

	PROJECT		Standby SRU & Additional Tanks IOCL Paradip Refinery		
	CLIENT		INDIAN OIL CORPORATION LIMITED		
CONSTRUCTION STANDARD FOR CONCRETE WORKS	Project No. 080557C001	Document No. 080557C-000-LD-1790-001		Rev. No. A	Page 1 of 2

CONSTRUCTION STANDARD FOR CONCRETE WORKS

A	16.10.2019	ISSUED FOR DESIGN	TUN	KRK	JP / KC	JMC
REV.	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED	AUTHORIZED







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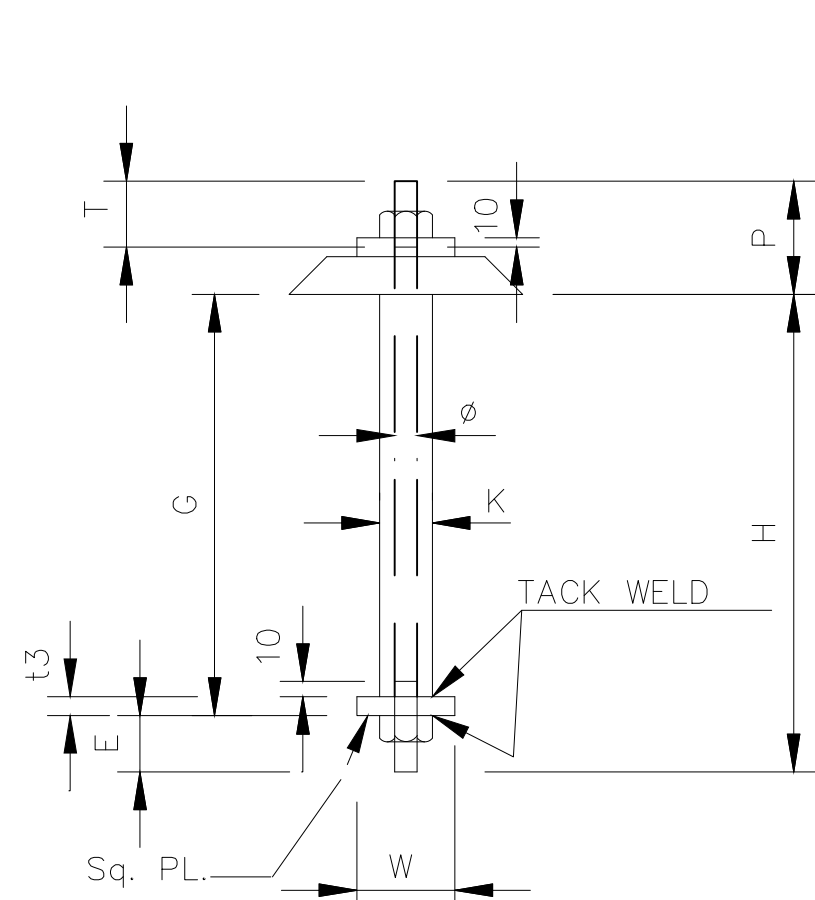
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				Page 2 of 2

SL. NO.	DRAWING NO.	DESCRIPTION	REV.	DATE	REMARKS
01	080557C-000-STC-1790-001 SHT. 1/2 TO 2/2	STANDARD M.S ANCHOR BOLT	A	16.10.2019	2 SHEETS
02	080557C-000-STC-1790-002	STANDARD INSERT PLATE	A	16.10.2019	1 SHEET
03	080557C-000-STC-1790-003 SHT. 1/5 TO 5/5	FIRE PROOFING OF STEEL STRUCTURES	A	16.10.2019	5 SHEETS
04	080557C-000-STC-1790-004	STANDARD EDGE PROTECTION	A	16.10.2019	1 SHEET
05	080557C-000-STC-1790-005 SHT. 1/2 TO 2/2	STANDARD DETAIL OF PEDESTAL FOR STAIR & LADDER	A	16.10.2019	2 SHEETS
06	080557C-000-STC-1790-006	STANDARD PRECAST SLEEPERS	A	16.10.2019	1 SHEET
07	080557C-000-STC-1790-007	STANDARD FOR LIGHTING POLE FOUNDATION	A	16.10.2019	1 SHEET

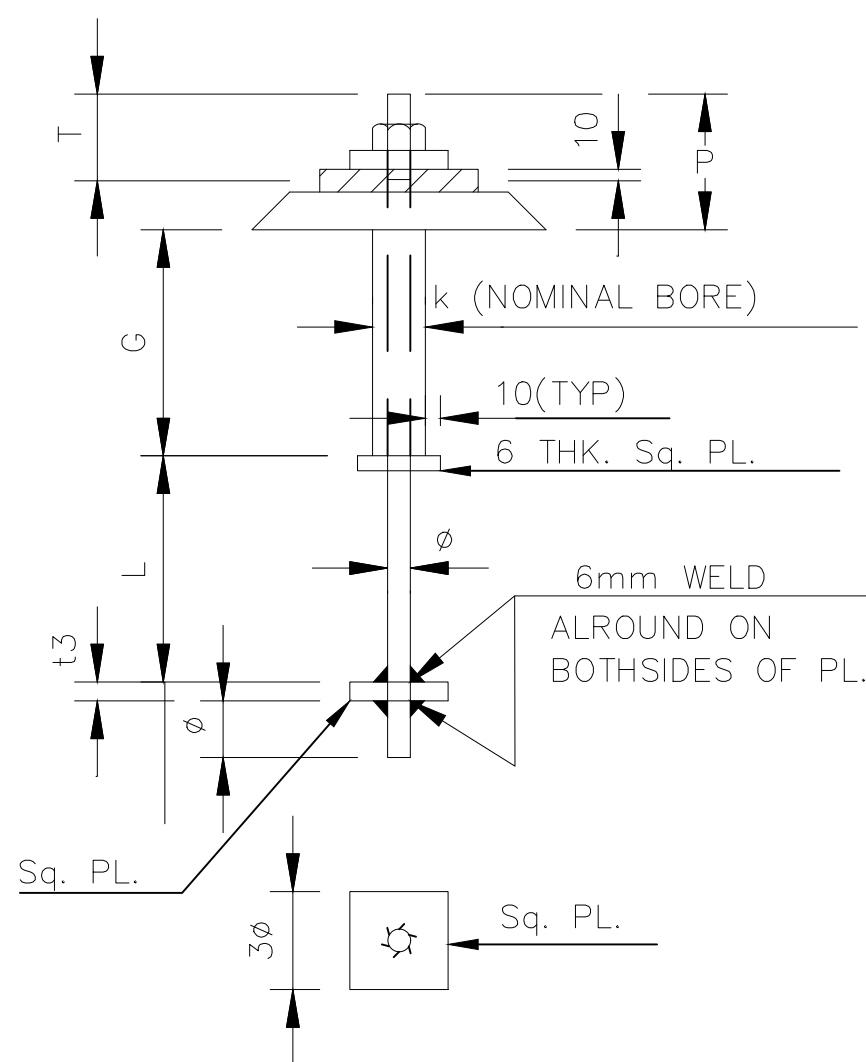
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A		B		C		D		E																																																																																																																
4	STANDARD MS ANCHOR BOLTS GENERAL NOTES				STANDARD MS ANCHOR BOLTS CORRESPONDING MS ROUNDS																																																																																																																			
	1. BOLTS SHALL BE MARKED ON DRAWING AS UNDER: <div><div><div>A</div><div>B</div><div>C</div><div>D</div><div>P</div></div><div><div>PROJECTION ABOVE ROUGH CONCRETE.</div><div>SINGLE NUT (N1) OR DOUBLE NUT (N2).</div><div>DIAMETER OF BOLTS.</div><div>TYPE OF BOLT.</div><div>NUMBER OF BOLTS.</div></div></div> <div>e.g. 7–B–M27–N1–200</div>				BOLTS SHALL BE TURNED FROM THE CORRESPONDING MS ROUNDS BARS CONFORMING TO IS:2062 GRADE–A																																																																																																																			
3	2. BOLTS SHALL BE TURNED FROM MILD STEEL BARS CONFORMING TO IS:2062 GRADE–A.				<table><tr><th>S.NO.</th><th>BOLT DIA (ϕ) IN mm</th><th>CORRESPONDING MS ROUND DIA</th></tr><tr><td>1.</td><td>10</td><td>10</td></tr><tr><td>2.</td><td>12</td><td>12</td></tr><tr><td>3.</td><td>16</td><td>16</td></tr><tr><td>4.</td><td>(18)</td><td>18</td></tr><tr><td>5.</td><td>20</td><td>20</td></tr><tr><td>6.</td><td>(22)</td><td>22</td></tr><tr><td>7.</td><td>24</td><td>25</td></tr><tr><td>8.</td><td>(27)</td><td>28</td></tr><tr><td>9.</td><td>30</td><td>32</td></tr><tr><td>10.</td><td>(33)</td><td>36</td></tr><tr><td>11.</td><td>36</td><td>36</td></tr><tr><td>12.</td><td>(39)</td><td>40</td></tr><tr><td>13.</td><td>42</td><td>45</td></tr><tr><td>14.</td><td>(45)</td><td>47</td></tr><tr><td>15.</td><td>48</td><td>50</td></tr><tr><td>16.</td><td>(52)</td><td>56</td></tr><tr><td>17.</td><td>56</td><td>63</td></tr><tr><td>18.</td><td>(60)</td><td>63</td></tr><tr><td>19.</td><td>64</td><td>71</td></tr><tr><td>20.</td><td>(68)</td><td>71</td></tr><tr><td>21.</td><td>72</td><td>80</td></tr></table>				S.NO.	BOLT DIA (ϕ) IN mm	CORRESPONDING MS ROUND DIA	1.	10	10	2.	12	12	3.	16	16	4.	(18)	18	5.	20	20	6.	(22)	22	7.	24	25	8.	(27)	28	9.	30	32	10.	(33)	36	11.	36	36	12.	(39)	40	13.	42	45	14.	(45)	47	15.	48	50	16.	(52)	56	17.	56	63	18.	(60)	63	19.	64	71	20.	(68)	71	21.	72	80																																														
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2	3. HEXAGONAL NUTS AND WASHERS SHALL CONFORM TO IS:1363 AND 3138.				NOTES: 1. BOLTS ϕ SHOWN IN BRACKETS SHALL HAVE SECOND PREFERENCE AS PER IS:1363 & IS:3138																																																																																																																			
	4. THREADING SHALL BE COARSE AND CONFORM TO IS:1367 AND IS:4218.																																																																																																																							
1	5. PIPE SLEEVES USED SHALL BE MEDIUM TUBES CONFORMING TO IS:1239.				<table><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>A</td><td>16-10-2019</td><td>IFD</td><td>TUN</td><td>KRK</td><td>JP / KC</td><td>JMC</td></tr><tr><td>Rev</td><td>Date DD-MM-YYYY</td><td>Description of Issue</td><td>Written by</td><td>Checked by</td><td>Approved by</td><td>Authorized by</td></tr><tr><td colspan="3">DOCUMENT CATEGORY (USE " X " MARK)</td><td colspan="4">DOCUMENT REVIEW STATUS (BY CLIENT)</td></tr><tr><td colspan="3"><div><input type="checkbox"/> APPROVAL</div><div><input type="checkbox"/> REVIEW</div><div><input checked="" type="checkbox"/> INFORMATION</div></td><td colspan="4" rowspan="5"></td></tr><tr><td colspan="7">PROJECT STANDBY SRU & ADDITIONAL TANKS IOCL PARADIP REFINERY, ODISHA, INDIA</td></tr><tr><td colspan="7">OWNER <div><div>INDIAN OIL CORPORATION LTD.</div></div></td></tr><tr><td colspan="7">PMC <div><div></div><div>CONFIDENTIAL, NOT TO DISCLOSE WITHOUT AUTHORISATION</div></div></td></tr><tr><td colspan="7">TITLE STANDARD M.S ANCHOR BOLT</td></tr><tr><td colspan="5">DRAWING NO.</td><td>PAGE</td><td>REV.</td></tr><tr><td>SCALE</td><td>080557C</td><td>000</td><td>STC</td><td>1790</td><td>001</td><td></td></tr><tr><td>NTS</td><td>PROJECT</td><td>UNIT</td><td>DOC. TYPE</td><td>MAT. CODE</td><td>SER. NO.</td><td></td></tr><tr><td colspan="5"></td><td>1 OF 2</td><td>A</td></tr></table>																																A	16-10-2019	IFD	TUN	KRK	JP / KC	JMC	Rev	Date DD-MM-YYYY	Description of Issue	Written by	Checked by	Approved by	Authorized by	DOCUMENT CATEGORY (USE " X " MARK)			DOCUMENT REVIEW STATUS (BY CLIENT)				<div><input type="checkbox"/> APPROVAL</div> <div><input type="checkbox"/> REVIEW</div> <div><input checked="" type="checkbox"/> INFORMATION</div>							PROJECT STANDBY SRU & ADDITIONAL TANKS IOCL PARADIP REFINERY, ODISHA, INDIA							OWNER <div><div>INDIAN OIL CORPORATION LTD.</div></div>							PMC <div><div></div><div>CONFIDENTIAL, NOT TO DISCLOSE WITHOUT AUTHORISATION</div></div>							TITLE STANDARD M.S ANCHOR BOLT							DRAWING NO.					PAGE	REV.	SCALE	080557C	000	STC	1790	001		NTS	PROJECT	UNIT	DOC. TYPE	MAT. CODE	SER. NO.							1 OF 2	A
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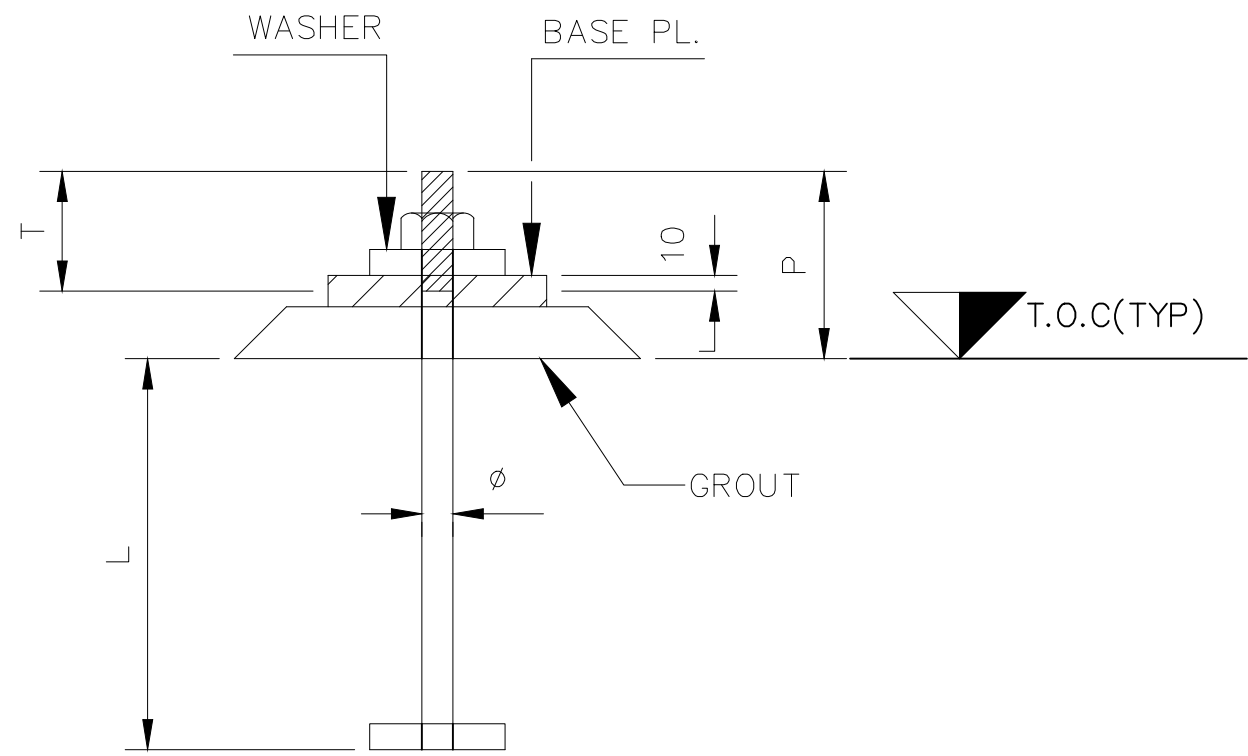
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TYPE-I



TYPE-II





TYPE-III

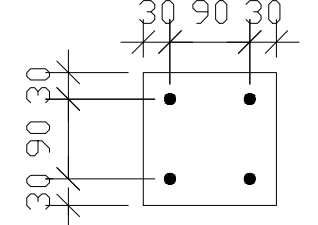
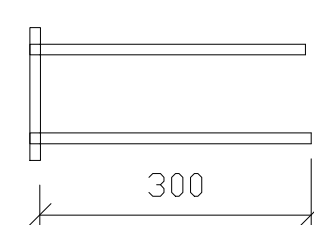
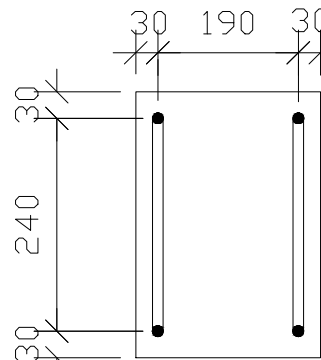
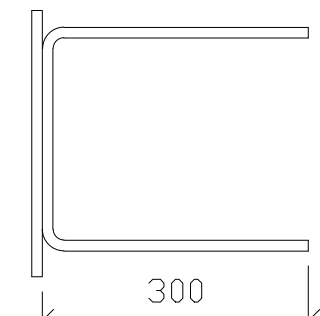
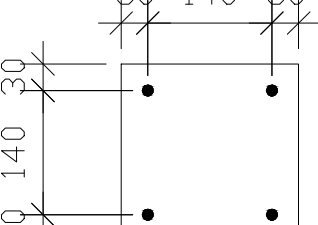
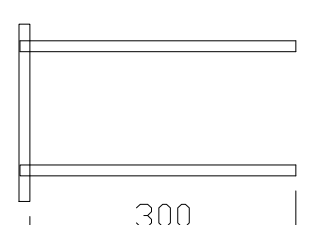
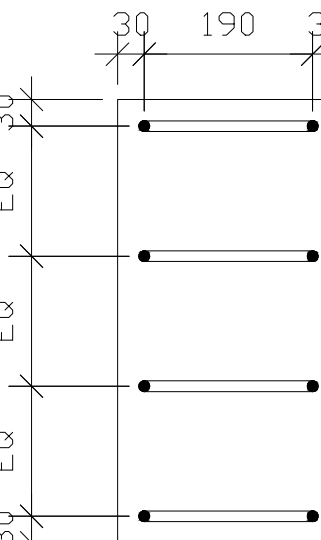
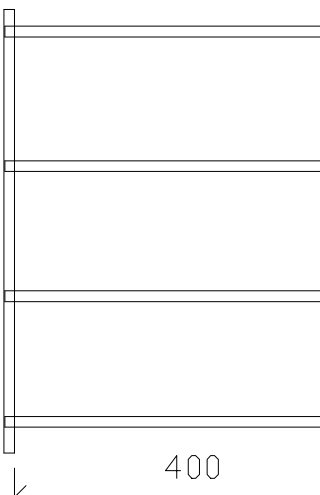
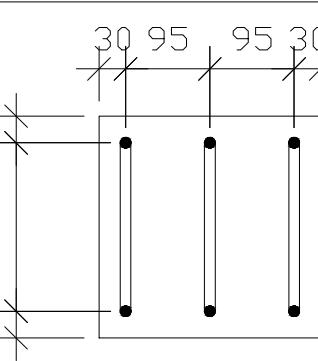
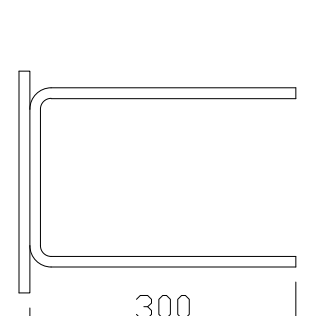
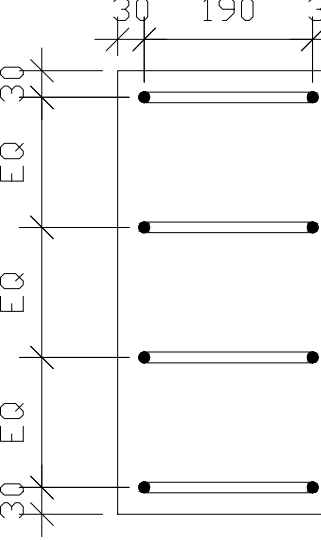

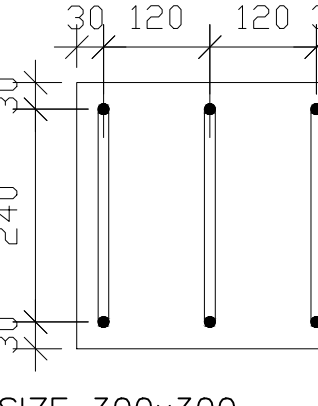
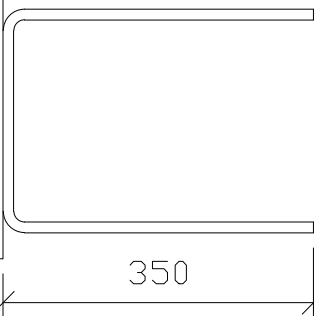
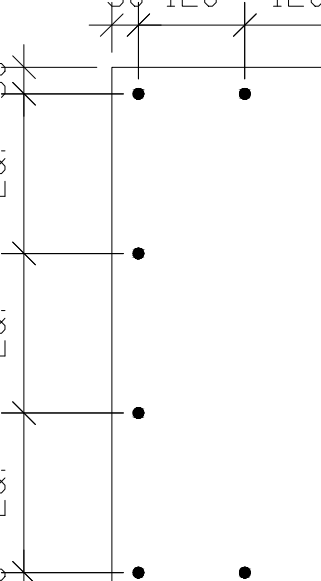
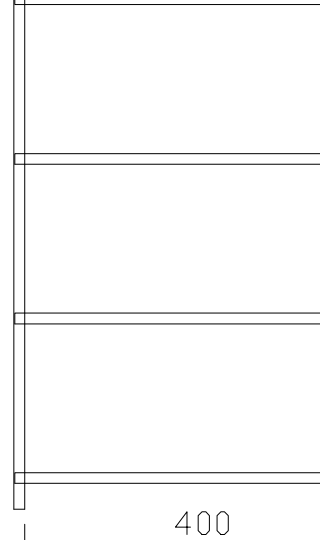
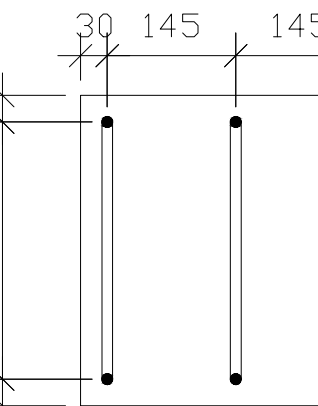
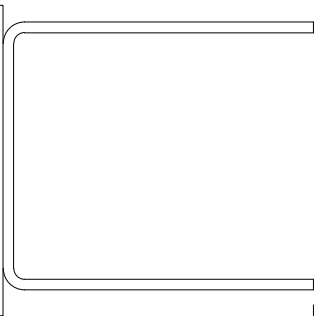
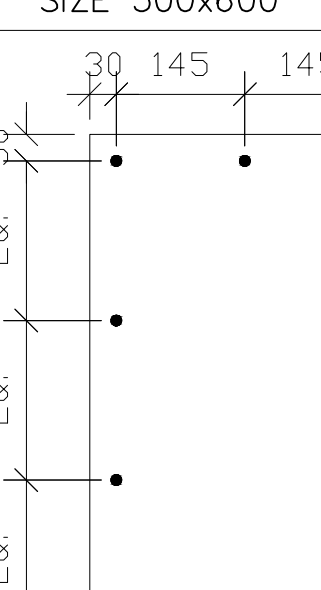
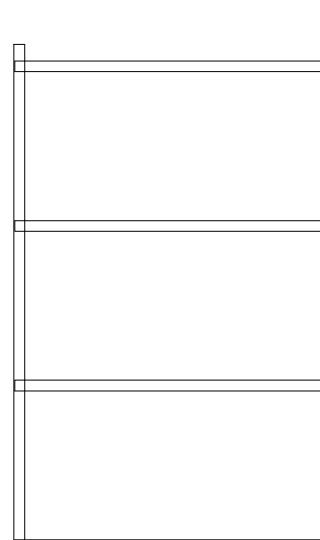
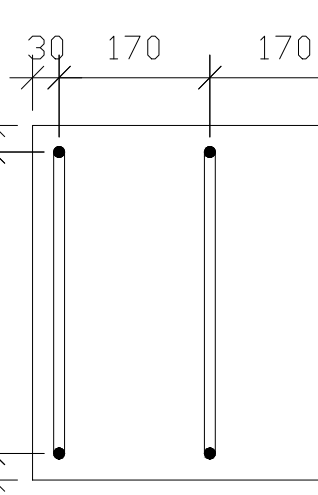
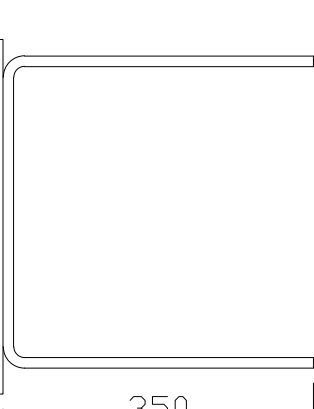
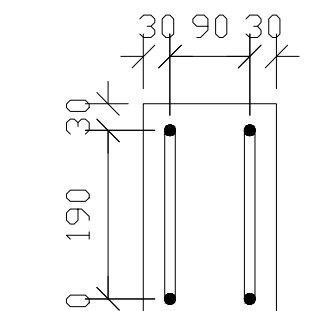
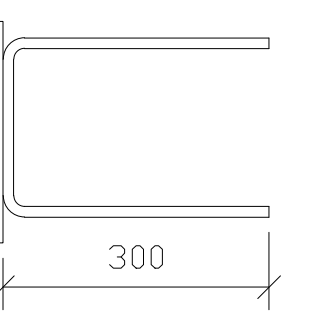
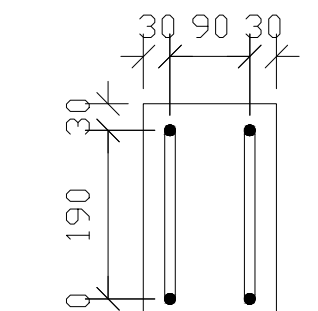
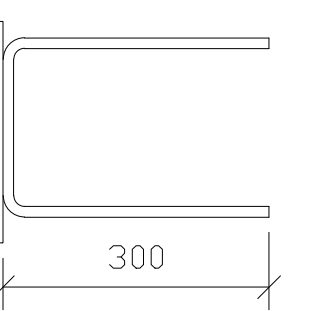
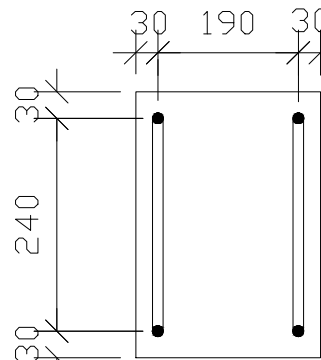
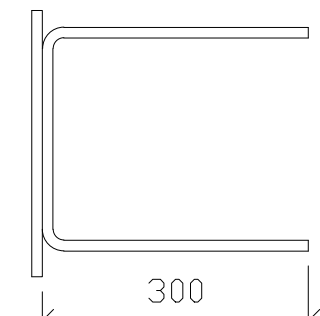
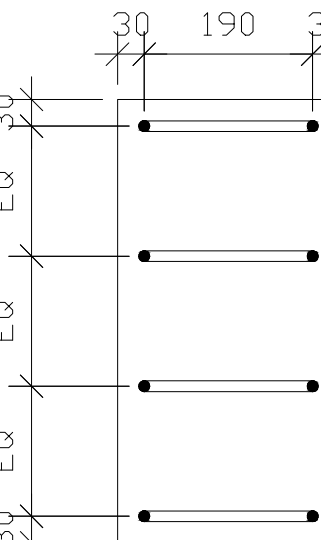
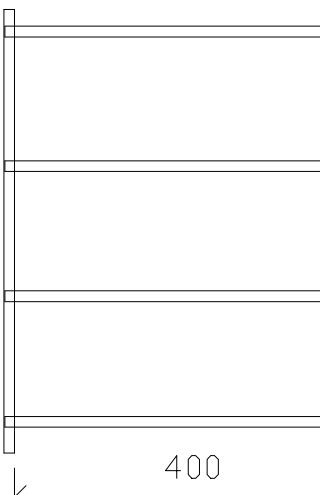
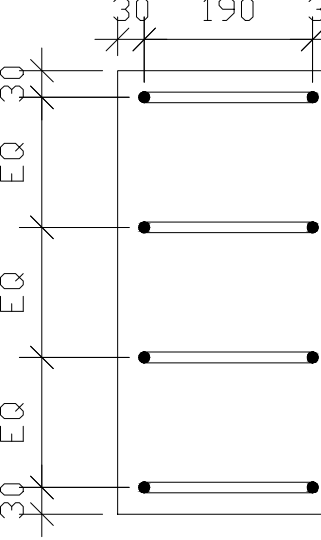

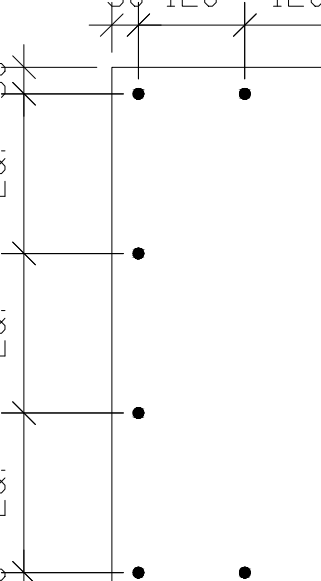
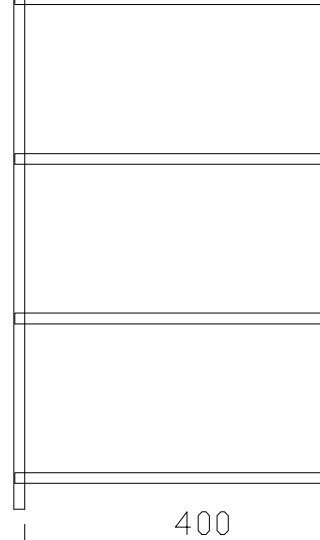
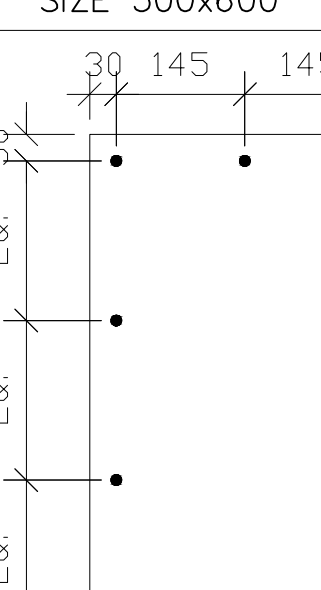
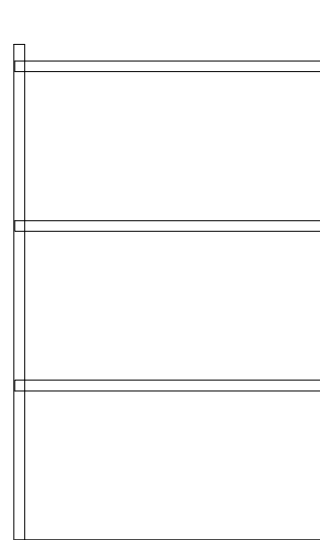
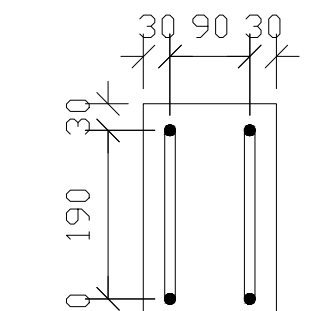
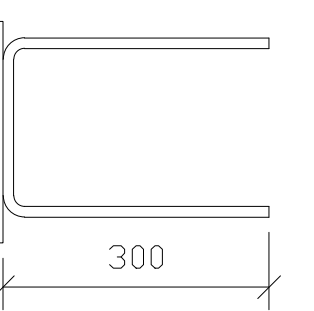
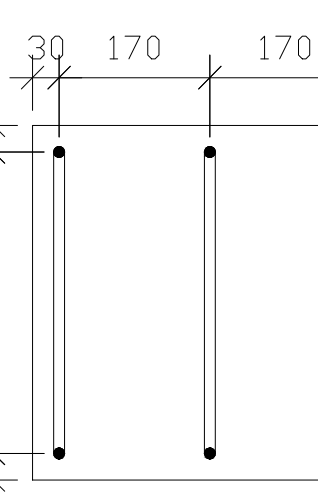
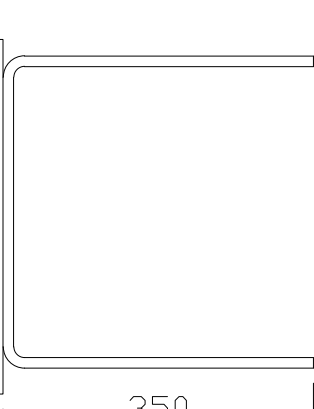
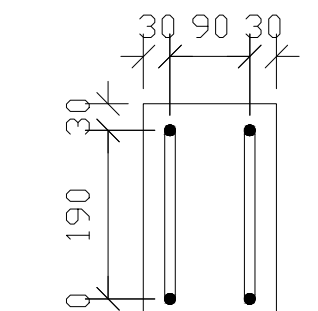
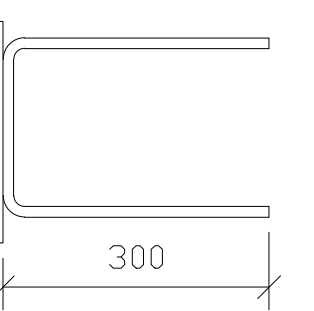
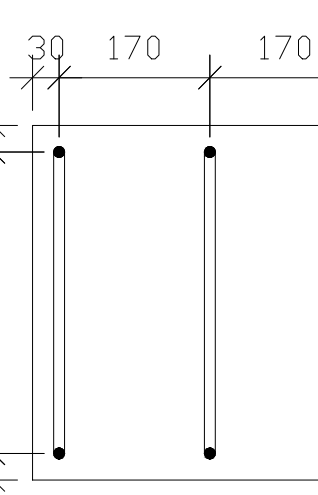
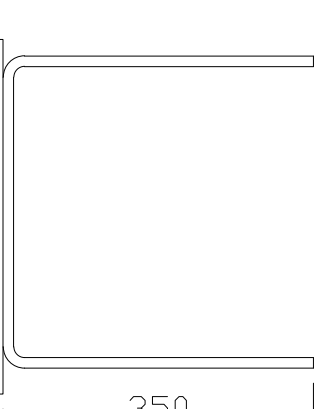
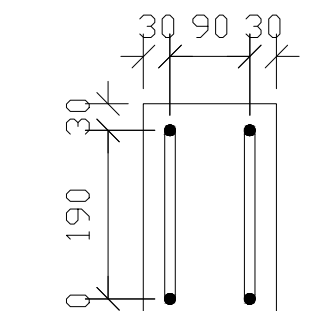
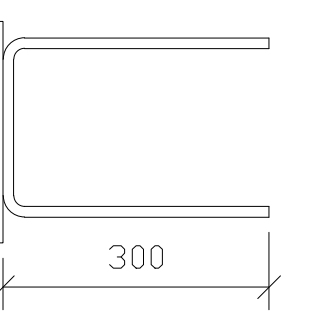
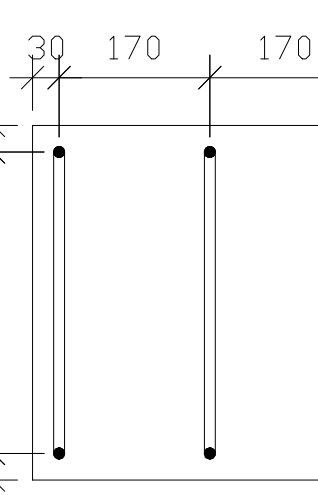
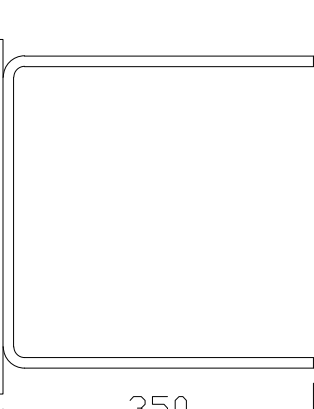
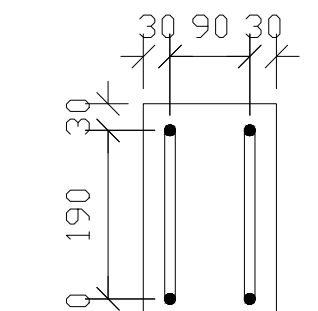
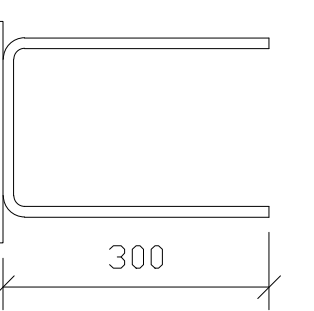
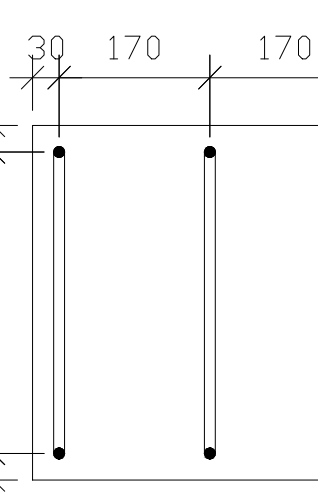
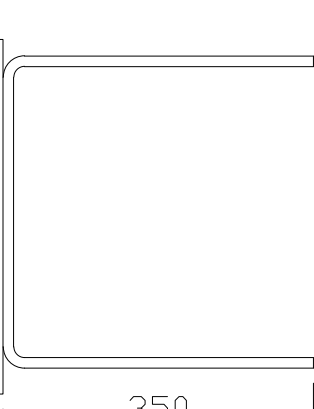
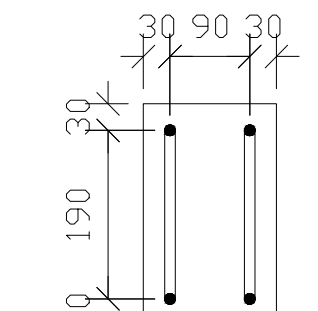
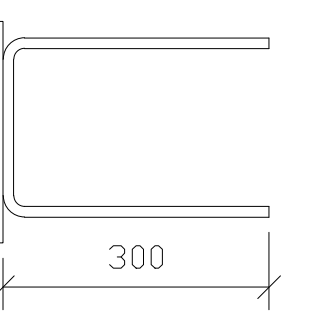
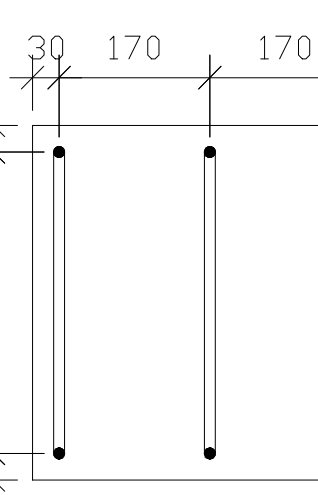
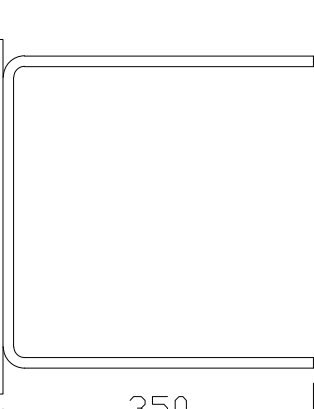
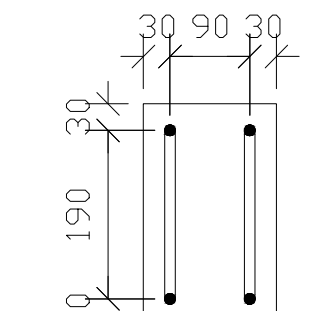
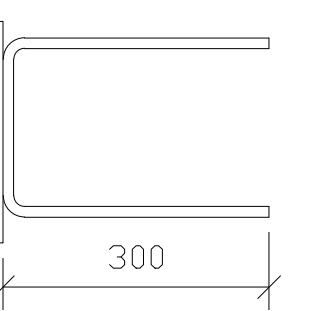
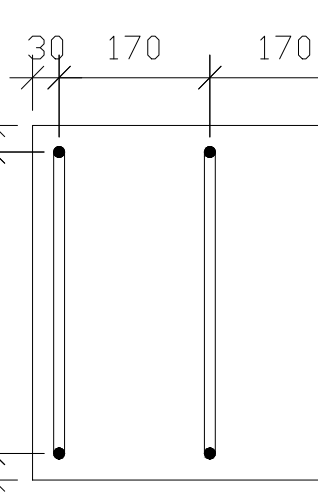
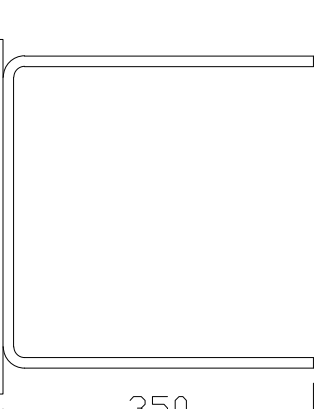
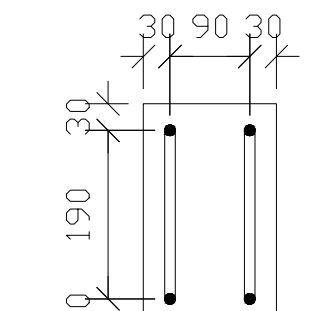
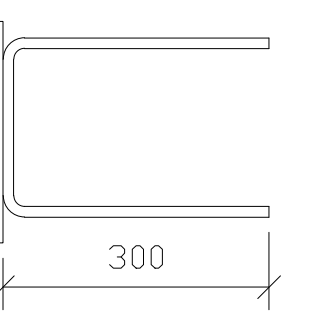
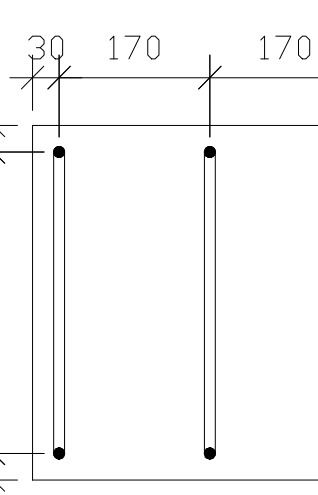
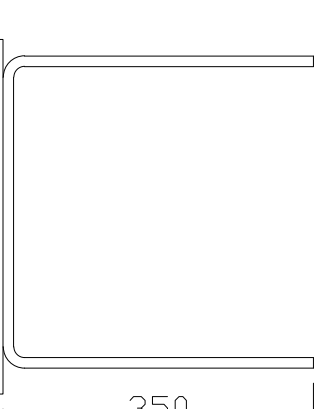
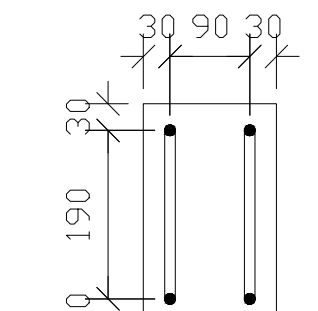
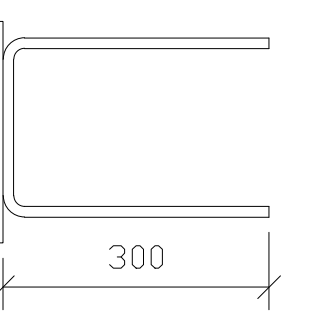
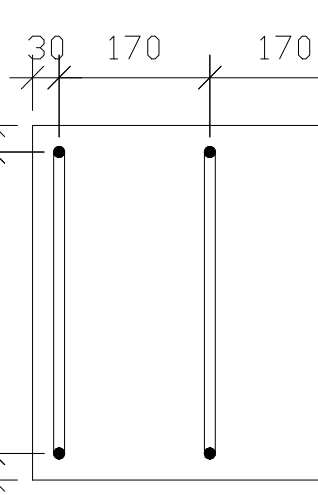
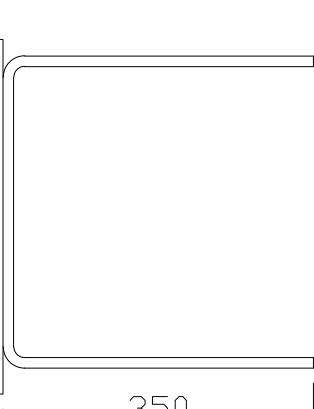
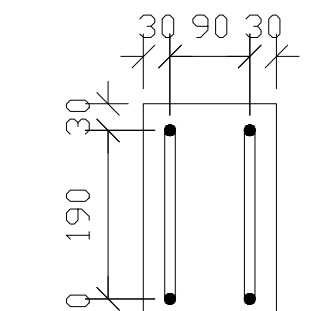
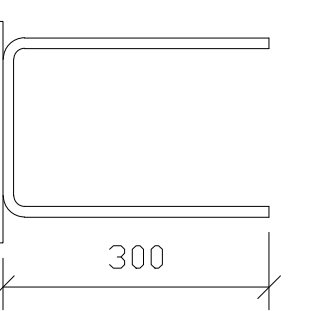
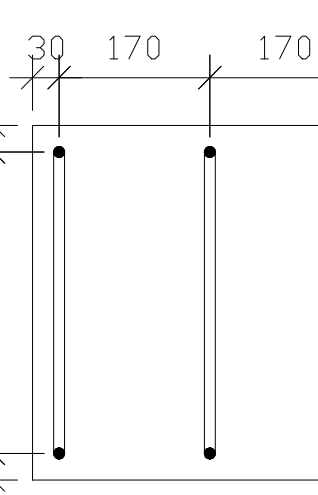
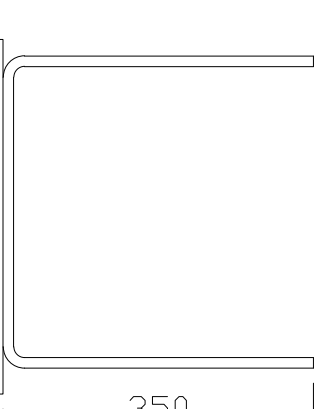
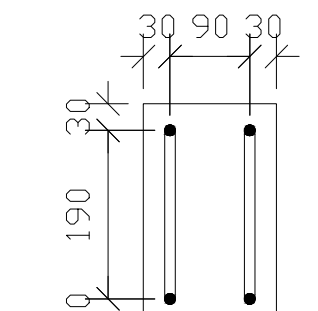
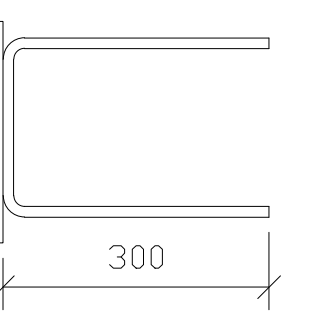
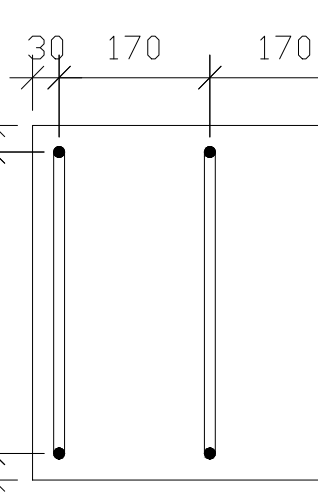
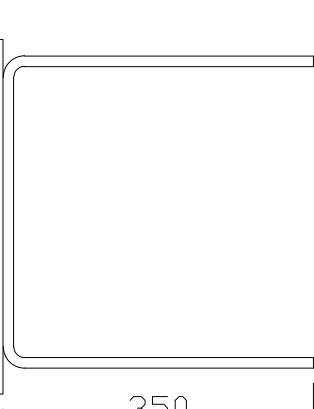
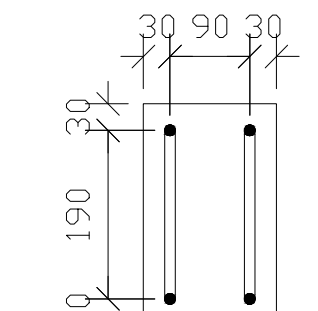
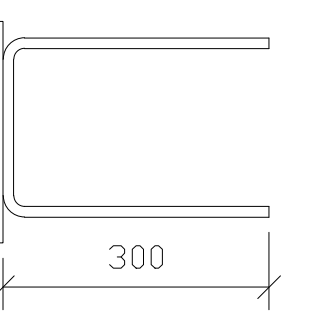
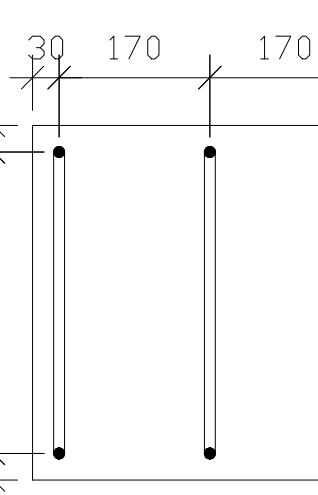
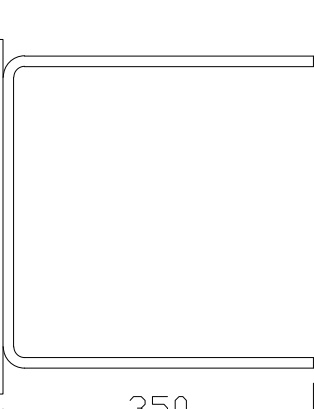
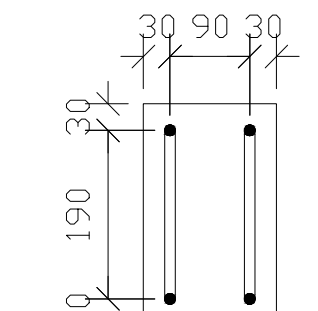
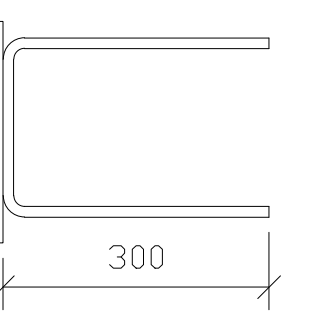
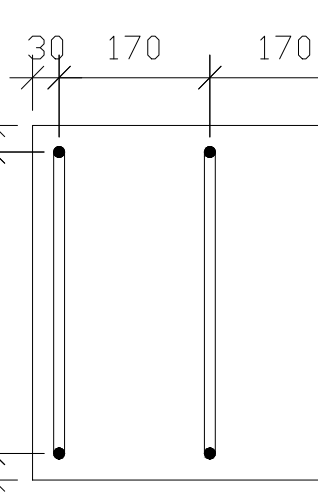
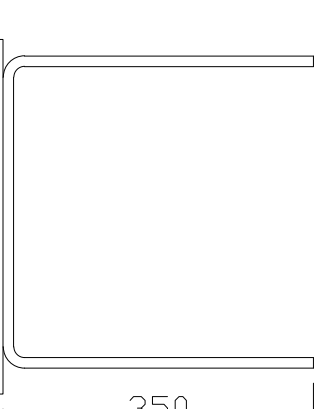
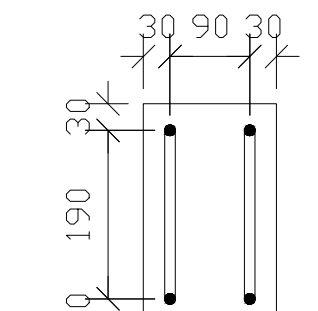
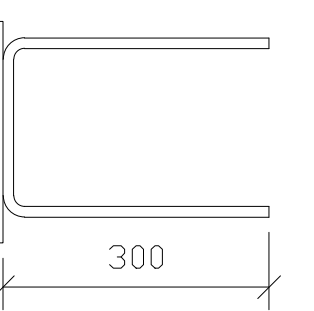
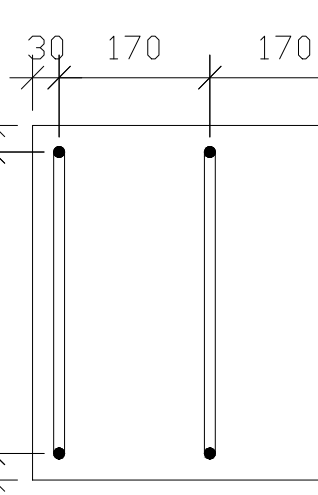
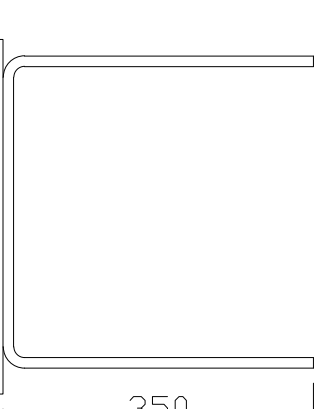
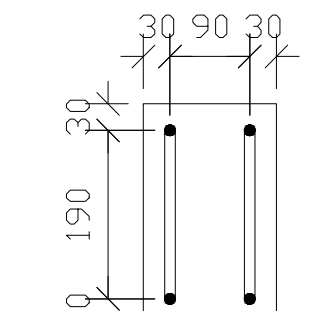
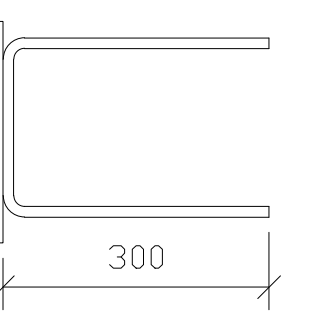
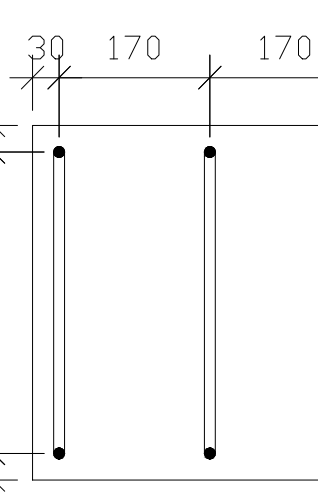
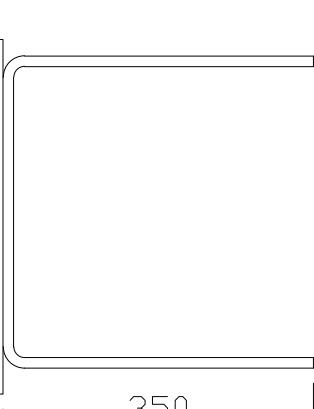
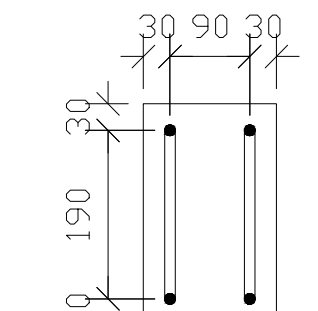
CONCRETE MIX	TYPE	DIMENSIONS MM		BOLT DIA (Ø) IN MM																				
				10	12	16	18	20	22	24	27	30	33	36	39	42	45	48	52	56	60	64	68	72
M20	I	G	150	150	150	200	300	300	300	300	450	450	450	450	550	600	650	700	750	800	900	900	1000	1050
		H	210	222	234	291	398	410	417	580	585	598	608	722	786	841	905	975	1035	1150	1171	1281	1350	
		W	80	80	90	100	100	130	130	140	150	170	180	200	210	220	230	260	270	290	320	330	350	
		t3	10	12	14	16	18	20	22	25	25	28	32	36	36	36	40	45	45	50	56	56	63	
	II	L					350	400	400	500	550	600	750	950	1050	1200	1100	1350	1500	1750	1900	2100	2300	
M25, M30 & M35	I	G	150	150	150	200	300	300	300	450	450	450	450	550	600	650	700	750	800	900	900	1000	1050	
		H	210	222	234	291	398	410	417	580	585	598	608	722	786	841	905	975	1035	1150	1171	1281	1350	
		W	80	80	90	100	100	130	130	140	150	170	180	200	210	220	230	260	270	290	320	330	350	
		t3	10	12	14	16	18	20	22	25	25	28	32	36	36	36	40	45	45	50	56	56	63	
	II	L					295	340	360	420	465	540	670	815	930	1070	980	1185	1340	1520	1680	1860	2035	
M20 M25, M30 & M35	I	E	50	60	70	75	80	90	95	105	110	120	130	140	150	155	165	180	190	200	215	225	240	
		k	50	50	50	50	50	80	80	80	80	80	80	100	100	100	100	125	125	125	150	150	150	
	II	THREAD – ED(T) LENGTH SINGLE NUT DOUBLE NUT	40	45	55	60	60	65	70	75	80	90	95	100	105	110	120	125	135	140	150	160	165	
			50	60	70	75	80	90	95	105	110	120	130	140	150	155	165	180	190	200	215	225	240	
	II	t3					16	16	16	16	16	16	16	16	16	16	20	20	20	20	20	20	20	
II	G	150	150	150	150	300	300	300	450	450	450	450	450	450	450	450	450	450	450	600	600	600		
FULL TENSION CAPACITY (Kg.)			680	985	1845	2255	2875	3560	4145	5395	6590	8155	9600	11465	13160	15275	17270	20680	23850	27730	31490	35955	40655	
FULL SHEAR CAPACITY (Kg.)			455	660	1230	1505	1920	2375	2770	3600	4400	5445	6410	7660	8790	10205	11540	13815	15935	18525	21035	24020	27160	

CONCRETE MIX	TYPE	DIMENSIONS MM	BOLT DIA (Ø) IN MM										
			10	12	16	18	20	22	24	27	30	33	36
M20 & M25	III	L	185	220	310	335	385	435	460	535	590	660	720
M30		L	150	150	200	225	250	275	300	350	375	425	450
M35		L	150	150	175	200	225	250	275	300	350	375	400

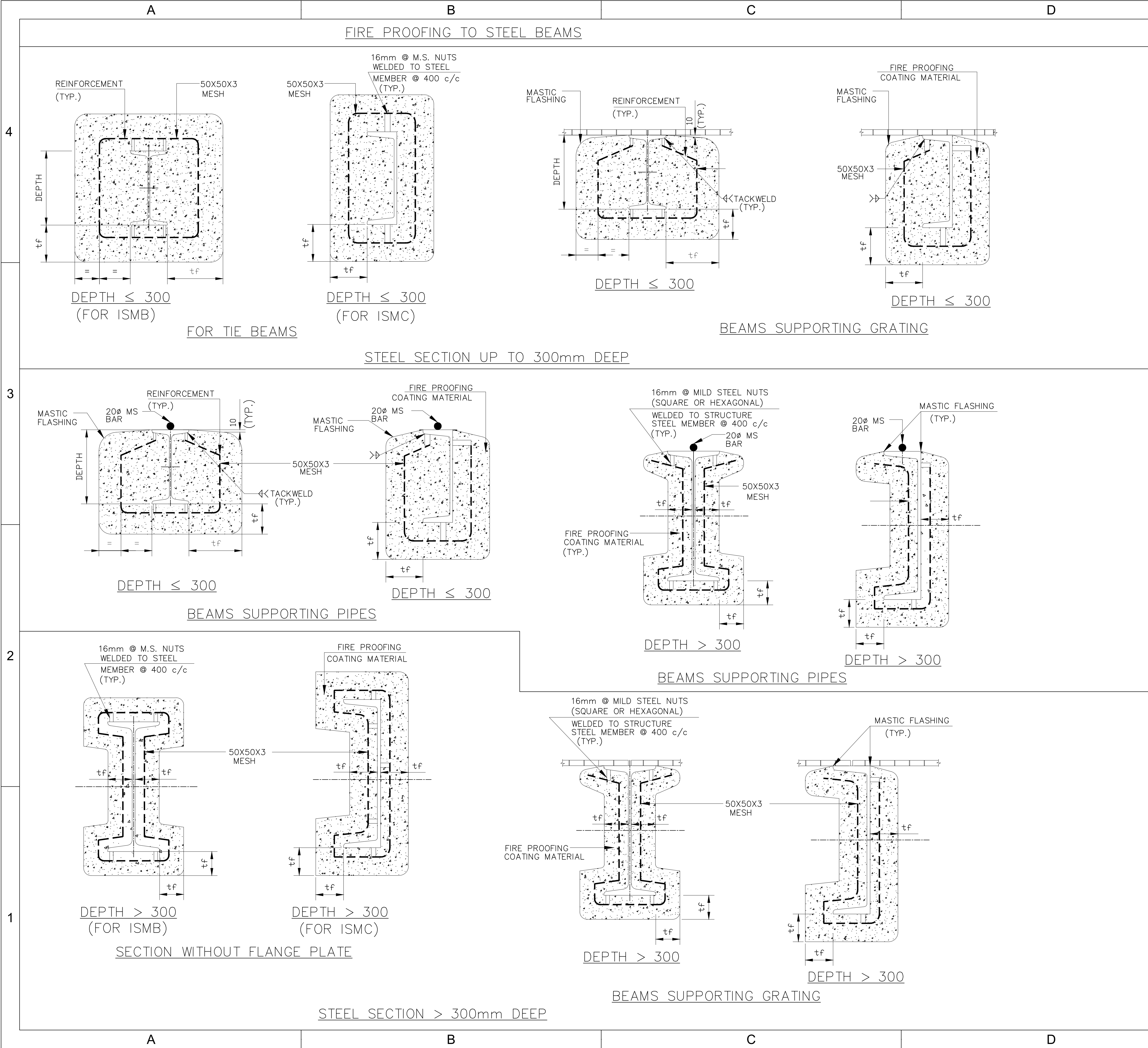
CONCRETE MIX	TYPE	DIMENSIONS MM		BOLT DIA (ϕ) IN MM											
				10	12	16	18	20	22	24	27	30	33	36	39
M20, M25	III	THREAD - ED(T) LENGTH	SINGLE NUT	40	45	55	60	60	65	70	75	80	90	95	100
M30 & M35			DOUBLE NUT	50	60	70	75	80	90	95	105	110	120	130	140

A	16-10-2019	IFD	TUN	KRK	JP / KC	JMC	
Rev	Date DD-MM-YYYY	Description of Issue	Written by	Checked by	Approved by	Authorized by	
DOCUMENT CATEGORY (USE " X " MARK)				DOCUMENT REVIEW STATUS (BY CLIENT)			
<input type="checkbox"/> APPROVAL <input type="checkbox"/> REVIEW <input checked="" type="checkbox"/> INFORMATION							
PROJECT							
STANDBY SRU & ADDITIONAL TANKS IOCL PARADIP REFINERY, ODISHA, INDIA							
OWNER							
<div><div>INDIAN OIL CORPORATION LTD.</div></div>							
PMC							
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STANDARD M.S ANCHOR BOLT							
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SCALE	080557C	000	STC	1790	001		
NTS	PROJECT	UNIT	DOC. TYPE	MAT. CODE	SER. NO.	2 OF 2	A



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4	A				B				C				D				E																																							
	SQUARE/RECTANGULAR METAL INSERT PLATES								SQUARE/RECTANGULAR METAL INSERT PLATES								STANDARD INSERT PLATE DETAILS								NOTES: – 1. FOR GENERAL NOTES ON CONCRETE WORK REFER DRG. NO. 080557C–000–DW–1702–001. 2. METAL INSERT PLATES SHALL BE MARKED ON DRAWING AS UNDER: IP–(A) @ (C) IP = INSERT PLATE A = TYPE OF INSERT PLATE C = ELEVATION OF INSERT PLATE (TOP OF PLATE) 3. METAL INSERT PLATES SHALL BE KEPT FLUSH WITH CONCRETE SURFACE. 4. THE LONGER SIDE OF THE METAL INSERT PLATE SHALL BE KEPT VERTICAL UNLESS SHOWN OTHERWISE. 5. METAL INSERT PLATE ON COLUMN OR BEAM SHALL BE KEPT SYMMETRICAL ABOUT ϕ OF COLUMN OR BEAM, UNLESS SHOWN OTHERWISE. 6. METAL INSERT PLATE SHALL BE 12 MM OR 16 MM 7. ALL LUGS SHALL BE OF 12 ϕ OR 16 ϕ MS BARS CONFORMING TO IS: 432 AND SHALL ATTACH TO METAL INSERT PLATE BY 6MM. FILLET WELDS AS SHOWN IN SKETCHES U.N.O.																															
	S.NO.				TYPE OF INSERT PLATE				DIA. OF LUGS (mm) ϕ				THK. OF INSERT PLATE																				DETAILS OF INSERT PLATE				S.NO.				TYPE OF INSERT PLATE				DIA. OF LUGS (mm) ϕ				THK. OF INSERT PLATE				DETAILS OF INSERT PLATE			
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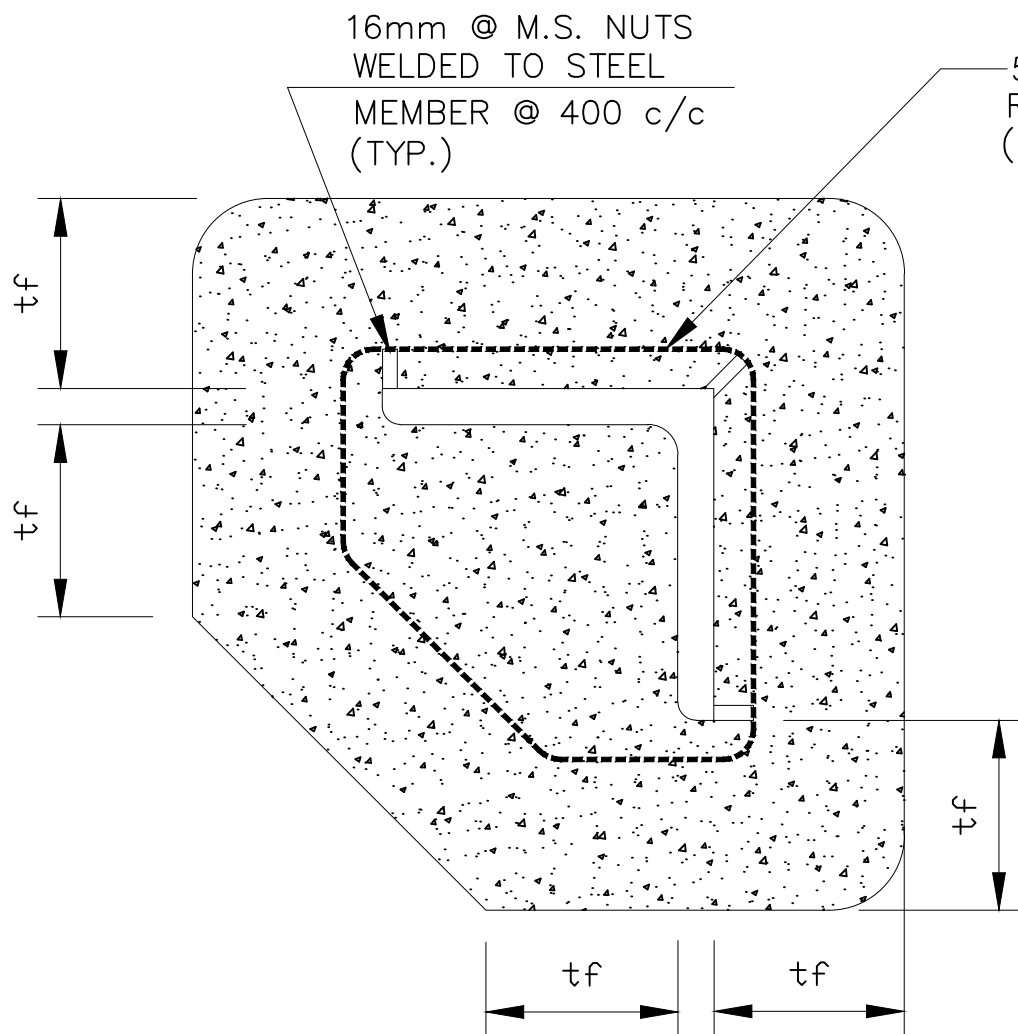


- NOTES:—
- FIRE PROOFING SHALL BE AVERAGE. 30 MM THICK VERMICULITE CEMENTITIOUS COATING AS PER MANUFACTURER'S SPECIFICATION.
 - FOR DETAILS OF FIRE PROOFING, REFER DOC. NO. 080557C-000-JSS-1800-003. ENGINEERING SPECIFICATION FOR FIRE PROOFING OF STEEL STRUCTURES.
 - tf = THICKNESS OF FIREPROOFING ≈ AVERAGE 38mm

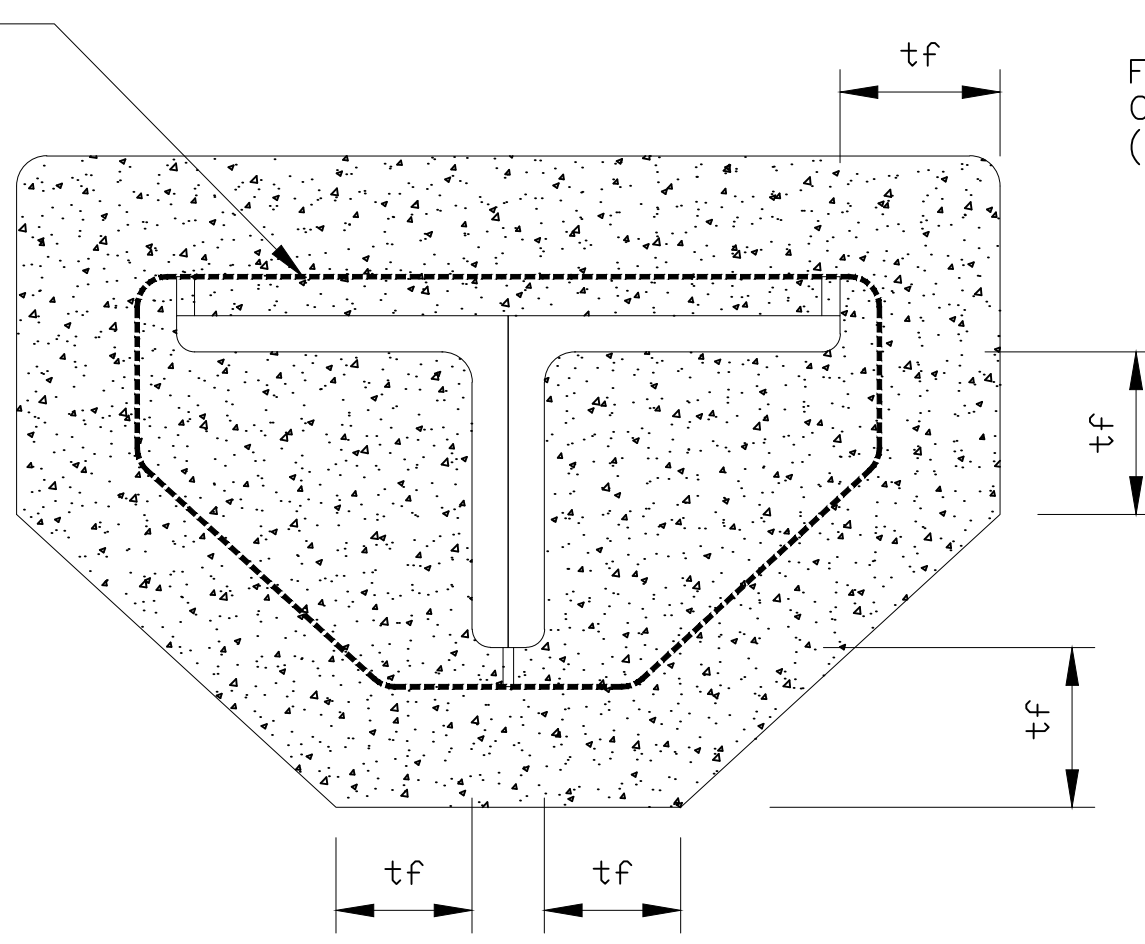
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Rev	Date DD-MM-YYYY	Description of Issue	Written by	Checked by	Approved by	Authorized by
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PROJECT						
STANDBY SRU & ADDITIONAL TANKS						
IOCL PARADIP REFINERY, ODISHA, INDIA						
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<div><div></div><div>INDIAN OIL CORPORATION LTD.</div></div>						
PMC						
<div><div></div><div>TechnipFMC</div></div>						
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TITLE						
FIRE PROOFING OF STEEL STRUCTURES						
DRAWING NO.					PAGE	REV.
SCALE	080557C	000	STC	1790	003	
NTS	PROJECT	UNIT	DOC. TYPE	MAT. CODE	SER. NO.	1 OF 5
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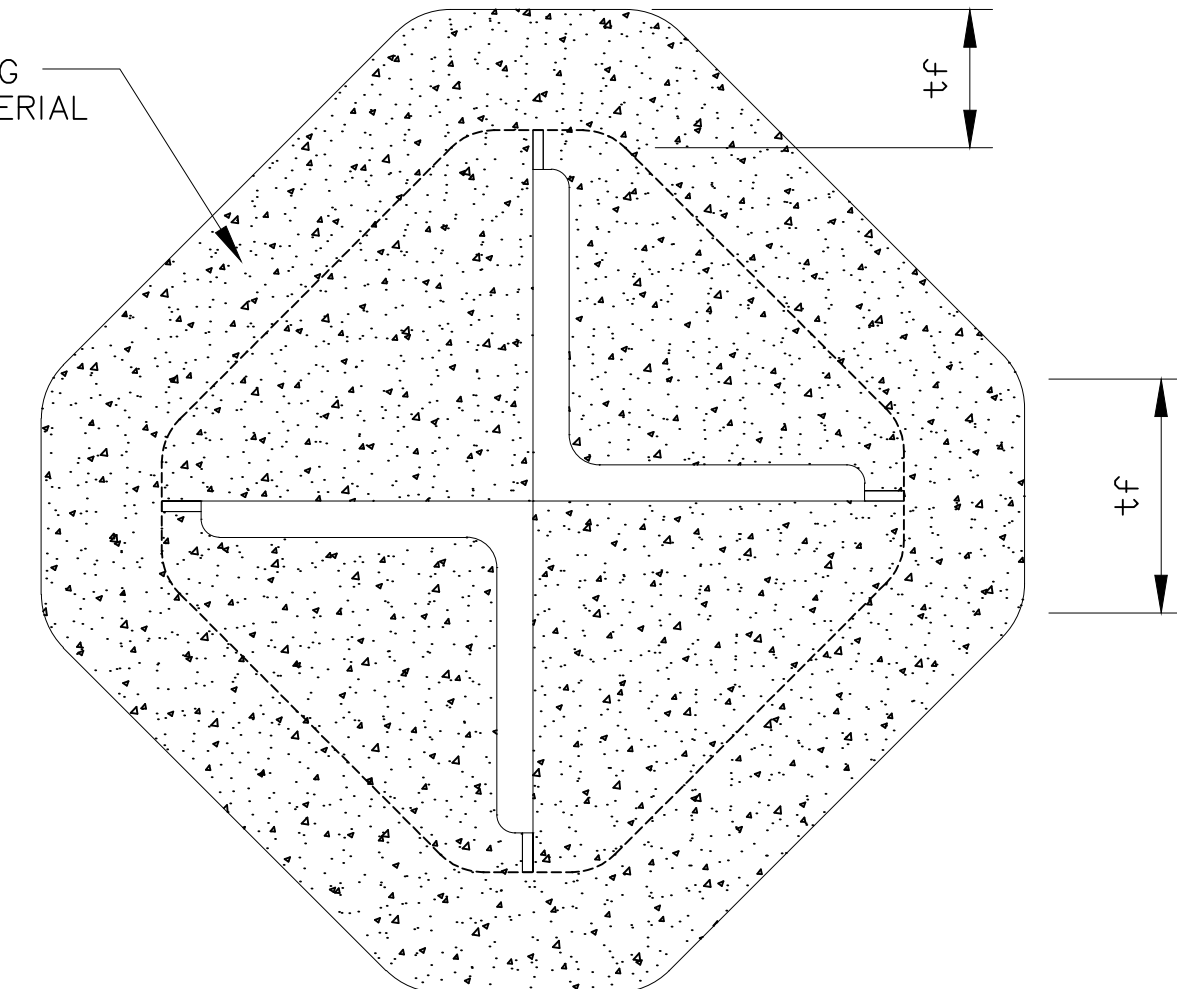
FIRE PROOFING TO VERTICAL & HORIZONTAL BRACINGS



FIREPROOFING
DETAIL FOR SINGLE ANGLE

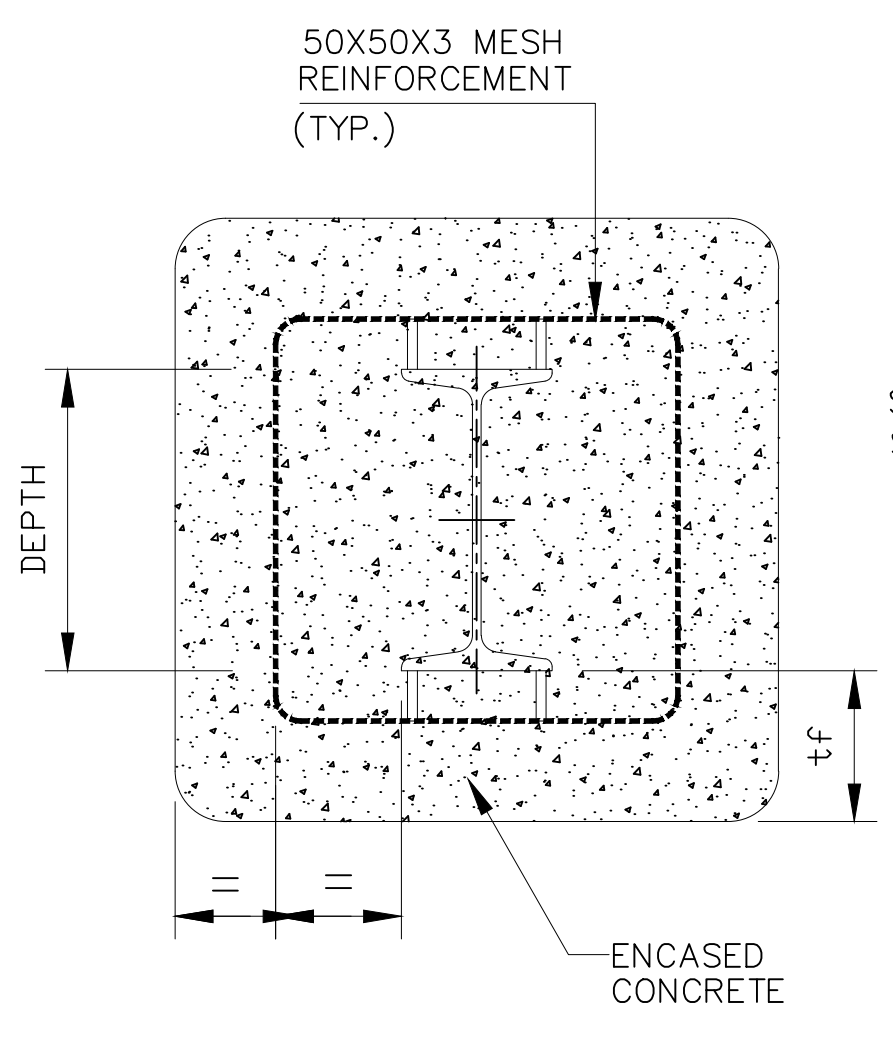


FIREPROOFING
DETAIL FOR DOUBLE ANGLE

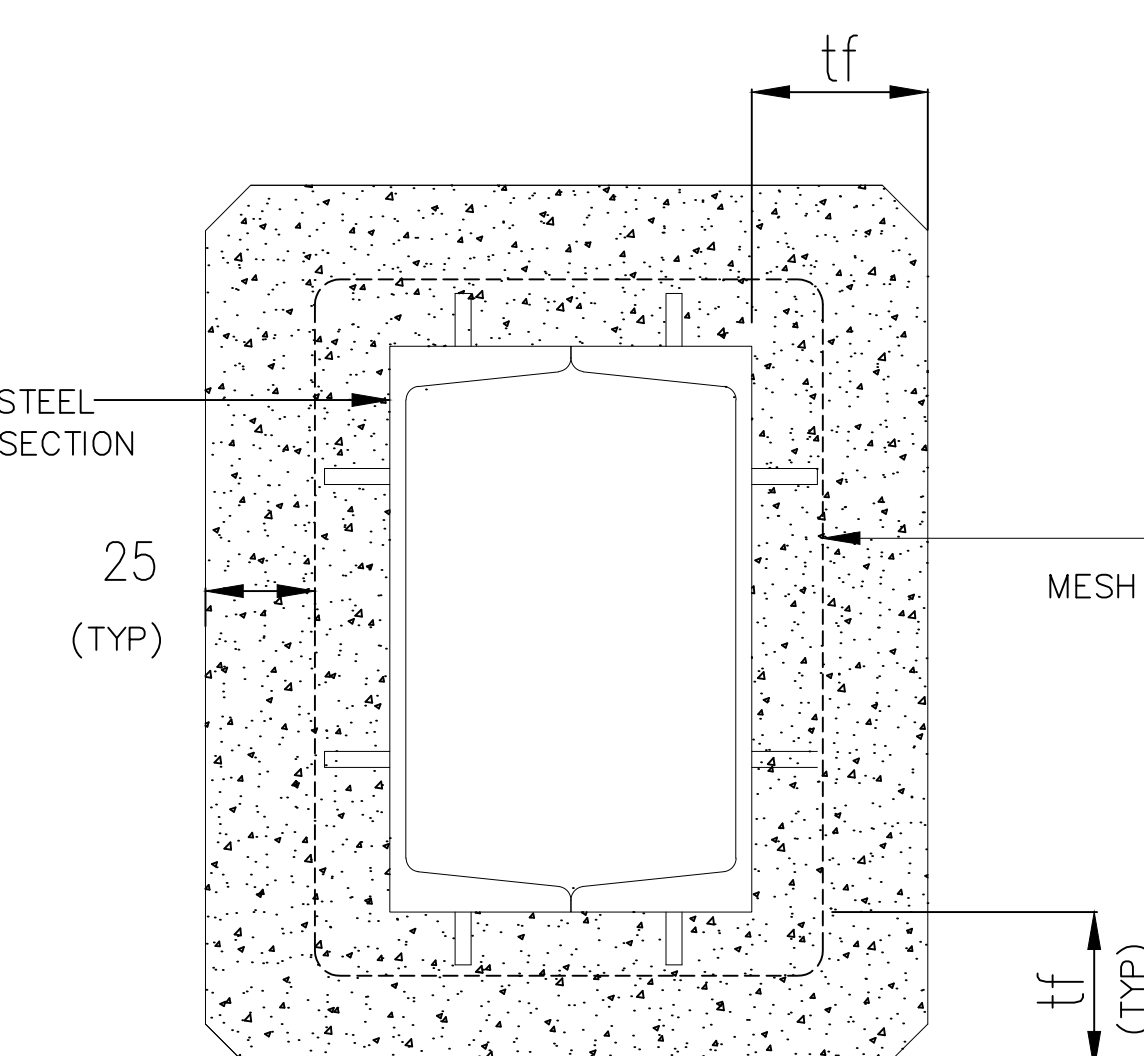


FIREPROOFING
DETAIL FOR STAR SECTION

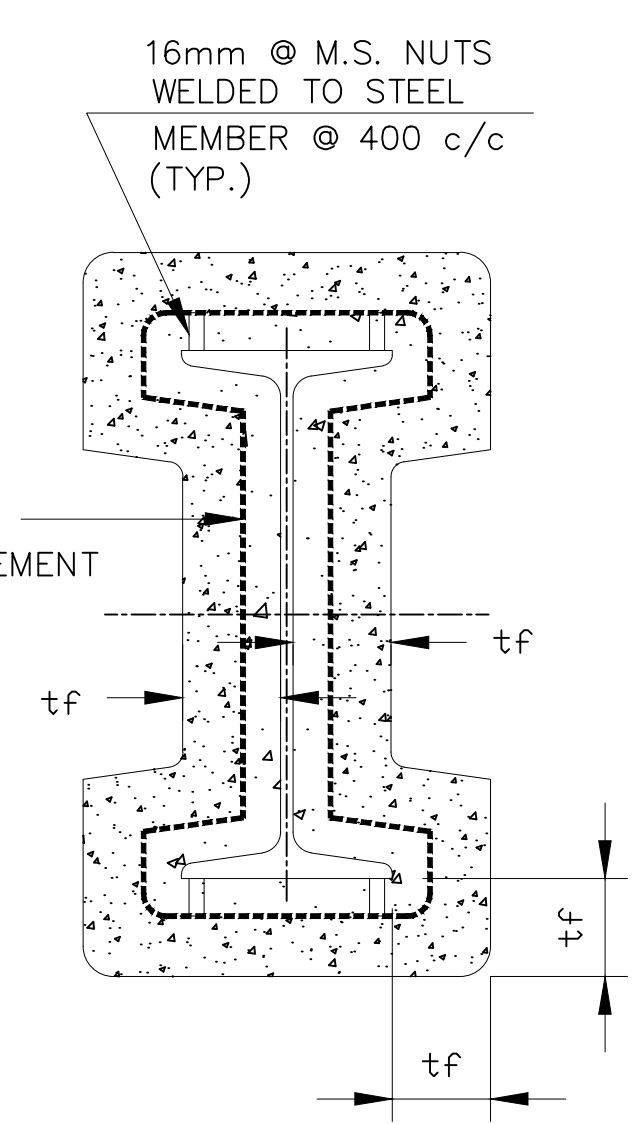
FIRE PROOFING TO COLUMNS



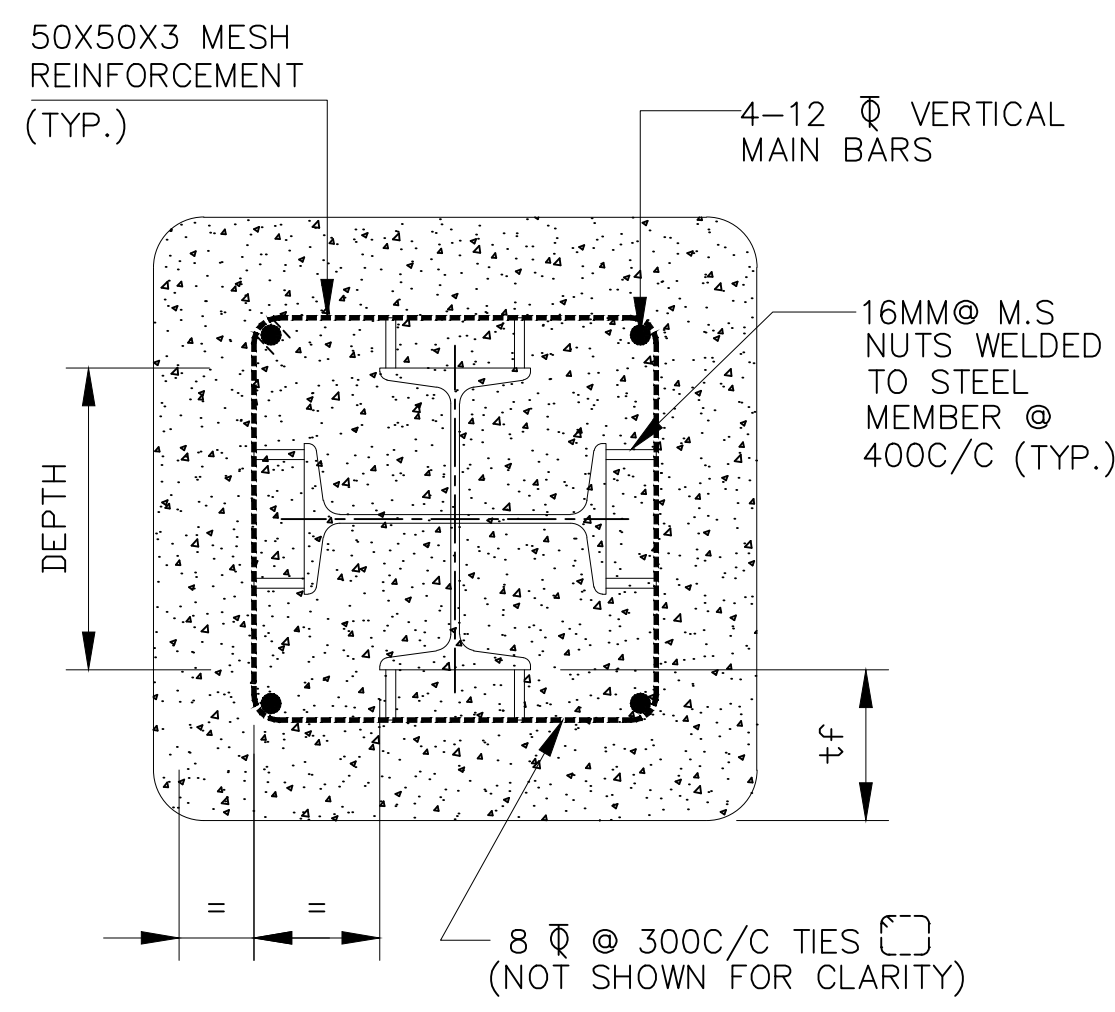
DEPTH ≤ 300
(FOR ISMB)



SECTION WITH
CHANNEL BOX





DEPTH > 300
(FOR ISMB)

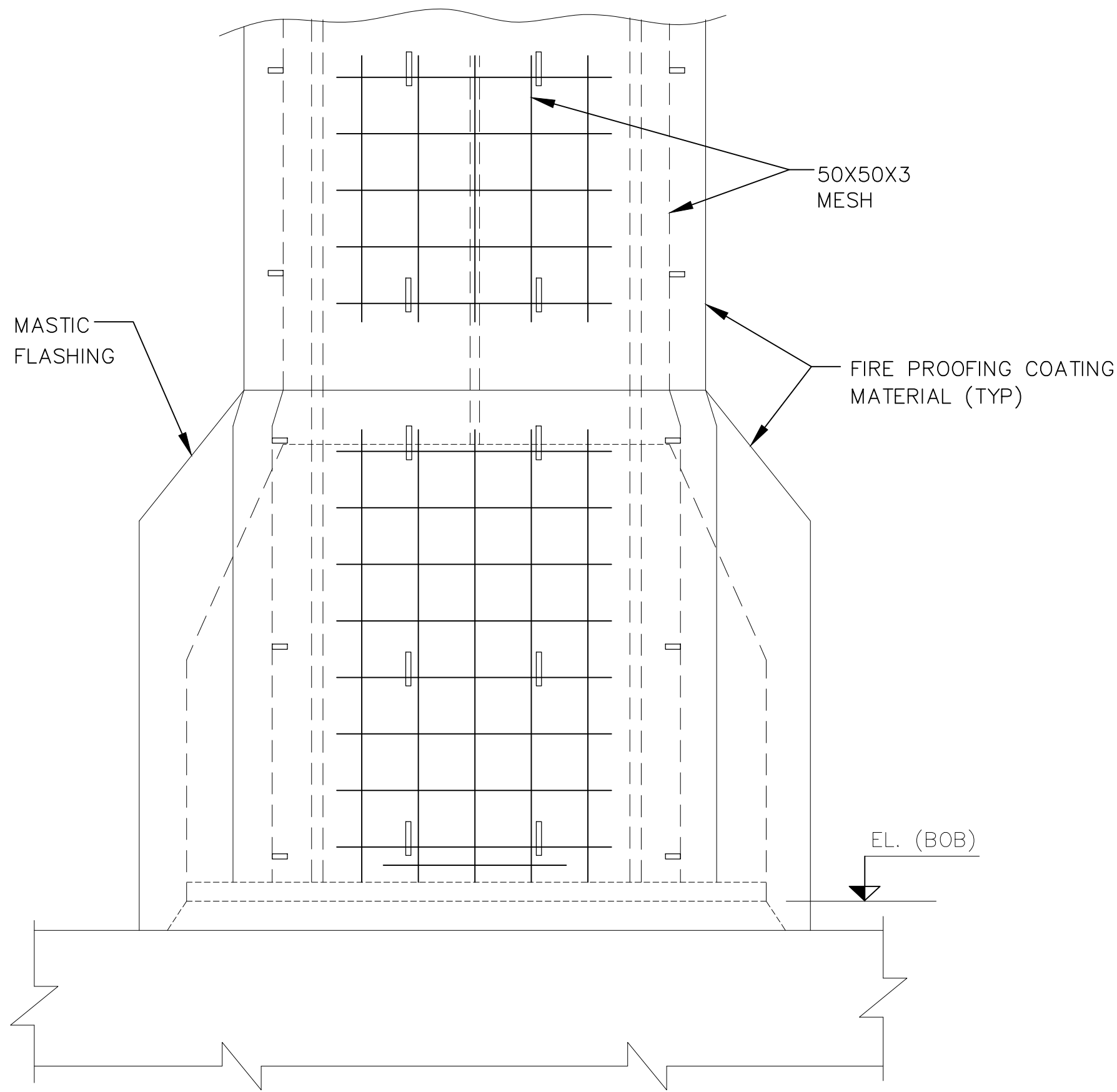


FOR STAR COLUMNS

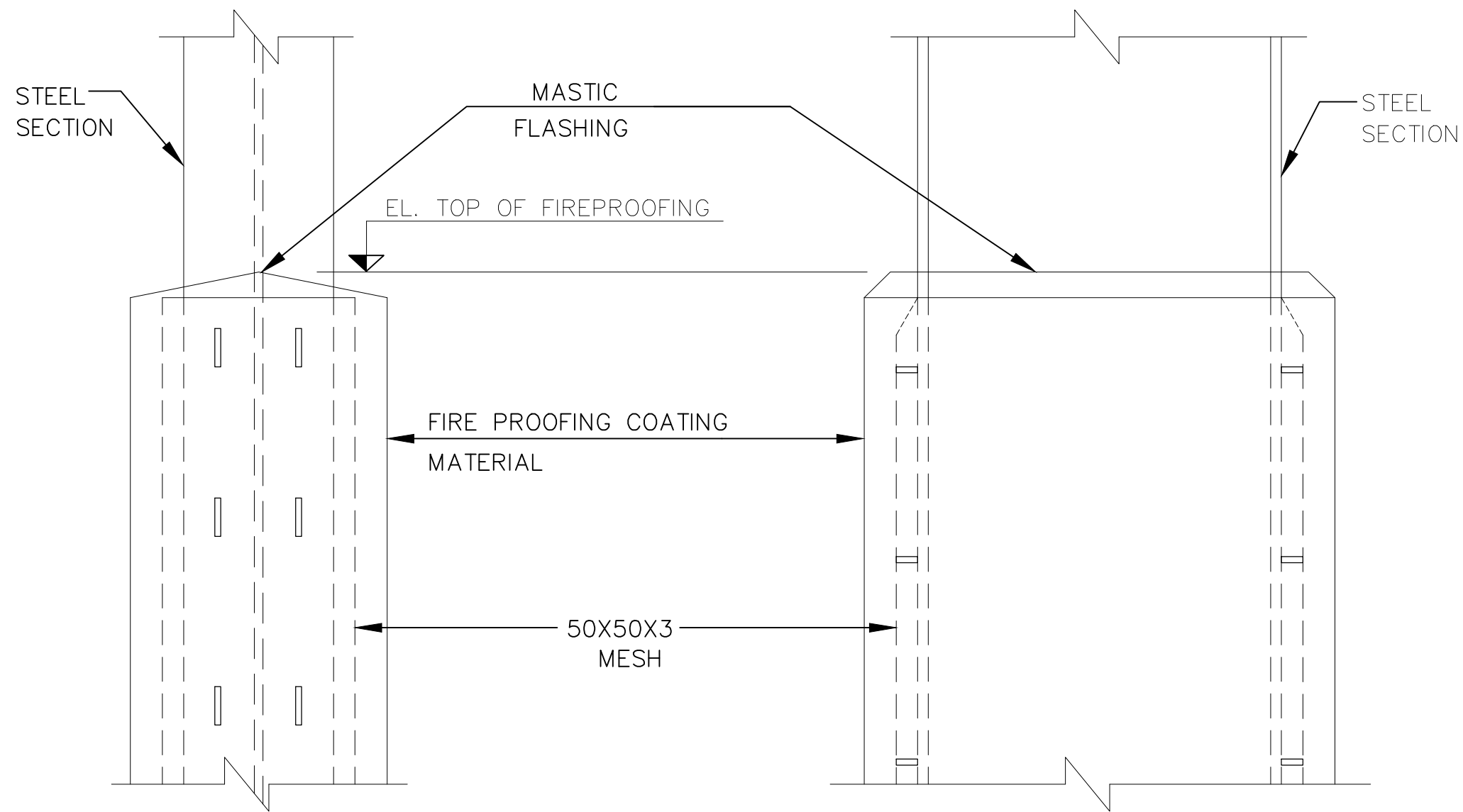
STEEL SECTION OVER 300MM DEEP

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FIRE PROOFING OF STEEL STRUCTURES						
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SCALE	080557C	000	STC	1790	003	2 OF 5
NTS	PROJECT	UNIT	DOC. TYPE	MAT. CODE	SER. NO.	
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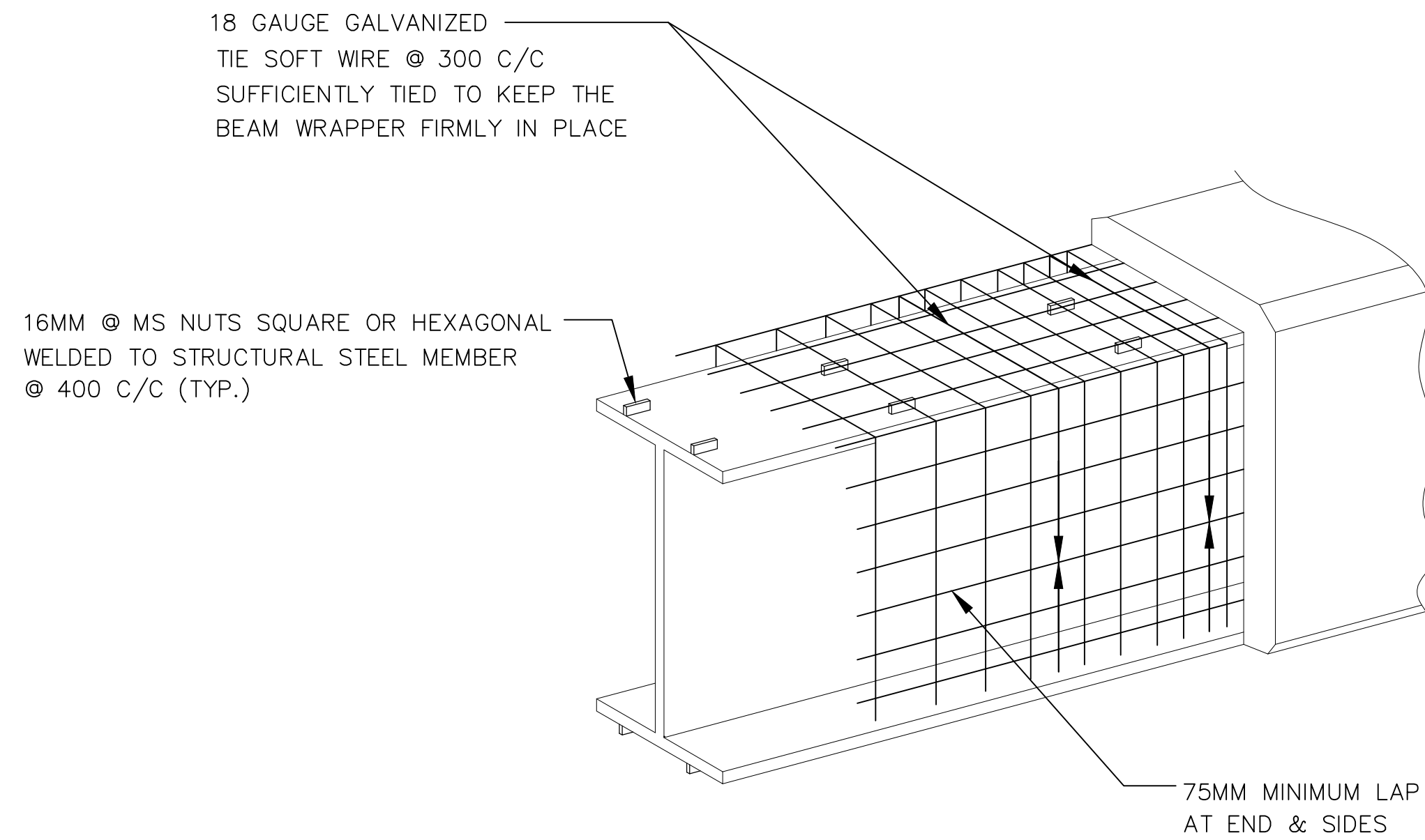
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FIREPROOFING TO BASE PLATE AREA



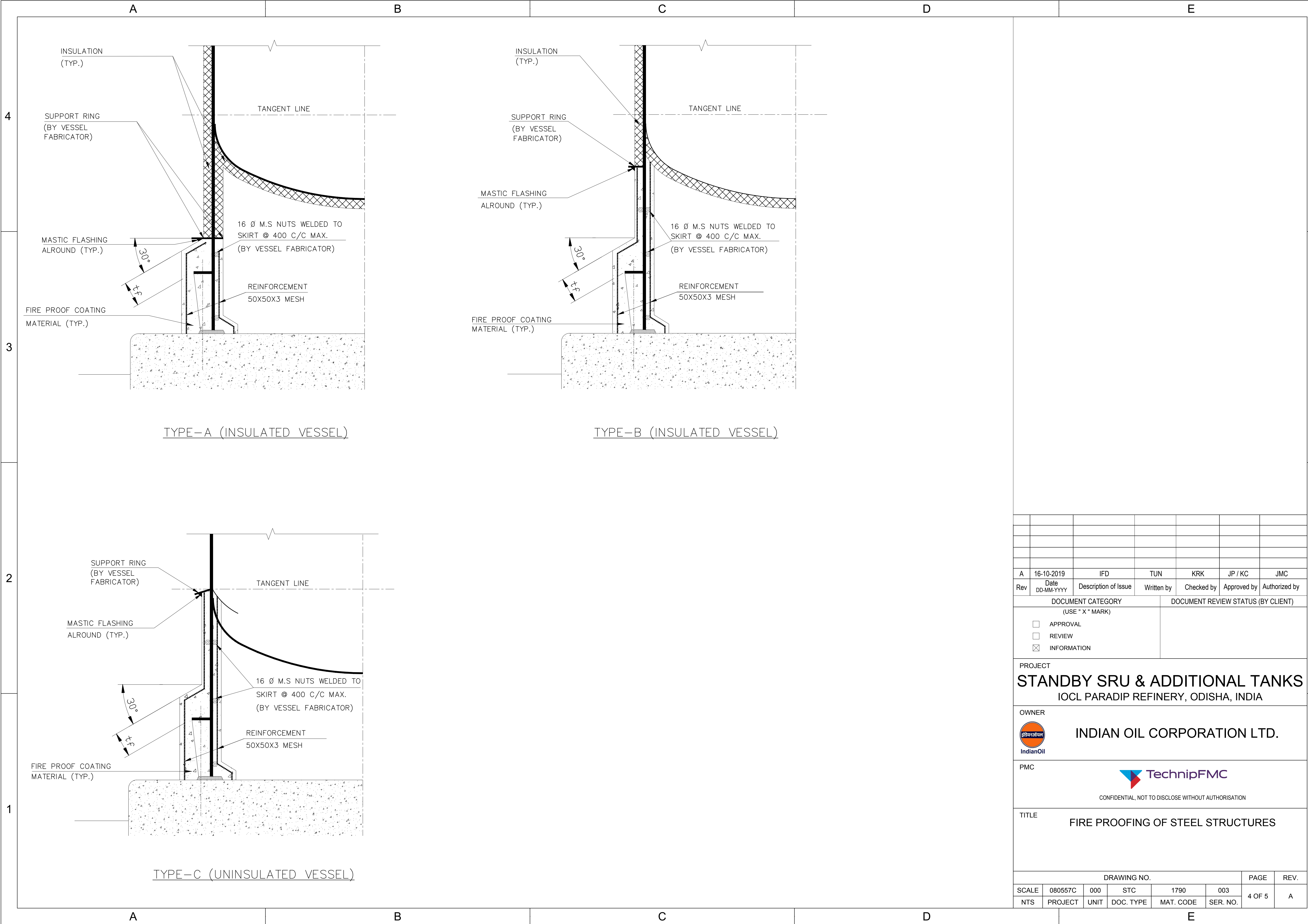
FIREPROOFING AT TOP OF COLUMNS





TYPICAL METHOD OF APPLYING BEAM WRAPPER

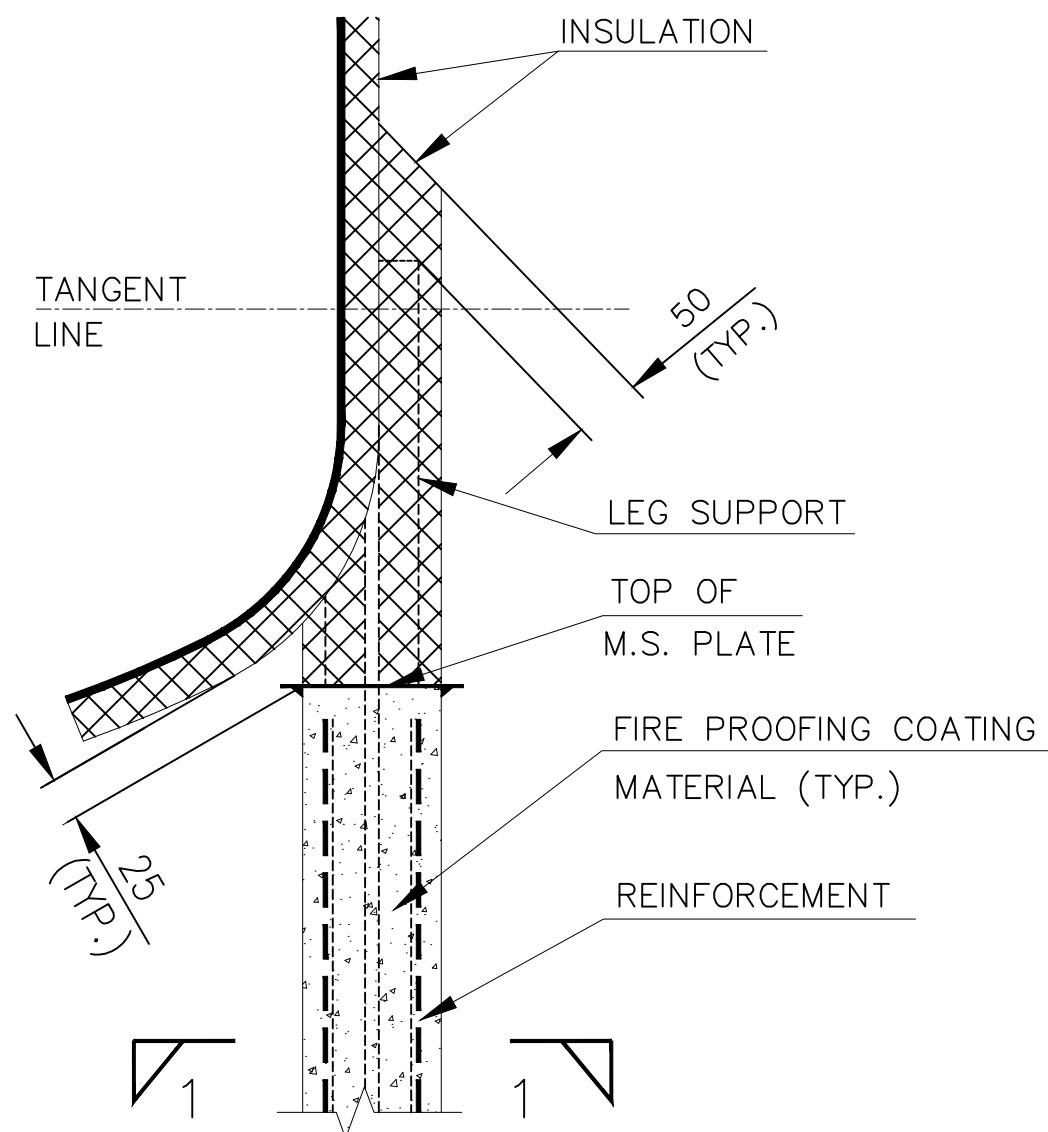
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FIRE PROOFING OF STEEL STRUCTURES										
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SCALE	080557C	000	STC	1790	003					
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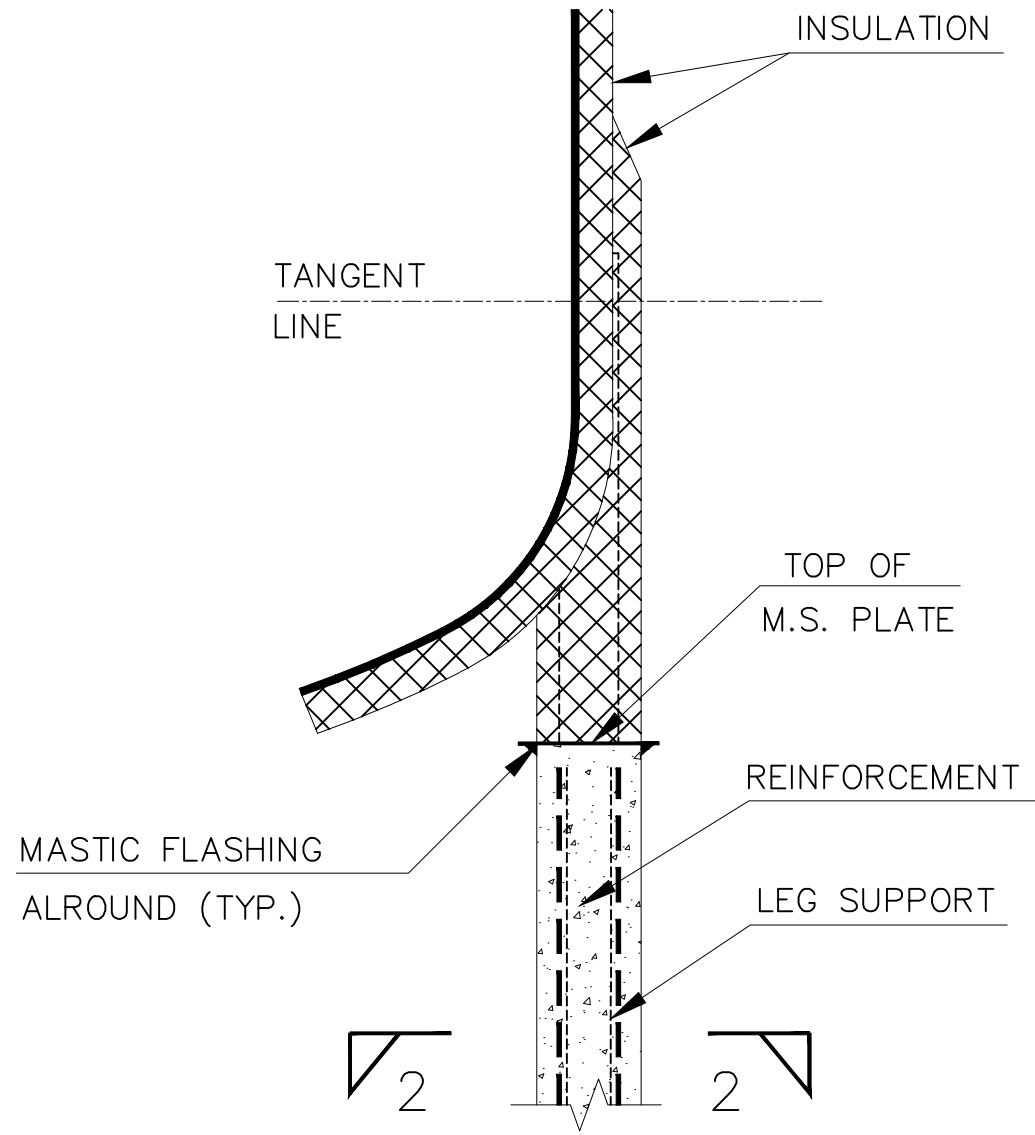


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STANDBY SRU & ADDITIONAL TANKS										
IOCL PARADIP REFINERY, ODISHA, INDIA										
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FIRE PROOFING OF STEEL STRUCTURES										
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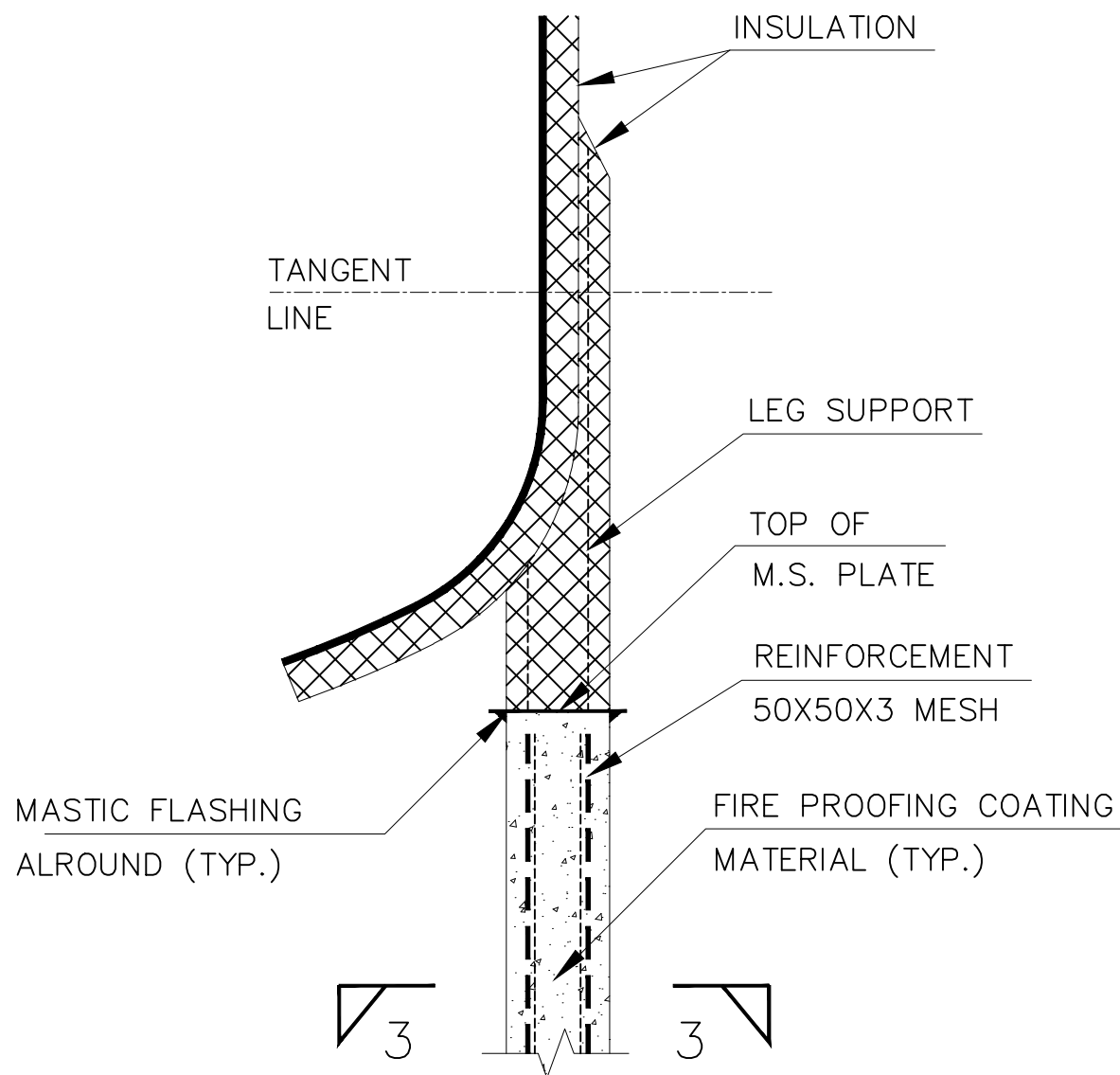
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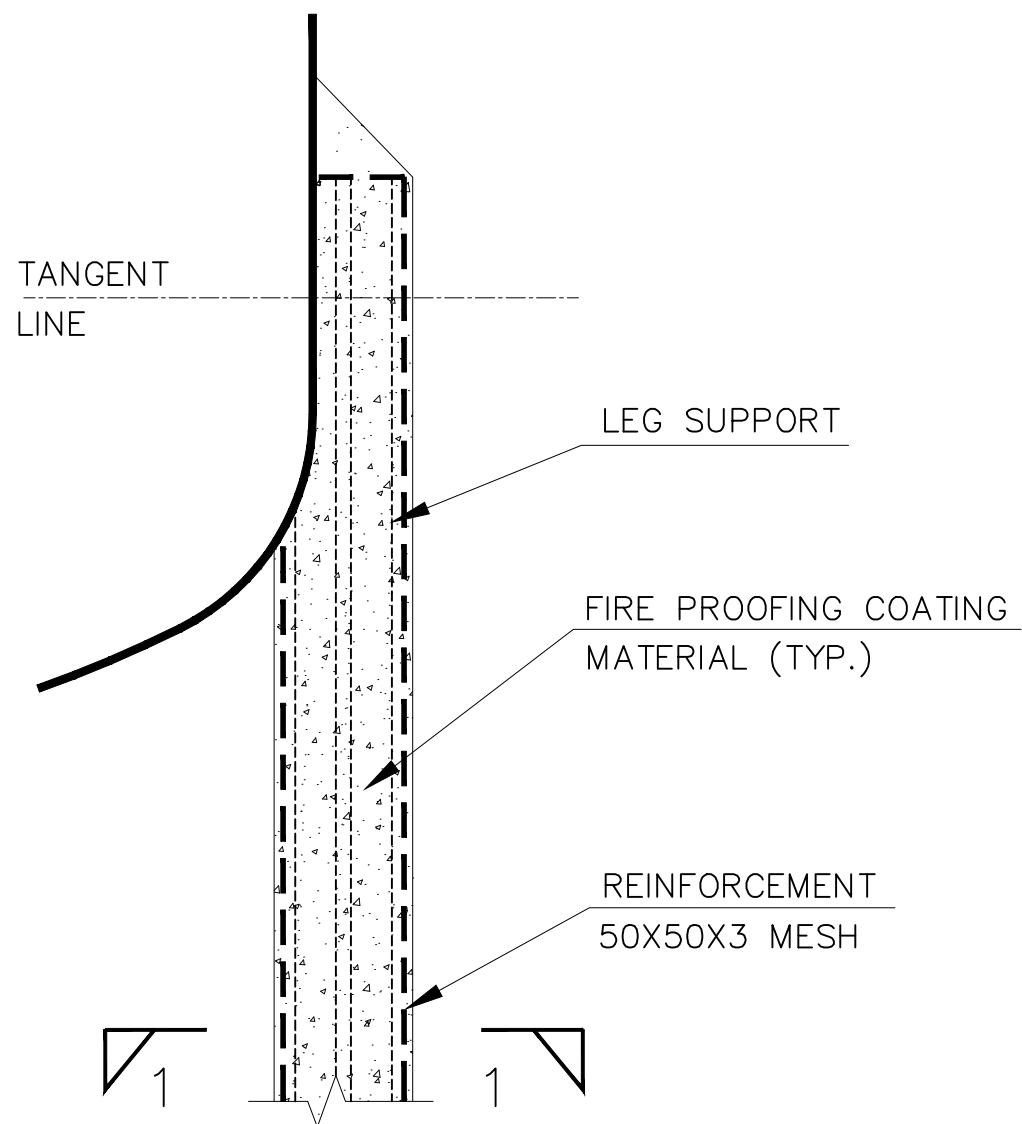
R.S.JOIST (ISMB) LEG



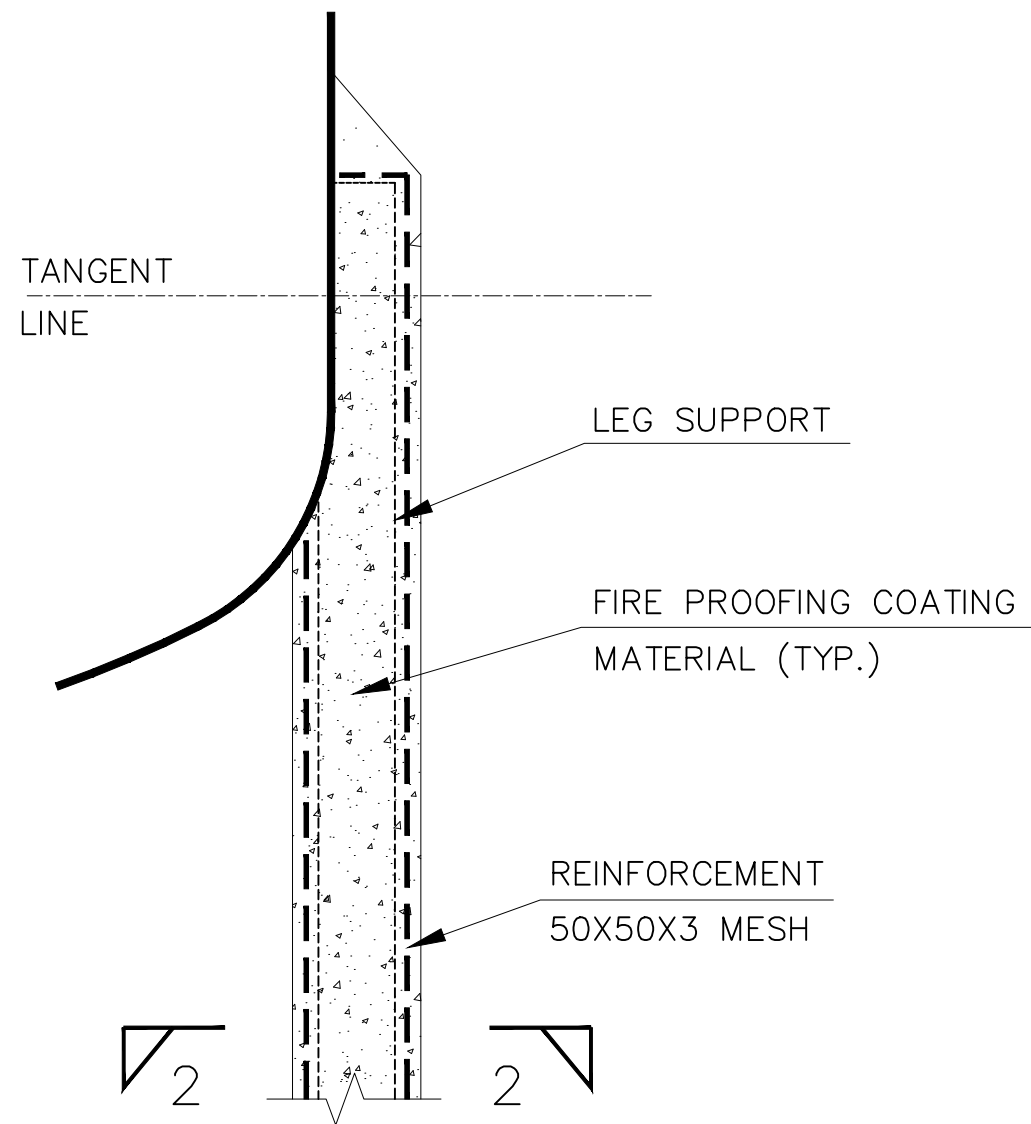
ANGLE (ISA) LEG
INSULATED VESSEL WITH LEG SUPPORT



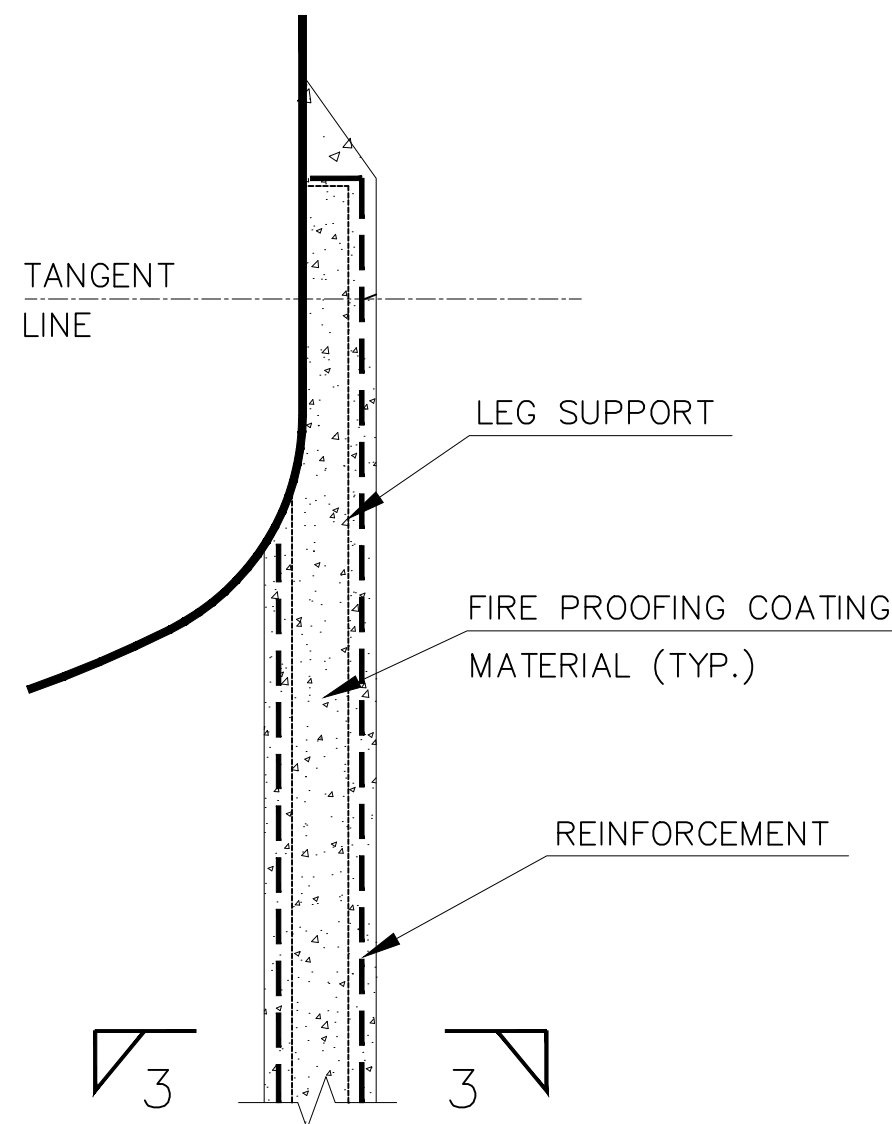
PIPE LEG



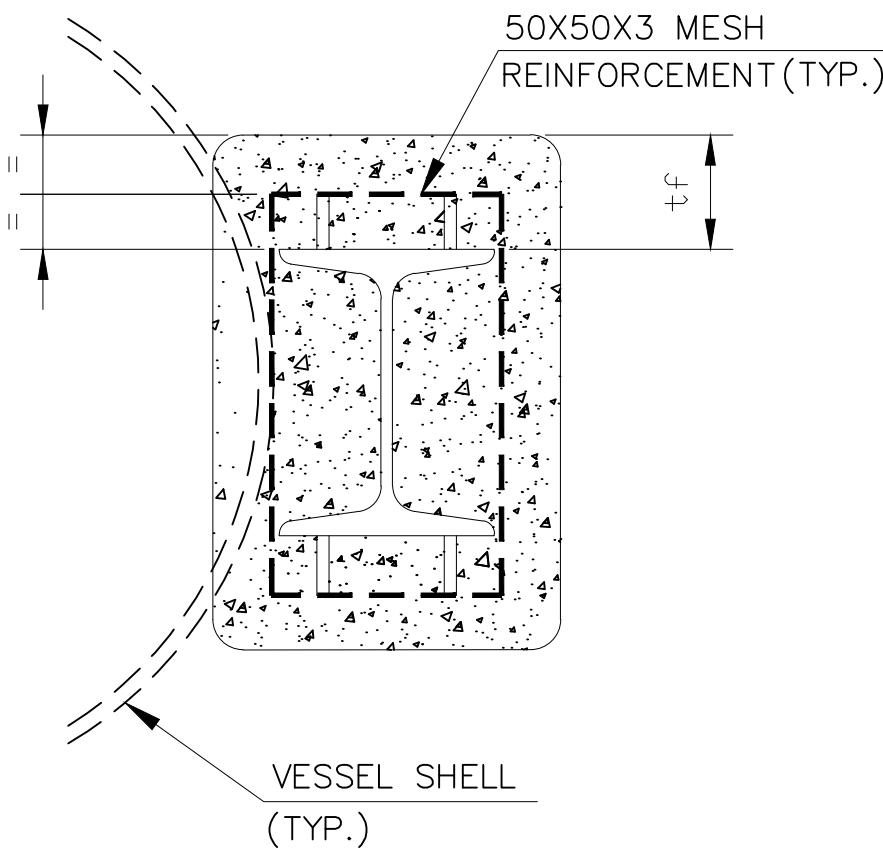
R.S.JOIST (ISMB) LEG



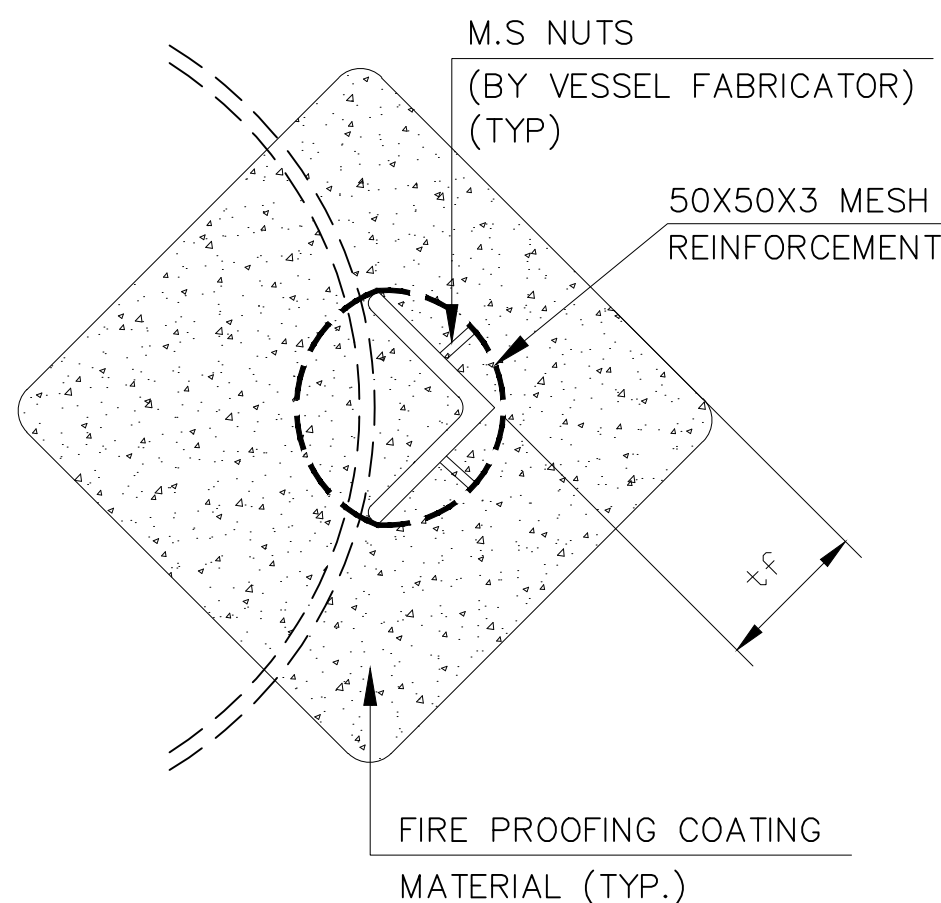
ANGLE (ISA) LEG
UNINSULATED VESSEL WITH LEG SUPPORT



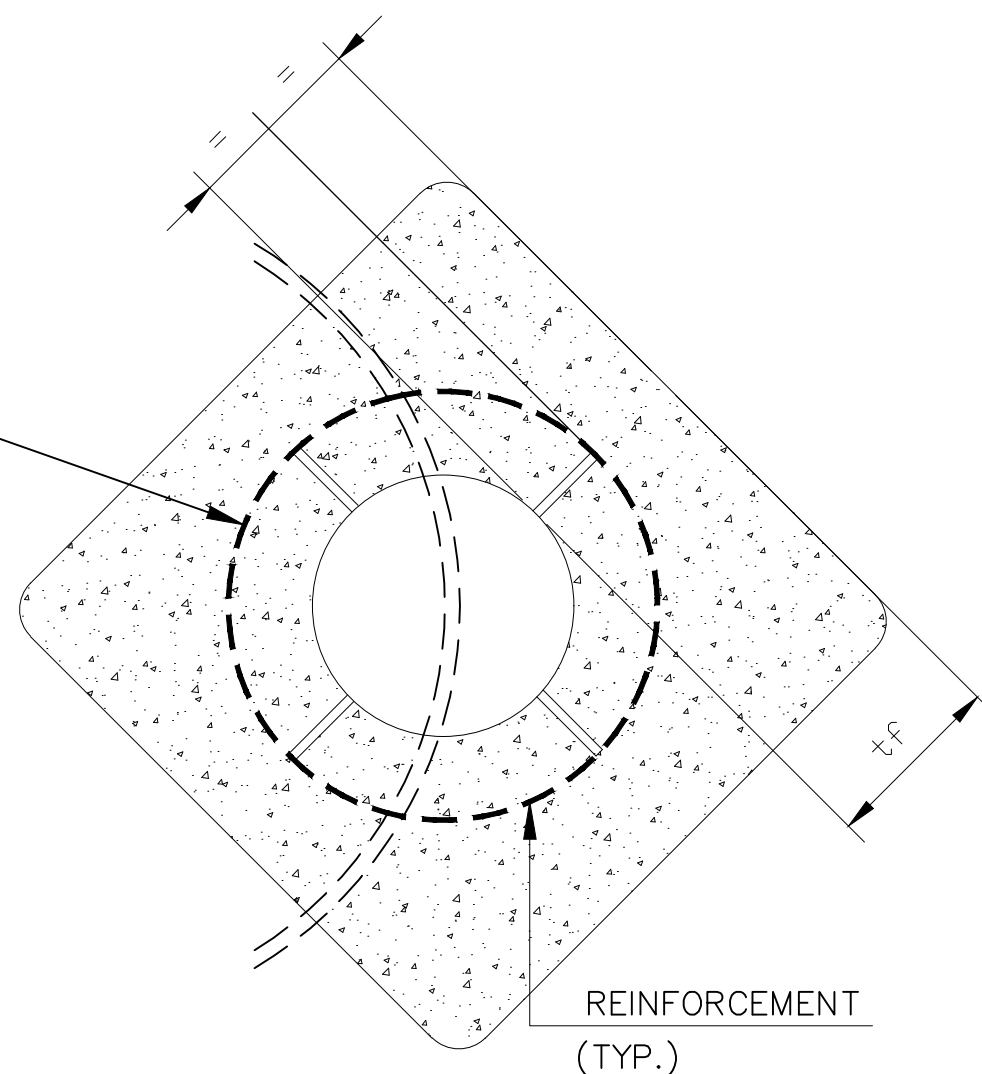
PIPE LEG



SECTION 1-1



SECTION 2-2



SECTION 3-3

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PROJECT
STANDBY SRU & ADDITIONAL TANKS
IOCL PARADIP REFINERY, ODISHA, INDIA

OWNER
 **INDIAN OIL CORPORATION LTD.**

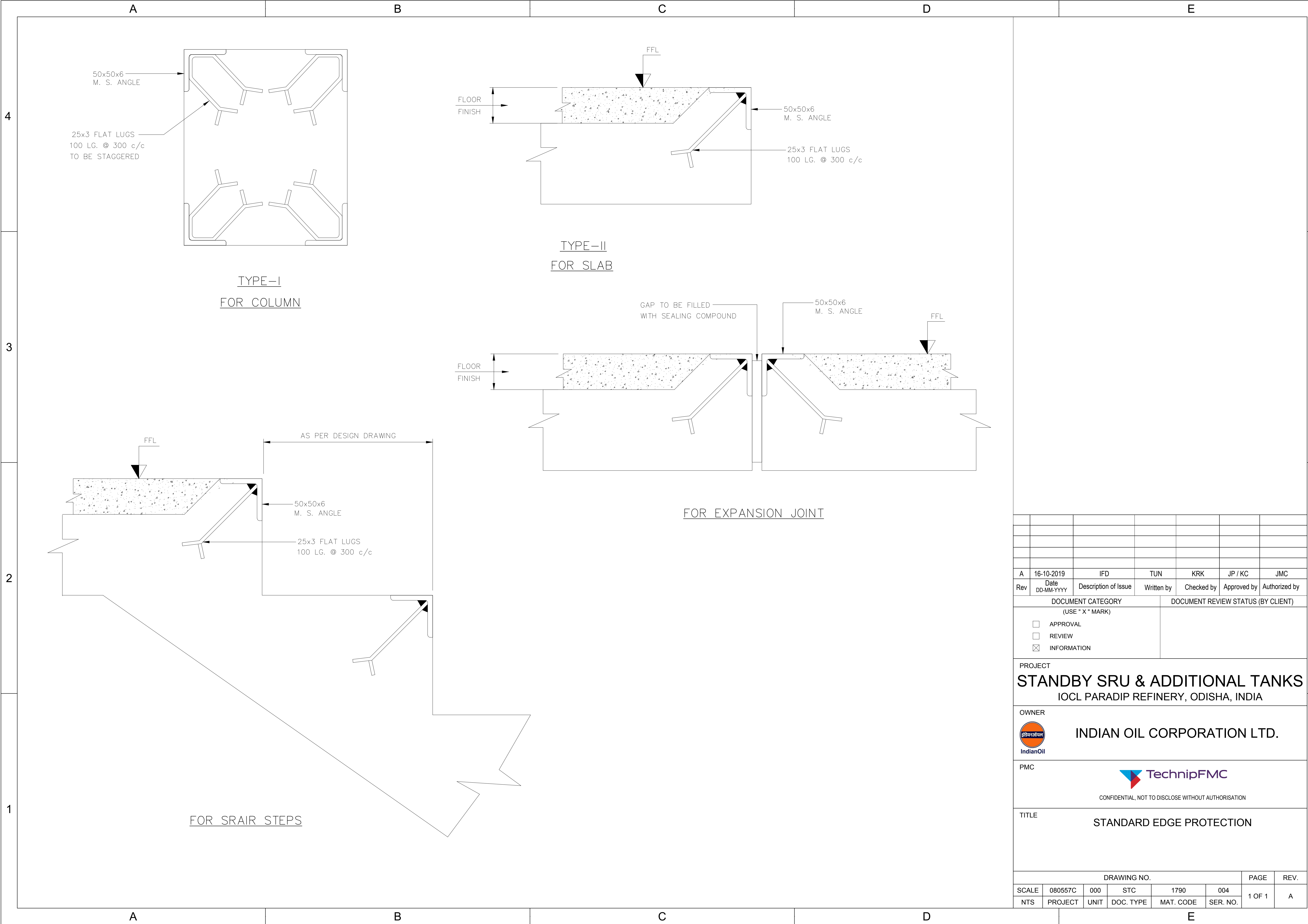
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TITLE
FIRE PROOFING OF STEEL STRUCTURES

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4

3

2

1

A

B

C

D

SL. No.	ITEM	WIDTH	A	B	C	D1	D2	E	BOLT DIA	NUT	CONCRETE GRADE
1.	STAIR	750	1150	400	440	275	125	500 MIN	20	SINGLE	M30
2.	STAIR	900	1300	400	515	275	125	500 MIN	20	SINGLE	M30

TABLE-1
PEDESTAL FOR STAIR

PLAN
STANDARD STAIRS PEDESTAL
(FORMWORK)

SECTION 1-1
(UNPAVED AREAS)
(FORMWORK)

SECTION 1-1
(UNPAVED AREAS)
(REINFORCEMENT)

SECTION 1-1
(PAVED AREAS)
(FORMWORK)

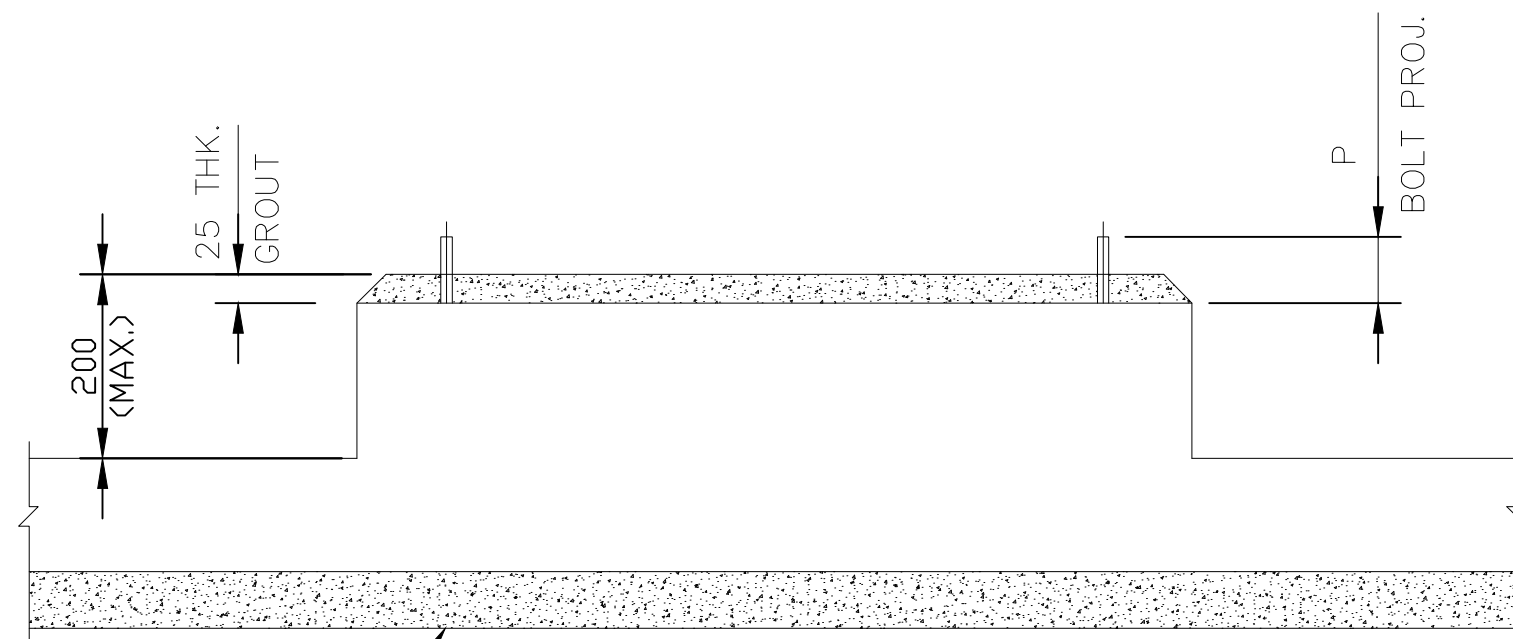
SECTION 1-1
(PAVED AREAS)
(REINFORCEMENT)

1. ALL DIMENSIONS ARE IN mm & LEVELS IN METRES
2. DETAILS SHOWN IN THIS DRAWING SHALL BE FOLLOWED UNLESS OTHERWISE SPECIFICALLY SHOWN IN CONSTRUCTION DRAWING
3. ALL CONCRETE WORK SHALL CONFORM TO IS: 456, M30 GRADE OF CONCRETE SHALL BE USED.(U.N.O.)
4. Φ DENOTES HIGH YIELD DEFORMED BARS CONFORMING TO IS:1786.

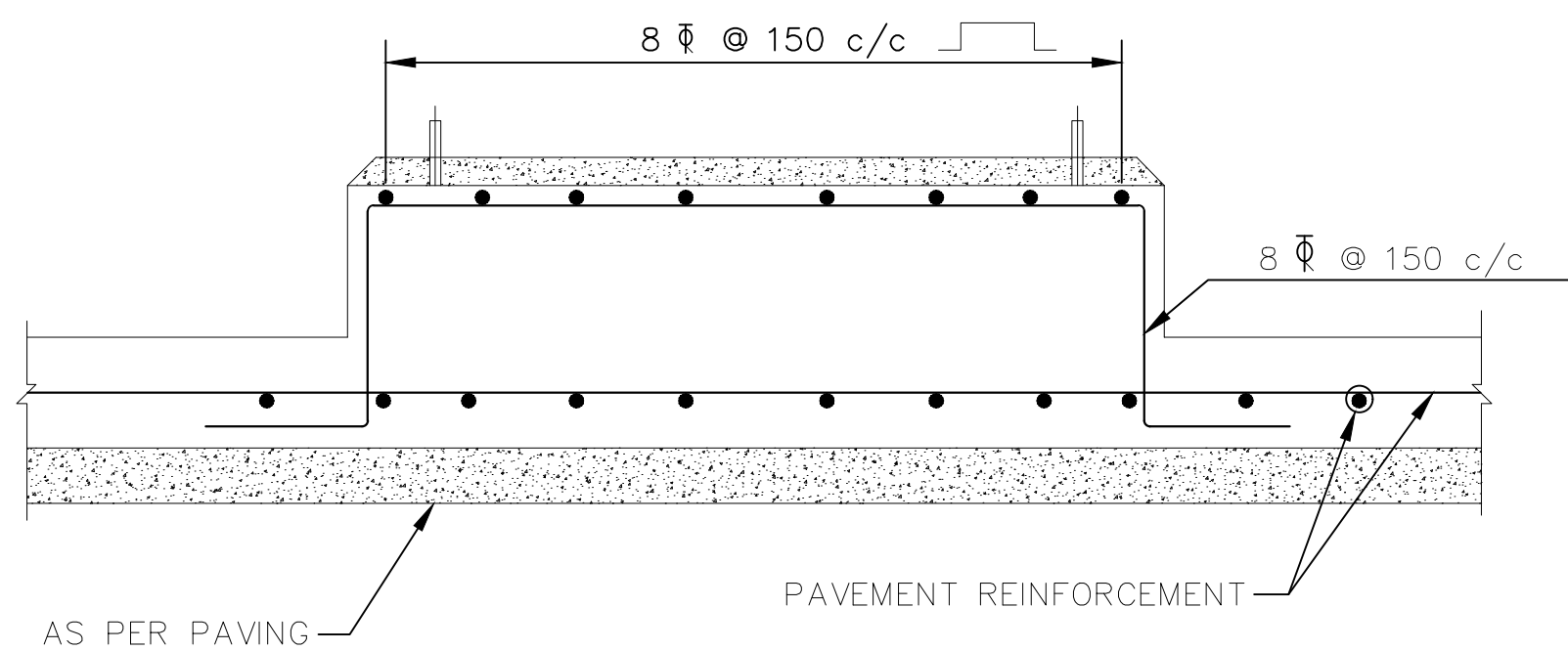
Diagram illustrating the reference point for the bolted connection. The reference point is located at the intersection of the centerline of the stairs (C STAIR) and the centerline of the bolts (C BOLTS).

SL. No.	ITEM	WIDTH	A	B	C	D1	D2	E	BOLT DIA	NUT	CONCRETE GRADE
1.	STAIR	750	1150	400	440	275	125	500 MIN	20	SINGLE	M30
2.	STAIR	900	1300	400	515	275	125	500 MIN	20	SINGLE	M30

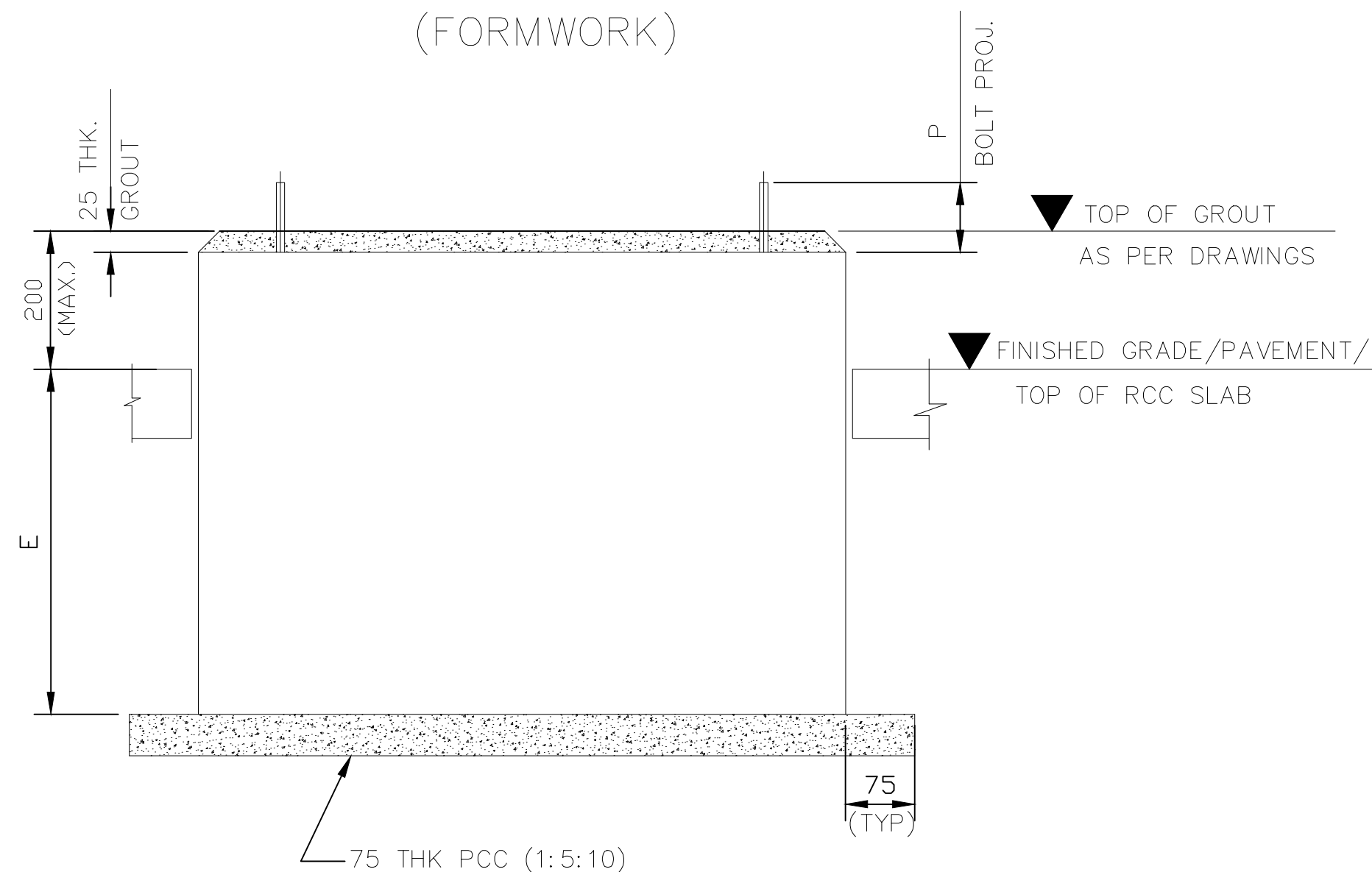
TABLE-1
PEDESTAL FOR STAIR



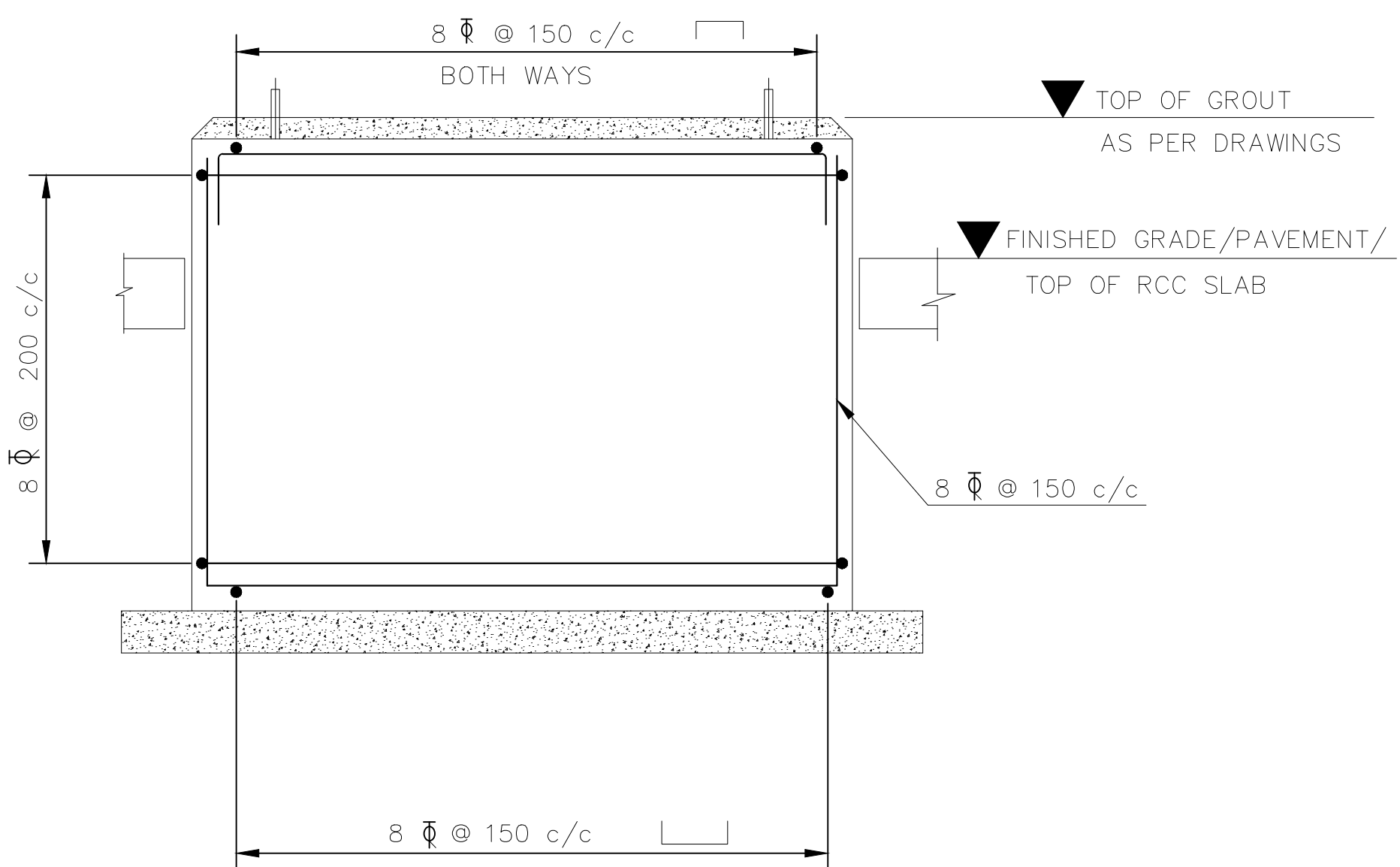
SECTION 1-1
(PAVED AREAS)
(FORMWORK)



SECTION 1-1
(PAVED AREAS)
(REINFORCEMENT)



SECTION 1-1
(UNPAVED AREAS)
(FORMWORK)



SECTION 1-1
(UNPAVED AREAS)
(REINFORCEMENT)

A	16-10-2019	IFD	TUN	KRK	JP / KC	JMC
Rev	Date DD-MM-YYYY	Description of Issue	Written by	Checked by	Approved by	Authorized by

DOCUMENT CATEGORY		DOCUMENT REVIEW STATUS (BY CLIENT)	
(USE " X " MARK)			
<input type="checkbox"/>	APPROVAL		
<input type="checkbox"/>	REVIEW		
<input checked="" type="checkbox"/>	INFORMATION		

PROJECT

STANDBY SRU & ADDITIONAL TANKS

IOCL PARADIP REFINERY, ODISHA, INDIA

OWNER	INDIAN OIL CORPORATION LTD.
 IndianOil	

PMC

 **TechnipFMC**

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TITLE	STANDARD DETAIL OF PEDESTAL FOR STAIR
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DRAWING NO.						PAGE	REV.
SCALE	080557C	000	STC	1790	005	1 OF 2	A
NTS	PROJECT	UNIT	DOC. TYPE	MAT. CODE	SER. NO.		

[illegible]

1. ALL DIMENSIONS ARE IN mm & LEVELS IN METRES
2. DETAILS SHOWN IN THIS DRAWING SHALL BE FOLLOWED UNLESS OTHERWISE SPECIFICALLY SHOWN IN CONSTRUCTION DRAWING
3. ALL CONCRETE WORK SHALL CONFORM TO IS:456, M30 GRADE OF CONCRETE SHALL BE USED.(U.N.O.)
4. Φ DENOTES HIGH YIELD DEFORMED BARS CONFORMING TO IS:1786.

Diagram illustrating a ladder with a reference point. A horizontal dashed line represents the ladder. A vertical dashed line intersects it. A rectangular box is centered on the intersection. An arrow points from the text "REF. POINT." to the intersection. The text "C LADDER" appears twice, once on each side of the vertical dashed line.

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PROJECT									
<h1>STANDBY SRU & ADDITIONAL TANKS</h1> <h2>IOCL PARADIP REFINERY, ODISHA, INDIA</h2>									
OWNER									
 <h1>INDIAN OIL CORPORATION LTD.</h1> <p>IndianOil</p>									
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 <h1>TechnipFMC</h1> <p>CONFIDENTIAL, NOT TO DISCLOSE WITHOUT AUTHORISATION</p>									
TITLE									
<h1>STANDARD DETAIL OF PEDESTAL FOR LADDER</h1>									
DRAWING NO.							PAGE	REV.	
SCALE	080557C	000	STC	1790	005				
NTS	PROJECT	UNIT	DOC. TYPE	MAT. CODE	SER. NO.		2 OF 2	A	

ELEVATION

SECTION

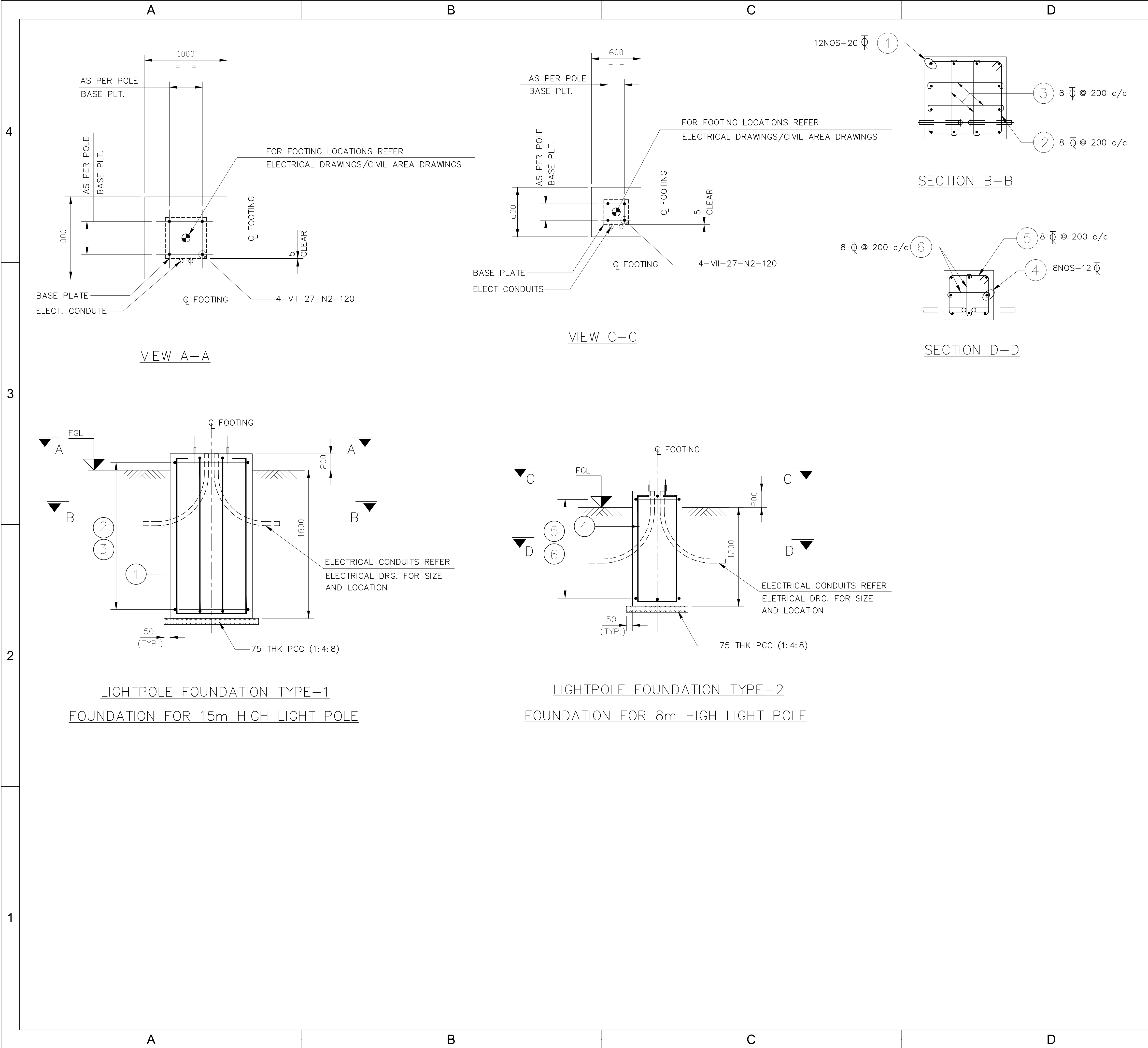
TYPE	DIMENSIONS				TAKE-OFF	
	A	B	C	WEIGHT	CONCRETE	RE-BARS
A	500	150	200	267 kg	0.107 m ³	1.5 kg
B	1000	200	600	535 kg	0.214 m ³	3.1 kg
C	1500	300	900	803 kg	0.321 m ³	4.7 kg
D	2000	450	1100	1070 kg	0.428 m ³	6.2 kg
E	3000	650	1700	1605 kg	0.642 m ³	9.3 kg
F	4000	800	2400	2140 kg	0.856 m ³	12.4 kg
G	5000	1000	3000	2675 kg	1.070 m ³	15.5 kg
H	5500	1250	3000	2942 kg	1.177 m ³	17.0 kg
J	6000	1250	3500	3210 kg	1.284 m ³	18.5 kg
K	2500	500	1500	1337 kg	0.535 m ³	7.7 kg

REINFORCEMENT

REPRESENTATION ON SITE DWG.



CAD FILE NAME : 080557C-000-STC-1790-006_001_A.DXF SHEET SIZE : A3

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NOTES:

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OWNER  INDIAN OIL CORPORATION LTD.										
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TITLE STANDARD FOR LIGHTING POLE FOUNDATION										
DRAWING NO.						PAGE				
SCALE	080557C	000	STC	1790	007	REV.				
NTS	PROJECT	UNIT	DOC. TYPE	MAT. CODE	SER. NO.	1 OF 1				
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