



Tender No. CPM/UMB/UTILITY- SHIFTING/HR-02

For

CONSTRUCTION OF SERVICE AND RESIDENTIAL BUILDINGS FOR SHIFTING OF UTILITIES IN CONNECTION WITH PROVIDING ENCUMBRANCE-FREE LAND BETWEEN KALANAUR TO AMBALA CITY IN THE JURISDICTION OF CPM/AMBALA.

FINANCIAL BID

Employer:

**DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LIMITED
(A GOVERNMENT OF INDIA ENTERPRISE**

Under

MINISTRY OF RAILWAYS)

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SUMMARY OF QUANTITIES, ITEMS & RATES

Name of Work: Construction of Service and residential buildings for Shifting of Utilities in connection with providing encumbrance-free land between Kalanaur to Ambala City in the jurisdiction of CPM/ Ambala.

I/We the undersigned hereby offer the summary of prices for the subject work as under: -

BILL OF QUANTITIES

S.No.	Item	Total Cost as per BOQ (Rs.)	Percentage Above/ Below/ At par of total cost as per BOQ (%age)
1	Schedule A- (Civil Works USSOR-2010 Items)	115862924.89	In Figure..... In Words.....
2	Schedule B- (Civil Works-NS Items)	29050129.33	In Figure..... In Words.....
3	Schedule C- (Electrical Works- SOR 2003)	1161253.00	In Figure..... In Words.....
4	Schedule D- (Electrical Works- NS Items)	6816385.10	In Figure..... In Words.....
		Total	(Total Amount Rs.) In Figure..... In Words.....

Notes:

- I) The above prices are inclusive of all taxes, duties including Excise duty, Sales Tax, Octroi, Local levies, Sales tax etc on works contract.
- II) The bidder should quote single percentage above / par / below for all items.
- III) The bidder must quote percentage both in words and figures, in case of any discrepancy; percentage quoted in words shall be final.

 Bidder's Signature

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- IV) No overwriting is allowed. In case of overwriting, this is to be attested by bidder.
- V) If the uniform percentage quoted by the bidder does not clearly indicate whether the rates are above/at par/below the estimated rates by sign convention then it will be considered to be on plus side.

Signature of Bidder

PART-I

Civil Engineering Works

EXPLANATORY NOTES TO QUOTE SCHEDULE OF PRICES

1. A detailed BOQ is given, however if need arises, any new item can be operated and the bidder shall be bound to execute the same, as per the direction of Engineer. If the item is operated as per USSR-2010, the already quoted percentage shall be considered for the payment; in case an NS item is operated, separate rate analysis as per direction of Engineer shall be done and shall be binding to the bidder.

2. Demolition/dismantling is not included in BOQ, however, if need arises bidder shall be bound to execute the same and the same shall be paid under relevant item of USSR-2010. In case of Non Schedule item separate rate analysis as per direction of Engineer shall be done and shall be binding to the bidder.

Name of Work: CONSTRUCTION OF SERVICE AND RESIDENTIAL BUILDINGS FOR SHIFTING OF UTILITIES IN CONNECTION WITH PROVIDING ENCUMBRANCE-FREE LAND BETWEEN KALANAUR TO AMBALA CITY IN THE JURISDICTION OF CPM/AMBALA.						
SCHEDULE A: ITEMS BASED ON USSOR-2010						
S.No.	USSR-2010 Item No	Description	Unit	Qty	Rate	Amount
1.0 EARTH WORK						
1	011010	Earth work in excavation as per approved drawings and dumping at embankment site or spoil heap, within railway land, including 50m lead and 1.5m lift, the lead to be measured from the centre of gravity of excavation to centre of gravity of spoil heap; lift to be measured from natural ground level and paid for in layers of 1.5m each including incidental works, as per specifications.				
1(a)	011011	All kinds of soil.	cum	5173.93	81.36	420951.27
1(b)	012010	Extra over item 011010 for excavation in foundations for buildings and bridges to cover dressing to neat dimension and plumbing sides etc. Note : Dressing under this item is payable for the total quantity of excavation in foundation and not partly	Cum	4667.51	8.70	40607.37
1(c)	012030	Extra for watering and ramming earth in foundation and floors in 15cm layers. Note : This item is payable where ramming is not included in the original rate for earthwork in filling.	cum	3828.69	15.40	58961.75
1(d)	012050	Supplying and filling sand in plinth and under floors including watering, ramming, consolidating and dressing complete	cum	946.14	725.00	685954.07
2	013120	Earthwork in filling in embankment, guide bunds, around buried type abutments, bridge gaps, trolley refuges, rain bunds if provided, platforms etc. with earth excavated from outside railway boundary entirely arranged by the contractor at his own cost as per RDSO's latest guidelines and specifications and special condition of contract including all leads, royalty, lifts, ascents, descents, crossing of nallahs or any other obstructions. The rates shall include all dressing of bank to final profile, demarcation and setting out of profile, site clearance, removing of shrubs, roots of vegetations growth, heavy grass, benching of existing slope of old bank, all handling/re-handling, taxes, octroi and royalty etc. as a	cum	3227.91	213.67	689707.33

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		complete job. Cut trees shall be property of railways and to be deposited in the railway/DFCCIL godown unless specified otherwise in the special conditions of contract.				
3	014010	Dressing Surface (average excavation or filling upto 15 cm) including removing vegetation in all kind of soil. Payment against this item is to be made only if it is not included in earth work item.	10sq m	8620.01	54.90	473238.52
4	014110	Providing & removing barricading with the help of portable fencing along the running track where the work is to be done in close vicinity of the track. Fencing shall consist of self supporting steel angles of size 50x50x6mm, 1.5m long provided with hooks etc. and embedded in CC 1:2:4 block of size 0.23x0.23x0.23m placed at c/c distance of 2m lalong track. 12mm dia rods in three horizontal layers tack welded with the angle posts including providing retro-reflective tapes in horizontal & verticle direction. Note: Released material will be the property of the contractor after the completion of work. Cost of cement to be paid separately.	per mtr.	100.00	382.62	38262.00
5	171690	Providing & applying Pre-Construction Anti-Termite treatment to proposed structure, with application of Imidacloprid 30.5% SC @ 0.075% concentration mixed with water in ratio of 1:475, as per detailed specifications given in Indian Railways Standard Specifications, so as to create a chemical barrier below and around the structure by an approved agency(plinth area/ basement floor area shall be considered for payment)	Sqm	8879.17	70.81	628734.35
		3.0 PLAIN CONCRETE				
6	031010	Providing and laying in position cement concrete of specified proportion excluding cost of cement, centering and shuttering - All works upto Plinth level : Note: Cement shall be paid under relevant USSOR item in Schedule (A)				
6 (a)	031012	1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size).	cum	413.77	1882.49	778924.96
6 (b)	031013	1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size).	cum	629.28	1751.75	1102336.79
7	031020	Providing and laying cement concrete, up to plinth in retaining walls, walls (any thickness) including attached plasters, columns, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets etc, excluding the cost of cement, shuttering,				

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		centering. Note: Cement shall be paid under relevant USSOR item in Schedule (A)				
7(a)	031023	1:2:4 (1 Cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	cum	109.23	2137.59	233493.09
8	032050	Providing and laying cement concrete 1:2:4 in damp-proof course (1 cement : 2 sand : 4 graded stone aggregate 12.5mm nominal size - excluding the cost of cement and including providing, fixing and removal of forms. Note: Cement shall be paid under relevant USSOR item in Schedule (A)				
8(a)	032052	40mm thick	sqm	1300.53	130.50	169719.25
9	032070	Applying a coat of residual petroleum bitumen of penetration 80/ 100 of approved quality using 1.7kg per square metre on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.	Sqm	1402.07	127.53	178806.58
10	033060	Supply & using cement at worksite:				
10 (a)	033061	OPC 43 Grade	MT	4194.37	5474.00	22959981.38
11	033130	Supplying & Mixing high range poly carboxylate ether base water reducing admixture plast Super-C700 conforming to IS:9103-1999 (to be added @ 1% by weight of cement) for CC & RCC work for controlling water cement ratio and for gaining early strength.	Kg	1000.00	72.62	72620.00
		4.0 REINFORCEMENT CEMENT CONCRETE				
		A - FORM WORK				
12	042010	Centering and shuttering including strutting, propping etc. and removal of form for :				
12 (a)	042011	Foundations, footings, bases of columns, raft foundation of washable aprons, Pile caps, Footings of FOB etc.	sqm	1530.60	120.60	184590.13
12 (b)	042013	Suspended floors, roofs, landings, balconies, FOB slabs, walkway slabs and access platform	sqm	9639.50	185.57	1788801.49
12 (c)	042014	Lintels, beams, plinth beams, bed blocks, girders, bressumers and cantilevers	sqm	7075.02	163.20	1154643.69
12 (d)	042015	Columns, pillars, , posts and struts	Sqm	672.48	240.50	161731.44
12 (e)	042016	Stairs (excluding landings) except spiral-staircases	sqm	470.04	225.10	105806.00
12 (f)	042018	Arches, domes, vaults upto 6m span	sqm	161.39	589.10	95074.08
12 (g)	042025	Edges of slabs and beams in floors and walls under 20 cm wide	metre	141.20	65.70	9276.84

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12 (h)	042026	Edges of slabs and beams in floors and walls above 20 cm wide	sqm	198.03	309.20	61232.11
12 (i)	042028	Small surfaces such as cantilever ends, brackets and ends of steps, caps and bases to pilasters and columns and items of similar shape and size	sqm	170.32	291.90	49716.58
12 (j)	042029	Weather shade, Chajjas, corbels etc. including edges	sqm	748.64	331.42	248115.35
B - STEEL REINFORCEMENT						
13	045010	Supplying Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete.				
13 (a)	045011	Mild steel and Medium Tensile steel bars.	Kg	2615.75	44.57	116583.98
13 (b)	045016	Thermo-Mechanically Treated bars	Kg	174032.96	47.58	8280488.19
C- DESIGN MIX CONCRETE						
14	041010	Providing and laying in position M 20 Grade concrete for reinforced concrete structural elements but excluding cost of centering, shuttering, reinforcement and Admixtures in recommended proportion (as per IS:9103) to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer. Note: Cement shall be paid under relevant USSOR item in Schedule (A)				
14 (a)	041012	All work in buildings above plinth level upto floor two level.	cum	1944.89	2645.23	5144679.79
14 (b)	041011	All work upto plinth level, including raft foundation of washable aprons, HS tank, pile cap, footings of FOB, and Platform shelter etc.	cum	350.00	2422.38	847833.00
5.0 BRICK WORK						
15	051040	Extra over item NS-2 Schedule B for brick work in superstructure beyond plinth level upto floor two level :	cum	4785.39	133.42	638466.43
16	051190	Extra for item NS-3 Schedule B half Brick masonry in superstructure above plinth level upto floor two level	sqm	780.79	36.40	28420.91
17	051210	Extra for providing and placing in position 2 Nos. 6mm dia. M.S.bars at every third course of half brick masonry (with non-modular (FPS) bricks) including cost of M.S. bars	sqm	1050.77	50.73	53305.33
18	051230	Providing brick band/string course 10/7 cm thick 5/5.7 cm projected from wall face, in bricks of class designation 7.5 laid in cement mortar 1:4 (1 cement : 4 coarse sand)	metre	1889.47	5.72	10807.79
7.0 WOOD WORK						
A - FRAMES AND TRUSSES						

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19	071010	Providing wood work in frames of doors, windows, celestary windows and other frames and trusses, wrought, framed and fixed in position				
19 (a)	071013	hollock wood or locally available compareable species of country wood , kiln seasoned and chemically treated	cudm	37485.00	44.47	1666957.95
20	072140	Providing and fixing to IS: 2202 Part-1 marked flush door shutter decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3ply veneering with vertical grains or cross bands and face veneers on both faces of shutters				
20 (a)	072141	35mm thick including ISI marked stainless steel butt hinges with necessary screws	sqm	1297.58	1591.73	2065397.17
20 (b)	072143	25mm thick (for cupboard) including ISI marked nickel plated bright finished M.S. piano hinges IS: 3818 marked with necessary screws	sqm	875.16	1372.13	1200839.47
21	078130	Providing and fixing factory made P.V.C. door frame of size 50x47mm with a wall thickness of 5mm, made out of extruded 5mm rigid PVC foam sheet mitered at corners and joined with 2 Nos. of 150mm long brackets of 15x15mm M.S. square tube, the vertical door profiles to be reinforced with 19mm X19mm M.S. Square tube of 19 guage, EPDM rubber gasket weather seal to be provided throughout the frame. The door frame to be fixed to the wall using M.S. Screws of 65mm/100mm size complete as per manufacturer's specifications and direction of Engineer.	metre	1436.40	391.41	562221.32
22	078180	Providing and fixing to existing door frame 24mm thick factory made PVC door shutters made of styles and rails of a PVC hollow section of size 59mm x 24mm with a wall thickness 2mm±0.2mm. The styles and rails mitered cut and joined at corners by means of M.S. galvinsed/plastic brackets of size 75mmX220mm having wall thickness 1.0 mm/solid and fixed with stainless steel screws.the styles of the shutter reinforced by inserting galvanized M.S. tube of size 19mmX19mm with a wall thickness 1mm+-0.1mm. The lock rail made out of H-section, PVC hollow section of size 2mm+-0.2mm, fixed to shutter styles by means of plastic/galvanized M.S. U-cleats. The shutter frame filled with a PVC multi chambered panel of size 20mmX200mm with a wall thickness 1mm+-0.1mm. The panels filled vertically and tie-bar at two places by inserting horizontally 0.6mm galvanized M.S. rod and fastened with nuts & washers.	Sqm	396.90	2247.60	892072.44

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23	072090	Providing and fixing wire gauge shutter using galvanized M.S. wire gauge of average width of aperture 1.4mm with wire of dia 0.63mm for doors, windows and clerestory windows including ISI marked bright finished or black enamelled M.S. butt hinges with necessary screws.				
23 (a)	072091	2nd class teak wood.35mm thick	sqm	774.90	2006.24	1554635.38
23 (b)	072092	2nd class teak wood 30mm thick	sqm	9.45	1821.46	17212.80
24	072020	Providing and fixing panelling/glazing or panelling and glazing in panelled/ glazed or panelled and glazed shutters for doors, windows and clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Panelling/glazing for paneled/glazed or paneled & glazed shutters 25mm to 40mm thick.				
24 (a)	072021	Second class teak wood, 15mm thick	Sqm	23.36	1403.65	32787.58
24 (b)	072022	Hollock wood or locally available comparable species of country wood (to be listed by respective railway). - Kiln seasoned & chemically treated. 15 mm thick	Sqm	850.11	750.56	638058.56
25	072030	Providing and fixing paneling and/or glazing in panelled and/or glazed shutters for doors, windows and clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Panelling/glazing for panelled/ glazed or panelled and glazed shutters 25mm to 40 mm thick				
25 (a)	072037	Glazing with float glass panes 4mm thick (10kg/sqm)	Sqm	679.25	260.07	176651.77
26	072040	Extra for providing heavy float glass panes 13.75kg/ Sqm. (5.5mm thick) instead of ordinary float glass panes 10kg sqm. (4mm thick), in doors, windows and clerestory window shutters. (Area of opening for glass panes excluding portion inside rebate shall be measured.	Sqm	688.21	69.69	47961.63
27	074170	Providing and fixing 18mm thick, 150mm wide pelmet of coir veneer board ISI marked IS: 14842- 2000, including top cover of 6mm coir veneer board, nickel plated M.S. pipe 20mm dia (heavy type) curtain rod with nickel plated brackets including fixing with 25mmx3mm M.S. flat 10cm long and rawl plugs 50mm long (designation 10 no) etc all complete:				
27(a)	074171	Commercial veneering on both sides	metre	1673.10	474.71	794237.30

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28	074230	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. all complete				
28 (a)	074231	Fixed to steel windows by welding	kg	8117.64	64.31	522045.43
		B - ANODISED ALUMINIUM FITTINGS				
29	078020	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				
29 (a)	078021	300x16mm	each	810.00	178.83	144852.30
29 (b)	078022	250x16mm	each	252.00	143.99	36285.48
30	078030	Providing and fixing aluminium tower 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 necessary screws etc. complete				
30 (a)	078033	200x10mm	each	846.00	48.55	41073.30
30 (b)	078034	150x10mm	each	582.00	39.69	23099.58
30 (c)	078035	100x10mm	each	1407.00	29.60	41647.20
31	078060	Providing and fixing aluminium handles ISI marked anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with necessary screws etc. complete				
31(a)	078061	125 mm	each	1907.00	38.04	72542.28
31(b)	078063	75 mm	each	1745.00	30.14	52594.30
32	078070	Providing and fixing aluminium hanging floor door stopper ISI marked anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour and shade with necessary screws etc. complete				
32(a)	078072	Twin rubber stopper	each	602.00	68.86	41453.72
33	078090	Providing and fixing bright finished brass 100mm mortice latch and lock ISI marked with six levers and a pair of anodised (anodic coating not less than grade AC 10 as per IS: 1868) aluminium lever handles with necessary screws etc. complete (best make of approved quality)	each	381.00	485.63	185025.03
34	078100	Providing and fixing aluminium tee channels (heavy duty) with rollers, stop end in pelmets as curtain rod	metre	1685.10	58.17	98022.27

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8.0 STEEL AND ALUMINIUM WORK						
35	081030	Structural steel work welded in built up sections, trusses and framed work, girders, stagings, racks, etc including cutting, bending, straightening, hoisting, fixing in position, including applying a priming coat of approved steel primer, complete - upto 6m height above GL				
35 (a)	081031	In RSJ, tees, angles and channels	kg	23679.00	75.92	1797709.68
36	081250	Providing and fixing ISI standard steel glazed doors, windows and ventilators of standard rolled steel sections (shutters & frame), joints mitered and welded with 15x3mm lugs, 10cm long, embedded in cement concrete blocks 15x10x10cm of 1:3:6 (1cement: 3 coarse sand : 6 graded stone aggregate – 20mm nominal size) or with wooden plugs and screws or rawl plugs and screws or with fixing clips or with bolts and nuts as required, including providing and fixing glass panes with glazing clips and special metal sash putty of approved make, necessary fittings such as brass handles, brass peg stays, brass spring catch, bolts, hinges, locks etc. as required, applying a priming coat of approved steel primer; but excluding the cost of metal beading				
36(a)	081253	Windows-side hung	Sqm	12.00	2808.15	33697.80
36 (b)	081255	Ventilators-centre hung	Sqm	8.97	2808.15	25180.68
37	081280	Providing and fixing pressed steel door frames manufactured from commercial mild steel sheet of 1.25mm thickness including hinges jamb, lock jamb, bead and if required angle threshold of mild steel angle of section 50x25mm, or base ties of 1.25mm pressed mild steel welded or rigidly fixed together by mechanical means, adjustable lugs with split end tail to each jamb including steel butt hinges 25mm thick with mortar guard, lock strike plate and shock absorbers as specified and applying a coat of approved steel primer after pretreatment of the surface as directed by Engineer.				
37 (a)	081282	Profile-B (125x60mm) Single rebate	metre	3219.60	2051.81	6606007.48
37(b)	081283	Profile-C (160x60mm) Double rebate	metre	4539.70	2509.19	11390969.84
38	081420	Providing and fixing hand rail by welding etc. to steel ladders railing, balcony railing and staircase railing including applying a priming coat of approved				

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		steel primer				
38(a)	081421	M.S. tube (medium) 40mm nominal bore	kg	1706.88	103.02	175842.26
39	081210	Supplying and fixing rolling shutters of approved make as per IS 6248, made of required size M.S. laths interlocked together through their entire length and jointed together at the end by end locks mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete including the cost of providing and fixing necessary 27.5cm long wire spring grade No.2 and M.S. top cover of required thickness for rolling shutters.				
39(a)	081212	80x1.20mm M.S. laths with 1.20mm thick top cover	Sqm	104.88	1241.40	130198.03
39 (b)	081220	Providing and fixing ball bearing for rolling shutters	Each	22.00	422.23	9289.06
40	081230	Extra for providing mechanical device chain and crank operation for operating rolling shutters				
40(a)	081231	Exceeding 10.00Sqm and upto 16.80 Sqm. in the area	Sqm	104.88	770.68	80828.92
41	081240	Extra for providing grilled rolling shutters manufactured out of 8mm dia. M.S. bar instead of laths as per design approved by the Engineer (area of grill to be measured)	Sqm	2.88	650.44	1873.27
42	081270	Providing and fixing T-iron frames for doors, windows and ventilators of mild steel Tee-sections, joints mitered and welded with 15x3mm lugs 10cm long embedded in cement concrete blocks 15x10x10cm of 1:3:6 (1cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size) or with wooden plugs and screws or rawl plugs and screws or with fixing clips or with bolts and nuts as required including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer	Sqm	420.00	84.41	35452.20

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43	082010	Providing and fixing anodised aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular and other sections of approved make conforming to IS:733 and IS:1285, anodised transparent or dyed to required shade according to IS:1868 (Minimum anodic coating of grade AC 15), fixed with rawl plugs and screws or with fixing clips, or with expansion hold fasteners including necessary filling up of gaps at junctions, at top, bottom and sides with required PVC/neoprene felt etc. Aluminium sections shall be smooth, rust free, straight, mitered and jointed mechanically wherever required including cleat angle. Aluminium snap beading for glazing/ panelling, C.P. brass/stainless steel screws, all complete as per architectural drawings and the directions of Engineer. (Glazing and panelling to be paid for separately)				
43(a)	082011	For fixed portion	Kg	168.00	305.87	51386.16
43(b)	082012	For openable/sliding portions and fixing hinges / pivots, PVC/ neoprene gasket required and making provision for fixing of fittings. (Fittings shall be paid for separately)	Kg	240.00	317.67	76240.80
44	082020	Providing and fixing 12mm thick prelaminated three layer medium density (exterior grade) particle board Grade I, Type II conforming to IS: 12823 bonded with phenol formaldehyde synthetic resin, of approved brand and manufacture in panelling fixed in aluminium doors, windows shutters and partition frames with C.P. brass/ stainless steel screws etc. complete as per architectural drawings and directions of engineer.				
44 (a)	082022	Prelaminated particle board with decorative lamination on both sides	Sqm	14.40	843.28	12143.23
45	082030	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with PVC/ neoprene gasket etc. complete as per the architectural drawings and the directions of engineer. (Cost of aluminium snap beading shall be paid in basic item.				
45(a)	082032	With float/frosted glass panes of 5.5mm thickness (weight not less than 13.75 kg/sqm)	Sqm	17.40	804.86	14004.56
46	082040	Providing and fixing double action hydraulic floor spring of approved brand and manufacture IS:6315 including cost of cutting floors as required, embedding in floors and cover plates with brass pivot and single piece M.S. Sheet outer box with slide plate etc. complete as per				

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		the direction of Engineer.				
46(a)	082041	With Stainless Steel cover plate	Each	6.00	2106.73	12640.38
		9.0 FLOORING, Paving and Dado				
		Marble Work				
47	099020	Providing and fixing 18mm thick mirror polished, machine cut for kitchen platforms, vanity counters, facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1cement: 4coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing etc. complete at all levels. Abu plain white marble/rajnagar plain white marble/udaipur green marble/ zebra black marble				
47(a)	099024	Area of slab over 0.50 sqm but upto 1.0 Sqm	sqm	232.04	1289.67	299253.61
48	099060	Extra for providing edge moulding to 16mm to 20mm thick marble/granite stone counters, vanities etc including machine polishing to edge to give high gloss finish etc. complete as per design approved by the Engineer.				
48(a)	099061	Marble work	metre	388.38	105.70	41051.77
49	099100	Extra for providing opening of required size and shape for wash basins/ kitchen sink / Pillar tap etc in kitchen platform, vanity counters and similar location in marble / stone work. including rubbing and polishing of cut edges etc complete. No deduction for opening area shall be made from parent item				
49(a)	099101	Opening of area upto 100 sq cm	each	131.00	89.78	11761.18
50	092010	Cement concrete flooring 1:2:4 (1cement: 2coarse sand: 4graded stone aggregate) finished with a floating coat of neat cement including cement slurry, but excluding the cost of nosing of steps etc. complete				
50(a)	092012	40mm thick with 20mm nominal size stone aggregate	sqm	7541.59	120.99	912457.40
50(b)	092014	75mm thick with 20mm nominal size stone aggregate	sqm	523.15	194.48	101742.60
51	092020	Cement plaster skirting (upto 30cm height) with cement mortar 1:3 (1cement: 3coarse sand) finished with a floating coat of neat cement				
51(a)	092022	18mm thick	sqm	1369.48	109.24	149601.95
52	092040	Extra over for making chequers of approved pattern on cement concrete	sqm	359.08	14.53	5217.44

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		floors, steps, landing, pavements etc.				
53	094010	Providing and laying precast factory made terrazzo tiles 22mm thick with graded marble chips of size upto 12mm laid in floors and landings, jointed with neat cement slurry mixed with pigment to match the shade of the tiles including rubbing and polishing complete with precast tiles on 20mm thick bed of cement mortar 1:4 (1 cement : 4 coarse sand)				
53(a)	094013	With white cement with pigment	Sqm	563.87	621.71	350566.10
54	094030	Precast factory made terrazzo tiles 22mm thick with graded marble chips of size upto 12mm in walls, skirting and risers of steps on 12mm thick cement plaster 1:3 (1cement: 3coarse sand) jointed with neat cement slurry mixed with pigment to match the shade of the tiles including cutting/wastage of tiles, rubbing and polishing complete with tiles made:				
54(a)	094033	With white cement with pigment	Sqm	97.00	598.04	58009.88
55	094040	Precast Chequered factory made terrazzo tiles 22mm thick/ with graded marble chips size upto 6mm in floors jointed with neat cement slurry mixed with pigment to match the shade of the tiles including rubbing of cement slurry complete on 20mm thick bed of cement mortar 1:4 (1cement : 4 coarse sand)				
55(a)	094041	With ordinary cement without any pigment	Sqm	124.00	538.93	66827.32
		CERAMIC TILES				
56	095010	Providing and fixing 1st quality ceramic tiles conforming to Group B-III (Ceramic Wall Tiles) of IS:15622 of manufacturers approved by railway in all colours, shades, and design as approved by the Engineer in skirting, risers of steps and dado over 12mm thick bed of cement mortar 1:3(1 cement : 3 course sand) including pointing in white cement mixed with pigment of matching shade complete				
56(a)	095011	200x200 mm	sqm	2297.59	498.16	1144569.68
57	095020	Providing and fixing ceramic tiles conforming to IS:15622 of manufacturers approved by railway in all colours, shades, design and abrasion resistance class as approved by the Engineer floors and landings over 20mm thick bed of cement mortar 1:4 (1 cement :4 course sand) including pointing in white cement mixed with pigment of matching shade				

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		complete				
57(a)	095021	Of Group B-II Clause 5.1 (for abrasion resistance) of IS:15622 (Ceramic Floor Tiles) of size 300x300mm	sqm	677.95	462.61	313628.75
57(b)	095025	Of Group B-I-a of IS : 15622 (Vitrified tiles) of size upto 400x400 mm	sqm	25.00	873.34	21833.50
		10.0 ROOFINS AND CEILINGS				
58	105120	Providing and laying in situ over roofs five course water proofing treatment with APP (Atactic Poly Propylene) modified Polymeric membrane 2.0mm thick of 3.00kg/sqm weight.5th, the top most layer shall be of specified surface finish which shall be paid for separately	Sqm	5043.33	600.59	3028972.33
59	104040	Providing and laying FPS brick tiles of class designation 10 over mummy roofs grouted with cement mortar 1:3 (1cement: 3fine sand) mixed with 2% of integral water proofing compound by weight of cement, over a 12mm layer of cement mortar 1:3 (1cement: 3fine sand) and finished neat	Sqm	5043.33	148.62	749539.40
60	104140	Making khurras 45x45cm with average minimum thickness of 5cm cement concrete 1:2:4 (1cement: 2coarse sand: 4graded stone aggregate of 20mm nominal size) over P.V.C. sheet 1mx1mx400micron, finished with 12mm cement plaster 1:3 (1cement: 3coarse sand) and a coat of neat cement rounding the edges and making and finishing the outlet complete	each	270.00	96.00	25920.00
61	108160	Providing and fixing on wall face unplasticised - Rigid PVC single socketed rain water pipes conforming to IS: 13592 Type A including jointing with seal ring conforming to IS: 5382 leaving 10mm gap for thermal expansion.				
61(a)	108162	110mm dia.	metre	2927.00	182.18	533240.86
62	108170	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised- Rigid PVC rain water pipes conforming to IS: 13592 Type A including jointing with seal ring conforming to IS: 5382 leaving 10mm gap for thermal expansion				
62(a)	108176	Single tee with door, 110x110x110mm	Each	1373.00	387.33	531804.09

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63	109150	Supplying , fabricating and erecting valley gutter having 1.00 meter width , made out of 0.91mm thick aluminum sheets, the joint shall be made by aluminum welding to make water tight including supplying manufacturing and fixing brackets made out of ms. flats 50mmx6mm at the spacing of 75 cm center to center . the rate will be including supply of all materials , labours , tools, plants, equipments , scaffolding and staging etc . comlet work shall be carried out as directed by engineer.	metre	60.00	885.03	53101.80
64	109200	Providing and fixing permanently colour coated trapezoidal profiled sheet of depth 28- 30mm at 195-205mm pitch distance with precisely engineered "Rib & Flute" design. Profiled sheets shall be min. 0.5mm TCT/0.45mm BMT high tensile zinc aluminium alloy coated zincalume / galvalume steel sheet (550 mpa yield strength) having a coating of mass of 150 gsm zinc-aluminium coating AZ- 150 total on both sides as per, AS 1397:1993 finished with 20 microns approved colour coating of Silicon Modified Polyester (SMP) / Super Polyester paint coat on exposed surface over a primer coat of 5 microns and a back coat of 5 microns on reverse side over a 5 microns primer coat. There shall be 2 small ribs/square flutes between profiles for providing additional strength. The sheet to be fixed over the purlins with hexagonal head self drilling suitable fasteners with neoprene/ EPDM washer on crests of the sheet	Sqm	366.00	538.95	197255.70
65	109260	Providing & fixing of coloured galvalume plain sheet flashings at ridges / apex junctions of roofing cladding, cover / corner / barge pieces etc. in required shape, colour duly fixed with stitching screws (with EPDM washers etc. as per site requirement)				
65(a)	109261	Upto 600mm width	meter	30.00	388.19	11645.70
66	106100	Providing and fixing at all height false ceiling of 12.5mm thick tapered edge gypsum board conforming to IS: 2095-Part I, including providing and fixing of frame work made of special sections power pressed from M.S. sheet and galvanised with zinc coating of grade 350 as per IS: 277 and consisting of angle cleats of size 25mm x 1.6mm with flanges of 22mm and 37mm at 1200mm centre to centre one flange fixed to the ceiling with stener 12.5mm dia x 40mm long with 6mm dia bolts to the angle hangers of 25x25x0.55mm of required length and other end of angle hanger	Sqm	20.00	561.22	11224.40

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		being fixed with nut and bolts to G.I. channels 45x15x0.9mm running at the rate of 1200mm centre to centre to which the ceiling section 0.5mm thick bottom wedge of 80mm with tapered flanges of 26mm each having clips of 10.5mm at 450mm centre to centre shall be fixed in a direction perpendicular to G.I. channel with connecting clips made out of 2.64mm dia x 230mm long G.I. wire at every junction including fixing the gypsum board with ceiling section and perimeter channels 0.5mm thick 27mm high having flanges of 20mm and 30mm long, the perimeter of ceiling fixed to wall/ partition with the help of rawl plugs at 450mm centre to centre with 25mm long drive all screws @ 230mm interval including jointing and fixing to a flush finish of tapered and square edges of the gypsum board with recommended filler, paper tapes, finisher and two coats of primer suitable for gypsum board as per manufacturers specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed all complete as per drawing and specification and direction of the Engineer but excluding the cost of painting.				
		11.0 FINISHING MASONRY				
		CEMENT PLASTER (IN FINE SAND)				
67	111010	12 mm cement plaster of mix -				
67(a)	111012	1:6 (1cement: 6fine sand)	sqm	20880.88	57.38	1198144.77
68	111020	15 mm cement plaster on the rough side of single or half brick wall of mix -				
68(a)	111022	1:6 (1cement: 6 fine sand)	sqm	9444.33	65.97	623042.34
69	111030	20 mm cement plaster of mix -				
69(a)	111031	1:4 (1cement: 4 fine sand)	sqm	15218.67	77.92	1185838.82
70	111150	Cement plaster to ceiling of mix -				
70(a)	111151	6 mm thick 1:3 (1cement: 3 fine sand)	sqm	7414.38	49.15	364416.98
		INTERIOR FINISHING				
71	115010	White washing with lime to give an even shade				
71(a)	115011	New work (three or more coats)	sqm	13460.45	8.36	112529.33
72	115040	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade				

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72(a)	115042	New work (two or more coats of distemper) over and including priming coat with distemper primer	sqm	22976.40	51.27	1177999.88
		EXTERIOR FINISHING				
73	115110	Finishing walls with water proofing cement paint of required shade two or more coats on new work applied @ 3.84 Kg/10 sqm	sqm	18126.06	38.40	696040.58
		12.0 PAINTING, POLISHING AND VARNISHING				
74	121170	Painting two coats (excluding priming coat) with chocolate, red, grey or buff ready mixed paint of approved quality, on steel or wood work	sqm	371.15	38.79	14396.91
75	121011	With ready mixed pink or grey primer of approved brand and manufacture on woodwork (hard and soft wood)	sqm	2648.72	19.08	50537.66
76	121050	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade				
76(a)	121051	Two or more coats on new work	sqm	4113.69	40.81	167879.61
		13.0 WATER SUPPLY				
77	131130	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, including cutting and making good the walls etc. Internal work – Exposed on wall				
77(a)	131132	20 mm dia. nominal bore	metre	937.00	163.22	152937.14
77 (b)	131134	32 mm dia. nominal bore	metre	588.40	275.06	161845.30
78	131140	Providing and fixing medium grade G.I. pipes complete with G.I. fittings and clamps, including cutting and making good the wall etc. Concealed pipe including painting with anti corrosive bitumestic paint, cutting chase and making good the wall				
78(a)	131141	15 mm dia. nominal bore	metre	970.50	170.10	165082.05
78(b)	131142	20 mm dia. nominal bore	metre	1211.60	198.82	240890.31
79	131150	Providing and fixing medium grade G.I. pipes complete with G.I. fittings including trenching and refilling etc. External Work				
79(a)	131152	20 mm dia. nominal bore	metre	587.40	157.14	92304.04
79(b)	131153	25 mm dia. nominal bore	metre	405.00	214.91	87038.55
80	131160	Making connection of medium grade G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete				

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80(a)	131161	25 to 40 mm nominal bore	each	130.00	208.98	27167.40
81	132030	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end)				
81(a)	132031	25 mm nominal bore	each	131.00	419.88	55004.28
82	132040	Providing and fixing ball valve (brass) of approved quality complete high or low pressure with plastic floats complete :				
82(a)	132042	20 mm nominal bore	each	130.00	250.53	32568.90
		C.P.BRASS FITTINGS.				
83	132010	Providing and fixing brass bib cock of approved quality				
83(a)	132011	15 mm nominal bore	each	380.00	154.55	58729.00
84	132020	Providing and fixing brass stop cock of approved quality				
84(a)	132021	15 mm nominal bore	each	388.00	151.88	58929.44
85	132200	Providing and fixing C.P. brass long body bib cock, 15 mm nominal bore, of approved quality conforming to IS standards and weighing not less than 690 gms	Each	129.00	421.62	54388.98
86	132220	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931	each	131.00	535.68	70174.08
87	136150	providibg and plaving on terrace/ staging (at all heights) polythylene water storage tank ISI: 12701 marked with cover and suitable locking arrangements and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	Litre	65000.00	6.43	417950.00
88	138040	Hoisting, fitting and fixing in position plastic moulded water storage tank including making connection of intake, delivery, outlet and overflow .pipes etc. with all lead and lift upto all stories. Cost of tanks/fittings to be paid separately				
88(a)	138042	500 ltr capacity tank	Each	130.00	511.06	66437.80
		14.0 DRAINAGE AND SEWORAGE				
		STONE WARE PIPES AND FITTINGS				
89	141010	Providing, laying and jointing glazed stoneware pipes grade 'A' as per IS:651 including bends etc. with stiff mixture of cement mortar in the proportion of 1:1 (1cement : 1fine sand) including testing of joints etc. complete				
89(a)	141011	100mm diameter	metre	1355.50	145.52	197252.36

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89(b)	141012	150mm diameter	metre	284.10	245.52	69752.23
90	141040	Providing and laying cement concrete 1:5:10 (1cement: 5coarse sand: 10graded stone aggregate 40mm nominal size) upto haunches of S.W. pipes including bed concrete as per standard design				
90(a)	141041	100mm diameter S.W. pipe	metre	1350.50	122.81	165854.91
90(b)	141042	150mm diameter S.W. pipe	metre	284.10	199.05	56550.11
91	141050	Providing and fixing square-mouth S.W. gully trap grade 'A' complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300x300mm size (inside) the weight of cover to be not less than 4.50kg and frame to be not less than 2.70 kg as per standard design				
91(a)	141051	100x100mm size P type With F.P.S. bricks class designation 75	each	127.00	1163.20	147726.40
92	143010	Constructing brick masonry manhole in cement mortar 1:4 (1cement: 4coarse sand) R.C.C. top slab with 1:2:4 (1cement: 2coarse sand: 4graded stone aggregate 20mm nominal size), foundation concrete 1:4:8 mix (1cement: 4coarse sand: 8graded stone aggregate 40mm nominal size) inside plastering 12mm thick with cement mortar 1:3 (1 cement :3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat or neat cement complete as per standard design				
92(a)	143011	Inside size 90x80cm and 45cm deep including C.I. cover with frame (light duty) 455x610mm internal dimensions total weight of cover and frame to be not less than 38kg (weight of cover 23kg and weight of frame 15kg). With F.P.S. bricks class designation 7.5.	each	132.00	4268.00	563376.00
93	143170	Making connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete 1:2:4 mix (1cement: 2coarse sand: 4graded stone aggregate 20mm nominal size) cement plastered on both sides with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement and making necessary channels for the drain etc. complete				
93(a)	143171	For pipes 100 to 230mm diameter	each	127.00	152.49	19366.23

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15.0 SANITARY INSTALLATIONS						
94	151010	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100mm sand cast iron P or S trap, 10litre low level white P.V.C. flushing cistern 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				
94(a)	151011	White Vitreous China Orissa pattern W.C. pan of size 580x440-mm with integral type foot rests	each	132.00	3057.59	403601.88
95	152030	Providing and fixing Stainless Steel AISI- 304 (18/8) kitchen sink without drain board as per IS: 13983 with C.I. brackets and stainless steel plug 40mm including painting of fittings and brackets, cutting and making good the walls wherever required				
95(a)	152031	610x510mm bowl depth 200mm	each	122.00	3613.58	440856.76
96	151040	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350mm and 340x410x265mm sizes respectively with automatic flushing cistern , with standard flush pipe and C.P. brass spreaders with brass unions and G.I. clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors, wherever required.				
96(a)	151041	One urinal basin with 5litre white P.V.C. automatic flushing cistern	each	12.00	2377.03	28524.36
97	151070	Providing and fixing wash basin with C.I./ M.S. brackets, 15mm C.P. brass pillar taps, 32mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever required				
97(a)	151071	white, vitreous china wash basin size 630x450mm with a pair of 15mm C.P. brass pillar taps	each	132.00	1942.55	256416.60
98	155250	P&F 127mm dia C.P. steel Jali cockroach trap (CCTR-127) for gully floor or Nahani trap	each	273.00	187.87	51288.51
99	152120	Providing and fixing mirror of 5.5 mm thickness of float Glass (of approved Quality) required shape and size with plastic moulded frame of approved make and shade with 6mm thick hard board backing				
99(a)	152122	Rectangular shape 453x357mm (outer dimension)	each	132.00	835.53	110289.96
100	153010	Providing and fixing soil, waste and vent pipes				
100(a)	153012	100mm dia. Centrifugally cast (spun) iron S&S pipe as per IS:3989	metre	862.80	599.73	517447.04

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101	153020	Providing and filling the joints with spun yarn cement slurry and cement mortar 1:2 (1cement: 2fine sand) in S.C.I./ C.I. pipes				
101(a)	153022	100mm dia pipe	each	756.00	31.83	24063.48
102	153040	Providing and fixing bend of required degree with access door, insertion rubber washer 3mm thick, bolts and nuts complete				
102(a)	153042	100mm dia. Sand cast iron S&S as per IS-3989	each	126.00	565.30	71227.80
103	153050	Providing and fixing plain bend of required degree				
103(a)	153052	100mm dia. Sand cast iron S&S as per IS-3989	each	128.00	286.54	36677.12
104	153070	Providing and fixing double equal junction of required degree with access door, insertion rubber washers 3mm thick, bolts and nuts complete				
104(a)	153072	100x100x100x100mm Sand cast iron S&S as per IS-3989	each	128.00	809.22	103580.16
105	153090	Providing and fixing single equal plain junction of required degree with access door, insertion rubber wash 3mm thick, bolts and nuts complete				
105(a)	153092	100x100x100mm Sand cast iron S&S as per IS-3989	each	127.00	646.61	82119.47
106	153240	Providing and fixing collar				
106(a)	153242	100mm Centrifugally cast (spun) iron S&S as per IS-3989	each	127.00	298.16	37866.32
107	153250	Providing lead caulked joints to sand cast iron/ centrifugally cast (spun) iron pipes and fittings of diameter				
107(a)	153251	100mm	each	373.00	205.78	76755.94
108	153260	Providing and fixing M.S. stays and clamps for sand cast iron/ centrifugally cast (spun) iron pipes of diameter				
108(a)	153261	100mm	each	888.00	77.47	68793.36
109	153270	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete including cost of cutting and making good the walls and floors				
109 (a)	153271	100mm inlet and 100mm outlet Sand cast iron S&S as per IS: 3989	each	256.00	832.45	213107.20
110	156010	Cutting chases in brick masonry walls for following diameter sand cast iron/ centrifugally cast (spun) iron or any other types of pipes and making good the same with cement concrete 1:3:6 (1cement: 3coarse sand: 6graded stone aggregate 12.5mm nominal size) including necessary plaster and pointing in cement mortar 1:4 (1 Cement : 4 coarse sand)				

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110(a)	156011	100mm dia.	metre	1183.50	129.28	153002.88
111	156050	Painting two or more coats on , sand cast iron/ centrifugally cast (spun) iron soil, waste vent pipes and fittings with paint of any colour such as chocolate, grey or buff etc. over a coat of primer (of approved quality) to give an even shade for new work				
111(a)	156051	100mm diameter pipe	metre	1193.50	21.29	25409.62
		17.0 MISCELLANEOUS BUILDING WORKS				
112	171450	Supplying, boring, sinking & installation of 40 mm dia hand tube well pump assembly having total depth of 50 metres with the following components as per IS:9301 : i) Double guided head stroke / 80 mm x 40 mm deep tubewell hand pump No. 6 of complete. (ii) Brass strainer mesh type "Dinco" or equivalent made of long slotted medium B class G.I. pipes with 80-mesh brass wire net wrapping around the perforated pipe and jacketed by 26/28 SWG brass perforated sheet. 40 mm dia. 2 lengths each of 1.83m connected with G.I. Socket. (iii) All brass cylinder 65mm dia. 450 mm long with brass plunger, plunger rod socket, all brass poppet/ lower valve bucket leather complete. (iv) G.I. casing pipe ISI marked 80 mm dia. Medium quality 18m long. (v) G.I. Pipe ISI marked 40mm dia. Medium quality 28.35m long. (vi) 80mm x 40mm dia. G.I. reducing socket of approved quality. (vii) 12mm dia. Bright bar electro galvanized connecting rod "Dinco" / "BJH" or equivalent, 3m long each with G.I. coupling of length as required at site of work.	Each	2.00	49709.88	99419.76
113	171490	Supplying, Sinking & installation of 40 mm hand pump No.6 ordinary hand pump set comprising the following of approved quality complete assembly having depth of 30 M as per IS:9301. Hand pump No.6 with plunger, barrel, handle, head, piston rod, leather bucket, base, valve weight G.I. screws, bolts & nuts as per IS:1363/1967, leather sheet valve, 40mm dia C.I cutter with steel plug, 40mm dia G.I. Sockets and 40mm dia. V) G.I. pipe medium quality brass strainer mesh type "Dinco" or equivalent made of long slotted medium B class G.I. pipes with 80-mesh brass wire net wrapping around the perforated pipe and jacketed by 26/28 SWG brass perforated sheet , 40 mm dia. X 2 lengths each of	Each	2.00	20417.64	40835.27

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		1.83m connected with G.I. Socket				
		23.0 ROAD AND PLATFORM WORKS				
114	231010	Preparation of subgrade by excavating earth upto 22.5cm depth, dressing to camber and consolidating with power road roller of 8 to 12 tonne capacity including making good the undulations etc. and disposal of surplus earth with lead upto 50 metres	Sqm	26250.00	36.75	964687.50
115	231020	Consolidation of subgrade with power road roller of 8 to 12 tonne capacity including making good the undulations etc. with earth or quarry spoils etc. and re-rolling the subgrade	Sqm	26250.00	1.19	31237.50
116	231030	Providing and laying each layer of flat brick soling hand packed and joints filled with ordinary sand				
116(a)	231031	With well burnt bricks. Class 7.5 designation	Sqm	26250.00	133.76	3511200.00
117	236010	Cement concrete Grade M15 of coarse aggregate 40mm nominal size, in pavements, laid to required slope and camber in panels as required including consolidation finishing and tamping complete	cum	6562.50	1900.21	12470128.13
		Total Amount of Sch. A				115862924.89

SCHEDULE B: NON SCHEDULED ITEMS

Name of Work: CONSTRUCTION OF SERVICE AND RESIDENTIAL BUILDINGS FOR SHIFTING OF UTILITIES IN CONNECTION WITH PROVIDING ENCUMBRANCE-FREE LAND BETWEEN KALANAUR TO AMBALA CITY IN THE JURISDICTION OF CPM/AMBALA.						
SCHEDULE B: NON SCHEDULED ITEMS						
S.No	USSR-2010 Item No	Description	Unit	Qty	Rate	Amount
1	NS-1	Providing & making necessary protection arrangements by barricading the working area consisting of 0.63mm CGI sheets upto 2400mm height above the ground level with self supporting wooden ballies of 70 mm dia (minimum) with the spacing of 1450 mm center to center or as directed by the Engineer including sawing, drilling, bolting, screwing etc. excavating/digging pits erecting in position including refilling and compacting the pits. The item also include the painting of the outer exposed surface of CGI sheets with two coats with a pattern of vertical bands of red & white paint of approximate width of 600mm and fixing 75mm reflectors on alternate vertical bands in two horizontal rows as per direction of the Engineer with contractor's labour, material, machinery, tools and plants, all lead and lift and all incidental works as a complete job as per specifications and as directed by Engineer. Note: (i) The item include removing/dismantling the barricading completely after overall completion of the work including dressing, refilling, trenches etc. complete and nothing extra will be paid on this account whatsoever, however, the released material will be the property of contractor. (ii) The contractor shall maintain barricading/reflectors and paint in reasonable condition during the progress of the work at his own cost.	Mtr.	30.00	907.70	27231.46
2	NS-2	Brick Work with non-modular (FPS) First Class brick,, in foundation and upto plinth level in Cement Mortar 1:6 (1: cement and 6: coarse sand) with contractor's labour, material (except cement), machinery, tools and plants, all lead and lift and all incidental works as a complete job as per specifications and as directed by Engineer. Note: Cement shall be paid under relevant USSOR item in Schedule (A)	Cum	7319.80	3913.10	28642889.79
3	NS-3	Half Brick Masonary with non-modular (FPS) First Class brick, in foundation and upto plinth level in Cement Mortar 1:4(1: cement and 4: coarse sand) with contractor's labour, material (except cement), machinery, tools and plants, all lead and lift and all incidental works as a complete job as per specifications and as directed by Engineer. Note: Cement shall be paid under relevant USSOR item in Schedule (A)	Sqm	818.93	464.00	380008.09
Total of Schedule B						29050129.33

PART-II

Electrical Engineering Works

EXPLANATORY NOTES TO QUOTE SCHEDULE OF PRICES

All electrical works should comply with Indian Electricity Act 2003 and Indian Electricity Rules 1956.

- I. All electrical installations works shall conform to relevant Indian Standard Code of Practice and carried out as per relevant safety Code of Practices, Guide for Safety Procedures in Electrical Work as per I.S. 5216/Pt.I & II/1982(latest version) shall be observed.
- II. All components used in installation shall be of appropriate ratings of voltage, current and frequency.
- III. All minor items viz. hardware items, foundation bolts, termination lugs, gland for electrical connections etc. as required and necessary for proper working of the equipment shall be deemed to have been included in tender, whether such items are **specifically mentioned in tender documents** or **not**.
- IV. Bidder must inspect site thoroughly before quoting rates, later on no claim shall be accepted.
- V. Cost of HT/LT Cable consumed during testing shall be borne by Bidder.
- VI. The bidder/ any partner of JV/Partnership firm or agency deployed by it/them for electrical works must have License for Electrical Works.

CONSTRUCTION OF SERVICE AND RESIDENTIAL BUILDINGS FOR SHIFTING OF UTILITIES IN CONNECTION WITH PROVIDING ENCUMBRANCE-FREE LAND BETWEEN KALANAUR TO AMBALA CITY IN THE JURISDICTION OF CPM/AMBALA.						
Schedule 'C' : Items based on Schedule of Rates for General Service Works, 2003, issued by Electrical Department of Northern Railway						
1	2	3	4	5	6	7
S.NO.	SOR Item No.	DESCRIPTION	UNIT	QTY	RATES	AMOUNT
1	1	Supply and recessing/fixing of M.S./PVC conduit pipe with accessories, junction box,etc including making chase, plastering/clamping etc as per technical specifications.				
1 (a)	(b)	PVC Conduit pipe conforming to IS 9537/Part III/1983 (Latest version)				
1(a) (i)	(i)	25mm(Medium)	Mtr	21236.00	31.00	658316.00
2	3	Supply of M.S switch box conforming to IS 5133 (Part - I) - 1969(latest version) with white Phenolic laminated sheet cover of approved make on front of box with brass screws & cup washers, recessing as per Tech. Specification including earthing.				
2 (a)	(a)	100x100x60 mm deep	No	303.00	33.00	9999.00
2 (b)	(b)	180x100x60mm" deep	No	1061.00	45.00	47745.00
2 (c)	(c)	300x200x100mm deep	No	303.00	108.00	32724.00
3	4	Supply of Piano type switch as per IS 4949 - 1968(latest version) /Bell push as per IS 4794 (Part 2) -1986(latest version)/flush type socket outlet as per IS 1293 -1988(latest version) & installation on the recessed switch box including cutting of phenolic lamintated sheet, connection, testing & commissioning as per Tech. Specification.				
3 (a)	(a)	Piano Type switch 5A (I-way)	No.	2426.00	10.00	24260.00
3 (b)	(b)	Piano Type switch 15A(I- way)	No.	303.00	25.00	7575.00
3 (c)	(c)	Plug socket outlet 5 Pin 5A	No.	455.00	12.00	5460.00
3 (d)	(d)	Plug socket outlet 6 pin 5/15A	No.	303.00	25.00	7575.00
3 (e)	(e)	Piano Type Bell push 5A	No.	140.00	7.00	980.00
4	5	Supply of Batten/Angle Holder/Ceiling rose & installation on the Junction Box of laid conduit including connections, Testing & commissioning as per Tech. Specification.				
4 (a)	(a)	Bakalite batten/Angle Holder	No.	1213.00	10.00	12130.00
4 (b)	(b)	Bakalite ceiling rose 3 plate	No.	303.00	11.00	3333.00
5	6	Supply of musical chime bell and erection on the installed MS Box, connection with Twin core PVC insulated flexible copper conductor cable of size 14/0.0076" including testing and commissioning as per Tech. Specification and of approved make.	No.	140.00	36.00	5040.00

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6	9	Fabrication of meter distribution box as per drawing approved by Railway with 1.2mm thick CRCA sheet in two compartments, one for meter etc. & other for MCB's duly painted approx. size 500 x 300 x 135mm deep, suitable for operation on single phase 230 volts AC supply system, complete with interconnection with single core, PVC insulated copper conductor cable 6 Sqmm/10 Sqmm supply & recessing, earthing, testing, commissioning as per Tech. Specification and shall comprise following including fixing of single phase energy meter.				
6 (a)	(a)	Meter-cum distribution box comprising of i) MCB SPN 20 Amps. 1 No. for incoming. ii) MCB SP 10 Amps. 2 No. for outgoing iii) MCB SP 6 Amps. 4 No. for outgoing. iv) Arrangement for accomodating & fixing of single phase 10A/20 KWH meter with 6mm thick bakelite sheet on base.	Job	121.00	1145.00	138545.00
7	10	Fabrication of weather proof distribution board as per drawing approved by Railway with 2mm thick CRCA sheet, duly painted, suitable for operation on single phase 230 Volts AC supply system complete with 6 No./4 No.-32 Amps. Porcelain Kit-kat Fuse, Neutral link, earthing, inter connections, supply, recessing, testing & commissioning as per tech. specification approx. size 400x250 x 135 mm				
7 (a)	(b)	Comprising with 4 nos. 32 Amps Porcelain kit-kat fuse & neutral link.	No.	121.00	388.00	46948.00
8	11	Supply of 14SWG GI wire & drawing in laid/ on surface M.S./PVC conduit pipe including earthing of installation as per IE Rule.	Mtr	24078.00	2.00	48156.00
9	12	Supply and fixing of 3mm thick white phanolic laminated sheet on junction box/ fan box etc. with brass screw and cup washer.	Sqm	91.00	464.00	42224.00
10	20	Earthing with 40mm dia GI pipe class 'B', 3 meter long earth electrode as per IS:3043 (Latest Version) to achieve earth resistances less than 5 ohms including construction of masonry enclosures with hinged cover plate of cast iron with locking arrangement (approx. size 400mm x 400mm) on top, provision of earth plate, connections from earth electrode to switch gear/pole as per drawing.	Job	61.00	883.00	53863.00
11	30 (a)	Supply and laying of GI pipe class B ISI marked under road/clamping with erected pole or wall as per technical specifications and drawing for passing cable of following sizes: -				
11 (i)	(i)	50 mm dia	Mtr	130.00	126.00	16380.00
Total Amount of Schedule C						1161253.00

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CONSTRUCTION OF SERVICE AND RESIDENTIAL BUILDINGS FOR SHIFTING OF UTILITIES IN CONNECTION WITH PROVIDING ENCUMBRANCE-FREE LAND BETWEEN KALANAUR TO AMBALA CITY IN THE JURISDICTION OF CPM/AMBALA.						
Schedule 'D' : NS Items Electrical Works						
S.NO.	NS Item No.	DESCRIPTION	UNIT	QTY	RATES	AMOUNT
1	1	Supplying, laying, testing and commissioning of LT U/G cable 4x120Sq.mm. PVC/XLPE insulated 1100 Volt grade armored aluminum conductor cable in the trench 0.8 mts deep with supply and laying of GI wire 8SWG along the entire length of cable including supply and providing bed of soft sand 75mm below the cable and 75mm above the cable with supplying and laying of bricks widthwise and afterward filling the trench with excavated soil duly rammed to its original shape. When laying the cable along the electric pole, massonary wall and pucca floor, it should pass through GI pipe of suitable dia upto the height of 3Mts from ground level with provision of suitable cable markers. Make Polycab, L&T, Havells, Finolex , Alcon, RPG, CCI, Grandlay ,Fortgloster, with contractor's labour, material, machinery, tools & plants, all lead and lift and all incidental works as a complete job as per specifications and as directed by engineer.	Mtr	1000.00	595.20	595200.00
2	2	Supplying, laying, testing and commissioning of LT U/G cable 4x70Sq.mm. PVC/XLPE insulated 1100 Volt grade armored aluminum conductor cable in the trench 0.8 mts deep with supply and laying of GI wire 8SWG along the entire length of cable including supply and providing bed of soft sand 75mm below the cable and 75mm above the cable with supplying and laying of bricks widthwise and afterward filling the trench with excavated soil duly rammed to its original shape. When laying the cable along the electric pole, massonary wall and pucca floor, it should pass through GI pipe of suitable dia upto the height of 3Mts from ground level with provision of suitable cable markers. Make Polycab, L&T, Havells, Finolex , Alcon, RPG, CCI, Grandlay ,Fortgloster,with contractor's labour, material, machinery, tools & plants, all lead and lift and all incidental works as a complete job as per specifications and as directed by engineer.	Mtr	1800.00	386.40	695520.00

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3	3	Supplying, laying, testing and commissioning of LT U/G cable 4x50Sq.mm. PVC/XLPE insulated 1100 Volt grade armored aluminum conductor cable in the trench 0.8 mts deep with supply and laying of GI wire 8SWG along the entire length of cable including supply and providing bed of soft sand 75mm below the cable and 75mm above the cable with supplying and laying of bricks widthwise and afterward filling the trench with excavated soil duly rammed to its original shape. When laying the cable along the electric pole, massonary wall and pucca floor, it should pass through GI pipe of suitable dia upto the height of 3Mts from ground level with provision of suitable cable markers. Make Polycab, L&T, Havells, Finolex , Alcon, RPG, CCI, Grandlay ,Fortgloster, with contractor's labour, material, machinery, tools & plants, all lead and lift and all incidental works as a complete job as per specifications and as directed by engineer.	Mtr	1500.00	283.20	424800.00
4	4	Supplying, laying, testing and commissioning of LT U/G cable 4x35Sq.mm. PVC/ XLPE insulated 1100 Volt grade armored aluminum conductor cable in the trench 0.8 mts deep with supply and laying of GI wire 8SWG along the entire length of cable including supply and providing bed of soft sand 75mm below the cable and 75mm above the cable with supplying and laying of bricks widthwise and afterward filling the trench with excavated soil duly rammed to its original shape. When laying the cable along the electric pole, massonary wall and pucca floor, it should pass through GI pipe of suitable dia upto the height of 3Mts from ground level with provision of suitable cable markers. Make Polycab, L&T, Havells, Finolex , Alcon, RPG, CCI, Grandlay ,Fortgloster, with contractor's labour, material, machinery, tools & plants, all lead and lift and all incidental works as a complete job as per specifications and as directed by engineer.	Mtr	1500.00	221.40	332100.00
5	5	Supplying, laying, testing and commissioning of LT U/G cable 2X70Sq.mm. PVC/XLPE insulated 1100 Volt grade armored aluminum conductor cable in the trench 0.8 mts deep with supply and laying of GI wire 8SWG along the entire length of cable including supply and providing bed of soft sand 75mm below the cable and 75mm above the cable with supplying and laying of bricks widthwise and afterward filling the trench with excavated soil duly rammed to its original shape. When laying the cable along the electric pole, massonary wall and pucca floor, it should pass through GI pipe of suitable dia upto the height of 3Mts from	Mtr	1800.00	218.52	393336.00

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		ground level with provision of suitable cable markers. Make Polycab, L&T, Havells, Finolex , Alcon, RPG, CCI, Grandlay ,Fortgloster,,				
6	6	Supplying, laying, testing and commissioning of LT U/G cable 2X25Sq.mm. PVC/XLPE insulated 1100 Volt grade armored aluminum conductor cable in the trench 0.8 mts deep with supply and laying of GI wire 8SWG along the entire length of cable including supply and providing bed of soft sand 75mm below the cable and 75mm above the cable with supplying and laying of bricks widthwise and afterward filling the trench with excavated soil duly rammed to its original shape. When laying the cable along the electric pole, massonary wall and pucca floor, it should pass through GI pipe of suitable dia upto the height of 3Mts from ground level with provision of suitable cable markers. Make Polycab, L&T, Havells, Finolex , Alcon, RPG, CCI, Grandlay ,Fortgloster, with contractor's labour, material, machinery, tools & plants, all lead and lift and all incidental works as a complete job as per specifications and as directed by engineer.	Mtr	2800.00	110.40	309120.00
7	7	Supply & Fixing of AC KWH electronic energy meter single phase 10/40 Amp.	No	121.00	600.00	72600.00
8	8	Supply, installation, testing & commissioning of the following Surface Mounting T-5 Channel Luminaire conforming to CEE/N.Rly Specification No. CEE/NR/113/E/PS/2011 complete with electronic ballast and T-5 lamps of approved make including connection from ceiling rose to fitting terminal with twin core PVC insulated copper conductor flexible cable of size 14/0.0076" and as per explanatory note, with contractor's labour, material, machinery, tools & plants, all lead and lift and all incidental works as a complete job as per specifications and as directed by engineer.				
		1x28 Watts	No.	400.00	711.00	284400.00
9	9	Design, Manufacture, supply, erection, testing & commissioning of out Door Type LT Feeder Pillar, suitable for 3 Phase, 4 Wire 415 Volts, AC Supply system comprising with: (i) Incoming DMC DIN type Fuse bases with DIN type HRC fuses 250 Amps. (80KA B.C) - 3 Nos. (ii) Out going DMC DIN type fuse bases with DIN type HRC fuses 63 Amps. (80 KA BC) - 21 Nos. Aluminium bus bar Cap 300 A for phases & 150 A for neutral as per explanatory note & IE rule, with contractor's labour, material, machinery, tools & plants, all lead and lift	No.	2.00	72600.00	145200.00

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		and all incidental works as a complete job as per specifications and as directed by engineer.				
10	10	Design, Manufacture, supply, erection, testing & commissioning of out Door Type LT Feeder Pillar, suitable for 3 Phase, 4 Wire 415 Volts, AC Supply system comprising with: (i) Incoming MCB 200 Amps. (80KA B.C) - 1 No. (ii) Out going MCB 32 Amps. (80 KA BC) - 6 Nos. Aluminium bus bar Cap 300 A for phases & 150 A for neutral as per explanatory note & IE rule, with contractor's labour, material, machinery, tools & plants, all lead and lift and all incidental works as a complete job as per specifications and as directed by engineer.	No.	15.00	38000.00	570000.00
11	11	Supply & drawing of the following sizes FRLS PVC insulated multi stranded copper conductor single core flexible cable conforming to IS: 694 (latest version) in laid (recessed/surface) MS/PVC/HDG conduit pipe for wiring of point wiring/circuit wining/sub main/Main as required & as per explanatory note including connections, testing and commissioning, with contractor's labour, material, machinery, tools & plants, all lead and lift and all incidental works as a complete job as per specifications and as directed by engineer.				
11 (a)	(a)	1 sqmm	Mtr	13651.00	20.00	273020.00
11 (b)	(b)	2.5 sqmm	Mtr	15168.00	28.40	430771.20
11 (c)	(c)	4 sqmm	Mtr	13651.00	40.90	558325.90
11 (d)	(d)	6 sqmm	Mtr	2275.00	60.00	136500.00
12	12	Supply installation testing and commissioning of 4x14 watt Energy efficient T5 Street Light Fitting complete with Lamp and other accessories as per RDSO specification No RDSO/PE//SPEC/PS/0100 (Rev"1") 2011) on pole including connection with 2x2.5 sqmm PVC insulated multi strand flexible copper conductor cable from junction box of pole and as per explanatory note, with contractor's labour, material, machinery, tools & plants, all lead and lift and all incidental works as a complete job as per specifications and as directed by engineer.	No.	50.00	8460.00	423000.00

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13	13	Supply & erection of 7M. High hot dip galvanized Octagonal Single Arm Bracket Pole with top 70mm around face bottom 130mm around face made of 3 mm thick, steel base plate size 200x200x12 mm complete with appropriate sleeve at the top of the pole for mounting arm bracket 300mm long suitable for 150W HPSV Street Light Fitting or (4 x 14 watt) energy efficient T 5 Street Light Fittings and foundation GI nut bolts with washer and smart pack junction box with single pole MCB and terminals and as per explanatory note, with contractor's labour, material, machinery, tools & plants, all lead and lift and all incidental works as a complete job as per specifications and as directed by engineer.	No.	50.00	11958.00	597900.00
14	14	Supply & Fixing & Installation, connection with Twin core PVC insulated flexible copper conductor cable of size 14/0.0076" testing and commissioning of 1200/1400mm sweep AC ceiling fan with Regulator (on the installed CI/MS Box) including earthing as per technical specification, with contractor's labour, material, machinery, tools & plants, all lead and lift and all incidental works as a complete job as per specifications and as directed by engineer.	Job	340.00	951.00	323340.00
15	15	Supply, Fixing, testing & commissioning of bulk head fitting on Wall/Ceiling complete with inbuilt electronic ballast with BC Cap 10/11 W CFL lamp of approved make including connection from ceiling rose/connector to fitting terminal with twin core PVC insulated copper conductor flexible cable of size 14/0.0076" and as per explanatory note, with contractor's labour, material, machinery, tools & plants, all lead and lift and all incidental works as a complete job as per specifications and as directed by engineer.	No.	20.00	608.00	12160.00
16	16	Supply & Providing 11 W in built electronic ballast housed with BC cap compact and single ended fluorescent lamp (CFL) 2/3 U Shape of approved make and as per explanatory note, with contractor's labour, material, machinery, tools & plants, all lead and lift and all incidental works as a complete job as per specifications and as directed by engineer.	No.	756.00	132.00	99792.00
17	17	Supply, installation, testing & commissioning of the following Double Door wall mounted pre- fabricated L T Distribution Board of approved make as per explanatory Note, with contractor's labour, material, machinery, tools & plants, all lead and lift and all incidental works as a complete job as per specifications and as directed by engineer.				

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17 (a)	(a)	(i.) Incoming MCB DP 40 Amp 10KA BC = 1 No. (ii). Out going MCB SP 6-16 Amp 10 KA BC = 6 Nos	No.	10.00	2190.00	21900.00
17 (b)	(b)	(i) Incoming MCB TPN 63A 10 KA B/C =- 1No (ii) Outing MCB SP (6- 32) A 10 KA B/C (6Nos on each phase) = 18 Nos	No.	20.00	5870.00	117400.00
Total of Schedule D						6816385.10