(A Government of India Enterprise) P.O. Duliajan, Pin – 786602 Dist-Dibrugarh, Assam

CORRIGENDUM NO. 1 DATED 19.01.2023

To

Tender No. CDI2373P23 for 'Renovation and Expansion of 03 (three) nos. of office rooms at Instrumentation Department'.

This Corrigendum is issued to notify the following changes:

- 1. The following documents have been newly uploaded in E-Portal as replacements of the existing:
 - i) Revised Schedule of Quantity (SOQ) with the following change:

S1	Original Description of Item	Revised Description of Item
No.		
1.	Wall Panelling: Providing, fitting and	Wall Panelling: Providing, fitting and
	fixing of panelling on walls up-to a	fixing of panelling on walls up-to a full
	full eye exposed height from floor	eye exposed height from floor (2700
	(2700 mm). The partition shall be	mm). The partition will be suspended
	suspended with aluminium hollow	with aluminium hollow tubular
	tubular section of 25mm*25mm with	section of 25mm*25mm with a bar
	a bar support at an interval of	support at an interval of 600mm
	600mm vertically. The cavity between	vertically. The cavity between the
	the sections shall be utilised for	sections will be utilised for internal
	internal cable management. 12mm	cable management. 12mm borer proof
	borer proof ISI marked BWP grade	ISI marked BWP grade solid ply
	solid ply (GREEN PLY, CENTURY OR	(GREEN PLY, CENTURY OR ARCHID
	ARCHID PLY) to be fixed to section	PLY) to be fixed to SECTION frame
	frame and finished with ISI marked	and finished with ISI marked 1.0mm
	1.0mm thick laminated sheet	thick laminated sheet (MERINO,
	(MERINO, GREEN, CENTURY) of	GREEN, CENTURY) of prescribed
	prescribed shade and colour and	shade and colour and complete in all
	complete in all respect. The panelling	respect. Providing, fitting and fixing
	design can be a combination of	of attached wooden file storage
	maximum two shades or texture of	cabinets (big & small) as per room
	tiles to match the ceiling, flooring and the decor and ambience of the	layout (details given in SOW point no. 4.9 & 4.10) along with the wall
	office (as per approved design by	panelling. The panelling design can
	OIL).	be a combination of maximum two
	OILJ.	shades or texture of tiles to match the
		ceiling, flooring and the decor and
		ambience of the OFFICE (as per
		approved design by OIL).
		approved design by Oilly.

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ii) Revised Scope of Work with the following changes:

Clause No.	Original Clause	Revised Clause
4.1	Wall Paneling: Providing, fitting and fixing of paneling on walls up-to a full eye exposed height from floor (2700 mm). The partition shall be suspended with aluminum hollow tubular section of 25mm*25mm with a bar support at an interval of 600 mm vertically. The cavity between the sections shall be utilized for internal cable management. 12 mm borer proof ISI marked BWP grade solid ply (GREEN PLY, CENTURY OR ARCHID PLY) to be fixed to SECTION frame and finished with ISI marked 1.0 mm thick laminated sheet (MERINO, GREEN, CENTURY) of prescribed shade and color and complete in all respect. The panelling design can be a combination of maximum two shades or texture of tiles to match the ceiling, flooring and the decor and ambience of the OFFICE (as per approved design by OIL).	Wall Paneling: Providing, fitting and fixing of paneling on walls up-to a full eye exposed height from floor (2700 mm). The partition will be suspended with aluminum hollow tubular section of 25mm*25mm with a bar support at an interval of 600 mm vertically. The cavity between the sections will be utilized for internal cable management. 12mm borer proof ISI marked BWP grade solid ply (GREEN PLY, CENTURY OR ARCHID PLY) to be fixed to SECTION frame and finished with ISI marked 1.0mm thick laminated sheet (MERINO, GREEN, CENTURY) of prescribed shade and color and complete in all respect. Providing, fitting and fixing of attached wooden file storage cabinets (big & small) as per room layout (details given in SOW point no. 4.9 & 4.10) along with the wall paneling. The paneling design can be a combination of maximum two shades or texture of tiles to match the ceiling, flooring and the decor and ambience of the OFFICE (as per
4.3	False Ceiling: Moisture Resistant Ceilings: M/F Suspended Plain Ceiling includes Gypserra™ Perimeter Channel {Material-GI (IS513), YS-260Mpa, Finish- Galvanized 150GSM (IS27)} is fixed along the perimeter of existing wall/partition with the help of HILTI HPS - 1 (6 x 40) impact anchor, at 600 mm centers. Gypserra™ Ceiling Angle {Material-GI (IS513), YS-260 Mpa, Finish-Galvanized 150GSM (IS277)} is suspended by fixing it to the Gyproc® soffit cleat {GI (IS513) YS - 260 Mpa, Finish - Galvanized 150GSM (IS277)}. Soffit Cleat and Gyproc® Rawl Plug Ø8 x 45 mm {Material - IS 513 CR2 grade, Zinc coating (7 to 8 microns) pull out load - 6.8kN for M30 concrete grade} creating 1220 mm x 1220 mm grid. Gypserra™ Intermediate channel	approved design by OIL). False Ceiling: Moisture Resistant Ceilings: False Ceiling: Providing, fitting, and fixing of suspended designer false ceiling of GI channel with sound acoustic armstrong ceiling tiles of 600mm*600mm*14mm thickness at a height of 2700mm from floor level including jointing, priming and painting with two or more coats of plastic emulsion paint and complete in all respect. GI/MS bar hanger fixed with Anchor Fastener from the roof with alignment clip providing positions for light fitting etc.

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{Material-GI (IS513), YS-260Mpa, Finish-Galvanized 150GSM(IS277)} is fixed to the Gypserra™ Ceiling Angle with M6 x 12 mm Hex Bolt & Hex Nut arrangement {Material - as per EN 10083 Finish- Zinc Plating or with 2 nos. of Ø4.2x13 Gyproc® metal to metal screw {Material-EN-ISO Carbon steel 7049/50 Finish-Zinc Coating Thickness - 4.14 micron}. The Gypserra™ Ceiling Section (Material - GI (IS513), YS -260Mpa, Finish Galvanized 150GSM (IS277)) is then fixed to the GypserraTM Intermediate Channel {Material-GI(IS513), YS-260Mpa, Finish - Galvanized 150GSM(IS277)} with the help of Gyproc® Connecting Clip {Material-High carbon spring steel wire (BS970Gr.En42) - 46 -48HRC, Finish - Zinc plating 4-6 in micron} and direction perpendicular to the Intermediate channel at 457mm c/c. Single layer of 12.5mm tapered edge Gyproc® MR (conforming to IS 2095 1:2011/EN 520:2004, Type - A &H1/ASTM C1396) is then screw fixed to ceiling section with 25mm drywall screws (Material - Carbon steel EN - ISO 7049/50, Finish -Case hardened Grey Phosphating at 230 mm centres on ceiling section & 150mm at periphery of ceiling. Finally square and tapered edges of the boards are to be jointed and finished so as to have a flush look which includes filling and finishing with Gyproc® Pro-Fill Jointing compound (Conforms to ASTM C475), Gyproc® Joint Paper tape. Thickness = 12.5 mm

--Stands Deleted--

4.11 UPVC Windows: Providing, fitting and fixing standard UPVC Casement windows and ventilators of 80 mm profile sections and other sections of approved brands and jointed with SS screws (manufactured to IS: 733 and IS: 1285 specifications), fastened by 6mm x 3.15mm lugs 100mm long embedded in CC blocks 150mm x 100mm x 100mm in 1:3:6 mix providing and fixing EPDM rubber, handles, frictions stays, joining cleat,

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bolting device, locking arrangement,	
spring catch as required complete as	
per approved design and directed for	
all levels.	

All others terms and conditions of the Bid Document remain unchanged. Details can be viewed at www.oil-india.com.

Section-IV

Revised Schedule of Work, Unit and Quantity (SOQ)

Renovation of 03 (Three) nos. office rooms of Instrumentation Department.

S1 No.	Description of Items	Unit	Qty.	Rate in Rs. (Excl GST)	Total Rate in Rs. (Excl GST)
1	Wall Panelling: Providing, fitting and fixing of panelling on walls up-to a full eye exposed height from floor (2700 mm). The partition will be suspended with aluminium hollow tubular section of 25mm*25mm with a bar support at an interval of 600mm vertically. The cavity between the sections will be utilised for internal cable management. 12mm borer proof ISI marked BWP grade solid ply (GREEN PLY, CENTURY OR ARCHID PLY) to be fixed to SECTION frame and finished with ISI marked 1.0mm thick laminated sheet (MERINO, GREEN, CENTURY) of prescribed shade and colour and complete in all respect. Providing, fitting and fixing of attached wooden file storage cabinets (big & small) as per room layout (details given in SOW point no. 4.9 & 4.10) along with the wall panelling. The panelling design can be a combination of maximum two shades or texture of tiles to match the ceiling, flooring and the decor and ambience of the OFFICE (as per approved design by OIL).	Sq. ft.	1980		
2	Flooring: Providing and laying vitrified floor tiles of size 597mm x 597mm and thickness not less than 10mm including 100mm skirting complete and with water absorption's less than 0.08% and conforming to IS:15622 of approved make in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement:4 coarse sand) including grouting the joints with white cement and matching pigments etc.	Sq. ft.	720		
3	False Ceiling: Providing, fitting and fixing of suspended designer false ceiling of gi channel with sound acoustic armstrong ceiling tiles of 600mm*600mm*14mm thickness at	Sq. ft.	660		

	1:14 60700 6 6 1				1
	a height of 2700mm from floor level				
	including jointing, priming and				
	painting with two or more coats of				
	plastic emulsion paint and complete				
	in all respect. GI/MS bar hanger				
	fixed with Anchor Fasterner from the				
	roof with alignment clip providing				
	positions for light fitting etc.				
4	Flush Door with Chokhat:	Sq. ft.	3		
	Providing and fixing 38mm thick	1.			
	factory made ISI marked 38mm thick				
	flush door of size 750mm x 2175mm				
	for the entrance for the respective				
	rooms with half wood and half glass				
	pattern and providing horizontal				
	stripes on the glass with panelling on				
	the walls and door frames including				
	finishing with 1mm thick laminate of				
	approved brand (MERINO, GREEN				
	OR CENTURY) both side of approved				
	brand (merion, century no. 3, green				
	lam or dorma). The doors shall be				
	fitted with 04 nos. M.S. oxidized SS				
	butt hinges of size 100mm x 75mm x				
	3.55mm with necessary screws etc.,				
	01 no. of SS tower bolt of size 200mm				
	(L), SS MORTICE LOCK (Godrej, IPSA				
	or DORMA) complete with all labour				
	and material including the cost of				
	steel hinges, locks, door stoppers,				
	hydraulic door closures, etc.				
5	Blinds: Supply and fixture of wooden	Sq. ft.	75		
	venetian blinds mounted with SS	-			
	powder coated channel and fabric				
	strips.				
6	Seepage treatment	LS	3		
7	Signage & Name Plates: Supply and	Nos.	21		
_ ′	installation of name plates and	1103.	41		
	_				
	signage of desired sizes, shape and colour.				
0		1.0	2		
8	Dismantling: Dismantling of	LS	3		
	existing interior which involve the				
	following jobs: dismantling or				
	removal of furniture, dismantling of				
	existing doors, removal of all debris				
	from the premises and making good				
	of all the damaged portion as per				
	requirement				
Electri	fication Details for OFFICE ROOM - 4	·, 11 & 12			
9	Point wiring with 3 x 1.5 sq. mm	Nos.	30		
	in PVC conduit:				
				1	

	Wiring for light point/fan			
	point/exhaust fan point/call bell			
	point with 03 nos. single core 1.5			
	sq.mm size FRLS PVC insulated			
	copper cable in recessed using			
	medium grade ISI approved 25mm			
	size PVC conduit & accessories, suitable GI box as required. (Colour			
	codes - phase - R/Y/B; Neutral -			
	Black & Earth - Green). Concealed			
	point wiring includes laying of PVC			
	conduit in the roof/wall also.			
10	Light plug point wiring with 3 x 1.5	M	120	
	sq. mm PVC wire in PVC conduit:			
	Wiring for light plug point with 03			
	nos. single core 1.5 sq.mm size FRLS			
	PVC insulated copper cable in recess			
	using medium grade ISI approved			
	25mm size PVC conduit &			
	accessories etc. as required. (Colour			
	codes: Phase - R/Y/B; Neutral -			
	Black & Earth - Green). Concealed			
	wiring includes laying of PVC conduit			
	in the roof/wall also.			
11	Circuit wiring with 3 x 2.5 sq. mm PVC wire in PVC conduit:	M	60	
	PVC wire in PVC conduit:			
	Wiring for circuit/sub main from			
	MCB DB to desired Switch Board			
	with 03 nos. single core 2.5 sq.mm			
	size FRLS PVC insulated copper			
	cable in recess using medium grade			
	ISI approved 25mm size PVC conduit			
	& accessories (Colour codes: Phase -			
	R/Y/B; Neutral - Black & Earth -			
•				
	Green). Concealed circuit wiring			
	includes laying of PVC conduit in the			
12	,	M	120	
12	includes laying of PVC conduit in the roof/wall also.	M	120	
12	includes laying of PVC conduit in the roof/wall also. Power wiring with 3 x 4 sq.mm PVC wire PVC wire in PVC conduit:	M	120	
12	includes laying of PVC conduit in the roof/wall also. Power wiring with 3 x 4 sq.mm PVC wire PVC wire in PVC conduit: Wiring for circuit/sub main/Power	M	120	
12	includes laying of PVC conduit in the roof/wall also. Power wiring with 3 x 4 sq.mm PVC wire PVC wire in PVC conduit: Wiring for circuit/sub main/Power wiring from MCB DB to desired	M	120	
12	includes laying of PVC conduit in the roof/wall also. Power wiring with 3 x 4 sq.mm PVC wire PVC wire in PVC conduit: Wiring for circuit/sub main/Power wiring from MCB DB to desired switch board/power point with 03	M	120	
12	includes laying of PVC conduit in the roof/wall also. Power wiring with 3 x 4 sq.mm PVC wire PVC wire in PVC conduit: Wiring for circuit/sub main/Power wiring from MCB DB to desired switch board/power point with 03 nos. single core 04 sq.mm size FRLS	M	120	
12	includes laying of PVC conduit in the roof/wall also. Power wiring with 3 x 4 sq.mm PVC wire PVC wire in PVC conduit: Wiring for circuit/sub main/Power wiring from MCB DB to desired switch board/power point with 03 nos. single core 04 sq.mm size FRLS PVC insulated copper cable in recess	M	120	
12	includes laying of PVC conduit in the roof/wall also. Power wiring with 3 x 4 sq.mm PVC wire PVC wire in PVC conduit: Wiring for circuit/sub main/Power wiring from MCB DB to desired switch board/power point with 03 nos. single core 04 sq.mm size FRLS	M	120	
12	includes laying of PVC conduit in the roof/wall also. Power wiring with 3 x 4 sq.mm PVC wire PVC wire in PVC conduit: Wiring for circuit/sub main/Power wiring from MCB DB to desired switch board/power point with 03 nos. single core 04 sq.mm size FRLS PVC insulated copper cable in recess using medium grade ISI approved	M	120	
12	includes laying of PVC conduit in the roof/wall also. Power wiring with 3 x 4 sq.mm PVC wire PVC wire in PVC conduit: Wiring for circuit/sub main/Power wiring from MCB DB to desired switch board/power point with 03 nos. single core 04 sq.mm size FRLS PVC insulated copper cable in recess using medium grade ISI approved 25mm size PVC conduit &	M	120	

	includes laying of PVC conduit in the roof/wall also.			
13	Circuit wiring with 3 x 10 sq. mm PVC wire in PVC conduit:	M	60	
	Wiring for circuit/sub main wiring from VTPNDB to MCB DB with 03 nos. Single core 10 sq.mm size FRLS PVC/XLPE insulated copper cable in recess using medium grade ISI approved 32mm size PVC conduit & accessories.			
	Concealed sub main wiring includes laying of PVC conduit in the roof/wall also.			
14	Supply and Fixing of 8 Module Switchboard:	Nos.	6	
	Supply and Fixing of 8 Module type Switch Board Box shall be made out of steel sheet of min 1.20 mm thickness and complete finished box should be duly pretreated, zinc coated & passivated or made of GI sheet of 1.2mm thickness to accommodate specified number of electrical accessories and suitable for indoor electrical installation with provision for earthing terminal.			
	Modular type Frame Plate with matching Cover Plate suitable for above switch board box suitable to accommodate specified number of electrical accessories. Frame Plate shall be made out of polycarbonate. The configurations for the relevant plate are defined as under:			
	A - Number of Rows: 1 B - Number of openings:8 C - Size of opening: 1M Internal connection of wire is included in the item.			
15	Supplying and fixing of 6 A S/Socket:	Nos.	15	
	Supplying and fixing 03 module GI box with modular plate and cover in front on recess, including providing			

	and fixing 3 pin 5/6 amps modular socket outlet and 5/6 amps modular switch, connection etc. as required. Modular type switch shall be ISI marked switch modular, unenclosed, push/piano type suitable for flush mounting with screw type terminals suitable for 250V, 50Hz. supply and conforming to IS:3854/1997 Reaffirmed 2007. Modular socket outlet, flush type mounting, nonshuttered type for 250V, 50Hz. supply and conforming to IS:1293/2005 with amendments No. 1, 2 & 3. The dimensions shall be as per annexure `A of IS: 1293/2005 with amendments No. 1, 2 & 3 Note:-Dimensions and withdrawal force			
16	values for 2 - pin sockets and 5-pin sockets shall be as per IS:1293. Supplying and fixing 16 A	Nos.	5	
10	Supplying and fixing 16 A S/Socket: Supplying and fixing 3 module GI box	NOS.	3	
17	with modular plate and cover in front on recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection etc. as required. Modular type switch shall be ISI marked switch modular, unenclosed, push/piano type suitable for flush mounting with screw type terminals suitable for 250V, 50Hz. supply and conforming to IS: 3854/1997 Reaffirmed 2007. Modular socket outlet, flush type mounting, non-shuttered type for 250V, 50Hz. supply and conforming to IS:1293/2005 with amendments No.1, 2 & 3. The dimensions shall be as per annexure `A of IS: 1293/2005 with amendments No.1, 2 & 3 Note: Dimensions and withdrawal force values for 2 - pin sockets and 5-pin sockets shall be as per IS:1293.	Nos.	3	
17	Supply and fixing of 20 A Metallic Switch Socket with RCBO: Supplying and installation of recess	Nos.	3	
	type 20A metallic plug/socket DB complete with 20A Plug and Socket			

	and 20 A DP RCBO,30mA sensitivity for AC.			
18	Supply and fixing of 6 A Modular Switch:	Nos.	30	
	Supply and fixing of 6 A Modular switch in the existing modular boxes. Modular type switch shall be ISI marked switch modular, unenclosed, push/piano type suitable for flush mounting with screw type terminals suitable for 250V, 50Hz. supply and conforming to IS: 3854/1997 Reaffirmed 2007.			

Notes:

- 1. Bidder shall perform the renovation work as per minimum specifications elaborated in this Tender. The successful bidder shall have the entire responsibility to complete the renovation work.
- 2. This specification covers supply, installation and commissioning as per detailed in the specifications.
- 3. Payment of all the line items shall be on actual basis.

End of Section-IV

Section-II

REVISED TERMS OF REFERENCE AND TECHNICAL SPECIFICATIONS OF EQUIPMENT/SCOPE OF WORK

- 1.0 <u>INTRODUCTION</u>: Oil India Ltd (OIL), a premier National Oil Company engaged in the business of Exploration, Production and Transportation of Crude Oil and Natural Gas intends for 'Renovation of 03 (Three) nos. office rooms of Instrumentation Department'.
- **2.0 DESCRIPTION:** This section establishes the scope and describes the specifications, instructions, standards and other documents including the specifications for any tools//equipment/materials to be supplied, which the Contractor shall satisfy or adhere to in the performance of the work.

3.0 SCOPE OF WORK

- 3.1 **Room Size** As per attached drawing (ANNEXURE-X)
- 3.2 Instrumentation Department of Oil India Ltd. is located at 2nd floor R&D Building, Oil India Ltd. Duilajan.
- 3.3 Bidder has to perform the renovation work as per minimum specifications elaborated in this Tender. The successful bidder shall be entirely responsible for completion of the renovation work.
- 3.4 The designs, drawings, specifications and schedule of items shall be considered as a part of this contract. Layout drawings, schematic drawing, and any other drawing required for execution of the job shall be prepared and submitted by contractor to HoD (Inst.) within 15 (Fifteen) days from the date of issuance of the LOA for approval. Job shall start only after approval of drawings by HoD (Inst.) in writing. Representative of contractor shall visit office of HoD (Inst.) for consultation on layout of civil drawings before preparation of drawings.

4.0 SUPPLY, INSTALLATION AND COMMISSIONING

The following jobs shall have to be carried out as a part of the renovation contract:

- 4.1 Wall Paneling: Providing, fitting and fixing of paneling on walls up-to a full eye exposed height from floor (2700 mm). The partition will be suspended with aluminum hollow tubular section of 25mm*25mm with a bar support at an interval of 600 mm vertically. The cavity between the sections will be utilized for internal cable management. 12mm borer proof ISI marked BWP grade solid ply (GREEN PLY, CENTURY OR ARCHID PLY) to be fixed to SECTION frame and finished with ISI marked 1.0mm thick laminated sheet (MERINO, GREEN, CENTURY) of prescribed shade and color and complete in all respect. Providing, fitting and fixing of attached wooden file storage cabinets (big & small) as per room layout (details given in SOW point no. 4.9 & 4.10) along with the wall paneling. The paneling design can be a combination of maximum two shades or texture of tiles to match the ceiling, flooring and the decor and ambience of the OFFICE (as per approved design by OIL).
- 4.2 **Flooring:** Providing and laying vitrified floor tiles of size 597 mm x 597 mm and thickness not less than 10 mm including 100 mm skirting complete and with water absorption's less than 0.08% and conforming to IS:15622 of approved make in all colors and shades, laid on 20 mm thick cement mortar 1:4 (1 cement:4 coarse sand) including grouting the joints with white cement and matching pigments etc.

- 4.3 <u>False Ceiling</u>: Moisture Resistant Ceilings: False Ceiling: Providing, fitting, and fixing of suspended designer false ceiling of GI channel with sound acoustic armstrong ceiling tiles of 600mm*600mm*14mm thickness at a height of 2700mm from floor level including jointing, priming and painting with two or more coats of plastic emulsion paint and complete in all respect. GI/MS bar hanger fixed with Anchor Fastener from the roof with alignment clip providing positions for light fitting etc.
- 4.4 **Flush Door with Chokhat:** Providing and fixing flush door shutters solid core construction (green ply, gattani, century or similar) with frame of 1st class hard wood with cross band and finishing with 1 mm thick laminate of approved brand (MERINO, GREEN OR CENTURY) on both sides conforming to relevant I.S code including oxidized iron butt hinges (100 mm x 75 mm x 3.5 mm) 6 nos. with necessary wood screws., 01 no. of SS tower bolt of size 200 mm(L), SS MORTICE LOCK (Godrej, IPSA or DORMA) complete with all labour and material including the cost of steel hinges, locks, door stoppers, hydraulic door closures, etc.

 Thickness 30mm
- 4.5 **<u>Blinds</u>**: Supply and fixture of wooden venetian blinds mounted with SS powder coated channel and fabric strips.
- 4.6 **Seepage treatment:** The party should ensure that the design of the rooms to be such that the condensation problem is mitigated.
- 4.7 **Signage & Name Plates:** Supply and installation of Name plates and sign ages of desired sizes, shape and color.
- 4.8 **<u>Dismantling</u>**: Dismantling of existing interior which involves the following jobs: dismantling or removal of furniture, dismantling of existing doors, removal of all debris from the premises and making good of all the damaged portion as per requirement.
- 4.9 **Storage: Small** File storage cabinet of dimension 6' 5" X 3' X 18", with 19 mm waterproof ply board (MERINO, GREEN, CENTURY or similar) along with 0.75 mm laminates (MERINO, GREEN OR CENTURY) of approved brands on inner side and 1 mm laminates (MERINO, GREEN OR CENTURY) on the exterior side fitted with all necessary hinges and fittings.
- 4.10 **Storage: Big** File storage cabinet of dimension 9" X 7' X 18", with 19mm waterproof Ply board (MERINO, GREEN, CENTURY or similar) along with 0.75 mm laminates of approved brands on inner side and 1 mm laminates on the exterior side fitted with all necessary hinges and fittings.
- 4.11 <u>UPVC Windows:</u> Providing, fitting and fixing standard UPVC Casement windows and ventilators of 80 mm profile sections and other sections of approved brands and jointed with SS screws (manufactured to IS: 733 and IS: 1285 specifications), fastened by 6mm x 3.15mm lugs 100mm long embedded in CC blocks 150mm x 100mm in 1:3:6 mix providing and fixing EPDM rubber, handles, frictions stays, joining cleat, bolting device, locking arrangement, spring catch as required complete as per approved design and directed for all levels.
- 4.12 The contractor shall supply of putty, distemper and enamel paint of approved brand and paint the walls with two coats of washable distemper paint after making the surface smooth by applying putty wherever necessary.
- 4.13 In addition to above any other job/materials specifically not mentioned but required to make the renovation job complete are included in the Contractor's scope.

The decision of color, shades selection of items shall be taken by OIL only.

- 4.14 The detailed quantities of all line items are indicated in the SOR (Schedule of Rates). The contractor should note that the final work may slightly vary depending on the site conditions at the time of execution The Payment of all line items of SOR shall be made on actual basis.
- 4.15 All materials, manpower, tools, equipment and consumables shall be in the scope of supply of contractor required for completion of the job.

5.0 ELECTRICAL SPECIFICATIONS

5.1 Supplying, fitting and fixing of electrical system with all wiring. For detailed Electrical specification please refer below:

5.1.1 Point wiring with 3 x 1.5 sq. mm in PVC conduit:

Wiring for light point/fan point/exhaust fan point/call bell point with 03 nos. Single core 1.5 sq.mm size FRLS PVC insulated copper cable in recessed using medium grade ISI approved 25mm size PVC conduit & accessories, suitable GI box as required. (Color codes - Phase - R/Y/B; Neutral - Black & Earth - Green)). Concealed Point wiring includes laying of PVC conduit in the roof/Wall also.

5.1.2 Light plug point wiring with 3x1.5 sq. mm PVC wire in PVC conduit:

Wiring for light plug point with 03 nos. Single core 1.5 sq.mm size FRLS PVC insulated copper cable in recess using medium grade ISI approved 25mm size PVC conduit & accessories, etc. as required. (Color codes - Phase - R/Y/B; Neutral - Black & Earth - Green)). Concealed wiring includes laying of PVC conduit in the roof/Wall also.

5.1.3 Circuit wiring with 3x2.5 sq. mm PVC wire in PVC conduit:

Wiring for circuit/sub main from MCB DB to desired Switch Board with 3 nos. Single core 2.5 sq.mm size FRLS PVC insulated copper cable in recess using medium grade ISI approved 25mm size PVC conduit & accessories, (Color codes: Phase - R/Y/B; Neutral - Black & Earth-Green). Concealed circuit wiring includes laying of PVC conduit in the roof/Wall also.

5.1.4 Power wiring with 3 x 4sq.mm PVC wire PVC wire in PVC conduit:

Wiring for circuit/sub main/Power wiring from MCB DB to desired Switch Board/power point with 3 nos Single core 4 sq.mm size FRLS PVC insulated copper cable in recess using medium grade ISI approved 25mm size PVC Conduit & accessories, (Color codes: Phase - R/Y/B; Neutral - Black & Earth Green). Concealed circuit wiring includes laying of PVC conduit in the roof/Wall also.

5.1.5 Circuit wiring with 3x10 sq. mm PVC wire in PVC conduit:

Wiring for circuit/sub main wiring from VTPNDB to MCB DB with 3 nos. Single core 10 sq.mm size FRLS PVC/XLPE insulated copper cable in recess using medium grade ISI approved 32mm size PVC conuit & accessories. Concealed sub main wiring includes laying of PVC conduit in the roof/wall also.

5.1.6 Supply and Fixing of 8 Module Switchboard:

Supply and Fixing of 8 Module type Switch Board Box shall be made out of steel sheet of min 1.20 mm thickness and complete finished box should be duly pretreated, zinc coated &

passivated or made of GI sheet of 1.2mm thickness to accommodate specified number of electrical accessories and suitable for indoor electrical installation with provision for earthing terminal. Modular type Frame Plate with matching Cover Plate suitable for above Switch Board Box suitable to accommodate specified number of electrical accessories. Frame Plate shall be made out of polycarbonate. The configurations for the relevant plate are defined as under:

- A- Number of Rows: 1
- B- Number of openings: 8
- C- Size of opening: 1M Internal connection of wire is included in the item

5.1.7 Supplying and fixing of 6 A S/Socket:

Supplying and fixing 3 module GI box with modular plate and cover in front on recess, including providing and fixing 3 pin 5/6 amps modular socket outlet and 5/6 amps modular switch, connection etc. as required. Modular type switch shall be ISI marked switch modular, unenclosed, push/piano type suitable for flush mounting with screw type terminals suitable for 250V, 50Hz. supply and conforming to IS: 3854/1997 Reaffirmed 2007. Modular socket outlet, flush type mounting, non-shuttered type for 250V, 50Hz. supply and conforming to IS:1293/2005 with amendments No.1,2&3. The dimensions shall be as per annexure `A of IS: 1293/2005 with amendments No.1,2&3 Note:-Dimensions and withdrawal force values for 2-pin sockets and 5-pin sockets shall be as per IS:1293.

5.1.8 Supplying and fixing 16 A S/Socket:

Supplying and fixing 3 module GI box with modular plate and cover in front on recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection etc. as required. Modular type switch shall be ISI marked switch modular, unenclosed, push/piano type suitable for flush mounting with screw type terminals suitable for 250V, 50Hz. supply and conforming to IS: 3854/1997 Reaffirmed 2007. Modular socket outlet, flush type mounting, non-shuttered type for 250V, 50Hz. supply and conforming to IS:1293/2005 with amendments No.1,2&3. The dimensions shall be as per annexure `A of IS: 1293/2005 with amendments No.1,2&3 Note:-Dimensions and withdrawal force values for 2-pin sockets and 5-pin sockets shall be as per IS:1293.

5.1.9 **Supply and fixing of 20 A Metallic Switch Socket with RCBO:** Supplying and installation of recess type 20A metallic plug/socket DB complete with 20A Plug and Socket and 20 A DP RCBO, 30mA sensitivity for AC.

5.1.10 Supply and fixing of 6 A Modular Switch:

Supply and fixing of 6 A Modular switch in the existing modular boxes. Modular type switch shall be ISI marked switch modular, unenclosed, push / piano type suitable for flush mounting with screw type terminals suitable for 250V, 50Hz. supply and conforming to IS: 3854/1997 Reaffirmed 2007

5.1.11 Supply and fixing of modular type blanking plate:

Supply and fixing of Blank Plate

5.1.12 Supply and fixing of 2 Module Regulator 100W:

Supply and fixing 2 Module step Fan Regulator 100W. Electronic Fan regulator step type (Capacitor Type) with minimum 4 steps (5 position) flush mounting type to IS:11037/1984

(Reaffirm 2005) suitable for electric ceiling fan of voltage 230V, AC, 50 Hz having wattage upto to 100Watts Max. The capacitor used should be of standard make.

- 5.1.13 **Supply, Installation, testing and commissioning of Ceiling fan, 1400mm:** Supply, Installation, testing and commissioning of 1400mm sweep ceiling fan without modular regulator, including wiring the down rods of standard length (upto 30 cm). Fan shall have double bearing with minimum air delivery shall be 230 CMM. Minimum power input shall be 60 W.
- 5.1.14 **Supply, Installation, testing and commissioning of LED 2x2 Luminaires:** Supply, Installation, testing and commissioning of recessed type 35 to 38 W LED CRCA powder coated luminaire complete with all mounting accessories for fixing in the POP type ceiling including supplying, fixing arrangement and connection with 3x1.5 sq. mm FR PVC insulated, copper conductor, single core cable and earthing etc. as required. Minimum output Lumen shall be 3200 and color temperature shall be 5500K to 6500K.Driver shall be external. Efficacy shall be more than 90%. Power factor>0.9, THD < 10%, IEC Compliant for safety.
- 5.1.15 Supply, Installation, Testing & commissioning of 16 way SPN MCB DB: Supply, Installation, Testing & commissioning of 16 way SPN MCB DB with double door, single pole and neutral, sheet steel, MCB distribution board, 240 volt, on surface, complete with 100A tineed 12 way copper bush bar, 12 way neutral bush bar, 12 way earth bar, DIN channel, detachable gland plate, interconnections, phosphatized and power painted including earthing etc. as required DB shall have following as incomer: 63A RCBO, sensitivity 100mA-1 no. outgoings: 20 A MCB, C curve-6nos. and 10 A MCB, C curve-6 nos. RCBO, MCBs and box shall be same make. All accessories like Lugs/Thimble etc. required for installation shall be supplied by Contractor. In case RCBO is 2M width, blank plates shall be fitted in the space.

5.1.16 Supply and Fixing of 200 mm X 250 mm X 100 mm deep metal box:

Supplying and fixing metal box of 200 mm X 250 mm X 100 mm on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc. as required.

5.1.17 Supply and Fixing of 175 mm X 10 mm X 48 mm deep:

Supplying and fixing metal box of 175 mm X 100 mm X 48 mm on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc. as required.

5.2 **DRAWING:**

a) The drawings, specifications and schedule of items shall be considered as a part of this contract. Layout drawings, schematic drawing, and any other drawing required for execution of the job shall be prepared and submitted by contractor to Head (Electrical) 15 days before commencement of work for approval by Head (Electrical). Job shall start only after approval of drawings by Head (Electrical) in writing. Representative of contractor shall visit office of Head (Electrical) for consultation on layout of electrical fittings before preparation of drawings.

5.3 **CLARIFICATION OF DISCREPANCIES:**

In case of any discrepancy between specifications etc. furnished by the Engineer-in-charge (Electrical) or disputes in respect therefore the interpretation of the Engineer-in-charge (Electrical) shall be final and binding.

5.4 **TEST AND DOCUMENTS:**

- a) A site order book shall be maintained at site which shall be in the custody of the Engineer-incharge (Electrical) or his representative and all instructions given to the Contractor shall be recorded in the site order book and the same has to be signed by the contractor to comply with the instruction given therein.
- b) After completion of the work the installation shall be tested by the contractor in the presence of the Engineer-in-charge (Electrical). The tests shall comply the I.E. Rules regulation. Test certificate shall be submitted in proper format while handing over the installation after completion of electrification along with four copies of as built drawings and inventory list and guarantee certificates of electrical items. The job shall be treated as complete only after completion of all works as per SOQ, submission of test report as per IE rules and annexure and four set of as built drawings with inventory list, guarantee certificate for all items and issue of completion certificate by Head (electrical).
- i) The result of the insulation test shall comply with the I.E.E. Regulations 1101 to 1108A and 1108B as may be applicable.
- ii) Polarity test shall be carried out to ascertain that all the switches have been connected to the phase conductor(s).
 - In a 2 wire installation a test shall be made to verify that all switches in every circuit have been fitted in the same conductor throughout and such conductor shall be labeled or marked for connection to the phase conductor or to the non-earthed conductor of the supply.
 - In a 3 wire or 4 wires installation a test shall be made to verify that every non-linked single pole switch is fitted in a conductor which is labeled or marked for connection to one or the phase conductor of supply.
- iii) The continuity test of the earthing system shall comply with the I.E.E. Regulations 1108 to 1109 to the latest addition.
 - If the results of the above tests does not comply with the I.E.E. Regulation the contractor shall be bound to rectify the faults so that the required results are obtained.
 - The contractor shall be responsible to provide all the necessary testing equipment etc. for carrying out the above tests.
- c) The work shall not be considered as complete and taken over by OIL INDIA LTD till all the components of the work after being completed at site in all respects have been inspected/tested by the Engineer-in-charge (Electrical) to his entire satisfaction and a completion certificate issued by the Engineer-in-charge (Electrical) to this effect and submission of inventory list and as built drawing.

5.6 **WORK AND WORKMANSHIP**:

a) The work shall be of the highest standard, both as regard its design and workmanship. Modern tools and first clause, latest techniques shall be employed for its execution. The workmanship shall be guaranteed for one year after commissioning and any defective workmanship during guarantee period must be corrected by the contractor within 15 days after reporting without any cost to OIL.

- b) Any damage done to the building during the execution of work shall be the responsibility of the contractor and it shall be made good by him, at his cost, to the entire satisfaction of the Engineer-in-charge (Electrical).
- c) All electrical work shall be executed by skilled and duly licensed electrician under the direct supervision of whole time electrical supervisor as defined in IE rules. Contractor shall submit the copy of license of his electrician and supervisor and produce the original for verification before starting the job. The contractor shall submit list and produce requisite evidence regarding the qualifications of his supervisor and other workers before the start of the work.

End of Section-II