BOQ

<u>Name of work</u>: Package C- Renovation and Repairing of 4nos. Of Type-V Quarters (Unit-I,II) at 132/33 KV GSS, AEGCL, Sankardevnagar.

NIT No: AEGCL/DGM/TTC/TEZ/T-20/2023-24/207 Dated 12/07/2023

Name of Bidder:

SL NO	DESCRIPTIONS OF ITEMS	QNTY	UNIT	RATE(Rs.)	AMOUNT(Rs.)
	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge. 15.2.2 Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix)	8.16	cum		
2	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead : 15.12.1 Of area 3 sq. metres and below	44.00	Each		
3	Dismantling wood work in frames, trusses, purlins and rafters up to 10 metres span and 5 metres height including stacking the material within 50 metres lead : 15.14.1 Of sectional area 40 square centimetres and above	0.42	cum		
4	Dismantling roofing including ridges, hips, valleys and gutters etc., and stacking the material within 50 metres lead of: 15.28.1 G.S. Sheet	241.92	sqm		
5	Dismantling cement asbestos or other hard board ceiling or partition walls including stacking of serviceable materials and disposal of unserviceable materials within 50 metres lead.	34.56	sqm		
6	Dismantling W.C. Pan of all sizes including disposal of dismantled materials i/c malba all complete as per directions of Engineer-in-Charge.	4.00	Each		
7	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 4.1.5 1:3:6 (1 Cement : 3 coarse sand (zone-III) derived from natural sources : 6 graded stone aggregate 20 mm nominal size derived from natural sources)	6.76	cum		
8	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level.6.13.2 Cement mortar 1:4 (1 cement :4 coarse sand)	5.76	sqm		
9	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc. complete. 11.3.1 40 mm thick with 20 mm nominal size stone aggregate	204.08	sqm		
10	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level. 5.22A.1 Mild steel and Medium Tensile steel bars	45.55	kg		
	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement 5.1.2 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size de rived from natural sources)	0.58	cum		
12	Centering and shuttering including strutting, propping etc. and removal of form for 5.9.1 Foundations, footings, bases of columns, etc. for mass concrete	7.68	sqm		
13	12 mm cement plaster finished with a floating coat of neat cement of 13.7.2 1:4 (1 cement: 4 fine sand)	18.32	sqm		

14	Providing and fixing Ist quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	73.92	sqm	
15	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption 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), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joints with white cement and matching pigments etc., complete. 11.41.1 Size of Tile 500x500 mm	204.08	sqm	
16	Providing and laying flamed finish Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge : 11.55.1 Flamed finish granite stone slab Jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent.	7.68	sqm	
17	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05%) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineerin-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	241.92	sqm	
18	Providing and fixing precoated galvanised steel sheet roofing accessories 0.50 mm (+0.05 %) total coated thickness, Zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns using self drilling/ self tapping screws complete :12.51.1 Ridges plain (500 - 600mm)	36.00	meter	
	12.51.4 Barge board (Upto 300 mm Providing and fixing plain multipurpose cement board(Hight pressure	60.00	meter	
19	steam cured) with suitable screws for cement particle board in ceiling etc. complete (frame work to be paid seperatately). 12.26.1 6 mm thick Cement fiber board as per IS: 14862	34.56	sqm	
20	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately). 9.1.3 Kiln seasoned and chemically treated hollock wood	1.33	cum	

21	Providing and fixing 35 mm thick factory made laminated veneer lumber door shutter conforming to IS : 14616 and TADS 15:2001 (Part B), fixing with butt hinges of required size with necessary screws, all complete as per directions of Engineer- in-charge and panelling with panels of : 9.6.1 12 mm thick plain grade -1, medium density flat pressed three layer particle board FPT - I or graded wood particle board FPT- I, IS : 3087 marked, bonded with BWP type synthetic resin adhesive as per IS : 848 :	42.00	sqm	
22	Providing and fixing factory made panel PVC door shutter consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 19 mm x 19 mm for styles and 15x15 mm for top & bottom rails. M.S. frame shall have a coat of steel primers of approved make and manufacture. M.S. frame covered with 5 mm thick heat moulded PVC 'C' channel of size 30 mm thickness, 70 mm width out of which 50 mm shall be flat and 20 mm shall be tapered in 45 degree angle on both side forming styles and 5 mm thick, 95 mm wide PVC sheet out of which 75mm shall be flat and 20 mm shall be tapered in 45 degree on the inner side to form top and bottom rail and 115 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm shall be tapered on both sides to form lock rail. Top, bottom and lock rails shall be provided both side of the panel. 10 mm (5 mm x 2) thick, 20 mm wide cross PVC sheet be provided as gap insert for top rail & bottom rail, paneling of 5 mm thick both side PVC sheet to be fitted in the M.S. frame welded/ sealed to the styles & rails with 7 mm (5 mm+2 mm) thick x 15 mm wide PVC sheet beading on inner side, and joined together with solvent cement adhesive etc. complete as per direction of Engineer-in-charge, manufacturer's specification & drawing. 9.120.2 30 mm thick pre laminated PVC door shutters	15.12	sqm	
23	Providing and fixing aluminium sliding door bolts, ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868), transparent or dyed to required colour or shade, with nuts and screws etc. complete : 9.96.1 300x16 mm	8.00	each	
24	Renewing glass panes and refixing existing wooden fillets: 14.7.1 Float glass panes of nominal thickness 4 mm (weight not less than 10kg/sqm)	12.00	sqm	
25	Removing dry or oil bound distemper, water proofing cement paint and the like by scrapping, sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.	798.32	sqm	
26	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	798.32	sqm	
27	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade: 13.98.1 One or more coats complete including cost of Priming coat.	798.32	sqm	
28	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade : 13.99.1 One or more coats on old work	453.76	sqm	
29	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS:13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required : 17.10.2 Kitchen sink without drain board 17.10.2.3 470x420 mm bowl depth 178 mm	4.00	each	

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30	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100 mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required: White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot rests	4.00	each	
31	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require: 17.7.2 White Vitreous China Wash basin size 630x450 mm with a single 15 mm C.P. brass pillar tap	4.00	each	
32	18.15 Providing and fixing brass bib cock of approved quality : 18.15.1 15 mm nominal bore	12.00	each	
33	Providing and fixing brass stop cock of approved quality : 18.16.1 15 mm nominal bore	4.00	each	
34	Providing and fixing C.P. brass shower rose with 15 or 20 mm inlet : 18.22.1 100 mm diameter	4.00	each	
35	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing : 17.32.1 Circular shape 450 mm dia	4.00	each	
36	Providing and fixing PTMT towel ring trapezoidal shape 215 mm long, 200 mm wide with minimum distances of 37 mm from wall face with concealed fittings arrangement of approved quality and colour, weighing not less than 88 gms.	4.00	each	
37	Providing and fixing PTMT soap Dish Holder having length of 138mm, breadth 102mm, height of 75mm with concealed fitting arrangements, weighing not less than 106 gms.	4.00	each	
38	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.	40.00	metre	
	18.7.3) 25 mm nominal dia Pipes 18.7.1)15 mm nominal dia Pipes	40.00	metre	
39	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge. External work 18.9.9 100 mm nominal dia Pipes	12.00	metre	
40	Providing plinth protection with bricks laid on edge and grouted with cement mortar 1:4 and finishing with cement pointing in prop. 1:1 complete.	68.64	sqm	
41	Providing drain with brick work in cement mortar in proportion 1:5 with half brick thick side walls and 100mm thick C.C (1:3:6) base over one brick flat soling including 15mm thick cement plastering in prop. 1:3 finished with a floating coat of cement slurry as directed with necessary shttering for sides and earth work in excavation of foundation trenches and refilling the sides after completion of work etc. as specified. i). 300mm wide and average 150mm deep with bed slope 1 in 150 with initial depth of 100mm.	114.40	metre	
42	Providing brick soling in foundation and under floor with stone/ best quality picked jhama brick, sand packed and laid to level and in panel after preparing the subgrade as directed including all labour and materials and if necessary dewatering, complete.	40.00	sqm	

Wiring to 5 a pin 6 Amps plug point with 1.5 sq. mm P.V.C. insulated single core unsheathed industrial (Multistrand) cable FR conforming to IS-694: 1990 with flexible bright annealed electrolytic copper conductor for voltage grade up to 1100 volts (Finolex /RR Kabel /Nicco / Anchor or Equivalent make as approved by the Deptt.) with flat 19 mm ISI marked casing in 'capping (AKG / Precision/ Presto Plast/Polycab/ MW or equivalent make as approved by the Deptt.) in surface system, including 5 pin 6 Amps flush type plug socket and 6 Amps F/T switch (Anchor penta /Gold medal /Kolor kany.Kom/Havells or equivalent make as approved by the Deptt.) of IM S switch board (I.S.I. marked) with phenoic laminated sheet cover including earth continuity with 1.5 sq. mm. cable to third pin of the plug socket et. as required complete, when placed elsewhere. 1.2.1 Short point up to 3.00 metre. length. 12.00 each Wiring for drawing sub-main line with P.V.C. insulated single core unsheathed industrial (Multistrand) cable FR conforming to IS-694: 1990 with flexible bright annealed electrolytic copper conductor for voltage grade up to 1100 volts (Finolex /RR Kabel /Nicco / Anchor or Equivalent Make as approved by the Deptt.) PVC conduit (Berlia/ AKG / Precision/ Presto Plast/Polycab/ MW or equivalent make as approved by the Deptt.) including earth continuity with 1x1.5 sq. mm. in 20 mm. dia. 2mm thick/ heavy rigid PVC IS: 9537 PART - III rigid PVC conduit wiring system. 150.00 metre 46 60 the following capacity complete with making necessary connection as approved, specified and directed by the deptt. 16.1.1.2)6 to 32A 4.00 each	43	Wiring for light/ fan/ call bell point with 2x1.5 sq mm P.V.C. insulated single core unsheathed industrial (Multistrand) cable FR conforming to IS-694: 1990 with flexible bright annealed electrolytic copper conductor for voltage grade up to 1100 volts (Finolex /RR Kabel /Nicco / Anchor or Equivalent Make as approved by the Deptt.) with flat 19 mm ISI marked casing 'n' capping (AKG / Precision/ Presto Plast/Polycab/ MW or equivalent make as approved by the Deptt.) in surface system, including 6 Amp flush type switch/ bell push (Anchor Penta/Gold medal /Kolor kany.Kom/ Havells or equivalent make as approved by the Deptt.) GI/ MS switch board (ISI marked) half conceal on wall with phenolic laminated sheet cover ,ceiling rose (Anchor/Gold medal /Kolor kany.Kom / Havells or equivalent make as approved by the Deptt.) etc. complete as directed and specified by the Deptt.	80.00	Each		
 single core unsheathed industrial (Multistrand) cable FR conforming to IS-694: 1990 with flexible bright annealed electrolytic copper conductor for voltage grade up to 1100 volts (Finolex /RR Kabel/Nicc / Anchor or Equivalent Make as approved by the Deptt). with flat 19 mm ISI marked casing 'n' capping (AKG / Precision' Presto Plast/Polycab/MW or equivalent make as approved by the Deptt). Instrace system, including 5 pin 6 Amps flush type plug socket and 6 Amps F/T switch (Anchor op enta /Gold medal /Kolor kany. Kom/Havells or equivalent make as approved by the Deptt). Switch board (ISI.I marked) with phenolic laminated sheet cover including earth continuity with 1.5 sq. mm. cable to third pin of the plug socket et. as required complete, when placed elsewhere. 1.2.1 Short point up to 3.00 metre. length. Wiring for drawing sub-main line with P.V.C. insulated single core unsheathed industrial (Multistrand) cable FR conforming to IS-694: 1990 with flexible bright annealed electrolytic copper conductor for voltage grade up to 1100 volts (Finolex /RR Kabel /Nicco / Anchor or Equivalent Make as approved by the Deptt). PVC conduit (Berlia/ KKG / Precision) Presto Plast/Polycab/ MW or equivalent make as approved by the Deptt.) including earth continuity with 1x1.5 sq. mm. in 20 mm. dia. 2mm thick/ heavy figid PVC IS: 9537 Part - III conduit. Presto Plast/Polycab/ MW or equivalent make as approved by the Deptt.) Including earth continuity with 1x1.5 sq. mm. in 20 mm. dia. 2mm thick/ heavy rigid PVC IS: 9537 Part - III conduit. Supplying with fitting and fixing single Pole 10 KA 240/415V 50Hz MCB of the following capacity complete with making necessary connection as approved, specified and directed by the deptt. 16.1.1.2)6 to 32A Total = 		Medium point up to 6.00 metre. Length.	40.00	each		
unsheathed industrial (Multistrand) cable FR conforming to IS-694: 1990 with flexible bright annealed electrolytic copper conductor for voltage grade up to 1100 volts (Finolex /RR Kabel /Nicco / Anchor or Equivalent Make as approved by the Deptt.) PVC conduit (Berlia/ AKG / Precision/ Presto Plast/Polycab/ MW or equivalent make as approved by the Deptt.) including earth continuity in surface/ recessed 20 mm. dia. 2mm thick/ heavy ISI marked IS: 9537 PART - III rigid PVC conduit wiring system. 2,7.1. With 2 x 2.5 sq. mm. + earth continuity with 1x1.5 sq. mm. in 20 mm. dia. 2mm thick/ heavy rigid PVC IS: 9537 Part - III conduit.If 50.00metre46Supplying with fitting and fixing single Pole 10 KA 240/415V 50Hz MCB of the following capacity complete with making necessary connection as approved, specified and directed by the deptt. 16.1.1B Series (Scheeider MG, legrand, Hager make) 16.1.1.2)6 to 32A4.00each	44	single core unsheathed industrial (Multistrand) cable FR conforming to IS- 694: 1990 with flexible bright annealed electrolytic copper conductor for voltage grade up to 1100 volts (Finolex /RR Kabel /Nicco / Anchor or Equivalent Make as approved by the Deptt.) with flat 19 mm ISI marked casing 'n' capping (AKG / Precision/ Presto Plast/Polycab/ MW or equivalent make as approved by the Deptt.) in surface system, including 5 pin 6 Amps flush type plug socket and 6 Amps F/T switch (Anchor penta /Gold medal /Kolor kany.Kom/Havells or equivalent make as approved by the Deptt.), GI/ MS switch board (I.S.I. marked) with phenolic laminated sheet cover including earth continuity with 1.5 sq. mm. cable to third pin of the plug socket etc. as required complete, when placed elsewhere.	12.00	each		
46 MCB of the following capacity complete with making necessary connection as approved, specified and directed by the deptt. 4.00 each 46 16.1.1B Series (Schneider MG, legrand, Hager make) 16.1.1.2)6 to 32A Total =	45	unsheathed industrial (Multistrand) cable FR conforming to IS-694: 1990 with flexible bright annealed electrolytic copper conductor for voltage grade up to 1100 volts (Finolex /RR Kabel /Nicco / Anchor or Equivalent Make as approved by the Deptt.) PVC conduit (Berlia/ AKG / Precision/ Presto Plast/Polycab/ MW or equivalent make as approved by the Deptt.) including earth continuity in surface/ recessed 20 mm. dia. 2mm thick/ heavy ISI marked IS: 9537 PART - III rigid PVC conduit wiring system. 2,7.1. With 2 x 2.5 sq. mm. + earth continuity with 1x1.5 sq. mm. in 20	150.00	metre		
	46	MCB of the following capacity complete with making necessary connection as approved, specified and directed by the deptt. 16.1.1B Series (Schneider MG, legrand, Hager make)	4.00	each	TT-4, 1	
	Add 18% GST= Grand Total (Including GST)=					