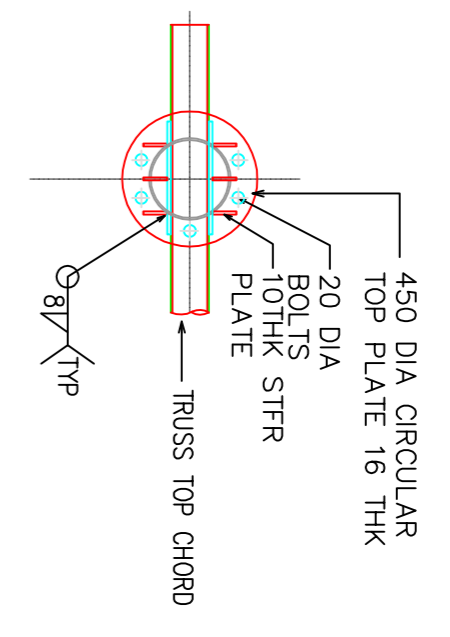
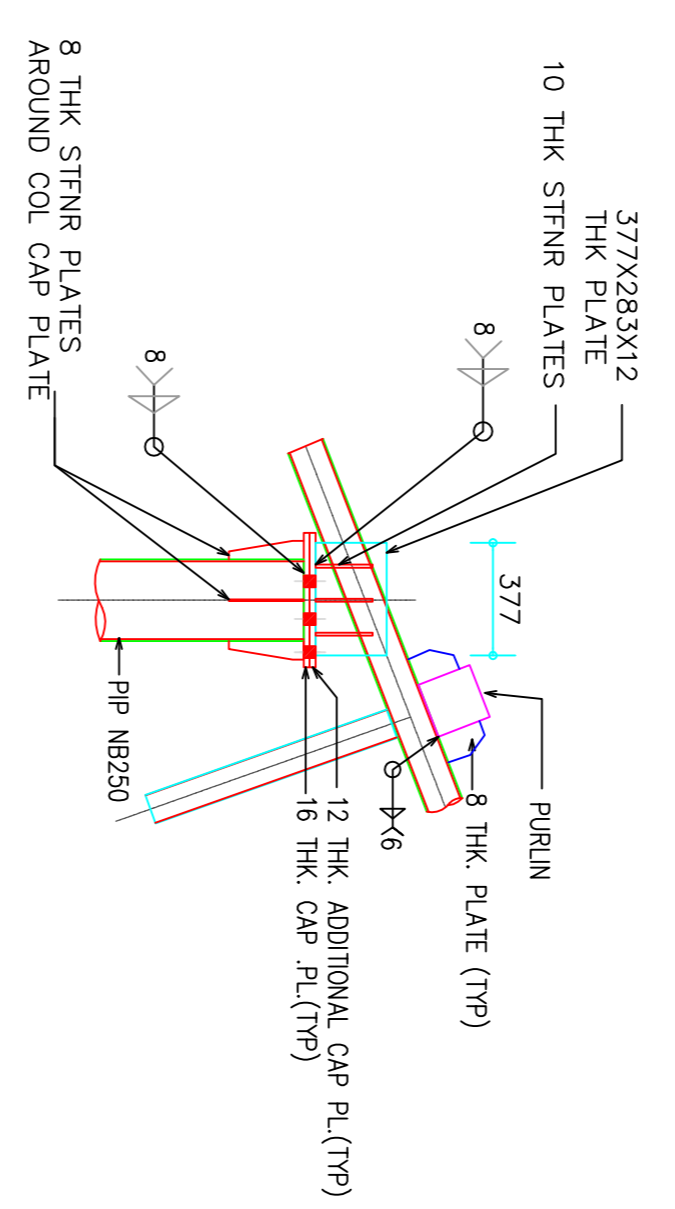


TYPICAL TRUSS DETAIL OF CYLINDRICAL DOME-7NO'S  
SCALE 1:90

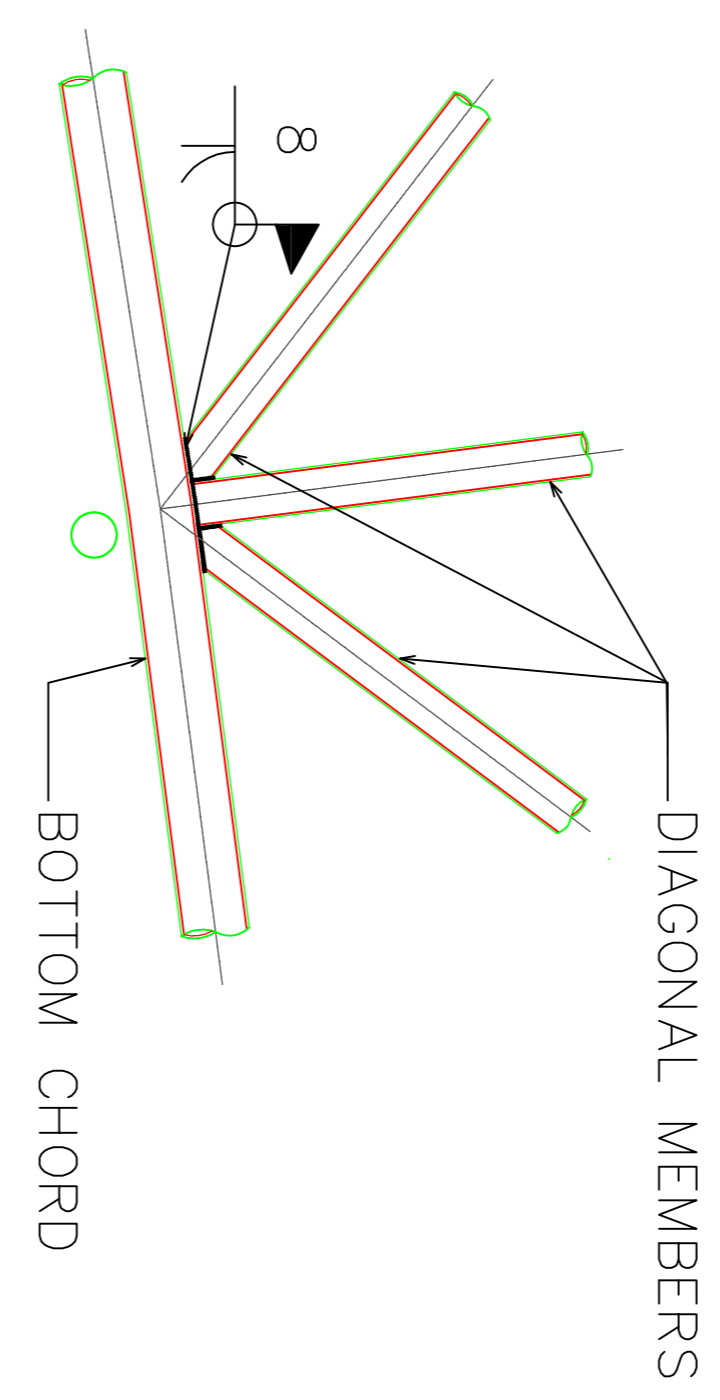
- NOTES**
1. DIMENSION IN MILLIMETRES, LEVELS IN METRES.
  2. DON'T SCALE THE DIAGRAMS FROM DRAWING FOLLOW WRITTEN DIMENSIONS ONLY.
  3. LEVELS INDICATED REFER TO UPPER SIDE STEEL PROFILES.
  4. REFER GENERAL NOTES OF SPECIFICATION ALONG WITH THE DRAWING FOR OTHER DETAILS OF CONSTRUCTION AND FABRICATION PROCEDURE.



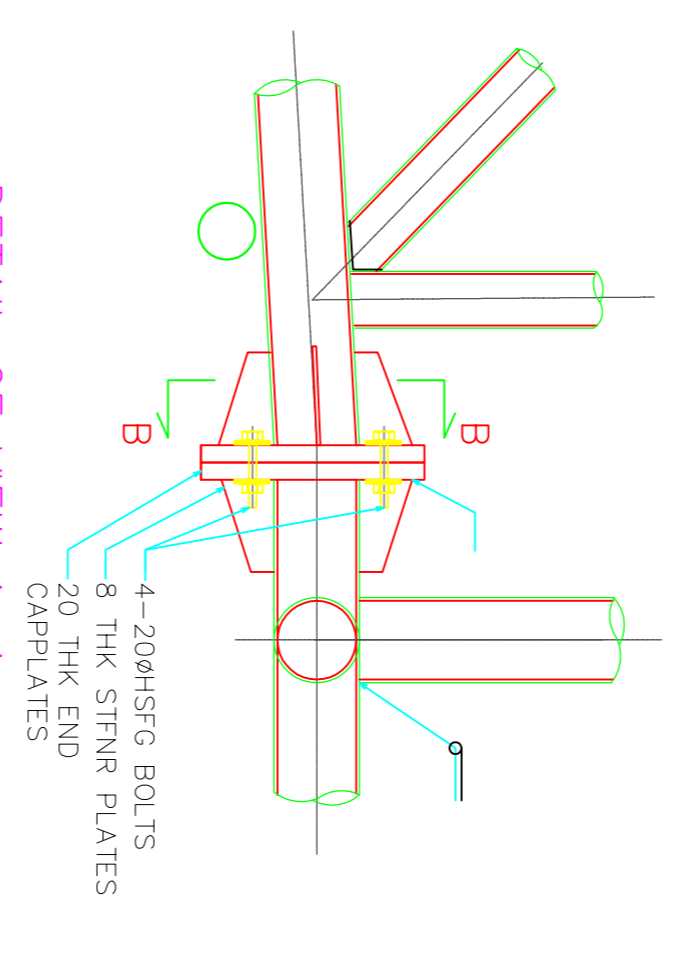
TYPICAL TRUSS SHOE DETAILS TOP VIEW  
SCALE 1:25



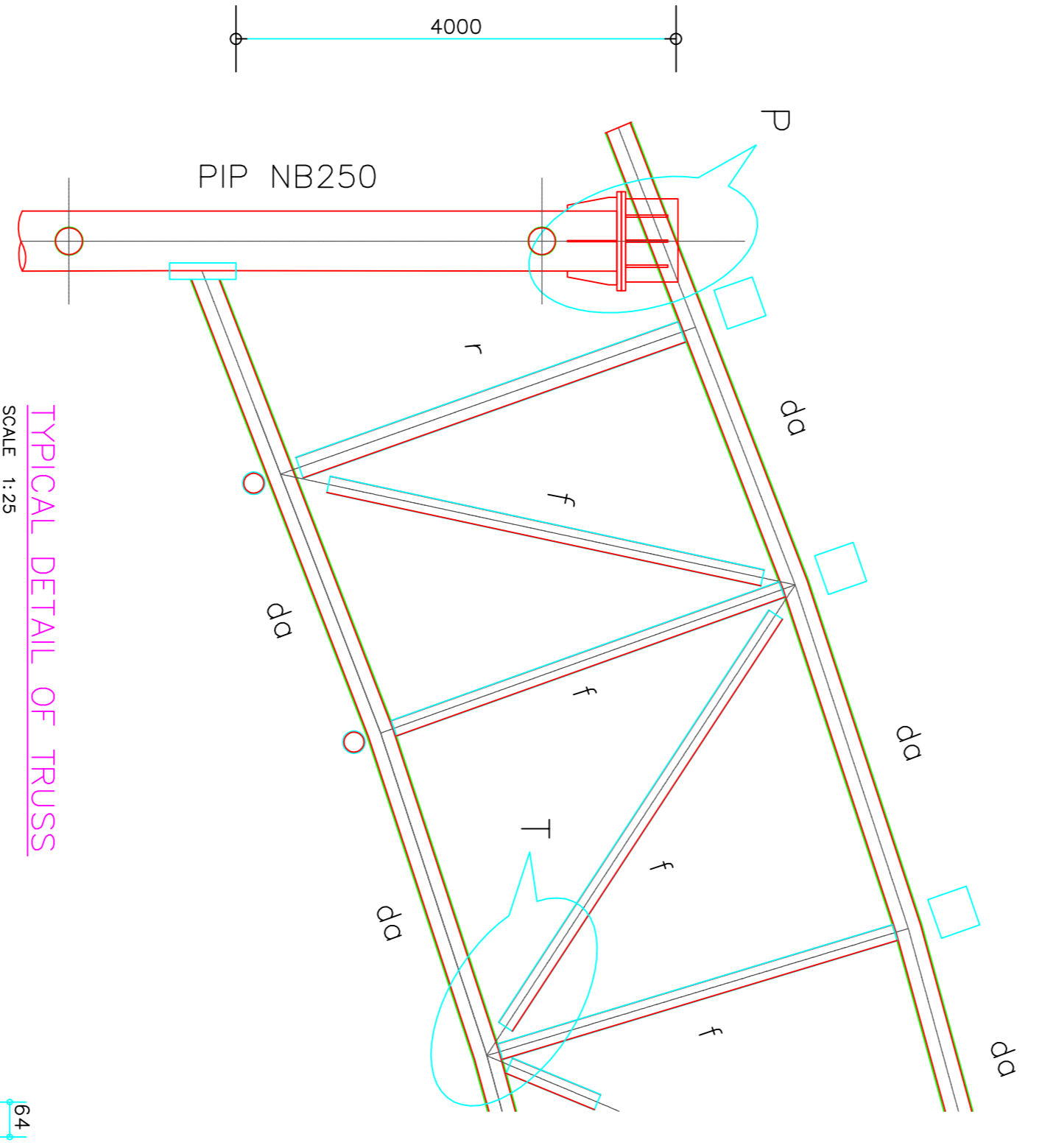
TYPICAL TRUSS SHOE DETAILS SIDE VIEW  
SCALE 1:25



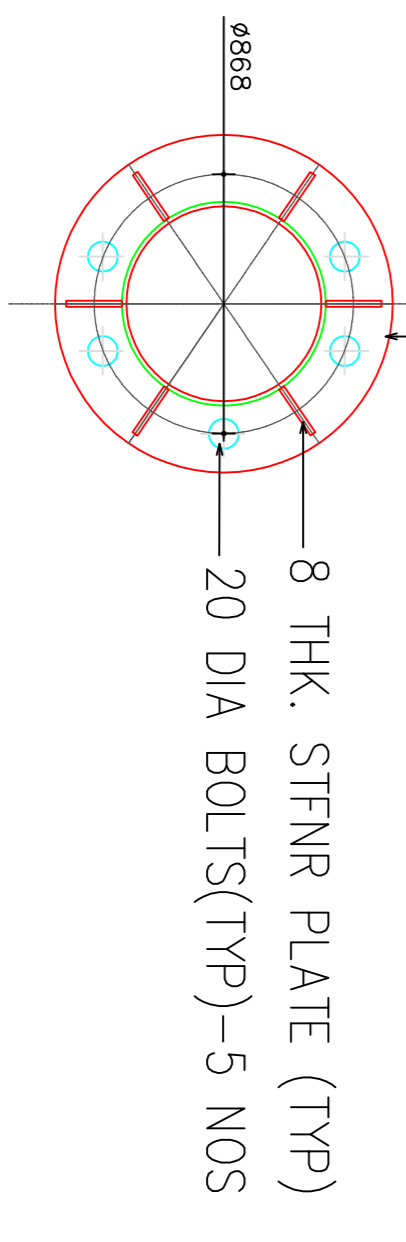
TYPICAL JOINT -1  
SCALE 1:25



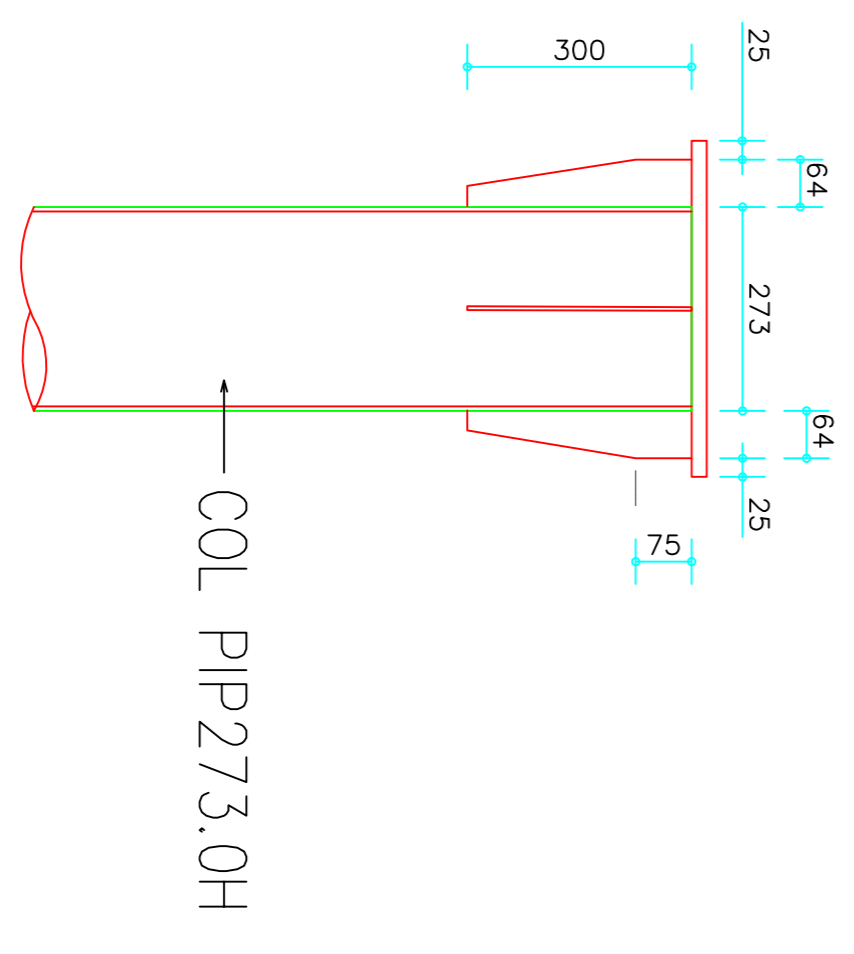
DETAIL OF VIEW A-A CENTRAL TYPICAL CONNECTION OF TRUSS MEMBERS  
SCALE 1:20



TYPICAL DETAIL OF TRUSS  
SCALE 1:25



TYPICAL STIFNRS WELD TO THE CAP PLATE AND COLUMN  
SCALE 1:10

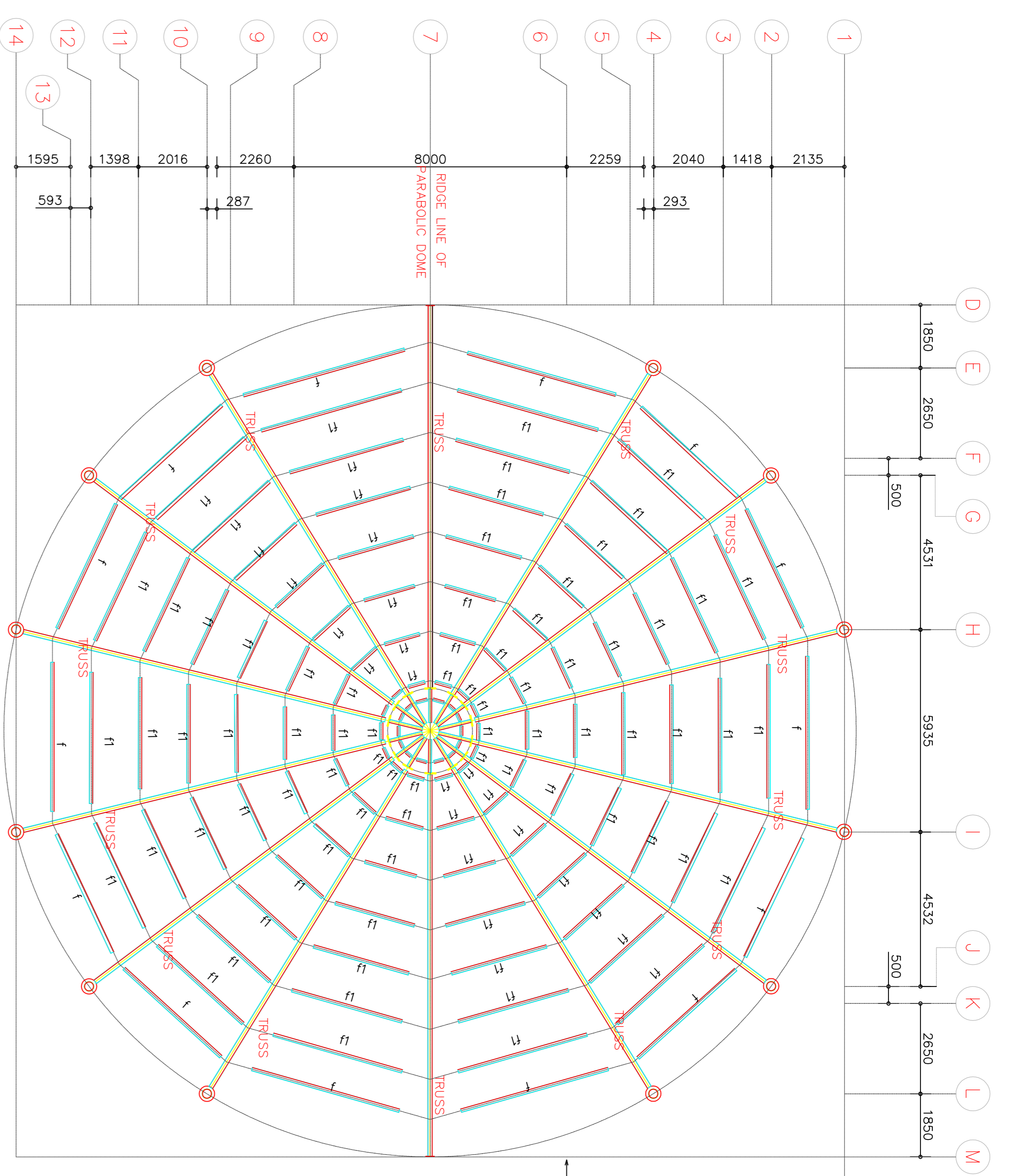
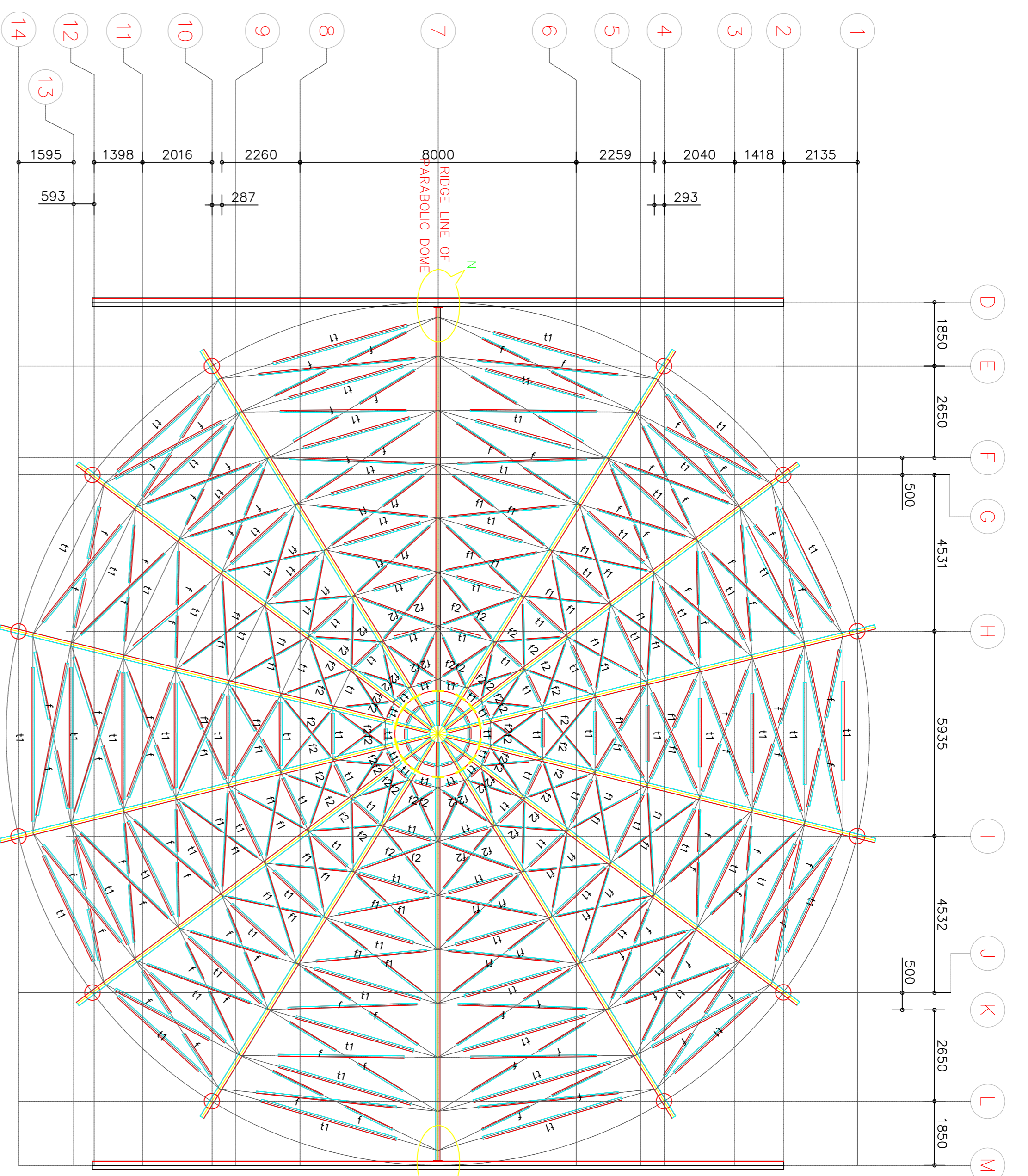


COLUMN END DETAILS  
SCALE 1:25

DETAILED WEIGHT OF TRUSS MEMBERS (7 NOS)						
PURLINS & BRACINGS SCHEDULE	NO'S	PIECE LENGTH (m)	TOTAL LENGTH (m)	WEIGHT/M RUN(KG)	TOTAL WEIGHT(Kg)	REMARKS
F3 - PIP761.0L (NB 65L)	112	1.879	210.45	5.71	1201.38	VERTICAL POSTS
F3 - PIP761.0L (NB 65L)	98	2.310	226.38		1292.63	DIAGONAL POSTS
da - PIPE114.3M (NB100M)	14	25.343	354.80	12.20	4328.59	BOTTOM AND TOP CHORD
			TOTAL		6822.59	

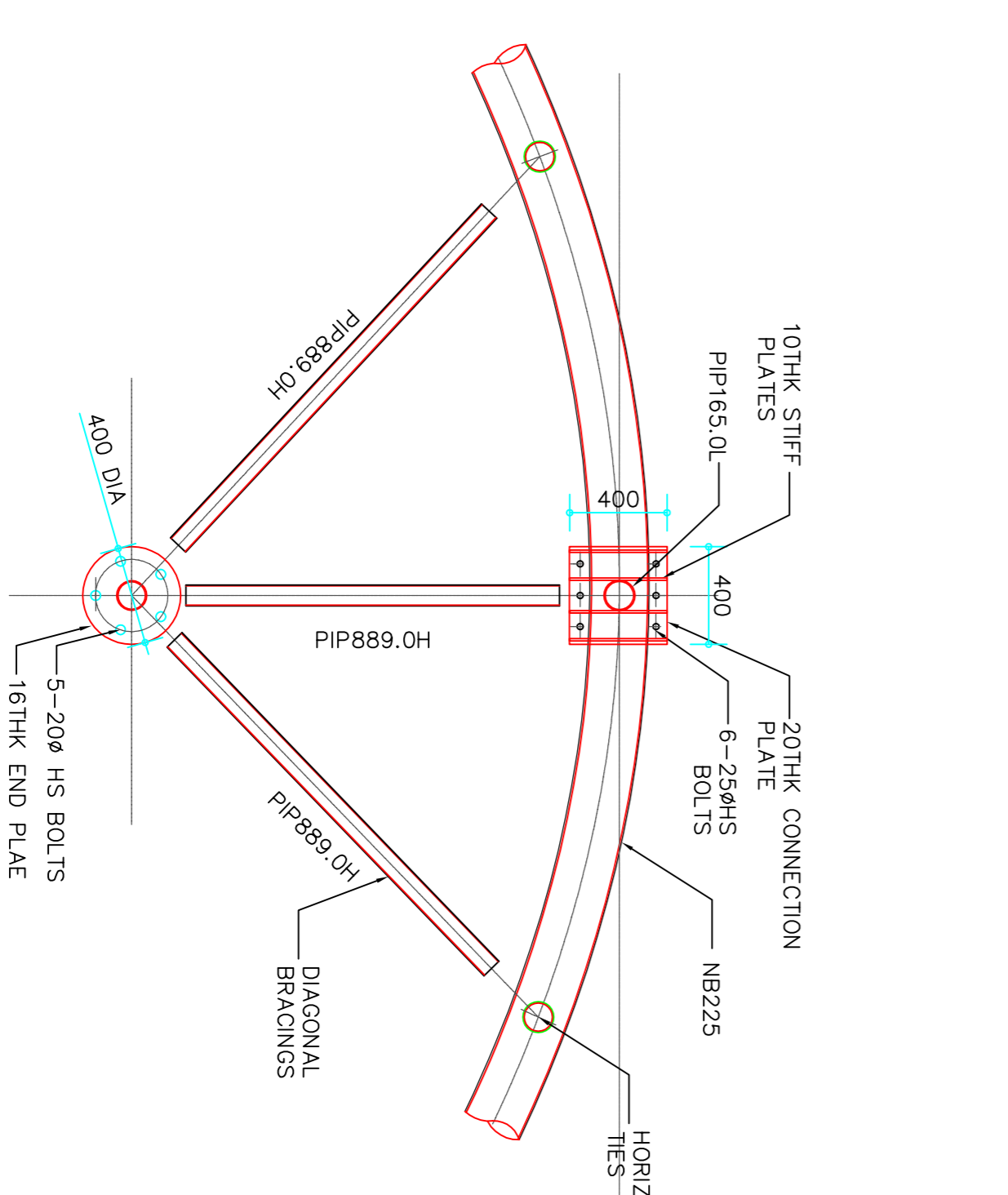
PROJECT:	PROPOSED HV LAB AT BHEL R&D, BALANAGAR, HYDERABAD.
CLIENT :	BHEL R&D
ARCHITECT:	KRIBDEVY
DESIGNER:	DESIGNER'S GUILD
DESIGNED BY:	A 105, NIKANT BANJARA, ROAD NO.12, BANJARA HILLS, HYDERABAD 500 034, TEL: 08002800000, WWW.DESIGNERSGUILD.COM
APPROVED BY:	
DWG. NO.:	BHEL CHIMKAL 006 TRUSS STRUCT
REV. NO.:	0
DATE:	22-04-2010
SCALE:	1:100

# TDR DRG No. 07

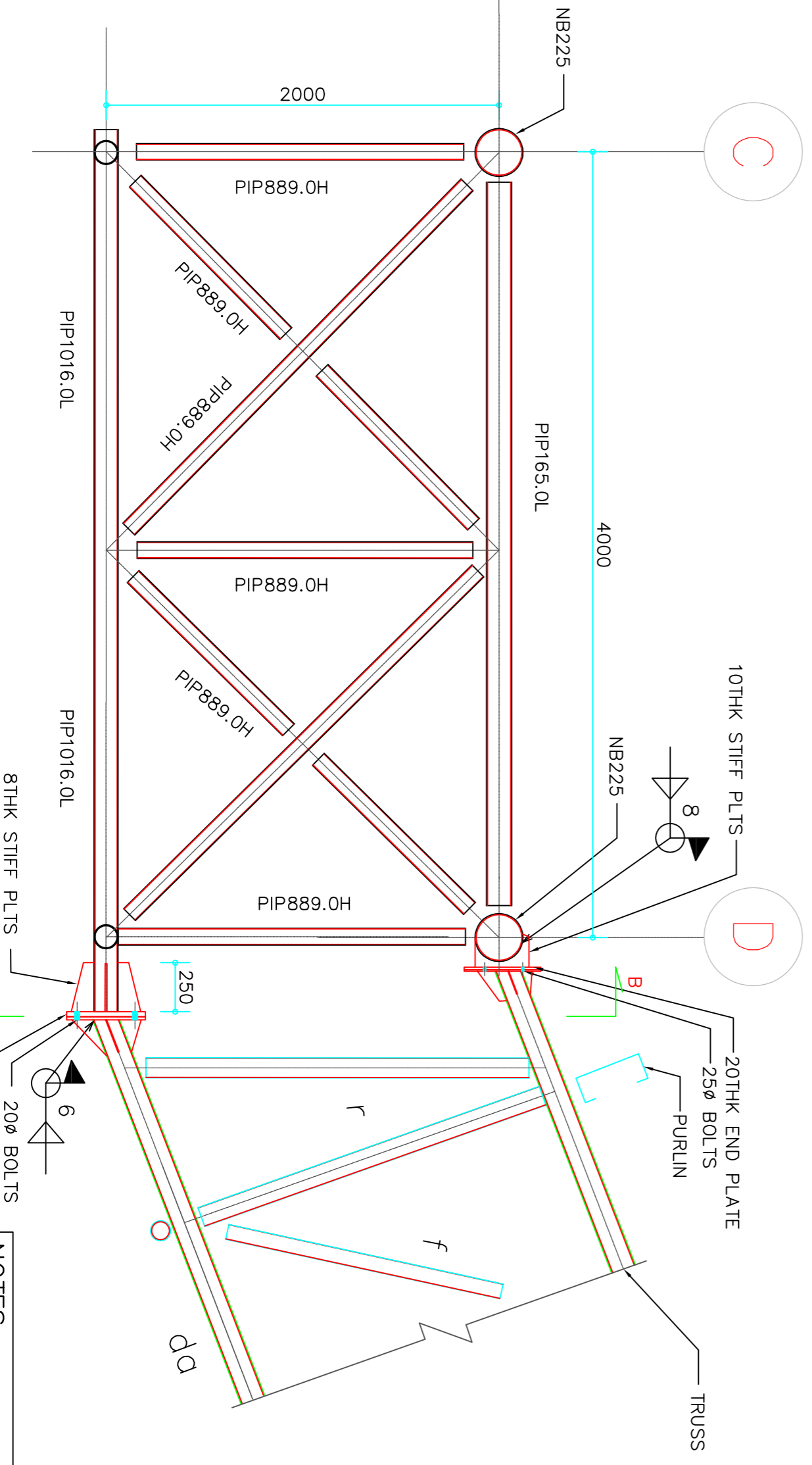


DETAIL OF BRACINGS AND PURLINS OF CYLINDRICAL DOME TRUSS  
DOME PLAN (TOP VIEW)  
SCALE 1:100

DETAILS OF TRUSS BOTTOM CHORD  
TRUSS MEMBERS IN PLAN  
SCALE 1:100



TYPICAL VIEW (B-B)  
SCALE 1:25



TYPICAL CONNECTION DETAIL OF TRUSS ALONG GRID LINE 7 TO PARABOLA CHORD  
MEMBER SIDE VIEW (DETAIL-N)  
SCALE 1:25

PURLINS & BRACINGS SCHEDULE OF TRUSS	NOS	TOTAL LENGTH-(M)		TOTAL WEIGHT(KG)	BOTTOM TRANSVERSE TIES
		FIG.2	FIG.3		
f - PIP761.0H	14	70.97	7.93	562.80	BOTTOM TRANSVERSE TIES
f1 - PIP603.0L(NB50L)	56	196.71	4.08	802.57	BOTTOM TRANSVERSE TIES
f2 - PIP483.0L(NB 40L)	42	54.68	3.23	176.62	BOTTOM TRANSVERSE TIES
f - PIP761.0H	56	226.16	7.93	2078.91	TOP DIAGONAL BRACINGS
f1 - PIP603.0L(NB50L)	84	259.13	4.08	1057.27	TOP DIAGONAL BRACINGS
f2 - PIP483.0L(NB 40L)	56	88.61	3.23	286.26	TOP DIAGONAL BRACINGS
chords with lip(rectangle)	112	322.36	---	---	PURLINS
TOTAL				4242.23	

# TDR DRG No. 08

PROJECT: PROPOSED HV/LAB AT BHEL R&D, BALANAGAR, HYDERABAD.

CLIENT: BHEL R&D

ARCHITECT: KRIBDHY

DESIGNED BY: A.V.S

DRAWN BY: VASU

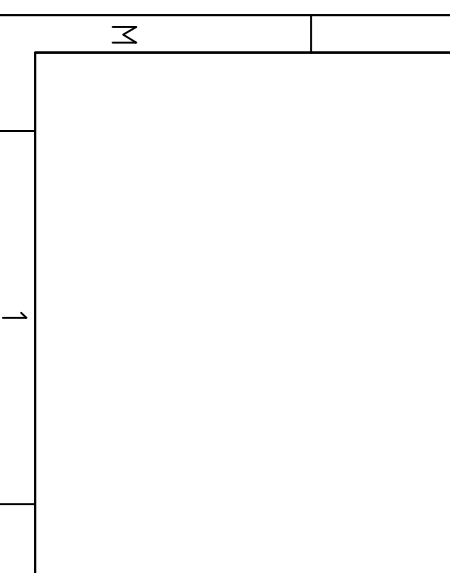
CHECKED BY: SURESH

APPROVED BY: SURESH

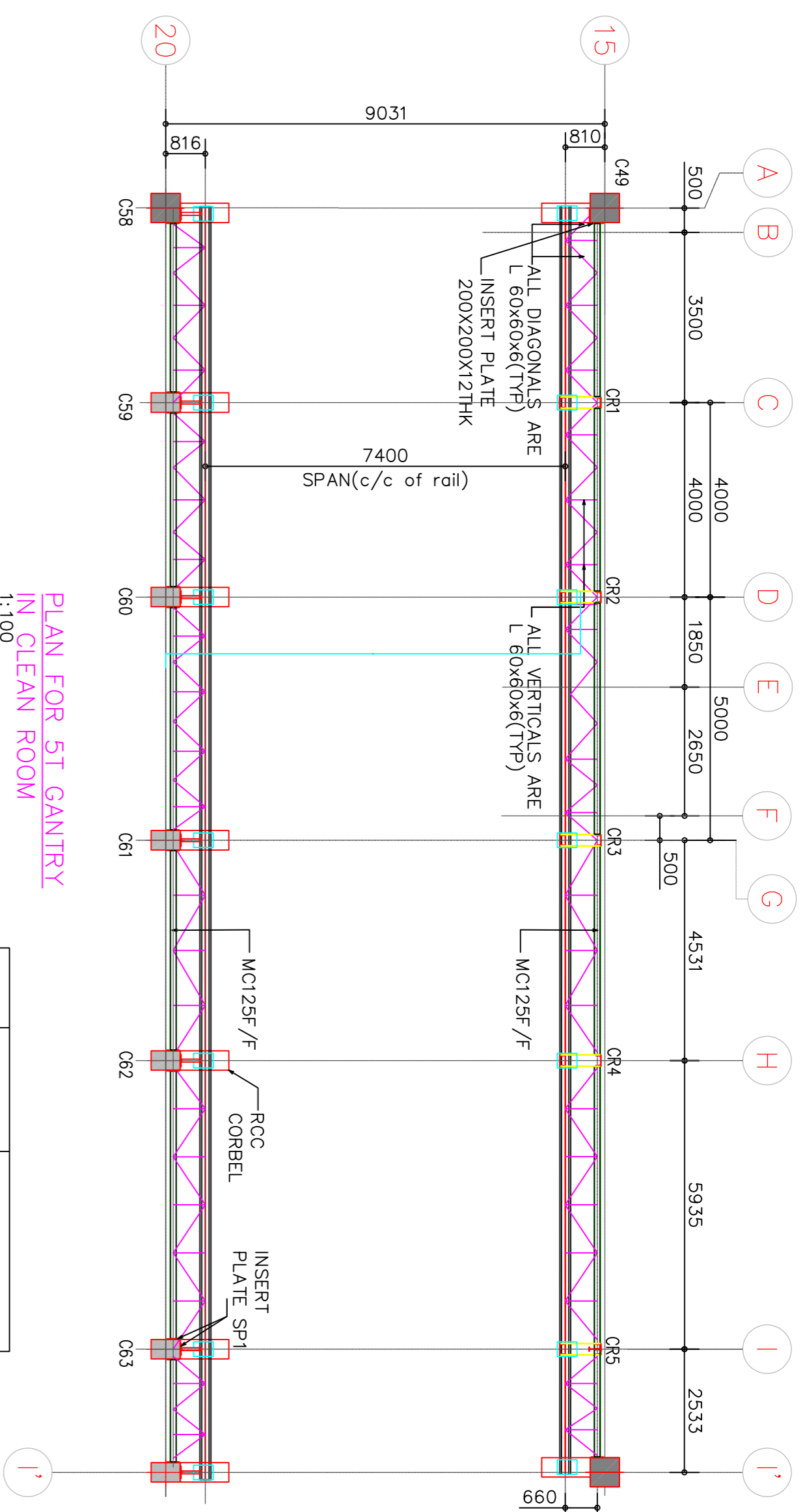
DATE: 06-06-2010

SCALE: 1:100

- NOTES
1. DIMENSION IN MILLIMETRES, LEVELS IN METRES.
  2. DON'T SCALE THE DIAGRAMS FROM DRAWING FOLLOW WRITTEN.
  3. WRITTEN DIMENSIONS ONLY.
  4. REFER GENERAL NOTES OF SPECIFICATION ALONG WITH THE DRAWING FOR OTHER DETAILS OF CONSTRUCTION AND FABRICATION PROCEDURE.

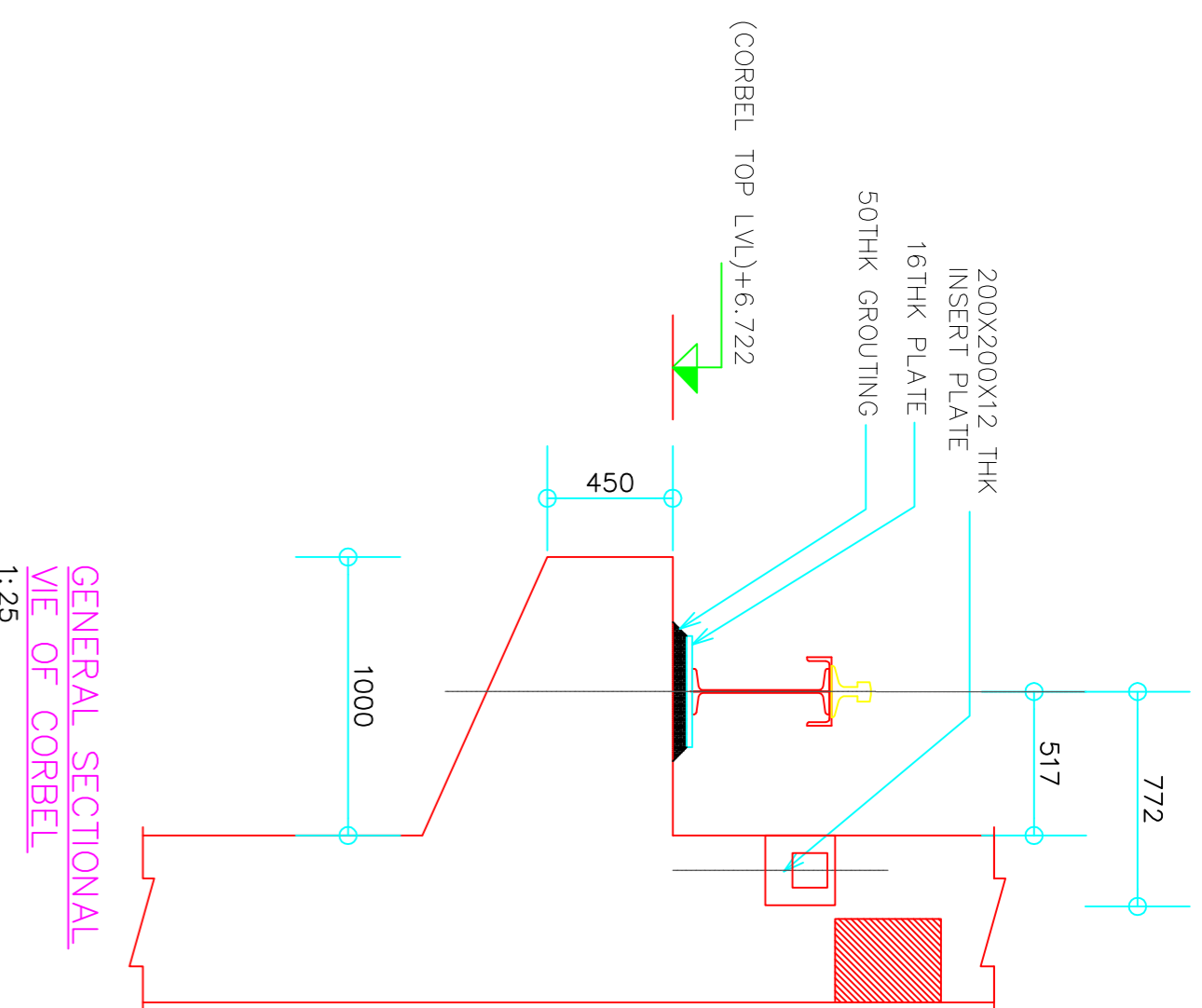


REV NO.	DATE	SCALE
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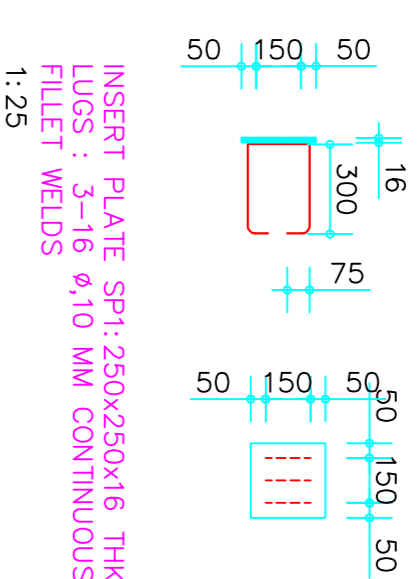


PLAN FOR 5T GANTRY IN CLEAN ROOM  
1:100

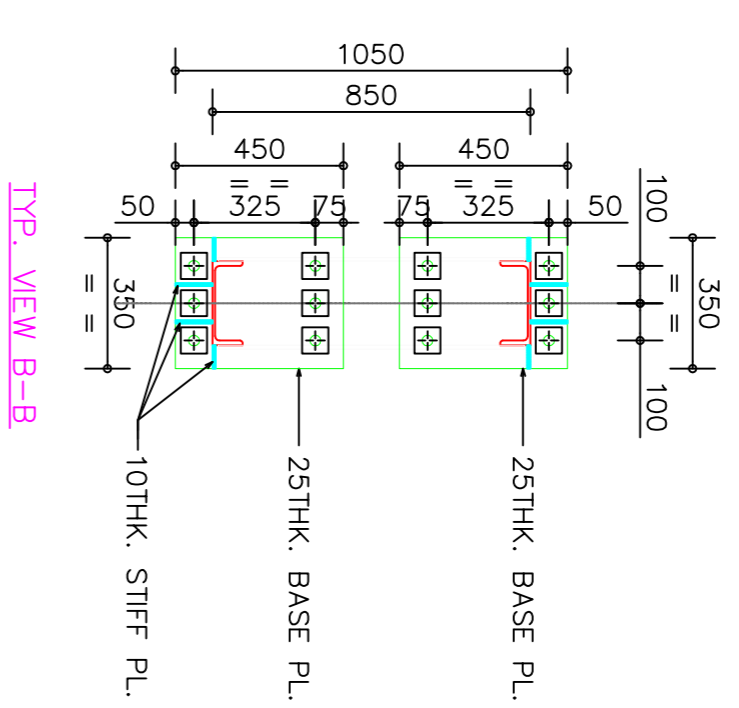
S.NO	MARK	MEMBER
1	TS1	2 ISMC 150
2	TS2	ISMG 75
3	TS3	ISLC 100



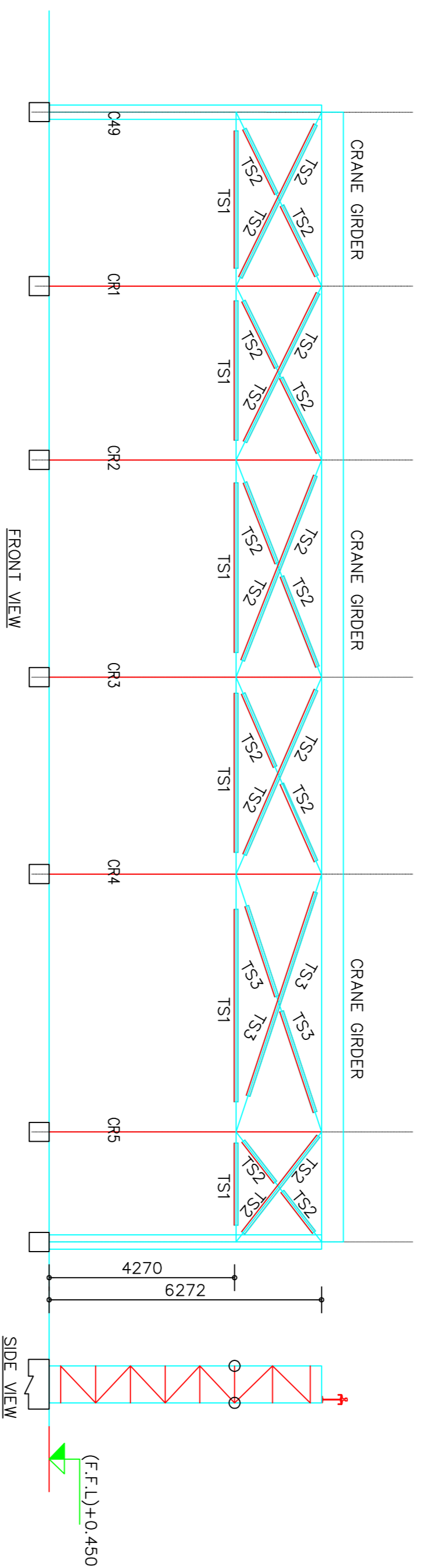
GENERAL SECTIONAL VIEW OF CORBEL  
1:25



1:25



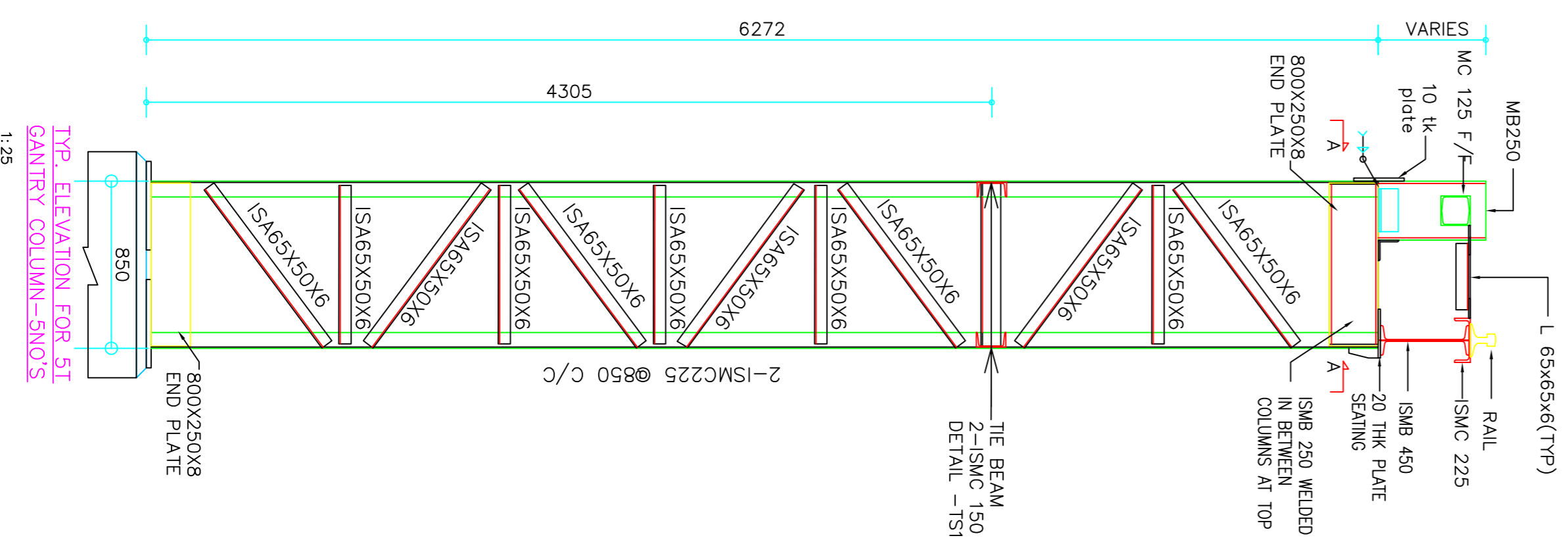
TYP. VIEW B-B



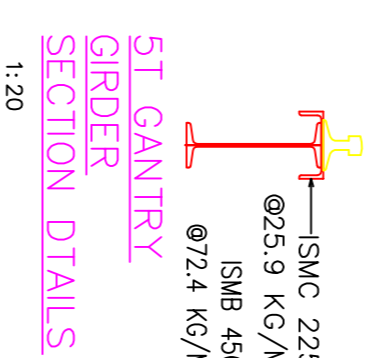
TYP. CROSS BRACING DETAILS IN LONGITUDINAL DIRECTION FOR CRANE COLUMNS - 5T CAPACITY  
1:100

MEMBER DETAILS OF CRANE COLUMNS 5T-CAPACITY (5 NOS)

MEMBER DETAILS	NO'S	PIECE LENGTH (m)	TOTAL LENGTH (m)	UNIT WEIGHT (KG/M)	TOTAL WEIGHT (KG/M)	REMARKS
ISMG 225	10	6.27	62.70	25.90	1624.45	COLUMNS
ISA 65x65x6	60	0.81	48.60	4.90	244.02	HORIZONTAL LACES
	70	1.00	70.00		343.00	DIAGONAL LACINGS
800x250x8 THK PLATES	20	---	---	---	251.20	END TE PLATES
400x250x20 THK PLATES	5	---	---	---	78.50	BASEPLATE UNDER CRANE GIRDER
450x350x25 THK PLATES	10	---	---	---	309.09	COLUMN BASE PLATES
ISMB 250	5	0.85	4.25	37.3	158.53	TOP CROSS GIRDER
DETAILS OF CROSS BRACINGS AND TIES IN LONGITUDINAL DIRECTION.						
ISMB150 (TS1)	2	25.671	51.342	14.9	765.00	
ISMG75 (TS2)	10	---	43.7	6.80	297.16	
ISLC100 (TS3)	2	6.252	12.50	7.90	98.75	
20# PLAIN BARS	25	0.851	21.275	2.46	52.34	
TOTAL					3280.92	



TYP. ELEVATION FOR 5T GANTRY COLUMN-SNOS  
1:25



5T GANTRY GIRDER SECTION DETAILS  
1:20



GANTRY RAIL END STOPPER DETAILS  
1:20



SECTIONAL DETAIL OF TIE BEAM



PLAN OF TIE BEAM - IS1 (5 T GANTRY)  
(at 3366 L.V.L)

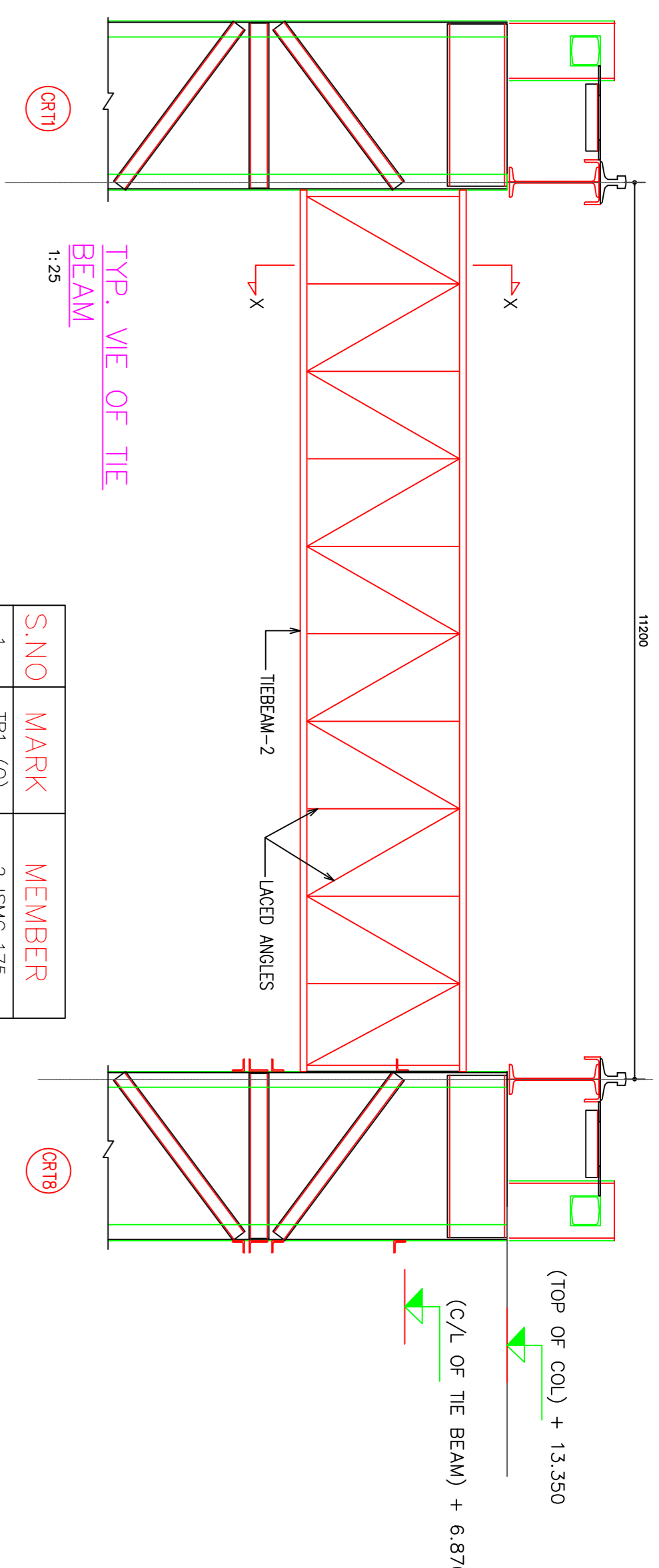
- NOTES
1. DIMENSION IN MILLIMETRES. LEVELS IN METRES.
  2. DON'T SCALE THE DIAGRAMS FROM DRAWING FOLLOW WRITTEN DIMENSIONS ONLY.
  3. LEVELS INDICATED REFER TO UPPER SIDE STEEL PROFILES.
  4. REFER GENERAL SPECIFICATION DRAWINGS FOR DETAILS.

# TDR DRG No. 09

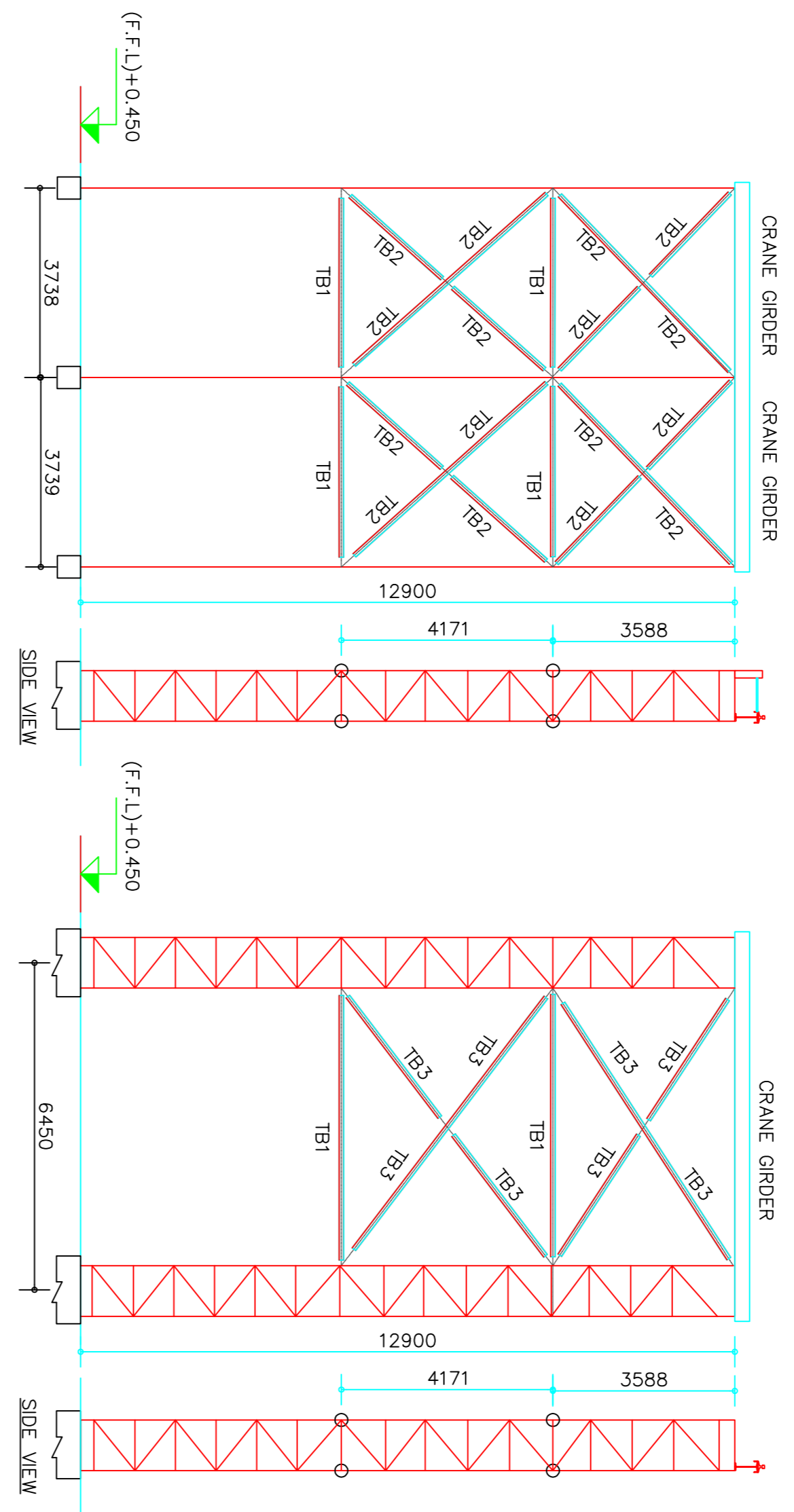
PROJECT:	PROPOSED HV LAB AT BHEL R&D, BALANAGAR, HYDRABAD.
CLIENT:	BHEL R&D

REV. NO.	DATE	SCALE
0	22-04-2010	1:100

ARCHITECT:	SATYA	CONSULTANTS
DESIGNED BY:	J.V.S	DESIGNER'S GUILD
DRAWN BY:	K.AREDOY	A 105, NEAR BANAJA, ROAD NO.12, BANAJA HILLS, HYDRABAD 500 034, ANDHRA PRADESH, INDIA. P: 080-26000000, D: 080-26000001
APPROVED BY:		
CHK. NO:	00315	TITLE
BHEL 00315		GANTRY GANES AND COLUMN DETAILS

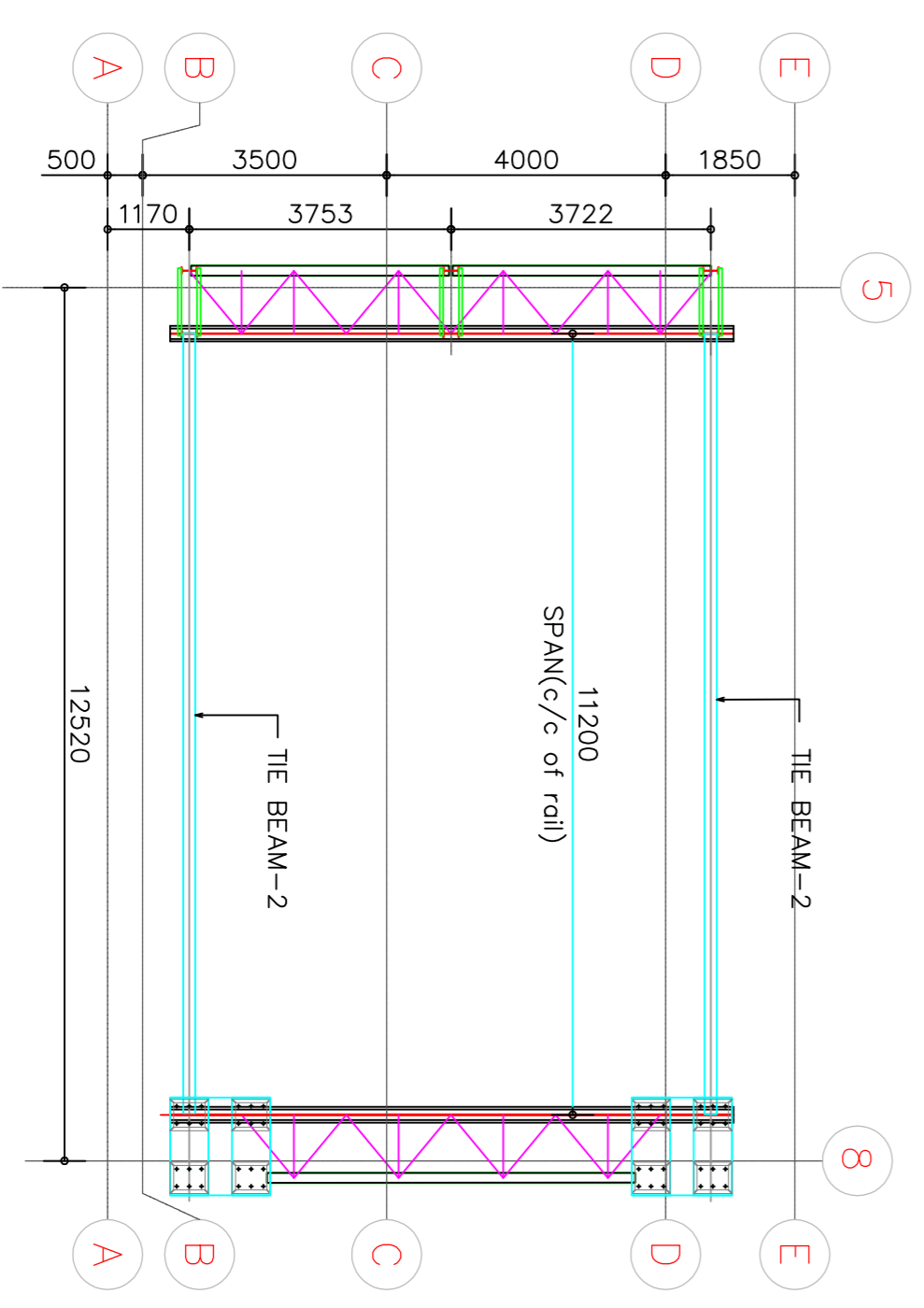


S.NO	MARK	MEMBER
1	TB1-(Q)	2 ISMC 175
2	TB2	2-ISLC 100
3	TB3	2-ISMC 100

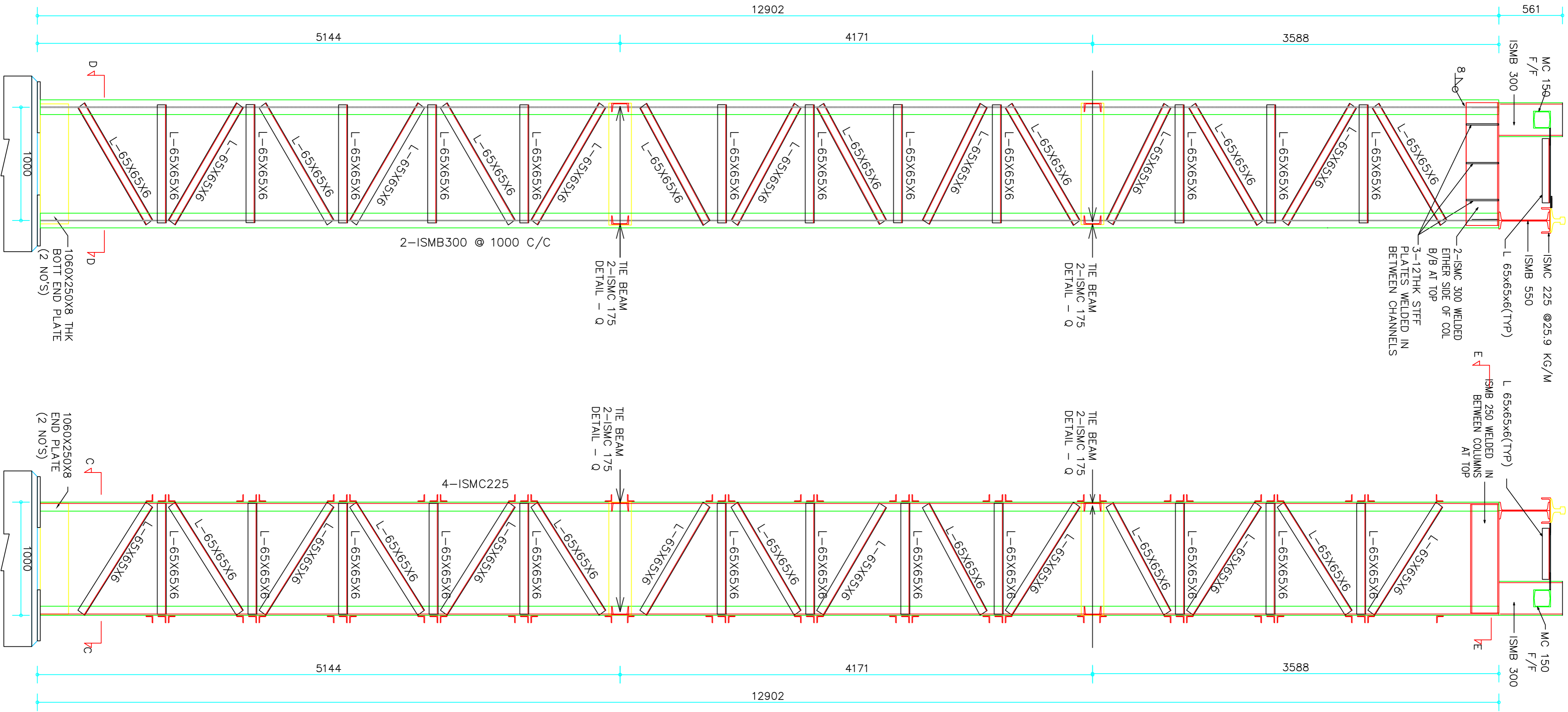


TYP. CROSS BRACING DETAILS IN LONGITUDINAL DIRECTION FOR CRANE COLUMN TYPE -1  
1:100

TYP. CROSS BRACING DETAILS IN LONGITUDINAL DIRECTION FOR CRANE COLUMN TYPE -2  
1:100

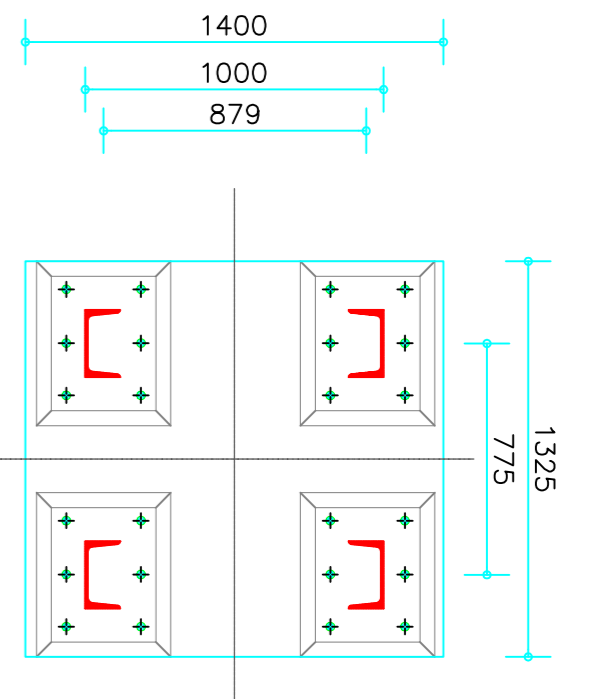


PLAN FOR 1ST GANTRY  
1:100

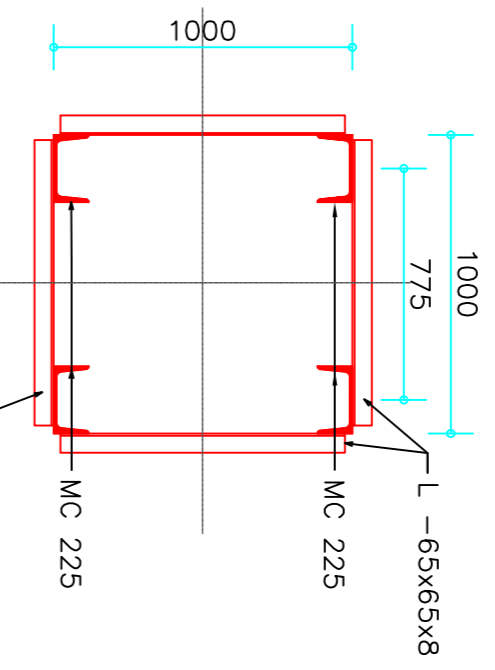


TYP. ELEVATION FOR 1ST GANTRY COLUMN-1 (3 NOS)  
1:25

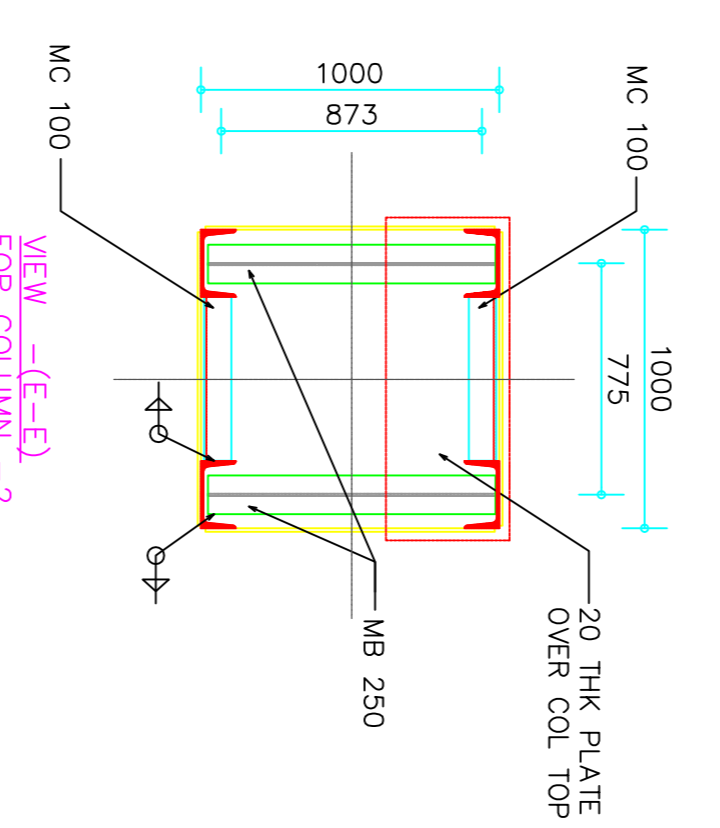
TYP. ELEVATION FOR 1ST GANTRY COLUMN-2 (2 NOS)  
1:25



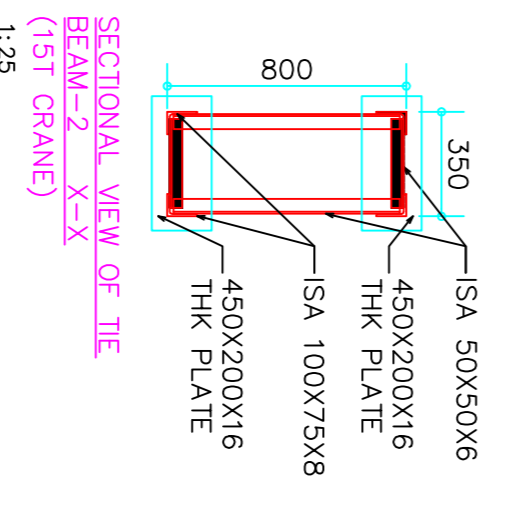
VIEW -(C-C) FOR COLUMN -2  
1:25



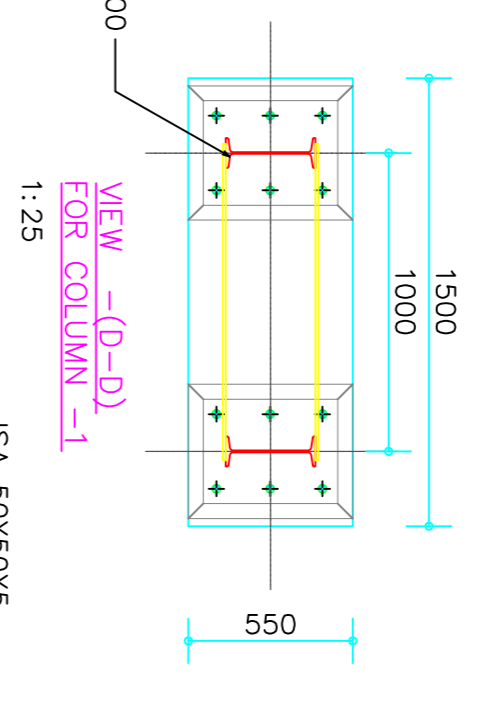
SECTIONAL VIEW -(X-X) FOR COLUMN -2  
1:25



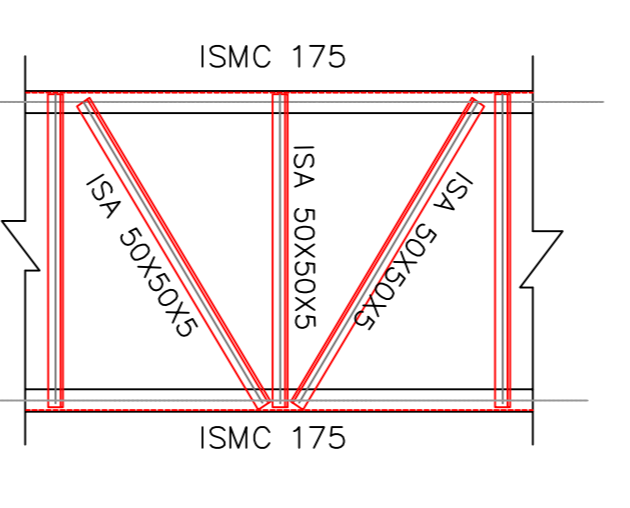
VIEW -(E-E) FOR COLUMN -2  
1:25



SECTIONAL VIEW OF TIE BEAM -2 (X-X) (1ST CRANE)  
1:25

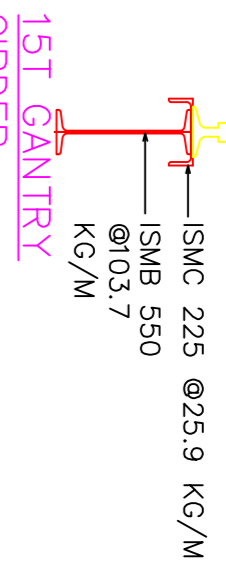


VIEW -(D-D) FOR COLUMN -1  
1:25



PLAN OF TIE BEAM-TB1 (1ST GANTRY)  
1:25

- NOTES**
1. DIMENSION IN MILLIMETRES. LEVELS IN METRES.
  2. DON'T SCALE THE DIAGRAMS FROM DRAWING FOLLOW WRITTEN DIMENSIONS ONLY.
  3. LEVELS INDICATED REFER TO UPPER SIDE STEEL PROFILES.
  4. REFER GENERAL SPECIFICATION DRAWINGS FOR DETAILS.



1ST GANTRY GIRDER SECTION DETAILS  
1:20

# TDR DRG No. 10

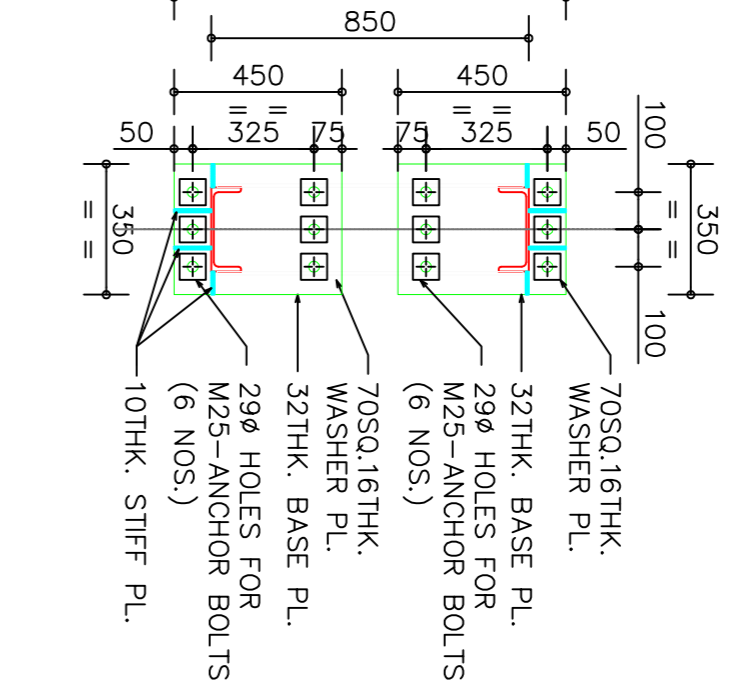
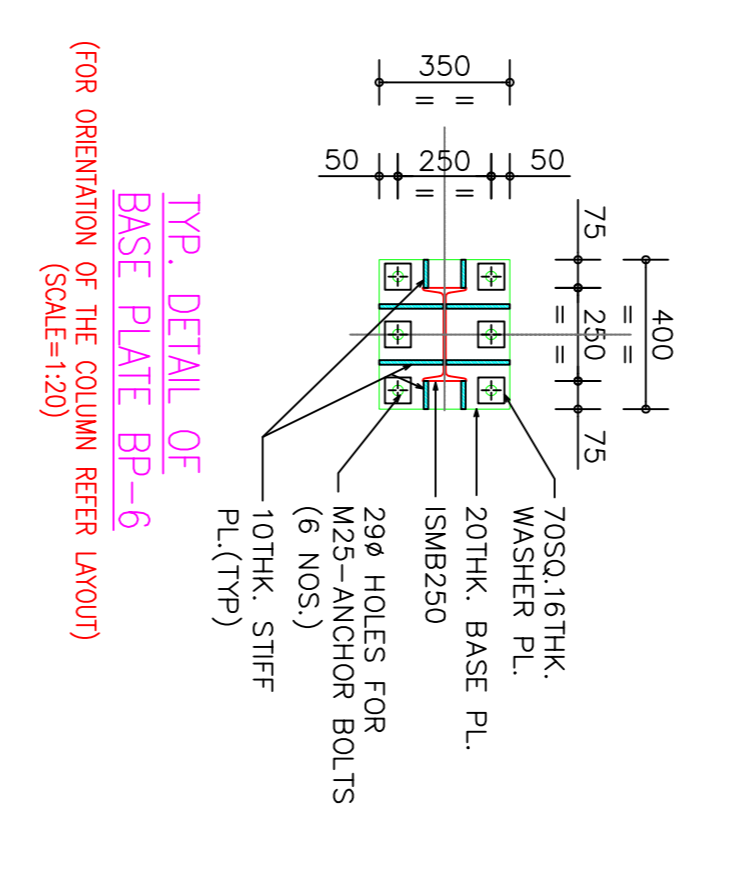
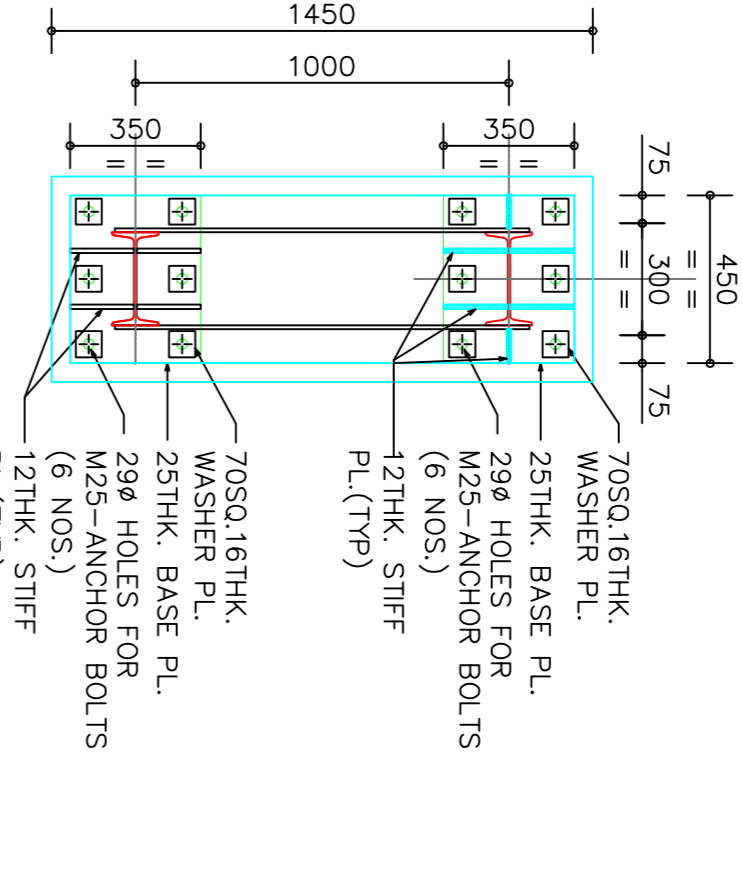
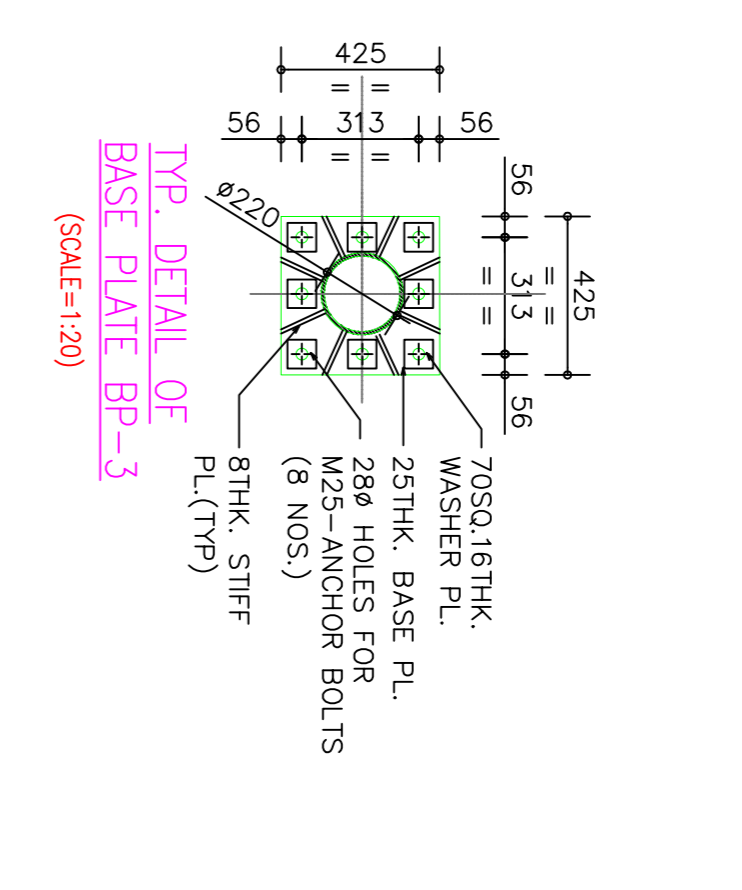
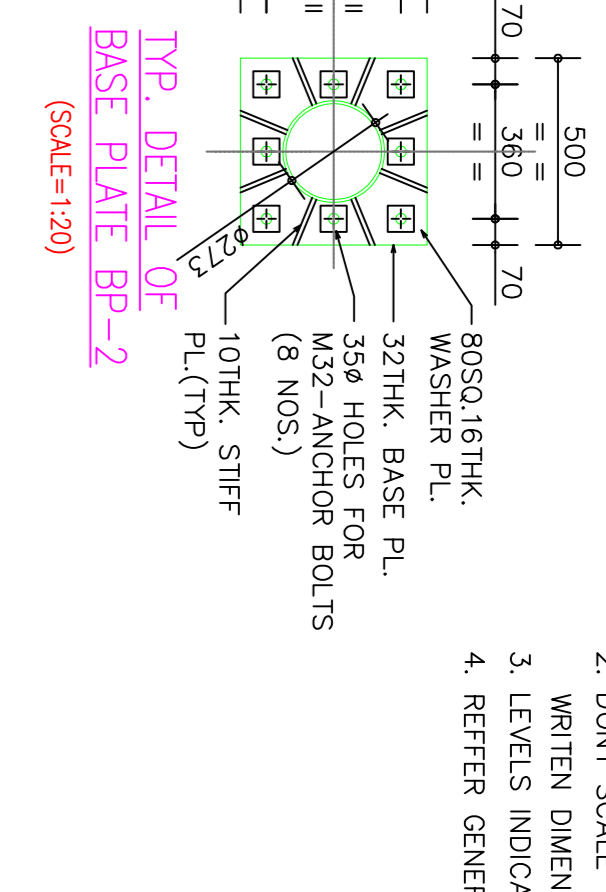
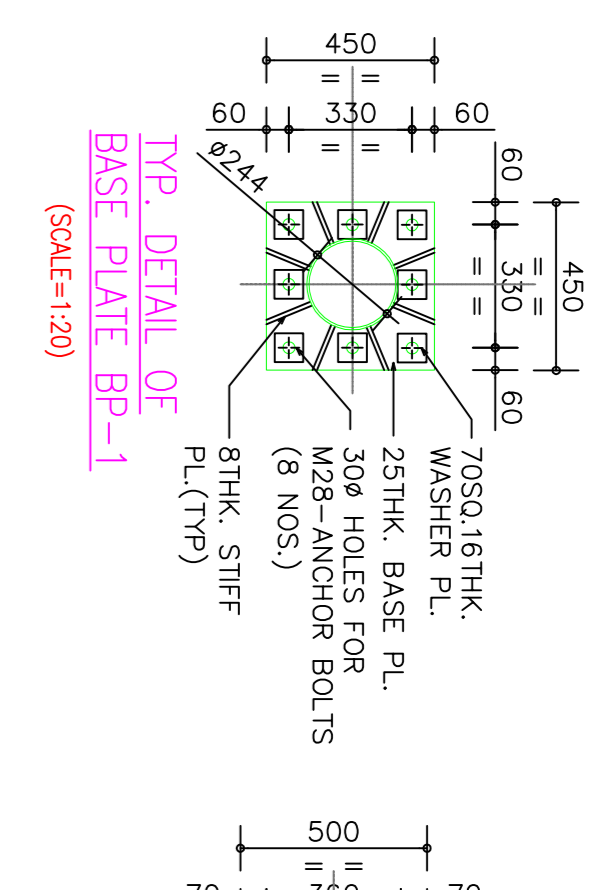
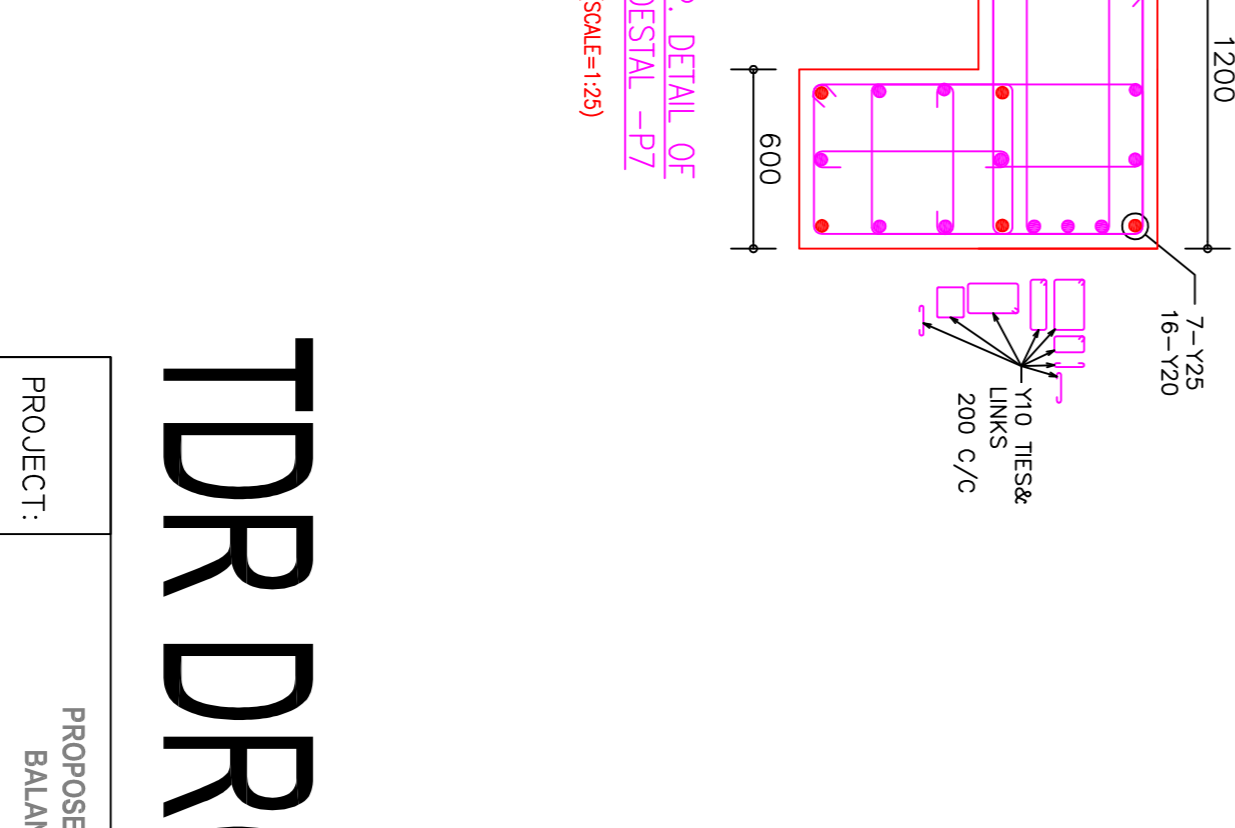
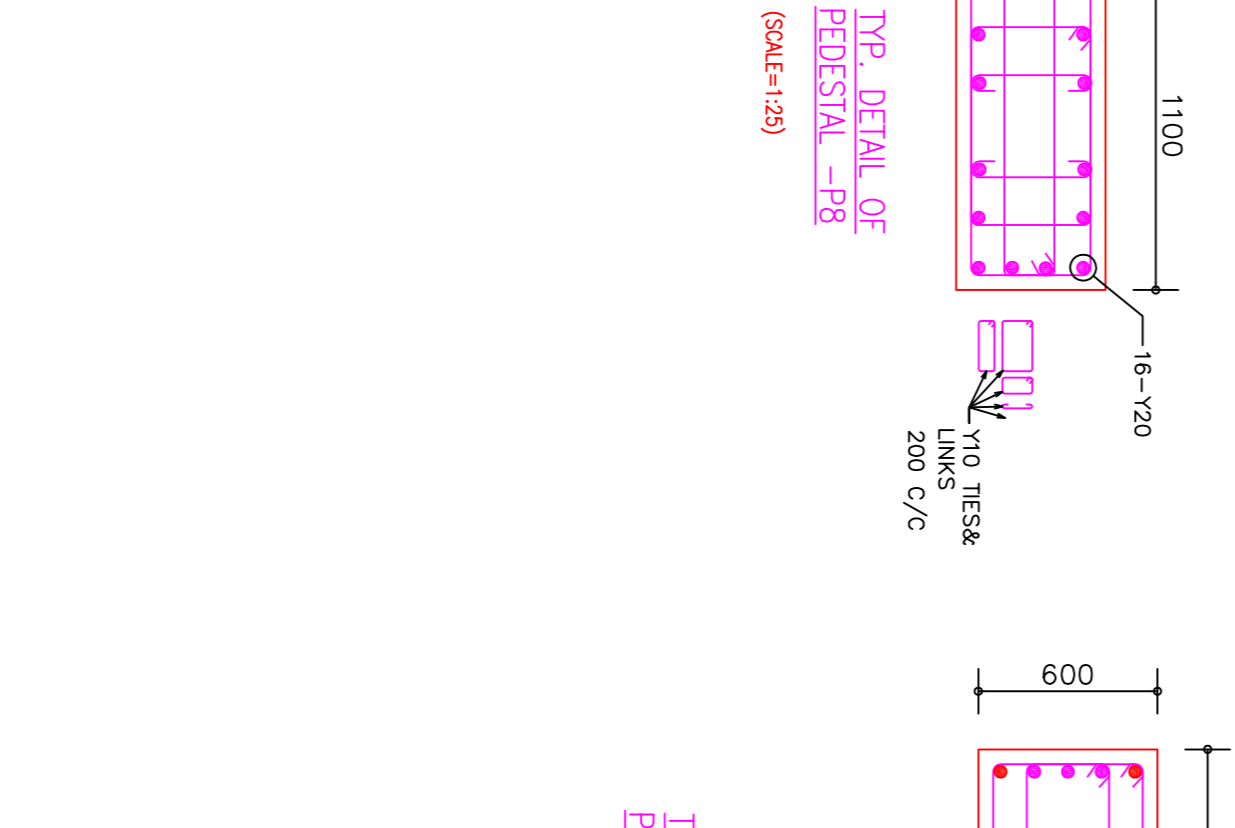
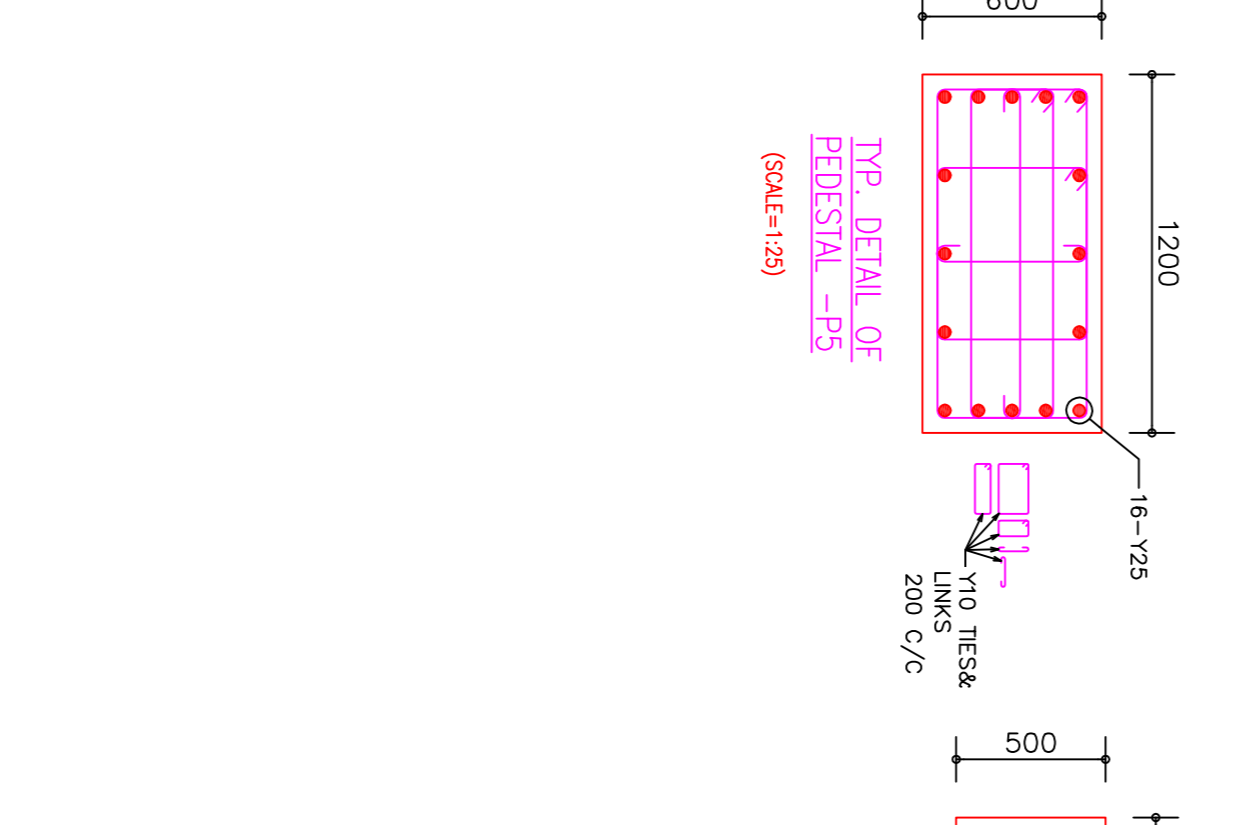
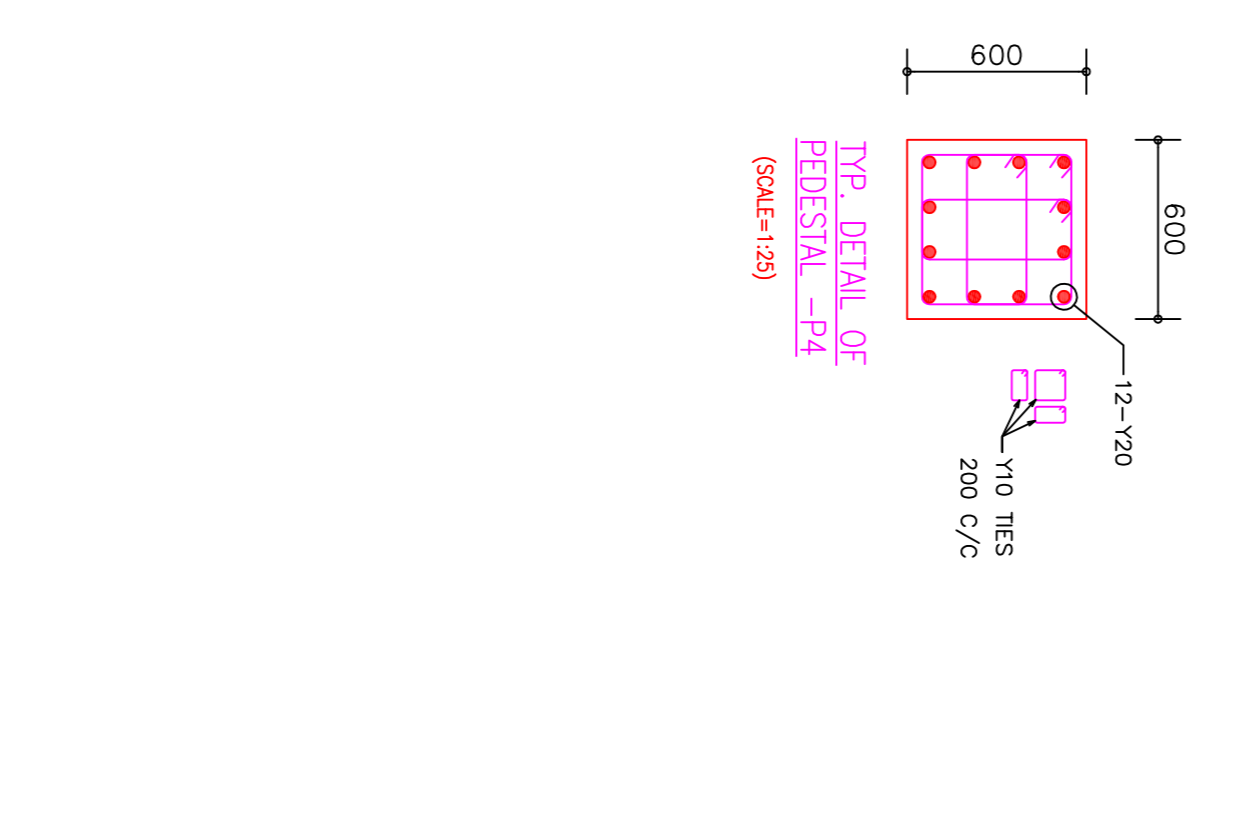
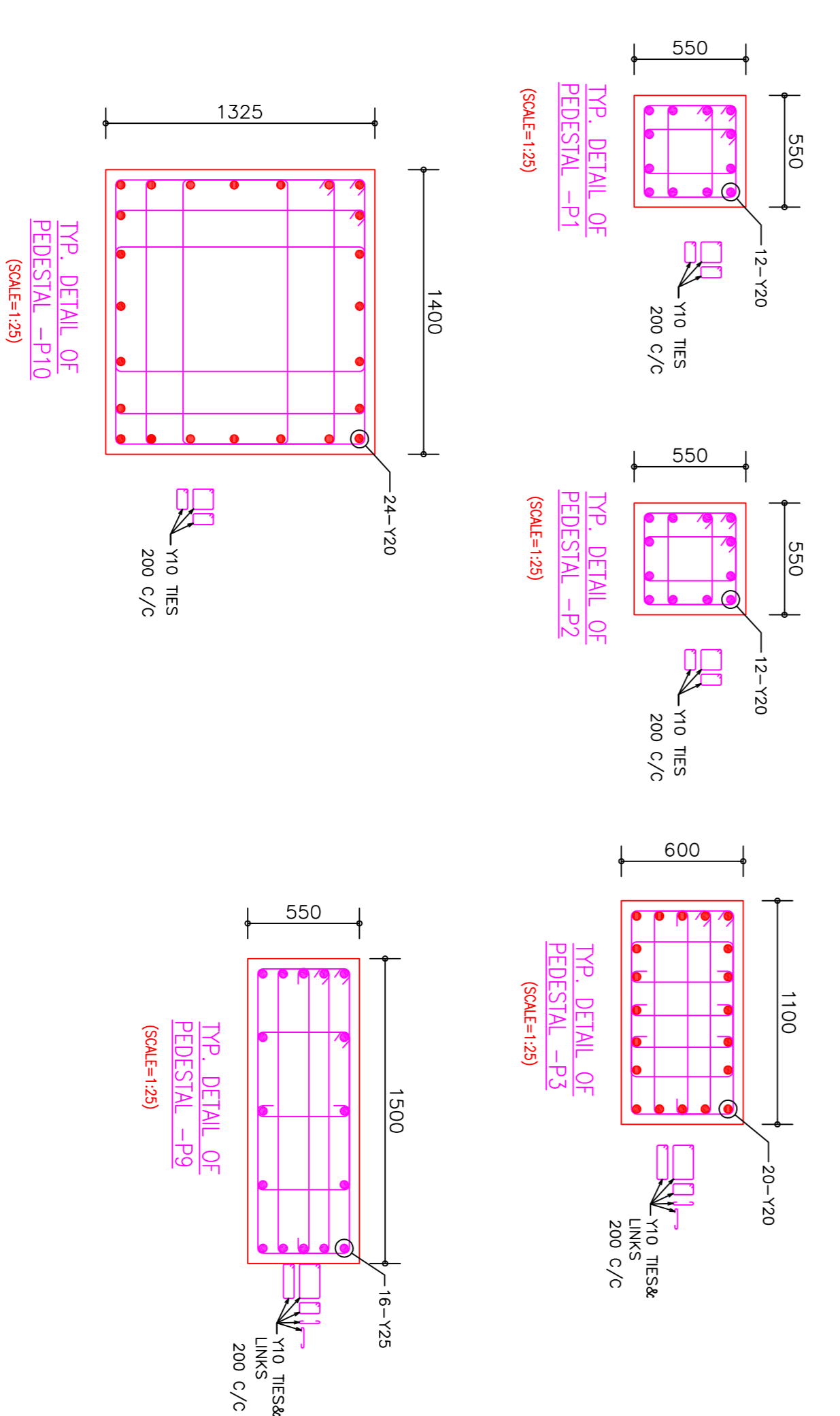
PROJECT:	PROPOSED HV LAB AT BHEL R&D, BALANGAR, HYDERABAD.
CLIENT :	BHEL R&D

CONSULTANTS	
ARCHITECT	SATVA
DESIGNER	S.V.S
CHECKED BY	K.VENKAT
APPROVED BY	
DWG. NO.	BHEL/00135
TITLE	GANTRY GIRDERS AND COLUMN DETAILS
REV. NO.	0
DATE	05-05-2010
SCALE	1:100

DESIGNER'S GUILD	
A 105, HIGHT BANGARA, ROAD NO.12, BANARA HILLS, HYDERABAD 500 034, RESERVE@SUDHARUDRANAL.COM	

# DETAILS OF STEEL COLUMNS

SNO	COLUMN NO	NO OF COLUMNS	GRID INTERSECTION	SECTION DESIGNATION	HEIGHT UP TO LEVEL mm	BASE PLATE SIZE mm	ANCHOR BOLTS	SIZE & REINFORCEMENT ABOVE PLINTH BEAM	MARK	SIZE & REINFORCEMENT BELOW PLINTH BEAM	MARK	REMARKS
1	C1,C2,C3,C14,C15,C16	6 No's	B-2-C-20-2 M-2-N-20-2	NB 25H (00 244.5) 5.9 mm thk	20500	450 X 450 X25 (BP1)	8N0's 25#-750 lg	550 X 550 12N0'S- Y20	P1	550 X 550 12N0'S- Y20	(TC1)	PARABOLIC DOME COLUMNS
2	C26,C27,C37,C38	4 No's	C-12-D-12 M-12-N-12	NB 25H (00 244.5) 5.9 mm thk	20500	450 X 450 X25 (BP1)	8N0's 25#-750 lg	600 X 1200 16N0'S- Y25	P5	600 X 1200 16N0'S- Y25 (COMBINED PEDISTAL)	(TC3)	PARABOLIC DOME COLUMNS
3	C25,C39	2 No's	B-12-0-12	NB 225H (00 244.5) 5.9 mm thk	20500	450 X 450 X25 (BP1)	8N0's 25#-750 lg	550 X 550 12N0'S- Y20	P1	550 X 550 12N0'S- Y20	(TC1)	PARABOLIC DOME COLUMNS
4	C4,C13,C28,C36	4 No's	E-2E-12 L-2L-12	NB 200H (00 219.1) 5.9 mm thk	20500	425 X 425 X25 (BP1)	8N0's 25#-750 lg	550 X 550 12N0'S- Y20	P2	550 X 550 12N0'S- Y25	(TC2)	CYLINDRICAL DOME COLUMNS
5	(C3,C6) (C10,C11)	4 No's 1+1 No's 1+1 No's	F-2-G-2 K-2-J-2	NB 200H (00 219.1) 5.9 mm thk NB 250H (00 273.0) 5.9 mm thk	20500	425 X 425 X25 (BP1) 500 X 500 X 32 (BP2)	8N0's 25#-750 lg 8N0's 25#-800 lg	1100 X 600 20N0'S- Y20	P3	1100 X 600 10N0'S- Y25+ 10N0'S- Y20	(TC3)	PARABOLIC & CYLINDRICAL DOME COLUMNS
6	C7,C8,C9,C12	4 No's	E-4-H-1 I-1-L-4	NB 250H (00 273.0) 5.9 mm thk	20500	500 X 500 X 32 (BP2)	8N0's 25#-800 lg	600 X 600 16N0'S- Y20	P4	600 X 600 16N0'S- Y20	(TC4)	CYLINDRICAL DOME COLUMNS
7	C29,C32,C33,C35	4 No's	F-10-H-14 I-10-L-14	NB 250H (00 273.0) 5.9 mm thk	20500	500 X 500 X 32 (BP2)	8N0's 25#-800 lg	600 X 600 16N0'S- Y20	P4	600 X 600 16N0'S- Y20	(TC4)	CYLINDRICAL DOME COLUMNS
8	CRT1,CRT2,CRT3,CRT4,CRT5 CRT7,CRT8 CRT9,CRT10,CRT11 CRT7,CRT8	5 No's 9 No's 2 No's	2-SMC225 @850 C/C 2-SMB300 @1000 C/C 2-SMB300 @1000 C/C	6272 12900 12900	2N0-450 X 350 X25 (BP5) 2N0-450 X 350 X25 (BP4) 2N0-450 X 350 X25 (BP4)	12N0's 25#-700 lg 12N0's 25#-700 lg 12N0's 25#-700 lg	500X 1100 16N0'S- Y20 550X 1500 16N0'S- Y25 1400X 1325 24N0'S- Y20	500X 1100 16N0'S- Y20 550X 1500 16N0'S- Y25 1400X 1325 24N0'S- Y20	P8 P9 P10	500X 1100 16N0'S- Y20 550X 1500 16N0'S- Y25 1400X 1325 24N0'S- Y20	(TC8) (TC9) (TC10)	GANTRY CRANE COL 5 T GANTRY CRANE 15 T GANTRY CRANE 15 T



- NOTES**
1. DIMENSION IN MILLIMETRES. LEVELS IN METRES.
  2. DON'T SCALE THE DIAGRAMS FROM DRAWING FOLLOW WRITTEN
  3. LEVELS INDICATED REFER TO UPPER SIDE STEEL PROFILES.
  4. REFER GENERAL SPECIFICATION DRAWINGS FOR DETAILS.

# TDR DRG No. 11

PROJECT: PROPOSED HV LAB AT BHEL R&D, BALANAGAR, HYDRABAD.

CLIENT: BHEL R&D

REFERENCE DRAWINGS

DESIGNER'S GUILD

A 105, NOKAT BANAJARA, ROAD NO.12, BANAJARA HILLS, HYDRABAD 500 024, ANDHRA PRADESH, INDIA.

DESIGNER'S GUILD

ARCHITECT: SATIYA

DESIGNER: ELIAS

CHECKED BY: ANANDY

APPROVED BY: ANANDY

DWG. NO: BHEL/00155

TITLE: TYPICAL COL. REINFORCING AND COMPONENT DETAILS OF HV LAB

REV. NO: 0

DATE: 05-02-2010

SCALE: 1:100