



भारत हेवी इलेक्ट्रिकल्स लिमिटेड

(भारत सरकार का उपक्रम)

BHARAT HEAVY ELECTRICALS LIMITED

(A Govt. of India Undertaking)

TCN – 02

Ref: PSER:SCT:TRL-C1438:TCN-02

Date: 20-02-2013

Sub	Tender Change Notice (TCN-02).	
Job	Construction of 2 nos covered store; Office cum Residential Accomodation , RCC sleepers, 8000 sqm hard surfacing, temporary roads , Field Hostel, Fencing etc and misc civil enabling and electrical works for 2X30 MW TUIRIAL Hydroelectric project, MIZORAM.	
Ref	01	Tender No. PSER:SCT:TRL-C1438:13.
	02	BHEL's NIT, vide reference no PSER:SCT:TRL-C1438:3126, dated 05-02-2013.
	03	BHEL's TCN-01, vide reference no PSER:SCT:TRL-C1438:TCN-01, dated 18-02-2013.
	04	Other references (if any).

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

- 1.0 Bidders are requested to note that the drawings associated with Technical condition of contract (TCC) VOL-IF has been revised which is enclosed herewith. As such you are requested to consider the revised drawings (attached herewith) only and quote accordingly.
- 2.0 BOQ cum price schedule format VOL-IIIA, PRICE SCHEDULE, REV-1 has been revised as VOL-IIIA- PRICE SCHEDULE, REV-2 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 Offer from bidders in superseded price schedule (Vol-III, REV-1) shall not be considered.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-IIIA , PRICE SCHEDULE , REV-2).
- 3.0 Revised 'No deviation certificate' is attached. Bidder to submit 'No deviation certificate' as per attached format only.
- 4.0 All other terms & conditions shall remain unchanged.

Thanking you,

Yours faithfully,
for BHARAT HEAVY ELECTRICALS LTD

ENGINEER (SCT)

Encl

- 1.0 Revised 'No deviation certificate' format.
- 2.0 Drawings
- 3.0 Price Schedule, Vol-III,Rev-02

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)

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

फैक्स/Fax : (033) 23211960

फोन/Phone : बोर्ड/EPABX : 23211798/ 1691

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	Construction of 2 nos covered store; Office cum Residential Accomodation , RCC sleepers, 8000 sqm hard surfacing, temporary roads , Field Hostel, Fencing etc and misc civil enabling and electrical works for 2X30 MW TUIRIAL Hydroelectric project, MIZORAM.	
Ref	1.0	Tender No. PSER:SCT:TRL-C1438:13.
	2.0	BHEL's NIT, vide reference no PSER:SCT:TRL-C1438:3126, dated 05-02-2013.
	3.0	BHEL's TCN-01, vide reference no: Ref: PSER:SCT:TRL-C1438:TCN-01, Dated 18.02.2013.
	4.0	BHEL's TCN-02, vide reference no: Ref: PSER:SCT:TRL-C1438:TCN-02, Dated 20.02.2013.
	5.0	Other references (if any).

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,

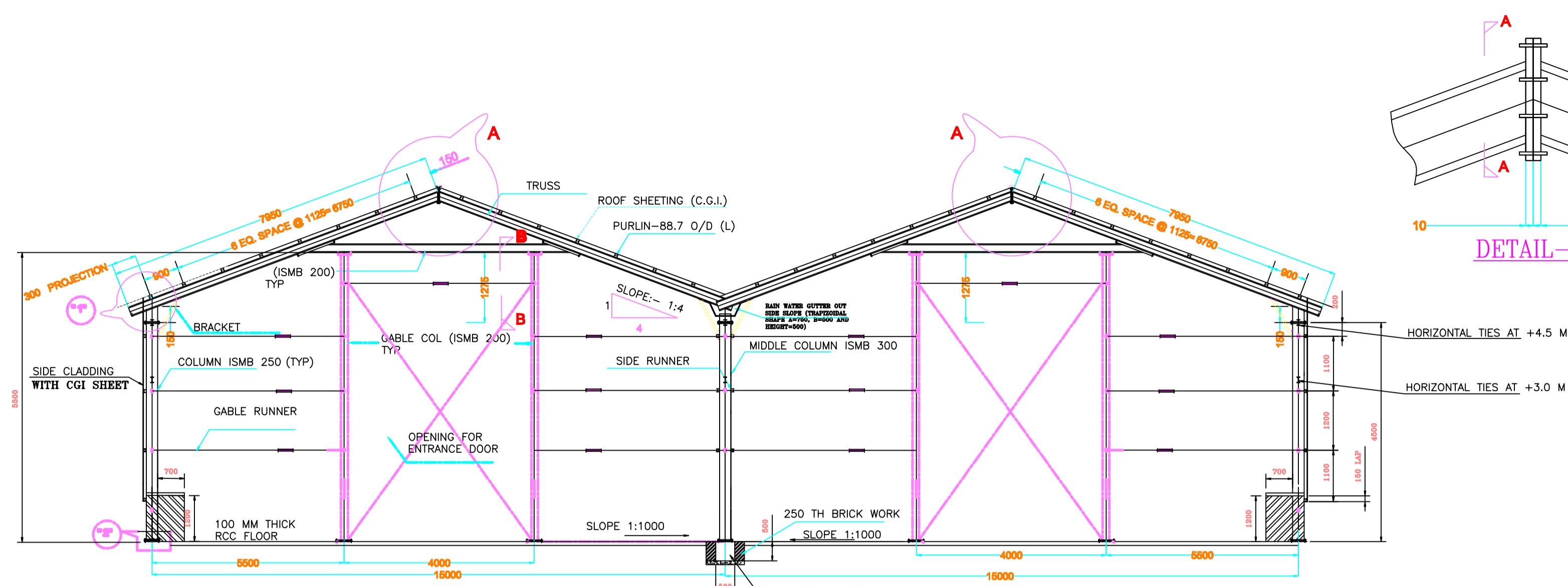
(Signature, date & seal of authorised
representative of the contractor)

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)

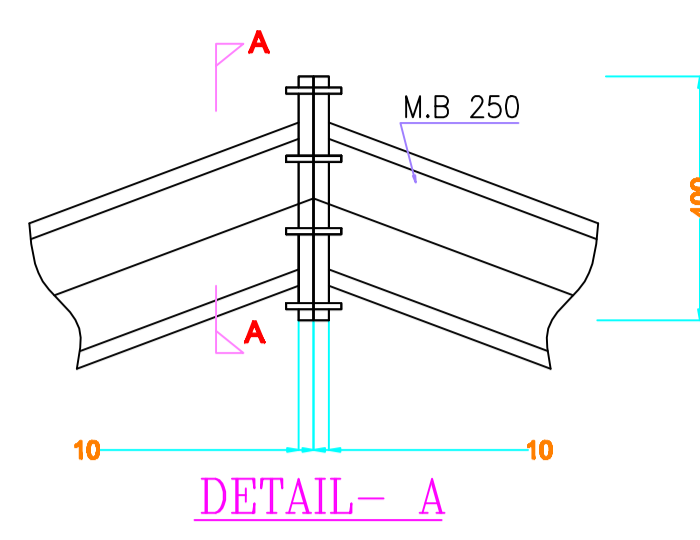
POWER SECTOR EASTERN REGION, DJ-9/1, SALT LAKE CITY, KOLKATA - 700 091

फैक्स/Fax : (033) 23211960

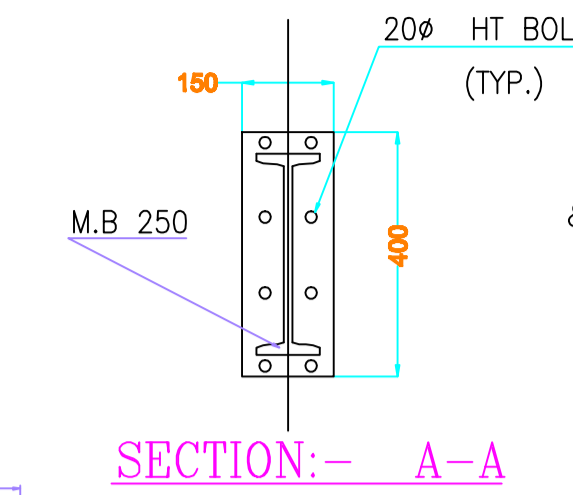
फोन/Phone : बोर्ड/EPABX : 23211798/ 1691



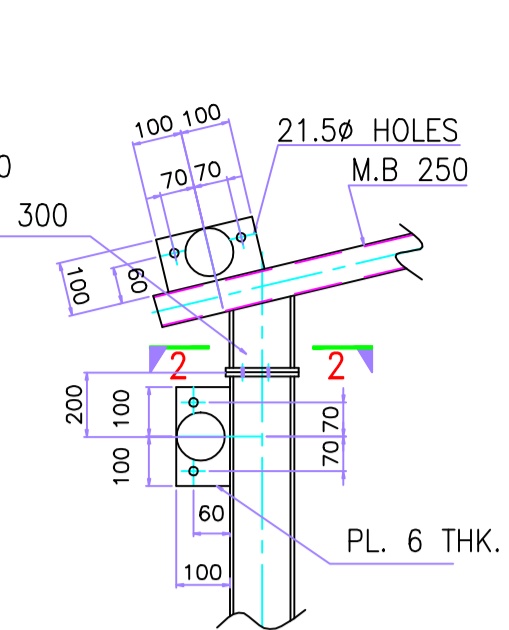
ELEVATION



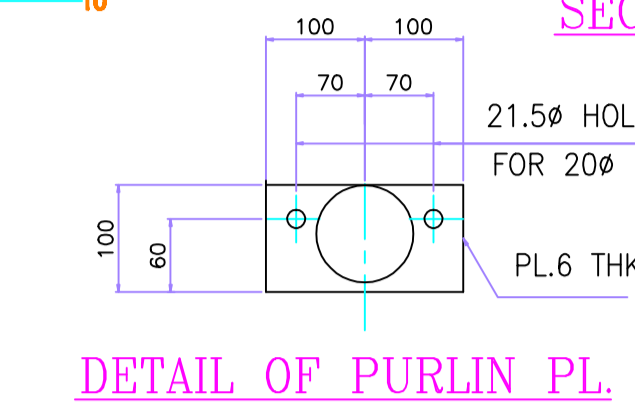
DETAIL-A



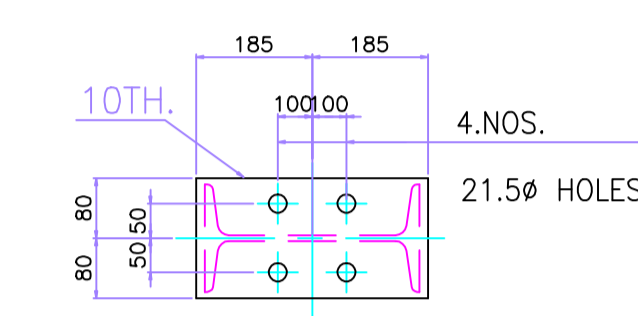
SECTION:- A-A



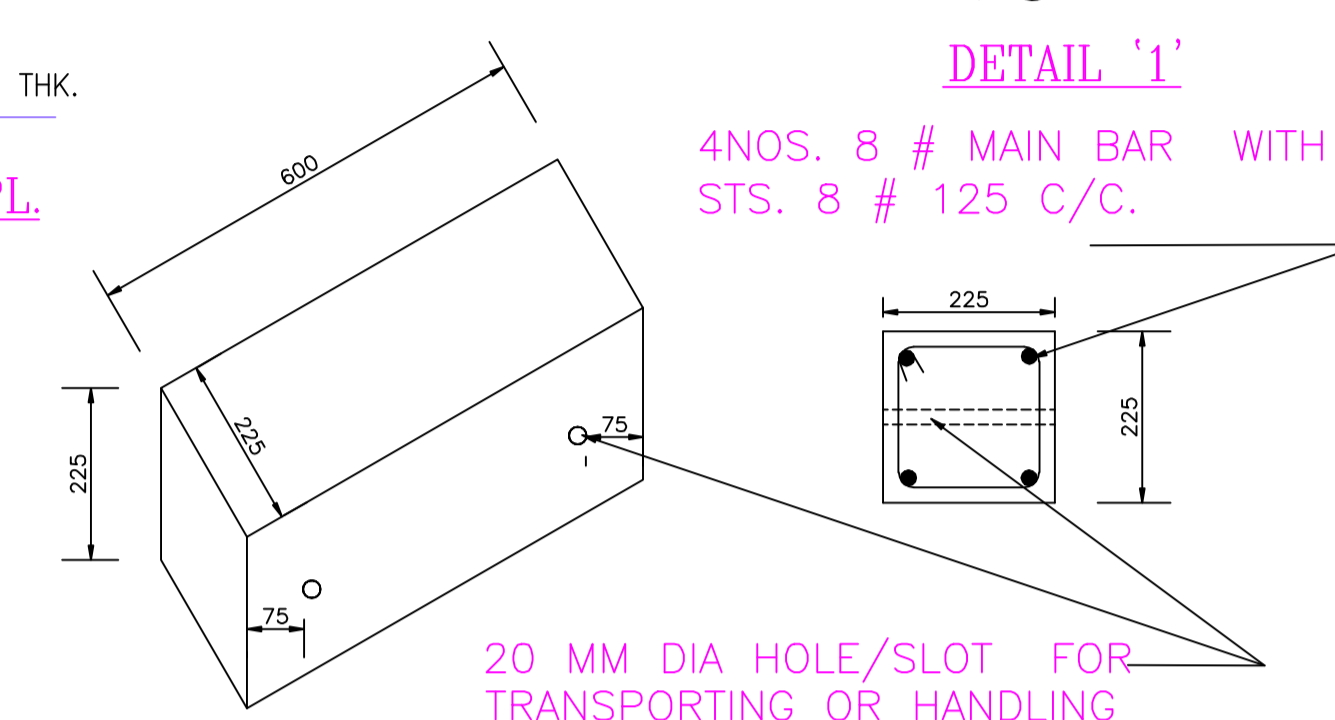
DETAIL '1'



DETAIL OF PURLIN PL.

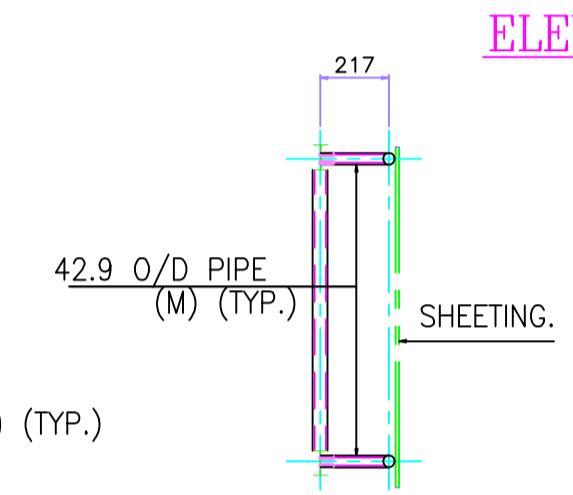


PLAN 2-2

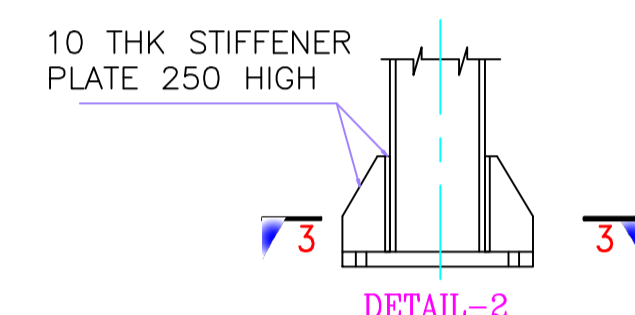


DETAIL OF PRECAST RCC(1:1.5:3) SLEEPER

- 216 NOS. PURLIN REQD. AS DRN. MKD P-1
- 81 NOS. SIDE RUNNER REQD. AS DRN. MKD SR-1
- 24 NOS. GABLE RUNNER REQD AS DRN. MKD GR-1
- 4 NOS. GABLE RUNNER REQD AS DRN. MKD GR-2



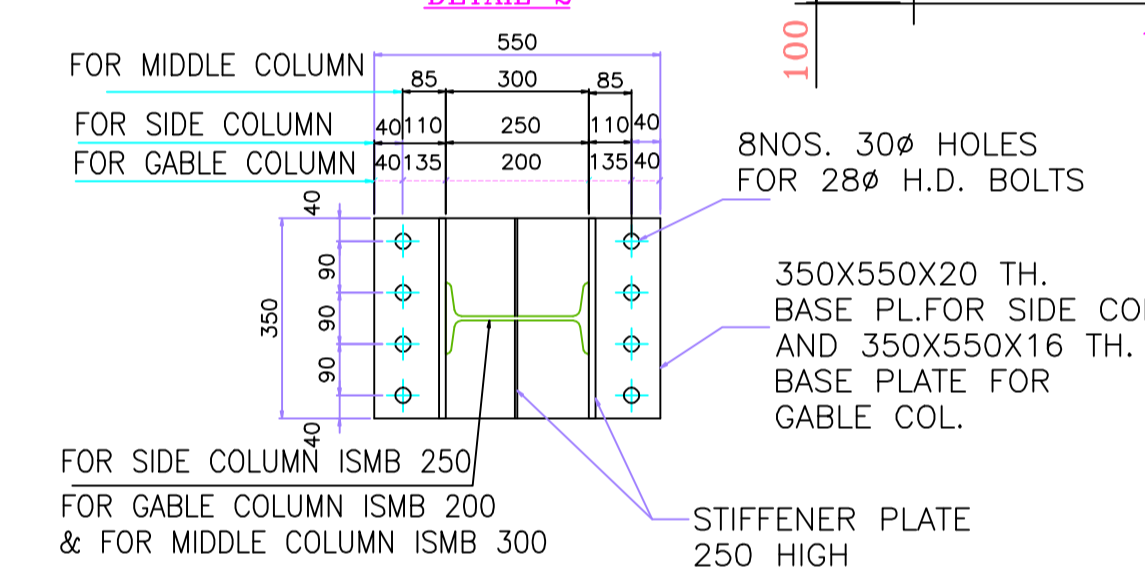
SECTION C-C



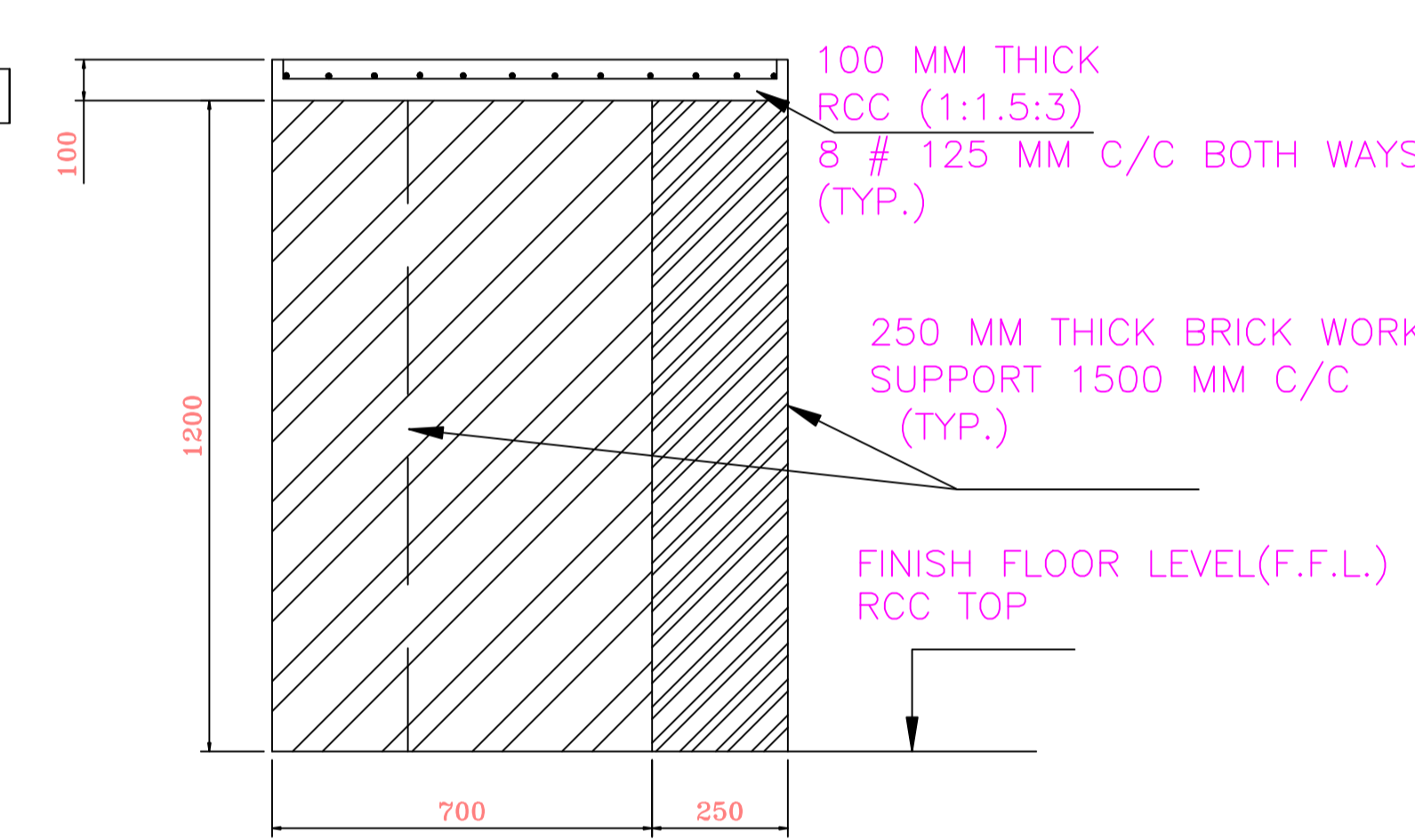
DETAIL-2



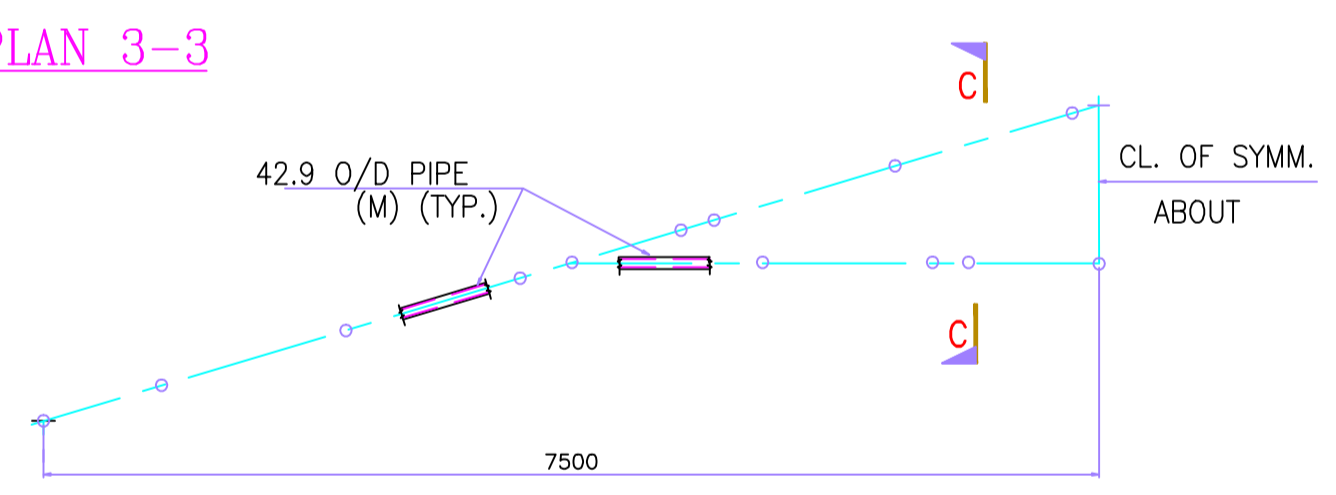
RCC FLOOR SECTION



PLAN 3-3



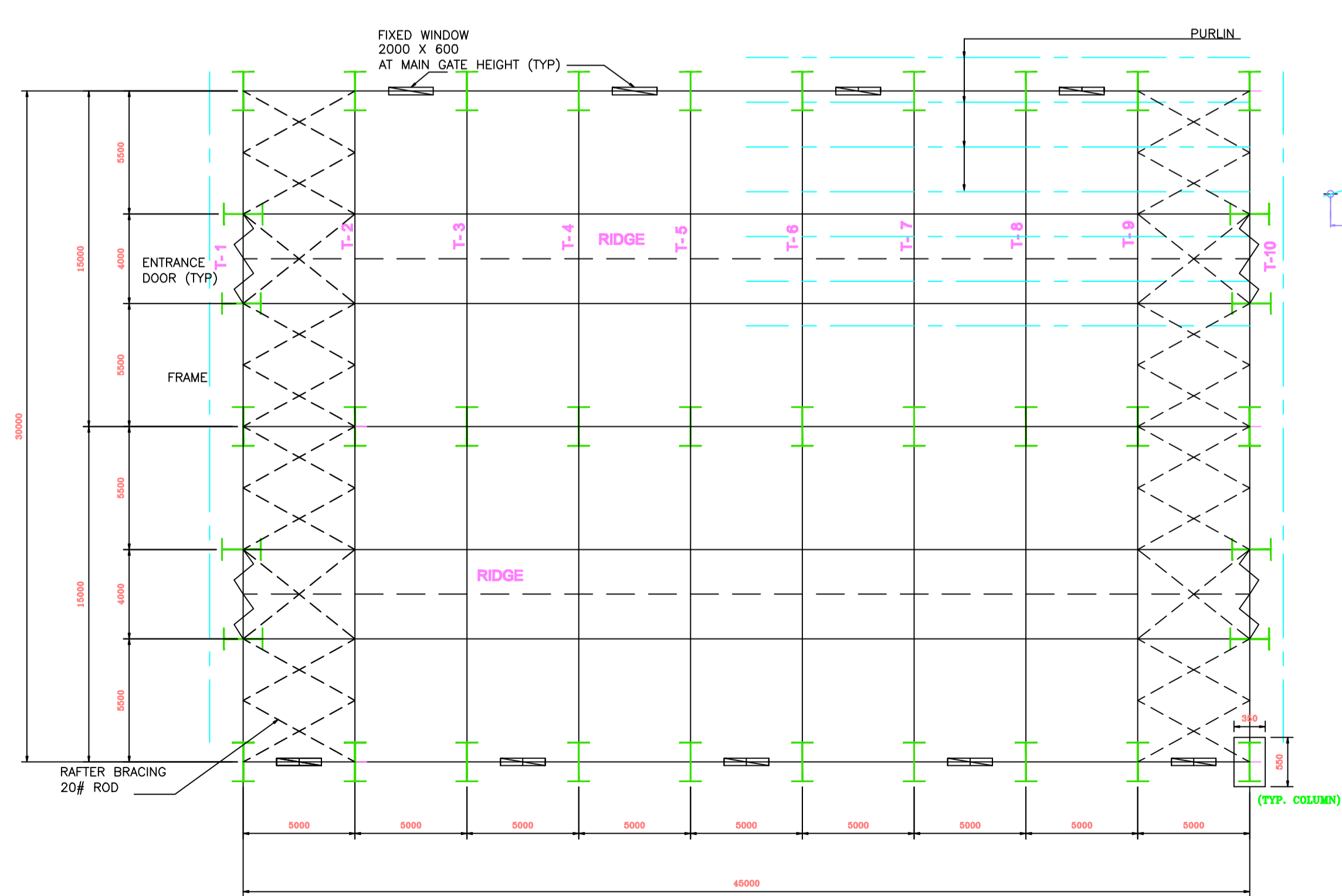
RCC SHELF WITH 250 MM BRICK SUPPORT



DETAIL OF FALSE FRAME.

- FOR GABLE RUNNER 88.7 O/D PIPE (L) (TYP.)
- FOR EP & ESR 88.7 O/D PIPE (L) (TYP.)
- FOR PURLIN & SIDE RUNNER 88.7 O/D PIPE (L) (TYP.)
- 64 NOS. END PURLIN REQD. MKD EP-2
- 24 NOS. END SIDE RUNNER REQD. MKD ESR-2
- 24 NOS. END GABLE RUNNER REQD. MKD. EGR-2

SECTION B-B

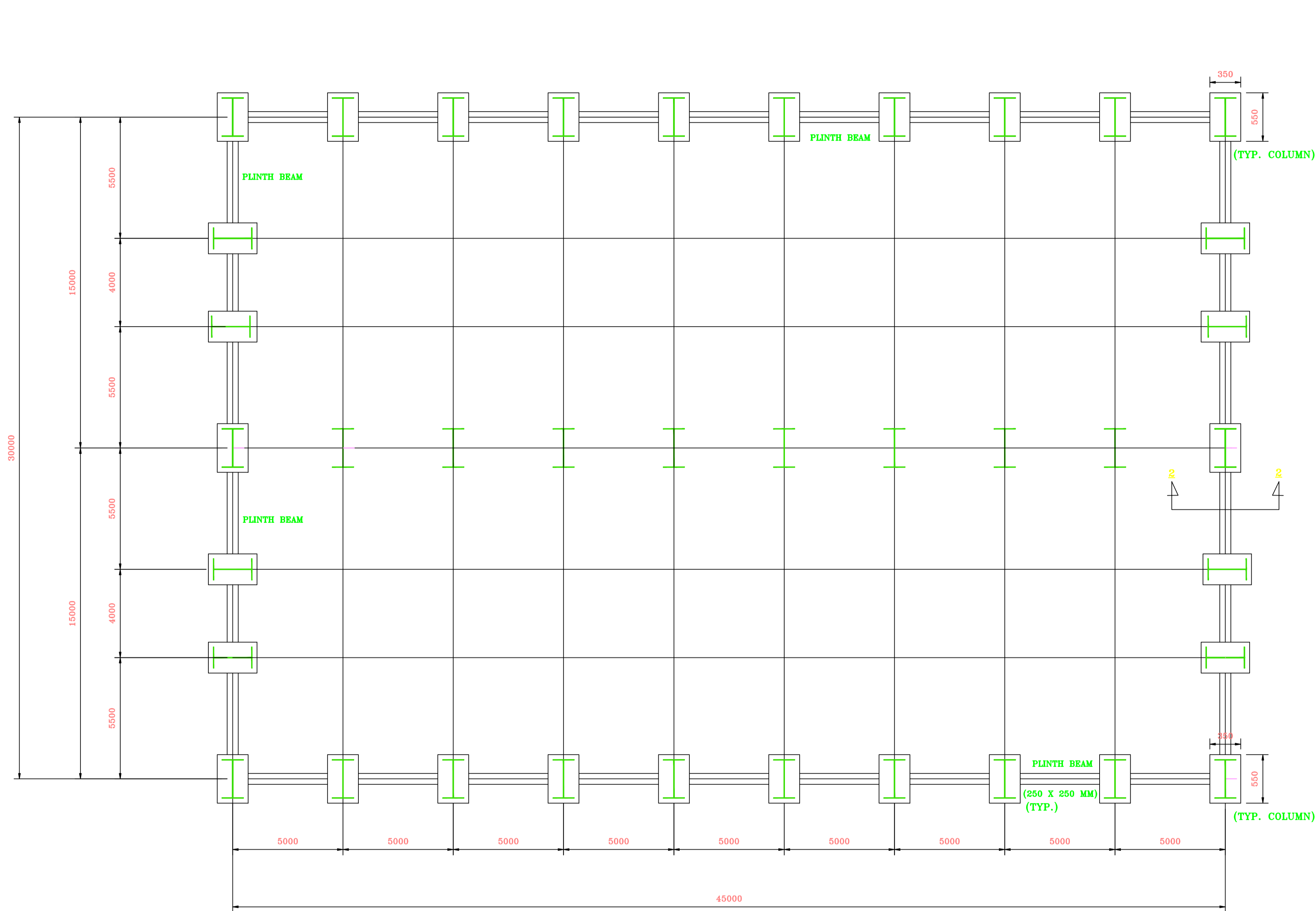


PLAN

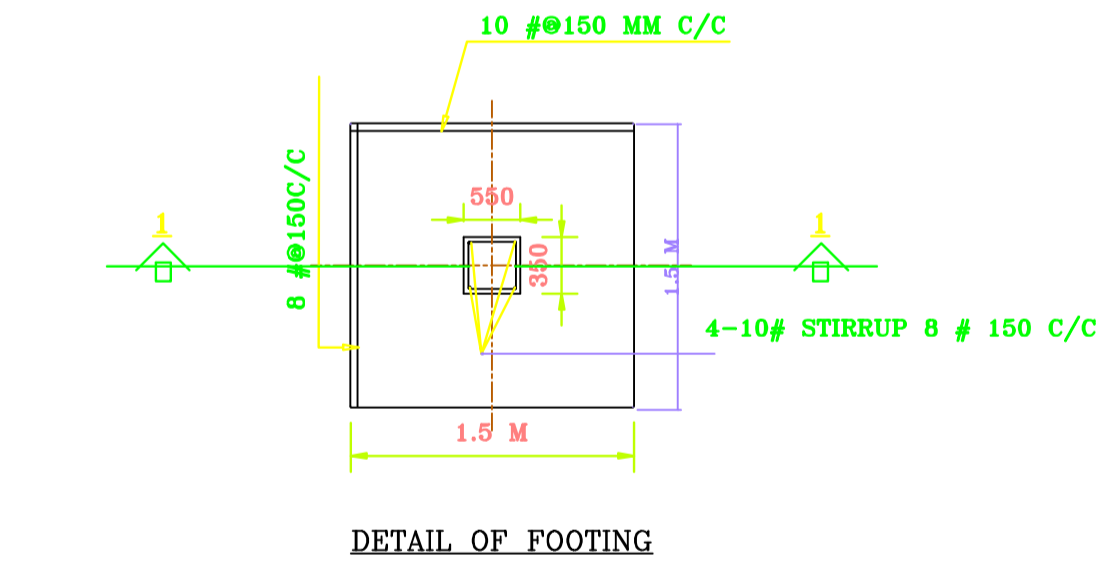
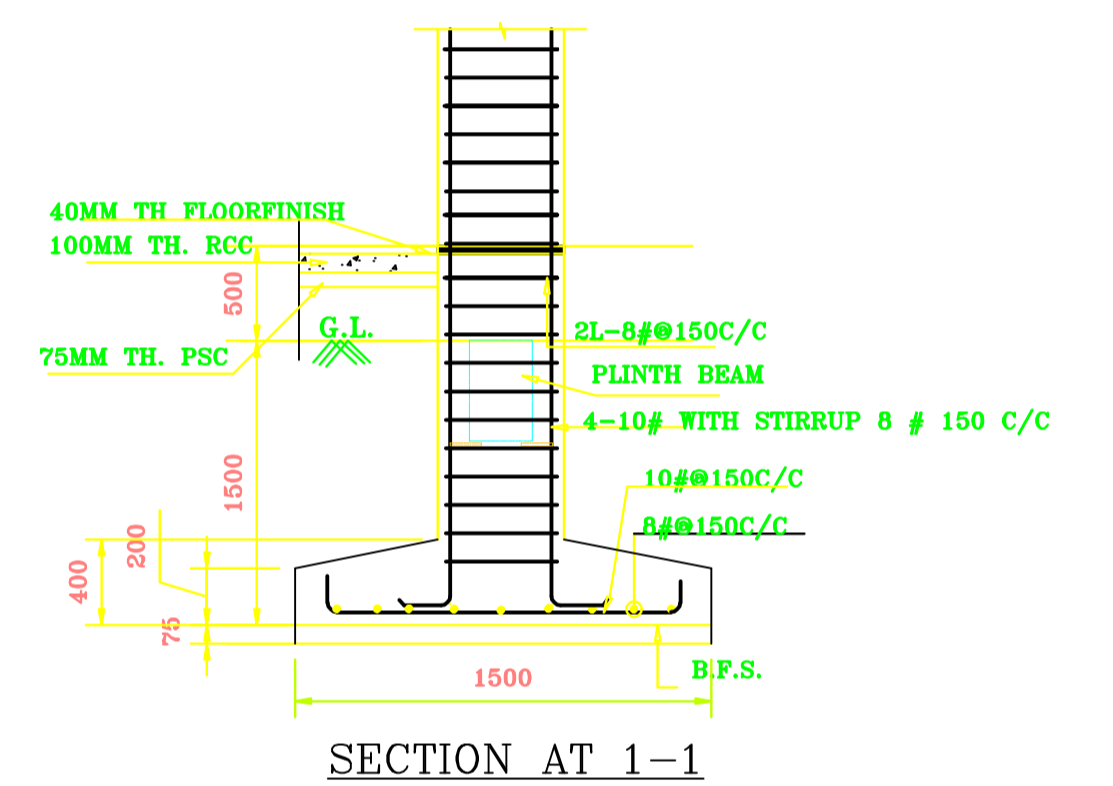
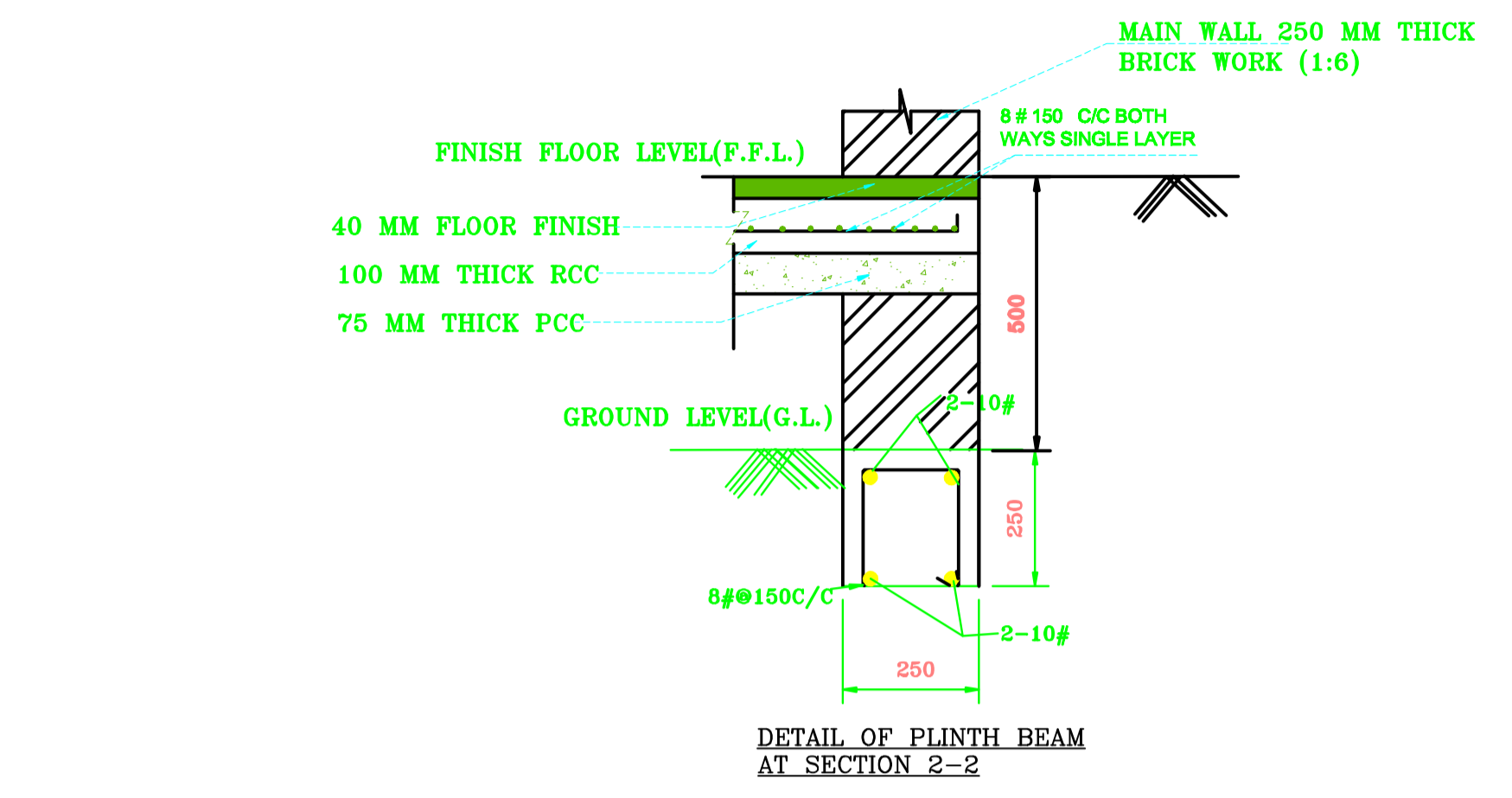
NOTES:-

- ALL DIMENSION ARE IN MILLIMETRE UNLESS OTHERWISE NOTED.
- ALL FILLET WELDS ARE IN 4 MM. FOR TUBULAR.
- 6 MM. FOR STRUCTURALS. UNLESS OTHERWISE NOTED. (AS PER IS:816 LATEST)
- ALL MEMBER LENGTHS ARE TO BE CHECKED BY FULL SCALE SHOPE LAYOUT.
- FOUNDATION, COLUMN, BEAMS ETC. SHALL BE OF RCC CONCRETING SHALL BE 1:1.5:3
- FLOOR CONCRETING SHALL BE 1:1.5:3
- ALL LEAN CONCRETE SHALL BE 1:3:6
- TMT BAR OF FE 500 QUALITY TO BE USED WITH MANUFACTURING CERTIFICATE.
- CEMENT TO USED PSC/PPC/OPC 43 GRADE WITH MANUFACTURING TEST CERTIFICATE.
- PLINTH LEVEL OF BUILDING SHALL BE 500 MM HEIGHER THAN EXISTING GL(FGL).
- OUT SIDE PLASTERING WITH WATER PROOFING PAINT SHALL BE DONE.
- MAIN GATE - 4000 MM X 5000 MM WITH CHAJJA 700 MM PROJECTION TO PROTECT FROM RAIN WATER
- STEEL FIXED WINDOW SHALL BE PLACED AT ALTERNATE SPAN CENTRE POSITION, AT A HEIGHT OF ROLLING SHUTTER, SIZE OF EACH FIXED WINDOW SHALL BE 2M.X600 MM
- BRICK WORK - CLASS DESIGNATION MINIMUM 5 (COMPRESSIVE STRENGTH 50 KG/CM2)
- ALL TRUSS CONNECTION BOLTS SHALL BE 20 MM DIA HT BOLTS

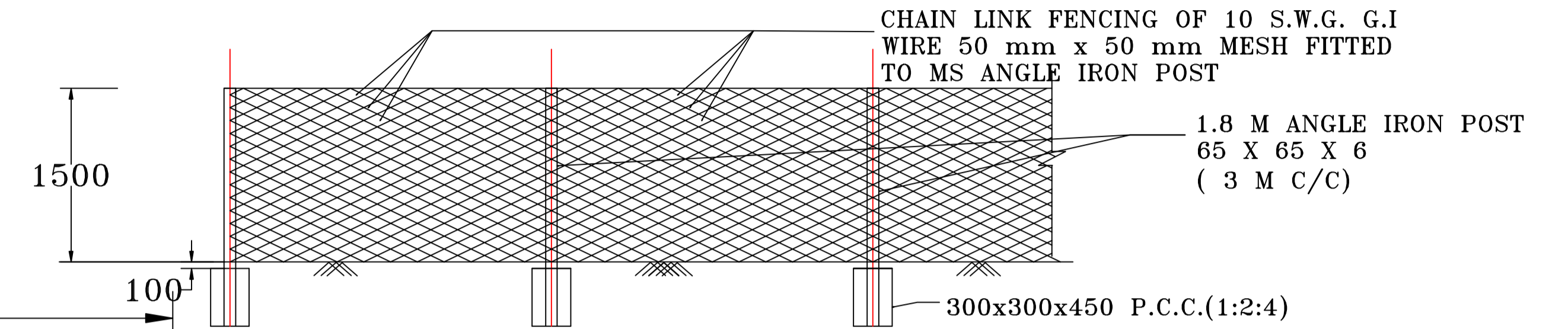
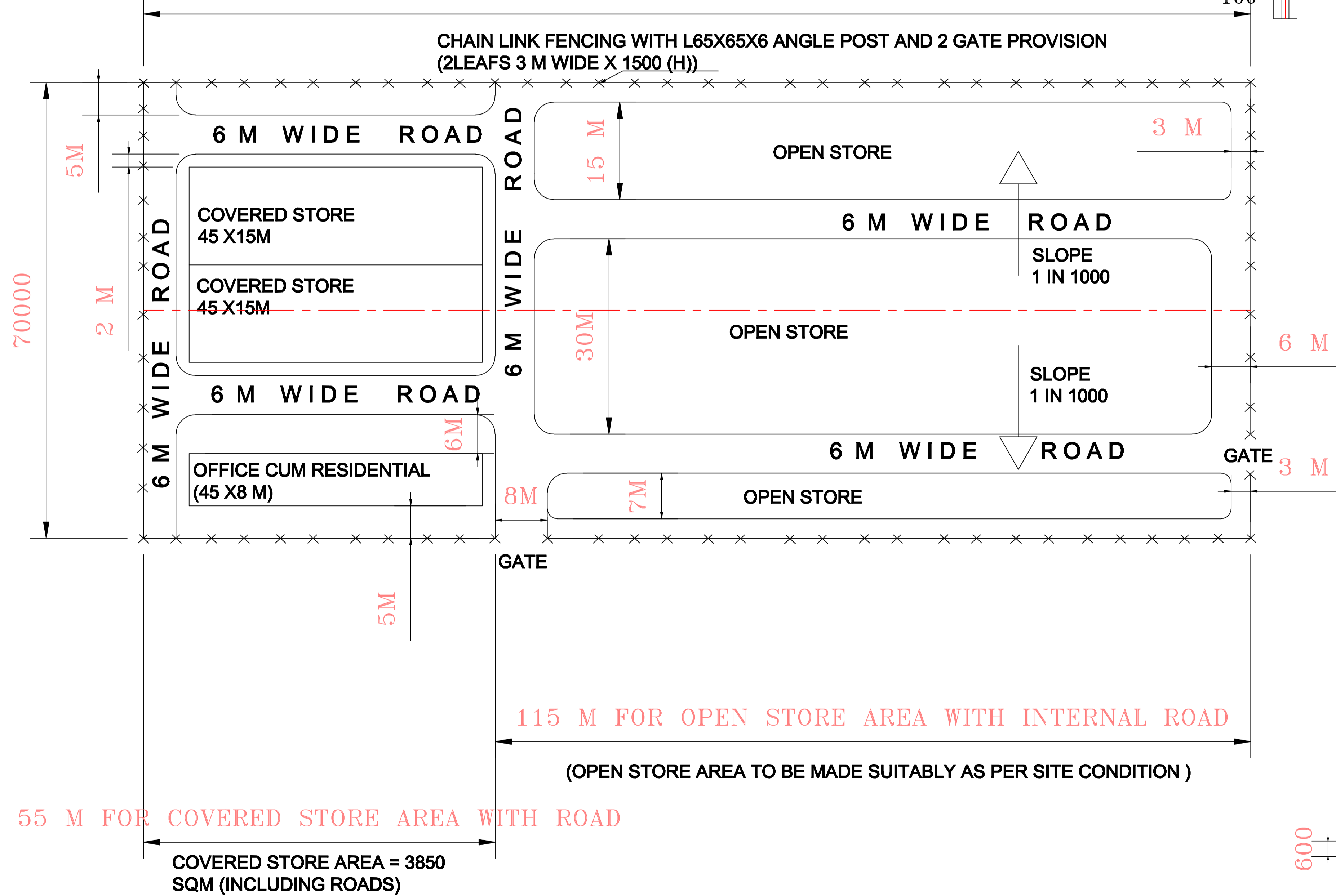
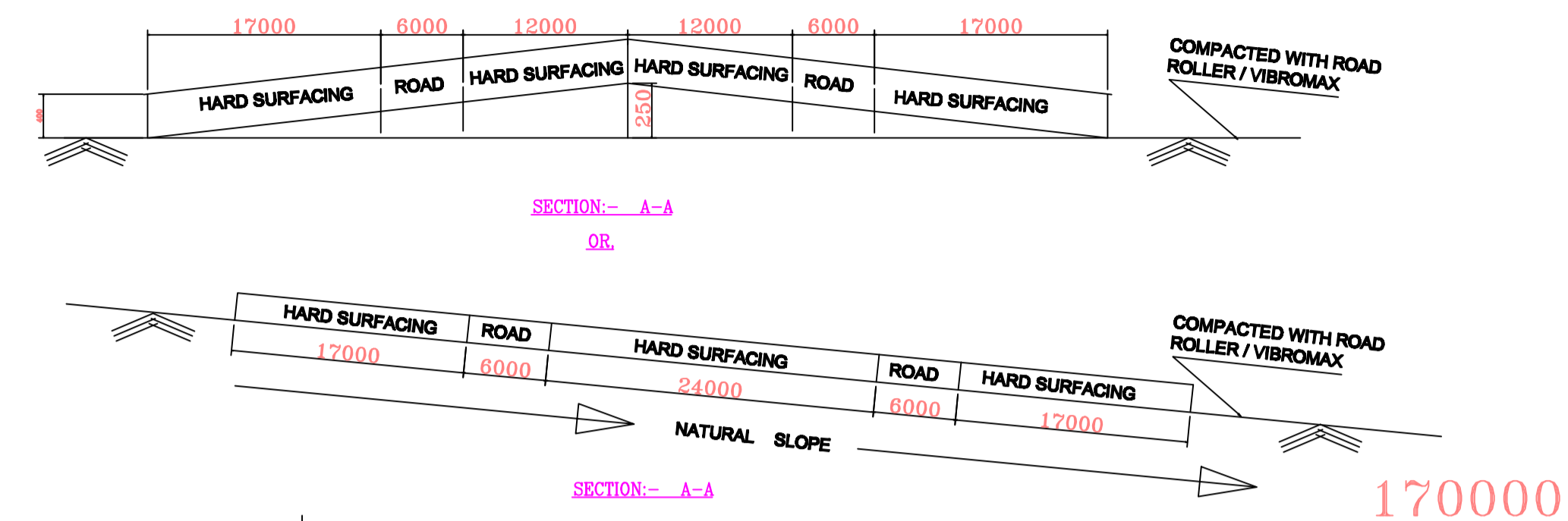
BHARAT HEAVY ELECTRICALS LIMITED.		
CONTRACTOR :-		
DRN.		TITLE :- GENERAL ARRANGEMENT AND DETAIL OF STRUCTURAL & TUBULAR ATTACHED COVERED SHED SIZE- (2 X15M) X 45 M, FONDATION DETAILS, COLUMN LAYOUT, RCC SLEEPER ETC. FOR TUIRAL PROJECT
CHKD.		
APPVD.		
SCALE		
DRG. NO.	ER-DG-TUIRAL-ENAB-01	REV.
		R1



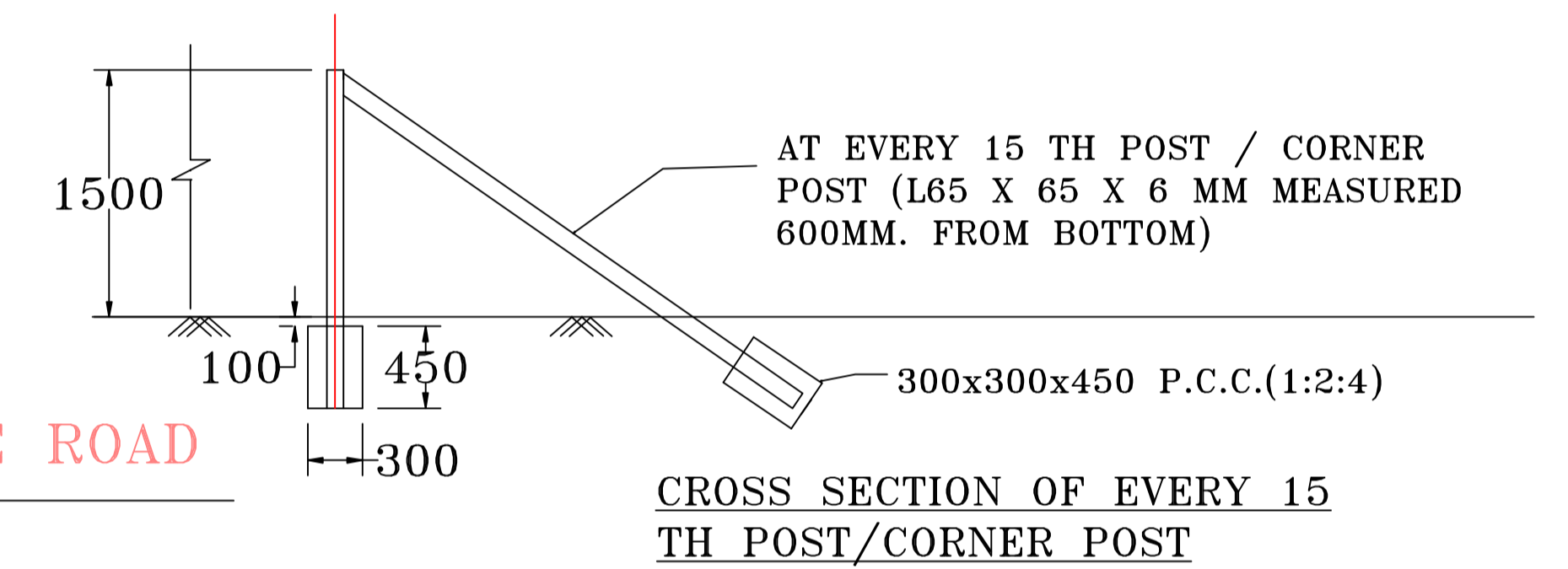
PLAN



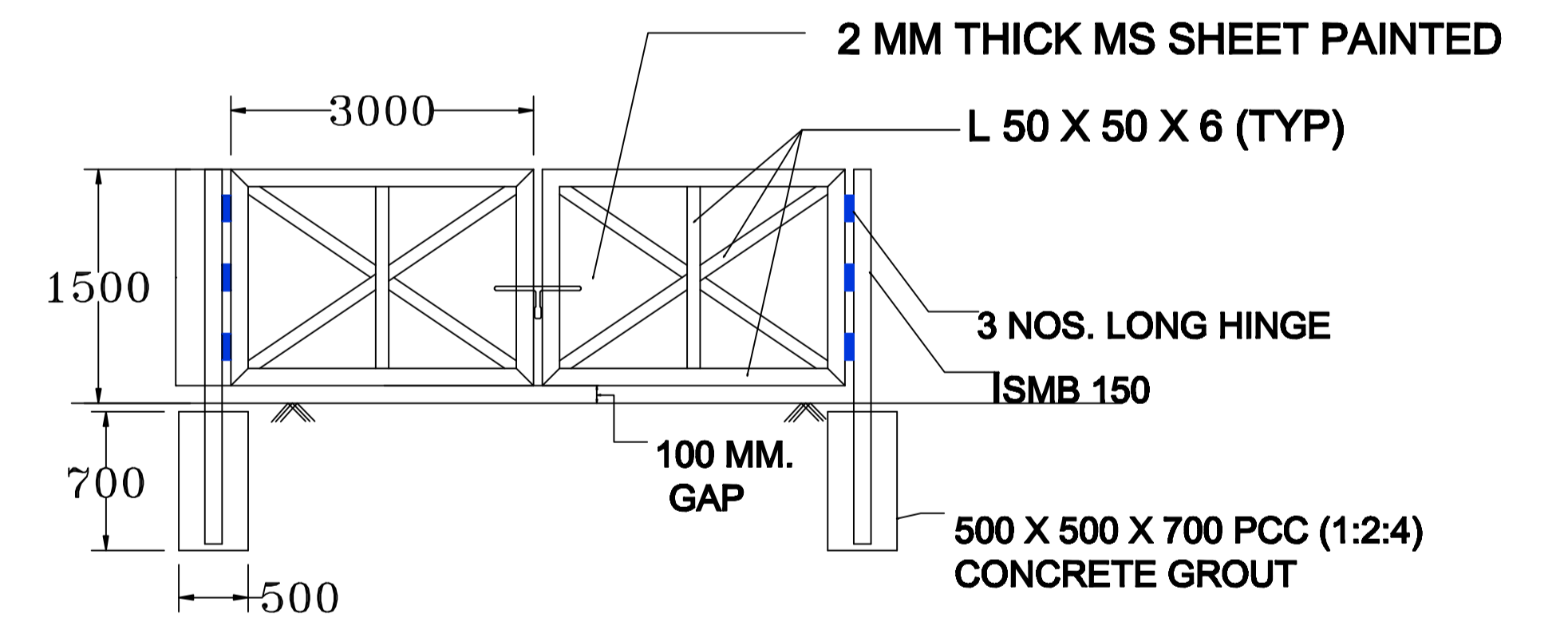
BHARAT HEAVY ELECTRICALS LIMITED.		
CONTRACTOR :-		
DRN.		TITLE :- FOUNDATION PLAN, CROSS SECTION OF COVERED STORE FOR TUIRAL PROJECT
CHKD.		
APPVD.		
SCALE		
DRG. NO.	ER-DG-TUIRAL-ENAB-02	REV.
		R0



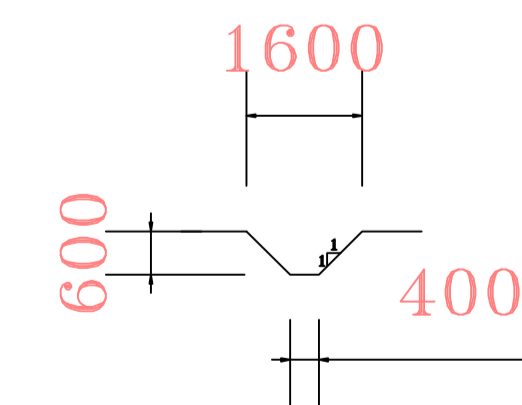
ELEVATION OF CHAINLINK FENCING



CROSS SECTION OF EVERY 15 TH POST/CORNER POST



1.5 M. HIGHT MS GATE

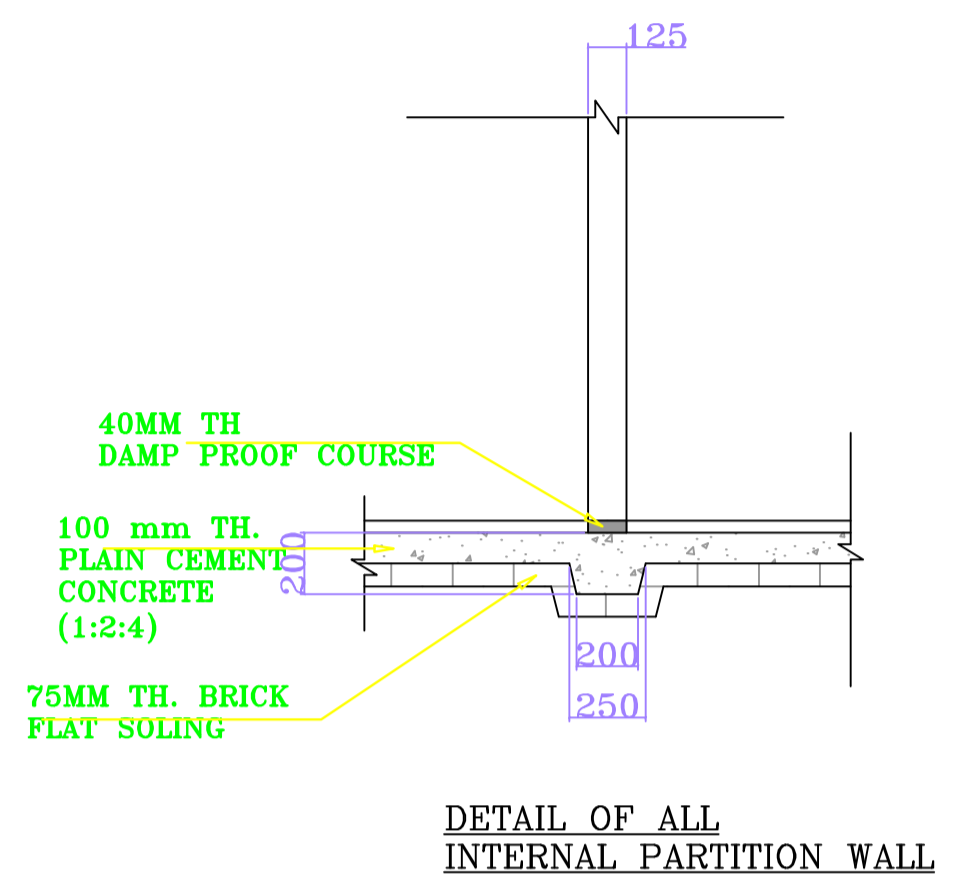
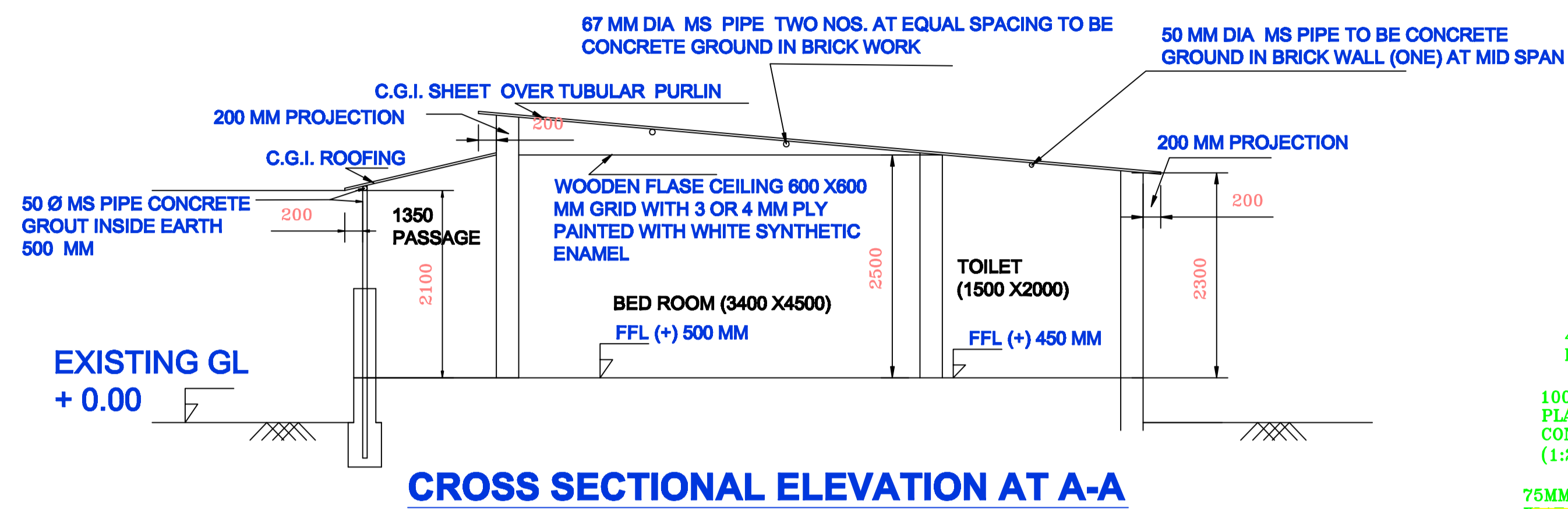


CROSS SECTION FOR STORM WATER DRAIN BY EXCAVATION AROUND STORE AREA

NOTE: AS THE SITE IS HILLY AREA SLOPE FOR DRAINING OF STORM WATER TO BE MAINTAINED

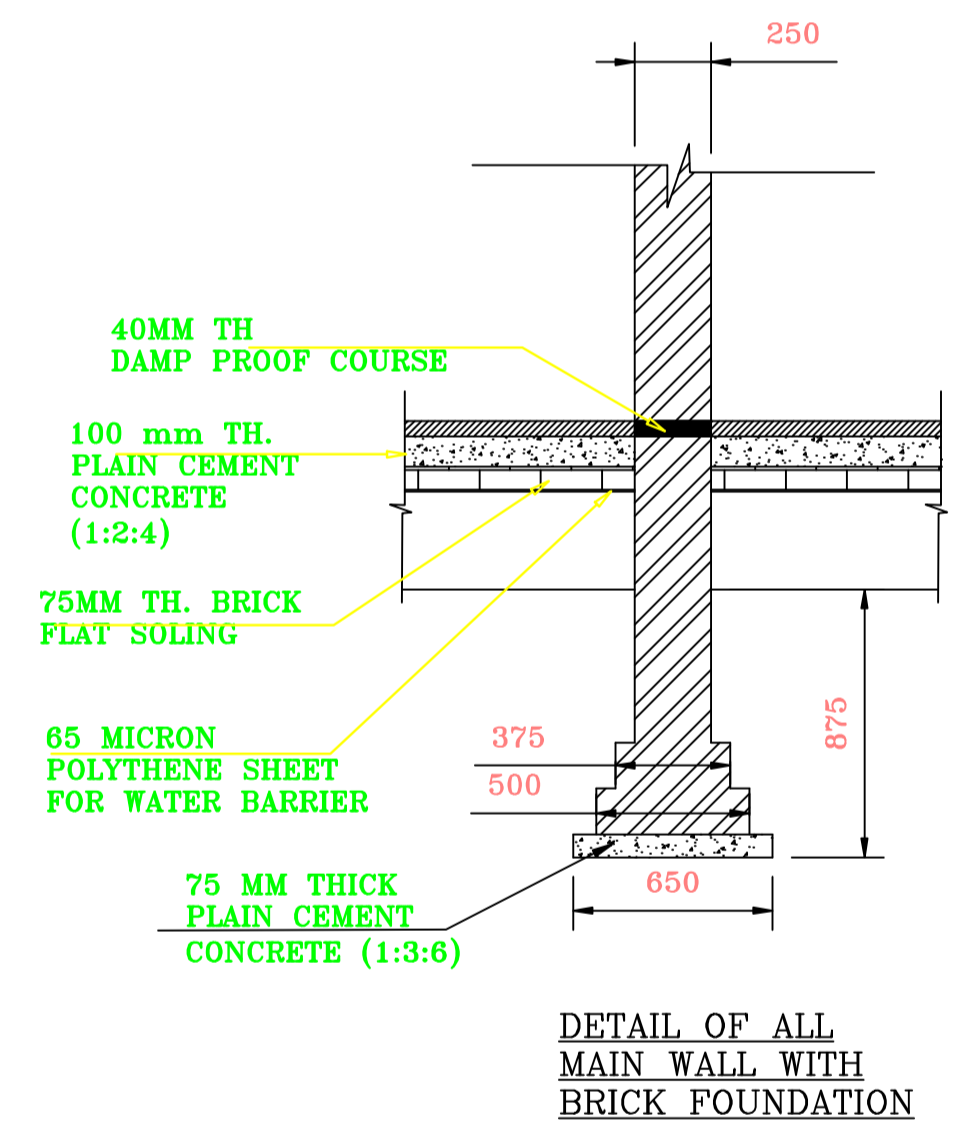
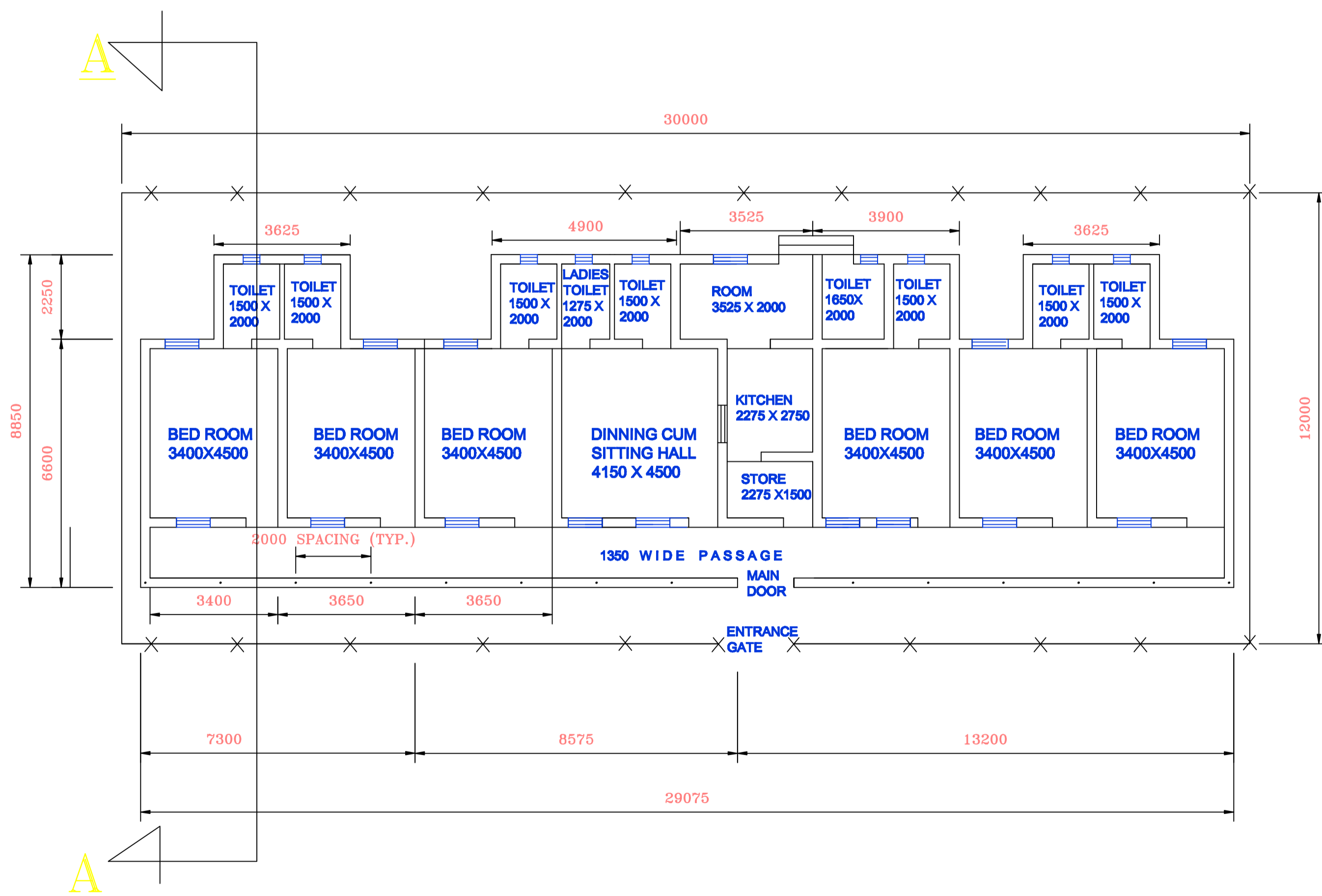
LAYOUT PLAN SHOWING OPEN STORE, COVERED STORE AND OFFICE

BHARAT HEAVY ELECTRICALS LIMITED.		
CONTRACTOR :-		
DRN.		TITLE :- LAYOUT PLAN, MS GATE FENCING FOR TUIRAL PROJECT
CHKD.		
APPVD.		
SCALE		
DRG. NO.	ER-DG-TUIRAL-ENAB-03	REV.
		R0



DOOR AND WINDOWS SCHEDULE

TYPE	DESCRIPTION	WIDTH	HEIGHT
D	ENTRANCE DOOR	1800	2100
D2	ROOM DOOR	900	2100
D3	TOILET DOOR	750	2100
W1	DOUBLE LEAF WINDOW	900	1200
W3	TOP HUNG	450	600



NOTES:-

1. ALL DIMENSION ARE IN MILIMETRE UNLESS OTHERWISE NOTED.
2. FALSE CEING HEIGHT SHOULD BE 2.5 M & TOILET HEIGHT 2.3 M
3. ALL MEMBER LENGTHS ARE TO BE CHECKED BY FULL SCALE SHOPE LAYOUT.
4. FLOOR WILL HAVE CERAMIC TILE 300 X300X8 MM OR 9 MM
5. FLOOR CONCRETING SHALL BE PLAIN CEMENT CONCRETE 1:2:4 OVER 75 MM THICK BRICK FLAT SOLING
6. ALL LEAN CONCRETE SHALL BE 1:3:6
7. TMT BAR OF FE 500 QUALITY TO BE USED WITH MANUFACTURING CERTIFICATE.
8. CEMENT TO USED PSC/PPC/OPC 43 GRADE WITH MANUFACTURING TEST CERTIFICATE.
9. PLINTH LEVEL OF BUILDING SHALL BE 500 MM HEIGHER THAN EXISTING GL(FGL).
10. OUT SIDE PLASTERING WITH WATER PROOFING PAINT SHALL BE DONE.
11. NO SUNSHADE ARE REQUIRED AS 200 MM PROJECTION DONE ALL SIDES.
12. ALL MAIN WALL ARE 250 MM THICK AND ALL PARTION WALL THICKNESS 125 MM
13. BRICK WORK - CLASS DESIGNATION MINIMUM 5 (COMPRESSIVE STRENGTH 50 KG/CM2)
14. F.F.L. - FINISHED FLOOR LEVEL

BHARAT HEAVY ELECTRICALS LIMITED.

CONTRACTOR :-

DRN.	
CHKD.	
APPVD.	
SCALE	

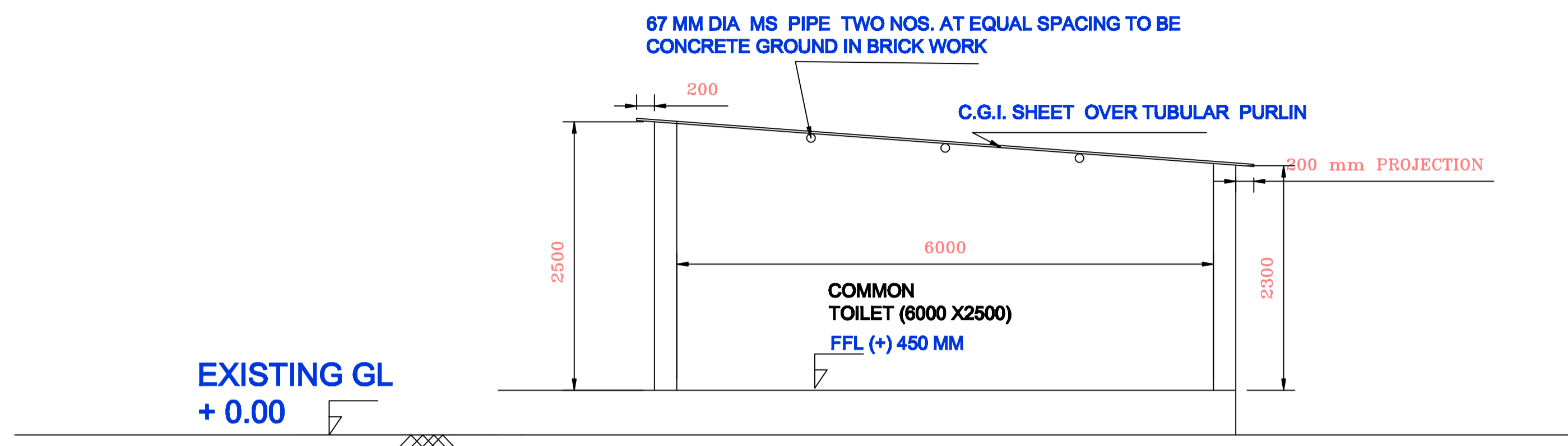
TITLE :- FIELD HOSTEL OF PLAN, ELEVATION, SECTION FOR TUIRAL PROJECT

DRG. NO.

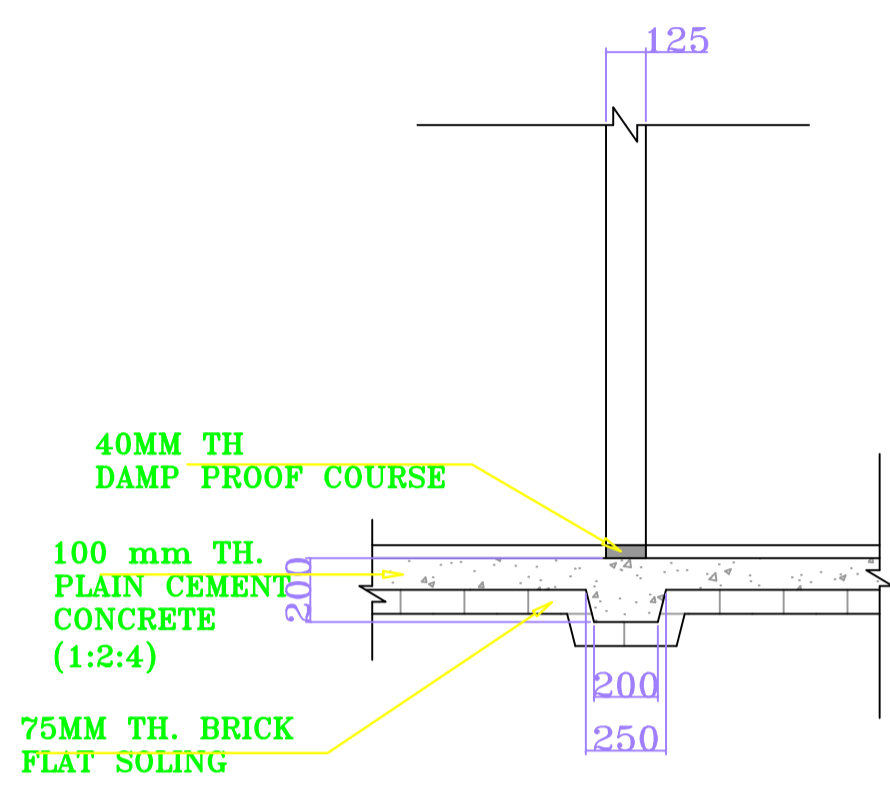
ER-DG-TUIRAL-ENAB-05

REV.

R1



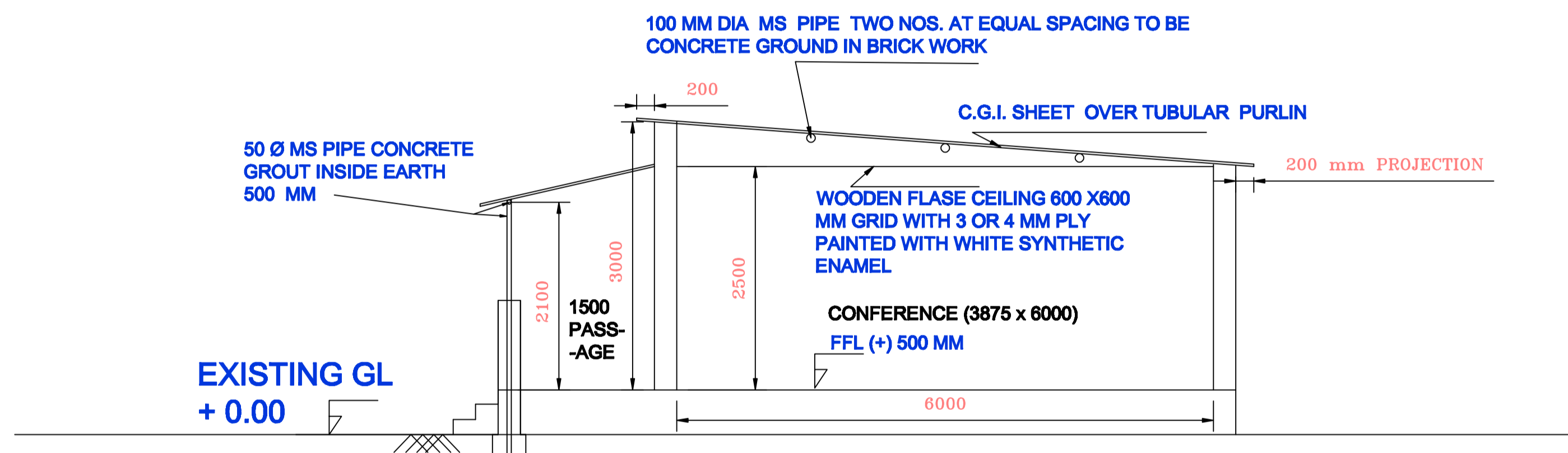
CROSS SECTIONAL ELEVATION AT B-B



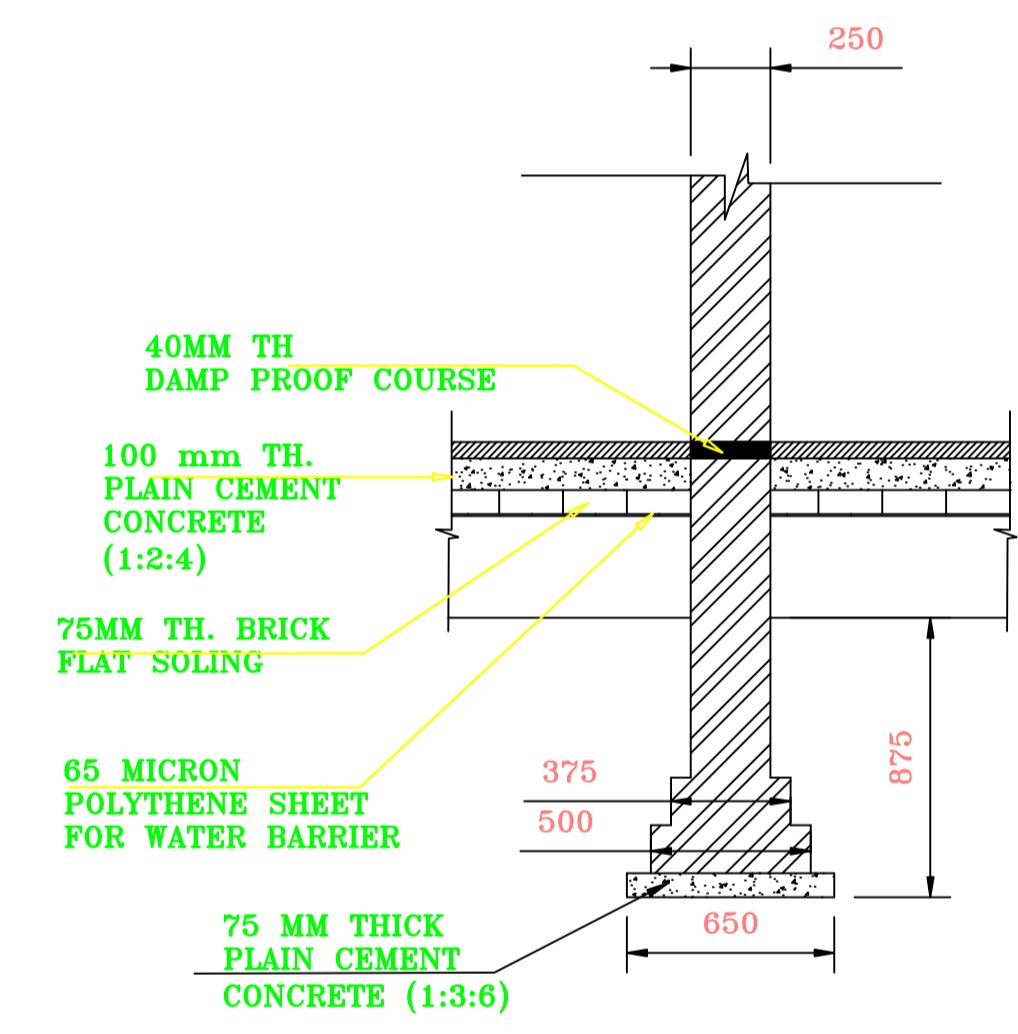
DETAIL OF ALL INTERNAL PARTITION WALL

DOOR AND WINDOWS SCHEDULE

TYPE	DESCRIPTION	WIDTH	HEIGHT
D	ENTRANCE DOOR	1800	2100
D2	ROOM DOOR	900	2100
D3	TOILET DOOR	750	2100
W1	DOUBLE LEAF WINDOW	900	1200
W3	TOP HUNG	450	600



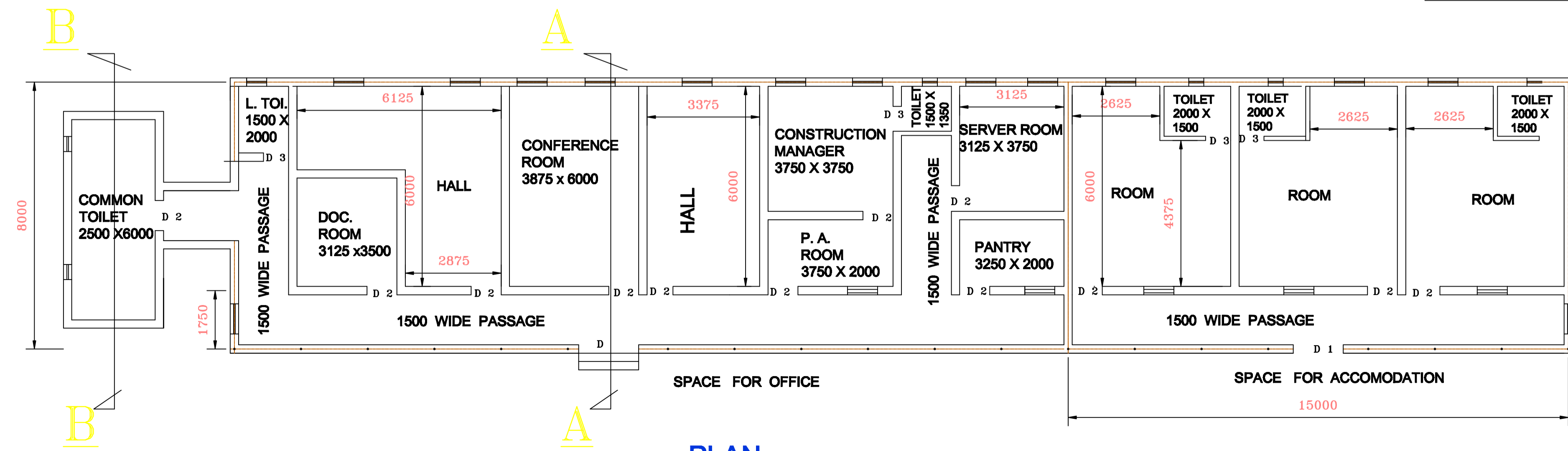
CROSS SECTIONAL ELEVATION AT A-A



DETAIL OF ALL MAIN WALL WITH BRICK FOUNDATION

NOTES:-

1. ALL DIMENSION ARE IN MILIMETRE UNLESS OTHERWISE NOTED.
2. FALSE CEING HEIGHT SHOULD BE 2.5 M & TOILET HEIGHT 2.3 M
3. ALL MEMBER LENGTHS ARE TO BE CHECKED BY FULL SCALE SHOPE LAYOUT.
4. FLOOR WILL HAVE CERAMIC TILE 300 X300X8 MM OR 9 MM
5. FLOOR CONCRETING SHALL BE PLAIN CEMENT CONCRETE 1:2:4 OVER 75 MM THICK BRICK FLAT SOLING
6. ALL LEAN CONCRETE SHALL BE 1:3:6
7. TMT BAR OF FE 500 QUALITY TO BE USED WITH MANUFACTURING CERTIFICATE.
8. CEMENT TO USED PSC/PPC/OPC 43 GRADE WITH MANUFACTURING TEST CERTIFICATE.
9. PLINTH LEVEL OF BUILDING SHALL BE 500 MM HEIGHER THAN EXISTING GL(FGL).
10. OUT SIDE PLASTERING WITH WATER PROOFING PAINT SHALL BE DONE.
11. NO SUNSHADE ARE REQUIRED AS 200 MM PROJECTION DONE ALL SIDES.
12. ALL MAIN WALL ARE 250 MM THICK AND ALL PARTION WALL THICKNESS 125 MM
13. BRICK WORK - CLASS DESIGNATION MINIMUM 5 (COMPRESSIVE STRENGTH 50 KG/CM2)
14. F.F.L. - FINISHED FLOOR LEVEL



PLAN

OFFICE BUILDING CUM RESIDENTIAL ACCOMODATION FOR TUIRAL PROJECT

BHARAT HEAVY ELECTRICALS LIMITED.

CONTRACTOR :-

TITLE :- OFFICE CUM RESIDENTIAL ACCOMODATION OF PLAN, ELEVATION, SECTION FOR TUIRAL PROJECT

DRN.	
CHKD.	
APPVD.	
SCALE	

DRG. NO.

ER-DG-TUIRAL-ENAB-04

REV.
R1

**VOLUME-III
PRICE SCHEDULE, REV-2**

Construction of 2 nos covered stores, Office cum Residential Accomodation , RCC sleepers, 8000 sqm hard surfacing, temporary roads , Field Hostel, Fencing etc and misc civil enabling and electrical works for 2X30 MW TUIRIAL Hydroelectric project, MIZORAM.

TENDER NO. PSER:SCT:TRL-C1438:13

PREAMBLE

SL NO	DESCRIPTION
1.0	This preamble forms part of tender document and schedule of items. The tenderer should read this preamble carefully in rates for various items. Clauses under this preamble shall be read in conjunction with various volumes of tender as per NIT together with subsequent changes/ modifications etc thereto as applicable as on date of submission of price offer.
2.0	The work shall be carried out strictly as per specifications, description of the items in these schedule and / or engineer's instructions.
3.0	Items of work provided in this schedule but not covered in this specification shall be executed strictly as per instruction of the engineer.
4.0	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, 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 tender document and this schedule.
5.0	Unless otherwise specified & except for tender on lumpsum basis, for all item rate based tenders, the quantities of the various items mentioned in price schedule are approximate, based on very preliminary information and may vary to any extent or to be deleted altogether. The quoted/ accepted rates shall remain firm and valid as long as variation in total value of work executed under this contract including extra items, but excluding any price escalation, remains within +/- 30% (Thirty percent) of the contract price given in the LOI/ WO.
6.0	The rates quoted shall be inclusive of cleaning of site of any vegetation, dressing 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.
7.0	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.
8.0	All works item wise shall be measured upon completion and paid for at the rates quoted and accepted.
9.0	The tender shall be deemed to have studied the specifications, details of work to be done within the time schedule attached and to have acquainted himself of the conditions prevailing at site.
10.0	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.

**VOLUME-III
PRICE SCHEDULE, REV-2**

Construction of 2 nos covered stores, Office cum Residential Accomodation , RCC sleepers, 8000 sqm hard surfacing, temporary roads , Field Hostel, Fencing etc and misc civil enabling and electrical works for 2X30 MW TUIRIAL Hydroelectric project, MIZORAM.

TENDER NO. PSER:SCT:TRL-C1438:13

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE	AMOUNT
	ENABLING WORKS FOR STORES, OFFICE, FIELD HOSTEL,ROADS, RCC SLEEPER, HARD SURFACING, DRAIN AND MISC WORKS.				
EC 1	Clearing jungle including uprooting of rank vegetation, grass, brushwood, trees and saplings of girth upto 30 cm measured at a height of 1 m above ground level and removal of rubbish upto a distance of 200 m outside the periphery of the area cleared.	8000	SQM		
EC 2	Earthwork in excavation in all kinds of ordinary and hard soil (including slushy soil) up to a depth of 1.5m below ground level and stacking within a lead of 100 M,with necessary shoring, strutting, ramming, trimming and dressing of sides etc., including bailing / pumping out of surface water/rain water/sub soil water, cutting minor vegetation, if any, complete.	1071	CUM		
EC 3	Filling using selected excavated materials in trenches, plinths, sides of foundations and other underground structures, pipes, area levelling etc. in layers not exceeding 250 mm thickness including lead of 100m and all lifts and including loading from stock pile, carting, unloading, filling, watering and compacting/ramming each layer, all complete as per specifications, drawings and as directed by the engineer to achieve the following densities with 90% proctor density.	536	CUM		
EC 4	Sand filling (river sand) in plinth in layers not exceeding 15cm as directed by BHEL and consolidating same by thorough saturation with water and ramming complete including the cost of supply of sand (payment to be made on measurement of finished qty).	300	CUM		
EC5	Single brick flat soling of picked jhama bricks including ramming and dressing bed to the proper level and filing the joints with powder earth or local sand including all materials, labour etc. complete.	720	SQM		
EC 6	65 micron polythelene sheet below Brick Flat Soling as moisture proof barrier for floors for field hostel, office.	680	SQM		
EC 7	Plain cement Concrete 1 : 3 : 6 (1 cement : 3 sand : 6 graded stone aggregate of 20 mm nominal size) as filling course or lean concrete at any level below foundations, drain, septic tank, floors, hume pipes, materials, labour etc complete (Cement - PPC/OPC/PSC to be supplied by the vendor with test certificate from direct manufacturer of CCI / TOPCHEM/ CEMENT MANUFACTURING CO(STAR) /BARRACK VALLEY/ ACC/ BIRLA or equivalent).	80	CUM		
EC 8	Reinforced 1 : 1.5 : 3 (1 cement : 1.5 sand : 3 graded stone aggregate of 20 mm nominal size) for foundation, columns, beams, chajjas, RCC sleepers, RCC shelf, over head tanks slab,floors, super structure slabs etc excluding cost of shuttering and reinforcement if any but including all materials, labour, curing etc complete all the levels (cement - PPC/OPC/PSC to be supplied by contractor with test certificate from direct manufacturer of CCI / TOPCHEM/ CEMENT MANUFACTURING CO(STAR) /BARRACK VALLEY/ ACC/ BIRLA or equivalent).	416	CUM		

**VOLUME-III
PRICE SCHEDULE, REV-2**

Construction of 2 nos covered stores, Office cum Residential Accomodation , RCC sleepers, 8000 sqm hard surfacing, temporary roads , Field Hostel, Fencing etc and misc civil enabling and electrical works for 2X30 MW TUIRIAL Hydroelectric project, MIZORAM.

TENDER NO. PSER:SCT:TRL-C1438:13

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE	AMOUNT
EC 9	Plain cement concrete 1:2:4 for floor etc. with approved stone chips 20mm down for floor, drain etc excluding cost of shuttering if any but including all materials, labour, curing etc complete all the levels. (cement - PPC/OPC/PSC to be supplied by contractor with test certificate from direct manufacturer of CCI / TOPCHEM/ CEMENT MANUFACTURING CO (STAR) / BARRACK VALLEY/ ACC/ BIRLA or equivalent)	97	CUM		
EC 10	Providing and laying Reinforced cement concrete (1:1.5:3) as per is 456 for reinforced concrete works using graded aggregate for Concrete in precast works in RCC Sleeper & in all kinds of work including formwork/moulds, curing and including making of holes for handling purpose etc.etc.complete with graded aggregate (12.5/10 mm) as per specification and drawing for following grades, but excluding the cost of reinforcement and reinforcement will be paid as per relevent items .	92	CUM		
EC 11	Damp Proof Course 40mm thk. 1:1.5:3 concrete (10mm down aggregate) with 2% of approved admixture of water proofing compound. Hot bitumen @ 1.7Kg./sqm shall be applied before & after the DPC as per specification (Cement - PPC/OPC/PSC to be supplied by the vendor with test certificate from direct manufacturer of ACC /ULTRATECH /CETURY /BIRLA /LAFARGE /INDIA CEMENT etc)	100	SQM		
EC 12	Supply, transporting, straightening, cutting, bending, placing at any level, binding in position mild steel reinforcements in concrete including cost of reinforcement and binding wire, labour etc complete all as per specifications & drawings (Contractor will provide MS round from SAIL/ TISCO/ IISCO/ SRMB/ SHRICON/ SHYAM STEEL/ ELEGANT/CONCAST etc).	2	MT		
EC 13	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 (Contractor will provide TMT bar Fe-500 quality from SAIL/ TISCO/ IISCO/ SRMB/ SHRICON/ SHYAM STEEL /CONCAST etc). Payment terms - a) On receipt of materials at site - 70%; b) On completion of erection & fixing - 30%.	54	MT		
EC 14	Hire and labour charges for 25mm thick shuttering for bldg. works for concrete foundations, floor/ roof slabs, 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				
a	Without vertical props.	704	SQM		
b	With vertical props up to (+)6M height.	35	SQM		
EC 15	Brick work in cement mortar (1:6) in foundation, plinth, pier, abutment, wing wlls, 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 vendor with test certificate from direct manufacturer of ACC /ULTRATECH /CETURY /BIRLA /LAFARGE /INDIA CEMENT etc).				

**VOLUME-III
PRICE SCHEDULE, REV-2**

Construction of 2 nos covered stores, Office cum Residential Accomodation , RCC sleepers, 8000 sqm hard surfacing, temporary roads , Field Hostel, Fencing etc and misc civil enabling and electrical works for 2X30 MW TUIRIAL Hydroelectric project, MIZORAM.

TENDER NO. PSER:SCT:TRL-C1438:13

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE	AMOUNT
a	Ordinary bricks / fly ash bricks, Class designation 75 (minimum 50) below plinth lvl.	135	CUM		
b	Ordinary bricks / fly ash bricks, Class designation 75 (minimum 50) , above plinth lvl upto 7.0M height.	350	CUM		
EC 16	Brick work in partition wall with cement mortar (1 cement :4 sand) in foundation, plinth, pier, abutment, walls, water tank, septic tank, drains, culvert, super structure etc including cost of scaffolding and other incidental work etc. completed. (Cement - PPC / OPC / PSC to be supplied by the vendor with test certificate from direct manufacturer of ACC / ULTRATECH / CETURY / BIRLA / LAFARGE / INDIA CEMENT etc)				
a	Ordinary bricks / fly ash bricks, Class designation 75 (minimum 50) , below plinth level.	70	SQM		
b	Ordinary bricks / fly ash bricks, Class designation 75 (minimum 50) , above plinth level upto 7 M height.	105	SQM		
EC 17	Plaster to existing masonry concrete wall, floor, slab soffits, fins, sills etc with sand cement mortar including rounding off or chenerfering 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 contractor with test certificate from direct manufacturer of ACC/ ULTRATECH/ CENTURY/ BIRLA/ LAFARGE/ INDIA CEMENT etc).				
a	With 1:6 cement mortar average 12.5mm thick plaster below GL.	200	SQM		
b	With 1:6 cement mortar average 12.5mm thick plaster above GL.	1100	SQM		
c	Outside plaster with 1:4 cement mortar average 15 mm thick above GL at all levels.	550	SQM		
d	Providing & grouting of MS pipe etc. with cement concrete mix of approved ratio (1:2:4) structures as per approved procedure including cost of etc. with all materials complete wherever specified in the drawing.	1.5	cum		
EC 19	Supply, fabrication, erection and painting of structural steel work in columns, beams, wind ties, & MS GATE for entrance of fencing etc with simple rolled structural members connected to one with another with brackets gusset cleats, H.T. bolts & nuts or welding 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/ IISCO/ SRMB/ SHRICON/ SHYAM STEEL/ RINL etc with test certificate). Payment terms - a) On receipt of materials at site - 70%; b) On completion of erection & fixing - 30%.	16	MT		

**VOLUME-III
PRICE SCHEDULE, REV-2**

Construction of 2 nos covered stores, Office cum Residential Accomodation , RCC sleepers, 8000 sqm hard surfacing, temporary roads , Field Hostel, Fencing etc and misc civil enabling and electrical works for 2X30 MW TUIRIAL Hydroelectric project, MIZORAM.

TENDER NO. PSER:SCT:TRL-C1438:13

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE	AMOUNT
EC 20	Supply, fabrication, erection and painting of steel work with tubular sections as per IS 1161& 1239 for roof truss, purlin etc including all materials conforming to relevant IS codes, labour , H.T. bolts 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 site - 70%; b) On completion of erection & fixing - 30%.	18	MT		
EC 21	Providing & fixing corrugated galvanised iron sheet (CGI) 0.5mm thick for roofing of TATA/SAIL/ZINDAL/BANSAL make including galvanised J or L hook, bolts and nuts 8mm dia with bitumen washer 25mmdiax 3mm thick and 1.6 mm thick limpet washer complete with all labour, tools and plants. Payment terms - a) On receipt of materials at site - 70%; b) On completion of erection & fixing - 30%.	3235	SQM		
EC 22	Providing and fixing galvanised iron ridge 0.5 mm thick and 230 mm lappings on both sides of TATA /SAIL /ZINDAL /BANSAL make including fixing necessary screws, washers etc complete with all labour and tools and plants.	100	RM		
EC 23	Providing, transporting, fixing of MS foundation/ anchor bolt (Grade-1 of IS:432 & IS:2062) assembly in concrete along with nuts, lock nuts, 25mm dia, 950mm long 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 - 70%; b) On completion of erection & fixing - 30%.	1000	KG		
EC 24	Supplying, fitting & fixing openable steel window conforming to us IS:1038-1975 & IS:7452-1974 with non-friction projecting type of hinges fitted with revetts or nut bolt system as directed, glazing cleats, lugs, 2 nos MS anodised peg stays & fastner for each window of size 900x1200mm, 4mm thick clear glass pane (each glass max size 450x450mm), including fixing in position, fixing lug in cement concrete 1:2:4 with stone chips 12.5mm down cutting holes & mending good damage, 10mm dia MS round 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.	34	SQM		
EC 25	Supplying, fitting and fixing fixed steel windows for store conforming to us IS:1036-1975 and IS:7452-1974 with glazing, cleats, lugs, 4mm thick clear glass pane (each glass max size 450mmx450mm), etc including fixing in position, fixing lugs in cement concrete 1:2:4 with stone chips 19mm down cutting holes & mending goods damages, with 10mm dia MS round guard bar fixed horizontally 125 c/c etc complete with one coat of primer and two coats of synthetic enamel finish in all respect.	21	SQM		

**VOLUME-III
PRICE SCHEDULE, REV-2**

Construction of 2 nos covered stores, Office cum Residential Accomodation , RCC sleepers, 8000 sqm hard surfacing, temporary roads , Field Hostel, Fencing etc and misc civil enabling and electrical works for 2X30 MW TUIRIAL Hydroelectric project, MIZORAM.

TENDER NO. PSER:SCT:TRL-C1438:13

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE	AMOUNT
EC 26	Painting two coats with best quantity synthetic enamel paint ready mix oil bound paint of approved make and brand including smoothening surface by sand pepering etc including using approved putty etc on the surface if necessary.				
a	On steel or other metal or wooden surface with super gloss.	60	SQM		
EC 27	3 coats white washing with lime including cleaning and smoothening masonry surface thoroughly to give an even shade.	1445	SQM		
EC 28	Two coats of water proofing cement paint of Seacem or equivalent make & shade applied on outer wall including scraping the surface thoroughly on plastered or concrete surface (manufacturers specification to be followed) at all levels including all materials, labours, scaffolding etc complete as per direction of engineer	1200	SQM		
EC 29	Providing plaster of paris 2 mm thick punning over finished plaster surface and finished with one coat of acrylic emulsion primer followed by two coats of acrylic emulsion paint inside room to give smooth and even surface as per specification at all levels.	450	SQM		
EC 30	Supplying, fitting & fixing steel sliding door for covered store, made of MS angle, channel, 1.2 mm thick MS sheet, sizes 4 M. wide x 5 M height (2 leaves) fitted with required nos of C.J pulley's/heavy bearing complete with locking arrangements bothside and outside specially built up side guide channels including all fitting and fixtures etc. complete as per specification and finished with one coats of red oxide primer followed by two coats (Berger) synthetic enamel as directed by Site In-charge.				
a)	Manually Operated	4	MT		
EC 31	Providing and fixing best quality flush door shutter conforming to IS:2202 (part -1) non decorative type,core of block board construction with frame of first class hard wood and well matched commertial 3 ply veneering with vertical grains or cross bands and fresh veneers on both faces of shutter including 2 coats of finished synthetic enamel paint and one coat of primer.				
	a) 35mm thick shutters	60	Sqm		
	b) 25 mm th. (mainly for toilet & kitchen door)	34	Sqm		
EC 32	Providing & fixing false ceiling with wooden frame work with 2nd class wooden batten of 65 x 40, 50 x 40, 40 x 25 mm, making grid panel of 600 X 600 mm jaming on brick wall with cement concrete and 4 mm commertial ply to be fixed on wooden frame work for false ceiling, including all labour,materials,screws, nails, 3 mm GI wire for taking supports from roof etc. complete including finished with 2 coats of synthetic enamel paint and one coat primer on false ceiling	520	Sqm		
EC 33	(i) Providing attach toilet (8 nos & one no ladies toilet) for field hostel, (3 nos & one no.ladies toilet) for office with following facilities as directed by BHEL: (a) Inside size of toilet 2 M x 1.5 M & (ii) Providing attach toilet (3 nos) for office & store with following facilities as directed by BHEL: (a) Inside size of toilet 1.5 M x 1.35 M				
a)	8 mm thick white colour ceramic floor tile	45	SQM		

**VOLUME-III
PRICE SCHEDULE, REV-2**

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TENDER NO. PSER:SCT:TRL-C1438:13

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE	AMOUNT
b)	inside walls tile upto 1.35 M height from finish floor,	181	SQM		
c)	One no. white vitreous wash basin 550x400 mm (Hindustan make or equivalent) with CI bracket, 15 mm cp brass pillar taps,	16	Nos.		
d)	One best quality 550x400mm mirror etc complete,	16	Nos.		
e)	One WC chamber with European type WC Pan with seat and lid black colour, low level 10 lts capacity white PVC flushing cistern, etc	16	Nos.		
f)	All inside pipe line shall be 15mm PVC and concealed pipes,	108	RM		
g)	All inside pipe line shall be 20mm PVC and concealed pipes,	50	RM		
h)	450mm long towel rail with total elgnth of 495mm, 78mm wide and effective hight of 88mm, weighin not less than 170gms with all complete	16	Nos.		
i)	Providing and fixing 600x120x5mm glass shelf with edges round of supported on anodised aluminium angle frame with C.P brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc. complete.	16	Nos.		
j)	Providing and fixing Gun Metal full way valve with C.I wheel of approved quality etc. complete.				
	25 mm nominal bore	16	Nos.		
k)	Providing and fixing C.P. brass 15 mm stop cock of approved qulity of weight not less than 250 gms.	16	Nos.		
l)	Providing and fixing C.P. brass 15 mm bib cock of approved qulity of weight not less than 250 gms.	16	Nos.		
m)	Providing and fixing PTMT liquid soap container 109mm wide, 125mm high and 112mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality colour and make, weighing not less than 105gms (Pravaag or equivalent).	16	Nos.		
EC 34	Providing common toilet with following facilities as directed by BHEL: (a) Inside size of toilet 6 x 2.5 m,				
a)	8 mm thick white colour ceramic floor tile	19	SQM		
b)	inside walls tile upto 1.35 M height from finish floor,	28	SQM		
c)	One no. white vitreous wash basin 550x400 mm (Hindustan make or equivalent) with CI bracket, 15 mm cp brass pillar taps,	2	Nos.		
d)	One best quality 550x400mm mirror etc complete,	2	Nos.		
e)	One WC chamber with European type WC Pan with seat and lid black colour, low level 10 lts capacity white PVC flushing cistern, etc	2	Nos.		
f)	All inside pipe line shall be 15mm PVC and concealed pipes,	21	RM		
g)	450mm long towel rail with total elgnth of 495mm, 78mm wide and effective hight of 88mm, weighin not less than 170gms with all complete	2	Nos.		
h)	glass shelf	2	Nos.		
i)	Providing and fixing Gun Metal full way valve with C.I wheel of approved quality etc. complete.				
	25 mm nominal bore	8	Nos.		
j)	Providing and fixing C.P. brass 15 mm stop cock of approved qulity of weight not less than 250 gms.	8	Nos.		
k)	Providing and fixing C.P. brass 15 mm bib cock of approved qulity of weight not less than 250 gms.	8	Nos.		

**VOLUME-III
PRICE SCHEDULE, REV-2**

Construction of 2 nos covered stores, Office cum Residential Accomodation , RCC sleepers, 8000 sqm hard surfacing, temporary roads , Field Hostel, Fencing etc and misc civil enabling and electrical works for 2X30 MW TUIRIAL Hydroelectric project, MIZORAM.

TENDER NO. PSER:SCT:TRL-C1438:13

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE	AMOUNT
l)	Providing and fixing PTMT liquid soap container 109mm wide, 125mm high and 112mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality colour and make, weighing not less than 105gms (Prayag or equivalent).	2	Nos.		
m)	4 nos. flat back urinal with low level 10 ltr capacity white PVC flushing cistern.	1	set		
EC 35	Consolidation of subgrade/ existing surface with 12 T power roller or vibromax including making good the undulations with earth and rerolling the subgrade for road, hard surfacing of equipment store, fabrication yard, assembly yard etc as directed by BHEL.	8000	SQM		
EC 36	Providing and laying stone for making erection roads with specified sizes of approved quality hard rock rubble or hand broken hard metal of sizes ranging from 100mm to 225mm, any depths etc in one layers approximately 250mm thickness after compaction, hand packing, filling in interstices with quarry spalls/ stone dust providing a layer of 25mm thickness (consolidated) including watering, thoroughly compacting layer with 12 tonne power roller or vibromax with minimum 8 passes etc all as per the direction of the engineer and as per specification.	875	CUM		
EC 37	Providing & laying water bound macadam base for erection roads, hard surfacing of open equipment store, preassembly yard etc in layers of required thickness with stone aggregate 90mm to 45mm size stone screening and binding material including screening, sorting, spreading and consolidation with power road roller 12T including carriage spreading and consolidation of blinding material crushed or broken stone etc Including cost of material, labour, all complete.	1650	CUM		
EC 38	12 mm thick cement plaster (1:6) with 1mm neat cement punning for drain/septic tank etc complete with all materials including cement, labour etc as directed by BHEL.	100	SQM		
EC 39	1.5 M high fencing with MS angle post of size 65X65X6 or minimum 5 mm 1.8 M long post placed every 3M centre to centre embeded in concrete blocks(1:2:4), every 15th post, last but one end post corner post shall be strutted on both sides and post on one side only and provided with 8 horizontal lines and two diagonal sinterwoven with horizontal wires, of barbed wire 9.38 kg per 100 metres (min) between two post fitted and fixed with GI staples turn buckles, angle post shall be embeded in plain cement concrete(1:2:4)size 300x300x600mm deep below ground etc complete including excavation, backfilling, concreting, one coat of primer, two coat of synthetic enamel paint finish. Contractor will supply all materials including cement , structural steel, paint, labour etc complete.				
a	For structural angle post with two coats of bitumen based protective coating etc complete.	816	KG		

**VOLUME-III
PRICE SCHEDULE, REV-2**

Construction of 2 nos covered stores, Office cum Residential Accomodation , RCC sleepers, 8000 sqm hard surfacing, temporary roads , Field Hostel, Fencing etc and misc civil enabling and electrical works for 2X30 MW TUIRIAL Hydroelectric project, MIZORAM.

TENDER NO. PSER:SCT:TRL-C1438:13

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE	AMOUNT
b	Supplying, fitting, fixing galvanised chain link fencing of approved quality 50mmx50mmx8 g (or min 3mm), by means of galvanised `C` clips, with fixing of galvinised special clips etc. Contractor to supply all materials. Angle post to be paid separately as per item no EC 38a. Payment terms - a) On receipt of materials at site - 70%; b) On completion of erection & fixing - 30%	720	SQM		
EC 40	Providing PVC pipe of Supreme or equivalent quality for drinking water system for BHEL office with all fittings and fixtures, labour etc complete for BHEL office.				
a	For external 32mm dia.	80	RM		
b	For external 40mm dia.	50	RM		
c	For external 50mm dia.	60	RM		
EC 41	Providing PVC pipe with fittings and fixtures of Supreme or equivalent make with all materials, labour etc complete for external sewer line/ waste water line connection upto open drain or manhole to manhole/ septic tank/ soak pit for BHEL office.				
a	For external 75mm dia.	40	RM		
b	For external 100mm dia.	45	RM		
EC 42	Suppy, fitting & fixing/ laying of GI pipe as per IS 1239/IS 3589 with all necessary accessories ie socket, bend, tee, union, cross, elbow, nipple, long screw, reducing socket, reducing tee, short piece etc complete for making connection from deep well/source to water tank for constrcution/ drinking water system including cost of all necessary jointing materials labour etc all complete (payment will be made on center line meaurement of total pipeline including all specials)				
a	50 mm dia nominal bore, medium quality	30	RM		
b	32 mm nominal bore, meduim quality.	50	RM		
EC 43	Providing and fixing security kiosk size approx 2Mx2M in plan, front height 3M and back side height 2.9M, made of structural angle frame 65x65x6 all verticals and two horizontals with diagonals, 3 vertical sides and roof shall be covered with CGI sheet 0.5 MM thick with one each side opening 300x300MM for viewing, floor shall be made with 40 MM thick wooden planks (second class treated wood) at an height of 400MM above ground level, one wooden planks 2.0mx450mm size to be provided for sitting arrangement 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..	5	SET		
EC 44	Providing and fixing square mouth stone ware gully trap grade'A' conforming to IS:651 complete with G.I. Grating, brick masonry chamber with bricks of class designation '50' and water right C.I. Cover with frame of 300 x 300 mm size (inside), the weight of cover to be not less than 4.5 kgs and frame to be not less than 2.70 kg as per specification. 100X100 MM P TYPE	2	Nos.		
EC 45	Construction soak pit of 2.5Mtr dia and 3 Mtr depth filled with brick bats including S.W. drain pipe 100 mm dia and 1.2 meter long complete as per standard design.	4	Nos.		

**VOLUME-III
PRICE SCHEDULE, REV-2**

Construction of 2 nos covered stores, Office cum Residential Accomodation , RCC sleepers, 8000 sqm hard surfacing, temporary roads , Field Hostel, Fencing etc and misc civil enabling and electrical works for 2X30 MW TUIRIAL Hydroelectric project, MIZORAM.

TENDER NO. PSER:SCT:TRL-C1438:13

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE	AMOUNT
EC 46	Providing and laying NP3 class RCC with collars joint with stiff mixture of cement mortar 1:3 with all materials and labour. All excavation, bacfilling, concreting if required shall be paid as per relevent items.				
a	300mm dia	30	RM		
b	400mm dia	35	RM		
EC 47	Providing & Fixing 300 x300 mm x 8 or 9 mm thick coloured ceramic floor tile (grade iv) of mat finish in floors of rooms, kitchens, at all elevations with 20/25mm thick bed of cement mortar 1:4 and jointing with matching coloured cement slurry etc complete with all labour and materials . Floor tile to be laid on slope. (Vendor will supply all material)	500	SQM		
EC 48	Providing & Fixing 300 x300 x 5/6 mm thick coloured ceramic wall tile for dado in kitchens, entrance, lobby etc. at all elevations with 12 mm thick bed of cement mortar 1:3 and jointing with matching coloured cement slurry etc complete with all labour and materials. (Vendor will supply all material)	200	SQM		
ENABLING CIVIL TOTAL (A)					
ELECTRICAL ENABLING WORK: Provision to be made for electrical works for internal as well as external illumination of 2 nos covered store (45 x 15 x 5.5 M), OFFICE CUM RESIDENTIAL ACCOMODATION (45 X 8), open yard 8000 sqm, one FIELD HOSTEL (30 X12M), for TUIRIAL MIZORAM project					
EE1	Providing and fixing 1 x 40 Watt Batten type flourescent tube fitting (Bajaj or equivalent make), fabricated from CRCA sheet steel and finished with stove enamel paint complete with Accessories like flourescent lamp,copper wound polyster choke, starter, seat, rotor holder and terminal block duly pre-wired with copper conductor, including connections, fixing on wall, false ceiling or under roof tusties with clamps as required	30	Nos.		
EE2	Providing and fixing 2 x 40 flourescent tube fitting (Bajaj or equivalent make), fabricated from CRCA sheet steel and finished with stove enamel paint complete with Accessories like flourescent lamp,copper wound polyster choke, starter, seat, rotor holder and terminal block duly pre-wired with copper conductor, including connections, fixing on wall, false ceiling or under roof tusties with clamps as required	36	Nos.		
EE3	Providing and fixing 1 x 250 W HPSV out door type fittings (Crompton/Philips/BajaJ or equivalent), complete with lamp, ballast control box, fixing clamp etc.	30	Nos.		
EE4	Providing and fixing of following sweep exhaust fan/ceiling fan/wall mounted fan (Khaitan / Crompton make) single phase alongwith gravity louvers, frame / tripod for holding the motor including making necessary opening in wall, supply & fixing of assembly with grouting bolts, making connections, loop earthing etc.				
a)	230 mm sweep	3	Nos.		
b)	300 mm sweep	3	Nos.		
c)	Ceiling fan (Bajaj or equivalent) 1200mm	40	Nos.		

**VOLUME-III
PRICE SCHEDULE, REV-2**

Construction of 2 nos covered stores, Office cum Residential Accomodation , RCC sleepers, 8000 sqm hard surfacing, temporary roads , Field Hostel, Fencing etc and misc civil enabling and electrical works for 2X30 MW TUIRIAL Hydroelectric project, MIZORAM.

TENDER NO. PSER:SCT:TRL-C1438:13

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE	AMOUNT
EE5	Providing & fixing of 240 V, 5 / 15 Amp 6 Pin Power socket outlet point (with 15 A switch). Switch / socket to be fitted in suitable size 20 SWG metal type box with 3mm sunmica sheet	50	Nos.		
EE6	Providing & fixing of 240 V, 5A 3 Pin Power socket outlet point (with switch). Switch / socket to be fitted in suitable size 20 SWG metal type box with 3mm sunmica sheet along with the piano switches and fan regulator	30	Nos.		
EE7	Providing & fixing 5A piano type switch for Light / Fan Control (Anchor make)	100	Nos.		
EE8	Providing & fixing of 240 V, 20 Amp INDUSTRIAL Power socket outlet point (with 20 A MCB). Switch / socket to be fitted in suitable size 20 SWG metal type box.	10	Nos.		
EE9	Wiring of above power sockets with 2X4 Sq. mm FR PVC insulated Copper Conductor wires as per IS, 650 / 1100 V grade including 1 no. 4 sq mm FR PVC insulated Copper Conductor extra cable for loop earthing in medium grade conduit including supply of items.				
a)	For 15/16/20 AMP Power sockets	3	Points		
EE10	Circuit/Sub main wiring in 20/25 mm PVC conduit including supplying of all conduits, clamps, wires, complete				
a)	2x1.5 sq. mm + 1x1.5 sqmm earth wire	300	RM		
b)	2x2.5 sq. mm + 1x2.5 sqmm earth wire	300	RM		
c)	2x4 sq. mm + 1x4 sqmm earth wire	300	RM		
EE11	Point Wiring of the following points (including supply of Wires, conduits, clamps, boards, other misc. items) with 1.5 sq.mm colour coated FR PVC insulated copper conductor wires as per IS- 650/1100 volts grade in surface/recessed PVC conduits (medium grade) including laying of 20 SWG GI wire, conduit fitting, fixing of piano type control switches (Anchor make) in suitable sized 20 SWG metal box with 3 mm phenolic laminated sheet having provision for fan regulator, 5 Amp switch socket (supplied above) included in scope)				
a)	Light Point	120	Points		
b)	Twin control light point	36	Points		
c)	Wiring for 5/6 amps socket points	80	Points		
d)	Wiring for ceiling fan and regulator	40	Points		
e)	Wiring for exhaust fan.	6	Points		
f)	1 x 250 W HPSV out door type fitting. One number 10 A DP switch to be used for controlling 2 fittings. D.P Switches to be fixed on outside of the store shed wall	9	Points		
EE12	Providing and fixing of 32 Amp TPN with HRC fuses along with earth wire. The TPN to be provided on one side of the central shed with rain protection cover.	3	Nos.		
EE13	Supply and burying of earths electrodes GI Pipe 40mm dia 4.5 mtrs. Long, including accessories and providing masonry enclosure with cover plate having locking arrangement and watering pipe complete with salt, charcoal and including earthing upto switch board with 8 SWG GI wire	6	Set		
EE14	Providing, Installation and commissioning of 18 W Lighting Panel with 18 nos 16 A MCB with 63 A SFU incomer in Sheet metal housing with double door arrangement, including all earthing and statutory requirements.	3	No.		

**VOLUME-III
PRICE SCHEDULE, REV-2**

Construction of 2 nos covered stores, Office cum Residential Accomodation , RCC sleepers, 8000 sqm hard surfacing, temporary roads , Field Hostel, Fencing etc and misc civil enabling and electrical works for 2X30 MW TUIRIAL Hydroelectric project, MIZORAM.

TENDER NO. PSER:SCT:TRL-C1438:13

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE	AMOUNT
EE15	Earthing Flat 25 x 6 for Earthing 0.5 mtr below ground as strip earth electrode including soldering as required	60	RM		
EE16	Supply of 3.5 core 25 sqmm PVC, armoured Aluminium cable of 1.1 KV grade. As per IS-1554.	600	RM		
EE17	Laying of above cable 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.	120	RM		
EE18	Laying of above cable below ground in excavated trench average depth 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.	400	RM		
EE19	End termination with double compression gland and lugs(including supply)	12	NO		
EE20	Supply & fixing of Iron Clad Main Switches TPN/DP on angle iron frame on wall - 63a TPN.	3	NO		
EE21	Supply & fixing of sheet metal (16SWG) iron clad busbar chamber (W=500mmxD=150mm) on angle iron frame duly painted on wall with 4 Al bars (25mmx5mmx600mm) 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.	3	NO		
EE22	Supply of 4 core 16 sqmm PVC, armoured Aluminium cable of 1.1 KV grade as per IS-1554.	400	RM		
EE23	Laying of above cable 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.	120	RM		
EE9	Laying , below ground in excavated trench average depth 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.	400	RM		
EE10	End termination with double compression gland and lugs(including supply).	25	NO		
EE11	Supply & fixing of Iron Clad Main Switches TPN/DP on angle iron frame duly painted on wall with all required materials, hardwares, etc.				
EE11a	30/32A TPN.	8	NO		
EE11b	16A DP.	22	NO		
EE12	Supply, drawing through PVC conduit, termination, testing & commissioning of 1 core 2.5 sqmm PVC insulated, stranded Copper wire of 1.1 KV grade as wiring for lighting & power.	720	RM		
EE13	Supply and fixing of 1" dia rigid PVC conduit with all bends, tees, reducers, circular box, clamps, saddles, etc along with the accessories in surface/ recess in beam/ roof slab/ wall/ false ceiling and making good the same as required.	3300	RM		
EE14	Supply and fixing of 1" dia flexible PVC conduit with all bends, tees, reducers, circular box, clamps, saddles, etc along with the accessories in surface/ recess in beam/ roof slab/ wall/ false ceiling and making good the same as required.	144	RM		

**VOLUME-III
PRICE SCHEDULE, REV-2**

Construction of 2 nos covered stores, Office cum Residential Accomodation , RCC sleepers, 8000 sqm hard surfacing, temporary roads , Field Hostel, Fencing etc and misc civil enabling and electrical works for 2X30 MW TUIRIAL Hydroelectric project, MIZORAM.

TENDER NO. PSER:SCT:TRL-C1438:13

SL NO.	DESCRIPTION	QTY	UNIT	UNIT RATE	AMOUNT
EE15	Supply & fixing composite flush type 250V, 6 pin 15 A plug socket-integral fuse unit with 15A piano key type swich on sheet metal box with bakelite cover and earthing attachment including S&F of matching PVC box, make - ANCHOR/ NORTH-EAST.	24	NO		
EE16	Supply & fixing composite flush type 250V, 5 pin 5 A plug socket-integral fuse with 5A piano key type swich on sheet metal box with bakelite cover and earthing attachment including S&F of matching PVC box, make - ANCHOR/ NORTH-EAST.	30	NO		
EE17	Supply & fixing of Ceiling Rose on circular boxes.	75	NO		
EE18	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.(including all supply items)	30	NO		
EE19	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 Al body with acrylic cover along with lamps including all fixing/ supporting accessories complete and flexible wire for connection between ceiling rose & fitting.(including all supply items)	30	NO		
EE20	Supply of Indoor type luminaries 1x150 W medium bay industrial type, model BJMBI-150SV of BAJAJ or equivalent of PHILIPS/ CROMPTON.(including all supply items)	30	NO		
EE21	Fixing from roof truss with suitable clamp arrangement, flexible wire for connection between ceiling rose & fitting and commissioning of type HPSV luminaries medium bay industrial type, model BJMBI-150SV of BAJAJ or equivalent of PHILIPS/ CROMPTON.(including all supply items)	75	NO		
EE22	Supply & installation of earth electrode 40 mm dia 3 metre long GI pipe directly driven into earth including earth excavation if required.	21	NO		
EE23	Supplying & installation of 16 SWG GI wire for earthing including supply & termination with lugs as required.	2250	RM		
EE24	Supplying & installation of 8 SWG GI wire for earthing including supply & termination with lugs as required.	144	RM		
	ENABLING ELECTRICAL TOTAL (B)				
EC&E01	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 rate 2012.				
EC&E01a	(a) Rate of complete item	%			
EC&E01b	(b) Rate of supply of material at site only	%			
EC&E01c	(c) Rate for execution complete excluding supply of materials.	%			
	TOTAL ENABLING CIVIL + ELECTRICAL (A+B)				