



भारत हेवी इलेक्ट्रिकल्स लिमिटेड

(भारत सरकार का उपक्रम)

BHARAT HEAVY ELECTRICALS LIMITED

(A Govt. of India Undertaking)

TCN – 05

Ref: PSER:SCT: MDC-C1608:TCN-05

Date: 2-12-2014

Sub	Tender change notice (TCN) 05	
Job	Levelling/ grading of the land, road and drain works, construction of open store yard, construction of covered and semi covered stores shed, construction of site office cum residence building at 4 x 180 M W Mangdechhu Hydro-Electric Project site, Bhutan.	
Ref	1.0	Tender no PSER:SCT:MDC-C1608:14.
	2.0	BHEL's NIT, vide reference no PSER:SCT:MDC-C1608: 4001 Date: 22/10/2014
	3.0	TCN 01 vide Ref: PSER:SCT: MDC-C1608:TCN-01Date: 11-11-2014
	4.0	TCN 02 vide Ref: PSER:SCT: MDC-C1608:TCN-02 Date 24-11-14
	5.0	TCN 03 vide ref PSER:SCT: MDC-C1608:TCN-03 date 25-11-14
	6.0	TCN 04 vide Ref: PSER:SCT: MDC-C1608:TCN-04 date 27-11-2014
	7.0	All other pertinent issues till date.

With reference to above, following points/ documents, relevant to tender, may please be noted and complied with while submitting offer.

- 1.0 **BOQ cum price schedule format VOL-III A, PRICE SCHEDULE, REV-03** has been revised as **VOL-III A- PRICE SCHEDULE, REV-04** which is enclosed herewith. **As such you are requested to consider the revised BOQ/price schedule only and quote your price accordingly.** Offer from bidders in superseded price schedule (Vol-III, REV-03) shall not be considered. Bidders are also requested to submit a declaration in techno-commercial offer that they have submitted their price bid in sealed envelope as per **REVISED price schedule format (VOL-III A , PRICE SCHEDULE , REV-04).**
- 2.0 Revised '**No deviation certificate**' as per enclosed Annexure-2. Bidder shall submit no deviation certificate as per enclosed format only.
- 3.0 All other terms & conditions shall remain unchanged.

Thanking you

Yours faithfully,
for BHARAT HEAVY ELECTRICALS LTD

DY MGR (SCT)

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)

POWER SECTOR EASTERN REGION, DJ-9/1, SECTOR-II, SALT LAKE CITY, KOLKATA - 700 091

फैक्स/Fax : (033) 23211960

फोन/Phone : बोर्ड/EPABX : 23211691, 23211798, 23211796

FORMAT FOR NO DEVIATION CERTIFICATE
(To be submitted in the bidder's letter head)

BHARAT HEAVY ELECTRICALS LIMITED,
 Power Sector - Eastern Region,
 Plot no 9/1, DJ Block, Sector – II, Salt Lake City,
 Kolkata – 700 091

Sub	No Deviation Certificate.	
Job	Levelling/ grading of the land, road and drain works, construction of open store yard, construction of covered and semi covered stores shed, construction of site office cum residence building at 4 x 180 MW Mangdechhu Hydro-Electric Project site, Bhutan.	
Ref	1.0	Tender no PSER:SCT:MDC-C1608:14.
	2.0	BHEL's NIT, vide reference no PSER:SCT:MDC-C1608: 4001 Date: 22/10/2014
	3.0	BHEL's TCN-01, vide reference PSER:SCT: MDC-C1608:TCN-01, dated 11-11-2014.
	4.0	BHEL's TCN-02, vide reference PSER:SCT: MDC-C1608:TCN-02, dated 24-11-2014.
	5.0	BHEL 's TCN 03 vide ref PSER:SCT: MDC-C1608:TCN-03 date 25-11-14
	6.0	BHEL 's TCN 04 vide ref PSER:SCT: MDC-C1608:TCN-04 Date: 27-11-2014
	7.0	BHEL 's TCN 05 vide Ref: PSER:SCT: MDC-C1608:TCN-05 Date: 2-12-2014
	8.0	All other pertinent issues till date.

Dear Sirs,

With reference to above, this is to confirm that as per tender conditions, we have visited site before submission of our offer and noted the job content & site conditions etc. We also confirm that we have not changed/ modified the tender documents as appeared in the website/ issued by you and in case of such observance at any stage, it shall be treated as null and void.

We hereby confirm that we have not taken any deviation from tender clauses together with other references as enumerated in the above referred NIT. We hereby confirm our unqualified acceptance to all terms & conditions, unqualified compliance to technical specification, integrity pact (if applicable) and acceptance to reverse auctioning process.

In the event of observance of any deviation in any part of our offer at a later date whether implicit or explicit, the deviations shall stand null & void.

We confirm to have submitted offer in accordance with tender instructions and as per aforesaid references.

Thanking you,

Yours faithfully,

(Signature, date & seal of authorized representative of the bidder)

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)

POWER SECTOR EASTERN REGION DJ-9/1, SECTOR-II, SALTLAKE CITY, KOLKATA - 700 091

फैक्स/Fax : (033) 23211960

फोन/Phone : बोर्ड/EPABX : 23211691, 23211798, 23211796

VOLUME-III PRICE SCHEDULE -REV-04	
LEVELLING/ GRADING OF THE LAND, ROADS AND DRAIN WORKS , CONSTRUCTION OF OPEN STORE YARD, CONSTRUCTION OF COVERED AND SEMI COVERED STORES SHED, CONSTRUCTION OF SITE OFFICE CUM RESIDENCE BUILDING AT 4 X 180 MW MANGDECHHU HYDRO-ELECTRIC PROJECT SITE, BHUTAN.	
TENDER NO - PSER:SCT:MDC-C1608:14	
PREAMBLE	
1	This preamble forms part of tender document and schedule of items. The bidder should read this preamble carefully for various items. Clauses under this preamble shall be read in conjunction with applicable volumes of Volume-IA, Volume-IB, Volume-IC, Volume-ID, Volume-IF, Volume-II, other part of this volume, together with subsequent changes/ modifications, etc thereto as applicable as on latest date of submission of price offer.
2	The work shall be carried out strictly as per specifications, description of the items in these schedule and / or engineer's instructions.
3	Items of work provided in this schedule but not covered in this specification shall be executed strictly as per instruction of the engineer.
4	Unless specifically mentioned otherwise in the tender document, the tenderer shall quote for the finished items and shall provide for the complete cost towards power, fuel, tools, tackles, equipment, constructional plants, temporary works, labour, dismantling of all temporary piping, structures, valves, pumps, tanks & other misc. equipment, strengthening of roads/culverts/bridges etc. including arranging all clearances etc. required for carrying out different activities & tests, materials, levies, taxes(except service tax), transport, layout, repairs, rectification, maintenance till handing over, supervisions, colonies, shops, establishments, overheads, profits and all incidental items not specifically mentioned but reasonably implied and necessary to complete the work according to the complete tender document and this schedule.
5	The quantities of the various items mentioned in this schedule of items are approximate, based on very preliminary information and may vary to any extent or be deleted altogether. The quoted rates of each item will remain firm throughout the period of execution including extension, for reasons whatsoever, as long as variation in the total value of work executed under any part of this contract including extra items, if any but excluding any price variation remains, within fifteen percent ($\pm 15\%$) of the awarded price as per LOI .
6	Prior written approval of BHEL shall be sought by the contractor in case quantity variation of any item crosses +50% (plus fifty percent) limit during execution and approval to be obtained before execution of further quantity for this item.
7	In case Sealed /Paper Price Bids are opened for finalisation of the tender, for any Item Rate/BOQ based contract, possibility of variation of quantity/ addition/deletion of items can not be ruled out. Under such circumstances, after execution of work, if it is observed that standing as L-1 is changed based on actual quantity executed, the bidder shall give suitable rebate to maintain your standing as L-1. Since this aspect can be assessed at the end of execution, necessary adjustment will be effected at the end of execution in final bill.This condition shall not be applicable where the tender is finalised through Reverse Auction.
8	BHEL reserve the right to rationalize the rates, quoted by L-1 bidder against unit rate items and/ or other optional items with respect to item-wise lowest rates (amongst the participating bidders), before placement of order.
9	The rates quoted shall be inclusive of cleaning of site of any vegetation, dressing , clearing of old structures and leveling etc. including fixing of grid pillars, benchmarks etc. required for commencement of site activities. No separate payment will be made towards the same.
10	Rates shall be quoted in figures and in words in clear legible writing. No overwriting is allowed. All scoring and cancellations should be countersigned and in case of illegibility the interpretation of engineer shall be final. All entries shall be in English language.
11	All works item wise shall be measured upon completion and paid for at the rates quoted and accepted as per BHEL approved payment schedule/billing break-up.
12	The tender shall be deemed to have visited site and made himself aware of all the site conditions, studied the specifications and details of work to the done within the time schedule attached and to have acquainted himself of the conditions prevailing at site.
13	No splitting of the job is envisaged. Decision of BHEL in this regard shall be final and binding to the bidders.
14	Bidders are not allowed to alter the Price Schedule format including item description,quantity etc. and the offer is liable for rejection if the bidders submit their prices in Price Schedules modified by them.BHEL reserves the right to reject the offers of bidders who submit offers in Price Formats which are modified/alterd by them.
15	Bidders to note that for Civil &/Structural packages, against a particular item against a ST No. appearing in more than one schedule of the BOQ, same rate must be quoted in all schedules for that particular items with same descriptions. If by error, different rates are quoted in different schedules for same ST No.(i.e. item with same description), then the higher of the rates shall be considered for evaluation but awarding shall be done with the lower rate ,if the bidder becomes L-1."
16	In case of Lumpsum contracts, addition or deletion of the scope beyond the variation limit specified shall be derived from the quoted Lumpsum price and the tendered scope of work considering the allowable variation limit.
17	Engineer's decision shall be final and binding on the contractor regarding clarification of items in the schedule with respect to the other sections/volumes of the contract.
18	In case of tender for Civil and/or Structural works , the Non-schedule items are not quoted by the bidder, it will be treated at par with rate of corresponding item of CPWD/PWD/DSR schedule as prescribed in the tender/BOQ cum Rate Schedule.
19	Size and weights of various items are mentioned in the attached BOQ cum rate/price schedule for reference purpose only & these shall not be taken into consideration for quoting/calculating amount in the rate schedule. These shall be utilised as per relevant sections of tender. Bidders shall quote for each item in the rate column, taking unit as mentioned in the quantity column. Rates shall be filled in both figures and words. Amount shall be calculated based upon these rates multiplied by the mentioned quantity for the respective items.
20	Bidder's GRAND Total price shall be considered for evaluation unless stated otherwise.
21	In case of BOP packages, if Bidder does not quote/indicate the price for freight chages against indicated rate schedule, the same shall be considered as 2% of basic price and adjusted with the total quoted price against each item keeping the total quoted price unaltered.

**VOLUME-III
PRICE SCHEDULE, REV-04**

**LEVELLING & GRADING, ROAD & DRAINS, OPEN STORE YARD, COVERED & SEMI COVERED STORE SHED AND SITE OFFICE
CUM RESIDENTIAL BUILDING WORKS FOR 4X180MW MANGDECHHU PROJECT, BHUTAN**

TENDER NO PSER:SCT:MDC-C1608:14

ITEM NO	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	UNIT RATE (RS)	TOTAL AMOUNT(Rs)
A	CIVIL WORKS				
1	Earthwork in excavation in all types of soil by any means including setting out, levelling, dewatering (but excluding special type of dewatering viz well point method), shoring & strutting (wherever required), dressing the sides & bottom, all lifts, ramming/ compacting the excavated bottom, stacking, disposal of surplus excavated materials within a lead upto 500 m , spreading/ levelling of disposed materials etc all complete for following depths below ground level.				
a	Upto a depth below ground level but not exceeding 2 m.	CUM	23895		
b	Upto a depth exceeding 2 m but not exceeding 4 m.	CUM	450		
2	Earth work in excavation in soft rock (rock without any recovery of excavated materials in the form of hard stone/boulder) including weathered rock which can be excavated by means of crow bar, pick axe,pneumatic rock breaker attachment with excavator machine etc but does not require chiselling or blasting including setting out, levelling, dewatering (wherever required), shoring & strutting (wherever required), dressing the sides & bottom, all lifts, ramming/compacting the excavated bottom, stacking, disposal of surplus excavated materials within a lead upto 500 m , spreading / levelling of disposed materials etc all complete for following depths below ground level.				
a	Upto a depth below ground level but not exceeding 2 m.	CUM	95		
b	Upto a depth exceeding 2 m but not exceeding 4 m.	CUM	50		
3	Earth work in filling for levelling and grading to proper grade, including filling in trenches, plinths, sides of foundations and other structures upto any depth below ground level using selected excavated earth directly from compulsory excavations inside the project site on prepared surface obtained by compacting with mechanical means including setting out, filling in horizontal layers not exceeding 300 mm compacted thickness , spreading, sorting, breaking clods, watering, compaction with proper moisture content to achieve desired dry density (standard Proctor density), dewatering (if required), testing, approaches, finishing to required lines, grades and slopes, levelling etc complete as per specification, drawing and as directed by the engineer.				
	Each layer compacted so as to achieve at least 95% maximum dry density as per IS-2720 (Part-VII)	CUM	18025		

ITEM NO	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	UNIT RATE (RS)	TOTAL AMOUNT(Rs)
4	Earth work in filling upto any depth below ground level for grading to proper grade and level in layers not exceeding 300 mm compacted thickness ,using/with selected approved soil from compulsorily excavated soil stacked and available within a lead upto 500 mtr and compacted as specified including re-excavation of stacked earth, sorting, spreading, breaking clods, watering, ramming/compaction by manual/mechanical means, dressing, finishing to required lines, grades and slopes, testing etc all complete as per specification, drawing and as directed by the engineer for the following.				
	Each layer compacted so as to achieve at least 95% maximum dry density as per IS-2720 (Part-VII)	CUM	3900		
5	Earth work in filling for levelling and grading using borrowed good earth (borrowed good earth shall be provided by Customer / BHEL free of cost but transportation from a place having lead upto 1 Km from project premises to be arranged by the contractor at his own cost) on prepared surface obtained by compacting with mechanical means including setting out, filling in horizontal layers not exceeding 300 mm compacted thickness , spreading, sorting, breaking clods, watering, ramming/compaction by manual/mechanical means, dressing, finishing to required lines, grades and slopes, testing etc all complete as per specification, drawing and as directed by the engineer for the following.				
	Each layer compacted so as to achieve at least 95% maximum dry density as per IS-2720 (Part-VII)	CUM	100		
6	Extra over Item No. 1,2,3, 4, and 5 for carriage of soil for every additional 500 mtrs or part thereof beyond the initial lead mentioned in respective items.	CUM	6500		
7	Providing and laying Brick flat soling with Burnt Clay Bricks of Class designation 50 & dressing bed to the proper level & filling the joints with powder earth or local sand including all materials, labour etc. complete as per direction of Engineer In Charge.	SQM	4340		
8	250th Brick work in cement mortar 1:6 in foundation, plinth, wall, pier, abutment, wing wall, water tank, septic tank, drains, culvert etc including all materials, labours, scaffolding and other incidental etc complete. (Cement - PPC/OPC/PSC to be supplied by the contractor with TC from reputed manufacturer of approved make.)				
	Burnt clay bricks, class designation 50.	CUM	1265		
9	Half brick work in cement mortar 1:4 in foundation, plinth, pier, abutment, wing wall, water tank, septic tank, drains, culvert etc including all materials, labours, scaffolding and other incidental etc complete. (Cement - PPC/OPC/PSC to be supplied by the contractor with TC from reputed manufacturer of approved make.)				
	Burnt clay bricks, class designation 50.	SQM	2055		

ITEM NO	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	UNIT RATE (RS)	TOTAL AMOUNT(Rs)
10	Plaster to masonry /concrete wall, floor, slab soffits, fins, sills, drains etc with sand cement mortar including rounding or chenefering corners as directed and racking out joints or roughening of concrete surface including chipping & application of cement slury where necessary etc complete as per drawing and direction of engineer. (cement - PPC/OPC/PSC to be supplied by the contractor with TC from reputed manufacturer of approved make.).				
a	With 1:6 cement mortar average 12mm thick plaster.	SQM	4955		
b	With 1:6 cement mortar average 15 mm thick plaster.	SQM	4500		
11	Providing and laying neat cement finish in walls, drains/ culverts with a paste of neat cement @ 1 kg/ sqm and rubbed smooth with trowel etc all complete.	SQM	4500		
12	Providing and laying Coursed rubble masonry (First sort) with hard stone in foundation, plinth & drains works with cement mortar 1:6 (1 cement :6 coarse sand) all complete as per direction of Engineer In Charge.	CUM	325		
13	Preparation of subgrade by excavating earth to required depth for all types of soil/ rock, dressing to camber and consolidating the base including making good the undulation etc and disposal of surplus earth within a lead upto 1 Km etc all complete.	CUM	1625		
14	Providing and laying 300mm thick stone pitching including cauliking with 1 cement : 4 sand mortar on the slopes of earth fill cut with approved quality of rock fragments including materials, testing, necessary excavation if any, compaction etc all complete as per specifications, drawing and as per direction of engineer in charge.	CUM	1300		
15	Providing & laying water bound macadam sub base course in layers, of 250mm to 300mm thickness as applicable with crushed stone aggregates 90 to 40 mm down size, stone screening & blinding materials including screening, sorting, spreading to template & consolidation with road roller including carriage, spreading & consolidation of blinding material moorum etc. all complete.	CUM	8450		
16	Felling trees of girth (measured at a height of 1m above ground level) including cutting of trunks and branches, removing the roots and stacking of serviceable materials and disposal of unserviceable materials , - Beyond 30 cm girth upto and including 60 cm girth.	EACH	250		

ITEM NO	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	UNIT RATE (RS)	TOTAL AMOUNT(Rs)
17	Providing and fixing of 2M high fencing with MS angle post of size 40x40x5 mm 2.4 M long placed every 3M centre to centre embedded in concrete, including angle stay of same section on both side of the vertical angle at every 15 mtrs span as well as at corner post. The angle post shall be embedded in plain cement concrete(1:2:4) size 300X300X400 mm deep below ground etc complete including excavation, backfilling, concreting . Contractor will supply all material, concrete, structural steel, labour etc complete.				
a)	MS Angle Structural Post with two coats of bitumen based protective coating etc complete.Payment terms - a) On receipt of materials at site- 60%; b) On completion of job in all respect - 40%.	KG	8550		
b)	Supplying, fitting & fixing galvanised chain link fencing of approved quality 50mmx50mmx8 g , by means of galvanised "C" clips, with fixing of galvanised special clips for fixing along with 2mm thick GI tension wire at top and bottom etc. Contractor to supply all materials . Angle post to be paid seperately. Payment terms - a) On receipt of materials at site- 60%; b) On completion of job in all respect - 40%.	SQM	550		
18	Supplying, fitting & fixing PVC coated galvanised chain link fencing of approved quality 50mmx50mmx8 g , by means of galvanised "C" clips, with fixing of galvanised special clips for fixing along with 2mm thick GI tension wire at top and bottom etc. Contractor to supply all materials . Angle post to be paid seperately. Payment terms - a) On receipt of materials at site- 60%; b) On completion of job in all respect - 40%.	SQM	4100		
19	Providing and laying Plain cement concrete 1:4:8 (1 cement : 4 sand : 8 graded stone aggregate of 20mm nominal size) as filling course or lean concrete at any level below foundations, drain, septic tank, floor, hume pipes including all materials, labour etc complete as per direction of Engineer In Charge. (Cement - PPC/OPC/PSC to be supplied by the contractor with TC from reputed manufacturer of approved make.)	CUM	500		
20	Providing and laying Reinforced / plain cement concrete 1:1.5:3 (1 cement : 1.5 sand : 3 graded stone aggregate of 20mm nominal size) for foundations, columns, beams, chajjas, RCC sleepers, RCC shelves, over head tanks slab, super structure slab etc excluding cost of reinforcement & shuttering if any but including all materials, labours and curing etc. complete at all levels as per direction of Engineer In Charge. (Cement - PPC/OPC/PSC to be supplied by the contractor with TC from reputed manufacturer of approved make.).	CUM	1205		

ITEM NO	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	UNIT RATE (RS)	TOTAL AMOUNT(Rs)
21	Supply, transporting, straightening, cutting, bending, placing at any level, binding in position high yield strength steel reinforcements in concrete including cost of reinforcement and binding wire, labour etc complete all as per specifications, drawings & as per direction of Engineer In Charge. (Contractor will provide TMT bar Fe-415/500 quality from SAIL / TISCO / IISCO / SRMB / SHRICON / SHYAM STEEL / CONCAST ETC). Payment terms - a) On receipt of materials at site- 60%; b) On completion of job in all respect - 40%.	MT	105		
22	Hire & labour charges of 25mm thick shuttering for bldg. works for concrete foundations, floor / roof slab, beams, lintels, columns, chajja, fins etc including fitting, fixing and striking out carefully after completion of work for below ground and upto 6m height from finished floor level.				
	With or without vertical props upto required height	SQM	3400		
23	Supply, fabrication, erection & painting of structural steel work in columns, beams wind ties, etc with simple rolled structural members connected to one with another with brackets gusset cleats, bolted or welded etc as per design & direction complete including fabrication, hoisting & erection including all materials, labour etc complete with one coat of primer & two coats of synthetic enamel painting (Contractor will provide structural steel from JINDAL / SAIL/ TISCO/ IISOCO/ SRMB/ SHRICON/ SHYAM STEEL/ RINL etc with test certificate). Payment terms - a) On receipt of materials at site- 60%; b) On completion of erection, alignment & painting etc in all respect- 40%.	MT	25		
24	Supply, fabrication, erection & painting of structural steel work in columns, beams, wind ties, etc with RECTANGULAR/CIRCULAR TUBULAR STRUCTURE, as per relevant IS Codes, connected to one another with suitable tubular connections bolted or welded etc as per design & direction complete including fabrication, hoisting & erection including all materials, labour etc complete with one coat of primer & two coats of synthetic enamel painting (Contractor will provide structural steel from JINDAL / SAIL/ TATA/ etc or any other approved make with test certificate). Payment terms - a) On receipt of materials at site- 60%; b) On completion of erection, alignment & painting - 40%.	MT	25		

ITEM NO	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	UNIT RATE (RS)	TOTAL AMOUNT(Rs)
25	Supply, fabrication, erection & painting of steel work with tubular sections (Circular or Rectangular) as per relevant IS codes, for roof truss, purlin etc including all materials conforming to relevant IS codes, labour etc as per drawing, specification and direction of engineer with one coat of primer and two coats of synthetic enamel painting (Contractor will provide structural steel from JINDAL /BANSAL/ TATA/ SHYAM STEEL/ RINL etc). Payment terms - a) On receipt of materials at sit- 60%; b) On completion of erection, alignment & painting etc in all respect- 40%.	MT	80		
26	Providing & laying corrugated Galvanized iron sheet (CGI 0.5mm thick for roofing & side clading of TATA/SAIL/ZINDAL/BHUSAN make including galvanised J or L hook, bolts, and nuts 8mm dia with bitumen washer 25mm dia X3mm thick and 1.6 mm thick limpet washer complete with all labour, tools and plants.Payment terms - a) On receipt of materials at site- 60%; b) On completion of job in all respect - 40%.	SQM	8800		
27	Providing & laying corrugated Pre-Painted Galvanized Iron sheet (PPGI) of minimum 0.47 mm thick for roofing & side clading of manufacturers like TATA/JINDAL or any other approved make including all fixing accessory specials like galvanised J or L hook, bolts, and nuts 8mm dia with bitumen washer 25mm dia X3mm thick and 1.6 mm thick limpet washer etc. complete with all labour, tools and plants. Payment terms - a) On receipt of materials at site- 60%; b) On completion of job in all respect - 40%.	SQM	450		
28	Providing & fixing galvanised iron ridge 0.5mm thick and 230mm lappings of both sides of TATA /SAIL /ZINDAL/BHUSAN make including fixing necessary screws,washers etc complete with all labour and tools and plants.Payment terms - a) On receipt of materials at site- 60%; b) On completion of job in all respect - 40%.	RM	390		
29	Providing & fixing Pre-Painted Galvanized Iron (PPGI) Ridge of minimum 0.47 mm thick for roofing & side clading of manufacturers like TATA/JINDAL or any other approved make including all fixing accessory specials like necessary screws,washers etc complete with all labour and tools and plants.Payment terms - a) On receipt of materials at site- 60%; b) On completion of job in all respect - 40%.	RM	85		
30	Providing PVC pipe with fittings and fixtures of FinOlex / Utkarsh India / Supreme or equivalent make as per IS-13592:1982 with all materials, labour, etc complete for rain water pipes, external sewer line/ waste water line connection upto open drain or manhole to manhole/ septic tank/ soak pit, as directed by BHEL.Payment terms - a) On receipt of materials at site- 60%; b) On completion of job in all respect - 40%.				
	90mm dia, Type-A & Wall thickness is 2.3mm	RM	980		

ITEM NO	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	UNIT RATE (RS)	TOTAL AMOUNT(Rs)
31	Providing & fixing 15cm wide, 45cm overall semi-circular plain CGI Rainwater gutter with iron brackets 40x3mm size, bolts, nuts and washers etc. including necessary connections with rain water pipes all complete. Payment terms - a) On receipt of materials at site- 60%; b) On completion of job in all respect - 40%.	RM	900		
32	Providing & fixing 15cm wide, 45cm overall semi-circular plain Pre-Painted Galvanized Iron (PPGI) Rainwater gutter of minimum 0.47 mm thick of manufacturers like with iron brackets 40x3mm size, bolts, nuts and washers etc. including necessary connections with rain water pipes all complete. Payment terms - a) On receipt of materials at site- 60%; b) On completion of job in all respect - 40%.	RM	110		
33	Providing, transporting, fixing of MS foundation/ anchor bolt (Grade-1 of IS:432 & IS:2062) assembly in concrete along with nuts, 25mm dia, including furnishing of labour, materials, welding, etc all complete as per specification, drawing and instruction of engineer (Contractor will supply all material). Payment terms - a) On receipt of materials at site- 60%; b) On completion of job in all respect - 40%.	KG	3217		
34	Supply & providing MS gate size as per sketch/ drawing, made of 1.5 mm MS sheet framed with 50X50X6 / 75X75X6 mm angle, diagonals with two posts ISMB 100/200 & all fittings and fixtures like hinges, hatch bolts, locking arrangements etc. Complete as per Drawing, specification and finished with one coat of red oxide primer followed by two coats synthetic enamel paint of approved brand as directed by Engineer-in-charge.	MT	15		
35	Supplying, fitting & fixing openable steel window conforming to IS1036-1975 & IS7452-1974 with non-friction projecting type of hinges fitted with revetts or nut bolt system as directed, glazing cleats, lugs, 2 nos MS anodised heavy duty peg stays & fustner for each window of size 900mm x 1200mm, minimum 4mm thick clear glass pane (each max. size 450mm x450mm), including fixing in position with putty, fixing lug in cement concrete 1:2:4 with stone chips 12.5mm down cutting holes & mending good damage, 10mm dia MS guard bar welded horizontally 125 c/c with each window, etc complete with 1 coat of primer and 2 coats of synthetic enamel finish in all respect.	SQM	60		
36	Providing & fixing of wooden solid flush door with commercial ply finish, fitted with MS hinges(heavy duty), one each of 150mm aluminium tower bolt, 16mmx300mm long Al sliding door bolt & 100mm aluminium handle, finished with one coat of primer & two coat of synthetic enamel paint etc complete.				
	Minimum 25 mm thick shutter.	SQM	70		

ITEM NO	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	UNIT RATE (RS)	TOTAL AMOUNT(Rs)
37	Providing & Fixing hard wood frame conforming to IS:4021 made of approved quality seasoned wood like Gammar, Sishu, Neem etc free from lagre or loose knots, cracks or other defects inclusive of sand paper smoothening, hold fasts, beading, primer including final synthetic painting of approved make etc complete as per specifications with proper wood joinery, accurately set to required lines or levels and rigidly secured in place.	CUM	0.5		
38	Providing and fixing minimum 24 mm thick factory made solid PVC panelled door shutter with door frame 60mmx30mm (Syntex or equivalent) including all hardware items like handle, hinges,tower bolt, hatch bolt, locking arrangement, etc all complete in all respect.	SQM	30		
39	Providing and fixing of overhead hydraulic door closer of Godrej make or equivalent as directed by Engineer-In-Charge.	NO	30		
40	Providing and applying one coat of approved primer to timber or steel or plastered surface or other metal surface with ready mix paint of approved quantity including smoothening of surface by sand papering, etc complete.	SQM	25		
41	Painting two coats with best quality synthetic enamel paint of approved make and brand including smoothening surface by sand papering etc all complete as directed by Engineer-In-Charge.				
	On steel or other metal or wooden surface with super gloss.	SQM	30		
42	3 coats white washing with line including cleaning and smoothening surface thoroughly to give an even shade.	SQM	1200		
43	Providing & laying plaster of paris (birla white or equivalent) 2 mm thick punning over finished plaster surface for smothering surface as per specification at all levels,	SQM	1900		
44	Providing and applying 2 or more coats of weather paint of Aisian paint or approved equivalent make and colour on exterior surface at all heights including material, labour, scaffolding, curing, etc complete as per specification.	SQM	1000		
45	Providing and laying 40 mm thick cement concrete flooring 1:2:4 (Cement:Sand:Coarse aggregate) finished with floating coat of neat cement including cement slurry but excluding cost of nosing, steps, etc complete, 40mm thick flooring with 20 mm nominal size stone aggregate.All materials to be supplied by the contractor.	SQM	400		
46	Providing and laying 10 mm thick plain ceramic tiles of standard shade in flooring including 4" skirting of approved make on 20mm thick under bed of 1 part cement and 4part coarse sand by weight mixed with sufficient water, complete as per specification laid in pattern of following sizes.				
	300mm x 300mm x 10mm(th)	SQM	400		

ITEM NO	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	UNIT RATE (RS)	TOTAL AMOUNT(Rs)
47	<p>Providing attach/ common toilet with following facilities as directed by BHEL : (a) toilet of minimum 2.25 Sqm in area (b) 5mm thick white colour ceramic floor tile & inside wall tile upto 2.0mtrs height from finish floor, (c) 1 white vitreous wash basin 550 x 400 mm (Hindustan make or equivalent approved make) with CI bracket, 15mm CP brass pillar taps, 32mm PVC waste water pipe, 32mm CP brass waste, 1 CP towel rail 550mm long, 1 best quality 550mm x 400mm mirror, etc complete, (d) 1 European type WC pan with seat and lid black colour (Hindustan make or equivalent approved make), low level 10 ltrs capacity white PVC flushing cistern, one no. two in one bibcock fitted with hand shower of approved make etc.</p> <p>All inside pipe lines shall be 15mm/20mm PVC & concealed pipes. Main external supply water pipe lines shall be 25mm dia PVC and provided upto ground floor along exterior wall, complete in all respect including testing. Seperate hot and cold water plumbing lines fitted bibcocks / pillar cock shall be provided for shower/bath area and wash basin. One 6L storage capacity standard Gyeser of approved make shall be provided and fitted with the Hot and Cold water lines. Soil pipe shall be min 75mm dia CI for below floor if any & outside shall be 100 mm PVC of supreme or equivalent. Masonry, plastering, tiling and painting will be paid seperately as per respective items. (rate in lumsum for each set of toilet).</p>	SET	13		
48	<p>Providing common toilet with following facilities as directed by BHEL Engineer-In-Chagre : (a) toilet of minimum 25 Sqm in area (b) 5mm thick white colour ceramic floor tile & inside wall tile upto 1.20mtrs height from finish floor including urinal wall partitions, (c) Two white vitreous wash basin 550 x 400 mm (Hindustan make or equivalent approved make) with CI bracket, 15mm CP brass pillar taps, 32mm PVC waste water pipe, 32mm CP brass waste, 2 CP towel rail 550mm long, 2 best quality 550mm x 400mm mirror, etc complete, (d) Two WC chamber with European type WC pan with seat and lid black colour (Hindustan make or equivalent approved make), low level 10 ltrs capacity white PVC flushing cistern, etc. (e) Four vitreous urinals, required water pipeline connections provided with flush valves (stop cock) for each urinals, with intermediate 125mm brick partitions, All inside pipe lines shall be 15mm/20mm PVC & concealed pipes. Main external supply water pipe lines shall be 25mm dia PVC and provided upto building exterior, complete in all respect including testing. Soil pipe shall be min 75mm dia CI for below floor if any & outside shall be 100 mm PVC of supreme or equivalent. Masonry & plastering will be paid as per respective items.(rate in lumsum for each set of toilet).</p>	SET	1		
49	<p>Providing & fixing PVC water tank (Syntex or equivalent) in position. The work to include making all necessary inlet & out-let pipes, fixture, heavy duty overflow ball valves etc all complete as per specification at all heights and levels.</p>				
	2000 ltr capacity.	NOS	2		
50	<p>Providing & fixing approved stainless steel sink of size 750mmx510mmx200mm (Depth) with integrated drainboard complete including painting the fittings, cutting and making good the wall where required as per specifications. The work to be complete as per specifications, drawings.</p>	NOS	2		

ITEM NO	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	UNIT RATE (RS)	TOTAL AMOUNT(Rs)
51	Supply, laying and jointing 100mm dia heavy duty CI pipes including bends, branches and all other necessary fittings, lead caulking, a coat of bitumenous paint, MS holder bats/ clamps, cutting and making good the walls and floors, jointing, test	RM	20		
52	Providing and installing one bore well of size 4" x 3" of minimum 200' deep with necessary PVC pipe of ORIPLAST or equivalent make, strainer, 1.5 HP submersible pump, starter, accessories, cables, etc complete as per the satisfaction of the engineer.	SET	1		
53	Supply, fitting & fixing/ laying of GI pipe above or below ground of required dia as per IS:1239/ IS:3589 , etc complete for making common ring header (For below ground excavation shall be paid seperately). As per direction of Engineer-In-Chagre.				
a	25mm diameter	RM	20		
b	40mm diameter.	RM	130		
54	False Ceiling shall be provided In ceiling of First Floor and shall comprise of glass fibre reinforced gypsum plaster board (GRG) ceiling (having gypsum core mixed with glass fibre) system consisting of metal supporting grid system forming panels of 600 mm x 600 mm or 1200 mm x 1200 mm specified size as per manufactures specification, suspended from RCC slab/ structural steel grid above with 4 mm (minimum) galvanised wires (rods) with special height adjustment clips, including light fixtures etc all complete as per drawings, specification and instructions of the engineer.	SQM	400		
55	Providing & fixing security kiosk size approx 1.5M x 1.5M in plan, front height 3M and back side height 2.9M, made of structural steel (light rolled sections like ISA 50x50x6), 3 verticals sides and roof shall be covered with CGI sheet 0.5mm thick with one each side openings 300mm x 300mm openings for viewing, floor shall be made with 40mm thick wooden planks (second class treated wood) at an height of 400mm above ground level, one wooden planks 450mm width to be suitably provided for sitting arrangements inside kiosk, all angles and planks top side shall be painted with one coat of primer and two coats of synthetic enamel paint finish including all labours and materials etc complete. Structural drawings to be got approved.	SET	8		
56	Providing & laying NP2 class RCC hume pipe with collar joint with stiff mixture of cement mortar 1:2 including testing of joint etc with all materials and labour. All excavation, backfilling, concreting if required shall be paid seperately as per relevant items.				
a	150mm dia	RM	156		
b	250mm dia	RM	195		
c	300mm dia	RM	260		

ITEM NO	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	UNIT RATE (RS)	TOTAL AMOUNT(Rs)
57	Supply and Grassing with selection No.1 grass including watering and maintenance of the lawn for 30 days or more till the grass forms a thick lawn, free from weeds and fit for mowing including supplying good earth, if needed etc all complete as per instruction of the Engineer-In-Charge (the good earth shall be paid seperately in the relevant item)				
a	With grass Turf	SQM	100		
	TOTAL OF CIVIL WORKS(A)				
B	ELECTRICAL WORKS				
58	Suplpy fixing of iron clad main switches TPN/dp on iron frame duly pnted/ on wall, with all required materials, hardwares, etc. as per instruction of BHEL Engineer, of Standard make (Havells/ crompton /approved make)				
a	200A TPN, MSFU (Main switch fuse).	NO	2		
b	63A TPN	NO	7		
c	30/32A TPN	NO	8		
d	32A DP	NO	10		
e	16A DP	NO	5		
59	Supply and fixing of metal sheet MCB box, as per instruction of BHEL Engineer.				
a	4 Way	NO	8		
b	6 Way	NO	1		
c	8 Way	NO	8		
60	Supply & fixing of sheet metal (16 SWG) iron clad busbar chamber (W=500 mm x D=150 mm) on angle iron frame duly painted on wall with 4 Al bars (25 x 5 x 600 mm) 500V, with adequate nos of holes drilled for connection of incoming & outgoing ckts, bars are fixed on porcelain insulators. Including supply of required hardwares for connection, fitted with DANGER board, all complete as per instruction of BHEL engineer.	NO	2		
61	Supply & fixing of metal junction box with connector lugs as per instruction of Engineer-In-Charge - Size (8" x 10' x 3") to terminate 10 sqmm cable and 4 sqmm cable.	NO	62		
62	Supply & fixing composite flush type 250 V 5 pin 5A plug socket integral fuse with 5A piano key type switch on sheet metal box with bakelite cover and earthing attachment including switch and fuse of matching PVC box-make ANCHOR or equivalent approved make (for Computers/ printers), as per instruction of BHEL engineer. Each set shall contain 3 sockets and 3 switches.	NO	104		
63	Supply and installation of switchboard of sheetmetal box with bakelite cover, as per instruction of BHEL engineer.				
a	Size 4"x8".	NO	28		
b	Size 4"x10".	NO	24		
c	Size 4"x4".	NO	58		
64	Supply and installation of piano type switche (5A), as per instruction of BHEL engineer.	NO	223		
65	Supply and installation of 5A socket to be fixed in switchboard, as per instruction of BHEL engineer.	NO	41		
66	Supply and Installation of SP MCB for lighting/ power purpose.				
a	16 A.	NO	17		
b	6 A.	NO	58		
c	63A DP.	NO	6		
67	Supply and installation of SP MCB for lighting/ Power purpose-				
a	25A/32A	NO	10		

ITEM NO	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	UNIT RATE (RS)	TOTAL AMOUNT(Rs)
68	Supply of 3.5 core 95 sqmm PVC, armoured Aluminium cable of 1.1KV grade as per IS-1554.	RM	650		
69	Laying below ground in excavated trench average depath 800 mm with 8 nos of brick on top of the cable per meter including filling the space between brick & cable and also the trench with shifted soil levelling and restoring the surface duly rammed & compacted, as per instruction of BHEL Engineer.	RM	775		
70	Supply of 3.5 core 25 sqmm PVC, armoured Aluminium cable of 1.1 KV grade as per IS-1554.	RM	545		
71	Laying above ground on wall/ surface with clamps etc, chase cutting on wall/ floor, mending good damages, testing & commissioning of 3.5 core 25 sqmm PVC, Aluminium cable of 1.1 KV grade, as per instruction of BHEL Engineer.	RM	545		
72	Supply of 4 core 16 sqmm PVC, armoured Aluminium cable of 1.1KV grade as per IS-1554.	RM	275		
73	Laying above ground on wall/ surface with clamps etc, chase cutting on wall/ floor, mending good damages, testing & commissioning of 4 core 16 sqmm PVC, Aluminium cable of 1.1 KV grade, as per instruction of BHEL Engineer.	RM	275		
74	Supply of 4 core 6 sqmm PVC,armoured Aluminium cable of 1.1 KV grade as per IS-1554.	RM	850		
75	Laying above ground on wall/ surfase with clamps etc, chase cutting on wall/floor, mending good damages, testing & commisisoning of 4 core 6 sqmm PVC, Aluminium cable of 1.1 KV grade, as per instruction of BHEL Engineer.	RM	850		
76	End termination with double compression gland and lugs.	NO	48		
77	Supply,drawing through PVC conduit/casing, termination, testing & commisisoning as wring for lighting, power & earthing of-				
a	1 core 10 sqmm PVC insulated, stranded Copper wire of 1.1 KV grade.	RM	750		
b	1 core 4 sqmm PVC insulated, stranded Copper wire of 1.1 KV grade.	RM	1000		
c	1 core 2.5 sqmm PVC insulated, stranded Copper wire of 1.1 KV grade	RM	4050		
d	1 core 1.5/1 sqmm PVC insulated, stranded Copper wire of 1.1 KV grade	RM	5750		
78	Supply and fixing of PVC conduit with all bends, tees, reducers, rectangular/circular box, clampa, saddles etc along with the accessories in surface/ recess in beam/ roof slab / wall / false ceilling and making good the same as required, as per instruction of BHEL Engineer.				
a	1" dia rigid	RM	3225		
b	1" dia flexible	RM	195		
79	Supply and fixing of PVC casing with all bends, tees, reducers, rectangular/ circular box, clamps, ..and making good the same as required, as per instruction of BHEL engineer.				
	1" dia.	RM	35		
80	Supply & fixing of ceiling rose on circular boxes, as per instruction of BHEL engineer.	NO	200		

ITEM NO	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	UNIT RATE (RS)	TOTAL AMOUNT(Rs)
81	Making necessary arrangement during construction and fixing of 230V 12" exhaust fan with external louvre of any standard make.	NO	30		
82	Supply and Installation of earth electrode 40 mm dia 3 mtr long GI pipe directly driven into earth including earth excavation if required.	NO	3		
83	Supplying & installation of 16 SWG GI wire for earthing including supply & termination with lugs as required.	RM	240		
84	Making necessary arrangement during construction and fixing of 48" sweep ceiling fan, complete, with 100W electronic regulator. Scope includes fixing from roof/ false ceiling structure by providing mounting rod & fixing of regulator as required. (Make: Usha, Polar, Bajaj, Havels, CG).	NO	30		
85	Supply & fixing of flush type calling bell switch on sheet metal box with bakelite cover & earthing arrangement. Make: Anchor or any approved.	NO	5		
86	Supply & fixing of calling bell (electronic) of standard make.	NO	5		
87	Supply & fixing of 200A Iron clad TPN change-over switch on angle iron frame, duly painted, fixed on wall with all required materials, hardwares, etc as per instruction of BHEL engineer. Make: Havels, L&T or approved.	NO	1		
88	Supply and fixing of lightning arrestor at suitable height on the building top including earthing connection of the LA at nearby earth pit on ground. All required hardwire items for installation purpose are included in the scope.	NO	2		
89	Supply of outdoor luminaires type 1x70 W HPSV lamps in cast aluminium body with acrylic cover along with lamps, control gear,etc including all fixing/ supporting accessories complete. Model:BJMSC-70SV of BAJAJ or equivalent of PHILIPS/ CROMPTON.	NO	34		
90	Fixing on wall with 40 mm dia swan neck GI pipe with suitable clamps etc & commissioning of outdoor luminaires suitable for 1x70 W HPSV lamps in cast aluminium body with acrylic cover along with lamps. Including all fixing / supporting accessories complete and flexible wire for connection between ceiling rose & fitting.	NO	34		
91	Supply of Indoor type luminaries 1x150 W medium bay industrial type, model BJMBI-150SV of BAJAJ or equivalent of PHILIPS/ CROMPTON.	NO	35		
92	Fixing from roof truss / ceiling with suitable clamp arrangement, flexible wire for connection between ceiling rose & fitting and commissioning of type HPSV luminaris medium bay industrial type, model BAJAJ-150SV of BAJAJ or equivalent of PHILIPS/ CROMPTON.	NO	40		
93	Supply & Installation of Dual Tube Light (2x36 Watt) Fixture of standard make (Philips or approved make)	NO	45		
94	Supply & Installation of Single Tube Light (1x36 Watt) Fixture of standard make (Philips or approved make)	NO	35		
95	Supply and installaton of 15/16 A piano type swich.	NO	75		
96	Supply & installation of 15/16A flush type power socket	NO	75		
	TOTAL OF ELECTRICAL WORKS(B)				
	GRAND TOTAL (FOR CIVIL & ELECTRICAL WORKS) (A+B)				
97	Quote % above or % below or at par for items not covered as above of this schedule. The rate shall be derived from Delhi schedule of rates 2013.				
97a	(a) Rate of complete item	%			

ITEM NO	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	UNIT RATE (RS)	TOTAL AMOUNT(Rs)
97b	(b) Rate of supply of material at site only	%			
97c	(c) Rate for execution complete excluding supply of materials.	%			
NOTE : THE GRAND TOTAL PRICE SHALL BE CONSIDERED FOR BID EVALUATION.					