

BHEL PAN: AAACB4146P

Ref: BHE/PW/PUR/RGMT-SHEDS/1687/Corr-02

Date: 22/11/2016

-----Page 1 of 2-----

To,

ALL BIDDERS

Sub: Corrigendum-02: Issue of Clarification.

Job: DISMANTLING FOUR NUMBER OF THE EXISTING CLOSED AND TWO NUMBER SEMI CLOSED PEB STORE SHEDS (DISMANTABLE TYPE) OF SIZE 60MX 15M PRESENTLY AT BHEL'S DIFFERENT SITE AND TRANSPORTING THE SAME TO BHEL'S RAMAGUNDAM SITE, UNLOADING, AND RE ERECTING THE SHED AT SITE, CONVERSION OF SEMI CLOSED TO CLOSED SHED AND HANDING OVER OF SHED COMPLETE IN ALL RESPECT TO BHEL. AT 2 X800 MW NTPC RAMAGUNDAM.

E-Tender Specification Nos: BHE/PW/PUR/RGMT-SHEDS/1687

Ref:-

1. Corrigendum-01 dt. 18/11/2016 for extension of due date of tender till 24/11/2016.

Bidders to kindly take note of the following:

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AA) ISSUE OF CLARIFICATIONS:

1. **Drawings.**

Query: There is no drawing available in the tender Documents.

BHEL Reply: Sample drawing(s) attached in Annexure-I of this corrigendum for reference only; Bidder to visit site for getting first-hand view of existing condition.

2. **Query:** In converted closed sheds, whether any separate room for store office is required? If so, furnish the specification for the same.

BHEL Reply: No separate room for store office is required.

3. **Query:** As per specification the side cladding to be provided by the bidder is clip lock system. Please clarify that the existing closed storage shed side cladding are of same clip lock system ?

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BHEL Reply: Tender conditions shall remain unchanged. Drawings are attached in Annexure-I of this corrigendum for reference.

4. **Query:** To clarify bidder's scope for erection of column structures for sheds at receiving site.

BHEL Reply: Tender conditions shall prevail. Erection of PEB shed including Column is in bidder's scope.

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All other Terms and conditions of the Tender Specification shall remain unaltered unless expressly amended by BHEL in writing.

Bidders are requested to submit as a part of their offer, a copy of this corrigendum duly Digitally countersigned by the authorized signatory as a token of Bidder's unqualified acceptance of this corrigendum.

BIDDERS MAY PLEASE NOTE THAT SUBJECT TENDER IS E-TENDER AND THE OFFER IS TO BE SUBMITTED ONLY IN [E-PROCUREMENT PORTAL https://bheleps.buyjunction.in](https://bheleps.buyjunction.in)

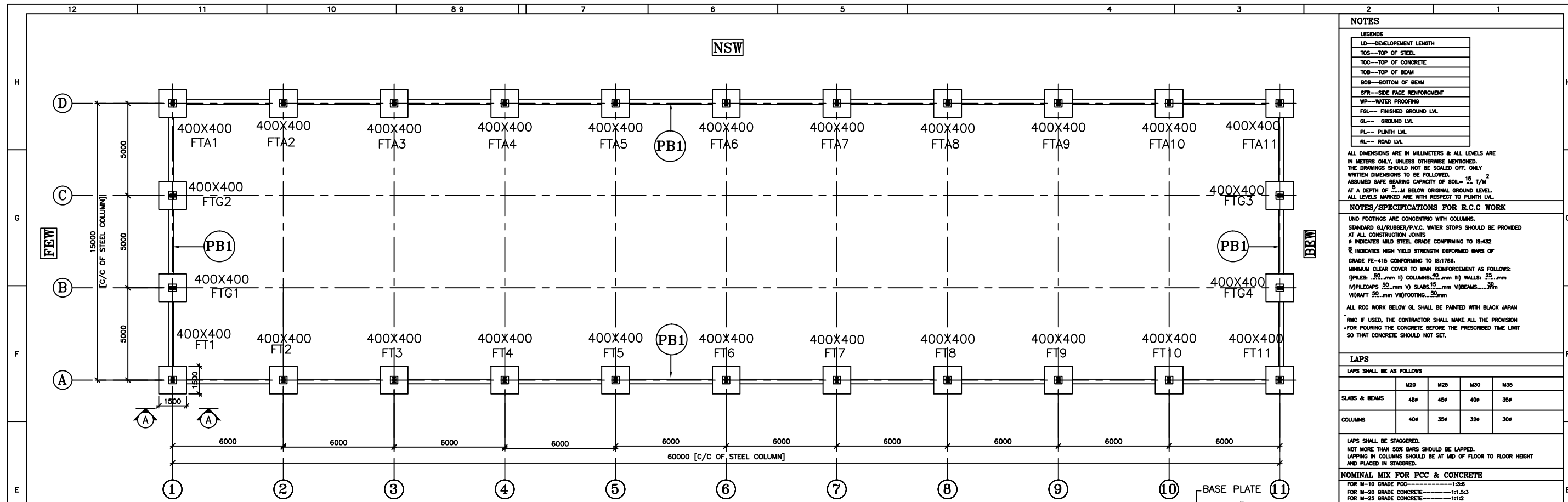
BIDDERS WHO HAVE ALREADY SUBMITTED THEIR OFFERS PRIOR TO ISSUANCE OF THIS CORRIGENDUM IN E-TENDER PORTAL ARE REQUIRED TO RE-SUBMIT THEIR OFFER AFTER TAKING COGNIZANCE OF THIS CORRIGENDUM.

Thanking you,
Yours faithfully,

Sr. Engineer (Purchase)

Encl:- Annexure-I "Drawings"

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NOTES

LEGENDS

LD	DEVELOPMENT LENGTH
TOS	TOP OF STEEL
TOC	TOP OF CONCRETE
TOT	TOP OF BEAM
BOB	BOTTOM OF BEAM
SFR	SIDE FACE REINFORCEMENT
WP	WATER PROOFING
FGL	FINISHED GROUND LVL.
GL	GROUND LVL.
PL	PLINTH LVL.
RL	ROAD LVL.

ALL DIMENSIONS ARE IN MILLIMETERS & ALL LEVELS ARE IN METERS ONLY, UNLESS OTHERWISE MENTIONED. THE DRAWINGS SHOULD NOT BE SCALED OFF. ONLY WRITTEN DIMENSIONS TO BE FOLLOWED.

ASSUMED SAFE BEARING CAPACITY OF SOIL = 15 T/M² AT A DEPTH OF 1.5 M BELOW ORIGINAL GROUND LEVEL. ALL LEVELS MARKED ARE WITH RESPECT TO PLINTH LVL.

NOTES/SPECIFICATIONS FOR R.C.C WORK

UNO FOOTINGS ARE CONCENTRIC WITH COLUMNS.

STANDARD G/RUBBER/P.V.C. WATER STOPS SHOULD BE PROVIDED AT ALL CONSTRUCTION JOINTS.

INDICATES MILD STEEL GRADE CONFORMING TO IS-432

∅ INDICATES HIGH YIELD STRENGTH DEFORMED BARS OF GRADE FE-415 CONFORMING TO IS-1786.

MINIMUM CLEAR COVER TO MAIN REINFORCEMENT AS FOLLOWS:
 (P)ILES: 50 mm (I) COLUMNS: 40 mm (II) WALLS: 25 mm
 (V)PILECAPS: 50 mm (V) COLUMNS: 15 mm (V) BEAMS: 30 mm
 (V) RAFT: 50 mm (V) FOOTING: 50 mm

ALL RCC WORK BELOW GL SHALL BE PAINTED WITH BLACK JAPAN P.M.C. IF USED, THE CONTRACTOR SHALL MAKE ALL THE PROVISION FOR POURING THE CONCRETE BEFORE THE PRESCRIBED TIME LIMIT SO THAT CONCRETE SHOULD NOT SET.

LAPS

LAPS SHALL BE AS FOLLOWS

	M20	M25	M30	M35
SLABS & BEAMS	48#	45#	40#	35#
COLUMNS	40#	35#	32#	30#

LAPS SHALL BE STAGGERED.
 NOT MORE THAN 50% BARS SHOULD BE LAPPED.
 LAPPING IN COLUMNS SHOULD BE AT MID OF FLOOR TO FLOOR HEIGHT AND PLACED IN STAGGERED.

NOMINAL MIX FOR PCC & CONCRETE

FOR M-10 GRADE PCC: 1:3:6
 FOR M-20 GRADE CONCRETE: 1:1.5:3
 FOR M-25 GRADE CONCRETE: 1:1:2
 IF DESIGNED MIX IS DONE AT SITE THE APPROVAL FOR THE SAME SHOULD BE OBTAINED FROM CONSULTANT BEFORE POURING AND THE CONSISTENCY OF MIX SHALL BE MAINTAINED TILL THE COMPLETION OF PROJECT.

WC RATIO AND SLUMP

WC RATIO SHALL BE 0.4 TO 0.45
 SLUMP SHALL BE AS FOLLOWS
 FOR FOUNDATIONS: 30
 FOR SLABS BEAM COLUMN: 50
 FOR PILING AND PUMPED CONCRETE: 80

ANTICORROSIVE PAINT TO REINFORCEMENT

REINFORCEMENT SHALL BE APPLIED WITH ANTICORROSIVE PAINT IF MUCH SULPHATE/CHLORIDE CONTENT IS PRESENT IN SUBSOIL OR UNDERGROUND WATER RCC IS EXPOSED TO ACIDIC ENVIRONMENT
 ANTICORROSIVE PAINT SHALL BE CEMENT BASED TO HAVE PROPER GRIP TO REINFORCEMENT.

REMOVAL OF FORMWORK

TEMPERATURE ABOVE 21° CEL
 WALLS, COLUMNS, VERTICAL SIDES OF BEAM: 48 HRS
 SLABS UP TO 4.5M SPAN: 7 DAYS
 SLABS ABOVE 4.5M SPAN: 14 DAYS
 BEAMS UP TO 6M SPAN: 14 DAYS
 BEAMS ABOVE 6M SPAN: 21 DAYS
 TEMPERATURE BELOW 10° CEL
 WALLS, COLUMNS, VERTICAL SIDES OF BEAM: 96 HRS
 SLABS UP TO 4.5M SPAN: 14 DAYS
 SLABS ABOVE 4.5M SPAN: 21 DAYS
 BEAMS UP TO 6M SPAN: 21 DAYS
 BEAMS ABOVE 6M SPAN: 31 DAYS
 FOR TEMP. 10° TO 21° CEL AVERAGE VALUES CAN BE TAKEN ABOVE TIME PERIOD ARE FOR CONCRETE WITH OPC. WITH RAPID HARDENING CEMENT ABOVE PERIOD SHALL BE REDUCED BY 2/3

CURING PERIOD

TEMPERATURE ABOVE 21° CEL
 RAPID HARDENING CEMENT: 7 DAYS
 OPC: 14 DAYS
 TEMPERATURE BELOW 10° CEL
 RAPID HARDENING CEMENT: 14 DAYS
 OPC: 21 DAYS
 FOR TEMP. 10° TO 21° CEL AVERAGE VALUES CAN BE TAKEN

CURING FOR SLABS SHALL BE DONE BY PONDING METHOD AND FOR COLUMNS BY GUNNY BAGS. CURING COMPOUND IF USED THE CONTRACTOR SHALL FOLLOW THE INSTRUCTIONS AS PER THE MANUAL.

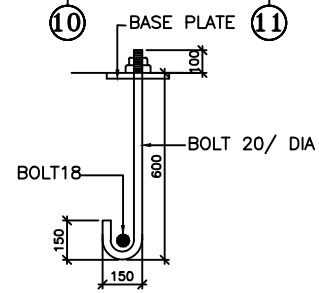
ARCHITECTURAL ASSUMPTIONS FOR DESIGN

- EXTERNAL WALLS 230 mm THICK BOND BRICK MASONRY WALLS
- INTERNAL WALLS 115mm THICK BOND BRICK MASONRY WALLS
- PLINTH LVL ASSUMED AS ± 0.00
- ALL LEVELS CORRESPONDS TO PLINTH LEVEL ± 0.00

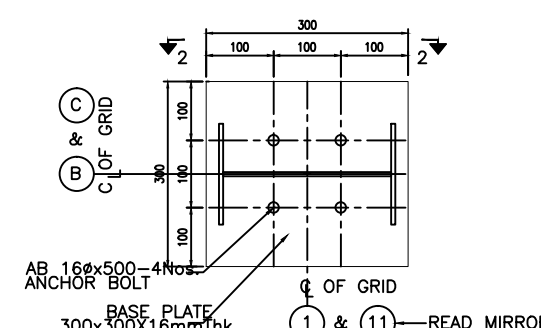
COLUMN LAY OUT & FOUNDATION PLAN OF CLOSED SHED

FOOTING DETAIL CONC MIX. (M-20)

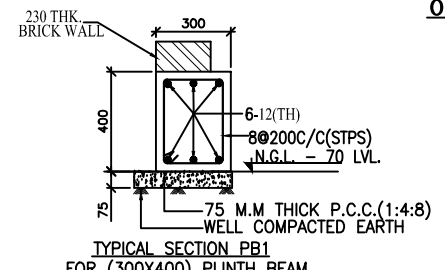
SR/NO.	FOOTING SIZE	REINFORCEMENT	
		TOP REINF.	BOTTOM REINF.
F1	1500x1500	10∅200 C/C BOTHWAYS	12∅200 C/C BOTHWAYS



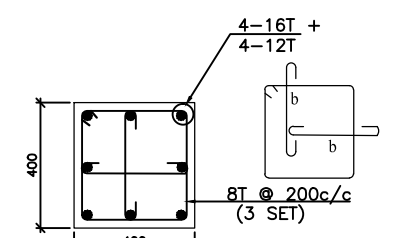
DETAIL OF BOLT 104NOS.



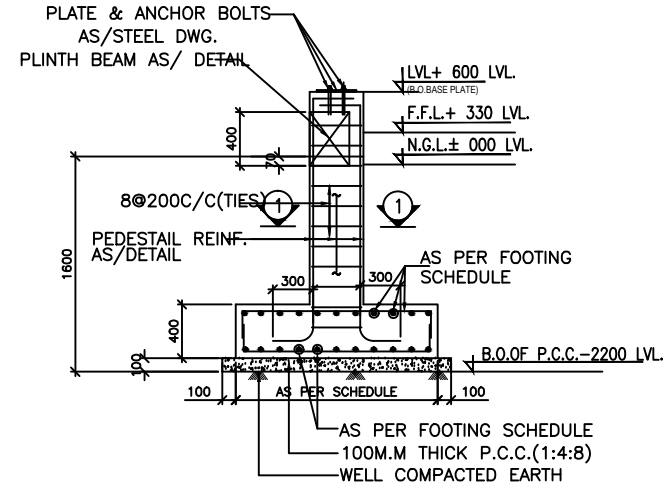
DETAIL-2-2



TYPICAL SECTION PB1 FOR (300X400) PLINTH BEAM



SECTION 1-1



TYPICAL SECTION A-A FOOTING for all columns

NOTE:- PLEASE REFER DWG.NOS. FT/POR(rev)-02 FOR DIRECTION OF F. BOLTS & BASE PLATE

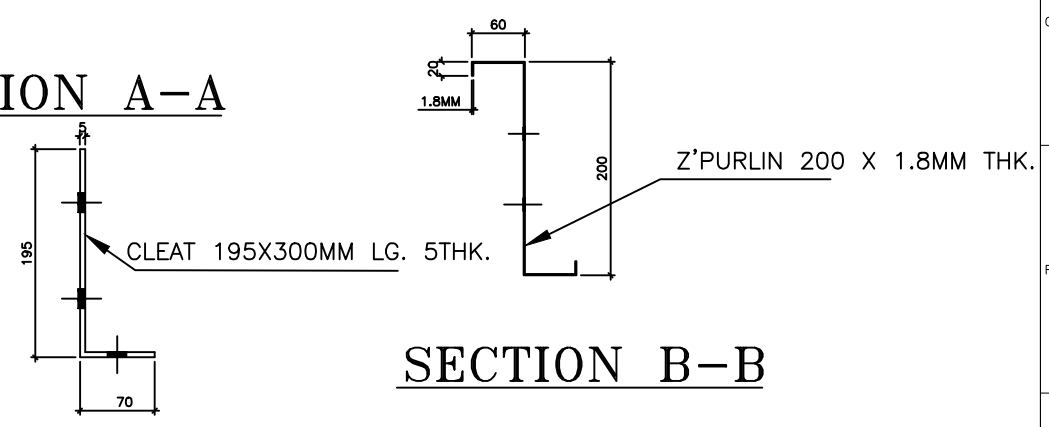
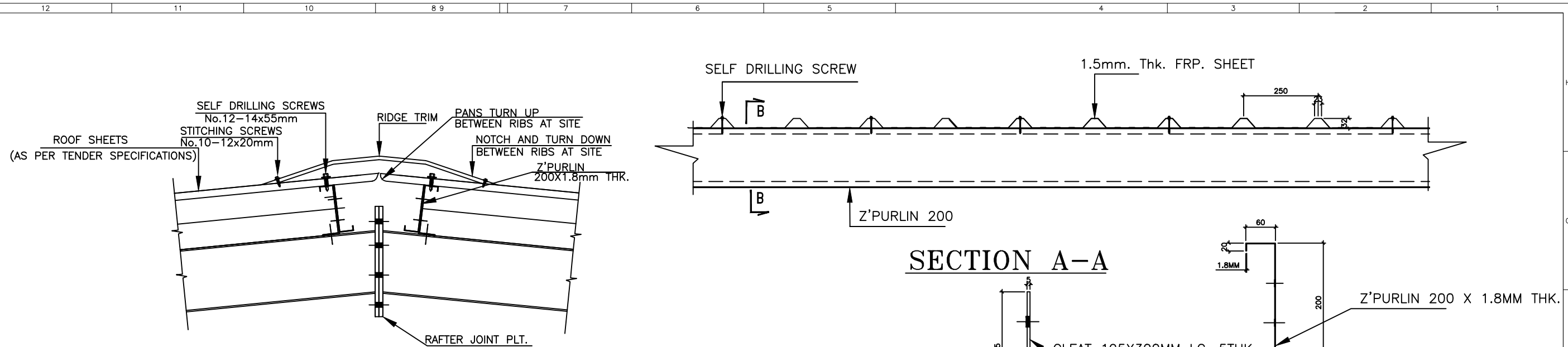
ANY DISCREPANCY IF THERE SHOULD BE BROUGHT TO OUR NOTICE BEFORE EXECUTION

STAMP AND SIGN

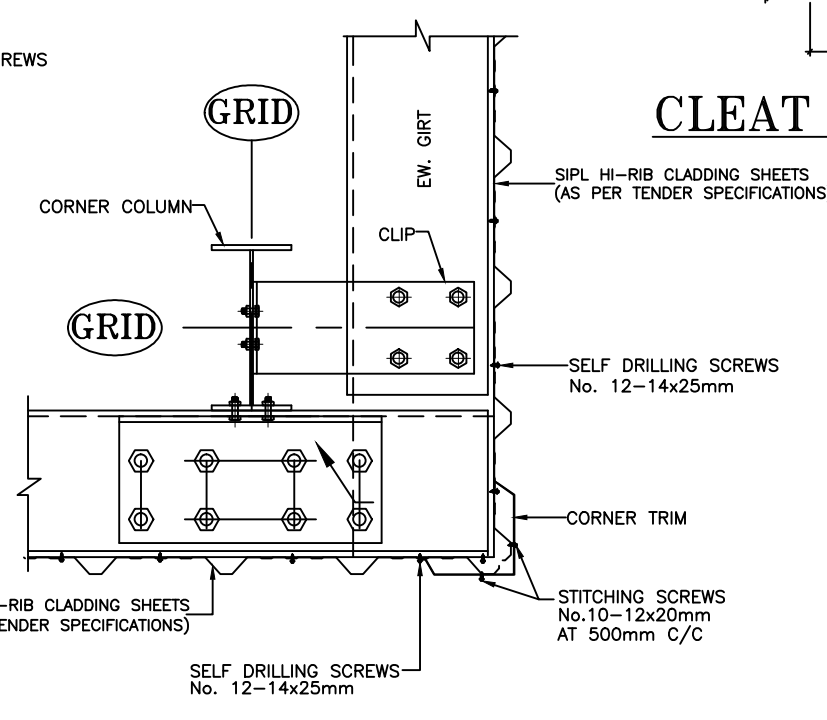
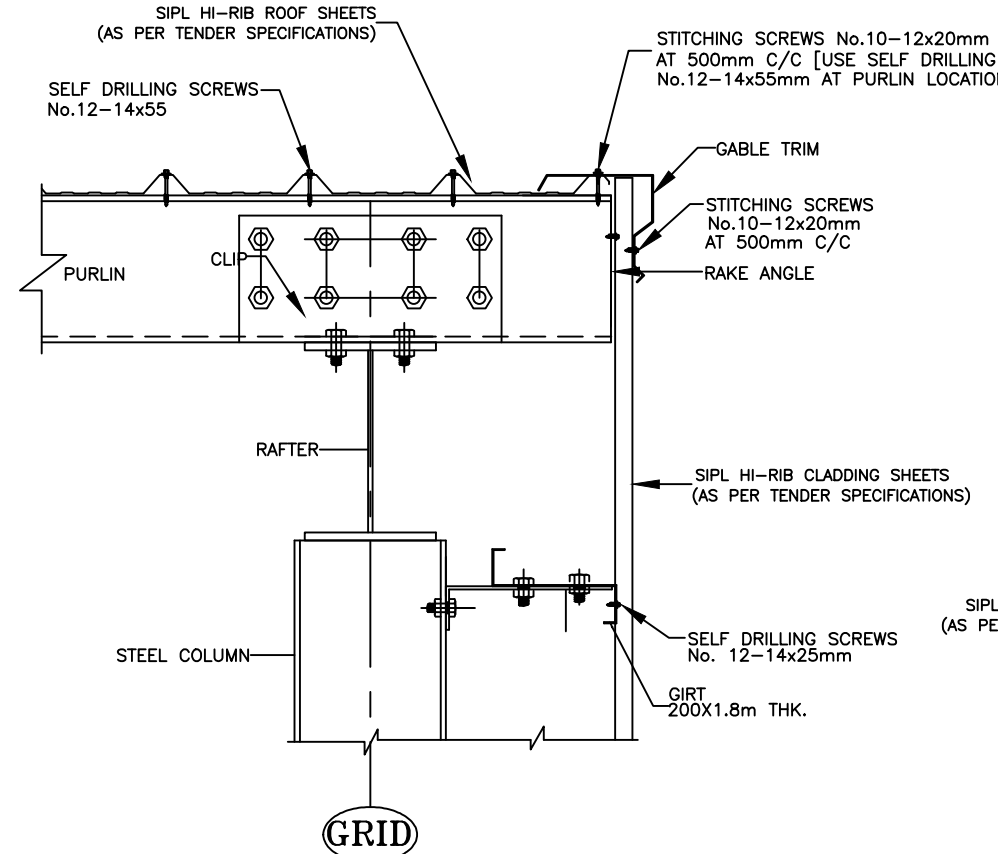
IF ANY DOUBT ASK.

PROJECT:- M/s. BHARAT HEAVY ELECTRICALS LTD.	DRG.NO. FT(BHEL)-001
SITE. COMMON DRG FOR ALL SHEDS	DATE 25.01.11
TITLE:- FRAMING PLAN AT FOUNDATION SIZE-15m x 60m x 5.25m HT.	SCALE 1:1
NEW LIFE STEEL STRUCTURES 1, Shiv Darshan, Radhabai Mhatre Road, Dahanu (M) 400 088. Tel: 2883 33 30/ 2892 35 88. E-mail: nlssl@vsnl.com	HEMANT
NO. 1	ISSUED FOR APPROVAL
NO.	REVISION
	DRAWN
	DATE
	CHECKED
ARCH. REF. No.	CAD FILE
	SHEET OF

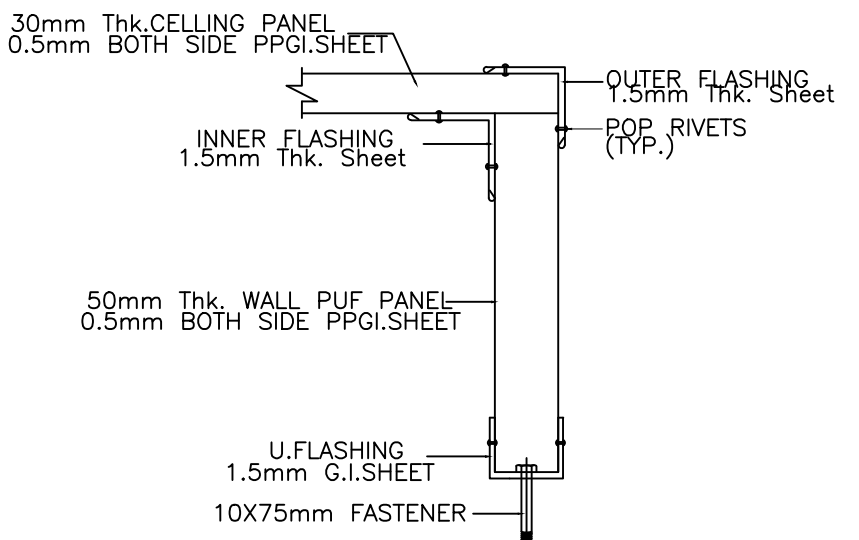
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CLEAT SECTION



TYP. CORNER DETAIL



(TYP.) WALL TO CEILING CONNECTION

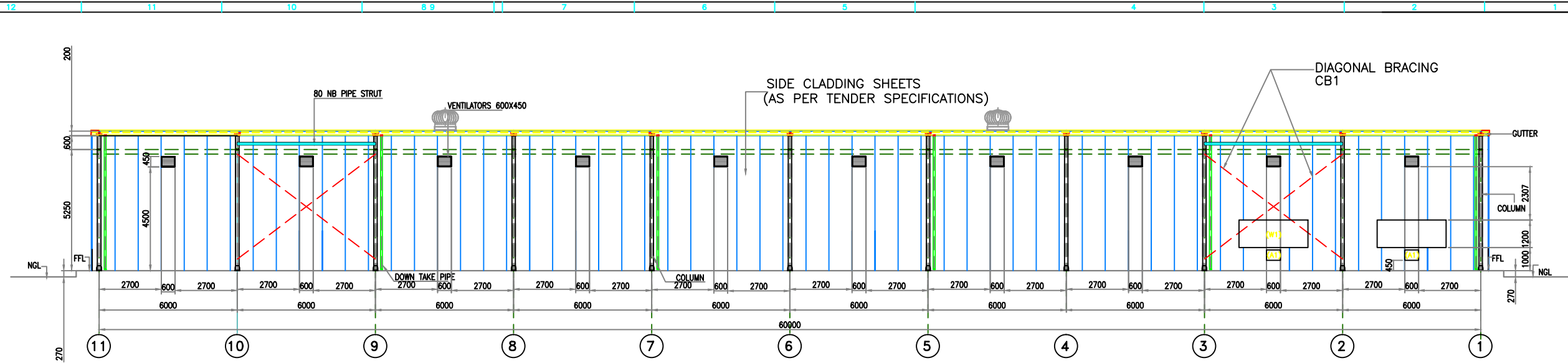
DETAILS

NOTE:-

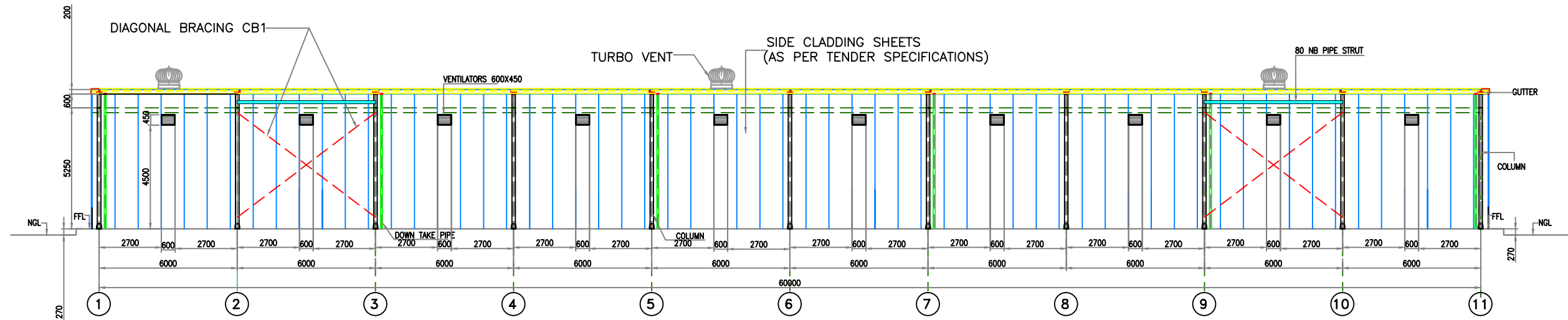
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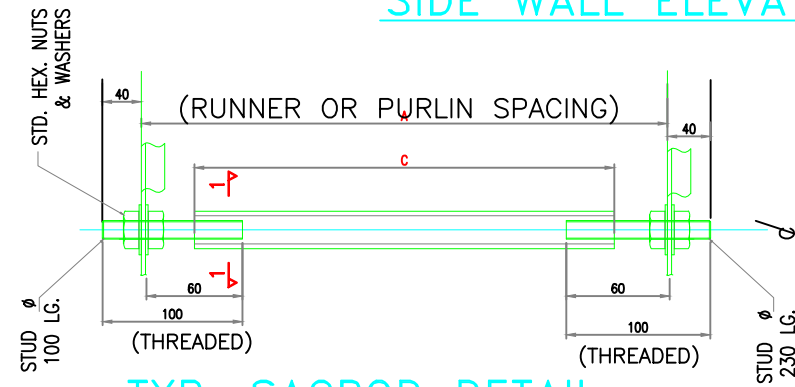
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NEW LIFE STEEL STRUCTURES 1, Shiv Darshan, Radhabai Mhatre Road, Dahanu (W) 400 068. Tel: 2853 33 30 / 2862 35 58. E-mail: nhspl@vsnl.com	SURESH
ARCH. REF. No.	CAD FILE
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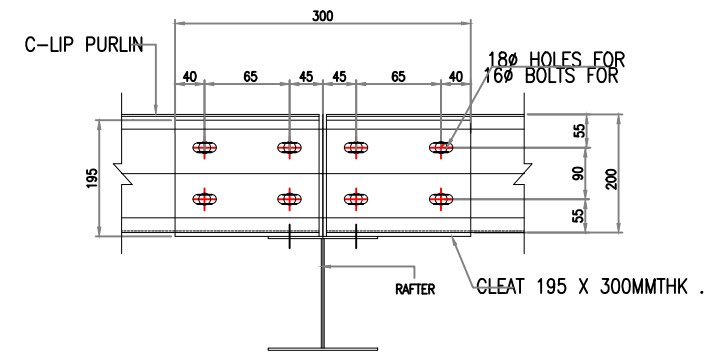
SIDE WALL ELEVATION ALONG GRID-D'



SIDE WALL ELEVATION ALONG GRID-A'



TYP. SAGROD DETAIL

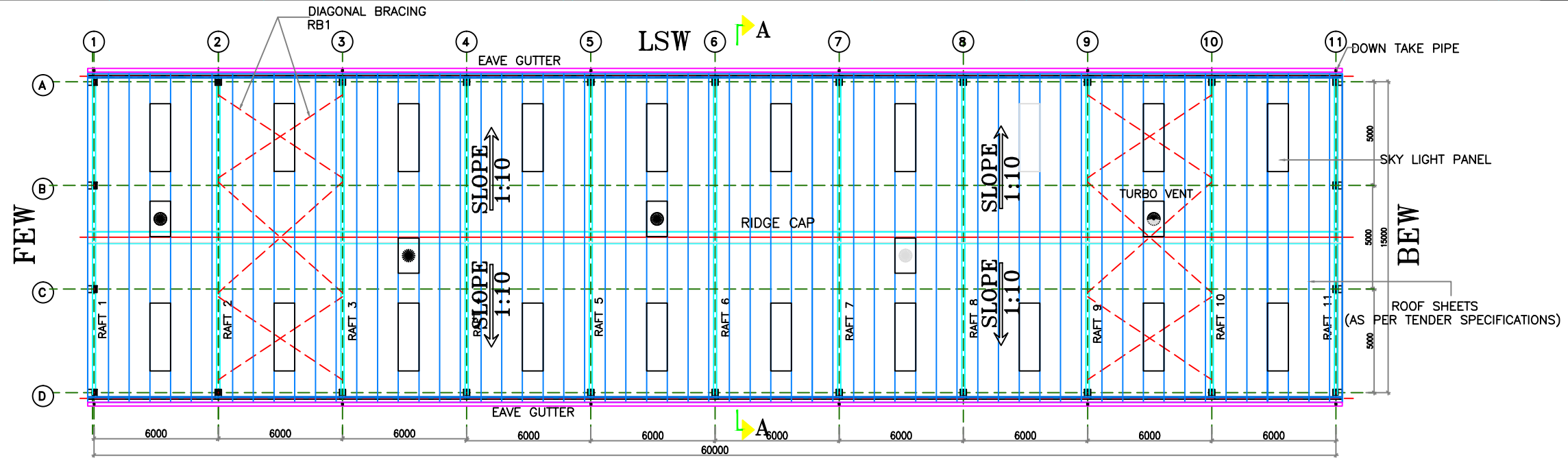


TYPICAL CLEAT & PURLIN DETAIL

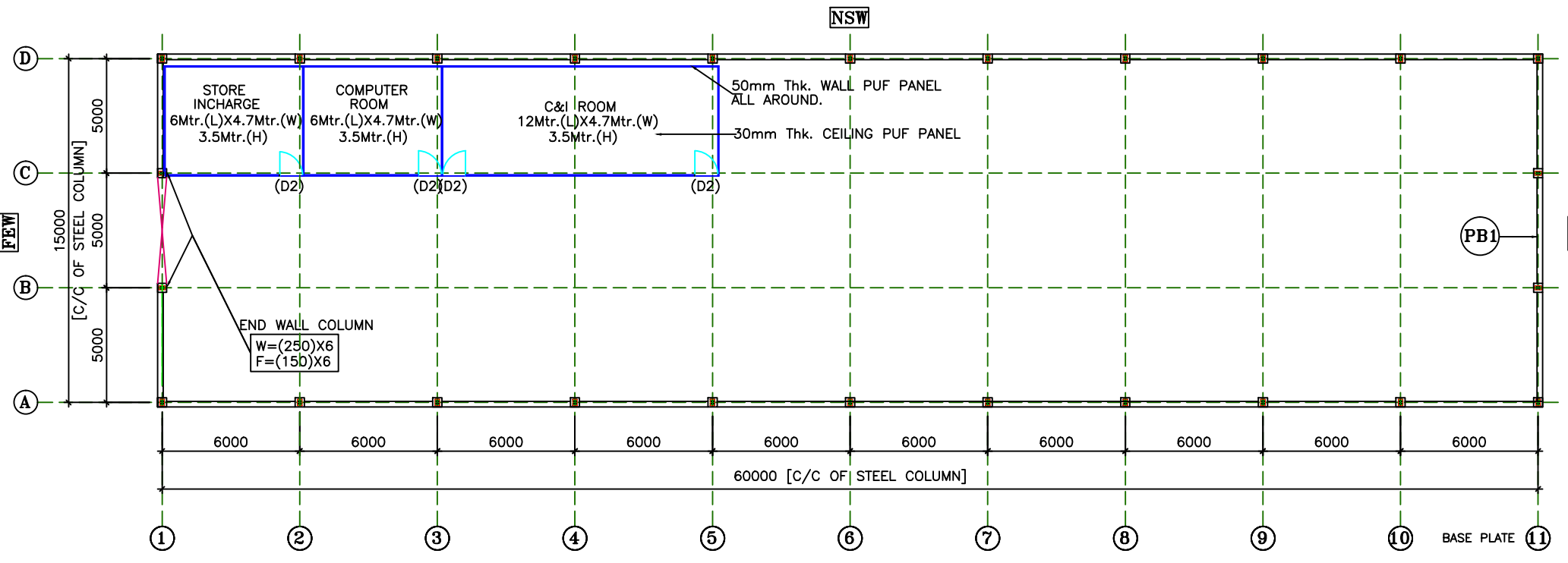
NOTE J-

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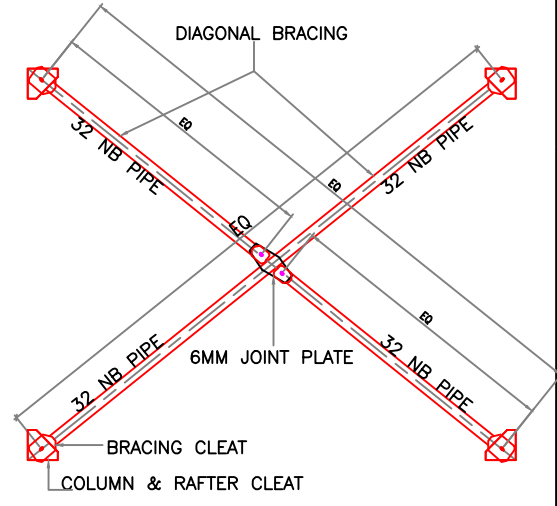
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				NEW LIFE STEEL STRUCTURES		HEMANT
				1, Shiv Darshan, Radhabai Mhatre Road, Dahisar(W) 400 068. Tel: 2883 33 30 / 2892 35 58. E-mail: nhspl@vsnl.com		
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RSW
ROOFING PLAN



RSW
CLOSED STEEL COLUMN PLAN



RAFTER BRACING &
COLUMN BRACING

NOTE:-

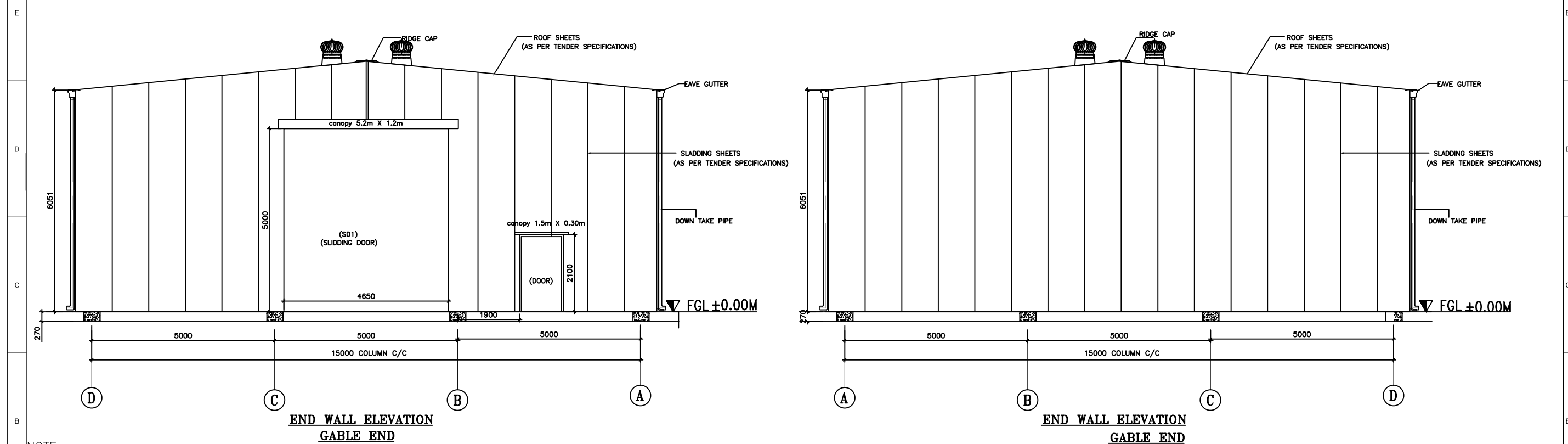
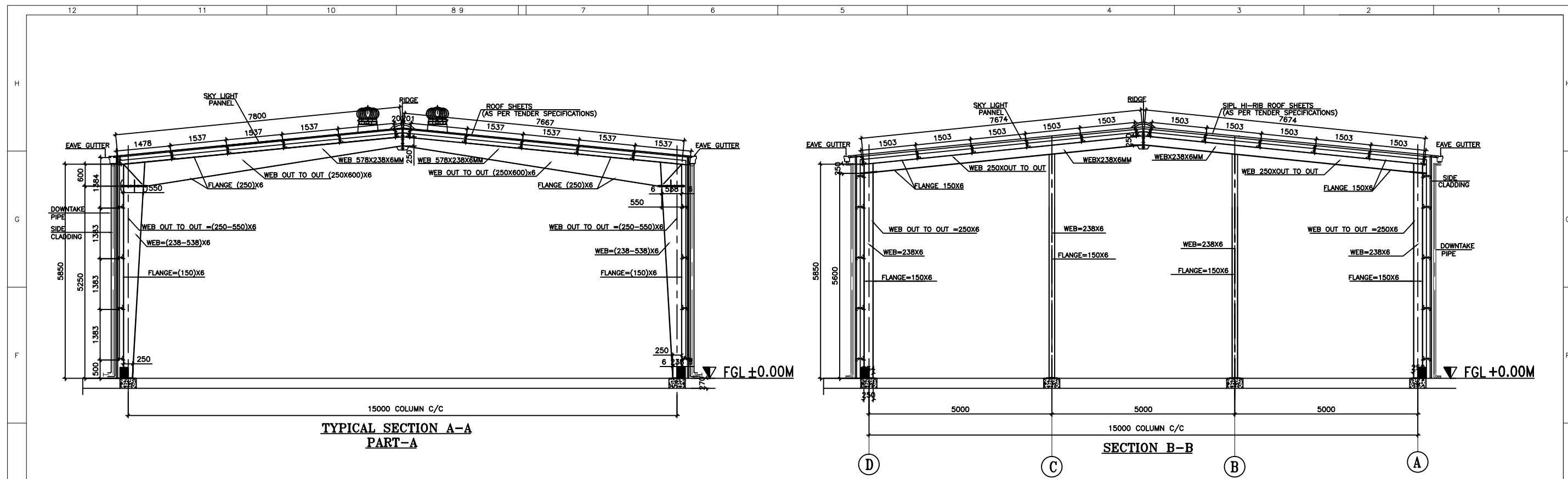
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SITE: OFFICE CLOSED SHED PART: C	DATE: 25/01/11
TITLE:- ROOF SHEETING & COLUMN PLAN SIZE:15m x 60m x 5.25m HT.	SCALE: 1:1
NEW LIFE STEEL STRUCTURES 1, Shiv Darshan, Radhabai Mhatre Road, Dahisar(W) 400 068. Tel:2883 33 30/ 2892 35 58. E-mail: nhspl@vsnl.com	HEMANT
ARCH. REF. No.	CAD FILE
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NOTE:-

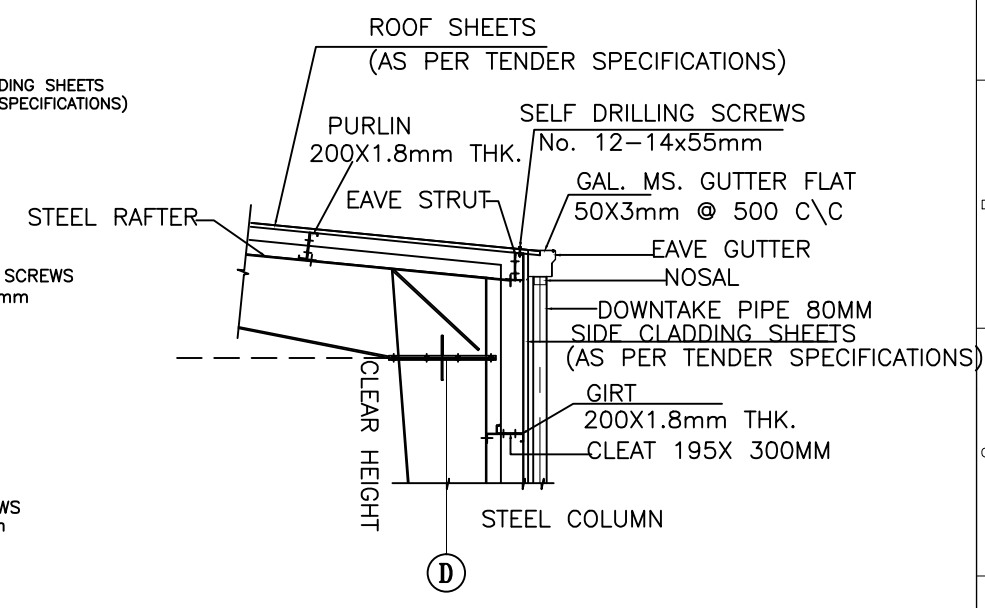
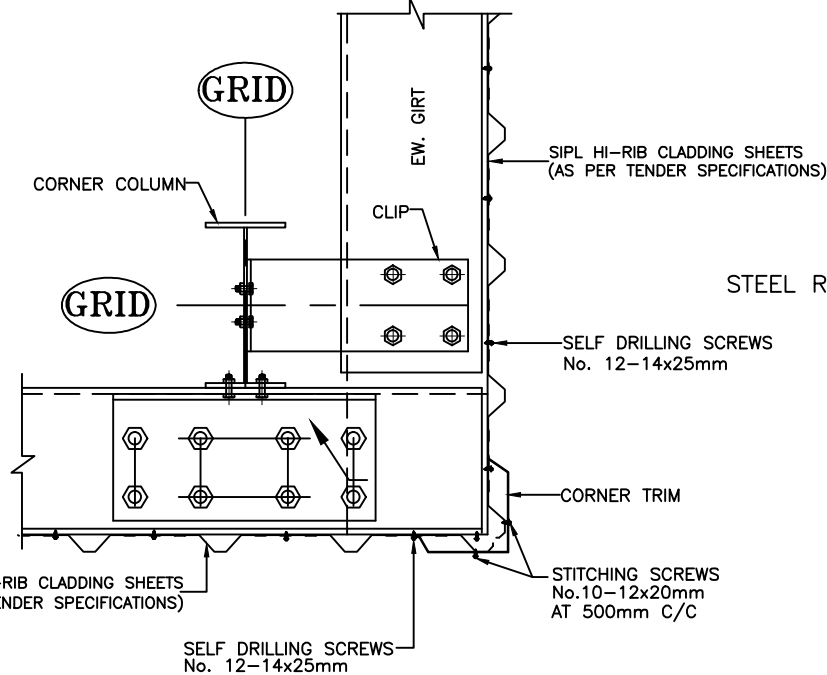
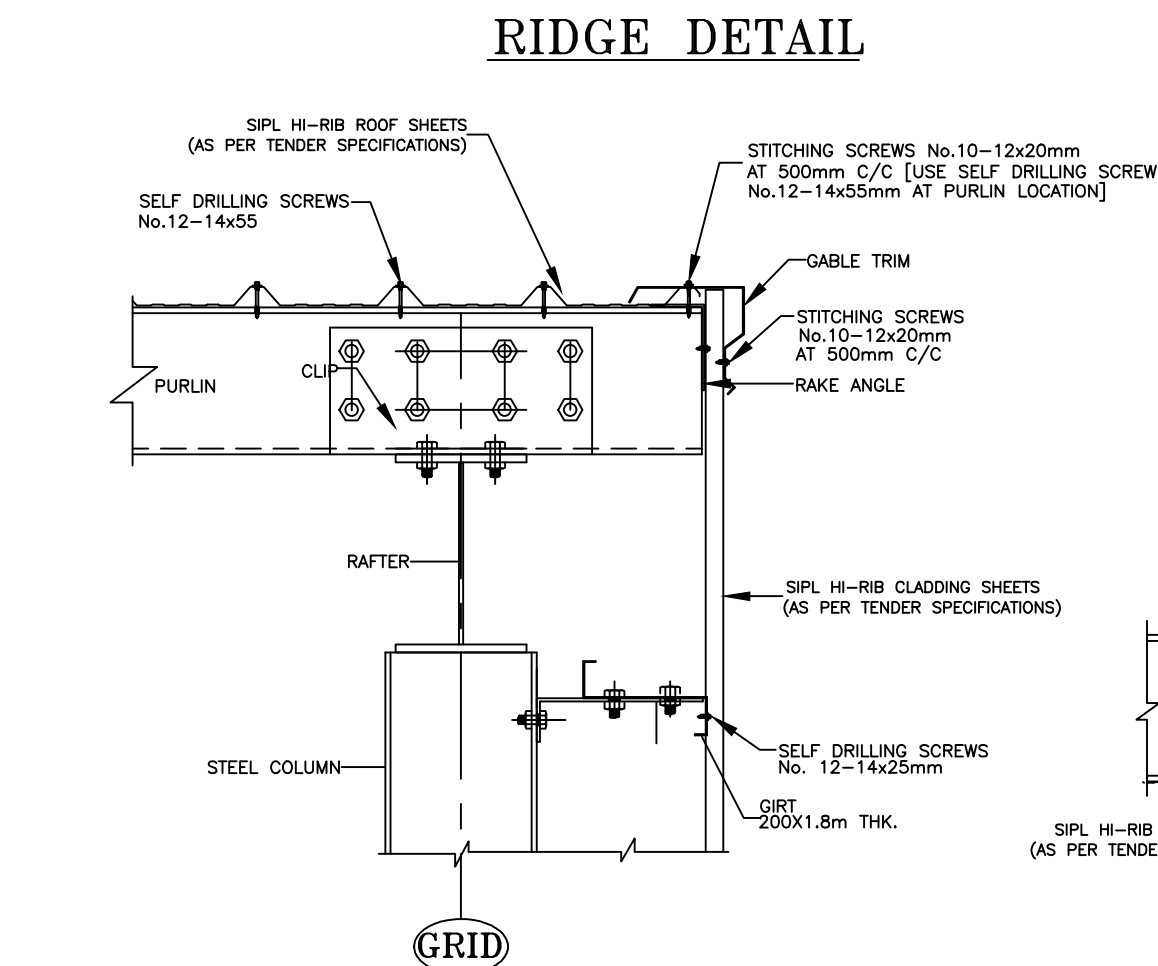
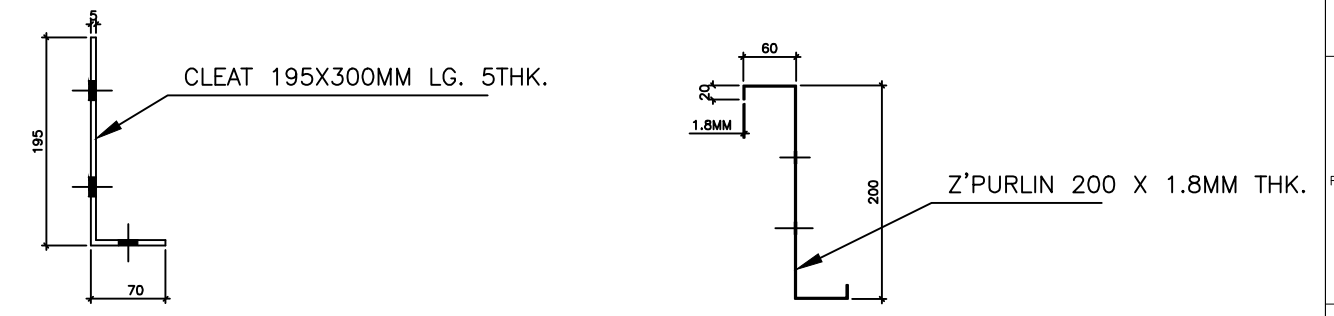
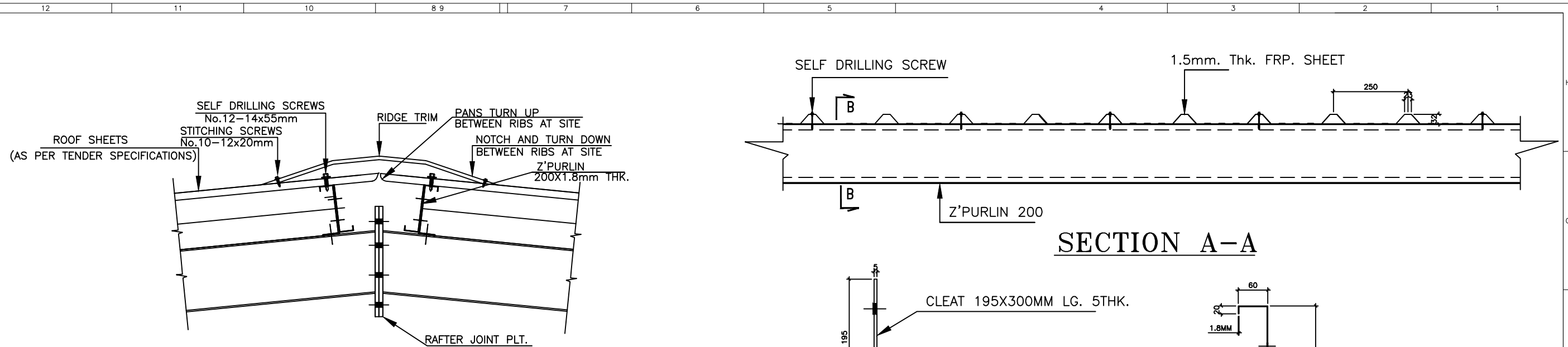
MATERIAL SPECIFICATIONS	
1 ROOF:	0.47- PPGI (AS PER TENDER SPECIFICATIONS)
2 WALL:	0.5- PPGI (AS PER TENDER SPECIFICATIONS)
3 SKYIGHT (ROOF):	AS PER TENDER SPECIFICATION
4 GUTTER:	0.5mm. PPGI (AS PER TENDER SPECIFICATIONS)
5 FLASHINGS:	0.5mm. PPGI (AS PER TENDER SPECIFICATIONS)
6 DOWN SPOUT:	0.5mm. PPGI
7 TURBO VENT:	05 Nos. 600#

8 SLIDING DOOR:	(4.65Mtr. (W) X 5Mtr. (H) 01 NOS.
9 DOORS:	(1.2Mtr. (W) X 2.1Mtr. (H) 01 NOS. (M.S. DOOR)
10 VENTILATORS:	(0.60Mtr. (W) X 0.45Mtr. (H) 20 NOS.

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1	ISSUED FOR APPROVAL	SURESH CHAVAN	25.01.11	

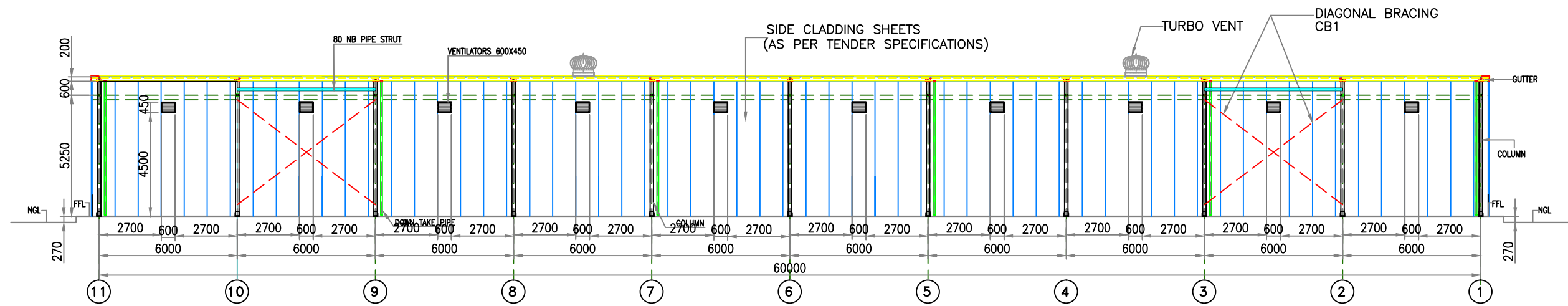
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SITE REF. CLOSED SHED @ ITHO @ T OFFICE @B	DATE 25.01.11
TITLE:- TYPICAL SECTION SIZE-60m x 15m x 5.25m HT.	SCALE 1:1
NEW LIFE STEEL STRUCTURES 1, Shiv Darshan, Radhabai Mhatre Road, Dahanu (W) 400 066. Tel: 2893 33 30/ 2892 35 98. E-mail: nhsstpl@vsnl.com	SURESH
ARCH. REF. No.	CAD FILE
	SHEET OF



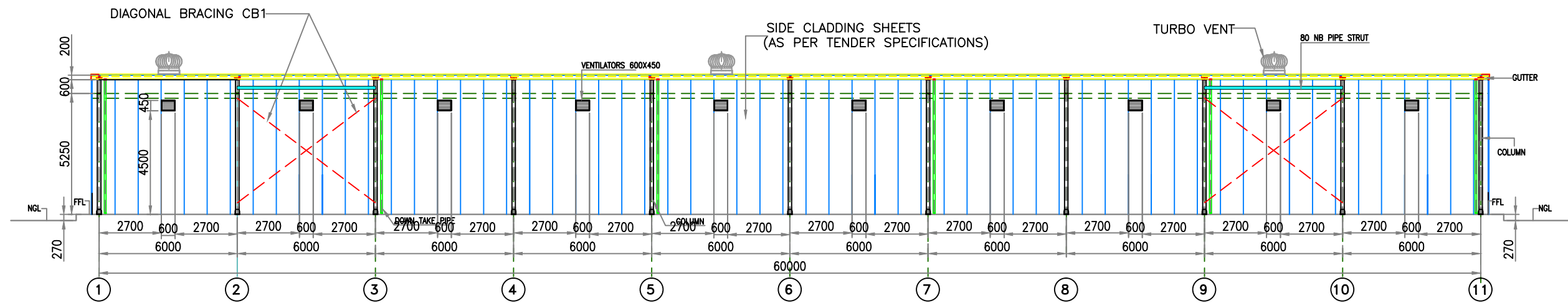
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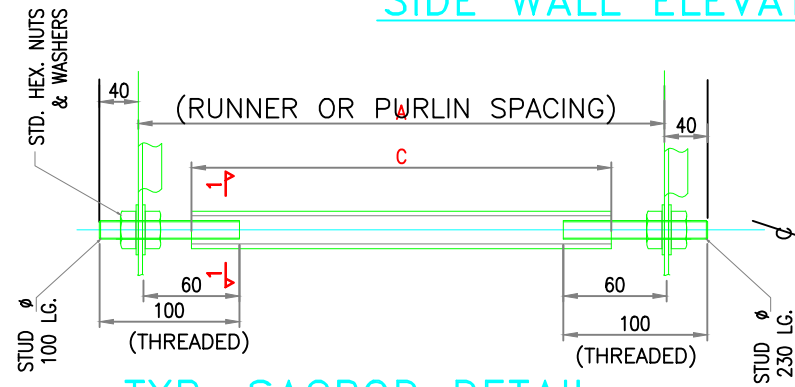
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NEW LIFE STEEL STRUCTURES 1, Shiv Darshan, Radhabai Mhatre Road, Dahanu (W) 400 066. Tel: 2893 33 30 / 2892 35 98. E-mail: nhsspl@vsnl.com				SURESH	
1 ISSUED FOR APPROVAL		SURESH CHAVAN	25.01.11		
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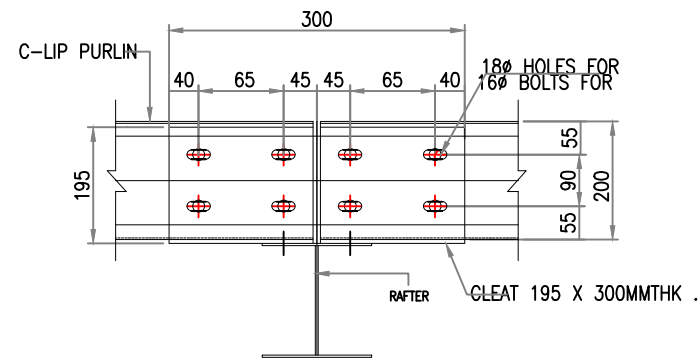
SIDE WALL ELEVATION ALONG GRID-D'



SIDE WALL ELEVATION ALONG GRID-A'



TYP. SAGROD DETAIL

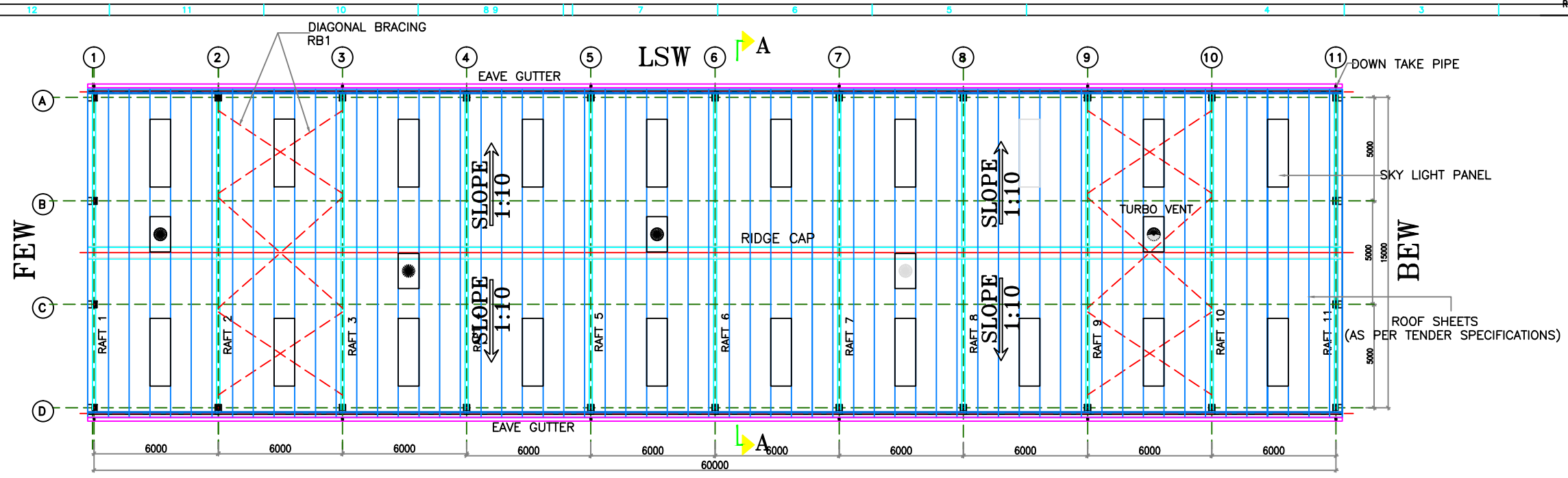


TYPICAL CLEAT & PURLIN DETAIL

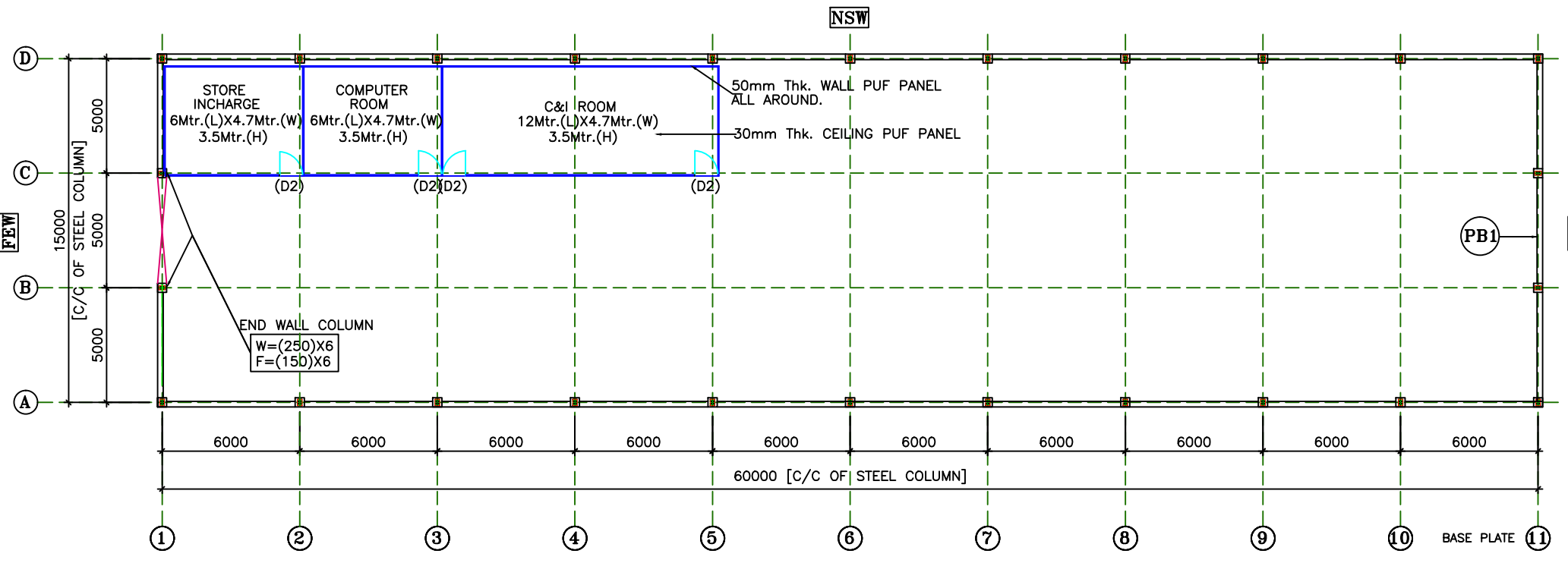
NOTE J-

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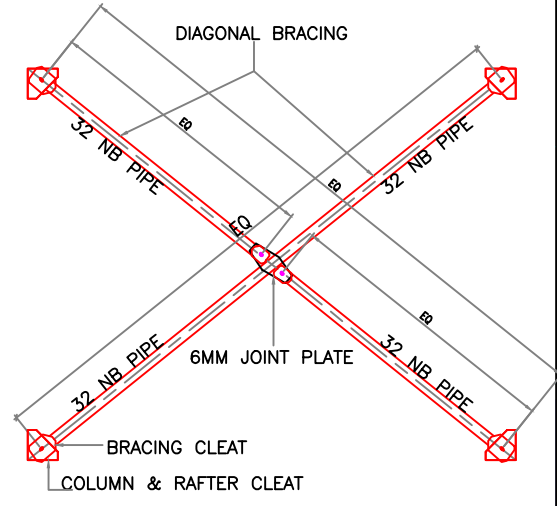
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				SITE: CLOSED SHED PART II B		DATE 25.01.11
				TITLE:- FRAMING PLAN & SIDE VIEW SIZE: 15m x 60m x 5.25m HT.		SCALE 1:1
				NEW LIFE STEEL STRUCTURES 1, Shiv Darshan, Radhabai Mhatre Road, Dahisar(W) 400 068. Tel: 2883 33 30 / 2892 35 58. E-mail: nhspl@vsnl.com		HEMANT
1	ISSUED FOR APPROVAL	HEMANT MISHRA	25.01.11			
NO.	REVISION	DRAWN	DATE	CHECKED	ARCH. REF. No.	CAD FILE SHEET OF



RSW
ROOFING PLAN



RSW
CLOSED STEEL COLUMN PLAN



RAFTER BRACING &
COLUMN BRACING

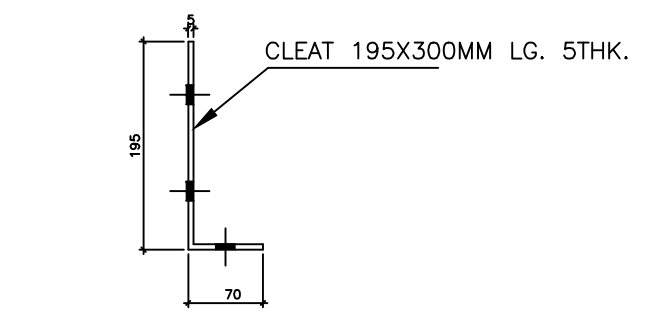
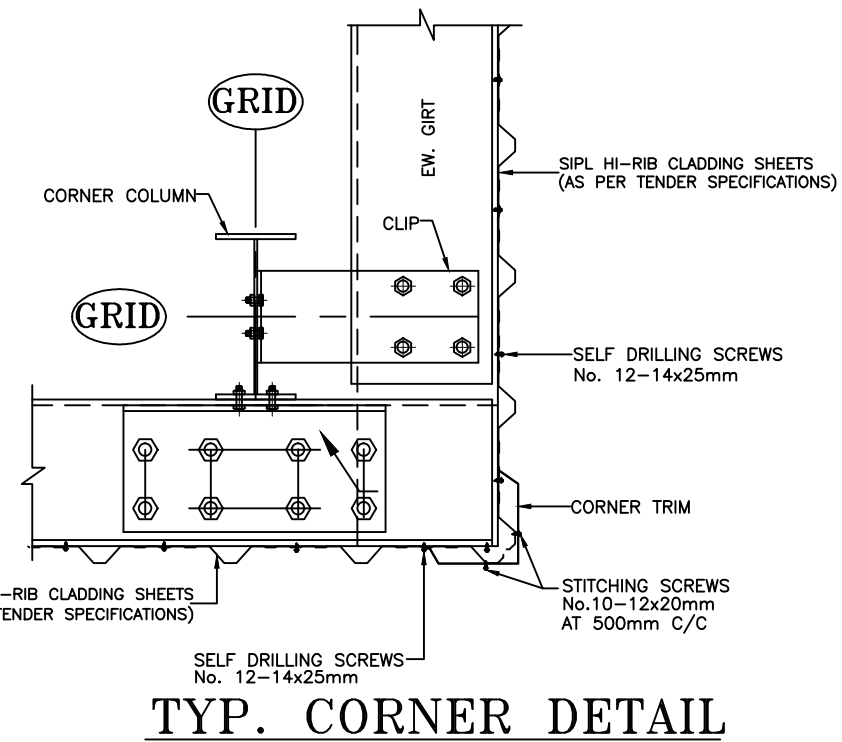
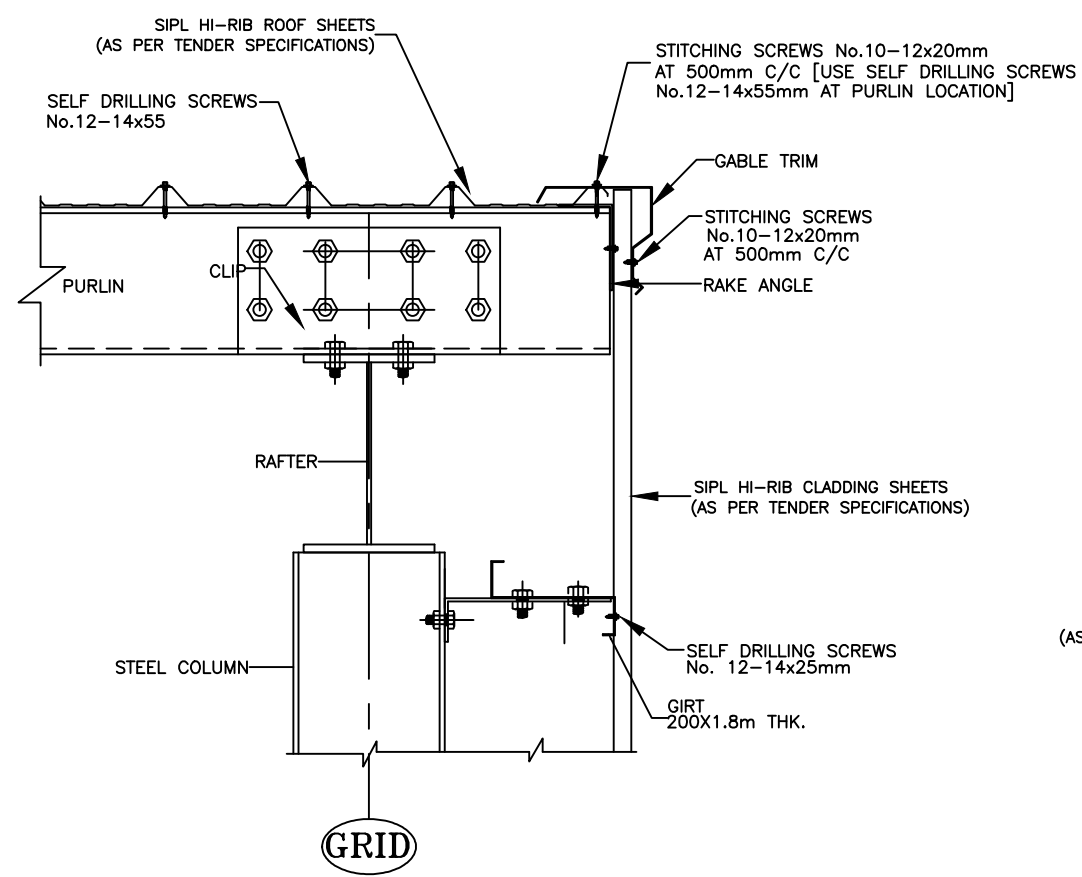
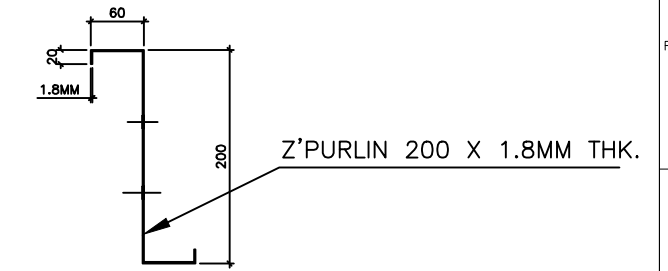
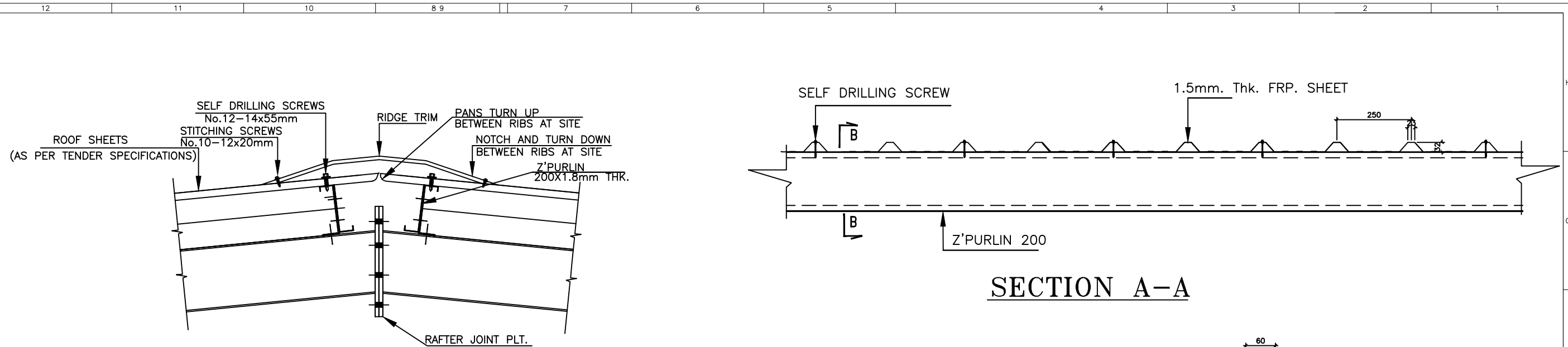
NOTE:-

1. ALL DIMENSIONS ARE IN MM.

STAMP AND SIGN

NO.	REVISION	DRAWN	DATE	CHECKED
1	ISSUED FOR APPROVAL	HEMANT MISHRA	25.01.11	

PROJECT:- M/s. BHARAT HEAVY ELECTRICALS LTD.	DRG.NO. FAB BHEL-002
SITE: OFFICE CLOSED SHED PART: C	DATE: 25/01/11
TITLE:- ROOF SHEETING & COLUMN PLAN SIZE:15m x 60m x 5.25m HT.	SCALE: 1:1
NEW LIFE STEEL STRUCTURES 1, Shiv Darshan, Radhabai Mhatre Road, Dahisar(W) 400 068. Tel:2883 33 30/ 2892 35 58. E-mail: nhspl@vsnl.com	HEMANT
ARCH. REF. No.	CAD FILE
	SHEET OF



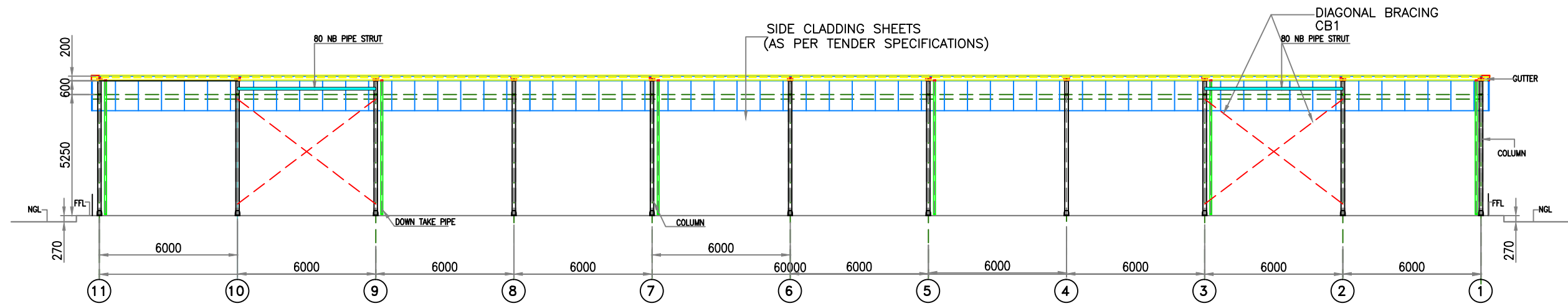
NOTE:-

TYP. GABLE END DETAIL

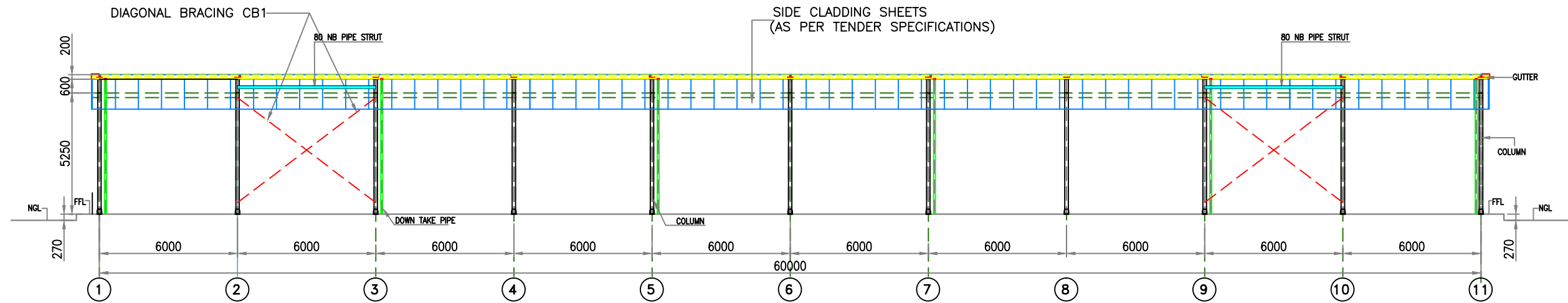
STAMP AND SIGN

NO.	REVISION	DRAWN	DATE	CHECKED
1	ISSUED FOR APPROVAL	SURESH CHAVAN	25.01.11	

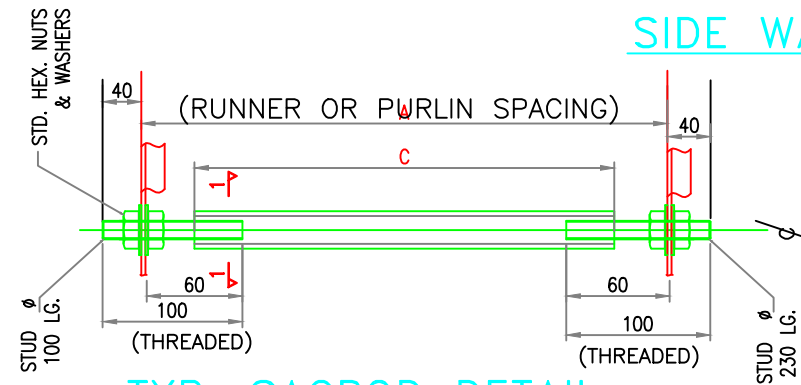
PROJECT:- M/s. BHARAT HEAVY ELECTRICALS LTD.	DRG.NO. FAB.BHEL-006
SITE REF. SEMI CLOSED SHED PART: B	DATE 25.01.11
TITLE:- SEMI CLOSED SHED SIZE-60m x 15m x 5.25m HT.	SCALE 1:1
NEW LIFE STEEL STRUCTURES 1, Shiv Darshan, Radhabai Mhatre Road, Dahanu (W) 400 068. Tel: 2893 33 30 / 2892 35 98. E-mail: nhsspl@vsnl.com	SURESH
ARCH. REF. No.	CAD FILE
	SHEET OF



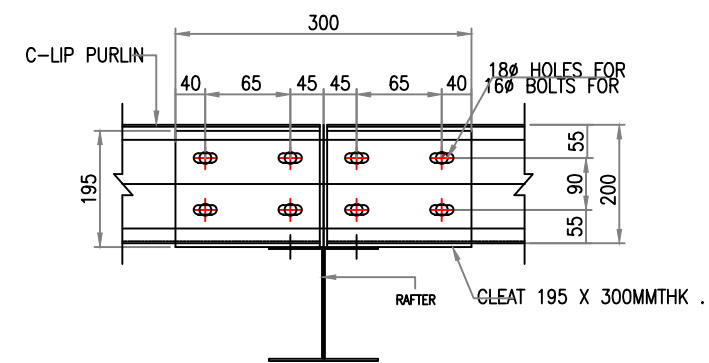
SIDE WALL ELEVATION ALONG GRID-D'



SIDE WALL ELEVATION ALONG GRID-A'



TYP. SAGROD DETAIL



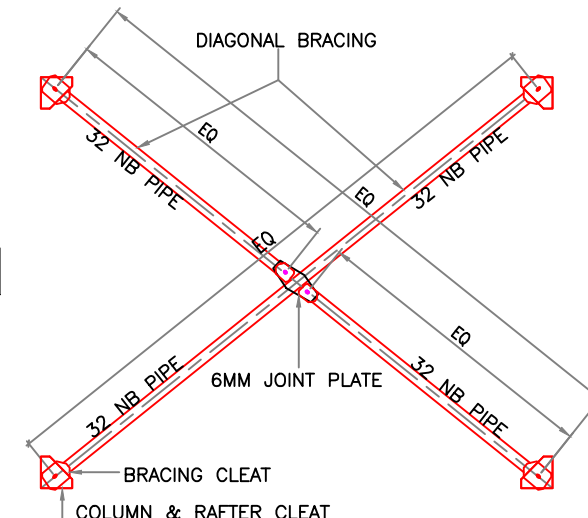
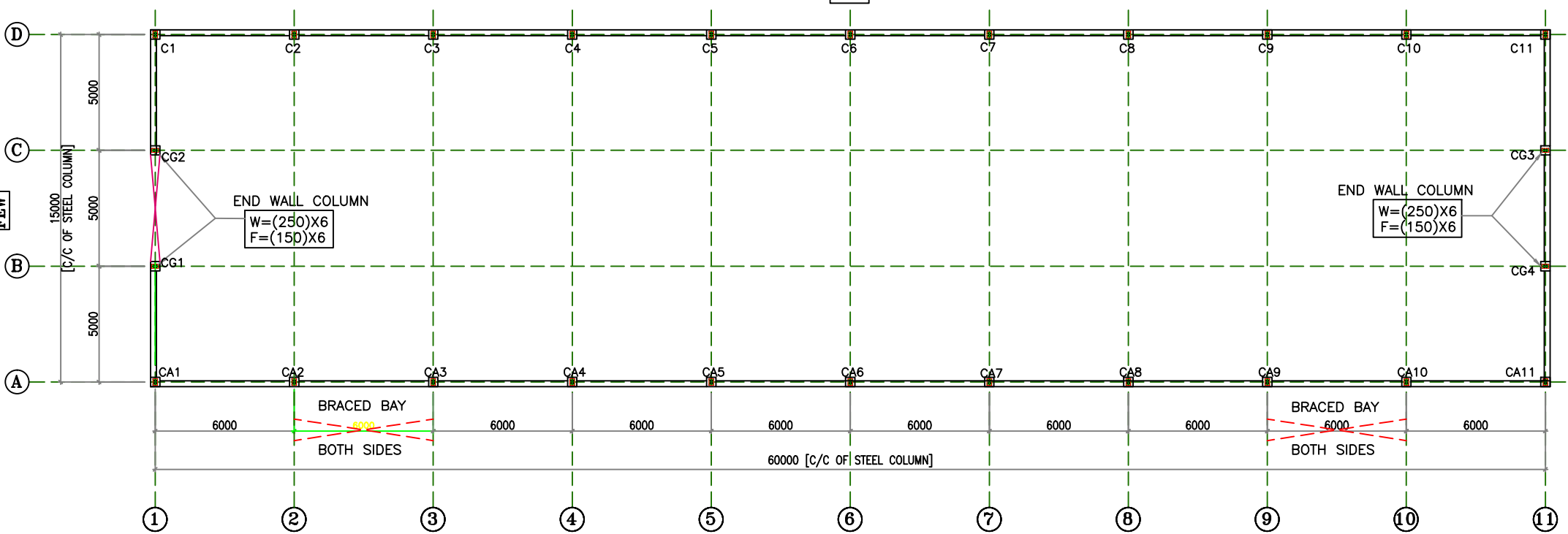
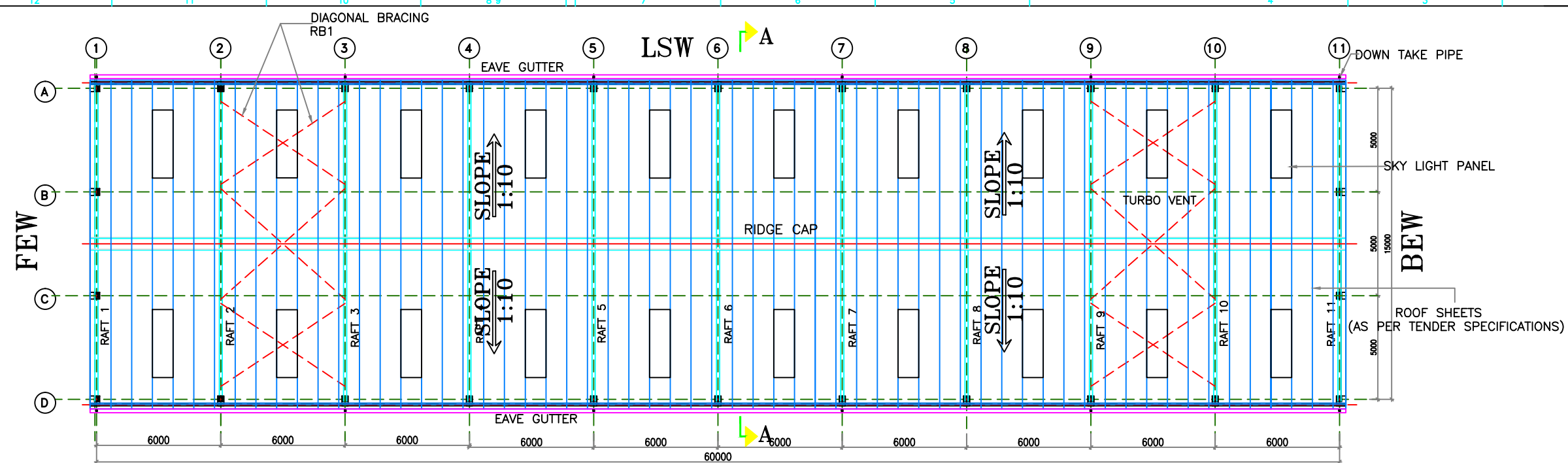
TYPICAL CLEAT & PURLIN DETAIL

NOTE:-

1. ALL DIMENSIONS ARE IN MM.

STAMP AND SIGN

				PROJECT:- M/s. BHARAT HEAVY ELECTRICALS LTD.		DRG. NO. FAB BHEL-004
				SITE: SEMI CLOSED SHED PART: B		DATE 25.01.11
				TITLE:- FRAMING PLAN & SIDE VIEW SIZE: 15m x 60m x 5.25m HT.		SCALE 1:1
				NEW LIFE STEEL STRUCTURES 1, Shiv Darshan, Radhabai Mhatre Road, Dahisar(W) 400 068. Tel: 2883 33 30 / 2892 35 58. E-mail: nhsp@vsnl.com		HEMANT
1	ISSUED FOR APPROVAL	HEMANT MISHRA	25.01.11			
NO.	REVISION	DRAWN	DATE	CHECKED	ARCH. REF. No.	CAD FILE SHEET OF



NOTE:-
1. ALL DIMENSIONS ARE IN MM.

STAMP AND SIGN

NO.	REVISION	DRAWN	DATE	CHECKED
1	ISSUED FOR APPROVAL	HEMANT MISHALE	25.01.11	

PROJECT:- M/s. BHARAT HEAVY ELECTRICALS LTD.	DRG.NO. FAB.BHEL-002
SITE: SEMI CLOSED SHED PART: B	DATE: 25/01/11
TITLE:- FRAMING ROOF & COLUMN PLAN SIZE:15m x 60m x 5.250m HT.	SCALE: 1:1
NEW LIFE STEEL STRUCTURES 1, Shiv Darshan, Radhabai Mhatre Road, Dahanu (W) 400 066. Tel:2853 33 30/ 2862 35 58. E-mail : nhsstpl@vsnl.com	HEMANT
ARCH.REF.No.	SHEET OF