

No. 7379
File: SMT-1741

Date. 09.09.2021

CORRIGENDUM No. 2

(Reply to Prebid queries & Modification)

Name of the Work

: Construction of 1 No. 500 seated Boys Hostel for final year & PG students, 200 seated Farmers Hostel and Upgradation of 10 Nos. of Ladies Hostel of OUAT, Bhubaneswar on Lump- Sum Turnkey basis.

Bid Identification No.

: 06/TENDER/OBCC/2021-22

E-Procurement Tender ID

: 2021_OBCC_70316_1

The bidders are requested to take note of the following changes made in the RFP documents, which are to be considered while submitting the RFP. They shall be presumed to have done so and submitted the RFP accordingly.

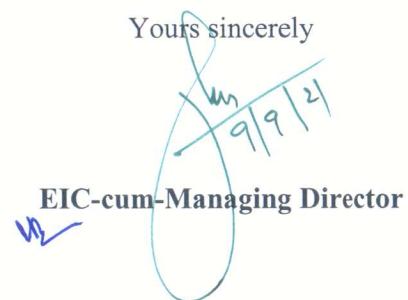
Sl No	Reference	As per RFP	As modified
1	Corrigendum No.1 Sl No.1	The Bid documents will be available in the website: www.tendersodisha.gov.in from 5.00P.M. of Dt. 11.08.2021 to 5.00 P.M. of Dt. 13.09.2021 for online bidding	The Bid documents will be available in the website: www.tendersodisha.gov.in from 5.00P.M. of Dt. 11.08.2021 to 5.00 P.M. of Dt. 20.09.2021 for online bidding
2	Corrigendum No.1 Sl No.2	Bids Shall be received only on online on or before 5.00 P.M. of Dt. 13.09.2021 .	Bids Shall be received only on online on or before 5.00 P.M. of Dt. 20.09.2021 .
3	Corrigendum No.1 Sl No.3	The original financial transaction receipt in support of Bid processing fee and Bid Security declaration shall have to be submitted on or before 11.00 A.M on 14.09.2021 to the Managing Director, OB&CC Ltd. failing which the bid shall not be evaluated and liable for rejection.	The original financial transaction receipt in support of Bid processing fee and Bid Security declaration shall have to be submitted on or before 11.00 A.M on 21.09.2021 to the Managing Director, OB&CC Ltd. failing which the bid shall not be evaluated and liable for rejection.
4	Corrigendum No.1 Sl No.4	Technical Bids received online shall be opened at 11:30 A.M. on dt. 14.09.2021 .	Technical Bids received online shall be opened at 11:30 A.M. on dt. 21.09.2021 .
5	Corrigendum No.1 Sl No.5	Time and date of online submission is on or before 5.00 P.M. of Dt. 13.09.2021 . For Cover-III & Cover-IV, time and date of offline submission is on or before 11.00 A.M on 14.09.2021 in the office of the Employer.	Time and date of online submission is on or before 5.00 P.M. of Dt. 20.09.2021 . For Cover-III & Cover-IV, time and date of offline submission is on or before 11.00 A.M on 21.09.2021 in the office of the Employer.

6	Corrigendum No.1 SI No.6	All the bids received shall be opened in the Office of the Managing Director, Odisha Bridge & Construction Corporation Ltd, Vikash Bhawan, Nayapalli, Bhubaneswar-751012 on 14th September,2021 at 11:30 A.M	All the bids received shall be opened in the Office of the Managing Director, Odisha Bridge & Construction Corporation Ltd, Vikash Bhawan, Nayapalli, Bhubaneswar-751012 on 21st September,2021 at 11:30 A.M
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- SI No. 07** : Section-8 (Terms of reference, Design Brief & Scope of Work) Page 198-222 are revised and attached as Annexure-I
- SI No.08** Please refer the responses to the pre-bid queries attached as Annexure-II
- SI No.09** : The Corrigendum shall be the part of the RFP documents
- SI No.10** : All the items specified in this corrigendum supersede relevant items to that effect as provided in the original RFP documents. All other specifications, terms & conditions of the original RFP document shall remain unchanged.
- SI No.11** : The queries raised and given by the bidders, but the clarifications are not made in this corrigendum shall be considered to remain unchanged as per the terms & conditions mentioned in the original RFP documents.
- SI No.12** : Bidder shall read and consider following points, which shall be a part of the RFP documents
- : All other terms and conditions remain unchanged.

Bidders are advised to go through the corrigendum and addendum carefully along with the RFP while preparing the response/ proposal.

Yours sincerely



A handwritten signature in black ink, appearing to read "EIC-cum-Managing Director", is placed next to a blue oval. Above the oval, the date "9/9/21" is handwritten in blue ink. To the left of the oval, there is a small blue checkmark.

EIC-cum-Managing Director

SECTION-8

TERMS OF REFERENCE, DESIGN BRIEF & SCOPE OF WORK

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TERMS OF REFERENCE, DESIGN BRIEF & SCOPE OF WORK

The project shall be executed on a **LUMP SUM TURNKEY BASIS**, scope consisting of the survey, planning & design (architectural, structural, landscaping and non-structural), execution, completion, obtaining required statutory clearances and handing over of the project to the Employer including O&M (specific items) and DLP.

A. GENERAL INFORMATION

The Odisha University of Agriculture and Technology, established in the year 1962 as the second oldest Agricultural University of the Country, has contributed immensely for the cause of agricultural development through triple mandates of teaching, research and extension education. The University imparts education on Agriculture, Horticulture, Forestry, Veterinary Science & Animal Husbandry, Agricultural Engineering, Community Science, Fishery Science, Basic Science, Bio-informatics, Computer Application and Agri-Business Management through 10 constituent colleges, one Centre for Post Graduate Studies (CPGS) and ten Agro-polytechnic Centers.

The University undertakes applied and adaptive research in all 10 Agro-climatic zones of the state with an objective to generate location specific technologies for enhancing production in agriculture and allied sectors. The research activities are carried out in 8 Regional Research and Technology Transfer Stations (RRTTS), 4 Regional Research & Technology Transfer Substations (RRTTSS) and 7 Commodity Research Stations.

In addition to this, 53 All India Co-ordinated Research Projects and various ad hoc Research Projects are in operation with financial support from ICAR, Govt. of India, State Government and other external funding agencies. The Directorate of Extension Education disseminates technological know-how to the farming community through a network of 31 Krishi Vigyan Kendras (KVK), University Extension Block Programme (UEBP), Information and Communication Centre, Distance Education, Video Project, Agricultural Technology Information Centre (ATIC) and Odisha Gender Resource Centre (OGRC).

At present OUAT has annual intake capacity of around 2100 students with total student capacity of more than 5500 students.

hostels have been identified for immediate repair and renovation while 5 Nos. of Boys hostels are planned to be demolished to construct New Boys' Hostels with cumulative of 2000 capacity. Further, as part of the project, existing Farmer's Hostel campus shall be expanded to accommodate 200 bedded new hostel building.

a) General Requirements:

- i. Entry and Exit from main access road connecting the Ganganagar Road should be provided.
- ii. OUAT Development project shall consist of construction of 500 bedded single seater Boys Hostel for final year and PG students, 200 bedded Farmers' hostel and renovation of 10 nos. of ladies hostels.
- iii. The building shall be planned to achieve minimum GRIHA 3* Rating.
- iv. The building shall be fire safety compliant and facilities in the campus shall include Security surveillance System, First Aid facility and other required services.
- v. Power Load calculation to be done by the tenderer but the quantity mentioned in the project details is the minimum requirement, keeping in view the load requirement and reliability of power. Supply shall be taken as 33 KV/ 11 KV or as available from the grid based on the assessed load.
- vi. DG set shall cater to all common areas / Emergency facilities, indicative DG load is 260 KVA.
- vii. The Contractor/developer is responsible to obtain approval of drawings, environmental clearance (if any), clearance from Airport authority of India and all other statutory clearances from the competent authorities as may be required for the project.
- viii. The Contractor shall obtain approval to the design, drawings and specifications of all components of the building, except those for the temporary works as stated at Cl. 18.1, of section- 1 from any National Institute of Repute/ Odisha State Institute of Repute at its own cost. Such approved documents need to be furnished to the Employer within the stipulated deadlines as mentioned in the contract data.
- ix. The contractor shall have to obtain the approval of the drawings from PMC/ Agency selected by the corporation before execution.
- x. The agency should develop its own plan and elevations without changing the conceptual design intent. All value addition to refine the functional aspects are to be undertaken by the selected contractor.
- xi. All reinforcement shall be corrosion resistant steel rebar complying with all relevant codal provisions.
- xii. The Fire safety requirement shall be as per NBC 2016 (PART- 4) and obtaining NOC and clearance certificate from the relevant authority is the responsibility of the Contractor.
- xiii. Service area for placing HT/LT panels, pump houses, service block, transformer, DG set, Fire tanks & STP, etc., shall be provided.

(b) Design Intent:

The design considerations suggested are indicative and minimal. The agency shall improve upon them and provide the best possible technology and materials to get the state-of-the-art output.

- i. *The construction work shall be executed in high temperature and humidity conditions with annual rainfall intensity as per IMD data, and the maximum cyclonic wind speed to be taken as per IS 875 : 2015. The site is situated in the Seismic Zone-III. The design wind speed to be as per IS 875 : 2015*
- ii. *Indicative Soil Classification (As per Sub soil exploration report enclosed). The agency needs to consider the dewatering aspect (if required), which shall critically affect the structural design, construction, and waterproofing of the structures as well as the construction time.*
- iii. *General provisions, stipulations, guidelines and rules laid down in the National Building Code, 2016 shall be adopted for all structural, waterproofing, fire, functional, legal, regulatory, obligatory, safety requirements for the buildings and the building services including plumbing and solid waste management with a view to deliver an integrated facility for the intended purpose, considering the design parameters well.*
- iv. *All the amenities, facilities and provisions with regard to the scope of work shall be provided as per the norms and guidelines of National Building Code-2016 (NBC) norms. In addition, other provisions of the NBC shall be applicable for Fire and life safety of the building and amenities for differently abled persons.*
- v. *Requirements and stipulations of Planning and Building Standards Regulations, of Bhubaneswar Development Authority must be adhered to. Building must be designed to achieve minimum GRIHA 3 Star rating. Accordingly, conservation measures with respect to water and energy as well as recycling of wastes are to be considered.*
- vi. *Prepare detailed designs and drawings for architectural floor plans, elevations, sections and detailing thereof, drawings for structural works, fire and life safety and building services such as electrical works, MEP, Lifts, Information & Communication Enabled ELV Installations, plumbing services, landscaping, signage and outer display structures/ installations as per scope, following the latest BIS/IRC codes for materials, design and construction, relevant CPWD / OPWD Specifications, NBC and IRC-SP-12-2015.*

Note : In the absence of any definite provision in the technical specifications contained herein, reference may be made to the latest CPWD, MORTH, IRC, CPCB, GRIHA, NBC and IS codes, in that order. Wherever these are silent, the construction

and completion of the works shall conform to sound engineering practice and in case of any dispute arising out of the interpretation of the above, the decision of the Engineer-in- Charge shall be final and binding on the Contractor.

- vii. *The building shall be designed with minimum accessibility provisions as per institutional, assembly building – submission D-3 and other relevant sections of the NBC 2016. Therefore, all the occupancies shall be governed by the most restrictive provisions of the Code among those applicable for individual occupancies. The provisions for life safety given in the Code for individual occupancy shall apply to the respective occupancies.*
- viii. *Toilet requirement with WC, Urinal, Wash basins, Cleaners Sink, drinking water Fountain/water ATM shall be based on the applicable standards.*
- ix. *Recycled waste and rain-water for use in flushing and gardening.*
- x. *Electrical: 33kV/0.433kV or 11kV/0.433 kV substation equipment comprising HT Panel, Dry type Transformers (CSS), HT cable, Bus trunking from Transformer to LT Panel, LT Panel, Automatic Power factor correction panel, Active Harmonic Filters, TVSS (Transient Voltage Suppression System), SPD (Surge protection system), Essential panel, Earthing, required inter-connections, substation safety equipments including LT cabling from substation to the buildings fed by the substation. Indicative capacity of the substation is minimum as mentioned in the project details.*

DG Set: Silent Type DG Sets, AMF Panel, Bus Ducting/ Cables from DG Sets to Essential Panel, Synchronizing Panel where required, DG Set enclosure room sound insulation/ventilation/smoke exhaust as required, Earthing of DG Set system, control cabling, Fuel tank/piping, DG set Exhaust piping/ Exhaust Chimney as per CPCB norms, Civil works connected with DG Sets including Foundation as required. Indicative capacity is minimum as mentioned in the project details.

Indicative design intents for the building have been provided in the following table.

Sl.	Item	Details
General Provision		
1	Staircase	The requirement shall be based on the applicable standards.
2 Water Supply & Sanitary Installation Services		
2.1	Requirement of Toilet with WC, Urinal, Wash basins, Cleaners Sink, Drinking water Fountain	The requirement shall be based on the applicable standards.
2.2	Water Storage, STP and fire fighting.	<ul style="list-style-type: none"> i. Total Water Demand: As per the quantity mentioned in the project details which is minimum. If it is calculated to be more by the bidder, has to be provided ii. STP: As per the quantity mentioned in the project details which is minimum. If it is calculated to be more by the bidder, has to be provided. iii. Fire Demand: As per NBC- 2016
2.3	Recycled water	To be used in flushing and landscaping.
3 Services		
3.1	33KV/0.433KV or 11KV/0.433 KV substation	Indicative capacity of the substation is minimum as mentioned in the project details. If it is calculated to be more by the bidder, has to be provided
3.2	DG Set:	Indicative capacity of the substation is minimum as mentioned in the project details. If it is calculated to be more by the bidder, has to be provided.
3.3	The fire safety provisions with an automatic fire alarm system, wet riser, automatic sprinkler system and manual fire alarm system in the amenity blocks.	As per statutory requirement (NBC 2016 and Local fire norms etc.)
3.4	Footpath with PCC base, 60 mm thick paver blocks and kerb stone edging on one side	As per statutory requirement (NBC- 2016 & CPWD Specifications).

<u>Sl.</u>	<u>Item</u>	<u>Details</u>
3.5	PAVEMENT (Vehicle parking & movement area etc.)	
i	CEMENT CONCRETE PAVEMENT (Vehicle parking & movement area etc.)	As per statutory requirement (NBC- 2016 & CPWD specification and vetted design specifications for vehicle use (crash fire tender / bus / cargo loaded truck)
ii	Bitumen road	As per statutory requirement (NBC- 2016 & CPWD specification and vetted design specifications for vehicle use (crash fire tender / bus / cargo loaded truck)
3.6	Landscaping (Horticulture operation including earth filling, grassing, tree plantation / shrubs and potted plants etc)	As per statutory requirement (NBC- 2016 & CPWD Specifications).
3.7	Supplying, installation, testing and commissioning of LED street/compound/ high mast/path way/landscape lighting for the entire campus	As per statutory requirement (NBC- 2016 & CPWD Specifications).
3.8	Rainwater Harvesting	As per statutory requirement (NBC- 2016 & CPWD Specifications).
3.9	supplying, installation, testing and commissioning of online 3 phase UPS system with 30 minutes backup including batteries, interconnecting cable, battery rack etc	As per statutory requirement (NBC- 2016 & CPWD Specifications).

(c) Project Details.

(1) 500 BEDDED SINGLE SEATER BOYS HOSTEL

As part of OUAT Redevelopment Plan, a new Hostel campus to accommodate around 500 students is proposed on existing site of Hostel No. 4 and Hostel No. 9 spread across land area of 3.63 acres. The new 500 bedded single seater hostel campus shall have:

- Single Block to accommodate 500 single occupancy rooms in G + 5 building.
- Amenity Block accommodating dining, kitchen and common room facilities will be constructed adjacent to the main hostel building with covered inter connected path

The existing campus shall be augmented into a Green and Energy Efficient Campus as per GRIHA 3 or Higher rating with restricted vehicular movement inside the campus along with features such as Rainwater harvesting system, Solar panels, landscaping for passive cooling

(i) 500 BEDDED SINGLE SEATER BOYS HOSTEL

A.	Civil Works (RCC framed structure non-residential building).		
1	Ground Floor with plinth height 0.75 m, floor height 3.3 m, foudation depth 3 m	2130.00	Sqm
2	1st Floor 3.3m height	2130.00	Sqm
3	2nd Floor 3.3m height	2025.00	Sqm
4	3rd Floor 3.3m height	1815.00	Sqm
5	4th Floor 3.3m height	2025.00	Sqm
6	5th Floor 3.3m height	1815.00	Sqm
7	Total	11940.00	Sqm
B.	Water Supply & Sanitary Installation Services.		
1	Internal Water supply & Sanitary Installation		
2	O.H. Water tank	67500.00	LPD
3	Civil external service connection		
4	Local body approvals including tree cutting etc.		
C.	Electrical Services		
1	Internal electric installations all floors		
2	External electric installation		
3	CCTV @ considering 20% area for common area, corridor	2388.00	Sqm
4	Power wiring and installation in all dwelling units in all floors.		

5	Lightning Conductor			
6	Passenger Elevators 13 pax.	6	Nos	
7	Fire fighting with wet riser and sprinkler system automatic fire alarm	11940.00	Sqm	
8	Supplying, Installation, Testing and Commissioning of LAN system comprising of core switches & L2 switches with 10 G, 10 giga SFP modules, WIFI access points, WIFI controller, network management software, racks, CAT 6A cable, patch panels, OFC etc. (Considering 60% of Plinth Area)	7164.00	Sqm	
D.	<u>Extra for Superior finishes</u>			
	Stainless steel railing (Modular)	408.00	Rmt	
	Stainless steel Hand rail wall mounted (Modular)	348.00	Rmt	
	Interior works (superior finishes, cladding, metal cladding on column, sanitary fixtures etc)	11940.00	Sqm	
	Texture paint in exterior	8375.40	Sqm	
	Texture paint in common lobbies	1108.80	Sqm	
	GRC tile cladding in exterior	930.60	Sqm	
	GRC jali	750.00	Sqm	
	12mm Toughed glass fixed with aluminum frame	1000.00	Sqm	
	MS Framing for GRC	25209.00	Kg	

(ii) AMENITY BLOCK FOR 500 SEATED SINGLE BEDDED BOYS HOSTEL

A.	<u>Civil Works</u> (RCC framed structure non-residential building).			
1	Ground Floor with plinth height 0.75 m, floor height 3.6 m, foudation depth 3 m	700.00	Sqm	
2	1st Floor 3.6m height	400.00	Sqm	
3	Total	1100.00	Sqm	
B.	<u>Water Supply & Sanitary Installation Services.</u>			
1	Internal Water supply & Sanitary Installation			
2	O.H. Water tank	16550.00	LPD	
3	Civil external service connection			
4	Local body approvals including tree cutting etc.			
C.	<u>Electrical Services</u>			
1	Internal electric installations all floors			
2	External electric installation			
3	Power wiring and installation in all dwelling units in all floors.			
4	Lightning Conductor			

5	Fire fighting with wet riser and sprinkler system, manual fire alarm system	1100.00	Sqm
6	Passenger Elevators 8 pax.	1	No
7	CCTV (considering 70% of Total Plinth area)	770.00	Sqm
D. <u>Extra for Superior finishes</u>			
	Stainless steel railing (Modular)	240.00	Rmt
	Texture paint in exterior	604.80	Sqm
	GRC tile cladding in exterior	295.20	Sqm
	GRC jali	72.00	Sqm
	MS Framing for GRC	5508.00	Kg

(iii) SITE DEVELOPMENT OF 500 SEATED SINGLE BEDDED BOYS HOSTEL

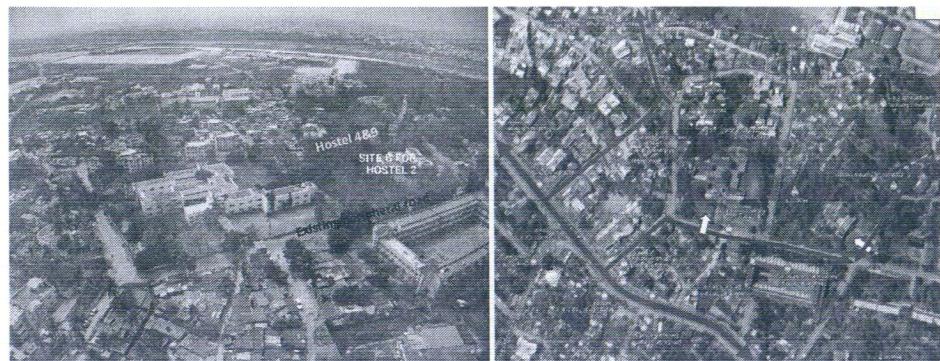
1	<u>External Services</u>		
1.1	Levelling	14700.00	Sqm
1.2	Internal roads & paths		
1.2.1	Internal road with WBM and Bituminous top	2196.00	Sqm
1.2.2	Cement concrete pavement with vacuum dewatered concrete	219.60	Sqm
1.2.3	Footpath with PCC base, 60 mm thick paver blocks and kerb stone edging on one side	1560.00	Sqm
1.3	External sewerage	350.00	Rmt
1.4	Filtrered water supply		
1.4.1	Distribution lines upto 100 mm dia	300.00	Rmt
1.4.2	Peripheral grid 150 mm to 300 mm dia pipes	500.00	Rmt
1.5	Strom water drains	380.00	Rmt
1.6	Trenches for Services	150.00	Rmt
2	Rain water harvesting (RWH)	2.00	Nos.
3	S.T.P Supplying, installation, testing and commissioning of STP/ETP of appropriate technology including civil works (except plant room), tertiary treatment etc. for building/campus	75,000.00	LPD
4	U/G sump	1,68,100.00	LPD
5	Supplying, installation, testing and commissioning of 33kV/0.433 kV or 11kV/0.433 kV substation equipments comprising HT panel, dry type transformers, HT cable, bus trunking from transformer to LT panel, LT panel, automatic power factor correction panel, active harmonic filters, TVSS, SPD, essential panel, earthing, required inter-connections, substation safety equipments including LT cabling from sub station to the buildings fed by the sub station.	900.00	KVA

6	Supplying, installation, testing and commissioning of Silent Type DG Sets, AMF Panel, Bus Ducting/ Cables from DG Sets to Essential Panel, Synchronizing Panel where required, DG Set enclosure room sound insulation / ventilation / smoke exhaust as required, Earthing of DG Set system, control cabling, Fuel tank/piping, DG set Exhaust piping/ Exhaust Chimney as per CPCB norms, Civil works connected with DG Sets including Foundation as required.	180.00	KVA
7	Land Scaping (Horticulture operation including 300 mm earth filling, grassing, tree plantation / shrubs and potted plants etc) (50% area)	7350.00	Sqm
8	StreetLight Supplying, installation, testing and commissioning of LED street/compound/high mast/path way/landscape lighting for the entire campus	14,700.00	Sqm
9	Supplying, installation, testing and commissioning of grid interactive roof top solar photo voltaic power generation system including space frame	111.00	KWp
10	Park furniture (SS 304 perforated Bench)	30.00	No.
11	SS bollards	20.00	No.
12	Precast Boundary wall	550.00	Rmt
13	Motorized Steel gate	1.00	No.
14	Illuminated Signages (Plinth area of the building)	13,040.00	Sqm
15	Supplying, installation, testing and commissioning of online 3 phase UPS system with 30 minutes back up including batteries, interconnecting cables, battery racks etc	40.00	KVA @
16	RCC Canopy over connecting pathways	90.00	Sqm

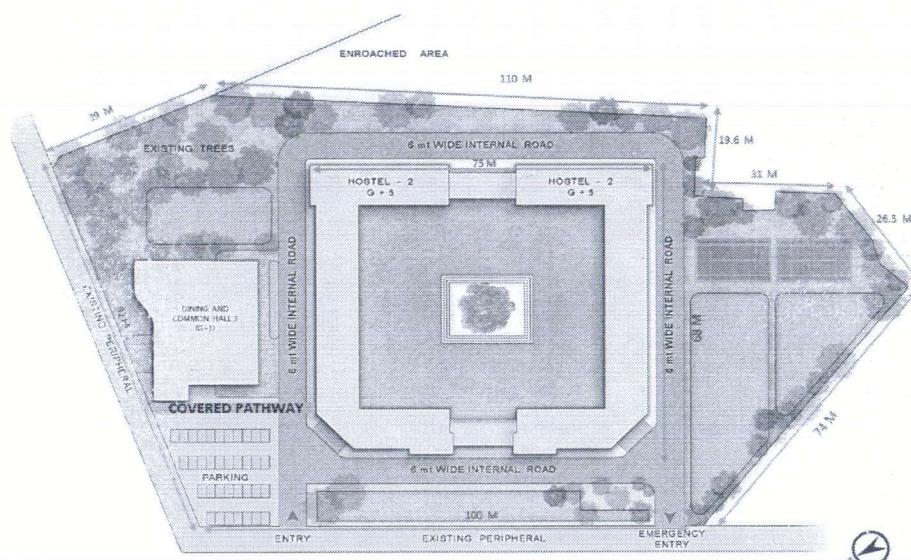
(iv) Drawing References

Sl. No.	Title	Detailed Drawing	Drawing Number
1	MASTER PLAN	MASTER PLAN	AR/TD/OUAT/H-2/MP/101.0
2		GROUND FLOOR PLAN	AR/TD/OUAT/H2/201.0
3		FIRST FLOOR PLAN	AR/TD/OUAT/H2/202.0
4		SECOND AND THIRD FLOOR PLAN	AR/TD/OUAT/H2/203.0
5		FOURTH AND FIFTH FLOOR PLAN	AR/TD/OUAT/H2/204.0
6		SECTION AA'	AR/TD/OUAT/H2/301.0
7		SECTION BB'	AR/TD/OUAT/H2/302.0
8		ELEVATION 1	AR/TD/OUAT/H2/401.0
9		ELEVATION 2	AR/TD/OUAT/H2/402.0
10		ELEVATION 3	AR/TD/OUAT/H2/403.0
11		ELEVATION 4	AR/TD/OUAT/H2/404.0
12	HOSTEL BLOCK	FLOOR PLANS (G+1)	AR/TD/OUAT/H2/AM/201.0
13		ELEVATIONS	AR/TD/OUAT/H2/AM/301.0
14		SECTIONS	AR/TD/OUAT/H2/AM/401.0
	AMENITY BLOCK		

(v) BASE MAP OF SITE



Sattelite image



Indicative site plan

(2) NEW FARMER'S HOSTEL

New hostel block is proposed adjacent to the existing farmers' hostel of 100 capacity, having common entrance to the campus. The new farmer's hostel is spread across land area of 3.08 acres. The Farmer's Hostel shall have:

- The new Hostel to accommodate 200 beds with 6 seater dormitories in G + 2 building.
- The existing & the proposed Hostel will be integrated placing the amenity block in center. The amenity block shall have separate dining and common room with a dining capacity of 300 students to be used by both the hostels. Amenity block will have a connection from the dormitory of existing farmers' hostel.
- The existing campus shall be augmented into a Green and Energy Efficient Campus with restricted vehicular movement inside the campus along with features such as Rainwater harvesting system, Solar panels, landscaping for ambient temperature control

(i) FARMERS' HOSTEL

A. <u>Civil Works</u> (RCC framed structure non-residential building).			
1	Ground Floor with plinth height 0.75 m, floor height 3.3 m, foudation depth 3 m	1600.00	Sqm
2	1st Floor 3.3m height	1500.00	Sqm
3	2nd Floor 3.3m height	1500.00	Sqm
4	Total	4600.00	Sqm
B. <u>Water Supply & Sanitary Installation Services.</u>			
1	Internal Water supply & Sanitary Installation		
2	O.H. Water tank	27000.00	LPD
3	Civil external service connection		
4	Local body approvals icluding tree cutting etc.		
C. <u>Electrical Services</u>			
1	Internal electric installations all floors		
2	External electric installation		
3	Power wiring and installation in all dwelling units in all floors.		
4	Lightning Conductor		
5	CCTV @ considering 20% area for common area, corridor	920.00	Sqm

6	Supplying, Installation, Testing and Commissioning of LAN system comprising of core switches & L2 switches with 10 G, 10 giga SFP modules, WIFI access points, WIFI controller, network management software, racks, CAT 6A cable, patch panels, OFC etc. (Considering 60% of Plinth Area)	960.00	Sqm
D. Extra for Superior finishes			
	Stainless steel railing (Modular)	57.00	Rmt
	Stainless steel Hand rail wall mounted (Modular)	102.00	Rmt
	Alluminium louvers/ fins at façade	3162.00	kg
	Texture paint in exterior	2965.48	Sqm
	GRC tile cladding in exterior	423.64	Sqm
	GRC jali	216.00	Sqm
	MS Framing for GRC & Cladding	11214.60	Kg

(ii) AMENITY BLOCK OF FARMERS HOSTEL

A.	Civil Works (RCC framed structure non-residential building).		
1	Ground Floor with plinth height 0.75 m, floor height 3.6 m, foudation depth 3 m	800.00	Sqm
2	1st Floor 3.6m height	510.00	Sqm
3	Total	1310.00	Sqm
B. Water Supply & Sanitary Installation Services.			
1	Internal Water supply & Sanitary Installation		
2	O.H. Water tank	10775.00	LPD
3	Civil external service connection		
4	Local body approvals including tree cutting etc.		
C. Electrical Services			
1	Internal electric installations all floors		
2	External electric installation		
3	Power wiring and installation in all dwelling units in all floors.		
4	Lightning Conductor		
5	Fire fighting with wet riser and sprinkler system, Manual fire alarm	1310.00	Sqm
6	Passenger Elevators 8 pax.	1	Nos
7	CCTV (considering 70% of Total Plinth area)	917.00	Sqm
D. Extra for Superior finishes			
	Stainless steel railing (Modular)	240.00	Rmt
	Texture paint in exterior	589.68	Sqm
	GRC tile cladding in exterior	287.82	Sqm
	GRC jali	72.00	Sqm
	MS Framing for GRC	5397.30	Kg

(iii) FARMER'S HOSTEL SITE DEVELOPMENT

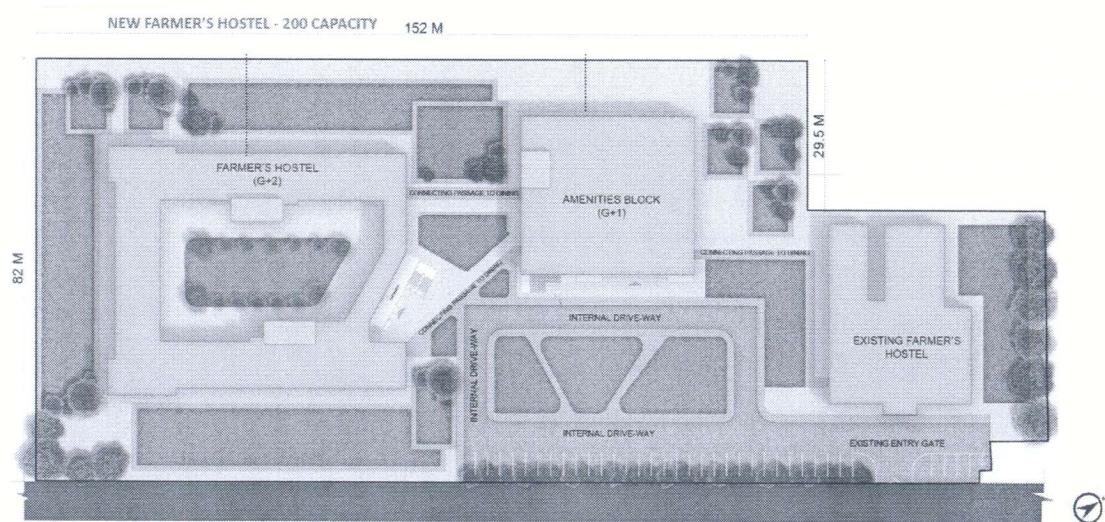
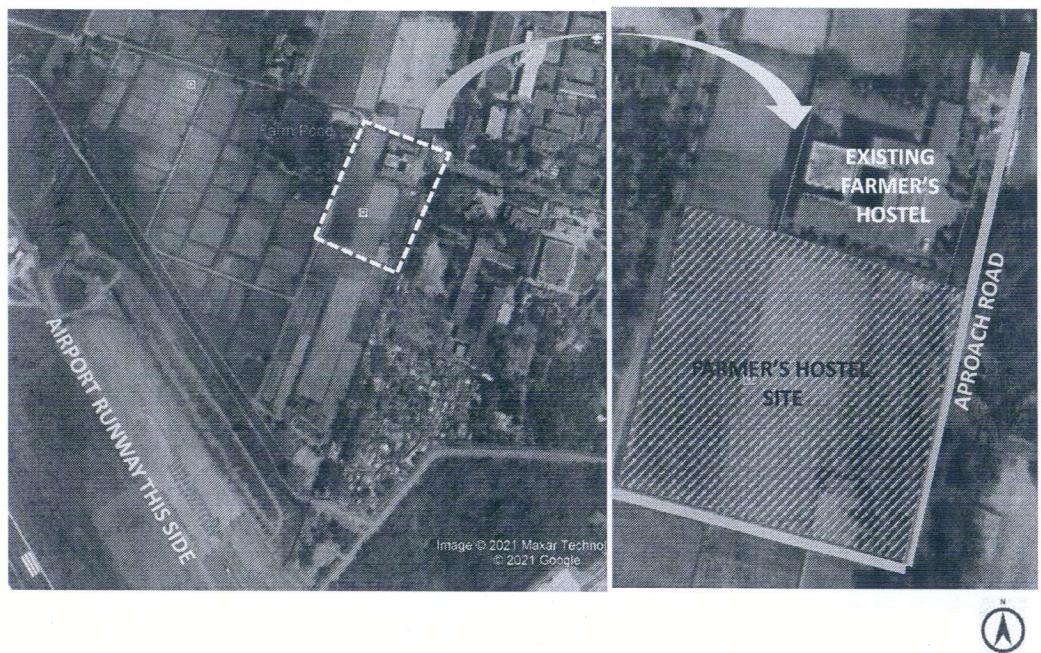
1	<u>External Services</u>		
1.1	Levelling	12464.00	Sqm
1.2	Internal roads & paths		
1.2.1	Internal road with WBM and Bituminous top	1410.00	Sqm
1.2.3	Cement concrete pavement with vacuum dewatered concrete	141.00	Sqm
1.2.4	Footpath with PCC base, 60 mm thick paver blocks and kerb stone edging on one side	1435.00	Sqm
1.3	External sewerage	185.00	Rmt
1.4	Filtrered water supply		
1.4.1	Distribution lines upto 100 mm dia	250.00	Rmt
1.4.2	Peripheral grid 150 mm to 300 mm dia pipes	500.00	Rmt
1.5	Strom water drains	650.00	Rmt
1.6	Trenches for Services	150.00	Rmt
2	Rain water harvesting (RWH)	2.00	No.
3	S.T.P Supplying, installation, testing and commissioning of STP/ETP of appropriate technology including civil works (except plant room), tertiary treatment etc. for building/ campus	50,000.00	LPD
4	U/G sump	75,550.00	LPD
5	Supplying, installation, testing and commissioning of 33kV/0.433 kV or 11kV/0.433 kV substation equipments comprising HT panel, dry type transformers, HT cable, bus trunking from transformer to LT panel, LT panel, automatic power factor correction panel, active harmonic filters, TVSS, SPD, essential panel, earthing, required inter-connections, substation safety equipments including LT cabling from sub station to the buildings fed by the sub station.	400.00	KVA
6	Supplying, installation, testing and commissioning of Silent Type DG Sets, AMF Panel, Bus Ducting/ Cables from DG Sets to Essential Panel, Synchronizing Panel where required, DG Set enclosure room sound insulation / ventilation / smoke exhaust as required, Earthing of DG Set system, control cabling, Fuel tank/piping, DG set Exhaust piping/ Exhaust Chimney as per CPCB norms, Civil works connected with DG Sets including Foundation as required.	80.00	KVA
7	Land Scaping (Horticulture operation including 300 mm earth filling, grassing, tree plantation / shrubs and potted plants etc)	6700.00	Sqm @
8	StreetLight Supplying, installation, testing and commissioning of LED street/compound/high mast/path way/landscape lighting for the entire campus	12,464.00	Sqm @

9	Supplying, installation, testing and commissioning of grid interactive roof top solar photo voltaic power generation system including space frame	101.00	KWp @
10	Park furniture (SS 304 perforated Bench)	30.00	No.
11	SS bollards	20.00	No.
12	Precast RCC Boundary wall	500.00	Rmt
13	Motorized Steel gate	1.00	No.
14	Illuminated Signages(plinth area of the building)	5,910.00	Sqm @
15	Supplying, installation, testing and commissioning of online 3 phase UPS system with 30 minutes back up including batteries, interconnecting cables, battery racks etc	20.00	KVA @
16	RCC Canopy over connecting pathways	198.00	Sqm

(iv) **Drawing References**

Sl. No.	Title	Detailed Drawing	Drawing numbers
1	MASTER PLAN	MASTER PLAN	AR/TD/OUAT/FH/MP/101.0
2	HOSTEL BLOCK	GROUND FLOOR PLAN	AR/TD/OUAT/FH/201.0
3		FIRST FLOOR PLAN	AR/TD/OUAT/FH/202.0
4		SECOND FLOOR PLAN	AR/TD/OUAT/FH/203.0
5		ELEVATIONS	AR/TD/OUAT/FH/301.0
6		SECTIONS	AR/TD/OUAT/FH/401.0
7	AMENITY BLOCK	FLOOR PLANS (G+1)	AR/TD/OUAT/FH/AM/201.0
8		ELEVATIONS	AR/TD/OUAT/FH/AM/301.0
9		SECTIONS	AR/TD/OUAT/FH/AM/401.0

(v) Base map



Indicative site plan

3. Renovation of 10 nos. Ladies hostels

The following ladies hostels are to be renovated.

1. Hostel No- 3
2. Ramadevi Hostel
3. Kamala Pujari
4. Kunatala Kumari
5. Malati Devi
6. Nandini Sathpathy
7. Tulasi Munda
8. Sarada Devi
9. Srujanika Hostel No- 10
10. Srujanika Hostel No- 11

Scope of work for renovation of ladies hostels will be as per corrigendum- 1, Annexure- II.

(d) Mandatory Requirements

i. Waterproofing:

Provisions for water proofing of STP , sumps and water tanks, toilets, roof, expansion joints **must be considered by the bidder in the scope of the project and no deletion/ relaxation of waterproofing items shall be allowed in any of these items, under any circumstances.**

ii. Landscaping:

The bidder shall have to provide landscaping in all possible locations, and not limited to the following areas only.

- a. Landscaping of the entire area where hard constructions are not done
- b. General plantation (Trees to be planted should be fully grown of above 4M height). No of trees will be decided as per design of the landscape designer with in the area mentioned.
- c. Beautification works: Pathways, open staircases, lobby approach ramps, terraces to be beautified with plants in planter boxes.

The bidder shall maintain the landscaping during the entire construction period till handing over (excluding DLP) and submit future maintenance plan along with tentative maintenance cost at the time of handing over.

iii. Anti-termite treatment:

Anti termite treatment to be done by drilling holes @ 300mm c/c both ways upto soil level and filling with solution of Chlорpyrifos 20 EC or Lindane 20 EC and outside of the wall using Chlорpyrifos 20 EC or Lindane 20 EC as per IS 6313 (Part 1, 2, 3) :2001 etc complete as per direction of Engineer- in charge.

B. TIME LINE FOR SUBMISSIONS

This period includes time period for all types of survey & investigation, soil exploration and laboratory testing, detail design, the draft and final design reports, drawings, technical specifications, methodology as required for the work and all other associated reports and documents.

The time period for the design stage is 120 days from the date of commencement.

Schedule for Submission

The reports must be submitted as per the following schedule:

S.No	Description	Schedule for Submission
1.	Review of applicable statutory approvals/ NOC required from Development authority, SPCB and Fire Authority	60 days from the date of commencement
2.	Details of all Survey including laboratory test reports for construction materials and design mixes	15 days from the date of commencement
3.	Submission of draft architectural drawings with detail Engineering Designs and technical specifications & methodology.	45 days from the date of commencement
4.	Final architectural drawings with detail Engineering Designs and technical specifications & methodology; to be submitted in three phases	60 days from the date of submission/ approval of draft drawings
5.	Quality Management Manual & Environment, Health and Safety Manual	30 days from the date of commencement
6.	Monthly Progress Reports along with updated abstract of changes during construction	10th day of succeeding month
7.	As-Built Drawings	As provided in Contract Data
8.	Consolidated Booklet Containing all Approvals, Clearances, NOCs in connection with the project	With as-built drawings
9.	Inventory with Warranties and User Manuals	With as-built drawings

C. SERVICES TO BE PROVIDED BY THE EMPLOYER

The Employer will provide the following data to the Bidder on request if available..

- Indicative Sub-soil report and other associated data.
- Site plan.
- Any other relevant secondary data, to the extent available in a comprehensive manner.

The Employer will not provide office accommodation, vehicles, survey or any other equipment to the Contractor. The Bidder shall make his own arrangement for their office staff for each of the field supervision teams including furniture, equipment, operation and maintenance, vehicles, and equipment.

D. SECRECY

The contractor shall take all steps necessary that all persons employed on any work in connection with the contract have noticed that the Indian Official Secrets Act 1923 applies to them & will continue so to apply even after the execution of such works under the contract. The contract is confidential and must be strictly confined to the contractor's own use (except so far as confidential disclosure to sub-contractors or suppliers as necessary) and for the purpose of the contract.

All documents, copies thereof & extracts therefrom furnished to the contractor or submitted by the Contractor shall be returned to the Employer on the completion of the work / works or on earlier determination of the contract. All the drawings, designs and documents of this project shall be the property of the Employer and shall not be reproduced by the Contractor either full or by part, for any purpose whatsoever may be, without written permission of the Employer, any time afterwards, once the As Built submission is over and complete. The Bidder may retain a copy of such documents but shall not use these documents for purposes unrelated to this Contract without the prior written approval of the Client.

E. APPENDICES

(1) APPENDIX – I (A): DESIGN SCOPE

The bidder has to submit his Design Basis Report covering all aspects as given below or more with specific details and not generically.

(a) General:

The project shall be executed on a Lump Sum Turnkey basis. General scope of the work of the project shall include but not limited to the following:

- i. Development of architectural drawings including preparation of conceptual drawings, architectural brief, detail design ,services etc. It may be noted that the concept plans forming part of the Bid documents shall be the basis for this. This would also include high resolution renderings as may be required and a walkthrough not exceeding 3 mins with voice over (bi-lingual) and suitable subtitles.
- ii. Carrying out field surveys and detailed engineering design, and development of drawings considering the architectural design and construction documents, structural engineering, electrical engineering, communication and networking plan, fire detection and protection plan, landscape design both horizontally and vertically-exterior and interior.
- iii. Carrying out Geotechnical Investigations and Sub-Soil Exploration at each proposed building location and conduct all relevant laboratory and field tests on soil and rock samples. Soil bores duly indicating the classification of soils within a bore log chart and soil test reports are to be conducted in Govt. of Odisha approved soil testing laboratory on undisturbed and disturbed samples for all the geo-technical parameters.
- iv. Preparation of services plans to include all details of plans, elevations and sections with details of electrical works, ventilation, water supply, drainage & sewage disposal system and rainwater harvesting system.
- v. Preparation of Key map (at relevant scale) showing the location of the buildings investigated and rejected and the important structures, in the vicinity. The reference to the position of the benchmark, location of the trial pits or bore-holes giving identification number for each bore connected to the datum and location of all nullahs, buildings.
- vi. Procurement, installation, testing and commissioning of requisite equipment as per specifications provided. Samples of all materials required for testing is included in

- the cost of work. Expenditure for testing in house or through external laboratory shall be completely borne by the contractor including cost of transportation of samples to the testing locations or laboratories.
- vii. The acceptable makes of various finishing items, fittings/ fixtures/ equipment/ components/ accessories have been mentioned in the *List of Acceptable Makes* at Annexure I to Section-8. The Contractor shall get the samples of these items approved by the Employer before their use/ utilization in the works. Contractor may use Higher or Equivalent makes after approval of the Employer. Any missing make to be addressed by the contractor by submitting minimum three standard certified makes for approval of the Employer, Employer decision on the selected make would be final and binding
 - viii. Covid-19 requirement should be adhered to all designs, execution wherever applicable. The price quoted by the contractor shall deem to include all expenses towards material, labour, transportation, machinery, camp arrangements or all other conditions as required by the guidelines issued by the Government.

(b) Green Building Practice

- i. The contractor shall ensure that adequate measures are taken for the prevention of erosion of the topsoil during the construction phase.
- ii. The Contractor shall arrange to work so as to minimize site disturbance such as soil pollution due to spilling and use staging and spill prevention and control plan to restrict the spilling of the contaminating material on site.
- iii. The contractor shall not carry out any work which results in the blockage of natural drainage.
- iv. The contractor shall ensure that existing grades of soil shall be maintained around existing vegetation and lowering or raising the levels around the vegetation is not allowed unless specifically directed by the Engineer
- v. Contractor shall reduce pollution and land development impacts from automobiles use during construction.
- vi. The Contractor shall not do overloading of trucks which is unlawful and when loose materials like stone dust, excavated earth, sand etc. are moved, must ensure proper covering.
- vii. All building materials responsible for pollution shall be brought at site from sources covered by tarpaulin and shall take all precautionary measure to ensure that no dust

- particles are permitted to pollute the air quality. The contractor shall ensure that air pollution due to dust/generators is kept to a minimum, preventing any adverse effects on the workers and other people in and around the site.
- viii. The Contractor shall identify roads on-site that would be used for vehicular traffic and upgrade the vehicular roads, if they are used for hauling materials for the project.

(c) Project Management, Clearances & Certification

The Contractor shall obtain approval to the design, drawings and specifications of all components of the building, from any institute of repute to be decided by the employer at its own cost. The Employer shall give clearance for construction on all sketches, drawings, reports and recommendations and other matters and proposals submitted for approval by the Contractor in such reasonable time as not to delay or disrupt the performance of the Contractor's services.

- i. Planning of the project activities including work breakdown structure and their timelines thereof, in MS Projects/ Primavera (minimum L3) and submit the same to the authority for progress monitoring throughout the span of the project.
- ii. Project Management to ensure completion of Project as per the specified timelines
- iii. Obtaining NOC from Development Authority/ Municipality, PHEO, Fire authority, Environmental Clearance from SPCB (if applicable), and any other statutory approval required for the project.
- iv. Compliance with Environmental and Energy efficiency norms and obtaining at ***least 3-star GRIHA rating.***
- v. Handing over of the facilities after fulfilling all obligations of the Contractor and confirming to Employer's requirement
- vi. Taking up the works listed for Defects Liability Period and closing the project.
- vii. Submission of Daily Labour Report and Weekly / Monthly Labour Payment Report.
- viii. Take all precautionary measures to adhere to Government prescribed norms to prevent spread of Corona virus Covid-19.

(2) APPENDIX – I (B): SCOPE OF BUILDING WORK

(a) *Scope for Civil Work*

The scope of work for the project is about construction of the building and installation of all services in order to make the fully functional and with a view to provide the intended facilities to the users. Scope of civil work shall comprise, but not limited to the following. Specifications for the construction works have been provided in Section-5.

- i. Construction of the building and installation of all services keeping in view the mandatory requirements of the Employer.
- ii. **Overhead tank, underground sump, Firefighting tank and storage tank for rainwater of adequate capacity** to be provided.
- iii. **Water proofing** of foundation, roof, toilets, underground sump and exposed surfaces to be done under the supervision of expert agencies.
- iv. **Anti-termite treatment** shall be done as per IS specifications.
- v. **Flooring** shall be vitrified tile for Hostel rooms, kitchen & Dormitory and Granite flooring for staircase rooms, steps of staircases, lobbies and entrance area with six inch dado respectively as per CPWD / OPWD specifications.
For all washrooms & toilets, flooring shall be with Antiskid Vitrified Tiles & dados with glazed ceramic tiles upto lintel heights.
- vii. **Storm Water Drains:** Providing and laying precast/ cast in situ RCC storm water drain with perforated removable/fixed covers including necessary culverts etc. complete and as per direction of Engineer-in-charge.
- viii. **Service Trench:** Planning, designing and construction of RCC Service Trench conforming to IS:875, IS:456, IS:1893, IS:13920 and other IS Code Provision and standard sound Engineering practice and as approved by Engineer. The Service Trench will be designed to accumulate all the services in the campus. Factory made Fixed/ removable R.C.C. precast cover with minimum thickness 100 mm shall be provided at the top of trench.
- ix. **Other Materials:**
 - Glazing of windows: Glazing shall be minimum 5.5 mm thick toughened glass and for other areas (staircase, lobbies for hostel block & dining, common room for amenity block) shall have fixed glazing of minimum 12mm thick toughened glass with reflective coating, complying with codal safety provisions and the wind speeds.

- Staircase railing: Modular Stainless steel railing.
- Expansion Joint: As per requirement.
- RCC Surface: 6 mm thick cement Plaster on RCC surfaces.
- Plinth Protection: Unpolished granite stone in continuation to external wall finishing over CC plinth protection edge of 600 mm width with CC Kerb stone. The top of plinth protection level shall be 30 cm below the plinth level of the building.
- Signs and outdoor display structures shall be governed by the relevant provisions of the Orissa Municipal Corporation Act/ Orissa Municipal Act and any other codal provision.
- Debris, rubbish & other waste materials shall be reused at site as directed by Engineer or disposed off / recycled or on pre-defined disposal locations.
- Landscaping: Landscaping has to be planned suitable to the theme and architecture of the building used along with public space creation and design. Vertical landscaping may be planned as per architectural requirement. Internal greenery should also be planned.

(b) Scope for WS & SI work (Water Supply & Sanitary Installations)

The scope of WS & SI work (Water Supply & Sanitary Installations) for the project is about providing all fittings and fixtures in order to make it fully functional with regard to supply, storage, distribution of water and collection and treatment of effluent from the toilets and other areas of the building including recycling and reuse of water. Scope of work shall comprise, but not limited to the following. Specifications to be followed for the works have been provided in Section-5, and in addition, manufacturer's specification shall also be adhered to for the brands approved for the project.

- i. W.C. Pan with flushing system: Wall mounted EWC at about 50% locations, and Floor Mounted IWC at the balance locations
- ii. Urinals: Stall type urinals shall be used
- iii. Wash basin: Under Counter wash basin of suitable size and shape. Wash basin counter shall be finished with 18 mm thick granite on top and facia of RCC slab
- iv. Mirror: Full length equal to wash basin counter of 600 mm height mirror
- v. Terrace Tank: RCC Tank of approved dimensions

vi. Sewerage System:

- The scope includes planning, designing and construction of providing and laying sewer lines with NP2/3 (as per codal requirements) pipes of spigot and socket ends including Manholes of required size, shape and depth complete and as per direction of Engineer-in-charge. The agency has to plan, design, prepare the drawings for Sewerage system and get the same approved from Engineer before execution the competent authority. The sewerage lines of individual building shall be considered in buildings upto and including first manhole.
- Waste & wastewater from kitchen & dining (if any) shall not be directly discharged in the sewerage system. For garbage, a separate storage bin shall be provided and all codal provisions of SWD should be followed. For pre-treatment of wastewater Gully Trap, screen chamber, Grit Chamber shall be designed and constructed.
- This item is operated from the first manhole to the Sewage Treatment Plant including construction of gully trap, grit chamber, screen chamber etc. making connection from and to the manholes wherever required, all complete.

vii. Water Supply Network:

- The scope includes planning, designing and construction of providing and laying Water supply main, branch and distribution lines including chambers and fittings/specials such as Tees, Bends, collars, Unions, tappers, caps, Sluice Valves, Gate Valves, scour valves, non-return valves, air-relief valves, thrust blocks etc. complete and as per direction of Engineer.
- The **water supply network** should cater to the needs of supplying water from UG sumps (from various locations) to individual buildings.
- All buildings are to be **connected with nearest UG sump** by water supply lines by HDPE so that water supply should be made to the building along with fittings, gun metal gate valves, gun metal non return valves, masonry chambers for valves, including excavation, providing sand around and refilling after laying etc.
- The scope also includes providing and laying **treated water supply** (from STP) main, branch and distribution lines including chambers and fittings/specials such as Tees, Bends, collars, Unions, tappers, caps, Sluice Valves, Gate Valves, scour valves, non-return valves, air-relief valves, thrust blocks etc. complete for use in flush tanks, horticulture purpose and to fill artificial pond created in the campus and as per direction of Engineer.

- Planning, designing and construction of RCC **Under Ground Sumps/ RCC overhead tanks** of adequate capacity as per norms of NBC, with necessary partitions for domestic & firefighting etc. including preparation of preliminary & detailed working drawings, structural analysis & design, planning, designing & execution of all services including providing and laying DI pipes of required diameter up to overhead tank etc. by incorporating stipulated specifications and integrating all services with external development works all complete as per directions of Engineer.
- **Borewell (if required):** Adequate numbers of bore wells for alternate water supply shall be provided.
- **Rainwater harvesting:** A rainwater harvesting plan shall be designed and provided for storing in a tank for reuse after filtration in the installed filters in the building through provision of separate water tanks and pipeline to avoid mixing with potable municipal water supply.

(C) Scope for Electrical work

- i. All works will be carried out as per provisions but not limited to CPWD Specifications, NBC 2016, IE Rules, IS Codes as amended up to the date of tender. In case for any part of the work specification is not available in the aforesaid mentioned documents then part of the work will be carried out in accordance with sound engineering practice and as per directions of Engineer.
- ii. The Contractor shall be responsible and liable for proper and complete execution of the Electrical work ensuring coordination of Civil, WS & SI and Electrical work. The lump-sum rate quoted by the Contractor shall be applicable for the conditions & specifications and scope all complete.
- iii. In case the Contractor does not have in house facility to do the E&M work, he shall submit Name(s) of the proposed Sub- contractor (for each of the E&M works) within one month of award of work or 15 days before start of work whichever is earlier. The Contractor shall submit MOU between the one who is awarded the work and the associated eligible electrical contractor.
- iv. In event of the concerned E&M agency not performing satisfactorily or failure of associate/sub-contractor to complete the E&M work, the Contractor on the written direction of the Employer, shall remove the Associate/sub-contractor deployed on the work and shall submit name of new associate who fulfills the conditions to execute the leftover work without any loss of time or variation in cost to the Employer in this regard. No change of Electrical Contractor will be allowed without prior approval of the Engineer.
- v. Scope of work covers planning, designing, supply, installation, testing, commissioning and ensuring performance of all Electrical & Mechanical services for external

- ambiance lighting, internal requirement, facade highlighting etc. till end of Defects Liability Period. The work shall be executed as per CPWD specifications of E & M works. If any services/work required to make the building / scheme habitable & functional, including the statutory compliance, is not specifically mentioned in the scope of services, the same is deemed to be included within the scope of this tender and nothing extra shall be paid on this account.
- vi. The scope of work covers the preparation of layout plans, drawings for E & M schemes, inventories of fittings, fixtures, equipment and approval of the same from the Engineer, before commencement of work. The scope of work shall deem to include, but not limited to, the systems as described below in complete respect with full functionality, compliances to the specifications, drawings.

- **Internal and external Electrical Installations:** Planning, designing, capacity calculations with load details, Complete design details, supply, installation, testing and commissioning of complete Internal and External Electrical Works which includes copper wiring in steel conduit, LED luminaries and lighting controls, fans, modular switches, sockets, DBs, MCBs, RCCBs, tap off boxes, UPS, Wire mesh cable tray for parking area and PIR Sensors, Chemical earthing, lightening arrestor, cable TV wiring in steel conduit, networking wiring (CAT6A) in raceway, wall mounted patch panels for networking system, wiring for centralized intercom system, call bell system, street light, compound light and landscape lights, contour & fascia light etc. complete as required.
- **Lifts:** Planning, designing, supplying, installation, testing & commissioning of Passenger Lifts shall be as per the provisions of NBC (if required).
- **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.

- **DG Set** : Planning, designing, capacity calculations with load details, Complete design details, Supplying, installation, testing and commissioning of Silent Type DG Sets, AMF Panel, Bus Ducting/ Cables from DG Sets to Essential Panel, Synchronizing Panel where required, DG Set enclosure room sound insulation/ventilation/smoke exhaust as required, chemical Earthing of DG Set system, control cabling, Fuel tank/piping, DG set Exhaust piping/ Exhaust Chimney as per CPCB norms, Civil works connected with DG Sets including Foundation as required.
- **Fire Fighting:** Planning, designing, supplying, installation, testing & commissioning of Firefighting System, comprising of main pump for wet-riser and sprinkler, Diesel engine pump, Jockey pump for wet-riser and sprinkler, MS pipe, valves, flanges, hydrant, down-comer system, Hose reel, Portable Fire Extinguishers, compartmentalization as and where required, in compliance to IS code/NBC 2016, local body by laws and local fire authority. Statutory clearances wherever required will have to be taken by the firm.
- **Fire Alarm and PA System:** Planning, designing (as per CPWD specification, agreement condition & NBC & IS codes), supplying, installation, testing & commissioning of Automatic Fire alarm system/ manual Fire alarm system comprising of fire alarm panel, Smoke detector, Heat detectors, Hooters, Manual call points, Response indicators, monitor module, control module, fire survival cables etc. It shall be as per NBC 2016, CPWD specifications and Local bylaws and as per approval of Local Fire Service authorities. The work shall also include planning, designing, preparing drawings and getting the drawings approved from the Engineer and its subsequent execution. Scope of work also includes integration of Automatic Fire alarm system/ manual Fire alarm system provided in the building as per NBC 2016 requirements to the main control room located inside the building. Statutory clearances wherever required will have to be taken by the firm.
- **IP EPBAX System:** - Planning, designing, supply, installation, testing and commissioning of complete of Digital based voice communication system with specified number of PRI lines and IP (as per design and requirements) extensions, complete with IP telephone instruments with operator console facility with CAT 6A cabling (if needed separately) with associated accessories as required.

- **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 having 50mtr 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.
- **UPS System:** Supplying, installation, testing and commissioning of 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. Approximate requirement is 60 KVA(MINIMUM) .
- **Water Supply System:** Planning, designing, supplying, installation, testing & commissioning of water supply system with submersible pump sets/municipal supply (if available) for bore wells as well as horizontal submersible pump sets for sump well. This includes all piping work, with GI pipe, butterfly valves, NRV, Headers, puddles, water level indicators with magnetic sensors and for operation of pumps and monitoring of water level in tanks. All required electrical panel cabling, sensors shall be in the scope of work.
- **STP:** Planning, Designing, supplying, installation, testing & commissioning of STP based on MBBR Technology of minimum capacity as specified complete including Civil Works with collection tank, MBBR tank, Pumps, treated water, Storage tank, Tertiary treatment, Filtration plant with MGF, ACF, softening plant, UV Plant etc., Statutory clearances wherever required will have to be taken by the firm.
- **Emergency light and illuminated Sign Board:** - Planning, Designing and preparation of drawings obtaining approvals from the Employer for emergency light and illuminated sign board, SITC of sign board in each building showing Exit, floor, lift, stair case, electric shaft etc at every building in the campus as per detailed specifications.

- **Solar Power:** Supplying, installation, testing and commissioning of roof top solar photo voltaic power generation system including frames capable of sustaining maximum wind speed as per IS 875 with 25 years performance warranty.

vii. All the drawings should have a checklist stating that it follows IS codes (code name to be specified), NBC 2016, CPWD specifications. Also, the contractor has to provide any data and detail asked by Engineer to finalize and accept the scheme, drawings etc., which shall be provided on the established standard/guidelines/codes etc.

viii. Clearances to be taken by the firm from the Employer before start of work. The above schemes of all the E&M works shall have to meet all the requirements of local bodies/ Fire Services / Electrical Authority/ NBC norms as applicable & also meet the technical specifications of various relevant CPWD specifications for electrical & mechanical services.

ix. The agency has to make its own arrangements for storage of sundry materials and erection equipments. No separate storage accommodation shall be provided by the Employer. Watch and ward of the stores and their safe custody shall be the responsibility of the contractor till the final taking over of the installation by the client/ Employer. Care shall be taken by the contractor while handling and installing the various equipments and components of the work to avoid damage to the building. He shall be responsible for repairing all damages and restoring the same to their original finish at his cost. He shall also remove at his cost all unwanted and waste materials arising out of the installation from the site of work.

x. All equipment shall have warranty as provided by OEM from the date of taking over/ installation, against unsatisfactory performance and/or break down due to defective design, workmanship or material. The equipment or components, or any part thereof, so found defective during warranty period shall be forthwith repaired or replaced free of cost, to the satisfaction of the Engineer. In case, it is felt by the Employer that undue delay is being caused by the contractor in doing this, the same will be got done by the Employer at the risk and cost of the contractor. The decision of the Engineer in this regard shall be final & binding on the contractor.

(d) Renovation of 10 nos. Ladies hostels

Scope of work for renovation of ladies hostels will be as per corrigendum- 1, Annexure- II.


09/09/21


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Chief Engineer
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ANNEXURE-II

#	Reference Clause	Queries	Response to the queries
1	OUAT COR.1 - Page No - 6/90 - MEP - Sl.No -1	Distance from the Existing tapping supply substation to the proposed buildings details required?	Power will be arranged at the new transformer primary end by the owner. However, Construction power will be arranged by agency from the nearest 11KV feeder which is available within 200mtr distance.
2	OUAT COR.1 - Page No - 6/90 - MEP - Sl.No -5	Instead of providing each room with LAN points shall we consider floor wise Wifi point ?	RFP condition prevails
3	OUAT COR.1 - Page No - 6/90 - MEP - Sl.No -9	Shall we consider with open wiring system with surface mounted fittings for each room? Scope of Renovation building electrification works shall be elaborated?	AS per Corrigendum No.1, Sl No.11 may be referred (Annexure-III). In electrical technical specification, in types of wiring- concealed/ recessed PVC conduit wiring has been mentioned.
4	Electrical	AC points and related wiring is to be considered or not for each room? In the Renovated building	If AC points are there in rooms, to be considered for AC wiring.
5	Electrical	Geyser points is to be considered for each toilet or not? In the Renovated building	Not required
6	Electrical	Any UPS is to be considered or Existing UPS is to be used? If existing UPS then , the UPS capacity details required?	Not required
7	Electrical	Capacities given for Transformer, DG, UPS and solar system loads are to be followed as per RFP if the actual comes less than the RFP size?	Yes, as per RFP
8	PHE system	Kindly share the details of plumbing fixture and piping quantity for renovation blocks.	As it is complete renovation for PH & SI works to the existing hostels, the agency has to finalized the plumbing fixtures as per the requirement for the existing toilet blocks.
9	Electrical load and Transformer Capacity (i) Section -8 Indicative design consideration (Table)	(i) Area of Farmers hostel = 4565 sq.m with light power density @ 11.8 W/Sq.m (as per CPWD specification under space function method for dormitory), the calculated peak load shall be = 54kW	
10	Page-207, Sl. "x", The transformer substation capacity is indicative of 1300 kVA.	(i) Area of Students hostel = 12200 sq.m with light power density @ 11.8 W/Sq.m (as per CPWD specification under space function method for dormitory), the calculated peak load shall be = 144kW	The transformer capacity has been calculated considering power to be used for rooms, dinning area, corridors, common areas, courtyards, outside lighting, street lighting, area lighting, STP, water supply system, fire fighting system etc and any other requirements. It also includes future expansion of the campus. Hence the quantity 1300 KVA transformer is the minimum requirement.
11		(i) In these consideration, all the dormitory rooms have been considered as Non-AC. Only Warden, Guest room , Infirmary room have been provided with Split AC.	
12		Please clarify, whether all or a part of rooms/ dormitory shall be air conditioned? If the proposal for Air conditioning to be considered, then only the justification for	

#	Reference Clause	Queries	Response to the queries
		1300 kVA Substation can be calculated, else the capacity shall be within 500kVA. Please suggest/clarify?	
13		(ii) Whether only points for HVAC shall be provided without equipment. Clarification required.	
14		(iii) Also please refer, Section -9 (Corrigendum), The capacity has been restricted to 900 & 400 kVA minimum. Now please clarify, the AC loads if any.	
15		(As per GRIHA -3 rating, we should optimize the substation.	
16	DG Set Capacity Page No.207 Section-8 (i) Section -8 Indicative design consideration (Table) Page-207, Sl. "xi", The DG capacity is indicative of 350 kVA minimum.	This requirement clarifies under Sl. No. (a) General Provisions: (vi) " DG set to be provided shall cater to all common areas/ Emergency facilities"	RFP Condition prevails
17		(i) Considering light loads in full, Common loads in full, the DG set capacity is calculated as 100 kVA and 250 kVA respectively. However, in RFP, it only demands common areas and Emergency areas. If Common area and emergency loads are considered under DG, the capacity shall be less than 350 kVA. Please clarify the capacity.	RFP Condition prevails
18		(iii) Also please refer, Section -9 (Corrigendum), The capacity has been restricted to 180 & 80 kVA minimum which holds good for design. So we are considering the 260 KVA instead of 350 kVA as was mentioned in the RFP.	Section-9 (Corrigendum-1) prevails
19	STP Page No.207 Section-8	As per RFP, the capacity for the STP is considered 125 KLD. But As per Guideline calculation, the requirement of STP is only 91 KLD, please clarify the capacity for the STP.	RFP Condition prevails
20	TOTAL WATER DEMAND Page No.207 Section-8	As per RFP, the total water demand is considered 370 KLD. But As per Guideline Calculation, total water demand is 80 KLD, please clarify the same.	RFP Condition prevails

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