



भारत हेवी इलेक्ट्रिकल्स लिमिटेड

(भारत सरकार का उपक्रम)

BHARAT HEAVY ELECTRICALS LIMITED

(A Govt. of India Undertaking)

TCN - 01

Ref: PSER:SCT:PSC-C1249:TCN-01

Date: 30/09/2011

Sub	Tender change notice (TCN) - 01	
Job	Construction of Three nos. Removable/ Re-Erectable type Pre-Engineered, Pre-Fabricated steel closed storage sheds and construction of Security Fencing of the entire storage area at 6x200 MW Punatsangchhu-I HEP Site, Bhutan.	
Ref	1.0	Tender no PSER:SCT:PSC-C1249:11
	2.0	BHEL's NIT, vide ref no Ref: PSER:SCT:PSC-C1249:11 Dated 22/09/2011
	3.0	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 **BOQ cum price schedule format VOL-IIIA, PRICE SCHEDULE, REV-0** has been revised as **VOL-IIIA- PRICE SCHEDULE, REV-01** 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are requested to consider the revised BOQ/price schedule only and quote your price accordingly.** Offer from bidders in superseded price schedule (Vol-III, REV-0) shall not be considered.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-01).**
- 2.0 The layout for general arrangement & detail of Tubular structure 15M X 60M Covered area has been revised & enclosed herewith.
- 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

ENGR (SCT)

Encl

- 1.0 Revised BOQ cum price schedule format (**VOL-IIIA , PRICE SCHEDULE , REV-01**)
- 2.0 Layout for general arrangement & detail of Tubular structure 15M X60M Covered area.
- 3.0 Revised 'No deviation certificate' format.

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 Three nos. Removable/ Re-Erectable type Pre-Engineered, Pre-Fabricated steel closed storage sheds and construction of Security Fencing of the entire storage area at 6x200 MW Punatsangchhu-I HEP Site, Bhutan..	
Ref	1.0	Tender no PSER:SCT:PSC-C1249:11.
	2.0	BHEL's NIT, vide reference no Ref: PSER:SCT:PSC-C1249:11 Dated 22-09-2011
	3.0	BHEL's TCN-01, vide reference no PSER:SCT:PSC-C1249:TCN-01, dated 30-09-2011.

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,

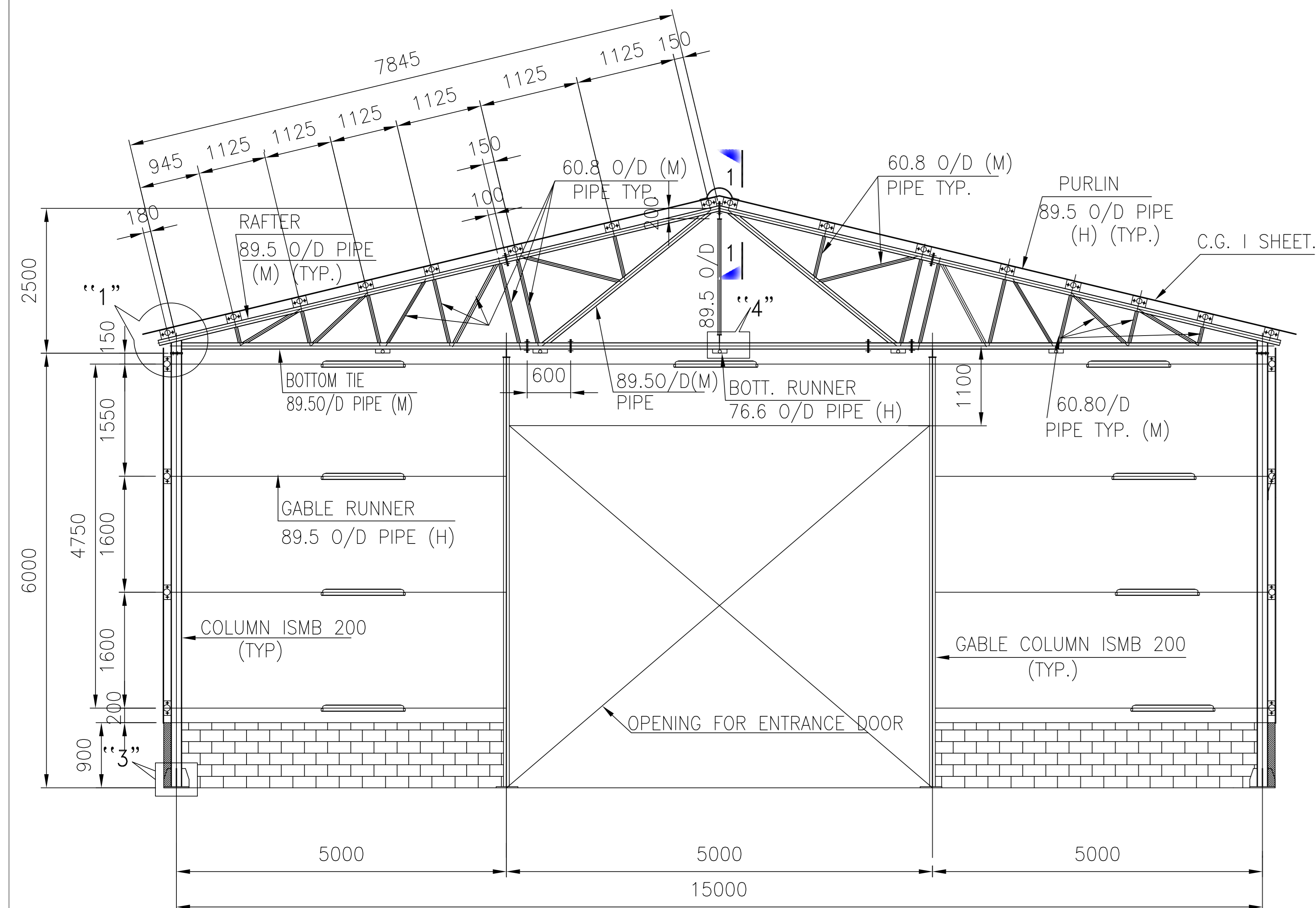
(Signature, date & seal of authorized
representative of the bidder)

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)

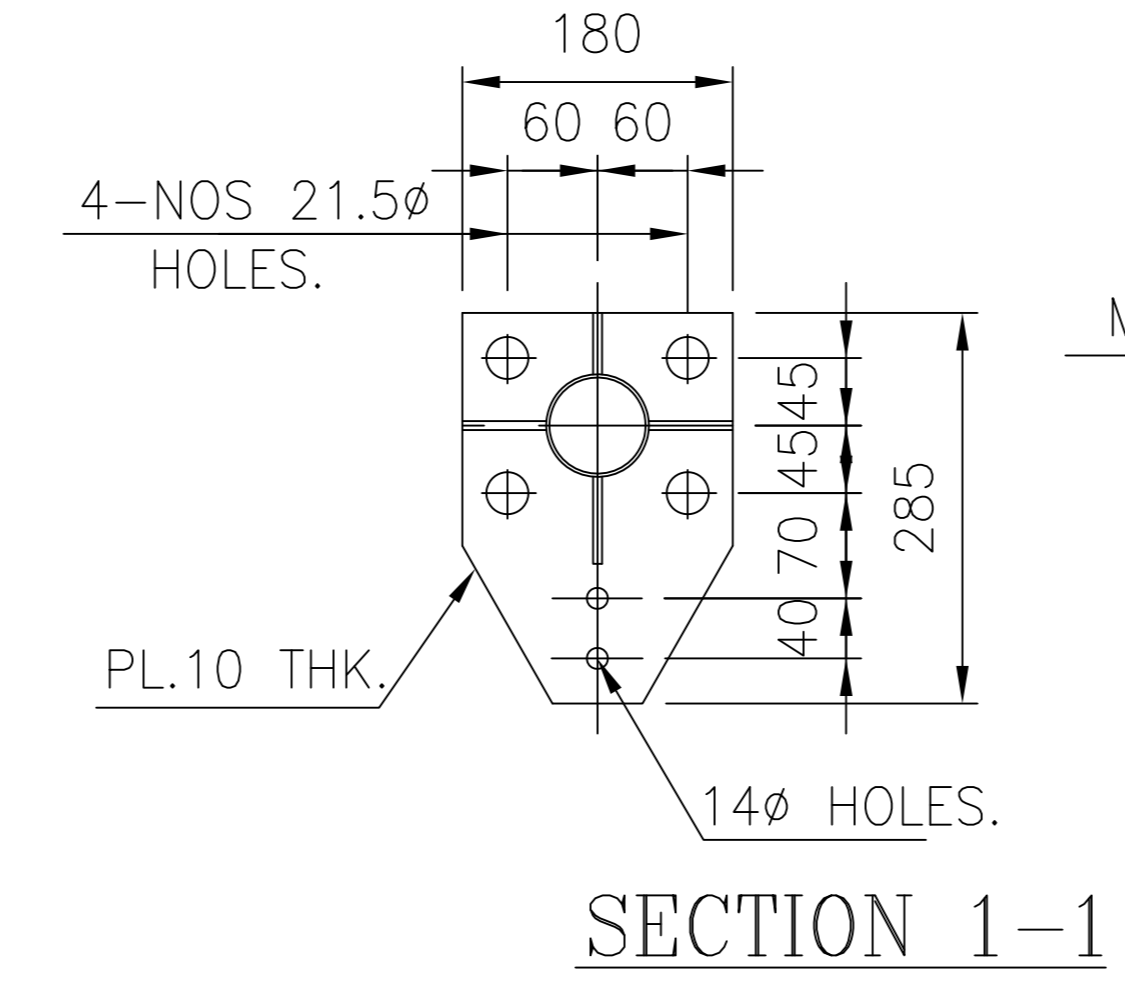
POWER SECTOR EASTERN REGION, DJ-9/1, SALT LAKE CITY, KOLKATA - 700 091

फैक्स/Fax : (033) 23211960

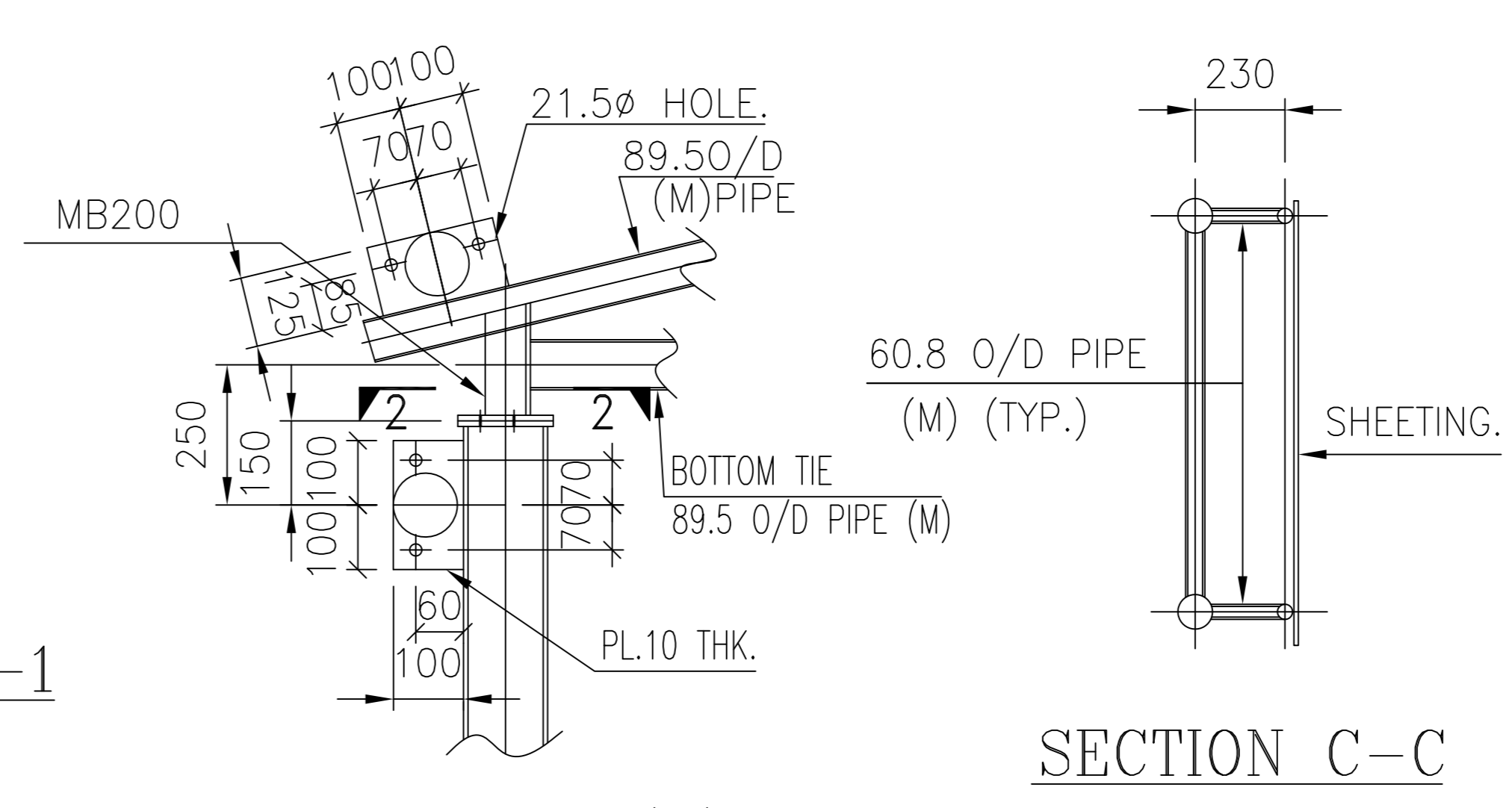
फोन/Phone : बोर्ड/EPABX : 23211798/ 1691



ELEVATION

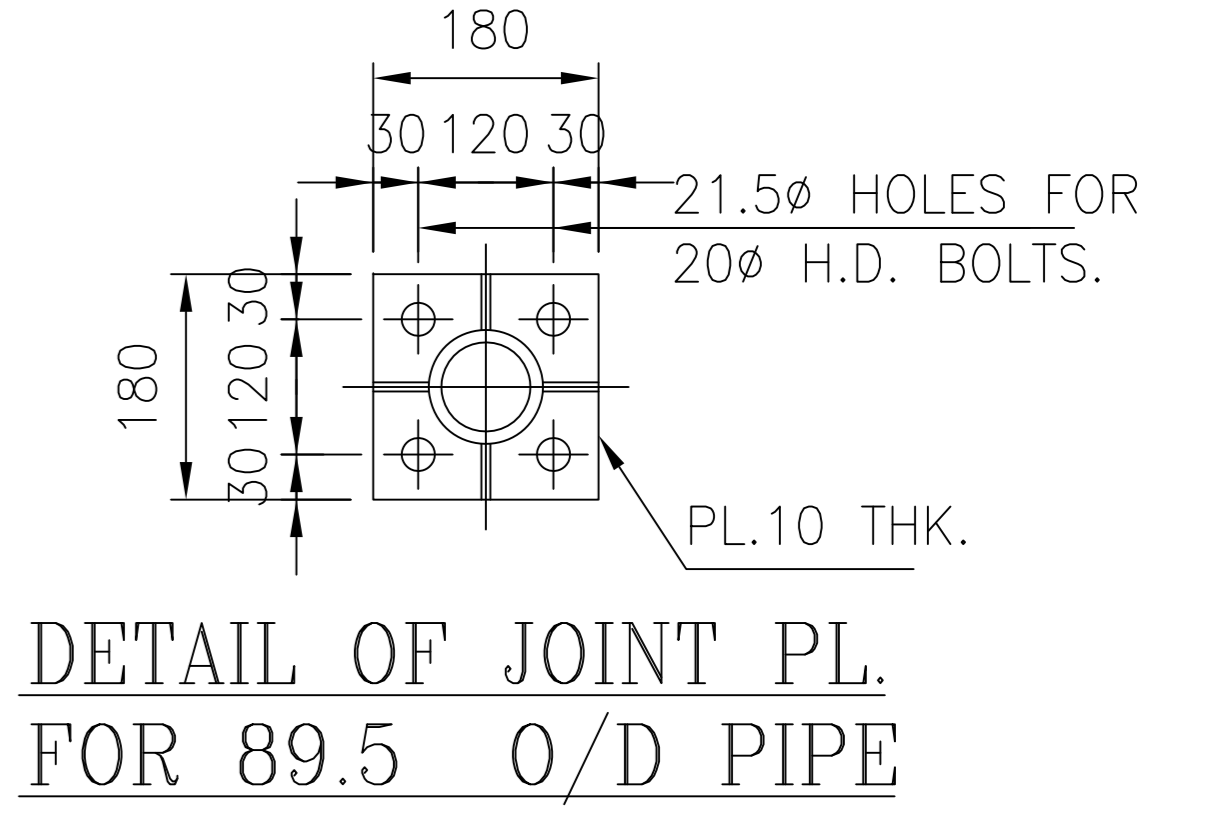


SECTION 1-1

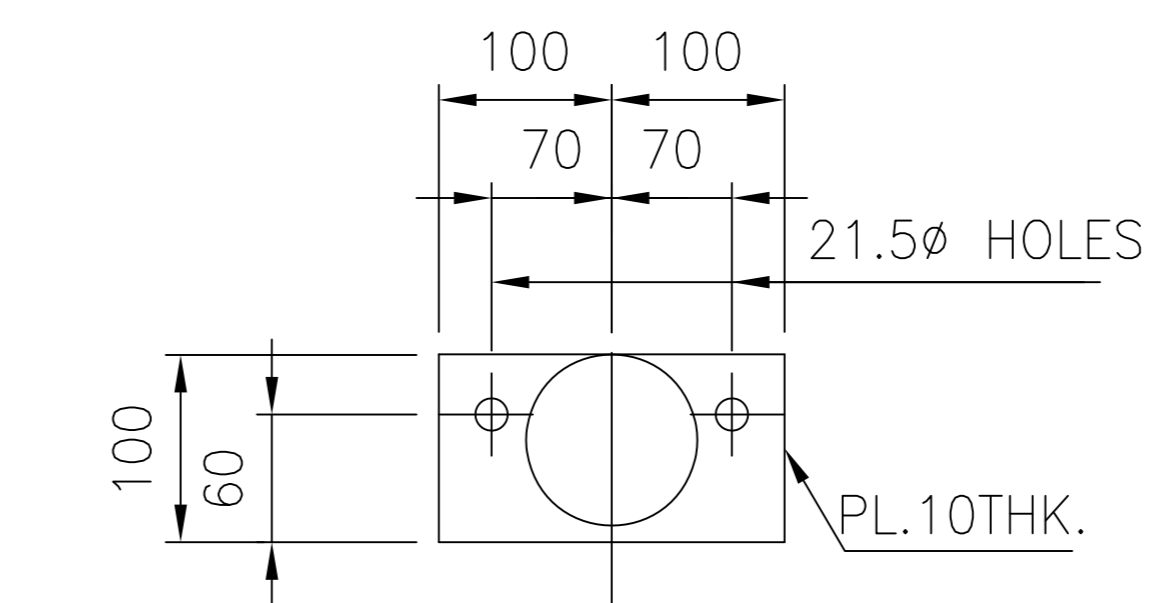


DETAIL '1'

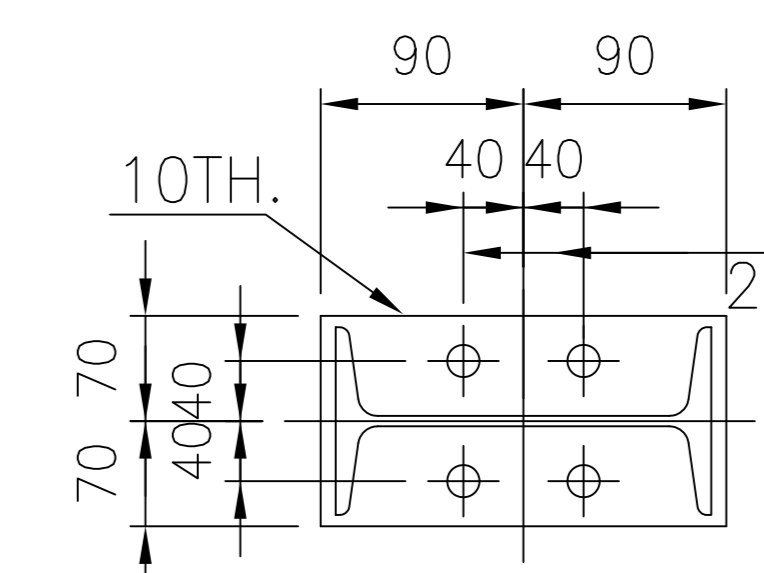
SECTION C-C



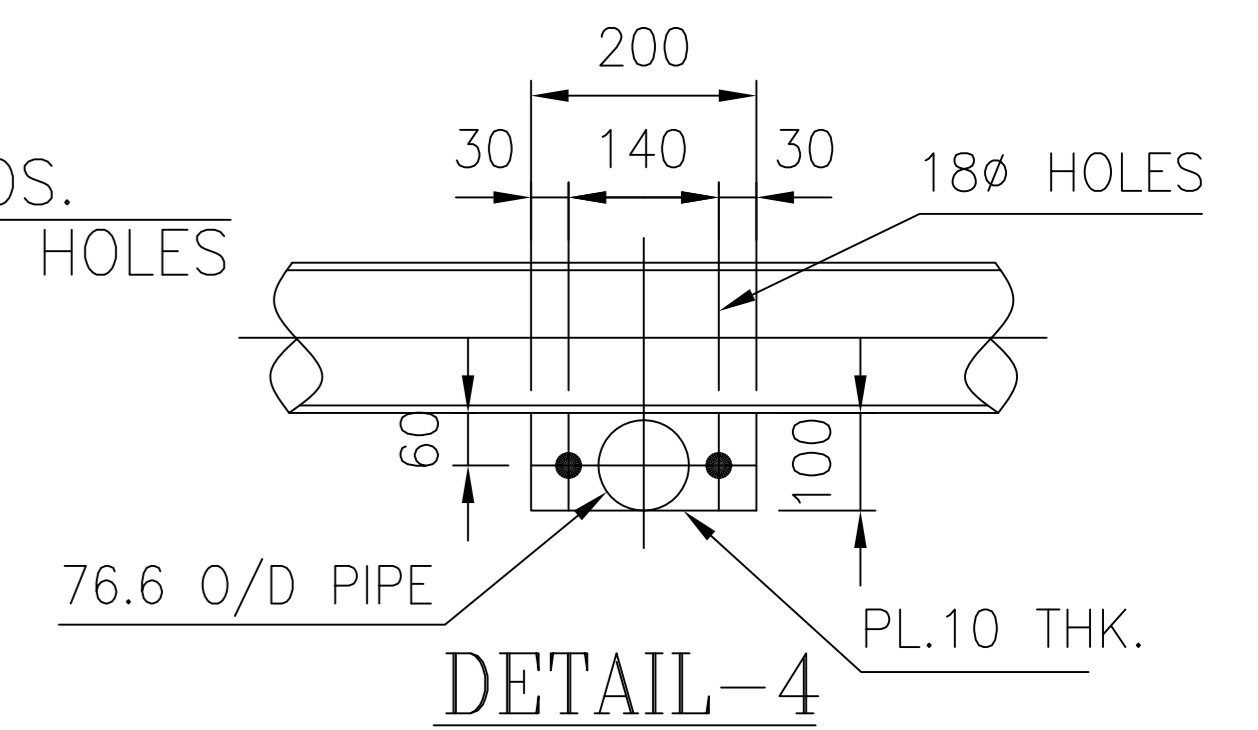
DETAIL OF JOINT PL. FOR 89.5 O/D PIPE



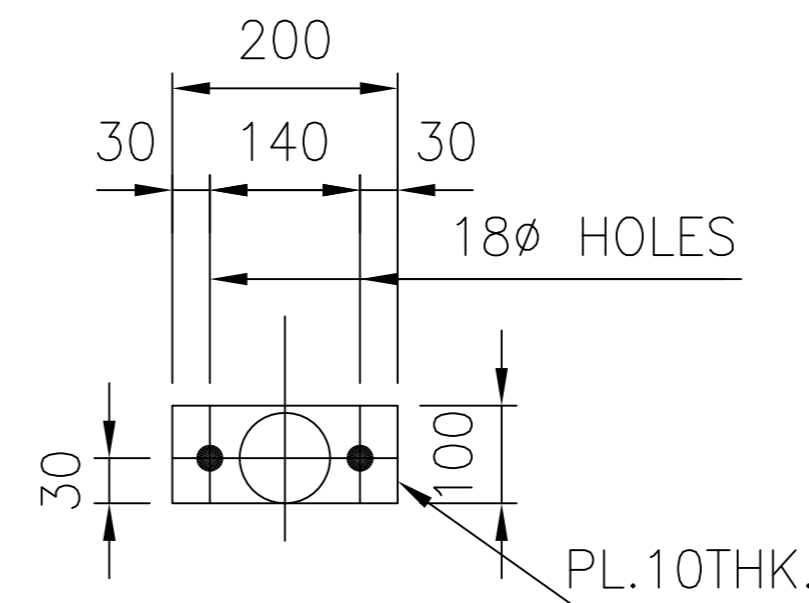
DETAIL OF PURLIN PL.



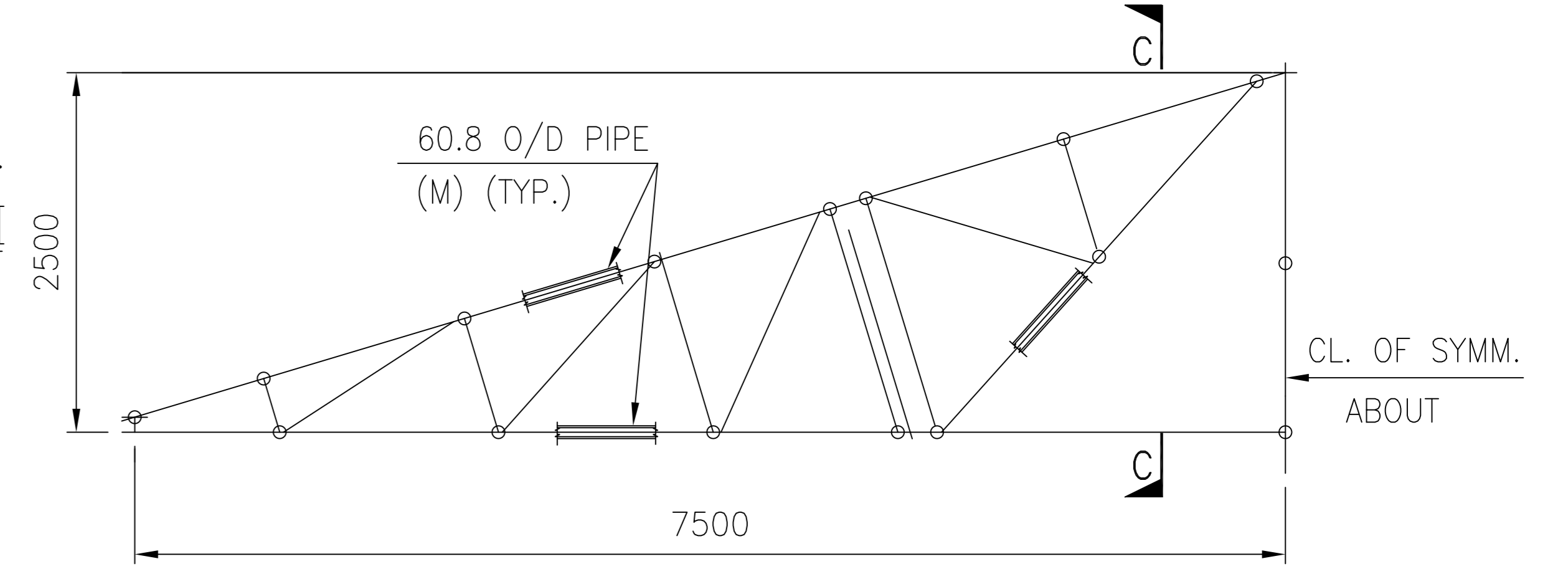
PLAN 2-2



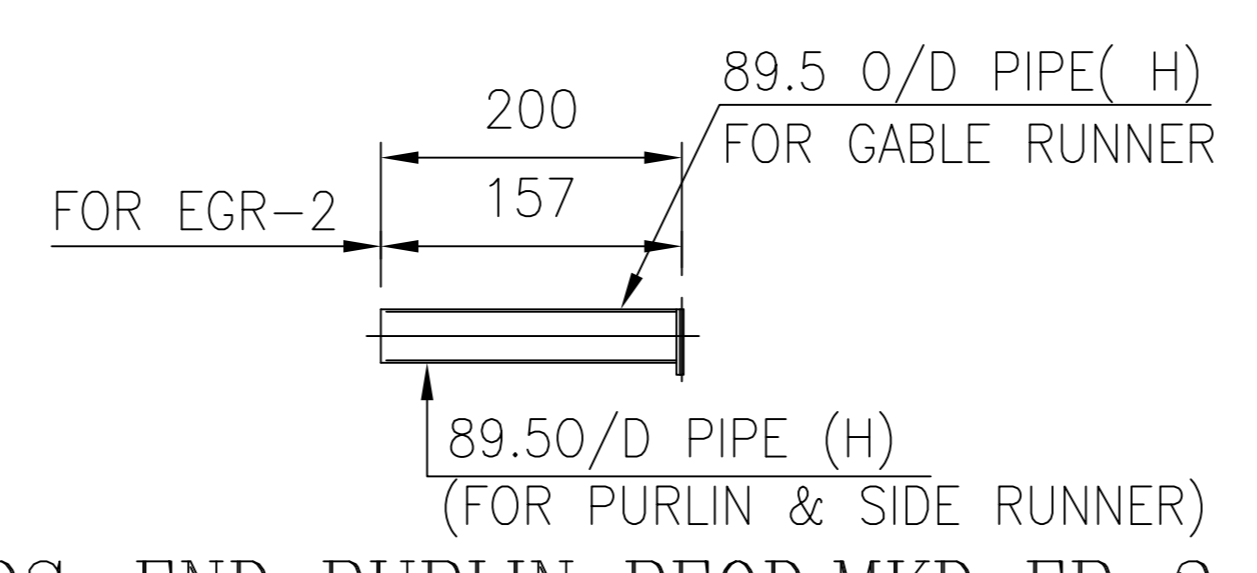
DETAIL-4



DETAIL OF BOTTOM RUNNER PLATE



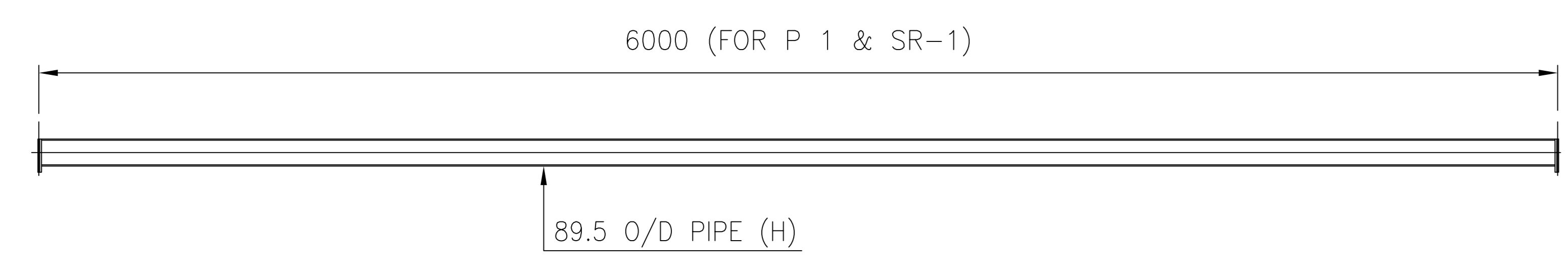
DETAIL OF FALSE FRAME.



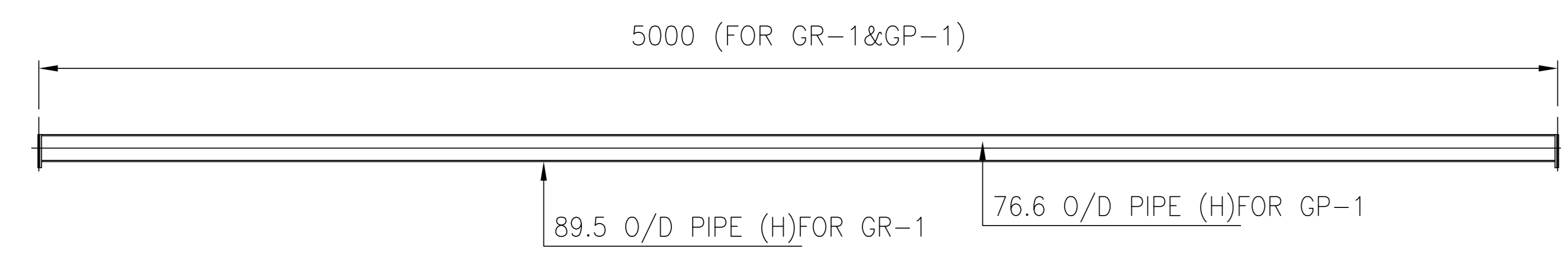
32 NOS. END PURLIN REQD. MKD EP-2

16 NOS. END RUNNER REQD. MKD ER-2

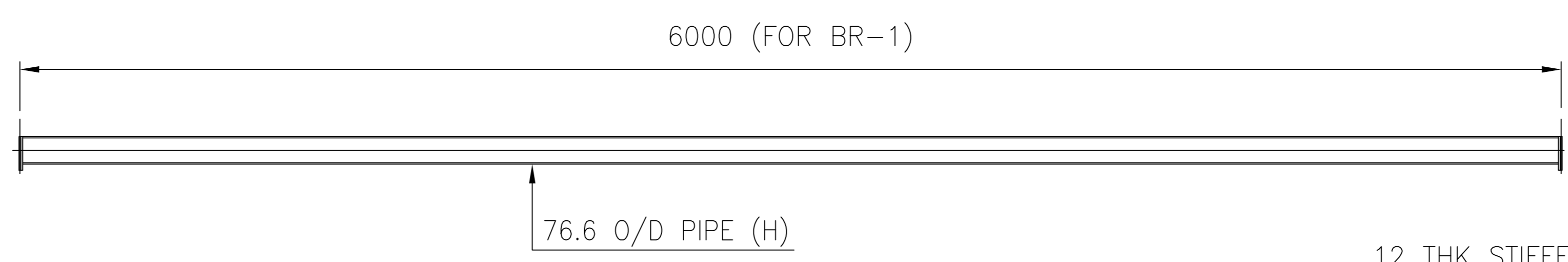
16 NOS. END GABLE RUNNER REQD. MKD. EGR-2



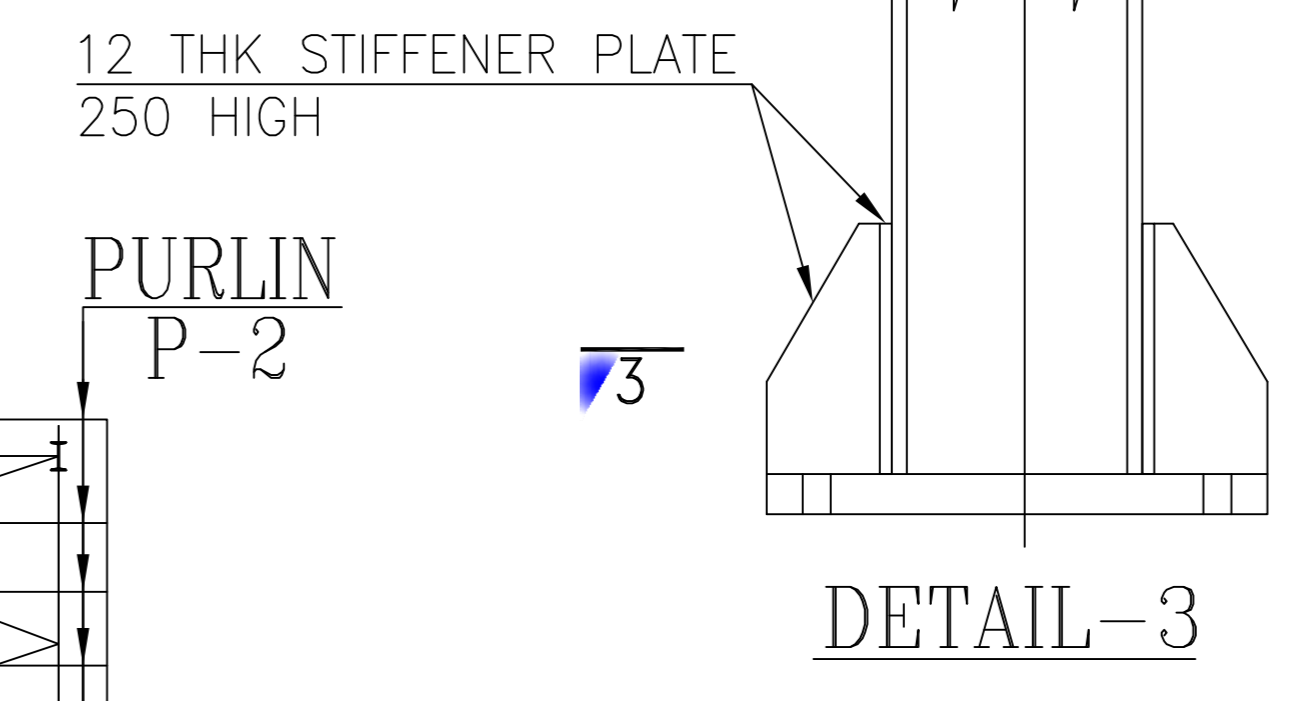
160 NOS. PURLIN REQD. AS DRN. MKD P-1
80 NOS. SIDE RUNNER REQD. AS DRN. MKD SR-1



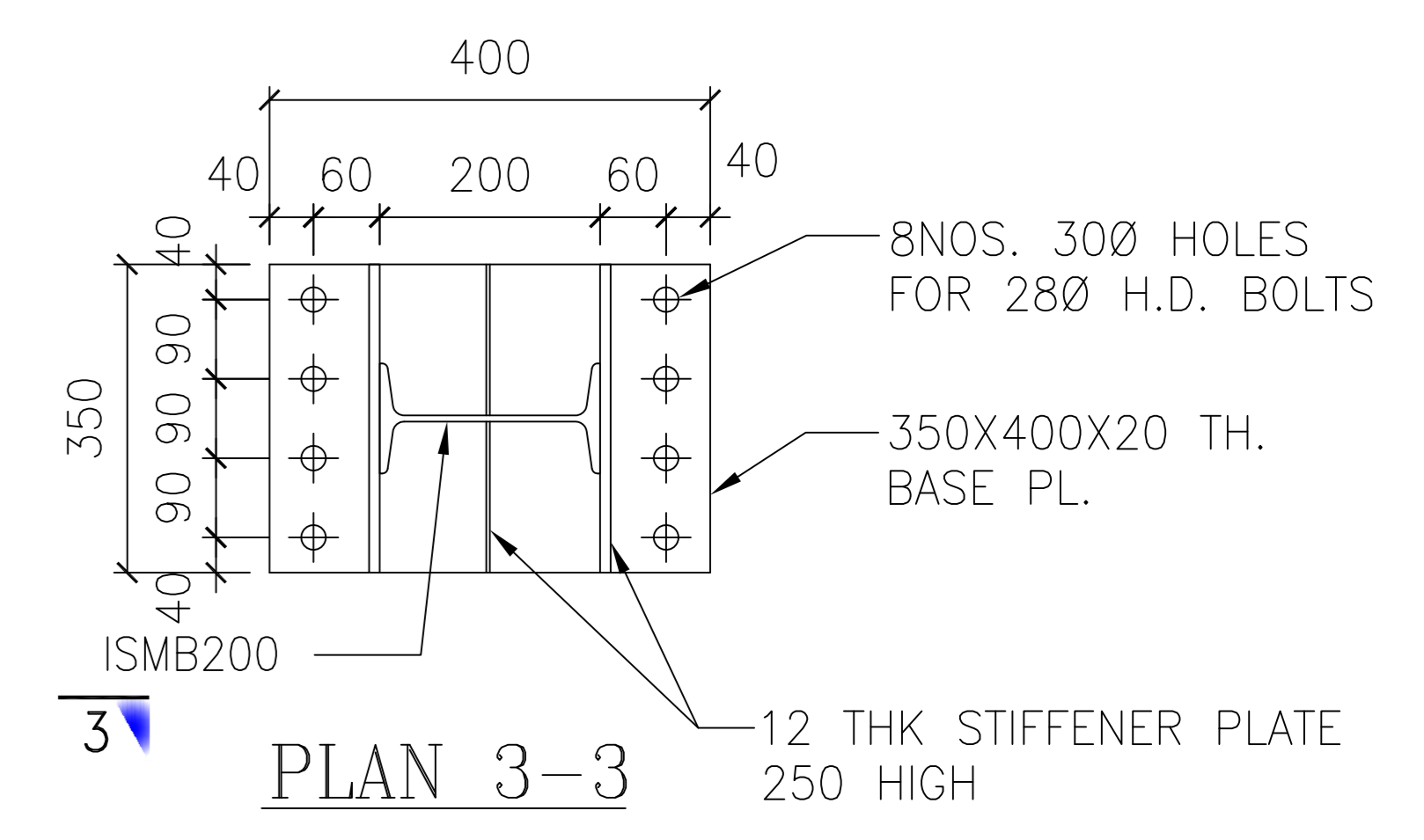
18 NOS. GABLE RUNNER REQD AS DRN. MKD. GR-1
4 NOS. GABLE PURLIN REQD AS DRN. MKD. GP-1



50 NOS. BOTTOM RUNNER REQD AS DRN. MKD. BR-1

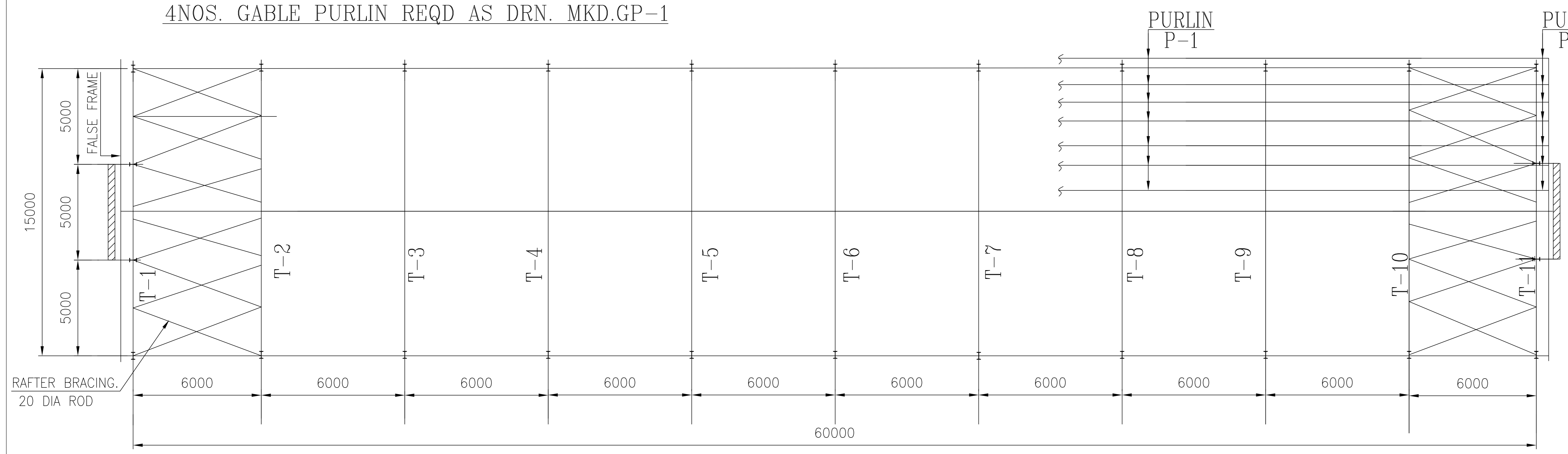


DETAIL-3



PLAN 3-3

- NOTES:-
1. ALL DIMENSION ARE IN MILIMETRE UNLESS OTHERWISE NOTED.
 2. ALL FILLET WELDS ARE IN 4 MM. FOR TUBULAR. 6 MM. FOR STRUCTURALS. UNLESS OTHERWISE NOTED. (AS PER 1:5 816 LATEST)
 3. ALL MEMBER LENGTHS ARE TO BE CHECKED BY FULL SCALE SHOPE LAYOUT.



FRAMEING PLAN

CLIENT :-		BHARAT HEAVY ELECTRICALS LIMITED.	
		FOR TENDERING PURPOSE	
DRN.		TITAL :- GENERAL ARRANGEMENT & DETAIL OF TUBULAR STRUCTURE 15 M X 60M COVERED AREA AT PUNASCHU, BHUTAN.	REV.
CHKD.			
APPVD.			
SCALE	1:75,15		
DRG. NO.			

**VOL-III A, REV 01
PRICE SCHEDULE**

JOB : CONSTRUCTION OF THREE NOS. REMOVABLE/ RE-ERECTABLE TYPE PRE-ENGINEERED, PRE-FABRICATED STEEL CLOSED STORAGE SHEDS AND CONSTRUCTION OF SECURITY FENCING OF THE ENTIRE STORAGE AREA AT 6X200 MW PUNATSANGCHHU-I HEP SITE, BHUTAN.

Tender No: PSER:SCT:PSC-C1249:11

PREAMBLE

1	This preamble forms part of tender document and schedule of items. The tenderer should read this preamble carefully before filling in rates for various items. Clauses under this preamble shall be read in conjunction with Volume-I as applicable and shall have precedence over any contrary statement mentioned any where in this document.
2	The work shall be carried out as per specifications, description of the items in this schedule and / or engineer's instructions. Drawings enclosed with this document are only preliminary for giving some idea of the work involved.
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 etc required for carrying out different activities & tests, material, 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	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 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	Rates shall be quoted both 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. The rates quoted are inclusive of all taxes and duties viz Sales Tax, excise, octroi etc.
7	All works item wise shall be measured upon completion and paid for at the rates quoted and accepted.
8	The tenderer shall be deemed to have studied the drawings, specifications and details of work to be done within the time schedule attached and to have acquainted himself of the conditions prevailing at site.
9	BHEL does not contemplate to split up the job and award the job to different bidders.
10	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.
11	Bidder's total price (C+D) of Price Schedule shall be considered for evaluation.
12	Taxes & Duties shall be as per tender provision

VOL-III, REV 01					
PRICE SCHEDULE					
JOB : CONSTRUCTION OF THREE NOS. REMOVABLE/ RE-ERECTABLE TYPE PRE-ENGINEERED, PRE-FABRICATED STEEL CLOSED STORAGE SHEDS AND CONSTRUCTION OF SECURITY FENCING OF THE ENTIRE STORAGE AREA AT 6X200 MW PUNATSANGCHHU-I HEP SITE, BHUTAN.					
Tender No: PSER:SCT:PSC-C1249:11					
Sl. No.	Description of Item	Quantity (Three sheds)	Unit	Rate (in Rupees)	Amount (in Rupees)
(A) CIVIL WORKS					
EARTHWORK / SITE CLEARANCE/ ROADWORK					
01.	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.	3000.00	M ²		
02.	Surface dressing of the ground including removing vegetation and inequalities not exceeding 15 cm deep and disposal of rubbish, lead up to 50 m and lift up to 1.5 m in all kinds of soil.	3000.00	M ²		
03.	Earth work in excavation in all types of ordinary and hard soil by mechanical means (hydraulic excavator) / manual means including stacking the excavated soil, dressing of sides and ramming of bottom, dewatering of accumulated water from any source and keeping the surface dry for subsequent works such as concreting form work etc. and disposal of surplus excavated soil as directed, disposed soil to be neatly levelled and dressed lead up to 50 metres and lift up to 1.5 metre complete.	500.00	M ³		
04.	Back filling available excavated earth in trenches, plinth, slides of foundations etc. including re-excavating the soil excavated earlier, breaking clods, laying at all depths and heights in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering complete lead up to 50 metres and lift up to 1.5 metres.	450.00	M ³		
05.	Disposal of surplus excavated earth and debris including re-excavating the deposited soil earlier, transportation, loading, unloading, laying at all depths and heights, leveling and dressing both the area (viz. From where earth is transported and where it is deposited) to required levels and slopes, complete with all lifts as directed.				
a)	upto 1 km	400.00	M ³		
b)	1km to 2 km	200.00	M ³		
06.	Supply and Laying water bound macadam with specified stone aggregate stone screening and binding material including screening, sorting, spreading to template and consolidation with power road roller of 8 to 10 tonne capacity etc. complete with supply for stone aggregate, screenings, kankar, moorum and red bajri etc.				
a)	Base course with 63 mm to 45 mm size including stone screening 13.2mm size, 75 mm thick.	1899.00	M ²		
07.	Supplying the good earth from outside the site including the cost of filling the same within the site in layer not exceeding 20cm in depth & consolidating each deposited layer by ramming and watering including all leads & lifts etc. complete.	1110.00	M ³		
08.	Providing approved quality Yellow/silver sand as levelling course and filling the same where required under floors etc., watering, ramming, consolidating, grading and finishing to final levels and slopes for all lifts and leads involved, complete as directed (Payment to be made for solid measure of the consolidated filling).	135.00	M ³		
PCC					
09.	Plain cement concrete of mix 1:3:6 (1 cement : 3 coarse sand and 6, 20 mm down graded stone aggregate) for column footing, levelling, floors etc., including cost of all materials, lead, lift, labour charges, consolidation, shuttering, curing etc. complete.	345.00	M ³		
10.	Making plinth protection 50 mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) over 75 mm bed of dry brick ballast 40 mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth .	450.00	M ²		
11.	Providing and laying and laying damp proof course 40 mm thick with concrete grade 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size and applying a coat of residual petroleum of penetration 80/100 of approved quality using 1.7 kg per sq. metre on damp proof coarse after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in KEROSENE OIL.	112.00	M ²		
12.	Providing and fixing at ground level precast 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) cement concrete in kerbs, RCC sleepers, edgings, drains, etc. as per approved pattern and placed in position including complete shuttering with reinforcement steel (2.0 m X 0.3 m X 0.3 M) - 500 nos..	270.00	M ³		
BRICKWORK					
13.	Brick work with class designation 75 in cement mortar 1:6 (1 cement : 6 coarse sand) in foundation, plinth and super structure in thickness of 230 mm including cost of all materials, lead lifts, labour charges, mixing mortar, laying bricks, racking joints, curing etc. all complete as per drawing and specification and direction of Engineer In-charge.	20.00	M ³		

Sl. No.	Description of Item	Quantity (Three sheds)	Unit	Rate (in Rupees)	Amount (in Rupees)
14.	Brick work with brick of class designation 75 in cement mortar 1:4 (1 cement : 4 coarse sand) in super structure in thickness of 115 mm including cost of all materials, lead lifts, labour charges, mixing mortar, laying bricks, racking joints, curing etc. all complete as per drawing and specification. 2 nos. MS rods of 6 mm dia are to be provided after every 3rd layer for which no additional payment will be made.	135.00	M ³		
15.	Reinforced cement concrete of mix 1:1.5:3 (1 cement, 1.5 coarse sand and ,3 :20 mm down graded aggregate) for column footing, sunshades, shelves, lintels etc. including cost of materials, lead lift, labour charges for concreting, curing etc. complete.	210.00	M ³		
16.	Centring and shuttering including providing all shuttering material , strutting, propping etc. and removal of form work for : Lintels, beams, plinth beams, girders, bressumers and cantilevers.	250.00	M ²		
17.	Providing and placing Fe-450 TMT tor steel reinforcement for RCC work including cost of all materials, labour for cutting, bending, binding and placing in position complete as per drawing and instruction of Engineer. Payment terms - a) On receipt of materials at site - 70%; b) On completion of erection & fixing - 30%.	39.00	MT		
18.	Supplying,Fabricating and fixing in position, M.S.Holding down bolts with sleeves and washers, nuts and lock nuts etc. including threading of required length and type as per instructions of Engineer I/C. Payment terms - a) On receipt of materials at site - 70%; b) On completion of erection & fixing - 30%.				
a)	Upto 28 mm dia. bolt	3000.00	Kg		
ROOFING					
19.	Supply fabrication and erection of structural steel beams,channels,plates,steel tubular trusses, purlines,gates, wind ties, base plates, gusset plates, bolts, nuts etc. complete as per drawings, specifications & instructions of engineer including cost of all materials leads, lifts labour charges etc. and one coat of primer and two coats of approved enamel paint for finished products at site complete as per technical specification and direction of engineer. Payment terms - a) On receipt of materials at site - 70%; b) On completion of erection & fixing - 30%.				
a)	Trusses (medium grade pipes),Purlins side ties, bottom ties	72.00	MT		
b)	structural steel for columns, crane girders,etc (including Rack)	126.00	MT		
c)	Wind ties (Flats) 50 x 6 mm thick, angles,box sections,soild bars for rails etc	1.50	MT		
20.	Steel work in built up section/framed work including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel for gates, railings, frames,gratings etc. Payment terms - a) On receipt of materials at site - 70%; b) On completion of erection & fixing - 30%.	300.00	Kg		
21.	Supplying , fitting & fixing steel sliding door , profile type in 18 B.G of approved type of steel lathe section 75 mm wide fitted with coil wire spring to necessitate the fitting of required nos of C.J pulley's on heavy type solid drawn gearless steel tube complete with locking arrangements bothside and outside specially built up side guide channels including,providing a hood for the rolling shutter painting with two coats of approved brand of aluminium paint over a coat of red lead primer complete.				
a)	Manually Operated	2.00	MT		
22.	Providing & fixing corrugated galvanised iron sheet (CGI) 0.5mm thick for roofing & side cladding of TATA/SAIL/ZINDAL/BHUSAN 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%.	5550.00	M ²		
23.	Providing and fixing galvanised iron ridge 0.5 mm thick and 230 mm lappings on both sides of TATA /SAIL /ZINDAL /BHUSAN make including fixing necessary screws, washers etc complete with all labour and tools and plants.	183.00	RM		
CEILING					

Sl. No.	Description of Item	Quantity (Three sheds)	Unit	Rate (in Rupees)	Amount (in Rupees)
24.	Providing and fixing at all height false ceiling of 12.5mm thick tapered edge gypsum board conforming to IS : 2095 including providing and fixing of frame work made of special sections power pressed from M.S. sheet and galvanised in accordance with zinc coating 350 as per IS : 277 and consisting of angle cleats of size 25mm wide x 1.6mm thick with flanges of 22mm and 37mm at 1200mm centre to centre one flange fixed to the ceiling with dash fastener 12.5 mm dia x 40mm long with 6 mm dia bolts to the angle hangers of 25x25x.55 mm of reqd. length, and other end of angle hanger being fixed with nut and bolts to G.I.Channels 45x15x0.9 running at the rate of 1200 mm centre to centre to which the ceiling section 0.5 mm thick bottom wedge of 80mm with tapered flanges of 26 mm each having clips of 10.5mm at 450mm centre to centre shall be fixed in a direction perpendicular to G.I. Channel with connecting clips made out of 2.64mm diax230mm long G.I. Wire at every junction including fixing the gypsum board with ceiling section and perimeter channels 0.5mm thick 27mm high having flanges of 20mm and 30mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450mm centre to centre with 25mm long drive-all screws @ 230mm interval including jointing and fixing to a flush finish of tapered and square edges of the gypsum board with recommended filler, paper tapes, finisher and two coats of primer suitable for gypsum board as per manufacturers specification and also including the coat of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed all complete as per drawing and specification and direction of the Engineer -in-charge but excluding the cost of painting.	60.00	M ²		
	FINISHING				
25.	50 mm thk. Ironic Topping Cement Concrete flooring consisting(1-admixture:1 coarse sand: 2-stone aggregate 6mm nominal size) by volume with metallic hardening compound of approved quality is mixed in the ratio(4:1) (4 cement : 1 metallic floor) hardening compound of approved quality by weight including cement slurry rounding off edges and strips etc. but excluding the cost of nose of steps etc. complete.	300.00	M ²		
26.	Providing and fixing glass strips in joints of terrazo / cement concrete floors 40mm wide and 4mm thick	2100.00	RM		
27.	Providing and laying Ceramic glazed floor tiles 300 x 300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to NITCO, ORIENT, SOMANY KAJRIA, or equivalent make in colours such as white, Ivory, Grey, Fume Red Brown, laid on 20 mm thk cement mortar 1:4 (1 cement : 4 coarse sand) including the joints with white cement and matching pigment etc. complete.	12.00	M ²		
28.	Plastering work with cement mortar 1:6 (1 cement : 6 fine sand) 12 mm thick after scrapping and cleaning the masoary joints including scaffolding, cost of materials, labour, mixing , leads & lifts, curing etc. complete.	420.00	M ²		
29.	Plastering work with cement mortar 1:6 (1 cement : 6 fine sand) 15 mm thick after scrapping and cleaning the masoary joints including scaffolding, cost of materials, labour, mixing , leads & lifts, curing etc. complete.	720.00	M ²		
30.	Providing and fixing 19 nos. steel glazed windows and ventilators of operable standard rolled steel section joints mitred and welded with 15 x 3 mm lugs, 10 cm long, with steel lugs embedded in cement concrete blocks 15 x 10 x 10 cm of 1:3:6 (1 cement : 3 coarse sand : 6 approved graded hard stone aggregate 20 mm nominal size) or with wooden plugs and screws or raw plugs and screws or with fixing clips or with bolts and nuts as required including providing and fixing of glass panels with glazing clips and special metal sash putty of approved make complete including painting with two coats of approved quality synthetic enamel paint over a base coat of red oxide zinc chromate primer including the cost of minor repair work, if required. Windows and ventilators will be provided with horizontal steel bars (8 mm x 8 mm) , welded to the frame @ 150 mm ncluding supply of MS frames, bars glazing etc. all complete.	30.78	M ²		
31.	Providing and fixing ISI marked flush door shutters decorative type , core of block baord construction with frame of ist class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters 30 mm thick including ISI marked stainless steel butt hinges, handle,tower and slide bolts, complete with polishing to finish , necessary screws and other accessories.	15.00	M ²		
32.	Providing three coats of white wash to give a smooth and even shade including cost of materials, cleaning and preparation of surface, scaffolding etc. complete.	3600.00	M ²		
33.	Finishing walls/ surfaces with water proofing cement paint of approved brand and manufacture and of required shade to give an even shade.	1500.00	M ²		
34.	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade in two or more coats on new work	60.00	M ²		
	SANITARY/SEWAGE				

Sl. No.	Description of Item	Quantity (Three sheds)	Unit	Rate (in Rupees)	Amount (in Rupees)
35.	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern with manually controlled device (handle lever), conforming to IS : 7231, Parryware/Hindware/Seabrid /Orient (Coral) with all fittings and fixtures complete including cutting and making good the walls and floors wherever required : W.C. pan with ISI marked white solid plastic seat and lid.	3.00	Nos.		
36.	Providing & fixing flat back white vitreous china wash basin 550 x 400 mm size with single 15 mm C.P.brass pillar with R.S. or C.I. brackets painted white 15 cm C.P. brass pillar taps C.P. brass chain with rubber plug, 32 mm dia CP Brass trap and M.I. unions, C.P. waste, C.P. connection, soap dish , waste pipe complete including cutting and making good the walls wherever required under counter complete in all respects.	3.00	Nos.		
37.	Providing and fixing 100 mm sand cast iron gratingfor gully, floor or Nahanitrap.	3.00	each		
38.	Providing and fixing bevelled edge mirror of superior glass (of approved quality) complete lwith 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	1.50	M ²		
39.	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.	3.00	each		
40.	Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fitting arrangement of approved quality colour and make (Prayag or equivalent).				
a)	450mm long towel rail with total length of 495mm, 78mm wide and effective height of 88mm, weighing not less than 170gms.	3.00	each		
41.	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).	3.00	each		
42.	Providing, laying and jointing glazed stone ware pipes grade A with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc., complete 100 mm dia pipe.	30.00	RM		
43.	Providing, laying, fitting and jointing medium grade GI pipes , conforming to IS 1239 for water lines at various elevations with all fittings stop cock, valve bends, elbows, tees, reducers., etc. making grooves in the brick wall, etc. (Internal work), trenching, refilling etc. (external work) including cost of all materials, labour charges etc. complete as per specifications and drawings.				
a)	25 mm dia G.I. Pipe (External work)	60.00	RM		
b)	20 mm dia G.I. Pipe (Internal work)	60.00	RM		
c)	15 mm dia G.I. Pipe (Internal work)	60.00	RM		
44.	Providing and fixing GM full way valve with C.I wheel of approved quality etc. complete.				
a)	25 mm nominal bore	3.00	No.		
45.	Providing and fixing C.P. brass 15 mm stop cock of approved quality of weight not less than 250 gms.	6.00	No.		
46.	Providing and fixing C.P. brass 15 mm bib cock of approved quality of weight not less than 250 gms.	6.00	No.		
47.	Construction brick masonry manholes of inside size 90x80 cm and 45-60 cm deep with 75 class designation bricks in cement mortar 1: 5 (1 cement : 5 fine sand), RCC top slabs with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm size), foundation concrete 1:1:8 (1 cement : 4 coarse sand : 8 graded stone aggregate of 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded aggregate of 20 mm nominal size) neatly finished complete as per standard design excluding CI manhole cover.	3.00	No.		
48.	Construction of 2.0x0.90x1.60 size Septic tank in all types of soil with 250 mm thick brick masonry in cement Mortar of 1:6 15 cm thick cement concrete 1:4:8 grade in bed, 75 mm thick 1:2:4 grade cement concrete flooring and 100 mm thick over RCC slab of 1:2:4 grade, 75 mm thick partition wall, 15 mm thick plaster on brick wall finished with neat cement providing M.S. rugs etc., complete as per drawing including excavation, disposal of surplus earth with a load of 50 Mtr. item includes all material, labour, leads, lifts etc., complete but excluding C.I manhole cover.	3.00	No.		
49.	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 tight 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	3.00	No.		
50.	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.	3.00	No.		

Sl. No.	Description of Item	Quantity (Three sheds)	Unit	Rate (in Rupees)	Amount (in Rupees)
51.	Providing and laying soil, waste and vent pipes, centrifugally cast (spun) iron S&S pipes				
a)	100mm	30.00	RM		
b)	125 mm	30.00	RM		
52.	Supplying and installation of HDPE cylindrical and vertical water tank with closed top of SINTEX or approved equivalent of undermentioned capacity with all necessary fittings including supplying and fixing input and out putlines including support of brick pillars of height of 3 Mtrs each complete.				
a)	500 Ltr. Capacity tank	3.00	Nos.		
53.	Providing and Laying of non-Pressure NP2 class (light duty) RCC Pipe with collar of 250 mm dia jointed with stiff mixture of cement motar in proportion of 1:2 (1 cement :2 fine sand)including testing of joints etc complete.	6.00	RM		
54.	Construction of brick masonry road gully chamber 50 cm x 45 cm x 60 cm with MPS Brick of class 75 kg in cement motar (1 cement : 6 fine sand) including 500 , 450 mm RCC precast horisontal with frame completed as per standard specification	3.00	each		
(B) ELECTRICAL WORKS					
55.	Providing and fixing 1 x 40 Watt Batten type flourescent tube fitting (Crompton / Philips / Bajaj 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	72.00	Nos.		
56.	Providing and fixing 2 x 40 Decorative type flourescent tube fitting (Crompton / Philips / Bajaj 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	3.00	Nos.		
57.	Providing and fixing 1 x 250 W HPSV out door type fittings (Crompton / Philips/BajaJ , complete with lamp, ballast control gear box, fixing clamp etc.	9.00	Nos.		
58.	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	3.00	Nos.		
b)	300 mm sweep	3.00	Nos.		
c)	Ceiling fan	3.00	Nos.		
59.	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	12.00	Nos.		
60.	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	3.00	Nos.		
61.	Providing & fixing 5A piano type switch for Light / Fan Control (Anchor make)	90.00	Nos.		

Sl. No.	Description of Item	Quantity (Three sheds)	Unit	Rate (in Rupees)	Amount (in Rupees)
62.	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 .	3.00	Nos.		
63.	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	3.00	Points		
64.	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	300.00	RM		
b)	2x2.5 sq. mm + 1x2.5 sqmm earth wire	300.00	RM		
c)	2x4 sq. mm + 1x4 sqmm earth wire	300.00	RM		
65.	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	36.00	Points		
b)	Twin control light point	36.00	Points		
c)	Wiring for 5/6 amps socket points	15.00	Points		
d)	Wiring for ceiling fan and regulator	3.00	Points		
e)	Wiring for exhaust fan.	6.00	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	9.00	Points		
66.	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.	3.00	Nos.		
67.	Supply and burying of earths electrods 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.	3.00	Set		
68.	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 .	3.00	No.		
69.	Earthing Flat 25 x 6 for Earthing 0.5 mtr below ground as strip earth electrode including soldering as required.	30.00	RM		
TOTAL (A + B) FOR THREE SHEDS (C)					
(D) FENCING (FOR TOTAL STORAGE YARD)					
70.	1.8 m high fencing with 2.4 m angle iron 75 x 75 x 8 mm posts (excluding cost of angle iron posts to be paid elsewhere) placed every 3 m centre to centre embedded in cement concrete block, every 15th post last but one end post and corner post shall be strutted on both sides and end post on one side only and provided with 10 horizontal lines and two diagonals inter woven with horizontalwires of barbed wire 9.38 Kg per 100 m (min) between the two posts and fixed with GI stapies, turn buckles etc. complete. including providing and laying earth work and concrete (1:3:6)				
a)	With G.I. Barbed wire (Payment to be made for per metre of complete fencing)	1200.00	M		
71.	Supplying at site Angle iron post & strut of required size including bottom to be split and bent at right angle in opposite directionfor 10 cm length and drilling holes upto 10 mm dia. Etc. complete including a priming coat and two coats of enamel paint	5000.00	Kg		
72.	Cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 40 mm nominal size) in pavements, laid to required slope and camber in panels as rquired including minimum reinforcement, consolidation finishing and tamping complete includingj laying in position bitumen hot sealing compound for expansion joints	300.00	M ³		
TOTAL FENCING (D)					
TOTAL PRICE (C + D)					
73.	MISCELLNEOUS ITEMS: 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 2007.				
73.1	Rate of complete item	%			
73.2	Rate of supply of material at site only	%			
73.3	Rate for execution complete excluding supply of materials.	%			