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(ଓଡ଼ିଶା ସରକାରଙ୍କ ପୂର୍ତ୍ତ ବିଭାଗ ଅଧିନର ଏକ ଉଦ୍ୟୋଗ)

ODISHA BRIDGE & CONSTRUCTION CORPORATION LIMITED

(A Government of Odisha Undertaking under Works Department)

No. 5411 **Date.** 14-7-21

File: SMT-1726

CORRIGENDUM No. 5

Name of the Work : **Construction of Odisha Adarsha Vidyalaya – School of Excellence at Andharua, Bhubaneswar on Lumpsum Turnkey basis**

Bid Identification No : 04/TENDER/OBCC/2021-22

E-Procurement Tender ID : 2021_OBCC_69038_1

Sl No	Reference	As per RFP	As modified
1	Page No -140 Section- 8	c) **Sub-Station**:- Planning, designing, capacity calculations with load details, Complete design details, supply, installation, testing and commissioning of complete Substation Works & equipment which includes HT Panels, Oil / Dry type transformers (CSS) including standby, LT Panel, HT cables, APFC(Automatic Power Factor Correction) Panels, Distribution Panels, Active Harmonic filters, TVSS (Transient Voltage Suppression System), SPD (Surge Protection Device), Fire Emergency Panels, other related works like LT cabling from sub-station to buildings, sandwich type bus- trunking, chemical earthing complete as required. Statutory clearances wherever required will have to be taken by the firm.	c) **Sub-Station**:- Planning, designing, capacity calculations with load details, Complete design details, supply, installation, testing and commissioning of complete Substation Works & equipment which includes HT Panels, Oil / Dry type transformers (CSS) including standby, LT Panel, HT cables, APFC(Automatic Power Factor Correction) Panels, Distribution Panels, Active Harmonic filters, TVSS (Transient Voltage Suppression System), SPD (Surge Protection Device), Fire Emergency Panels, other related works like LT cabling from sub-station to buildings, sandwich type bus- trunking, chemical earthing complete as required. Statutory clearances wherever required will have to be taken by the firm. 1). CSS Dry Type transformers are to be used. 2). System needs to be designed for redundancy either all transformers working at partial load or a dedicated standby system with automatic switchover and load balancing.
2	Page No -141 Section- 8	g) IP EPBAX System - Deleted	EPABX system to be provisioned for admin / office areas and at all entry and exits of the campus.

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Sl No	Reference	As per RFP	As modified
3	Page No – 142 Section- 8	m) Solar Power - Deleted	Solar Power to be as per Griha 3-star rating and other statutory provisions. Minimum 50% of the net terrace area.
4	Page No -141 Section- 8	h)**IP based CCTV and Security System:** Planning, designing, supply, installation, testing and commissioning of complete IP based CCTV security system including various types of IP based CCTV motorized VF camera having50mtr IR, internal SD card 128GB, server based recording, Cat6A cabling &related accessories CCTV with independent ofc backbone, PoE Switch and having storage for 30 days at 25 FPS, multi-screen display system, hardware and Video Management System software support etc. as required to be installed at the entry and exit points, Parking areas, vending space, and other common areas as required including CCTV control room, required UG cabling, recording system and monitor/ monitors in the control room (Inside and outside area).CCTV system is to be provided only in the academic block.	h)**IP based CCTV and Security System:** Planning, designing, supply, installation, testing and commissioning of complete IP based CCTV security system including various types of IP based CCTV motorized VF camera having50mtr IR, internal SD card 128GB, server based recording, Cat6A cabling &related accessories CCTV with independent ofc backbone, PoE Switch and having storage for 30 days at 25 FPS, multi-screen display system, hardware and Video Management System software support etc. as required to be installed at the entry and exit points, campus, academic block, Service areas, Parking areas, vending space, and other common areas as required including CCTV control room, required UG cabling, recording system and monitor/ monitors in the control room (Inside and outside area).
5	Page no: 125 Section- 8	ACADEMIC BLOCK (Approx. 20% area to be VRFAC System (214 Hp) and 30% area to be CCTV coverage including Offices, labs etc as per design)	All labs, admin and office areas are to be airconditioned. Minimum 20% area is to be considered for air-conditioning (Admin and Academic blocks). The exact loads are to be derived by the contractor as per statutory provisions
6	Section- 9 Payment Schedule Page No. 149	VRF AC SYSTEM (275 Hp)	
7	Section- 9 Payment Schedule Page No. 151	VRF AC SYSTEM (114 Hp)	The VRF / VRV are to be provided in each room @ 3TR per unit with two indoor units in each apartment (1.5 TR each)

8. Please refer to the responses to the queries raised by the prospective bidders attached as Annexure- A

9. Please refer the revised Payment schedule (Section- 9) as Annexure- B

10. All other terms and conditions remain unchanged.

14/7/21

EIC-cum-MANAGING DIRECTOR

Construction of Odisha Adarsha Vidyalaya – School of Excellence at Andharua, Bhubaneswar on Lumpsum Turnkey basis				
MEP QUERIES				
Sl. No	Document / Drawing Reference (Page No as per PDF files)	Particulars given in Bid documents	Query	Remarks
	ELECTRICAL SYSTEM			
1	Page No -140	c)Sub-Station	Point of supply for EB side shall be considered with DP Structure or RMG unit? Locaion of EB supply yard availability?	The design of ESS shall be as per TPCODL / SEB norms incorporating the RMG Units. The EB supply would be extended from the nearest PoS to the SS within site. All provisions of ESS are to be made within the site.
2	Page No -140	c)Sub-Station:- Planning, designing, capacity calculations with load details,Complete design details, supply, installation, testing and commissioning of complete Substation Works & equipment which includes HT Panels, Oil / Dry type transformers (CSS) including standby,	1. CSS with Dry type or Oil type Transformer shall be considered? 2. Standby Transformer is to be considered or not ?	1). CSS Dry Type transformers are to be used. 2). System needs to be designed for redundancy either all transformers working at partial load or a dedicated standby system with automatic switchover and load balancing.
3	Page No -140	d)DG Set	1. 100% backup or 50% backup is to be considered? 2. All the AC provisions are to be considered in DG backup or not ? 3. Redundant DG set is to be considered or not?	1). DG set to be provided shall cater to all common areas of hostels, quarters, guest house / lifts / Emergency lighting / Academic block / Kitchen and Dining. Indicative minimum DG load is 375 KVA. 2). All air conditioning load (within the academic block) needs to be considered for DG Backup. 3). System needs to be designed for redundancy either all DG's working at partial load or a dedicated standby system with automatic switchover and load balancing.
4	Page No -141	h)IP based CCTV and Security System: CCTV system is to be provided only in the academic block.	For other blocks CCTV system is to be provided or not?	CCTV is to be provided at the entry and exit points, Parking areas, vending space, and other common areas as required including CCTV control room, required UG cabling, recording system and monitor/ monitors in the control room (Inside and outside area). CCTV system is to be provided in campus, academic block & Service areas.
5	Page No -141	g)IP EPBAX System - Deleted	Whether we shall consider EPABX system or not ?	EPABX system to be provisioned for admin / office areas and at all entry and exits of the campus.
6	Page No - 142	i)online single phase UPS System with 30 minutes back up including batteries,interconnecting cables, battery racks etc for the required load (to be placed in Multiple units' floor wise) redundant, with unity power factor, for emergency lighting & accociated functions as per latest codal provisions.	Shall we go with centralised UPS system with Modular type for each block ?	Detailed design is in the scope of the selected contractor.
7	Page No - 142	m). Solar Power - Deleted	To achieve the Griha 3 star rating Solar system shall be provided. Shall we consider the solar system or not?	Solar Power to be as per Griha 3 star rating and other statutory provisions. Minimum 50% of the net terrace area.

Construction of Odisha Adarsha Vidyalaya – School of Excellence at Andharua, Bhubaneswar on Lumpsum Turnkey basis				
MEP QUERIES				
Sl. No	**Document / Drawing Reference (Page No as per PDF files)**	**Particulars given in Bid documents**	**Query**	**Remarks**
8	Page No - 129	The indicative capacity of the substation is 750 KVA (Actual requirement to be as per detailed design and statuary norms.)	Please provide detailed load calculations	The minimum indicative capacity of substation is 750 KVA detailed design and exact load calculations as per statutory norms is in the scope of the contractor.
9	General	Please confirm the type of lighting control whether it is normal switch control or sensor based control.	Shall we go with sensor based lighting system ?	Detailed design is in the scope of the selected contractor.
10	General	Is there any WiFi requirement?	Wifi points shall be considered for all the blocks?	No wifi considerations to be made.
11	General	Any Automation required?	Guest house and other staff resident shall be provided with Automation system or not?	As per statutory provisions.
12	General	Emergency Lighting	20% of general lighting is considered for emergency lighting and supply will be tapped from UPS	As per statutory provisions or 20% whichever is higher. The power should be tapped from UPS and subsequently switched over to DG after start-up.
13	General		1. Kindly mention the requirements of UPS power supply other than the emergency lighting 2. Any specific load requirements for kitchen is to be considered?	As per statutory provisions or 20% whichever is higher. The power should be tapped from UPS and subsequently switched over to DG after start-up.
14	Page No -30	1.3.g) Sports Facilities	High mast lighitng is to be considered or not?	Detailed design is in the scope of the selected contractor.
15	General	Ac provision for all blocks	1. For Hostel blocks 2. Class rooms/ Admin blocks 3. Staff Quarters all bedrooms 4. Dormitory	Provision of AC to be made in all staff quarters. Air conditioning to be provided as per IFB.
16	General	Geyser provision for all blocks	1. For Hostel blocks 2. Staff Quarters all bedrooms 3. Dormitory	Geyser provisions to be made for Staff Quarter, Dormitory etc. and SITC of Geysers in the guest house and hostels is in the scope of Contractor.
17	General	Floor Raceways / ceiling cable trunking is considered for workstation wiring	Shall we consider GI Raceways ?	Detailed design is in the scope of the selected contractor.
18	General	Smart class	Any smart classes are to considered ?	Scope is not part of IFB.
19	General	Metering provision	Staff Quarters are considered with Residential metering or not?	Individual metering as per TPCODL norms
	HVAC SYSTEM			
1	Page no: 125	Academic Building : Approx 20% area to be VRF AC System (214 Hp)	As per Pg.no.275, Section 9, Payment schedule, It is mentioned as 275 Hp of VRF AC System. Actually 20% area does not require the mentioned capacities. Hence kindly clarify by mentioning the places to be air conditioned pls.	All labs, admin and office areas are to be airconditioned. Minimum 20% area is to be considered for air-conditioning (Admin and Academic blocks). The exact loads are to be derived by the contractor as per statutory provisions
2	Page no: 125	Hostel Building : Warden's office, first aid centre	Please confirm whether air conditioning is required for office area & first aid centre	All office areas including first aid centre to be airconditioned.

Construction of Odisha Adarsha Vidy		
MEP QUERIES		
Sl. No	**Document / Drawing Reference (Page No as per PDF files)**	**Particulars given in**
3	Page no: 151	Guest House : VRF AC Syste
4	Page no: 126	Dormitory : 30 bedded capaci Women and kitchen facility
5	Page no: 126	Central Kitchen : Central kitch 300 capacity
6	Page no: 126	Staff Quarters : 20 Nos. of 2 B Staffs
	FIRE PROTECTION SYSTEM	
1	Page no: 128	The building shall be designed accessibility provisions as per building – submission D-3 and of the NBC 2016.
2	Page no: 140	Fire Fighting: Planning, design installation, testing & commissi System, comprising of main pu sprinkler, Diesel engine pump, riser and sprinkler, MS pipe, va down-comer system, Hose reel Extinguishers, compartmentaliz required, in compliance to IS c body by laws and local fire auth clearances wherever required v the firm
3	Page no: 141	Addressable Fire alarm system documents.
4	Page no: 141	Public Address system is show

Construction o		
MEP QUERIES		
Sl. No	**Document / Drawing Reference (Page No as per PDF files)**	
D	**PHE**	
1	RFP Page no 137	Wate
2	RFP Page no 138 & 145	Wate
3	RFP Page no 145	Exter
4	RFP Page no 142	Sewa
5	RFP Page no 138 & 145	Wate
6	RFP Page no 137	Hot w
7	RFP Page no 137	RO w

f Odisha Adarsha Vidyalaya – School of Excellence at Andharua, Bhubaneswar on Lumpsum Turnkey basis

Particulars given in Bid documents	Query	Remarks
r supply network	Please confirm the water distribution system either Gravity or Booster system	Water Supply system is to be gravity based.
r supply Pipe Material	Water supply material are mentioned as HDPE and DI. But in Make list it is provided as uPVC & CPVC. Please confirm	Water Supply material to be high density uPVC.
nal Sewerage Pipe Material	Can we consider uPVC IS 4985-6kg pipe instead of Hume pipe	IFB condition prevails. NP2 or NP3 pipe to be used as per requirements.
ge Treatment Plant	Please confirm can we provide Modular Package type STP	Detailed design is in the scope of the contractor type of STP system to be approved by EIC before finalization.
r Storage period	Please confirm water storage period for UG sumps and OHT	As per NBC 2016.
ater system	Please confirm the requirement of hot water system	Geyser provisions to be made for Staff Quarter, Dormitory etc. and SITC of Geysers in the guest house and hostels is in the scope of Contractor.
ater system	Please confirm the requirement of RO water system requirement for Kitchen	RO water system for Kitchen, Dinning Area, Hostels and Academic block to be provided by the contractor. Provisions are to made as per statutory norms.

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EIC-cum-Managing Director

ANNEXURE-B

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Payment Schedule

Sl. No.	Name of Item	Payment as % of Agreement Cost
1	**Design Stage**	
	On approval of Inception Report, detail survey and draft architectural drawing & QMP	0.50
	On approval of Site development plan and architectural drawing	0.50
	On approval of MEP	0.50
	On approval of final Architectural drawing showing electrical and sanitary layout plan and detail structural design and interior design/decoration	0.50
	Total	**2.00**
2	**Construction Stage**	
A.	**Academic and Administrative Building**	
	a) On Completion up to Plinth @ sqm.	3.00
	b) On Completion Civil Structural work @ sqm.	
	i. Ground Floor	3.70
	ii. First Floor	3.70
	iii. Second Floor	
	c) On completion of finishing work such as flooring, plastering and other finishing works	
	i. Ground Floor	3.50
	ii. First Floor	3.50
	iii. Second Floor	
	Water Supply & Sanitary Installation Services.	
	Internal Water supply & Sanitary Installation	1.75
	External Water supply & Sanitary Installation	2.50
	Electrical Services	
	Internal electric installations all floors	1.70
	External electric installation	0.65
	CCTV and EPABX system	0.30
	Lightning Conductor	0.05
	VRF AC SYSTEM	1.00
	Total	**25.35**
B	**Hostel Building (4 blocks)**	
	a) On Completion up to Plinth @ sqm.	3.00
	b) On Completion Civil Structural work @ sqm.	
	i. Ground Floor	3.75
	ii. First Floor	3.75
	iii. Second Floor	3.75
	c) On completion of finishing work such as flooring, plastering and other finishing works	
	i. Ground Floor	4.00
	ii. First Floor	4.00
	iii. Second Floor	4.00
	Water Supply & Sanitary Installation Services.	
	Internal Water supply & Sanitary Installation	2.70
	External Water supply & Sanitary Installation	4.10
	Electrical Services	
	Internal electric installations all floors	2.70
	External electric installation	1.00
	Lightning Conductor	0.05
	Total	**36.80**

C Kitchen

a)	On Completion up to Plinth @ sqm.	0.50
b)	On Completion Civil Structural work @ sqm.	
i.	Ground Floor	0.75
ii.	First Floor	0.00
iii.	Second Floor	0.00
c)	On completion of finishing work such as flooring, plastering and other finishing works	
i.	Ground Floor	1.00
ii.	First Floor	0.00
iii.	Second Floor	0.00

Water Supply & Sanitary Installation Services.

Internal Water supply & Sanitary Installation	0.25
External Water supply & Sanitary Installation	0.30

Electrical Services

Internal electric installations all floors	0.25
External electric installation	0.09
Lightning Conductor	0.01
Total	**3.15**

D Quarter type 1

a)	On Completion up to Plinth @ sqm.	0.25
b)	On Completion Civil Structural work @ sqm.	
i.	Stilt Floor	0.20
ii.	First Floor	0.30
iii.	Second Floor	0.30
c)	On completion of finishing work such as flooring, plastering and other finishing works	
i.	Stilt Floor	0.15
ii.	First Floor	0.30
iii.	Second Floor	0.30

Water Supply & Sanitary Installation Services.

Internal Water supply & Sanitary Installation	0.25
External Water supply & Sanitary Installation	0.40

Electrical Services

Internal electric installations all floors	0.25
External electric installation	0.10
Lightning Conductor	0.01
Total	**2.81**

E Quarter type 2 (2 blocks)

a)	On Completion up to Plinth @ sqm.	0.80
b)	On Completion Civil Structural work @ sqm.	
i.	Stilt Floor	0.75
ii.	First Floor	0.75
iii.	Second Floor	0.75
c)	On completion of finishing work such as flooring, plastering and other finishing works	
i.	Stilt Floor	0.65
ii.	First Floor	0.65
iii.	Second Floor	0.65

Water Supply & Sanitary Installation Services.			
Internal Water supply & Sanitary Installation			0.50
External Water supply & Sanitary Installation			0.80
Electrical Services			
Internal electric installations all floors			0.50
External electric installation			0.20
Lightning Conductor			0.01
		Total	**7.01**

F Dormitory

a) On Completion up to Plinth @ sqm.			0.50
b) On Completion Civil Structural work @ sqm.			
i. Ground Floor			0.20
ii. First Floor			0.20
iii. Second Floor			0.00
c) On completion of finishing work such as flooring, plastering and other finishing works			
i. Ground Floor			0.25
ii. First Floor			0.25
iii. Second Floor			0.00
Water Supply & Sanitary Installation Services.			
Internal Water supply & Sanitary Installation			0.20
External Water supply & Sanitary Installation			0.20
Electrical Services			
Internal electric installations all floors			0.18
External electric installation			0.07
Lightning Conductor			0.004
		Total	**2.05**

G Guest House

a) On Completion up to Plinth @ sqm.			0.10
b) On Completion Civil Structural work @ sqm.			
i. Stilt Floor			0.10
ii. First Floor			0.15
iii. Second Floor			0.15
c) On completion of finishing work such as flooring, plastering and other finishing works			
i. Stilt Floor			0.05
ii. First Floor			0.15
iii. Second Floor			0.15
Water Supply & Sanitary Installation Services.			
Internal Water supply & Sanitary Installation			0.12
External Water supply & Sanitary Installation			0.15
Electrical Services			
Internal electric installations all floors			0.12
External electric installation			0.04
Lightning Conductor			0.003
VRF AC SYSTEM	114 HP		0.700
		Total	**1.98**

H	**External Services**			
1	S.T.P	110000	LPD	0.60
2	External sewerage line	1000	Mt	0.35
3	Overhead tank	100000	LPD	0.30
4	U/G sump	200000	LPD	0.45
5	External Storm Water	1000	Mt	0.90
6	Supplying, installation, testing and commissioning of 33kV/0.433 kV or 11kV/0.433 kV substation	750	KVA	0.75
7	Supplying, installation, testing and commissioning of Silent Type DG Sets	375	KVA	0.45
8	Footpath with PCC base	7997	Sqm	2.00
9	Internal roads	7997	Sqm	2.00
10	Land Scaping	15993	Sqm	0.45
11	Supplying, installation, testing and commissioning of LED street	39983	Sqm	0.65
12	Rainwater Harvesting as per total roof top area			1.50
13	online 3 phase UPS system with 30 minutes backup	50	KVA	0.10
	roof top solar	370	KVA	2.00
			Total	**12.50**
I	**Development of playground (hockey field, football field, basketball court, volleyball court, tennis court)**			
	Cleaning and grubbing and Levelling the ground	12	Acre	1.50
	Filling good earth (average thickness 300mm) and turfing	12	Acre	0.50
	P.C.C (M-10) 150mm thick and P.C.C (M-25) 300mm thick	1000	Sqm.	0.25
	Internal roads (Cement concrete pavement with vaccum dewatered concrete)	4856	Sqm.	1.10
			Total	**3.35**
3	**ACCEPTANCE STAGE**			
	Final approval from competent authority viz. development authority and 3- star GRIHA rating, testing, commissioning with approval from authority like fire officer and completion of all items as per approval.			2.50
	On submission of As-Built drawings and other documents as mentioned in Contract Data			0.50
			Total	**3.00**
			Grand Total	**100.00**

14/7/21

EIC-cum-Managing Director