HVAC Related VFD's Run Time						2				
	Total		0	0	0	0	12				

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.				
PARTICULAR	BMS IO Summary						0				
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details	
			AI	AO	DI	DO	Soft IO				
H	Lift	1						Lift Control Manager	RS485 Communication Cable		
1	Floor Position						1				
2	Door fully Closed Signal						1				
3	Status of Landing Floor (Open/Close)						1				
4	Inspection Status (Normal/Maintenance)						1				
5	Emergency Stop Status						1				
6	Fault Indication						1				
7	Fireman Switch Status						1				
8	Lift Auto/Manual Status						1				
9	Lift Run Status						1				
	Total		0	0	0	0	9				
	Floor total		4	2	104	5	42				
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Doc number		Rev No:1		
PARTICULAR	EH1-3F& TF-BMS I/O SUMMARY						#REF!		1		
SI.NO	PARTICULARS	QTY	I/O DETAILS					Equipment	Type of Cable	Remarks	
			AI	AO	DI	DO	Soft IO				
A	FLOOR MOUNTED AIR HANDLING UNIT (EH1-3F-AHU- 01-12)(6 Supply FANS & 2 Exhaust Fan)	12									
1	FAHU Fan On/Off Command					72		Contacts	6C X 1 Sq.mm		
2	FAHU Motor trip status				72			LCP			
3	FAHU Auto/Manual Status				72			LCP			
4	FAHU's VFD Command					72		Contacts	6C X 1 Sq.mm		
5	FAHU's VFD/Bypass Status				72			VFD			
6	FAHU's VFD Speed feed back							VFD			
7	FAHU's VFD Speed Control			72				Contacts	2C X 1 Sq.mm		
8	FAHU Fan Run Status				72			DP Switch			
9	Pressure Drop across Pre Filter Status				36			DP Switch			
10	Pressure Drop across Fine Filter Status				0			DP Switch	2C X 1 Sq.mm		
11	Supply Air Temperature Monitoring		0					Temperature Sensor(Duct)	2C X 1 Sq.mm		
12	Return Air Temperature Monitoring		0					Temperature Sensor(Duct)	2C X 1 Sq.mm		
13	Chilled Water Control Valve Modulation Command			0				Contacts	6C X 1 Sq.mm		
14	Chilled Water Control Valve Feedback		0					Modulating Valve			
15	Duct Supply Static Pressure Feedback		0					Pressure transmitter(duct static)	4C X 1 Sq.mm		
16	Return Air CO ₂ level		0					CO2 Sensor(Duct)	4C X 1 Sq.mm		
17	Fresh Air Damper control			0				Contacts	6C X 1 Sq.mm		
18	Fresh Air Damper feedback		0					Modulating Damper			
19	Return Air Relative Humidity monitoring		0					Humidity Sensor(Duct)	4C X 1 Sq.mm		
20	Supply Air Damper control			0				Contacts	6C X 1 Sq.mm		
21	Supply Air Damper feedback		0					Modulating Damper			
22	Return Air Damper control			0				Contacts	6C X 1 Sq.mm		
23	Return Air Damper feedback		0					Modulating Damper			
24	Supply Air Fire Damper Status				0			Fire Damper	2C X 1 Sq.mm		
25	Return Air Fire Damper Status				0			Fire Damper	2C X 1 Sq.mm		
26	Chilled Water Inlet Temperature Monitoring		0					Imm temp sensor	2C X 1 Sq.mm		
27	Chilled Water Outlet Temperature Monitoring		0					Imm temp sensor	2C X 1 Sq.mm		
30	Exhaust Air Fan On/Off Command					24		Contacts	6C X 1 Sq.mm		
31	Exhaust Air Fan Motor Trip sts				24			LCP			
32	Exhaust Air Fan Auto/Manual Status				24			LCP			
33	Exhaust Air Fan Run Status				24			DP Switch	2C X 1 Sq.mm		
34	Exhaust Air Header Pressure Status		0					Pressure transmitter(duct static)	4C X 1 Sq.mm		
35	Exhaust Air Fan VFD Command					24		Contacts	6C X 1 Sq.mm		
36	Exhaust Air Fan VFD Bypass sts				24			LCP			
37	Exhaust Air Fan VFD Speed Control			24				Contacts			
38	Fresh Air Temperature Status - After Heat Recovery Wheel		0					Temperature Sensor(Duct)	2C X 1 Sq.mm		
39	HRW Wheel On/Off Command					0		Contacts	8C X 1 Sq.mm		
40	HRW Wheel Motor Trip sts				0			LCP			
41	HRW Wheel Auto/Manual Status				0			LCP			
42	HRW Wheel Run/Filter Status				0			LCP			
43	HRW Wheel ON/OFF Status				0			LCP	2C X 1 Sq.mm		
	Total		0	96	420	192	0				
B	FLOOR MOUNTED AIR HANDLING UNIT (EH1-3F-AHU- 13,14)	2									
1	FAHU Fan On/Off Command					0		Contacts	6C X 1 Sq.mm		
2	FAHU Motor trip status				0			LCP			
3	FAHU Auto/Manual Status				0			LCP			
4	FAHU's VFD Command					0		Contacts	6C X 1 Sq.mm		
5	FAHU's VFD/Bypass Status				0			VFD			
6	FAHU's VFD Speed feed back							VFD			
7	FAHU's VFD Speed Control			0				Contacts	2C X 1 Sq.mm		
8	FAHU Fan Run Status				0			DP Switch			
9	Pressure Drop across Pre Filter Status				0			DP Switch			
10	Pressure Drop across Fine Filter Status				0			DP Switch	2C X 1 Sq.mm		
11	Supply Air Temperature Monitoring		0					Temperature Sensor(Duct)	2C X 1 Sq.mm		
12	Return Air Temperature Monitoring		0					Temperature Sensor(Duct)	2C X 1 Sq.mm		
13	Chilled Water Control Valve Modulation Command			0				Contacts	6C X 1 Sq.mm		
14	Chilled Water Control Valve Feedback		0					Modulating Valve			
15	Duct Supply Static Pressure Feedback		0					Pressure transmitter(duct static)	4C X 1 Sq.mm		
16	Return Air CO ₂ level		0					CO2 Sensor(Duct)	4C X 1 Sq.mm		
17	Fresh Air Damper control			0				Contacts	6C X 1 Sq.mm		
18	Fresh Air Damper feedback		0					Modulating Damper			

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.		
PARTICULAR	BMS IO Summary						0		
SI.NO	PARTICULARS	I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
		AI	AO	DI	DO	Soft IO			
19	Return Air Relative Humidity monitoring	0					Humidity Sensor(Duct)	4C X 1 Sq.mm	
20	Supply Air Damper control		0				Contacts	6C X 1 Sq.mm	
21	Supply Air Damper feedback	0					Modulating Damper		
22	Return Air Damper control		0				Contacts	6C X 1 Sq.mm	
23	Return Air Damper feedback	0					Modulating Damper		
24	Supply Air Fire Damper Status			0			Fire Damper	2C X 1 Sq.mm	
25	Return Air Fire Damper Status			0			Fire Damper	2C X 1 Sq.mm	
26	Chilled Water Inlet Temperature Monitoring	0					Imm temp sensor	2C X 1 Sq.mm	
27	Chilled Water Outlet Temperature Monitoring	0					Imm temp sensor	2C X 1 Sq.mm	
30	Exhaust Air Fan On/Off Command				0		Contacts	6C X 1 Sq.mm	
31	Exhaust Air Fan Motor Trip sts			0			LCP		
32	Exhaust Air Fan Auto/Manual Status			0			LCP		
33	Exhaust Air Fan Run Status			0			DP Switch		
34	Exhaust Air Header Pressure Status	0					Pressure transmitter(duct static)	4C X 1 Sq.mm	
35	Exhaust Air Fan VFD Command				0		Contacts	6C X 1 Sq.mm	
36	Exhaust Air Fan VFD Bypass sts			0			LCP		
37	Exhaust Air Fan VFD Speed Control		0				Contacts		
38	Fresh Air Temperature Status - After Heat Recovery Wheel	0					Temperature Sensor(Duct)	2C X 1 Sq.mm	
39	HRW Wheel On/Off Command				0		Contacts	8C X 1 Sq.mm	
40	HRW Wheel Motor Trip sts			0			LCP		
41	HRW Wheel Auto/Manual Status			0			LCP		
42	HRW Wheel Run/Filter Status			0			LCP		
43	HRW Wheel ON/OFF Status			0			LCP	2C X 1 Sq.mm	
	Total	0	0	0	0	0			
C	HEAT RECOVERY UNIT (EH1-3F-HRW-01)	1							
1	Fresh Air Fan On/Off Command				1		Contacts	6C X 1 Sq.mm	
2	Fresh Air Fan Motor Trip sts			1			LCP Panel		
3	Fresh Air Fan Auto/Manual Status			1			LCP Panel		
4	Fresh Air Fan Run Status			1			DP Swith	2C X 1 Sq.mm	
5	Fresh Air Damper control		1				Contacts	6C X 1 Sq.mm	
6	Fresh Air Damper feedback	1					DAMPER		
7	Fresh Air Header Pressure Status	1					Pressure transmitter(duct static)	4C X 1 Sq.mm	
8	Fresh Air Temperature Monitoring	1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
9	Fresh Air Fan VFD Command				1		Contacts	4C X 1 Sq.mm	
10	Fresh Air Fan VFD Bypass sts			1			Contacts		
11	Fresh Air Fan VFD Speed Control		1				Contacts	2C X 1 Sq.mm	
12	Exhaust Air Fan On/Off Command				1		Contacts	6C X 1 Sq.mm	
13	Exhaust Air Fan Motor Trip sts			1			LCP Panel		
14	Exhaust Air Fan Auto/Manual Status			1			LCP Panel		
15	Exhaust Air Fan Run Status			1			DP Swith	2C X 1 Sq.mm	
16	Exhaust Air Damper control		1				Contacts	6C X 1 Sq.mm	
17	Exhaust Air Damper feedback	1					DAMPER		
18	Exhaust Air Header Pressure Status	1					Pressure transmitter(duct static)	4C X 1 Sq.mm	
19	Exhaust Air Temperature Monitoring	1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
20	Exhaust Air Fan VFD Command				1		Contacts	4C X 1 Sq.mm	
21	Exhaust Air Fan VFD Bypass sts			1			Contacts		
22	Exhaust Air Fan VFD Speed Control		1				Contacts	2C X 1 Sq.mm	
23	Exhaust Air Temperature Status - After Heat Recovery Wheel		1				Temperature Sensor(Duct)	2C X 1 Sq.mm	
24	Wheel Status				1		Contacts	2C X 1 Sq.mm	
	Total	7	4	9	4	0			
D	EH1-3F-AC-CAHU-01	1							
1	Supply Air Temperature Monitoring	1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
2	Return Air Temperature Monitoring	1					Temperature Sensor(Duct)	2C X 1 Sq.mm	
3	Chilled Water Control Valve Feedback	1					From Valve Actuator	6C X 1 Sq.mm	
4	Chilled Water Control Valve Modulation Command		1				Two Way Valve Actuator		
5	SUPPLY Fan Auto Manual			1			Pot. Free Contact	6C X 1 Sq.mm	
7	SUPPLY Fan Trip Status			1			Pot. Free Contact		
8	FAHU Fan On/Off Command				1		Contacts		
6	SUPPLY Fan Run Status			1			DP Switch	2C X 1 Sq.mm	
9	Pressure Drop across Pre Filter Status			1			DP Switch	2C X 1 Sq.mm	
10	Chilled Water Inlet Temperature Monitoring	1					Imm temp sensor	2C X 1 Sq.mm	
11	Chilled Water Outlet Temperature Monitoring	1					Imm temp sensor	2C X 1 Sq.mm	
	TOTAL	5	1	4	1	0			
E	VFD units	102							
1	HVAC Related VFD's Speed Feedback					102	VFD	RS485 Communication Cable	
2	HVAC Related VFD's Frequency					102			
3	HVAC Related VFD's Current					102			
4	HVAC Related VFD's Voltage					102			
5	HVAC Related VFD's Power					102			
6	HVAC Related VFD's Run Time					102			
	Total	0	0	0	0	612			
F	MAIN LIGHTING PANEL -1	1							
1	I/C _On / Off Status	1		1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status			1			ELEC Panel		
	Total	0	0	2	0	0			
G	MAIN LIGHTING PANEL -2	1							
1	I/C _On / Off Status	1		1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status			1			ELEC Panel		
	Total	0	0	2	0	0			
H	FO-FIRE MODE VENTILATION PANEL-1	1							
1	I/C _On / Off Status			1			VENTILATION PANEL	4C X 1 Sq.mm	
2	I/C _Trip Status			1			VENTILATION PANEL		
	Smoke Extract Fan Fire Mode Third Floor Electrical Room -4 (MSLD-0082) EH1-SEF-3F								
3	Fan On/Off status	9		13			VENTILATION PANEL	6C X 1 Sq.mm	
4	Fan Trip status			13			VENTILATION PANEL		
5	Fan A/M status			13			VENTILATION PANEL		
	Total	0	0	41	0	0			
I	FO-FIRE MODE VENTILATION PANEL-2	1							
1	I/C _On / Off Status			1			VENTILATION PANEL	4C X 1 Sq.mm	
2	I/C _Trip Status			1			VENTILATION PANEL		

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.			
PARTICULAR	BMS IO Summary						0			
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details
			AI	AO	DI	DO	Soft IO			
	Smoke Extract Fan Fire Mode Third Floor Third Floor Corridor (MSLD-0082),EH1-SSF-3F-RES-01,EH1-SEF-3F-RES-01,EH1-SEF-3F									
3	Fan On/Off status	8			0			VENTILATION PANEL	6C X 1 Sq.mm	
4	Fan Trip status				0			VENTILATION PANEL		
5	Fan A/M status				0			VENTILATION PANEL		
	Total		0	0	2	0	0			
J	EH-01 MAIN POWER & AHU PANEL-1	1								
1	I/C _On / Off Status				1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status				1			ELEC Panel		
	Total		0	0	2	0	0			
K	EH-01 MAIN POWER & AHU PANEL-2	1								
1	I/C _On / Off Status				1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status				1			ELEC Panel		
	Total		0	0	2	0	0			
L	EH-01 MAIN POWER & AHU PANEL-3	1								
1	I/C _On / Off Status				1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status				1			ELEC Panel		
	Total		0	0	2	0	0			
M	EH-01 MAIN POWER & AHU PANEL-4	1								
1	I/C _On / Off Status				1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status				1			ELEC Panel		
	Total		0	0	2	0	0			
N	Exhibition Hall 1 Roof Extractor Panel - 1	1								
1	I/C _On / Off Status				1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status				1			ELEC Panel		
	Roof Extractor Fan	17								
3	FAN On/Off status				17			Pot. Free Contact	6C X 1 Sq.mm	
4	FAN Trip status				17			Pot. Free Contact		
5	FAN A/M status				17			Pot. Free Contact		
	Total		0	0	53	0	0			
O	Exhibition Hall 1 Roof Extractor Panel - 2	1								
1	I/C _On / Off Status				1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status				1			ELEC Panel		
	Roof Extractor Fan	16								
3	FAN On/Off status				16			Pot. Free Contact	6C X 1 Sq.mm	
4	FAN Trip status				16			Pot. Free Contact		
5	FAN A/M status				16			Pot. Free Contact		
	Total		0	0	50	0	0			
P	Exhibition Hall 1 Roof Extractor Panel - 3	1								
1	I/C _On / Off Status				1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status				1			ELEC Panel		
	Roof Extractor Fan	14								
3	FAN On/Off status				14			Pot. Free Contact	6C X 1 Sq.mm	
4	FAN Trip status				14			Pot. Free Contact		
5	FAN A/M status				14			Pot. Free Contact		
	Total		0	0	44	0	0			
Q	Exhibition Hall 1 Roof Extractor Panel - 4	1								
1	I/C _On / Off Status				1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status				1			ELEC Panel		
	Roof Extractor Fan	9								
3	FAN On/Off status				9			Pot. Free Contact	6C X 1 Sq.mm	
4	FAN Trip status				9			Pot. Free Contact		
5	FAN A/M status				9			Pot. Free Contact		
	Total		0	0	29	0	0			
R	Exhibition Hall 1 Roof Extractor Panel - 5	1								
1	I/C _On / Off Status				1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status				1			ELEC Panel		
	Roof Extractor Fan	5								
3	FAN On/Off status				5			Pot. Free Contact	6C X 1 Sq.mm	
4	FAN Trip status				5			Pot. Free Contact		
5	FAN A/M status				5			Pot. Free Contact		
	Total		0	0	17	0	0			
S	Exhibition Hall 1 Roof Extractor Panel - 6	1								
1	I/C _On / Off Status				1			ELEC Panel	4C X 1 Sq.mm	
2	I/C _Trip Status				1			ELEC Panel		
	Roof Extractor Fan	2								
3	FAN On/Off status				2			Pot. Free Contact	6C X 1 Sq.mm	
4	FAN Trip status				2			Pot. Free Contact		
5	FAN A/M status				2			Pot. Free Contact		
	Total		0	0	8	0	0			
T	Roof Makue up Fan	15								
1	FAN On/Off status				15			Pot. Free Contact	6C X 1 Sq.mm	
2	FAN Trip status				15			Pot. Free Contact		
3	FAN A/M status				15			Pot. Free Contact		
	Total		0	0	45	0	0			
U	Pressurization Fan (Lift - EH1-AF-3F-LW-01 &03, STPR - EH1-AF-3F-STPR-01, 02,03 & 04)	6								Added as per HVAC Comment
1	FAN On/Off status				6			Pot. Free Contact	6C X 1 Sq.mm	
Q	FAN Trip status				6			Pot. Free Contact		
3	FAN A/M status				6			Pot. Free Contact		
	Total		0	0	18	0	0			
V	FY1-TF-FM-SEF-01 ,FY1-3F-FM-SSF-01 Smoke Mode Exhaust and supply	2								
1	FAN On/Off status				2			Pot. Free Contact	6C X 1 Sq.mm	
2	FAN Trip status				2			Pot. Free Contact		
3	FAN A/M status				2			Pot. Free Contact		
	Total		0	0	6	0	0			
W	ELV UPS I/C PANEL	2								
1	On / Off Status of UPS I/C Panel Incomers.				2			UPS O/G Panel	4C X 1 Sq.mm	
2	Trip Status of UPS I/C Panel Incomers.				2			UPS O/G Panel		
	Total		0	0	4	0	0			
X	ELV-UPS O/G PANEL CUM DISTRIBUTION	2								
1	On / Off Status of UPS O/G Panel Incomers.				2			UPS O/G Panel	4C X 1 Sq.mm	
2	Trip Status of UPS O/G Panel Incomers.				2			UPS O/G Panel		
	Total		0	0	4	0	0			

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Rev.				
PARTICULAR	BMS IO Summary						0				
SI.NO	PARTICULARS		I/O DETAILS					Equipment	Type of Cable	DDC Enclosure Details	
			AI	AO	DI	DO	Soft IO				
Y	UPS	2									
1	Communication Status						2	UPS	RS485 Communication Cable		
2	I/P Voltage - RY						2				
3	I/P Voltage - YB						2				
4	I/P Voltage - BR						2				
5	O/P Voltage - R						2				
6	O/P Voltage - Y						2				
7	O/P Voltage - B						2				
8	O/P Current - R						2				
9	O/P Current - Y						2				
10	O/P Current - Y						2				
11	Battery Voltage						2				
12	Battery Charge Remaining						2				
13	Loading Percentage						2				
14	Frequency						2				
15	Alarm Status						2				
	Total		0	0	0	0	30				
Z	ENERGY METER(EEM)	14									
1	Voltage-v						14	Energy Meter	RS485 Communication Cable		
2	Current-a						14				
3	Kilowatt-kw						14				
4	Reactive Power-kvar						14				
5	Apparent Power-kva						14				
6	Power Factor-PF						14				
7	active energy-KWH						14				
8	KVArH						14				
9	Frequency						14				
10	THD						14				
	Total		0	0	0	0	140				
AA	Lift	4									
1	Floor Position						0	Lift Control Manager	RS485 Communication Cable		
2	Door fully Closed Signal						0				
3	Status of Landing Floor (Open/Close)						0				
4	Inspection Status (Normal/Maintenance)						0				
5	Emergency Stop Status						0				
6	Fault Indication						0				
7	Fireman Switch Status						0				
8	Lift Auto/Manual Status						0				
9	Lift Run Status						0				
	Total		0	0	0	0	0				
AB	FCU Unit	6									
1	Valve Feedback		6	0	0	0	0	Valve Actuator	2C X 1 Sq.mm	Valve Actuator connection to be confirmed from valve OEM.	
	Total		6	0	0	0	0				
AC	OVERHEAD TANK	1									
1	Water Level in tank	1			2			Level switch	4C X 1 Sq.mm		
2	Motorised Butterfly valve Control	1				1		Valve Actuator	2C X 1 Sq.mm		
	Total		0	0	2	1	0				
AD	Solar Panel	1									
1	Soft Points						10	Solar Panel Controller	Cat 6 Cable	final soft points will be confirmed from vendor	
	Floor total		18	101	768	198	787				
PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA						Doc number		Rev No:1		
PARTICULAR	EH1-KINTEX KITCHEN-BMS I/O SUMMARY						#REF!		1		
SI.NO	PARTICULARS	QTY	I/O DETAILS					Equipment	Type of Cable	Remarks	
			AI	AO	DI	DO	Soft IO				
	BASEMENT 1										
A	Kintex Kitchen Normal Exhaust Fan-Baseament (EH1-B1-KX-EX-01)	1									
1	Fan On/Off command					1		Contacts	8C X 1 Sq.mm		
2	Fan On/Off status				1			Pot Free Contact			
3	Fan Trip status				1			Pot Free Contact			
4	Fan A/M status				1			Pot Free Contact			
	Total		0	0	3	1	0				
B	TFA (EH1-B1-KX-TFA-01 & 02	2									
1	TFA Fan On/Off Command					2		Contacts	6C X 1 Sq.mm		
2	TFA Motor trip status				2			PANEL			
3	TFA Auto/Manual Status				2			PANEL			
4	TFA Run Status				2			DP Switch			
5	Supply Air Temperature Monitoring		2					Temperature Sensor(Duct)	2C X 1 Sq.mm		
6	Pressure Drop across Pre Filter Status				2			DP Switch	2C X 1 Sq.mm		
7	Pressure Drop across Fine Filter Status				2			DP Switch	2C X 1 Sq.mm		
8	Modulating Valve Control Output			2				Two Way Valve Actuator	6C X 1 Sq.mm		
9	Modulating Valve Position Feedback		2					From Valve Actuator			
	Total		4	2	10	2	0				
C	AIR WASHER with VFD (EH1-B1-AW-01)	1									
1	Fan On/Off command					1		Contacts	8C X 1 Sq.mm		
2	Fan On/Off status				1			Pot. Free Contact			
3	Fan Trip status				1			Pot. Free Contact			
4	Fan A/M status				1			Pot. Free Contact			
5	Filter Status				1			DP Switch	2C X 1 Sq.mm		
	Total		0	0	4	1	0				
D	FCU Unit	3									
1	Valve Feedback		3	0	0	0	0	Valve Actuator	2C X 1 Sq.mm	Valve Actuator connection to be confirmed from valve OEM.	
	Total		3	0	0	0	0				
E	HVAC RELATED VFD's	1									
1	HVAC Related VFD's Speed Feedback						1	VFD	RS485 Communication Cable		
2	HVAC Related VFD's Frequency						1				
3	HVAC Related VFD's Current						1				
4	HVAC Related VFD's Voltage						1				
5	HVAC Related VFD's Power						1				
6	HVAC Related VFD's Run Time						1				
	Total		0	0	0	0	6				
	GROUND FLOOR										
F	SCRUBER with VFD (EH1-GF-KX-SCR-01)	1									
1	Fan On/Off command					1		Contacts	8C X 1 Sq.mm		
2	Fan On/Off status				1			Pot. Free Contact			
3	Fan Trip status				1			Pot. Free Contact			
4	Fan A/M status				1			Pot. Free Contact			
5	Filter Status				1			DP Switch	2C X 1 Sq.mm		
	Total		0	0	4	1	0				

PROJECT	INDIA INTERNATIONAL CONVENTIONAL & EXPO CENTRE,DWARKA					Rev.		
PARTICULAR	BMS IO Summary					0		
SI.NO	PARTICULARS	I/O DETAILS					Equipment	Type of Cable
		AI	AO	DI	DO	Soft IO		
G	HVAC RELATED VFD's	1						
1	HVAC Related VFD's Speed Feedback					1	VFD	RS485 Communication Cable
2	HVAC Related VFD's Frequency					1		
3	HVAC Related VFD's Current					1		
4	HVAC Related VFD's Voltage					1		
5	HVAC Related VFD's Power					1		
6	HVAC Related VFD's Run Time					1		
	Total	0	0	0	0	6		
H	PRESSURIZATION FAN (EH1-GF-KX-LLB-01)	1						
1	Fan On/Off status			1			Pot Free Contact	8C X 1 Sq.mm
2	Fan Trip status			1			Pot Free Contact	
	Total	0	0	2	0	0		
I	Exhaust Fan- EH1-GF-KX-EX-01	1						
1	Fan On/Off command				1		Contacts	8C X 1 Sq.mm
2	Fan On/Off status			1			Pot Free Contact	
3	Fan Trip status			1			Pot Free Contact	
4	Fan A/M status			1			Pot Free Contact	
	Total	0	0	3	1	0		
	FIRST FLOOR							
J	AIR WASHER with VFD(EH1-FF-KX-AW-01, 02 & 03)	3						
1	Fan On/Off command				3		Contacts	8C X 1 Sq.mm
2	Fan On/Off status			3			Pot. Free Contact	
3	Fan Trip status			3			Pot. Free Contact	
4	Fan A/M status			3			Pot. Free Contact	
5	Filter Status			3			DP Switch	2C X 1 Sq.mm
	Total	0	0	12	3	0		
K	SCRUBER with VFD(EH1-FF-KX-SCR-01 & 02)	2						
1	Fan On/Off command				2		Contacts	8C X 1 Sq.mm
2	Fan On/Off status			2			Pot. Free Contact	
3	Fan Trip status			2			Pot. Free Contact	
4	Fan A/M status			2			Pot. Free Contact	
5	Filter Status			2			DP Switch	2C X 1 Sq.mm
	Total	0	0	8	2	0		
L	HVAC RELATED VFD's	5						
1	HVAC Related VFD's Speed Feedback					5	VFD	RS485 Communication Cable
2	HVAC Related VFD's Frequency					5		
3	HVAC Related VFD's Current					5		
4	HVAC Related VFD's Voltage					5		
5	HVAC Related VFD's Power					5		
6	HVAC Related VFD's Run Time					5		
	Total	0	0	0	0	30		
	Floor total	7	2	46	11	42		

23 Annexure 14 - List of ICT equipment (58 pages)

Based on the information available as on date, following data, which are fairly sufficient for the purpose of bidding may be considered. However, this list of equipment and utilities may vary, and it shall be updated during transition phase and shall be handed over to Service Provider. No claim of any additional cost on account of deviation in the list of equipment and utilities shall be admissible.

INDEX

Sr. No.	Description
1	IT Command Center Infrastructure
2	IT Infrastructure - Active Components
3	Critical Environment Systems – Data Centers
4	IT Infrastructure – Passive Connectivity Components
5	CCTV System
6	Access Control and Intelligent Automation System
7	Parking Management System
8	People Counting System
9	Building Security System
10	Gatehouse Security System
11	Solar Powered Security Fencing System
12	LED Media Façade System
13	Outdoor Broadcasting Van System
14	Augmented Reality and Interactive Media System- AR Wall
15	Augmented Reality and Interactive Media System- Interactive Wall
16	Augmented Reality and Interactive Media System- Heritage Wall
17	Digital Signages System
18	Background Music System
19	Audio Visual System
20	AV System – Locations and Capacity
21	Wifi System

1. IT Commnd Center Infrastructure

Sr. No.	Item Description for IT Commnd Center Infrastructure	Qty. (Approx)	Make	Model
1	Development Workstation	10	HP / DELL / Tyrone / Netapp / IBM	
2	Operational Workstation	20	HP / DELL / Tyrone / IBM	
3	IT Management Workstation	10	HP / DELL / Tyrone	
4	Portable Workstation	2	HP / DELL / Tyrone	
5	Desktop	12	HP / DELL / Tyrone	
6	8 Port KVM, KB and Mouse	14	HP / DELL / Tyrone	
7	24" High Resolution LED Monitor	50	HP / DELL / Tyrone	

2. IT Infrastructure - Active Components

Sr. No.	Item Description for IT Infrastructure - Active Components	Qty. (Approx)	Make	Model
1	Server & Network Racks of 800mm Width, 2000mm height, 1200mm depth	60	Rittal	7012009/9788275
2	Core Chassis	4	Cisco	N9K-C9508
3	Distribution Switch	8	Cisco	C6807-XL
4	Top of the Rack Switch	4	Cisco	N9K-C93108TC-FX
5	Access switch	8	Cisco	WS-C4510R+E
6	24 Port Layer 3 switch	40	Cisco	WS-C3850-48T-S
7	48 Port Layer 2 UPOE switch	120	Cisco	WS-C2960X-48FPD-L
8	24 Port Layer 2 UPOE switch	400	Cisco	WS-C2960X-24PD-L
9	Wi-Fi Controller	2	Cisco	AIR-CT8540-K9
10	Authentication, Authorization, and Accounting Device	2	Cisco	SNS-3595-K9
11	Indoor AP	495	Cisco	AIR-AP2802I-D-K9
12	Outdoor AP	196	Cisco	AIR-AP1562I-D-K9I
13	EPABX SYSTEM 2000 ports	2		OS 4000
14	Link Load balancer & License	2	Radware	Alteon D-6024 Perform -30G
15	Pluggable Optics for Link load	8		
16	Pluggable Optics & Copper, for DDOS	8		
17	SAN Storage	2	HP / DELL / Tyrone / Netapp / IBM	
18	GPU Server	2	HP / DELL / Tyrone / Startus	
19	IT-Management Server	10	HP / DELL / Tyrone/ Startus	

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No.	Item Description for IT Infrastructure - Active Components	Qty. (Approx)	Make	Model
20	NMS system	1	Cisco	R-MGMT3X-N-K9
21	Firewall	4	Checkpoint	64000 Series System
22	APT	4	Checkpoint	TE20000 Series System
23	Traps Advanced Endpoint Protection	1	Checkpoint	Sandblast Agent
24	Cyber Intelligence Service	1	Radware	Cyber Intelligent Service
25	Anti DDOS Appliance with Security update Subscription	2	Radware	DefencePro 200
26	Botnet Intelligence with 3-year Subscription	1	Radware	Cloud Malware Protection
27	APSolute Vision ODS-VL appliance	1	Radware	APSolute Vision Reporter (AVR)
28	SnS vSphere with Operations Management Enterprise Plus.	24	VMWARE	vCloud Suite 2019
29	VMware vSphere 6 with Operations Management Enterprise Plus	24	VMWARE	
30	VMware vCenter Server 6 Standard for vSphere 6	1	VMWARE	VMware vCenter Server 7 Standard
31	Production Support/Subscription VMware vCenter Server 6	1	VMWARE	
32	NMS Prime Infrastructure UCS Physical HW Appliance	1	Cisco	PI-UCS-APL-K9

3. Critical Environment Systems – Data Centers

Sr. No.	Item Description for Critical Environment Systems – Data Centers	Qty. (Approx)	Make	Model
1	Server & Network Racks of 800mm Width 2000mm height 1200mm	60	Rittal	7804009
2	LCP In-Rack Cooling Units with the Accessories with N+1 Redundancy.	60	Rittal	7030250
3	IP PDU 63A/3P CEE 18xC13 / 6xC19 Sockets	120	Rittal	7955233
4	RiZone Monitoring Software	1	Rittal	Rizone
5	Temperature, Humidity and smoke Monitoring (DCIM)	2	Rittal	Rizone
6	Water Leakage Detection system	2	Rittal	7030440
7	Digital Rodent repellent System	2	Rittal(MASER)	VHFP LP 20
8	Modular UPS system 450kW with 15 Min battery backup batteries for DC	2	ABB	
9	Chiller for 65TR for Data center	6		

4. IT Infrastructure – Passive Connectivity Components

Sr. No	Item Description for IT Infrastructure – Passive Connectivity Components	Qty. (Approx)	Make	Part No.
	Copper Cat6A Cable Box			
1.1	Copper Cable, Cat 6A, 4-Pair, 1000ft/305m reel	2000 Boxes	Siemon	9A6L4-A5
	Copper / Fiber Ports Faceplate			
2.1	2 Port Faceplate	5493	Siemon	10GMX-BFP-02-02
	4 Port Faceplate	3295	Siemon	10GMX-BFP-04-02
	Faceplate Blanker	879	Siemon	MX-BL-02
	Information Outlet - Cat 6A			
	Cat6A Modular Jack with Door -Field Side / User Side		Siemon	Z6A-S(xx)D
3.1	Copper, Outlet, ZMAX, Shielded, Category 6A, RJ45, Hybrid, Tool-Less, T568A/B, with Door- GREEN for Data	1861	Siemon	Z6A-S07DB & Z6A-S07D
	Copper, Outlet, ZMAX, Shielded, Category 6A, RJ45, Hybrid, Tool-Less, T568A/B, with Door- YELLOW for Voice	2299	Siemon	Z6A-S05DB & Z6A-S05D
	Copper, Outlet, ZMAX, Shielded, Category 6A, RJ45, Hybrid, Tool-Less, T568A/B, with Door- WHITE for Wireless	621	Siemon	Z6A-S02DB & Z6A-S02D
	Copper, Outlet, ZMAX, Shielded, Category 6A, RJ45, Hybrid, Tool-Less, T568A/B, with Door- ORRANGE for AV/MM	956	Siemon	Z6A-S09DB & Z6A-S09D
	Copper, Outlet, ZMAX, Shielded, Category 6A, RJ45, Hybrid, Tool-Less, T568A/B, with Door- RED for BMS/Security		Siemon	Z6A-S03DB & Z6A-S03D
	Cat6A Modular Jack without Door -Rack Side		Siemon	Z6A-SK(xx)
	Copper, Outlet, ZMAX, Shielded, Category 6A, RJ45, Keystone, Tool-Less, T568A/B, without door - GREEN for Data	10682	Siemon	Z6A-SK07B & Z6A-SK07
	Copper, Outlet, ZMAX, Shielded, Category 6A, RJ45, Keystone, Tool-Less, T568A/B, without door - YELLOW for Voice	4598	Siemon	Z6A-SK05B & Z6A-SK05
	Copper, Outlet, ZMAX, Shielded, Category 6A, RJ45, Keystone, Tool-Less, T568A/B, without door - WHITE for Wireless	1242	Siemon	Z6A-SK02B & Z6A-SK02
	Copper, Outlet, ZMAX, Shielded, Category 6A, RJ45, Keystone, Tool-Less, T568A/B, without door - ORRANGE for AV/MM	1912	Siemon	Z6A-SK09B & Z6A-SK09
	Copper, Outlet, ZMAX, Shielded, Category 6A, RJ45, Keystone, Tool-Less, T568A/B, without door - RED for BMS/Security	3526	Siemon	Z6A-SK03B & Z6A-SK03

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Copper Patch Cable - Cat 6A - Non Intelligent				
4.1	Solid Modular cord for Harness Cable (Switch to Intelligent Panel) Non-Intelligent		Siemon	
	Cat 6A solid modular cord- Double Ended (for Cross Connect- Switch to Panel) - 5 Meter	5253	Siemon	ZC6A-S05MA-LD
	Cat 6A solid modular cord- Single Ended (for Cross Connect- Switch to Panel) - 2 Meter		Siemon	ZC6A-S02MA-L
	Cat 6A solid modular cord- Single Ended (for Cross Connect- Switch to Panel) - 3 Meter		Siemon	ZC6A-S03MA-L
	Stranded modular cord for User end Patch Cable / For End Node Connectivity - Non-Intelligent		Siemon	
	Cat 6A Stranded modular cord - 1 Meter	699	Siemon	ZM6A-S01M-(02B) & ZM6A-S01M-02
	Cat 6A Stranded modular cord - 2 Meter	1320	Siemon	ZM6A-S02M-(02B) & ZM6A-S01M-02
	Cat 6A Stranded modular cord - 2 Meter	1763	Siemon	ZM6A-S02M-(03B) & ZM6A-S02M-03
	Cat 6A Stranded modular cord - 2 Meter	3609	Siemon	ZM6A-S02M-(07B) & ZM6A-S02M-07
	Cat 6A Stranded modular cord - 3 Meter	960	Siemon	ZM6A-S03M-(07B) & ZM6A-S03M-07
	Cat 6A Stranded modular cord - 5 Meter	600	Siemon	ZM6A-S05M-(07B)
	Cat 6A Stranded modular cord - X Meter		Siemon	ZM6A-S(x)M-(x)
	Stranded modular cord for Control Cable Connection- (Master Panel to Intelligent Panel) - Non-Intelligent		Siemon	
Cat 6A Stranded modular cord - 1 Meter		Siemon	ZM6A-S01M-02	
Cat 6A Stranded modular cord - 2 Meter		Siemon	ZM6A-S02M-02	
Outdoor Fiber Cables - SingleMode - OS2				
6.1 (a)	72 Core Single Mode Outside Plant Fiber Cable	40080 RMT.	Siemon	9PA8D072D-E201M
	24 Core Single Mode Outside Plant Fiber Cable	37000 RMT.	Siemon	9PA8D024D-E201M
	12 Core Single Mode Outside Plant Fiber Cable	9000 RMT.	Siemon	9PA8D012D-E201M
Indoor Fiber Cables - SingleMode - OS2				
6.1 (b)	72 Core Single Mode Indoor Fiber Cable		Siemon	9F8LB3-72D1.00
	24 Core Single Mode Indoor Fiber Cable		Siemon	9F8LB3-24L1.00

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Indoor Fiber Cables - Multi-mode - OM4				
7.1	24 Core Multi-Mode Fiber Cable		Siemon	9F5VB3-24L1.00
	6 Core Multi-Mode Fiber Cable		Siemon	9F5VB3-06B1.00
	12 Core Multi-Mode Fiber Cable		Siemon	9F5VB3-12D1.00
	72 Core Multi-Mode Fiber Cable		Siemon	9F5VB3-72D1.00
	48 Core Multi-Mode Fiber Cable		Siemon	9F5VB3-48D1.00
Fiber Patch Cables - Single Mode / Multimode - non-Intelligent				
8.1	Single mode Fiber Patch cable For Harness Cable (Switch to Intelligent Panel) - Non-Intelligent		Siemon	
	Single-Mode Fiber Patch Cable - 3 Meter	688	Siemon	LBP-LCULCUL-03H
	Single-Mode Fiber Patch Cable - 5 Meter	114	Siemon	LBP-LCULCUL-05H
	Single-Mode Fiber Patch Cable - 10 Meter	20		LBP-LCULCUL-10H
	Single-Mode Fiber Patch Cable - 15 Meter	10		LBP-LCULCUL-15H
	Multi-mode Fiber Patch cable For Harness Cable (Switch to Intelligent Panel) Non-Intelligent		Siemon	
	6 Core Multi-Mode Fiber Patch Cable - 3 Meter	264	Siemon	LBP-LCLC5V-03AH
	6 Core Multi-Mode Fiber Patch Cable - 5 Meter	50	Siemon	LBP-LCLC5V-05AH
	6 Core Multi-Mode Fiber Patch Cable - 10 Meter	50		LBP-LCLC5V-10AH
	6 Core Multi-Mode Fiber Patch Cable - 15 Meter	20		LBP-LCLC5V-15AH
	Multi-Mode Fiber Patch Cable - x Meter (For Rack to Rack Connectivity)		Siemon	LBP-LCLC5V-(xx)AH

Intelligent Connectivity - Copper Components				
	Intelligent copper 24 Port Cat-6A Patch Panel			
10.1	Cat6A Intelligent Patch Panel (Intelligent Copper Panel - 24 Port) - Unloaded	1050	Siemon	M-SPP-K24ENS
	Intelligent copper Cat-6A Patch cord		Siemon	
	Cat6A Smart Jumper for Intelligent Connectivity (Intelligent Copper Patch Cable) - 2 Meter	2433	Siemon	M-10GMCS-(02)M(07)L
	Cat6A Smart Jumper for Intelligent Connectivity (Intelligent Copper Patch Cable) - 1 Meter	2428	Siemon	M-10GMCS-(01)M(07)L
	Cat6A Smart Jumper for Intelligent Connectivity (Intelligent Copper Patch Cable) - 2 Meter	1151	Siemon	M-10GMCS-(02)M(05)L
	Cat6A Smart Jumper for Intelligent Connectivity (Intelligent Copper Patch Cable) - 1 Meter	1148	Siemon	M-10GMCS-(01)M(05)L
	Cat6A Smart Jumper for Intelligent Connectivity (Intelligent Copper Patch Cable) - 2 Meter	313	Siemon	M-10GMCS-(02)M(02)L
	Cat6A Smart Jumper for Intelligent Connectivity (Intelligent Copper Patch Cable) - 1 Meter	308	Siemon	M-10GMCS-(01)M(02)L
	Cat6A Smart Jumper for Intelligent Connectivity (Intelligent Copper Patch Cable) - 2 Meter	480	Siemon	M-10GMCS-(02)M(09)L
	Cat6A Smart Jumper for Intelligent Connectivity (Intelligent Copper Patch Cable) - 1 Meter	476	Siemon	M-10GMCS-(01)M(09)L
	Cat6A Smart Jumper for Intelligent Connectivity (Intelligent Copper Patch Cable) - 2 Meter	884	Siemon	M-10GMCS-(02)M(03)L
	Cat6A Smart Jumper for Intelligent Connectivity (Intelligent Copper Patch Cable) - 1 Meter	879	Siemon	M-10GMCS-(01)M(03)L
	Cat6A Smart Jumper for Intelligent Connectivity (Intelligent Copper Patch Cable) - X Meter		Siemon	M-10GMCS-(x)M(x)L

Intelligent Connectivity - Fiber Components				
11.0	Intelligent Fiber Panel - Single Mode / Multi Mode			
	Intelligent Fiber Panel - OS2 Single Mode 48 Core LC			
	Intelligent Fiber Panel - OS2 Single mode 48 Core LC (Intelligent Fiber Panel - LC to LC Plug and Play Fiber Enclosure – Single Mode) - 48 Core - Loaded	255	Siemon	M-SFE-LC48-NSC
	Intelligent Fiber Panel - OM4 Multi-mode 48/24/12 Core LC			
	Intelligent Fiber Panel - OM4 Multi-mode 48/24/12 Core LC (Intelligent Fiber Panel - LC to LC Plug and Play Fiber Enclosure – Multi- Mode) - Loaded	92	Siemon	M-SFE-LC48-NS
	Intelligent Fiber Patch cables - OM4 Multimode			
	Fiber Smart Jumper for Intelligent Connectivity (Intelligent Fiber Jumper – Multi-Mode) - 2 Meter		Siemon	M-J2-LCLC5V-02
	Fiber Smart Jumper for Intelligent Connectivity (Intelligent Fiber Jumper – Multi-Mode) - 3 Meter		Siemon	M-J2-LCLC5V-03
	Fiber Smart Jumper for Intelligent Connectivity (Intelligent Fiber Jumper – Multi-Mode) - 5 Meter		Siemon	M-J2-LCLC5V-05
	Intelligent Fiber Patch cables - OS2 Single Mode			
	Fiber Smart Jumper for Intelligent Connectivity (Intelligent Fiber Jumper – Single-Mode) - 2 Meter	584	Siemon	M-J2-LCULCUL-02
	Fiber Smart Jumper for Intelligent Connectivity (Intelligent Fiber Jumper – Single-Mode) - 3 Meter	132	Siemon	M-J2-LCULCUL-03
	Fiber Smart Jumper for Intelligent Connectivity (Intelligent Fiber Jumper – Single-Mode) - 5 Meter	132	Siemon	M-J2-LCULCUL-05

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Fiber Accessories				
12.0	Splice Tray	537	Siemon	TRAY-3
	Heat Shrink Sleeve	8669	Siemon	HT-60
	Compression fitting		Siemon	CF-60
	Fiber Pigtails OS2	6907	Siemon	FP1B-LCUL-01H
	Fiber Pigtails OM4	1636	Siemon	FP1B-LC5V-01AH
Intelligent Data Collection Device & Software				
13.1	Master and Distribution Control Panels (AIMS - Automated Infrastructure Management System)	66	Siemon	M-MCP-R2
13.2	Intelligent Software - EagleEye Connect Software with one year Warranty		Siemon	EE-SWL-CNT
	Intelligent Software - EagleEye Connect Extended one year Warranty		Siemon	EE-MN1-CNT
Miscellaneous Items				
14.1	Fiber Module for EH1 & EH2 Stall Box (Fiber Module for Faceplate)		Siemon	MX-F1-LCQ-02C
14.2	Fiber Connector for EH1 & EH2 Stall Box		Siemon	FC1-LB-LC5-9AQ
14.3	Fiber Joint Encloser - 96 Core		Siemon	2179CD HS-S4
Others Items				
15	Fiber Intelligent Patch Panel (Intelligent Fiber Panel - LC to LC Plug and Play Fiber Enclosure – Single Mode) - 24 Core - Loaded		Siemon	M-SFE-LC48-NSC
	Fiber Intelligent Patch Panel (Intelligent Fiber Panel - LC to LC Plug and Play Fiber Enclosure – Multi-Mode) - 24 Core - Loaded		Siemon	M-SFE-LC48-NS
	Fiber Intelligent Patch Panel (Intelligent Fiber Panel - LC to LC Plug and Play Fiber Enclosure – Multi-Mode) - 12 Core - Loaded		Siemon	M-SFE-LC48-NS
Copper / Fiber Ports Faceplate				
16.0	2 Port Faceplate		Siemon	MX-BFP-S-02-01
	4 Port Faceplate		Siemon	MX-BFP-S-04-01
	Faceplate Blanker		Siemon	MX-BL-01
Outdoor Fiber Cables - SingleMode - OS2				
17.0	6 Core Single Mode Outside Plant Fiber Cable		Siemon	9PA8D006D-E201M
Indoor Fiber Cables - SingleMode - OS2				
18.0	24 Core Single Mode Indoor Fiber Cable	12000 RMT.	Siemon	9GG8H024D-E201M
Indoor Fiber Cables - Multi-mode - OM4				
19.0	24 Core Multi-Mode Fiber Cable	8000 RMT.	Siemon	9GG5H024D-T501M

5. CCTV System

Sr. No.	Item Description for the CCTV System	Qty. (Approx.)	Make	Model
1	Indoor Dual Sensor Fixed Camera	28	PELCO	IMD2007-1ES
2	Indoor Fixed Camera	811	PELCO	IMP231-1ERS
3	Indoor Fixed Varifocal Camera	350	PELCO	IMP231-1ERS
4	Outdoor Fixed Compact Bullet Camera	395	PELCO	IBP231-1ER
5	IP Indoor/Outdoor 360deg Omni Directional Quad Sensor Dome Camera	56	PELCO	IMM12036-1ES
6	Outdoor Perimeter Camera IP Indoor/Outdoor 180Deg Panoramic	35	PELCO	IMD2007-1ES
7	IP Indoor/Outdoor 360deg Omni Directional Quad Sensor Remote Dome Camera	103	PELCO	IMM12036-1ES
8	Video Management System Software	1	Videonetics	IVMS Pro
9	VMS Server	2	DELL	R440
10	Video Analytics Server	2	DELL	R740
11	Facial Recognition Server	2	DELL	R740
12	ANPR Server		DELL	R740
13	Network Video Recording Server			
14	Videowall 20x3 (55" display)	1	Planar	LX55X
15	Videowall 2x2 (55" display)	4	Planar	LX55X
16	Client Workstation	8	DELL	Precision 3640 Tower

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

	CCTV Installation Configuration Detail		CC-CP					CC													TOTAL
			B1	B2	B3	B4	CCP Total	B1	B2	GF	1F	2F	3F	4F	5F	6F	7F	8F	Terrace	CC-TOTAL	
1	Indoor Dual Sensor Fixed Camera	IMD2007-1ES	0	0	0	0	0	4		12	2									18	18
2	Indoor Fixed Camera	IMP231-1ERS	10	6	6	6	28	48	35	44	38	29	33	22	30	32	22	10	1	344	372
3	Indoor Fixed Varifocal Camera	IMP231-1ERS	6	6	5	5	22	23	19	13	14	6	12	8	15	6	6	6		128	150
4	Outdoor Fixed Compact Bullet Camera	IBP231-1ER	14	15	15	14	58	6	0	5	3	3	2	0	2	1	0	0	2	24	82
5	IP Indoor/Outdoor 360deg Omni Directional Quad Sensor Dome Camera	IMM12036-1ES	0	0	0	0	0	0	3	0	0	3	3	3	0	0	0	0	0	12	12
6	Outdoor Perimeter Camera IP Indoor/Outdoor 180Deg Panoramic	IMD2007-1ES	0	0	0	0	0	3	0	3	6	2	1	0	0	0	2	0	2	19	19
7	IP Indoor/Outdoor 360deg Omni Directional Quad Sensor Remote Dome Camera	IMM12036-1ES					0	3	2			2	4	4	2					17	17

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

	CCTV Installation Configuration Detail		FOYER 1				EH-1								FOYER 2				EH-2								TOTAL
			B1	B2	B3	F1-TOTAL	B1	GF	MGF	1F	2F	3F	Terrace	EH1-TOTAL	B1	B2	B3	F2-TOTAL	B1	GF	MGF	1F	2F	3F	Terrace	EH2-TOTAL	
1	Indoor Dual Sensor Fixed Camera	IMD2007-1ES	0	0	0	0		2						2	0	0	0	0		2						2	4
2	Indoor Fixed Camera	IMP231-1ERS	12	8	10	30	6	65	10	19	4	8	2	114	11	11	11	33	8	58	5	18	17	16	2	124	301
3	Indoor Fixed Varifocal Camera	IMP231-1ERS	6	4	7	17	4	24	3	12	1	5		49	6	6	6	18	5	32	4	12	10	10	0	73	157
4	Outdoor Fixed Compact Bullet Camera	IBP231-1ER	11	12	11	34	5	0	0	0	0	3	0	8	13	14	12	39	4	2	0	2	0	2	0	10	91
5	IP Indoor/Outdoor 360deg Omni Directional Quad Sensor Dome Camera	IMM12036-1ES	0	0	0	0	0	6	0	0	0	5	0	11	0	0	0	0	0	33	0	0	0	0	0	33	44
6	Outdoor Perimeter Camera IP Indoor/Outdoor 180Deg Panoramic	IMD2007-1ES	0	0	0	0	0	15	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	15
7	IP Indoor/Outdoor 360deg Omni Directional Quad Sensor Remote Dome Camera	IMM12036-1ES				0	0	26		2		10	6	44				0				2	6	3	8	19	63

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

	CCTV Installation Configuration Detail		EH-3			ESS-1			ESS-2			DG BUILDING			SERVICE GALLERY	FIRE STATION					TOTAL
			B1	MEZ	EH3-TOTAL	B1	GF	ESS1 TOTAL	B1	GF	ESS2 TOTAL	GF	1F	DG -TOTAL		GF	1F	2F	Terrace	FS-TOTAL	
1	Indoor Dual Sensor Fixed Camera	IMD2007-1ES	0		0	0		0	0		0	0		0	4	0				0	4
2	Indoor Fixed Camera	IMP231-1ERS	20	15	35		3	3		3	3	2	2	4	12	3	2	2	2	9	66
3	Indoor Fixed Varifocal Camera	IMP231-1ERS	13	14	27		3	3		3	3	1	2	3	4	2	1			3	43
4	Outdoor Fixed Compact Bullet Camera	IBP231-1ER	6	4	10		0	0		0	0	0	0	0	0	0	1	1	0	2	12
5	IP Indoor/Outdoor 360deg Omni Directional Quad Sensor Dome Camera	IMM12036-1ES	0	0	0		0	0		0	0	0	0	0	0	0	0	0	0	0	0
6	Outdoor Perimeter Camera IP Indoor/Outdoor 180Deg Panoramic	IMD2007-1ES	0	0	0		0	0		0	0	0	0	0	0	0	0	0	1	1	1
7	IP Indoor/Outdoor 360deg Omni Directional Quad Sensor Remote Dome Camera	IMM12036-1ES			0			0			0			0	0					0	0

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

	CCTV Installation Configuration Detail		EXTERNAL Substation near ESS & Arena	EH1 - EXTERNAL Substation	EH2 - EXTERNAL Substation	EH1 - B1, GF, 1F - Kitchen	EXTERNAL Layout	Lift	TOTAL
1	Indoor Dual Sensor Fixed Camera	IMD2007-1ES					2		2
2	Indoor Fixed Camera	IMP231-1ERS	4			15	0	53	72
3	Indoor Fixed Varifocal Camera	IMP231-1ERS	0			0			0
4	Outdoor Fixed Compact Bullet Camera	IBP231-1ER		1	1	3	205		210
5	IP Indoor/Outdoor 360deg Omni Directional Quad Sensor Dome Camera	IMM12036-1ES				0	0		0
6	Outdoor Perimeter Camera IP Indoor/Outdoor 180Deg Panoramic	IMD2007-1ES					0		0
7	IP Indoor/Outdoor 360deg Omni Directional Quad Sensor Remote Dome Camera	IMM12036-1ES					23		23

6. Access Control and Intelligent Automation System

Sr. No.	Item Description for Access Control and Intelligent Automation System	Qty. (Approx)	Make	Model
1	Smart Card Reader	1090	RBH	RBH-R86
2	Biometric Fingerprint Readers	79	RBH	BFR-150
3	IRIS Reader	58	IRIS ID	iCAM7000S-B
4	PIR Sensor for Datacenter + VIP Entry	312	Texecom	AFB0052
5	EM Lock Single Leaf	284	RMCON	REM-600-LBS-SL-M
6	EM Lock Double Leaf	526	RMCON	REM-600-LBS-DL-M
7	Break Glass	783	BEL	E-108E
8	Request to Exit Button	732	BEL	DEB-33SS
9	Magnetic Contact	889	CQR	SC570/WH/G3/EN
10	Magnetic Contact Shutter	12	CQR	RS007/G3/AB
11	ACS Software for Visitor Management, Guard Tour, Time Attendance & Intrusion	1	RBH	Axiom V Enterprise solution
12	Main Controller		RBH	RBH-UNC-500-432M
13	Dual Reader I/f (Universal Network Edge)	352		RBH-NURC-2002
14	Input Output Module	32	RBH	IOC - 16
15	ACS Server	2	Dell	R440
16	Client Workstations	5	DELL	Precision
17	Mifare Smart Card		RBH	MIFARE DESFire EV1
18	IP Talkback System (Audio & Video)	40	REMCON	REM-EC-01-1ch relay & REM-SCD-7"
19	Intrusion Command Keypad	2	RBH	SS2014
20	Smart Card Printer	3	Fargo	

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

	Access Control and Intelligent Automation System Installation Configuration details	CC-CP				CC											Terrace	TOTAL
		B1	B2	B3	B4	B1	B2	GF	1F	2F	3F	4F	5F	6F	7F	8F		
1	Smart Card Reader	26	13	14	13	72	35	74	41	39	49	31	31	19	32	21	10	520
2	Biometric Fingerprint Readers	0	0	0	0	10	5	4	4	4	4	5	5	5	0	0	0	46
3	IRIS Reader	0	0	0	0	14	8	12	2	3	5	5	0	5	0	0	0	54
4	PIR Sensor for Datacenter + VIP Entry	2	1	1	1	10	10	19	9	8	18	10	11	9	9	6	0	124
5	..	3	2	1	1	11	6	11	21	17	20	17	3	4	20	1	7	145
6	EM Lock Double Leaf	20	10	10	10	36	25	26	27	22	30	19	24	17	14	10	1	301
7	Break Glass	23	12	11	11	47	28	37	27	39	50	36	27	21	34	11	8	422
8	Request to Exit Button	23	12	11	11	36	26	29	25	36	46	32	24	17	34	11	8	381
9	Magnetic Contact	13	13	13	12	35	33	48	22	38	44	52	44	51	33	15	0	466
10	Magnetic Contact Shutter	0	0	0	0			0	0	0	0	0	0	0	0	0	0	0
11	ACS Software for Visitor Management, Guard Tour, Time Attendance & Intrusion												1					1
12	Main Controller	3		3	3	21	8	14	11	11	12	10	6	6	7	3	1	119
13	Dual Reader I/f (Universal Network Edge)	7	5		5	23	15	22	17	16	18	16	10	9	12	5	3	183
14	Input Output Module	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0		13
15	ACS Server												1					1
16	Client Workstations																	0
17	Mifare Smart Card																	0
18	IP Talkback System (Audio & Video)					5	2	3	2									12
19	Intrusion Command Keypad																	0
20	Smart Card Printer																	0

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

	Access Control and Intelligent Automation System Installation Configuration details	FOYER 1			EH-1							FOYER 2			EH-2							TOTAL
		B1	B2	B3	B1	GF	MGF	1F	2F	3F	Terrace	B1	B2	B3	B1	GF	MGF	1F	2F	3F	Terrace	
1	Smart Card Reader	24	10	10	16	102	4	15	2	20	4	21	12	12	21	106	5	6	8	32	6	436
2	Biometric Fingerprint Readers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	0	16
3	IRIS Reader	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4
4	PIR Sensor for Datacenter + VIP Entry	5	1	1	4	46	4	15	2	9	2	2	2	2	4	34	4	8	12	9	2	168
5	EM Lock Single Leaf	4	1	1	3	13	4	5	2	8	0	2	1	1	3	10	3	3	4	13	0	81
6	EM Lock Double Leaf	18	7	7	9	13	0	5	0	8	2	17	10	10	9	19	2	0	2	15	2	155
7	Break Glass	22	8	8	12	26	4	10	2	16	2	19	11	11	12	28	5	3	6	28	2	235
8	Request to Exit Button	22	8	8	12	26	4	10	2	16	0	19	11	11	12	22	5	3	6	28	2	227
9	Magnetic Contact	17	18	19	35	42	9	13	6	7	0	21	19	21	25	52	11	31	9	14	0	369
10	Magnetic Contact Shutter											0					0	0	0	0	0	0
11	ACS Software for Visitor Management, Guard Tour, Time Attendance & Intrusion																					0
12	Main Controller	4		2	2	20	1	2	1	3	1	2	2	2	4	23	1	1	1	6	1	79
13	Dual Reader I/f (Universal Network Edge)	8	4		4	29	1	4	3	5	1	8	4	4	6	33	2	1	2	10	1	130
14	Input Output Module	1	1	1	1	2	1	1		1		1	1	1	1	2		1	1	1		18
15	ACS Server																1					1
16	Client Workstations & Smart Card Reader																					0
17	Mifare Smart Card																					0
18	IP Talkback System (Audio & Video)					3	1									2			2			8
19	Intrusion Command Keypad																					0
20	Smart Card Printer																					0

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

	Access Control and Intelligent Automation System Installation Configuration details	EH-3		ESS-1		ESS-2		DG BUILDING		SERVICE GALLERY	FIRE STATION				TOTAL
		B1	MEZ	B1	GF	B1	GF	GF	1F		GF	1F	2F	Terrace	
1	Smart Card Reader	54	16	0	5	0	5	0	2	0	4	8	4	0	98
2	Biometric Fingerprint Readers	0	0	0	0	0	0	0	0	15	0	0	0	0	15
3	IRIS Reader	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	PIR Sensor for Datacenter + VIP Entry	4	1	0	2	0	2	1	1	0	2	1	0	0	14
5	EM Lock Single Leaf	14	5	0	0	0	0	0	0	0	1	5	1	0	26
6	EM Lock Double Leaf	32	8	0	5	0	5	0	2	13	1	0	0	0	66
7	Break Glass	46	13	0	5	0	5	0	2	13	2	5	1	0	92
8	Request to Exit Button	46	13	0	5	0	5	0	2	13	2	5	1	0	92
9	Magnetic Contact	14	0	0	5	0	5	4	9	0	4	4	3	0	48
10	Magnetic Contact Shutter	0	3	0	1	0	1	0	0	0	0	0	0	0	5
11	ACS Software for Visitor Management, Guard Tour, Time Attendance & Intrusion														0
12	Main Controller	8			2		2	0	1	10	1	1	0	0	25
13	Dual Reader I/f (Universal Network Edge)	13	5		2		2	0	1	4	1	4	0	0	32
14	Input Output Module	1	0		0		0	0	0	0	0	0	0	0	1
15	ACS Server														0
16	Client Workstations & Smart Card Reader														0
17															0
18	IP Talkback System (Audio & Video)	3	1		2		2	1							9
19	Intrusion Command Keypad														0
20	Smart Card Printer														0

	Access Control and Intelligent Automation System Installation Configuration details	EXTERNAL Substation near ESS & Arena	EH1 - EXTERNAL Substation	EH2 - EXTERNAL Substation	EH1 - B1, GF, 1F - Kitchen	EXTERNAL Layout	TOTAL
1	Smart Card Reader	6	2	2	11	15	36
2	Biometric Fingerprint Readers	2	0	0	0	0	2
3	IRIS Reader	0	0	0	0	0	0
4	PIR Sensor for Datacenter + VIP Entry	0	0	0	6	0	6
5	EM Lock Single Leaf	2	2	0	13	15	32
6	EM Lock Double Leaf	4	0	0	0	0	4
7	Break Glass	6	2	2	9	15	34
8	Request to Exit Button	4	2	2	9	15	32
9	Magnetic Contact	2	2	2	0	0	6
10	Magnetic Contact Shutter	0	4	3	0	0	7
11	ACS Software for Visitor Management, Guard Tour, Time Attendance & Intrusion				0		0
12	Main Controller	2		1	0	10	13
13	Dual Reader I/f (Universal Network Edge)	2			0	5	7
14	Input Output Module	0			0	0	0
15	ACS Server				0		0
16	Client Workstations & Smart Card Reader				0		0
17	Mifare Smart Card				0		0
18	IP Talkback System (Audio & Video)				0	11	11
19	Intrusion Command Keypad						0
20	Smart Card Printer						0

7. Parking Management System

Sl. No.	Item Description for Parking Management System	Qty. (Approx)	Make	Model
1	Ultrasonic Detector	2932	Somfy	UD-11
2	LED Indicator	2932	Somfy	LI-11
3	Floor Display Board	29	Somfy	VR-13
4	Zone direction display board	115	Somfy	VR-12-D
5	GSM Display Board	12	Somfy	VR-14-R
6	Zone Controller	102	Somfy	ZC-11
7	Boom Barrier - 4 MTRS	18	Somfy	O&O-Night & Day3
8	Ticket Dispenser	8	Somfy	Aura 30_I
9	Ticket Verifier	10	Somfy	Aura 30_U
10	Number Plate Image Capturing Camera	18	DAHUA	DH-IPC-HFW5231E-ZE
11	RFID Reader	18	Somfy	LR-RF-01
12	Manned POS		Somfy	SACS-Somfy
13	3 ROW LED Display Board	1		VR-M3
14	4 ROW LED Display Board	1	Somfy	VR-M4
15	Master Controller	0	Somfy	MC-01
16	PGS Server with Software	0	Somfy	Somfy-Dell/PMS-1
17	PMS Server with Software	0	Somfy	Somfy-Dell/PGS-1

	Parking Management System Installation Configuration details	CC-CP				FOYER 1			FOYER 2			TOTAL
		B1	B2	B3	B4	B1	B2	B3	B1	B2	B3	
1	Ultrasonic Detector	201	296	308	316	304	344	412	206	281	264	2932
2	LED Indicator	201	296	308	316	304	344	412	206	281	264	2932
3	Floor Display Board	3	2	2	2	3	3	2	4	4	4	29
4	Zone direction display board	8	11	11	12	12	15	16	9	11	10	115
5	GSM Display Board	4				4			4			12
6	Zone Controller	7	10	11	11	11	12	14	7	10	9	102
7	Boom Barrier - 4 MTRS	4	4	0	0	4	2	0	4	0	0	18
8	Ticket Dispenser	0	2	0	0	2	2	0	2	0	0	8
9	Ticket Verifier	4	2	0	0	2	0	0	2	0	0	10
10	Number Plate Image Capturing Camera	4	4	0	0	4	2	0	4	0	0	18
11	RFID Reader	4	4	0	0	4	2	0	4	0	0	18
12	Manned POS	4		4	4	4	3	4	2	3	2	30
13	3 ROW LED Display Board	0				1			0			1
14	4 ROW LED Display Board	1				0			0			1

8. People Counting System

Sl. No.	Item Description for People Counting System	Qty. (Approx.)	Make	Model
1	People Counting Camera	36	FLIR	3D Sensor
2	People Counting Software	1	FLIR	Device Manager
3	PCS Server	1	DELL	R240

	People Counting System Installation Configuration details	CC					EH-1	EH-2	TOTAL
		B1	B2	GF	1F	2F	GF	GF	
1	PCS Camera	5	2	4	4	3	10	8	36

9. Building Security System				
Sr. No.	Item Description for Building Security System	Nos. (Approx.)	Make	Model
1	X-Ray Baggage Scanner	30	Rapiscan	Metor-6M
2	Door Frame Metal Detector	27	Rapiscan	Metor-28e
3	Hand Held Metal Detector	34	Rapiscan	RAP-618XR
4	Flap Barrier - Normal Lane	59	KABA	HSB_E07
5	Flap Barrier - Wider Lane	15	KABA	HSB_E07
6	Ion Vapour Trace Detector			
7	Full Body Scanner	4		

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

	Building Security System Installation Configuration details	CC-CP				CC													TOTAL
		B1	B2	B3	B4	B1	B2	GF	1F	2F	3F	4F	5F	6F	7F	8F	Terrace		
1	X-Ray Baggage Scanner	0	0	0	0	5	2	5	3	1	0	0	0	0	0	0	0	16	
2	Door Frame Metal Detector	0	0	0	0	4	2	4	2	1	0	0	0	0	0	0	0	13	
3	Hand Held Metal Detector	0	0	0	0	5	2	5	3	1	0	0	0	0	0	0	0	16	
4	Flap Barrier - Normal Lane	0	0	0	0	6	1	7	8	0	0	0	0	0	0	0	0	22	
5	Flap Barrier - Wider Lane	0	0	0	0	2	1	2	2	0	0	0	0	0	0	0	0	7	
6	Ion Vapour Trace Detector	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7	Full Body Scanner	0	0	0	0	1	0	1	2	0	0	0	0	0	0	0	0	4	

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

	Building Security System Installation Configuration details	FOYER 1			EH-1							FOYER 2			EH-2							TOTAL
		B1	B2	B3	B1	GF	MGF	1F	2F	3F	Terrace	B1	B2	B3	B1	GF	MGF	1F	2F	3F	Terrace	
1	X-Ray Baggage Scanner	0	0	0		6	0	0	0	0	0	0	0	0	0	6	0	0	2	0	0	14
2	Door Frame Metal Detector	0	0	0		6	0	0	0	0	0	0	0	0	0	6	0	0	2	0	0	14
3	Hand Held Metal Detector	0	0	0		6	0	0	0	0	0	0	0	0	0	6	0	0	2	0	0	14
4	Flap Barrier - Normal Lane	0	0	0		21	0	0	0	0	0	0	0	0	0	16	0	0	0	0	0	37
5	Flap Barrier - Wider Lane	0	0	0		4	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	8
6	Ion Vapour Trace Detector	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Full Body Scanner																					

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

	Building Security System Installation Configuration details	EH-3		ESS-1		ESS-2		DG BUILDING		SERVICE GALLERY	FIRE STATION				EXTERNAL Substation	TOTAL
		B1	MEZ	B1	GF	B1	GF	GF	1F		GF	1F	2F	Terrace		
1	X-Ray Baggage Scanner	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Door Frame Metal Detector	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Hand Held Metal Detector	1	0	1	0	1	0	1	0	0	0	0	0	0	0	4
4	Flap Barrier - Normal Lane	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Flap Barrier - Wider Lane	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Ion Vapour Trace Detector	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Full Body Scanner															0

	Building Security System Installation Configuration details	EH1 - EXTERNAL Substation	EH2 - EXTERNAL Substation	EH1 - B1, GF, 1F - Kitchen	TOTAL
1	X-Ray Baggage Scanner	0	0	0	0
2	Door Frame Metal Detector	0	0	0	0
3	Hand Held Metal Detector	0	0	0	0
4	Flap Barrier - Normal Lane	0	0	0	0
5	Flap Barrier - Wider Lane	0	0	0	0
6	Ion Vapour Trace Detector	0	0	0	0
7	Full Body Scanner	0	0	0	0

10. Gatehouse Security System

Sr. No.	Item Description for Gatehouse Security System	Qty. (Approx.)	Make	Model
1	RFID Reader	77	Somfy	
2	Boom Barrier	75	Somfy	
3	Photo Cell (Set)	75	Somfy	
4	UVSS	32	Infinite	Inspectarea
5	ANPR Camera	75	DAHUA	DH-IPC-HFW5231E-ZE
6	Driver Image Camera	32		
7	Bollard	136	Somfy	
8	Tyre Killer	37	Somfy	
9	Access Controller panel	16	RBH	RBH-UNC-500-432M
10	Access Card Reader	16	RBH	RBH-R86
11	EM Lock Single Leaf	16	REMCN	REM-600-LBS-SL-M
12	EPB+EDR		BEL	E-108E & DEB-33SS
13	Indoor Fixed Varifocal Camera	13		IMP231-1ERS
14	IP Indoor/Outdoor 360deg Omni Directional Quad Sensor Dome Camera	16	PELCO	IMM12036-1ES
15	Mini Video Wall - Security Cabin (As per GFC provide only space)	0		
16	12U Rack	15	Rittal	
17	X-Ray Baggage Scanner	9	Rapiscan	Metor-6M
18	Door Frame Metal Detector	13	Rapiscan	Metor-28e
19	Hand Held Metal Detector	13	Rapiscan	RAP-618XR
20	IVT	11		
21	IP Talk Back	11	REMCN	REM-EC-01-1ch relay
22	Mechanical Turnstile	11		
23	HH Explosive Detector	0		
24	GSM Display	6	Somfy	VR-14-R
25	Flap barrier wide Line	24	KABA	HSB_E07
26	UVSS Work Station	32	Dell	Dell Optiplex 7090
27	Walky Talkie	0		

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

	Gatehouse Security System Installation Configuration details		Gate 1	Gate 2	Gate 3	Gate 4	Gate 5	Gate 6	Gate 7	Gate 8 A	Gate 8B	Gate 9	Gate 10	Gate 11	Gate 12	Gate 13	Gate 14	Gate 15	Gate 16	Gate 17	Gate 18	TOTAL
1	RFID Reader		5	5	2	2	2	6	6	6	3	5	6	6	6	2	12	2	0	0	1	77
2	Boom Barrier		5	5	2	2	2	6	6	6	3	5	6	6	6	0	12	2	0	0	1	75
3	Photo Cell (Set)		5	5	2	2	2	6	6	6	3	5	6	6	6	0	12	2	0	0	1	75
4	UVSS	Inspectarea	2	3	1	0	2	6	0	3	0	2	2	2	2	0	6	0	0	0	1	32
5	ANPR Camera	DH-IPC-HFW5231E-ZE	5	5	2	2	2	6	6	6	3	5	6	6	6	0	12	2	0	0	1	75
6	Driver Image Camera		2	3	1	0	2	6	0	3	0	2	2	2	2	0	6	0	0	0	1	32
7	Bollard		4	6	3	0	4	16	2	6	0	7	7	7	6	6	12	0	33	15	2	136
8	Tyre Killer		3	2	1	2	0	0	4	3	3	2	3	3	3	0	6	2	0	0	0	37
9	Access Controller panel	RBH-UNC-500-432M	1	1	1	1	1	2	1	1	0	1	1	1	1	0	1	1	0	0	1	16
10	Access Card Reader	RBH-R86	1	1	1	1	1	2	1	1	0	1	1	1	1	0	1	1	0	0	1	16
11	EM Lock Single Leaf	REM-600-LBS-SL-M	1	1	1	1	1	2	1	1	0	1	1	1	1	0	1	1	0	0	1	16
12	EPB+EDR	E-108E & DEB-33SS	1		1	1	2	1	1	0	1	1	1	1	1	0	1	1	0	0	1	15
13	Indoor Fixed Varifocal Camera	IMP231-1ERS	2	2		1	0	2	0	1	0	1	1	1	1	0	1	0	0	0	0	13
14	IP Indoor/Outdoor 360deg Omni Directional Quad Sensor Dome Camera	IMM12036-1ES	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	0	1	16
15	Mini Video Wall - Security Cabin (As per GFC provide only space)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	12U Rack		1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	0	1	15
17	X-Ray Baggage Scanner	Metor-6M	1	1	1	0	0	1	0	1	0	1	1	1	0	0	1	0	0	0	0	9
18	Door Frame Metal Detector	Metor-28e	4	2	1	0	0	0	0	1	0	1	1	1	1	0	1	0	0	0	0	13
19	Hand Held Metal Detector	RAP-618XR	4	2	1	0	0	0	0	1	0	1	1	1	1	0	1	0	0	0	0	13
20	IVT		1	1	1	0	1	1	0	1	0	1	1	1	1	0	1	0	0	0	0	11
21	IP Talk Back	REM-EC-01-1ch relay	1	1	1	0	0	1	0	1	0	1	1	1	1	0	1	1	0	0	0	11
22	Mechanical Turnstile		3	2	0	0	0	1	0	1	0	1	1	1	0	0	1	0	0	0	0	11
23	HH Explosive Detector		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	GSM Display	VR-14-R	1	1	0	0	0	1	0	1	0	0	0	1	0	0	1	0	0	0	0	6
25	Flap barrier wide Line	HSB_E07	4	2	2	0	0	4	0	2	0	2	2	2	2	0	2	0	0	0	0	24
26	UVSS Work Station	Dell Optiplex 7090	2	3	1	0	2	6	0	3	0	2	2	2	2	0	6	0	0	0	1	32
27	Walky Talkie		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Gate Numbers		General	Service	VVIP	Security Cabin	Pill Box	QRV Parking Lot
Gate 1							
G1	ENTRY	X			X	X	X
G1	EXIT	X					
G1	PEDESTRIAN	X					
Gate 2							
G2	ENTRY	X			X	X	X
G2	EXIT	X					
G2	PEDESTRIAN	X					
Gate 3							
G3	ENTRY		X		X	X	X
G3	EXIT		X				
G3	PEDESTRIAN		X				
Gate 4							
G4	EXIT	X					
Gate 5							
G5	ENTRY			X	X	X	X
Gate 6							
G6	ENTRY	X			X	X	X
G6	PEDESTRIAN	X					
Gate 7							
G7	EXIT	X			X		
G7	ENTRY			X			
Gate 8A							
G8A	ENTRY	X		X	X	X	X
G8A	EXIT	X					
G8A	PEDESTRIAN	X					
Gate 8B							
G8B	EXIT						
Gate 9							
G9	ENTRY		X	X	X	X	X
G9	EXIT		X				
G9	PEDESTRIAN		X				

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Gate 10							
G10	ENTRY		X		X	X	X
G10	EXIT		X				
G10	PEDESTRIAN		X				
Gate 11							
G11	ENTRY	X	X		X	X	X
G11	EXIT	X	X				
G11	PEDESTRIAN	X	X				
Gate 12							
G12	ENTRY		X		X	X	
G12	EXIT		X				
G12	PEDESTRIAN		X				
Gate 13							
G13	ENTRY		X				
G13	EXIT		X				
Gate 14							
G14	ENTRY	X			X	X	X
G14	EXIT	X					
G14	PEDESTRIAN	X					
Gate 15							
G15	EXIT	X					
Gate 16							
G16	DRIVE THROUGH		X				
Gate 17							
G17	DRIVE THROUGH		X				
Gate 18							
G18	ENTRY			X	x	x	

11. Solar Powered Security Fencing System

Sr. No.	Item Description for Solar Powered Security Fencing System	Qty. (Approx.)	Make	Model
1	Wall top perimeter Electrical Power Fence, 1.2 Mt height with 13 HT wires, divided into 20 zones consisting of Breakaway insulators	4000 RMT.	Crown	
2	Single zone Energizer with inbuilt Network controller, Programmable On-board LCD Key pad in compliance with IEC 60335-2-76 safety standards	20	CROWN	CS 250
3	32" LCD monitor, Software with PC and UPS with 30 min backup	1	CROWN	Fence Secure Software
4	End and corner post assembly with the specification of 50NB MS Pipe	161	CROWN	50NB
5	KIWITAH intermediary post of 1.5-meter length	1173	CROWN	KIWITAH 1.6
6	HT wire with all the accessories	30800 RMT.	Systematic Steel Industries Ltd.	ACSR
7	Double Insulated lead out cable	2500	CROWN	DIC
8	1" HDPE conduit	LS (RMT.)	Branded	1 inch
9	Warning sign board	400	CROWN	WSB
10	Corflute sign board	25	CROWN	CSB
11	Super Earth kit	100	CROWN	EP
12	Regulated Conventional Power supply			
13	LAN connectivity from Field units to Control room	10		
14	12V / 74 Wp solar panel with Module stand	10	Greetek India Pvt Ltd	GTK-75W-36P
15	Charge control unit	10	CROWN	ICU
16	Gate top electrification in line with wall top fence	13	CROWN	
17	Digital Voltmeter with Tool kit	1	CROWN	CS 213
18	IP54 rated Outdoor Console rack	10	Rittal	AE 1073.500

12. LED Media Façade System

Sr. No.	Item Description for LED Media Façade System (Converntion Center - Crown - Approx 8800 Sqm.)	Qty. (Approx.)	Make	Model
1	LED Mesh Display (FC1) - Size: 1440 x 2000mm	2640	Christie	4SMD
2	LED Mesh Display (FC2) - Size: 1152 x 2000mm	384	Christie	4SMD
3	LED Mesh Display (FC3 - FC38) - Size: Custom	112	Christie	4SMD
4	LED Sender Module	14	Christie	V3S2D6GF
5	LED Receiver Module	56	Christie	V3SRA
6	Daylight Sensor	4	Christie	DS1
7	Data Patch Cables	3136	Christie	
8	Power Ptach Cables	2440	Christie	
9	Pandoras Server (For Manager Software)	2	Christie	900-100295-02
10	Pandoras Quad Plaer	4	Christie	900-100295-02
11	Pandoras Manager - Software	1	Christie	157-021104-02
12	42U Equipment Rack	2	Valrack	MCAB BT 42U
13	9U Equipment Rack	14	Valrack	

13. Outdoor Broadcasting Van System

Sr. No.	Item Description for Outdoor Broadcasting Van System	Qty. (Approx.)	Make	Model
1	TRANSMITTER	72	LIGHTWARE	HDMI-3D-OPT-TX210RAK
2	RECEIVER	72	LIGHTWARE	HDMI-3D-OPT-RX150RA
3	VIDEO MATRIX SWITCHER	20	DATA VIDEO	SE-2850
4	DISTRIBUTION AMPLIFIER	36	DATA VIDEO	VP-597
5	AUDIO DELAY BOX	27	DATA VIDEO	AD-100M
6	DIGITAL SIGNAL PROCESSOR	6	KLARKTEKNIK	DM8000+KTDANTE64
7	NETWORK SWITCH	6		
8	INTERCOMM SYSTEM	28	DATA VIDEO	ITC-100
9	CHARACTER GENERATOR HARDWARE	24	DATA VIDEO	TC-200 + CG-200
10	40U EQUIPMENT RACK	6	MIDDLE ATLANTIC	ERK-4028
11	PROGRAM MONITOR	34		
12	BNC Cables 100 Meter		KRAMER	BC-1X

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Outdoor Broadcasting Van System Installation Configuration details		CC				EH1		EH2	TOTAL
		Auditorium	Grand Ball Room	Conference Room 1 (867 Pax)	Typical Conference Rooms	GF	GF - Media Room	GF	
1	TRANSMITTER	4	6	4	22	16	4	16	72
2	RECEIVER	4	6	4	22	16	4	16	72
3	VIDEO MATRIX SWITCHER	2	1	1	11	2	1	2	20
4	DISTRIBUTION AMPLIFIER	12	7	1	11	2	1	2	36
5	AUDIO DELAY BOX	2	3	2	11	4	1	4	27
6	DIGITAL SIGNAL PROCESSOR	1		1	2	1		1	6
7	NETWORK SWITCH	1	1	1	1	1		1	6
8	INTERCOMM SYSTEM	3	3	2	11	4	1	4	28
9	CHARACTER GENERATOR HARDWARE	2	1	1	11	4	1	4	24
10	40U EQUIPMENT RACK	1		1	3	1			6
11	PROGRAM MONITOR	2	2	2	22	2	2	2	34

14. Augmented Reality and Interactive Media System - AR Wall

Sr. No	Item Description for Augmented Reality and Interactive Media System- AR Wall (Convention Center - Ground Floor)	Qty. (Approx)	Make	Model
1	Main backdrop screen of size 12800mm X 5120mm having 2.5 mm pixel pitch indoor LED Screen, having 3 in1 SMD based LED Display	1	Christie	LED025-C-I India
2	Wall Mount System including design and engineering for installation of the LED video wall on the reception front wall elevation	1	Chief	LVS1U
3	Universal switcher for DVI, HDMI, VGA, component, stereo analogue audio and 5.1 S/PDIF digital audio signals. Audio embedding and de-embedding per port, IP and RS-232 control, Advanced EDID Management, Deep colour, HDCP compliant. 4X4 cross switcher having DVI/audio ports	1	Lightware	MX2-8X8-HDMI20-AUDIO-L
4	HDMI and DVI signals extender with HDCP	1	Lightware	LIGHTWARE SW4-OPT-TX 240 RAK
5	Software /application development for the LED video wall based on the Nature and various images in high resolution with AVI file development having simulation based on the key physical barriers in augmented reality solution	1		

15. Augmented Reality and Interactive Media System- Interactive Wall

Sr. No	Item Description for Augmented Reality and Interactive Media System- Interactive Wall - Bharta Darshan (Convention Center : First Floor - 1 no. , Second Floor - 1no. Third Floor - 1 no., Sixth Floor - 2 no.)	Nos	Make	Model
1	55 inches video wall of matrix 3 X 2 format having ultra-thin bezel with touch enabled for interactive wall to enable heritage Wall for the visitors	5	Christie	Christie FHD-553-xe
2	Wall Mount kit for the LCD Display System	5	Chief	LVS1U
3	Development of Content for the heritage wall with interactive and gesture-based solution including interactive feature on minimum of four LCD panels and gesture hardware for the entire wall with content of minimum of 3-5 minutes to be played on the wall	5		
4	High End Intel core i7 processor, 3GHz with minimum of 12 GB graphics card capable of controlling 8 panels with latest architecture running on windows 10 pro/Linux -64 bit, there should be a possibility in the controller to create user defined multiple tickers.	5	DATAPATH	DATAPATH VSN400 + DATAPATH Wall Control 10 software

16. Augmented Reality and Interactive Media System- Heritage Wall

Sr. No	Item Description for Augmented Reality and Interactive Media System- Heritage Wall (Convention Center : Basement 1 - 1 no.)		Make	Model
1	55 inches video wall with B2B size 1.7 mm of matrix 4 X 2 format with touch enabled for interactive wall to enable heritage Wall for the visitors	1	Christie	Christie FHD-553-xe
2	Wall Mount kit for the Video Wall System	1	Chief	LVS1U
3	Development of Content for the heritage wall with interactive and gesture based solution including interactive feature on minimum of four LCD panels and gesture hardware for the entire wall with content of minimum of 5 minutes to be played on the wall	1		
4	High End Server Intel core i7 processor, 3GHz with minimum of 12 GB graphics card capable of controlling 8 panels with latest architecture running on windows 10 pro/Linux -64 bit, There should be a possibility in the controller to create user defined multiple tickers. It should also be possible to place these tickers anywhere on the wall	1	DATAPATH	DATAPATH VSN400 + DATAPATH Wall Control 10 software

17. Digital Signages System

Sr. No	Item Description for Digital Signages System	Qty. (Approx)	Make	Model
1	LCD / LED panel FULL HD 24 x 7 operation Size 55" (with Digital Signage Player - Full HD)	83	SAMSUNG + SCALA	PM55H + SCALA R (FHD Media Player) + SW-PST-HD01 (FHD Software)
2	LCD / LED panel FULL HD 24 x 7 operation Size 42" (With Digital Signage Player - Full HD)	45	SAMSUNG + SCALA	PM43H + SCALA R (FHD Media Player) + SW-PST-HD01 (FHD Software)
3	Interactive Way Finding Kiosk 49 inch (with Digital Signage Player - Full HD)	10	SCALA + LG	Tilt Self Standing Kiosk_49 + LG Touch Display Model - 49TA3E + SCALA R (FHD Media Player) + SW-PST-HD01 (FHD Software)
4	Room Scheduler Display	48	SCALA	
5	LED Video Wall, PH16 outdoor full-color Size 32.4 x 3.84 Meter	1	LIANTRONICS	F16 + SCALA R (4K Hardware) + SW-PAV-4K01 (Software)
6	LED Video Wall PH16 outdoor full-color Size 40.8 x 0.96 Meter	2	LIANTRONICS	F16 + SCALA R (4K Hardware) + SW-PAV-4K01 (Software)
7	Central Server with Software	0	SCALA + DELL SERVER (BY SCALA)	SCALA Certified Server - DELL POWEREDGE R640 + SACALA Enterprise Software

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

	Digital Signages System Installation Configuration details	CC									EH1			EH2				TOTAL
		B1	B2	GF	1F	2F	3F	4F	5F	6F	GF	1F	2F	GF	1F	2F	3F	
1	LCD / LED panel FULL HD 24 x 7 operation Size 55" (with Digital Signage Player)	8	2	6	5	6	2	1	3	2	10	10	4	7	8	9		83
2	LCD / LED panel FULL HD 24 x 7 operation Size 42" (With Digital Signage Player)	4	3	3	7	2	3	3	3	4		2		5	4		2	45
3	Interactive Way Finding Kiosk 49 inch (with Digital Signage Player - Full HD)	1	1	1	1	1			1		2			1			1	10
4	Room Scheduler Display	2				3	5	6	10			6			8		8	48
5	LED Video Wall, PH16 outdoor full-color Size 32.4 x 3.84 Meter										1							1
6	LED Video Wall PH16 outdoor full-color Size 40.8 x 0.96 Meter										1			1				2

18. Background Music System

Sr. No	Item Description for Background Music System	Qty. (Approx)	Make	Model
1	wall speaker	9	Tannoy	AMS 5DC
2	5" high profile ceiling spk (SC1)	1207	TANNOY	CMS 503 DC BM
3	4" Low profile 2 WAY ceilgin spk (SC2)	362	TANNOY	CVS 4
4	Overhead speaker ceiling	6	TANNOY	
5	12" point source speaker (SP2)	6	TANNOY	VX 12HP
6	5" point source arch loud spaker (AMS)	8	TANNOY	
7	12" HIGH power ceiling speaker (SC3)	196	TANNOY	CMS1201DCT
8	Passive column Array loudspeaker (VLS)	31	TANNOY	
9	Wall mount speaker - SLA1	10	TANNOY	QFLEX 48/16/40/24/8
10	Wall speaker - SLA2	6	TANNOY	QFLEX 48/16/40/24/8
11	noice compensation mic	47	BIAMP	ANC-1
12	Paging Station	21	BIAMP	DS-10 / WS-10
13	Equipment rack	34		
14	Volume control	2		
15	Pendent Speaker	3		

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

	Background Music System Installation Configuration details	CCP															TOTAL
		B1	B2	B3	B4	B1	B2	GF	1F	2F	3F	4F	5F	6F	7F	8F	
1	wall speaker							9									9
2	5" high profile ceiling spk (SC1)	4	4	4	4	119	83	88	97	63	92	103	130	116	49	3	959
3	4" Low profile 2 WAY ceilgin spk (SC2)					22	31		2	33	15	37	4	6	1		151
4	Overhead speaker ceiling							3			3						6
5	12" point source speaker (SP2)					6											6
6	5" point source arch loud spaker (AMS)					8											8
7	12" HIGH power ceiling speaker (SC3)														5		5
8	Passive column Array loudspeaker (VLS)					8		3			4	2		8			25
9	Wall mount speaker - SLA1																0
10	Wall speaker - SLA2																0
11	noice compensation mic					2	1	3	3	3	4	2	4	3	0	0	25
12	Paging Station					1	1	1	2	1	1	1	1	1	1		11
13	Equipment rack					3	3	6	2	4		1	1	2	2		24
14	Volume control																0
15	Pendent Speaker										3						3

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

	Background Music System Installation Configuration details	FOYER 1			EH1				FOYER 2			EH2					TOTAL
		B3	B2	B1	F0	GM	F1	F2	B3	B2	B1	F0	GM	F1	F2	F3	
1	wall speaker																0
2	5" high profile ceiling spk (SC1)	11	11	11	20		30	10	6	6	8	65		37	33		248
3	4" Low profile 2 WAY ceilgin spk (SC2)				35	5	10					108	5	17	18	13	211
4	Overhead speaker ceiling																0
5	12" point source speaker (SP2)																0
6	5" point source arch loud spaker (AMS)																0
7	12" HIGH power ceiling speaker (SC3)						8	72				30			81		191
8	Passive column Array loudspeaker (VLS)											6					6
9	Wall mount speaker - SLA1				10												10
10	Wall speaker - SLA2											6					6
11	noice compensation mic				7		3	1				6		2	3		22
12	Paging Station				1	1	2	1				1		2	1	1	10
13	Equipment rack				3	3						2	1			1	10
14	Volume control					1										1	2
15	Pendent Speaker																

19. Audio Visual System

Sr. No.	Item Description for Audio Visual System	Qty. (Approx.)	MAKE	MODEL
1	STEREO ACTIVE DI BOX	As per Drawings attached	KLARK TEKNIK	DN 200
2	DUAL 30 BAND, 1/3 OCTAVE GRAPHIC EQUALISER	As per Drawings attached	KLARK TEKNIK	DN 370
3	DIGITAL AUDIO PROCESSOR	As per Drawings attached	KLARK TEKNIK	DM 8500
4	DIGITAL CONSOLE 40 INPUT CHANNELS; 16 MICROPHONE PREAMP	As per Drawings attached	MIDAS	M32R LIVE
5	DIGITAL CONSOLE 40 INPUT CHANNELS; 32 MICROPHONE PREAMP	As per Drawings attached	MIDAS	M32 LIVE
6	32 INPUT, 16 OUTPUT STAGE BOX	As per Drawings attached	MIDAS	DL32
7	LIVE DIGITAL CONSOLE CONTROL CENTRE WITH 56 INPUT CHANNELS, 27 MIX BUSES AND 96 KHZ SAMPLE RATE	As per Drawings attached	MIDAS	HD96-24-CC-IP
8	LIVE DIGITAL CONSOLE CONTROL CENTRE WITH 64 INPUT CHANNELS, 35 MIX BUSES AND 96 KHZ SAMPLE RATE	As per Drawings attached	MIDAS	HD96-24-CC-IP
9	LIVE DIGITAL CONSOLE CONTROL CENTRE WITH 88 INPUT CHANNELS, 35 MIX BUSES AND 96 KHZ SAMPLE RATE	As per Drawings attached	MIDAS	HD96-24-CC-IP
10	LIVE DIGITAL CONSOLE CONTROL CENTRE WITH 168 INPUT CHANNELS, 99 MIX BUSES AND 96 KHZ SAMPLE RATE	As per Drawings attached	MIDAS	HD96-24-CC-IP & DL151
11	DUAL NETWORK BRIDGE EXPANSION MODULE	As per Drawings attached	MIDAS	NEUTRON -NB
12	DANTE CARD TO SUPPORT 64 BI-DIRECTIONAL AUDIO CHANNEL		KLARK TEKNIK	KT-Dante64
13	DUAL PORT AES50 EXTENDER MODULE	As per Drawings attached		DN9620
14	MODULAR STAGE BOX W 8 CARD SLOT (64IN X 64OUT)	As per Drawings attached	MIDAS	DL231 - Qty 3 no.
15	24 INPUT STAGE BOX WITH 24 MICROPHONE PREAMPLIFIERS	As per Drawings attached	MIDAS	DL 151
16	24 OUTPUT STAGE BOX	As per Drawings attached	MIDAS	DL 152
17	DUAL 12 INCH TRAPEZOIDAL HIGH POWER LOW FREQUENCY LOUDSPEAKER	As per Drawings attached	TANNOY	VQ MB
18	DUAL 12 INCH TRAPEZOIDAL FULL RANGE LOUDSPEAKER (CEILING HUNG)	As per Drawings attached	TANNOY	VQ 100
19	DUAL 12 INCH TRAPEZOIDAL FULL RANGE LOUDSPEAKER (ARRAYABLE HUNG)	As per Drawings attached	TANNOY	VQ 60
20	TRAPEZOIDAL HIGH OUTPUT MID/HIGH LOUDSPEAKER (ARRAYABLE HUNG)	As per Drawings attached	TANNOY	VQ 95MH
21	TRAPEZOIDAL HIGH OUTPUT MID/HIGH LOUDSPEAKER (ARRAYABLE HUNG)	As per Drawings attached	TANNOY	VQ 64MH
22	TWO WAY POINT SOURCE DOWN FIRING MID HIGH LOUDSPEAKER (80 X 50 DEG)	As per Drawings attached	TANNOY	VQ 85DF
23	TWO WAY POINT SOURCE DOWN FIRING MID HIGH LOUDSPEAKER (60 X 40 DEG)	As per Drawings attached	TANNOY	VQ 64DF

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No.	Item Description for Audio Visual System	Qty. (Approx.)	MAKE	MODEL
24	ARRAY CLUSTER MOUNTING KIT	As per Drawings attached	TANNOY	VQ Flying Kit
25	HIGH POWER DIRECT RADIATING 2 x 18 INCH SUBWOOFER	As per Drawings attached	TANNOY	VSX 218B
26	FULL RANGE PASSIVE/ BI-AMP 12 INCH POINT SOURCE LOUDSPEAKER	As per Drawings attached	TANNOY	VX 12HP
27	FULL RANGE PASSIVE 12 INCH POINT SOURCE LOUDSPEAKER	As per Drawings attached	TANNOY	VX 12
28	HIGH OUTPUT LOW PROFILE 2 x 12 INCH BANDPASS FRONT LOADED SUBWOOFER	As per Drawings attached	TANNOY	VSX 12.2 BP
29	COMPACT POWERED MULTIPLE-DRIVER DIGITALLY STEERABLE COLUMN ARRAY WITH INTEGRATED DSP - 16 CHANNEL	As per Drawings attached	TANNOY	QFLEX 16
30	POWERED MULTIPLE-DRIVER DIGITALLY STEERABLE COLUMN ARRAY WITH INTEGRATED DSP - 32 CHANNEL	As per Drawings attached	TANNOY	QFLEX 32
31	POWERED MULTIPLE-DRIVER DIGITALLY STEERABLE COLUMN ARRAY WITH INTEGRATED DSP - 48 CHANNEL	As per Drawings attached	TANNOY	QFLEX 48
32	USB LAN INTERFACE FOR THE ACTIVE SPEAKER	As per Drawings attached	TANNOY	Vnet USB RS 232 Interface
33	2500 WATT 2 WAY FULL RANGE 12 INCH POWERED LOUDSPEAKER	As per Drawings attached	TURBOSOUND	NUQ152-AN
34	2500 WATT 2 WAY FULL RANGE 15 INCH POWERED LOUDSPEAKER	As per Drawings attached	TURBOSOUND	NUQ152-AN
35	3000 WATT 18 INCH CLASS D POWERED SUBWOOFER	As per Drawings attached	TURBOSOUND	NUQ118B-AN
36	5 INCH POINT SOURCE ARCHITECTURAL LOUDSPEAKER	As per Drawings attached	TANNOY	AMS 5DC
37	6 INCH POINT SOURCE ARCHITECTURAL LOUDSPEAKER	As per Drawings attached	TANNOY	AMS 6ICT
38	8 INCH ARCHITECTURAL LOUDSPEAKER	As per Drawings attached	TANNOY	AMS 8DC
39	HIGH PROFILE 5 INCH CEILING SPEAKER	As per Drawings attached	TANNOY	CMS 503 DC BM
40	HIGH POWER 12 INCH CEILING SPEAKER	As per Drawings attached	TANNOY	CMS1201DCT + Grill ASSY CMS +BACKAN CMS1201
41	COMPACT FULL RANGE 4 INCH LOW PROFILE TWO-WAY CEILING SPEAKER	As per Drawings attached	TANNOY	CVS4
42	DIGITAL AUDIO SYSTEM PROCESSOR	As per Drawings attached	LABGRUPPEN	LAKE LM44
43	2-CHANNEL CLASS D POWER AMPLIFIER WITH 4 x 4 MIX MATRIX	As per Drawings attached	LABGRUPPEN	LUCIA 240/2M
44	2-CHANNEL 2400 W POWER AMPLIFIER WITH INTEGRATED DSP	As per Drawings attached	LABGRUPPEN	IPD 2400
45	4-CHANNEL 1000 W CLASS D POWER AMPLIFIER WITH LAKE DSP	As per Drawings attached	LABGRUPPEN	D10:4L
46	4-CHANNEL 2000 WATT CLASS D POWER AMPLIFIER WITH LAKE DSP	As per Drawings attached	LABGRUPPEN	D20:4L
47	4-CHANNEL 4000 WATT CLASS D POWER AMPLIFIER WITH LAKE DSP	As per Drawings attached	LABGRUPPEN	D40:4L
48	4-CHANNEL 8000 WATT CLASS D POWER AMPLIFIER WITH LAKE DSP	As per Drawings attached	LABGRUPPEN	D80:4L
49	4-CHANNEL 20000 WATT CLASS D POWER AMPLIFIER WITH LAKE DSP	As per Drawings attached	LABGRUPPEN	D200:4L
50	4-CHANNEL 500 WATT AMPLIFIER	As per Drawings attached	LABGRUPPEN	E5:4
51	NETWORKED AUDIO OUTPUT EXPANSION DEVICE	As per Drawings attached	BIAMP	VO-4E
52	DESKTOP PAGING STATION	As per Drawings attached	BIAMP	DS-10
53	6 INCH CEILING MOUNT GOOSENECK MICROPHONE	As per Drawings attached	AUDIX	M40W6
54	AMBIENT NOISE COMPENSATION MICROPHONE	As per Drawings attached	BIAMP	ANC-1
55	NETWORK ENABLE WALL MOUNT VOLUME / SOURCE SELECTION PANEL	As per Drawings attached	BIAMP	WR-1
56	MESSAGE SERVER	As per Drawings attached	BIAMP	MS-1E
57	TEXT-TO-SPEECH SERVER	As per Drawings attached	BIAMP	TTS-1E
58	LIFE SAFETY INTERFACE - EMERGENCY INTERFACE	As per Drawings attached	BIAMP	LSI-16E + CI-1

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No.	Item Description for Audio Visual System	Qty. (Approx.)	MAKE	MODEL
59	NETWORKED AUDIO INPUT EXPANSION DEVICE	As per Drawings attached	BIAMP	VI-6
60	WALL MOUNT PAGING STATION	As per Drawings attached	BIAMP	WS-10
61	2 ZONE MUSIC SERVER	As per Drawings attached	MOOD MEDIA	PROFUSION IH DVD
62	BASE STATION FOR WIRELESS INTERCOM SYSTEM	As per Drawings attached	CLEARCOM	FreeSpeak-II - Base -II
63	2.4GHZ WIRELESS BELT PACK WIRELESS INTERCOM SYSTEM	As per Drawings attached	CLEARCOM	FS2-BP24
64	2.4GHZ TRANSCEIVERS RANGE UP TO 800 FT	As per Drawings attached	CLEARCOM	FS II -TCVR-24
65	HEADSET FOR THE WIRELESS BELT PACK	As per Drawings attached	CLEARCOM	CC 300-X4
66	8 CHANNEL INTERPRETATION CONTROLLER	As per Drawings attached	BEYERDYNAMIC	SIS 122
67	4 CHANNEL INTERPRETATION CONTROLLER	As per Drawings attached	BEYERDYNAMIC	SIS 121
68	INTERPRETER STATION	As per Drawings attached	BEYERDYNAMIC	SIS 1202
69	CONNECTING CABLE FOR INTERPETER STATION	As per Drawings attached	BEYERDYNAMIC	CA 3105
70	IR TRANSMITTER CONTROLLER	As per Drawings attached	BEYERDYNAMIC	NOT REQUIRED FOR RF
71	IR RADIATOR (RF ACCESS POINT)	As per Drawings attached	BEYERDYNAMIC	UNITE AP-4
72	IR POCKET RECEIVER (RF POCKET RECEIVER)	As per Drawings attached	BEYERDYNAMIC	UNITE RP
73	RADIATOR BRACKET (RF ACCESS POINT BRACKET)	As per Drawings attached	BEYERDYNAMIC	INCL in AP-4
74	CHARGING AND TRANSPORT CASE	As per Drawings attached	BEYERDYNAMIC	CC-24P
75	HEADSET FOR INTERPRETING STATION INCLUDED WITH MICROPHONE	As per Drawings attached	BEYERDYNAMIC	DT 394.SIS
76	HEADPHONE FOR POCKET INFRARED (RF RECEIVER)	As per Drawings attached	BEYERDYNAMIC	DT 2
77	INDUCTION NECK LOOP FOR POCKET INFRARED (RF RECEIVER)	As per Drawings attached	BEYERDYNAMIC	IL 200
78	CABLE FOR IR RADIATOR	As per Drawings attached	BEYERDYNAMIC	NOT REQUIRED ROR RF
79	DUAL DIGITAL TRUE DIVERSITY RECEIVER	As per Drawings attached	AKG	DSR800
80	DIGITAL TRUE DIVERSITY HANDHELD TRANSMITTER WITH HANDHELD CAPSULE	As per Drawings attached	BEYERDYNAMIC	TG 1000 Handheld TX + TG V50w
81	DIGITAL TRUE DIVERSITY BODYPACK TRANSMITTER WITH LAPEL CAPSULE	As per Drawings attached	AKG	DPT800 + LC82MD
82	DIGITAL TRUE DIVERSITY BODYPACK TRANSMITTER WITH NECKWORN CAPSULE	As per Drawings attached	AKG	DPT800 + EC82MD
83	PASSIVE OMNI DIRECTIONAL ANTENNA	As per Drawings attached	AKG	RA4000 EW
84	ANTENNA CABLE INCLUDING BNC CONNECTOR	As per Drawings attached	BEYERDYNAMIC	WA-AC25
85	AMPLIFIER FOR ANTENNA SYSTEM	As per Drawings attached	AKG	AB4000 EW
86	4-WAY WIDEBAND ANTENNA SPLITTER	As per Drawings attached	BEYERDYNAMIC	WA-AS6/2
87	COMBINER FOR ANTENNA SYSTEM	As per Drawings attached	AKG (MINI CIRCUIT)	ZAPD-21
88	ARRAY MICROPHONE FOR THE PODIUM	As per Drawings attached	BEYERDYNAMIC	RM 30
89	WIRED VOCAL MICROPHONE	As per Drawings attached	AKG	D5
90	WIRED INSTRUMENT MICROPHONE	As per Drawings attached	BEYERDYNAMIC	TG I 50 D
91	DRUM SET	As per Drawings attached	BEYERDYNAMIC	TG D35 + TG D50 + TG I53
92	ACOUSTICS HEADPHONE	As per Drawings attached	AKG	K271 MK II
93	RECORDING SOFTWARE	As per Drawings attached	BEYERDYNAMIC	Steno-S 4 Conference
94	CHARGING STATION FOR HANDHELD TRANSMITTER	As per Drawings attached	BEYERDYNAMIC	WA-CD
95	30,000 LUMENS, 3-CHIP DLP, 2K/4K PROJECTOR	As per Drawings attached	CHRISTIE	BOXER 4K 30
96	20,000 LUMENS,3-CHIP DLP, 2K PROJECTOR	As per Drawings attached	CHRISTIE	CRIMSON WU 31
97	CEILING FLYING ARRANGMENT FOR THE PROJECTORS	As per Drawings attached	LOGIC	LG-HDCM-N
98	13,500 LUMENS, 1-CHIP DLP, LASER PROJECTOR	As per Drawings attached	CHRISTIE	D13WU-HS

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No.	Item Description for Audio Visual System	Qty. (Approx.)	MAKE	MODEL
99	8000 LUMENS, 1-CHIP DLP, LASER PROJECTOR	As per Drawings attached	CHRISTIE	DWU850-GS
100	6000 LUMENS, 1-CHIP DLP, LASER PROJECTOR	As per Drawings attached	CHRISTIE	DWU630-GS
101	MOTORISED CEILING MOUNTING LIFT, 50 KGS	As per Drawings attached	DRAPER	AEROLIFT 150
102	MOTORISED CEILING MOUNTING LIFT, 100 KGS	As per Drawings attached	DRAPER	SLX-17
103	MOTORISED CEILING MOUNTING LIFT, 100 KGS, FOR 21 x 35 INCH	As per Drawings attached	DRAPER	SLX-17
104	180 INCH MOTORISED PROJECTION SCREEN	As per Drawings attached	DA-LITE	70279ELC + 98660
105	150 INCH MOTORISED PROJECTION SCREEN	As per Drawings attached	DA-LITE	34468ELC + 98660
106	130 INCH MOTORISED PROJECTION SCREEN	As per Drawings attached	DA-LITE	34464ELC + + 98660
107	222 INCH MOTORISED PROJECTION SCREEN	As per Drawings attached	DA-LITE	70272EL + + 98660
108	400 INCH MOTORISED PROJECTION SCREEN	As per Drawings attached	STEWART	CB400DUM13B-12-6-21
109	464 INCH MOTORISED PROJECTION SCREEN	As per Drawings attached	STEWART	CB464DUM13B-12-6-21
110	552 INCH MOTORISED PROJECTION SCREEN	As per Drawings attached	STEWART	DB552DUM13B-0-6-24
111	70 INCH DISPLAY PANEL	As per Drawings attached	CHRISTIE	UHD752-L
112	80 INCH DISPLAY PANEL	As per Drawings attached	CHRISTIE	UHD862-L
113	98 INCH DISPLAY PANEL	As per Drawings attached	CHRISTIE	SUHD983-P
114	55 INCH VIDEO WALL DISPLAY	As per Drawings attached	CHRISTIE	FHD553-XE
115	70 INCH INTERACTIVE DISPLAY PANEL	As per Drawings attached	SAMSUNG	QB75N-W
116	80 INCH INTERACTIVE DISPLAY PANEL	As per Drawings attached	PLANAR	HB86
117	CEILING MOUNT ARRANGEMENT DESIGNED FOR 80"- 98" INCH DISPLAY PANEL	As per Drawings attached	CHIEF	XCM1U
118	WALL MOUNT KIT FOR 55 -70 INCH DISPLAY PANEL	As per Drawings attached	CHIEF	RMT2
119	LED VIDEO WALL, 4MM PIXEL PITCH (10 x 6.25 Mtr)	As per Drawings attached	CHRISTIE	LED040-M (Merit 4mm)
120	INTERACTIVE LECTERN WITH WIRED MICROPHONE CONNECTIVITY	As per Drawings attached	SAATVIK	SIL-501A
121	WIRELESS PRESENTER	As per Drawings attached	LOGITECH	R-400
122	WIRELESS PRESENTATION GATEWAY	As per Drawings attached	CRESTRON	AM-101
123	DESKTOP HIDDEN CONNECTION BOX	As per Drawings attached	KRAMER	TBUS-201XL (B) + TS-201 U
124	PORTABLE VIDEO CONFERENCE POOL	As per Drawings attached	SAMSUNG	QM75R
125	PORTABLE VIDEO CONFERENCE POOL	As per Drawings attached	POLYCOM	GROUP 500
126	PORTABLE VIDEO CONFERENCE POOL	As per Drawings attached	CHIEF	LPAUB + FCA870 + FCA811
127	DUAL FULL HD VIDEO CONFERENCE SYSTEM	As per Drawings attached	POLYCOM	GROUP 500
128	DIGITAL MODULAR MATRIX SWITCHER, 80 x 80 FRAME SIZE	As per Drawings attached	LIGHTWARE	MX-FR80R
129	DIGITAL MODULAR MATRIX SWITCHER, 32 x 32 FRAME SIZE	As per Drawings attached	LIGHTWARE	MX-FR33R
130	DIGITAL MODULAR MATRIX SWITCHER, 16 x 16 FRAME SIZE	As per Drawings attached	LIGHTWARE	MX-FR17
131	DIGITAL MODULAR MATRIX SWITCHER, 8 x 8 FRAME SIZE	As per Drawings attached	LIGHTWARE	MX-FR9
132	COMBINE/COMBINATION OF 4 HD Base T & 4 HDMI INPUT PORT	As per Drawings attached	LIGHTWARE	MX-4TPS2-4HDMI-IB-P
133	HDMI and HDCP COMPLIANT 8 CHANNEL HDBaseT INPUT BOARD	As per Drawings attached	LIGHTWARE	MX-TPS2-IB-P
134	8 CHANNEL HDMI 1.4 DEEP COLOUR INPUT BOARD	As per Drawings attached	LIGHTWARE	MX-HDMI-3D-IB
135	8 CHANNEL 3G-SDI AND AES/EBU INPUT BOARD	As per Drawings attached	LIGHTWARE	MX-3GSDI-IB
136	HDMI 1.4 & HDCP COMPLIANT 8 CHANNEL FIBRE OPTICAL INPUT BOARD	As per Drawings attached	LIGHTWARE	MX-HDMI-OPT-IB-SC
137	COMBINE/COMBINATION OF 4 HD BASE T & 4 HDMI OUTPUT PORT	As per Drawings attached	LIGHTWARE	MX-4TPS2-4HDMI-OB-AP
138	HDMI 1.4 & HDCP COMPLIANT 8 CHANNEL HDBaseT OUTPUT BOARD	As per Drawings attached	LIGHTWARE	MX-TPS2-OB-P
139	8 CHANNEL HDMI 1.4 DEEP COLOUR OUTPUT BOARD WITH AUDIO	As per Drawings attached	LIGHTWARE	MX-HDMI-3D-OB-A

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No.	Item Description for Audio Visual System	Qty. (Approx.)	MAKE	MODEL
140	HDMI 1.4 & HDCP COMPLAINT 8 CHANNEL FIBER OPTICAL OUTPUT BOARD	As per Drawings attached	LIGHTWARE	MX-HDMI-OPT-OB-R-SC
141	MATRIX SWITCHER, 4 HDMI, 2 HD Base T & 4 AUDIO INPUTS, 2 HDMI, 2 HD Base T & 2 BALANCED AUDIO OUTPUTS	As per Drawings attached	LIGHTWARE	MMX8x4-HT420M
142	MULTIMODE SINGLE FIBER EXTENDER	As per Drawings attached	LIGHTWARE	SW4-OPT-TX240RAK
143	ACTIVE WALL PLATE : VGA, HDMI, DISPLAY PORT & AUDIO INPUT	As per Drawings attached	LIGHTWARE	WP-UMX-TPS-TX130-US Black
144	HDMI TRANSMITTER, 1 HD BASE T OUTPUT & 1 HDMI INPUT	As per Drawings attached	LIGHTWARE	HDMI-TPS-TX97
145	HDMI RECEIVER, 1 HD BASE T INPUT & 1 HDMI OUTPUT	As per Drawings attached	LIGHTWARE	HDMI-TPS-RX97
146	HDMI MULTIMODE SINGLE FIBER TRANSMITTER	As per Drawings attached	LIGHTWARE	HDMI-3D-OPT-TX210RAK
147	HDMI MULTIMODE SINGLE FIBER RECEIVER	As per Drawings attached	LIGHTWARE	HDMI-3D-OPT-RX150RA
148	SDI REPEATER, REPEAT SDI SIGNAL UPTO FURTHER 200M, 3G, HD & SD-SDI SUPPORT	As per Drawings attached	DATA VIDEO	VP-597
149	VIDEO WALL PROCESSORS 8 INPUT AND 8 OUTPUT	As per Drawings attached	DATA PATH	VSN 400
150	VIDEO WALL PROCESSORS 16 INPUT AND 32 OUTPUT	As per Drawings attached	DATA PATH	VSN 972
151	CONTROL PROCESSOR, TWO RS-232/422/485 COM PORTS, FOUR RS-232 COM PORTS, EIGHT IR/SERIAL, EIGHT RELAY, AND EIGHT VERSIPOINT I/O PORTS	As per Drawings attached	CRESTRON	AV4
152	CONTROL PROCESSOR, ONE RS-232/422/485 COM PORTS, TWO RS-232 COM PORTS	As per Drawings attached	CRESTRON	AV3
153	CONTROL CARD EXPANSION CAGE FOR CONTROL PROCESSOR	As per Drawings attached	CRESTRON	CAGE 3
154	EXPANSION CARD, THREE RS-232/422/485 COM PORTS	As per Drawings attached	CRESTRON	C3COM3
155	EXPANSION CARD, 16 LOW-VOLTAGE RELAY PORTS	As per Drawings attached	CRESTRON	C3RY-16
156	15.6" FULL HD 1080P CAPACITIVE TOUCH PANEL	As per Drawings attached	CRESTRON	TS-1542-TILT-B-S
157	10" WIDESCREEN ACTIVE-MATRIX COLOUR TOUCH PANEL	As per Drawings attached	CRESTRON	TSW-1070-B-S + TSW-UMB-70 + TSW-UMB-70-BBI
158	UNIVERSAL DIMMER	As per Drawings attached	CRESTRON	DIN-1DIMU4
159	DESIGNER WALL-MOUNT KEYPADS	As per Drawings attached	CRESTRON	HZ-KPCN-W (2) + HZ-BTN1-W-T-ENGRAVED (8) + HZ-BTN-RKR1-W-T-ENGRAVED (2)
160	PROGRAMMABLE 8 PORT RELAY MODULE	As per Drawings attached	CRESTRON	DIN-8SW8-I
161	RECORDING & STREAMING SERVER	As per Drawings attached	REACH	BEE8 Plus
162	PTZ CAMERA	As per Drawings attached	REACH	HD21
163	JOYSTICK CAMERA CONTROL UNIT	As per Drawings attached	reach	CKB-03
164	2.5 SQMM X 2 CORE(14AWG) ATC COPPER CONDUCTOR, INSULATED CORES, PVC SHEATHED SPEAKER CABLES .	As per Drawings attached	BELDEN	B5161JU02
165	4 SQMM X 2 CORE(12AWG) ATC COPPER CONDUCTOR, INSULATED CORES,PVC SHEATHED SPEAKER CABLES	As per Drawings attached	BELDEN	SZ-CA-2256

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No.	Item Description for Audio Visual System	Qty. (Approx.)	MAKE	MODEL
166	6 SQMM X 2 CORE(10AWG) ATC COPPER CONDUCTOR, INSULATED CORES,PVC SHEATHED SPEAKER CABLES	As per Drawings attached	BELDEN	SZ-CA-2258
167	22 AWG 2 CORE ATC COPPER CONDUCTOR,PVC INSULATED, 90% ATC COPPER BRAID SHIELDED, PVC SHEATHED MICROPHONE CABLE	As per Drawings attached	BELDEN	SZ-B-3585
168	SHIELDED TWISTED PAIR CAT6 CABLE (STP) COMPLETE AS REQUIRED	As per Drawings attached	SIEMON	9T7L4-E6
169	50OHM LOW IMPEDANCE COAXIAL CABLE (AS PER ACTUAL) COMPLETE ETC AS REQUIRED	As per Drawings attached	GOTHAM	03456
170	FLOOR/WALL MOUNT BOX FOR MICROPHONE CONNECTIVITY (4 x XLR)	As per Drawings attached	INTEGRATOR	CUSTOM
171	FLOOR/WALL MOUNT BOX FOR EXTERNAL DEVICE CONNECTIVITY (2 x MICROPHONE)	As per Drawings attached	INTEGRATOR	CUSTOM
172	FLOOR STANDING MIC STAND	As per Drawings attached	SAMSON	MK10
173	DESK STANDING MIC STAND	As per Drawings attached	SAMSON	MD2

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Sr. No.	Item Description for Audio Visual System	Qty. (Approx.)	MAKE	MODEL
174	3' HIGH-SPEED HDMI CABLE WITH ETHERNET, RESOLUTION SUPPORT 4K@60HZ (4:4:4)	As per Drawings attached	KRAMER	C-HM/HM/ETH-3
175	10' HIGH-SPEED HDMI CABLE WITH ETHERNET, RESOLUTION SUPPORT 4K@60HZ (4:4:4)	As per Drawings attached	KRAMER	C-HM/HM/ETH-10
176	15' HIGH-SPEED HDMI CABLE WITH ETHERNET, RESOLUTION SUPPORT 4K@60HZ (4:4:4)	As per Drawings attached	KRAMER	C-HM/HM/ETH-15
177	35' HIGH-SPEED HDMI CABLE WITH ETHERNET, RESOLUTION SUPPORT 4K@60HZ (4:4:4)	As per Drawings attached	KRAMER	CA-HM-35
178	50' HIGH-SPEED HDMI CABLE WITH ETHERNET, RESOLUTION SUPPORT 1080P	As per Drawings attached	KRAMER	C-HM/HM/ETH-50
179	3' 15-PIN HD & 3.5MM STEREO AUDIO CABLE	As per Drawings attached	KRAMER	C-GMA/GMA-3
180	10' 15-PIN HD & 3.5MM STEREO AUDIO CABLE	As per Drawings attached	KRAMER	C-GMA/GMA-10
181	35' 15-PIN HD & 3.5MM STEREO AUDIO CABLE	As per Drawings attached	KRAMER	C-GMA/GMA-35
182	50' 15-PIN HD & 3.5MM STEREO AUDIO CABLE	As per Drawings attached	KRAMER	C-GMA/GMA-50
183	5 PIN XLR TERMINATION PLUG	As per Drawings attached	NEUTRIK	NC5FXX / NC5MXX
184	RACK STRUCTURE 42 U	As per Drawings attached	VALRACK	MODUCAB - MCAB BT 42U68 A (600 x 800)- 19 INCH FLOOR STANDING RACK
185	SRS -VARIOUS CONNECTORS FOR ABOVE MENTIONED CONFIGURATION	As per Drawings attached	NEUTRIK	NC3MXX NC3FXX NP2X NYS373 NP3X NAC3FCA
186	RACK STRUCTURE 12 U	As per Drawings attached	VALRACK	12 U (600 Width x 600 Depth)
187	RACK STRUCTURE 32 U	As per Drawings attached	VALRACK	MODUCAB - MCAB BT 32U68 A (600 x 800)- 19 INCH FLOOR STANDING RACK
188	DP - DP CABLE - 6FT	As per Drawings attached	KRAMER	C-DP-6
189	DP - DP CABLE - 25FT	As per Drawings attached	KRAMER	C-DP-25
190	USB CABLE	As per Drawings attached	KRAMER	C-USB/AB-15
191	DVI(M) TO HDMI (F) ADAPTER	As per Drawings attached	KRAMER	AD-DM/HF
192	7.6 MTR. MICROPHONE CABLE - POLYCOM	As per Drawings attached	POLYCOM	2457-23216-002
193	WALTA (M-CODEC SIDE) TO RJ-45 (F) -18" ADAPTOR CABLE	As per Drawings attached	POLYCOM	2457-25646-001
194	HDMI (M) TO DP(F) ADAPTER CABLE	As per Drawings attached	KRAMER	ADC-HM/DPF
195	DP - DP CABLE - 10 FT	As per Drawings attached	KRAMER	C-DP-10
196	HDMI(M) TO DVI-I(M) CABLE	As per Drawings attached	KRAMER	C-HM/DM-3
197	REAL PRESENCE ROOM MIC ARRAY	As per Drawings attached	POLYCOM	2215-63885-001
198	POLYCOM EAGLE EYE EXTENDER	As per Drawings attached	POLYCOM	2215-64200-001
199	WALL BRACKET FOR 86 INCH DISPLAY	As per Drawings attached	CHIEF	LTM1U
200	DIGITAL BREAKOUT ADAPTER CODEC	As per Drawings attached	POLYCOM	7200-68524-125

20. AV System – Locations and Capacity

Sr. No.	Building	Floor	Description	PAX	Remarks
1	Convention Center	Ground Floor	Auditorium Hall A	4000	Combined Capacity of 6000 PAX
2	Convention Center		Auditorium Hall B	2000	
3	Convention Center	Basement 1	Conference Room 1	867	Divisible into 2 Conference Rooms
4	Convention Center	Second Floor	Conference Room 2	231	
5	Convention Center	Second Floor	Conference Room 3	153	
6	Convention Center	Third Floor	Conference Room 4	153	
7	Convention Center	Second Floor	Conference Room 5	213	
8	Convention Center	Third Floor	Conference Room 6	90	
9	Convention Center	Third Floor	Conference Room 7	203	
10	Convention Center	Third Floor	Conference Room 8	208	
11	Convention Center		Conference Room 9	97	Divisible
12	Convention Center	Fourth Floor		98	
13	Convention Center	Fourth Floor	Conference Room 11	75	
14	Convention Center	Fourth Floor	Conference Room 12	247	Divisible into 2 Conference Rooms
15	Convention Center	Fourth Floor	Conference Room 13	68	
16	Convention Center	Sixth Floor	Grand Ball Room	2400	Divisible into 3 Halls
17	Convention Center	Fifth Floor	Meeting Room	10+10	Divisible
18	Exhibition Hall 1	Ground Floor	Media Room	100	

21. WiFi System

Sr. No.	Item Description for the WiFi System	Qty. (Approx.)	Make	Model
1	Indoor AP	495	Cisco	AIR-AP2802I-D-K9
2	Outdoor AP	156	Cisco	AIR-AP1562I-D-K9I

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Wifi Installation Configuration Detail		CC-CP					CC													TOTAL
		B1	B2	B3	B4	CCP Total	B1	B2	GF	1F	2F	3F	4F	5F	6F	7F	8F	Terrace	CC-TOTAL	
1	Indoor AP	1	1	1	1	4	31	20	28	19	30	19	18	21	15	30	5	0	236	240
2	Outdoor AP					0													0	0

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Wifi Installation Configuration Detail	FOYER 1				EH-1								FOYER 2				EH-2								TOTAL
	B1	B2	B3	F1-TOTAL	B1	GF	MGF	1F	2F	3F	Terrace	EH1-TOTAL	B1	B2	B3	F2-TOTAL	B1	GF	MGF	1F	2F	3F	Terrace	EH2-TOTAL	
Indoor AP	4	1	1	6	0	72	4	11	3	14	0	104	4	1	1	6		79	5	14	7	4	0	109	225
Outdoor AP				0		64						64				0		66						66	130

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

Wifi Installation Configuration Detail		EH-3			ESS-1			ESS-2			DG BUILDING	SERVICE GALLERY	FIRE STATION					TOTAL
		B1	MEZ	EH3-TOTAL	B1	GF	ESS1 TOTAL	B1	GF	ESS2 TOTAL	DG -TOTAL		GF	1F	2F	Terrace	FS-TOTAL	
1	Indoor AP	8	9	17	0	2	2	0	2	2	2	0	2	2	3	0	7	30
2	Outdoor AP			0			0			0	0						0	0

Selection of Property Management Agency for Operation and Maintenance Services at IICC Dwarka, New Delhi

	Wifi Installation Configuration Detail	EXTERNAL Substation near ESS & Arena	EH1 - EXTERNAL Substation	EH2 - EXTERNAL Substation	EH1 - B1, GF, 1F - Kitchen	EXTERNAL Layout	Lift	TOTAL
1	Indoor AP	0	0	0	0	0	0	0
2	Outdoor AP	0	0	0	0	26	0	26