


STATION (m)	PROPOSED LME DESIGN EDGE (m)	PROPOSED RME PROFILE LEVEL (m)	EXISTING GROUND LEVEL LME(m)	EXISTING GROUND LEVEL RME (m)	EXISTING 20M LEFT GROUND LEVEL (m)	EXISTING 20M RIGHT GROUND LEVEL (m)	HORIZONTAL ALIGNMENT	VERTICAL GEOMETRY LME	VERTICAL GEOMETRY RME
54+000.000	123.003	123.003	120.437	120.307	121.170	120.293	39m	150.00	150.00
54+025.000	123.278	123.278	120.785	120.746	121.166	120.417	L=75.00m	150.00	150.00
54+050.000	123.474	123.474	120.854	120.816	121.003	120.522	R=139.738	78.00	78.00
54+075.000	123.590	123.590	120.641	120.603	120.641	120.703	L=65.653m	165.00	165.00
54+100.000	123.628	123.628	121.247	121.209	121.831	120.814	R=2000.000m	116.7	116.7
54+125.000	123.628	123.628	117.981	117.943	119.306	117.841	L=218.274	100.00	100.00
54+150.000	123.628	123.628	117.790	117.752	118.826	118.078	R=248.395	100.00	100.00
54+175.000	123.628	123.628	118.485	118.447	118.006	119.363	L=33.217m	300.29	300.29
54+200.000	123.598	123.598	122.977	122.939	123.017	122.243	R=5000.000m	60.00	60.00
54+225.000	123.489	123.489	122.189	122.151	122.091	119.991	L=117.362m	106.77	106.77
54+250.000	123.299	123.299	121.158	121.120	120.105	120.311	R=56.367	60.00	60.00
54+275.000	123.030	123.030	120.778	120.740	120.318	120.007	L=75.00m	17.77	17.77
54+300.000	122.880	122.880	120.468	120.430	119.418	119.822	L=75.00m	60.00	60.00
54+325.000	122.251	122.251	120.227	120.189	119.856	119.112	L=75.00m	300.29	300.29
54+350.000	121.744	121.744	120.175	120.137	119.840	119.840	L=75.00m	60.00	60.00
54+375.000	121.259	121.259	120.195	120.157	119.822	119.822	L=75.00m	60.00	60.00
54+400.000	120.902	120.902	120.240	120.202	119.931	119.931	L=75.00m	60.00	60.00
54+425.000	120.676	120.676	120.279	120.241	119.905	119.905	L=75.00m	60.00	60.00
54+450.000	120.582	120.582	120.274	120.236	119.488	119.488	L=75.00m	60.00	60.00
54+475.000	120.577	120.577	120.306	120.268	119.920	119.920	L=75.00m	60.00	60.00
54+500.000	120.574	120.574	120.353	120.315	119.845	119.845	L=75.00m	60.00	60.00
54+525.000	120.571	120.571	120.314	120.276	119.721	119.721	L=75.00m	60.00	60.00
54+550.000	120.568	120.568	120.266	120.228	119.468	119.468	L=75.00m	60.00	60.00
54+575.000	120.565	120.565	120.215	120.177	119.604	119.604	L=75.00m	60.00	60.00
54+600.000	120.563	120.563	120.163	120.125	119.203	119.203	L=75.00m	60.00	60.00
54+625.000	120.560	120.560	120.102	120.064	119.602	119.602	L=75.00m	60.00	60.00
54+650.000	120.557	120.557	120.039	120.001	119.809	119.809	L=75.00m	60.00	60.00
54+675.000	120.554	120.554	120.057	120.019	119.476	119.476	L=75.00m	60.00	60.00
54+700.000	120.551	120.551	120.168	120.130	119.881	119.881	L=75.00m	60.00	60.00
54+725.000	120.548	120.548	120.199	120.161	119.692	119.692	L=75.00m	60.00	60.00
54+750.000	120.546	120.546	120.152	120.114	119.320	119.320	L=75.00m	60.00	60.00
54+775.000	120.530	120.530	120.101	120.063	119.009	119.009	L=75.00m	60.00	60.00
54+800.000	120.472	120.472	120.051	120.013	119.979	119.979	L=75.00m	60.00	60.00
54+825.000	120.375	120.375	120.001	119.963	119.603	119.603	L=75.00m	60.00	60.00
54+850.000	120.270	120.270	119.943	119.905	119.502	119.502	L=75.00m	60.00	60.00
54+875.000	120.165	120.165	119.884	119.846	119.005	119.005	L=75.00m	60.00	60.00
54+900.000	120.061	120.061	119.820	119.782	118.931	118.931	L=75.00m	60.00	60.00
54+925.000	119.957	119.957	119.770	119.732	118.103	118.103	L=75.00m	60.00	60.00
54+950.000	119.918	119.918	119.764	119.726	118.331	118.331	L=75.00m	60.00	60.00
54+975.000	119.985	119.985	119.680	119.642	117.321	117.321	L=75.00m	60.00	60.00
54+995.000	120.508	120.508	119.960	119.922	116.532	116.532	L=75.00m	60.00	60.00

PATH: C:\Users\vbaw\1\Desktop\OTHER\NH515 Section 2\NH515 S2\6.PLAN PROFILE\Sheet_NH-515 section2.dwg

CLIENT :

NATIONAL HIGHWAYS AND INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.
 (MINISTRY OF ROAD TRANSPORT AND HIGHWAYS)
 GOVERNMENT OF INDIA

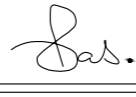



PROJECT :
CONSULTANCY SERVICES FOR PREPARATION OF DETAILED PROJECT REPORT FOR DEVELOPMENT OF ECONOMIC CORRIDORS, INTER CORRIDORS AND FEEDER ROUTES TO IMPROVE THE EFFICIENCY OF FREIGHT MOVEMENTS IN INDIA UNDER BHARATMALA PARIYOJANA (LOT-1:PACKAGE IV)

DESIGN CONSULTANT:

VOYANTS SOLUTIONS PVT LTD.
 403, 4th Floor, Park Centra, Sector-30, NH-8 Gurugram-122001, Haryana, India
 CIN: U74140HR2004PTC046918
 Ph: 0124-4598200, Fax: 0124-4019051, E-mail: info@voyants.in, www.voyants.in

Detailed Project Report

REV.	DATE	DESCRIPTION

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
PD/PS	SS/SP	DGR	SKC
			
SCALE :	HOR 1:2500 VER 1:250	SHEET SIZE	A2

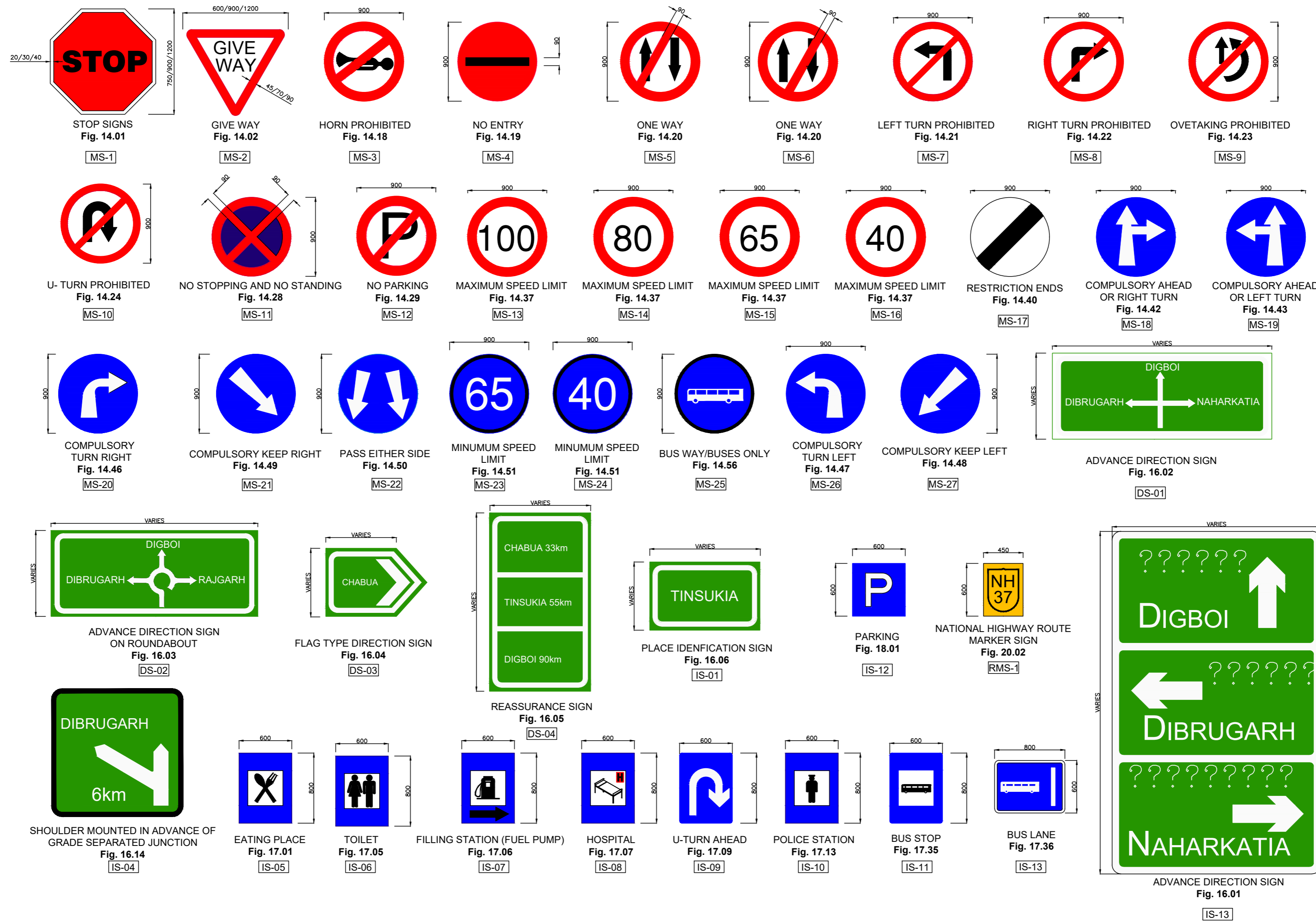
TITLE :
Plan and Profile
 (km 54+000 to km 55+000)

DRG. No. :
 VSPL/1718-082/DPR/PKG-4/NH-515/S2/PP-27

REVISION:R1

December 2022

☰ **Miscellaneous Drawings (For Road Work)** ☰



Note:
1. The dimension of the road sign given as in as per 100kmph design speed, dimension should be change of design speed according to IRC-67-2012 table no. 14.1, 14.2, 14.4

PATH: C:\Shampa\01\Project\1718082_Bharatmala_Assam_P-4\2.October_2022\New Folder\Assam_P-4\557.Misc\MIS_01_Road_Sign_Sht-1.dwg

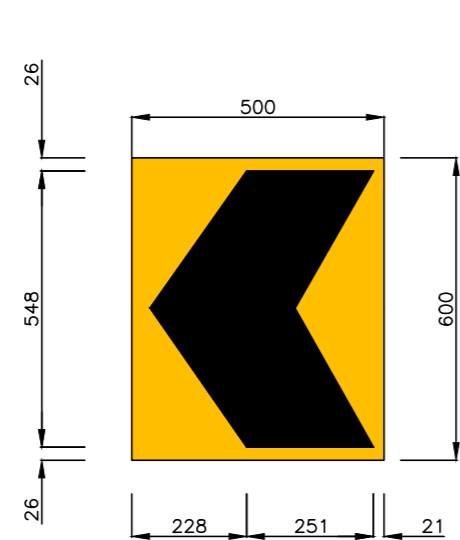
CLIENT :  NATIONAL HIGHWAYS AND INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. (MINISTRY OF ROAD TRANSPORT AND HIGHWAYS) GOVERNMENT OF INDIA	PROJECT : CONSULTANCY SERVICES FOR PREPARATION OF DETAILED PROJECT REPORT FOR DEVELOPMENT OF ECONOMIC CORRIDORS, INTER CORRIDORS AND FEEDER ROUTES TO IMPROVE THE EFFICIENCY OF FREIGHT MOVEMENTS IN INDIA UNDER BHARATMALA PARIYOJANA (LOT-1:PACKAGE IV)	DESIGN CONSULTANT:  VOYANTS SOLUTIONS PVT LTD. 403, 4th Floor, Park Centra, Sector-30, NH-8 Gurugram-122001, Haryana, India CIN- U74140HR2004PTC046918 Ph: 0124-4598200, Fax: 0124-4019051, E-mail: info@voyants.in, www.voyants.in	Detailed Project Report				DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY	TITLE : Road Sign & Road Delineators
			PD/PS 	SS/SP 	DGR 	SKC 	DRG. No. : VSPL/1718-082/DPR/PKG-4/MIS- 01 (Sheet 01 of 03)				
				REV. DATE	DESCRIPTION	SCALE :	1:35	SHEET SIZE	A2	REVISION:R0	OCTOBER 2022



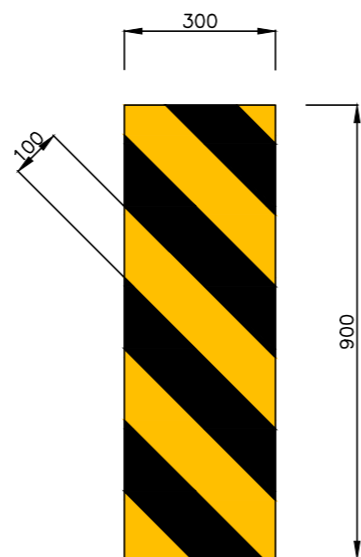
Note:
 1. The dimension of the road sign given as in as per 80kmph design speed, dimension should be change of design speed according to IRC-67-2012 table no. 15.1

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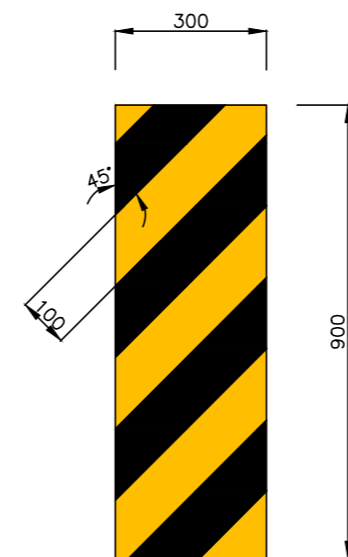
CLIENT :  NATIONAL HIGHWAYS AND INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. (MINISTRY OF ROAD TRANSPORT AND HIGHWAYS) GOVERNMENT OF INDIA	PROJECT : CONSULTANCY SERVICES FOR PREPARATION OF DETAILED PROJECT REPORT FOR DEVELOPMENT OF ECONOMIC CORRIDORS, INTER CORRIDORS AND FEEDER ROUTES TO IMPROVE THE EFFICIENCY OF FREIGHT MOVEMENTS IN INDIA UNDER BHARATMALA PARIYOJANA (LOT-1:PACKAGE IV)	DESIGN CONSULTANT:  VOYANTS SOLUTIONS PVT LTD. 403, 4th Floor, Park Centra, Sector-30, NH-8 Gurugram-122001, Haryana, India CIN- U74140HR2004PTC046918 Ph: 0124-4598200, Fax: 0124-4019051, E-mail: info@voyants.in, www.voyants.in	Detailed Project Report				TITLE : Road Sign & Road Delineators	
			DESIGNED BY PD/PS 	DRAWN BY SS/SP 	CHECKED BY DGR 	APPROVED BY SKC 	DRG. No. : VSPL/1718-082/DPR/PKG-4/MIS- 01 (Sheet 02 of 03)	
SCALE : 1:30		SHEET SIZE A2		REVISION:R0		OCTOBER 2022		



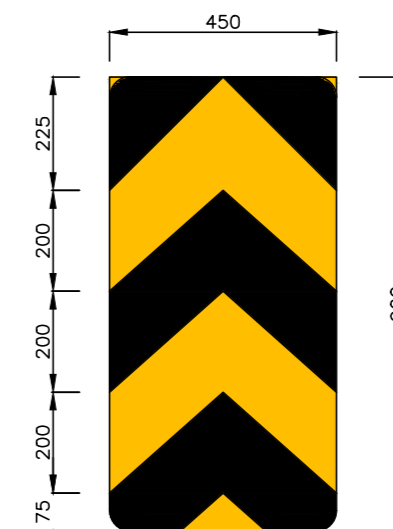
SINGLE CHEVRON
Fig. 15.72
TA-1
SCALE 1:15000



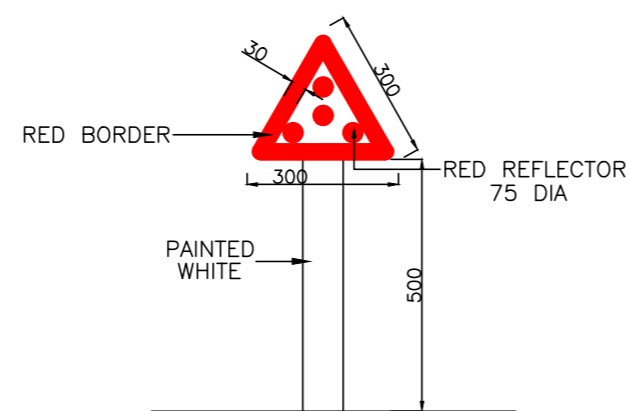
OBJECT HAZARD (LEFT)
Fig. 15.76
TA-2
SCALE 1:15000



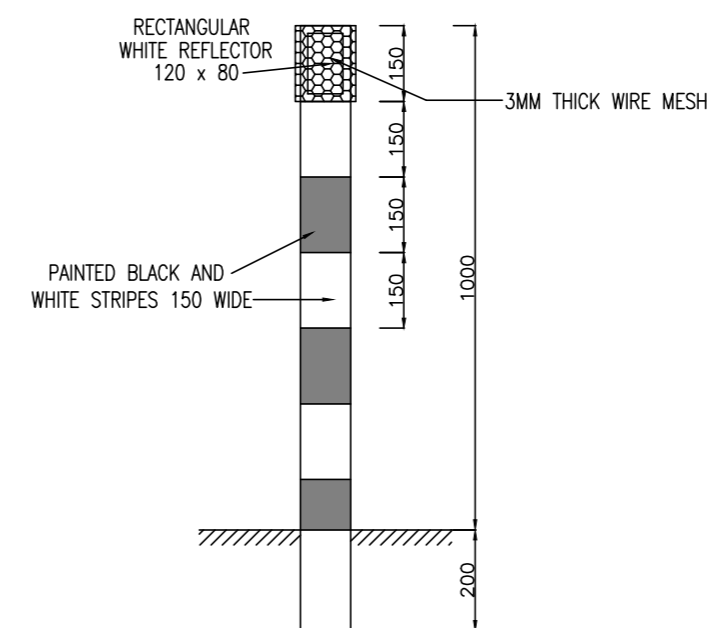
OBJECT HAZARD (RIGHT)
Fig. 15.77
TA-3
SCALE 1:15000



TWO WAY HAZARD MARKER
Fig. 15.78
TA-4
SCALE 1:15000




CLUSTER OF RED REFLECTORS
TA-5
SCALE 1:15000




ROAD DELINEATORS WITH RECTANGULAR REFLECTOR
TA-6
SCALE 1:15000

Notes:

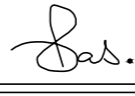



1. Road signs shall be erected as per IRC:67-2012.
2. Sizes of arrows, letters and numerals for road signs shall be as per IRC:67-2012
3. Route marker signs, letters and numerals shall be erected as per IRC:2-1968.
4. Spacing of TA2 on kerb face shall be 250mm C/C and that on metal beam crash barrier shall be 3000mm C/C. The number of reflector at island/median tips shall be as instructed by the Engineer, but in no case shall be less than five number at a tip.
5. CS1 can also be used for compulsory right turn and straight ahead by rotating.
6. All items indicated in this drawing may not be relevant for the subject project, these shall be used depending upon the requirement.
7. Besides the above, standards and specifications mentioned in IRC:67-2012 shall be followed strictly whenever applicable.

CLIENT :

NATIONAL HIGHWAYS AND INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.
(MINISTRY OF ROAD TRANSPORT AND HIGHWAYS)
GOVERNMENT OF INDIA

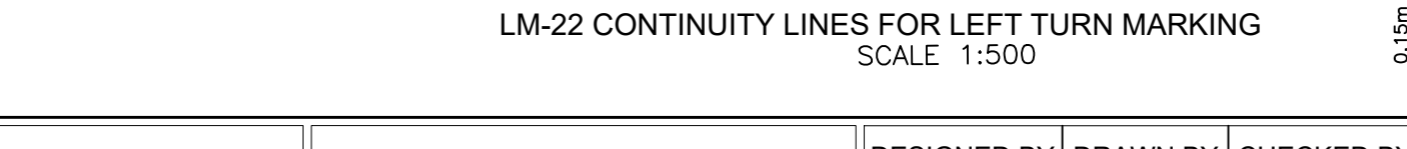
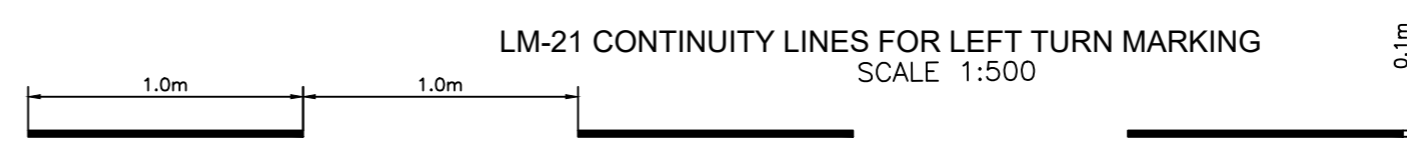
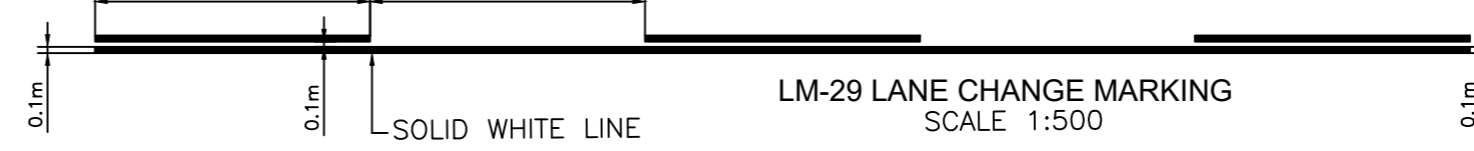
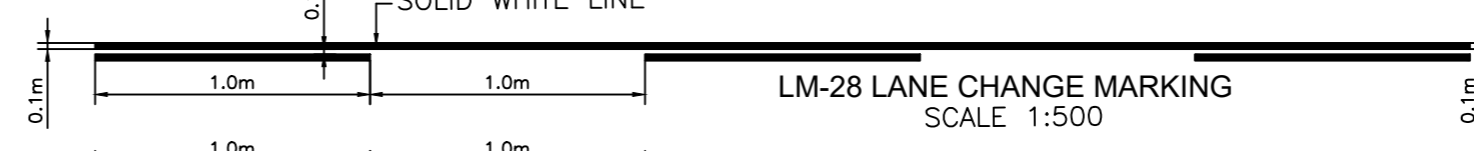
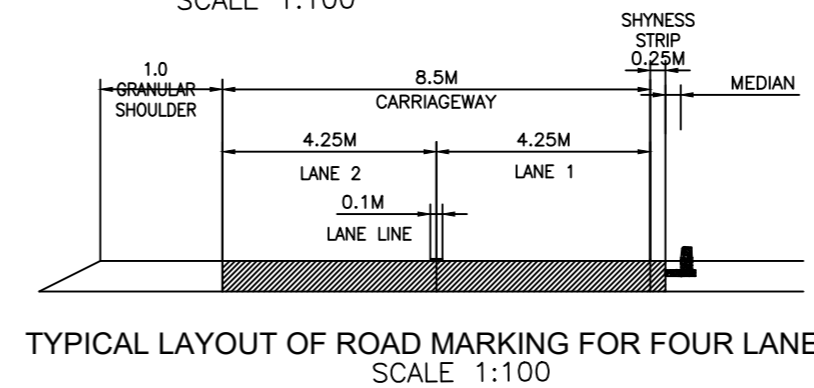
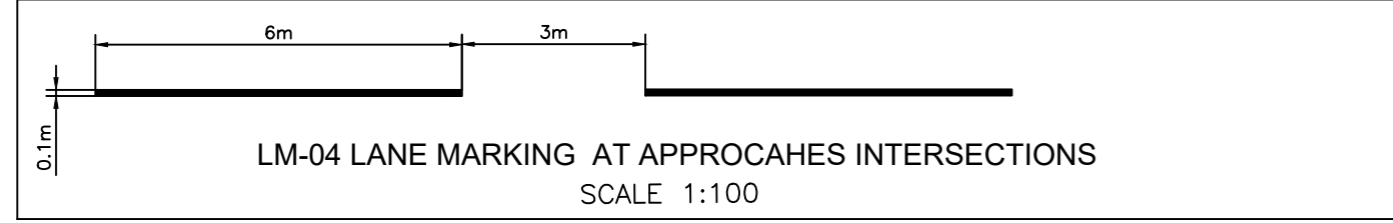
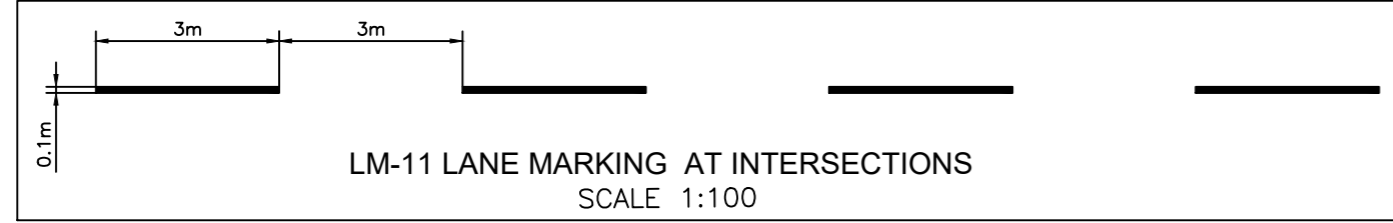
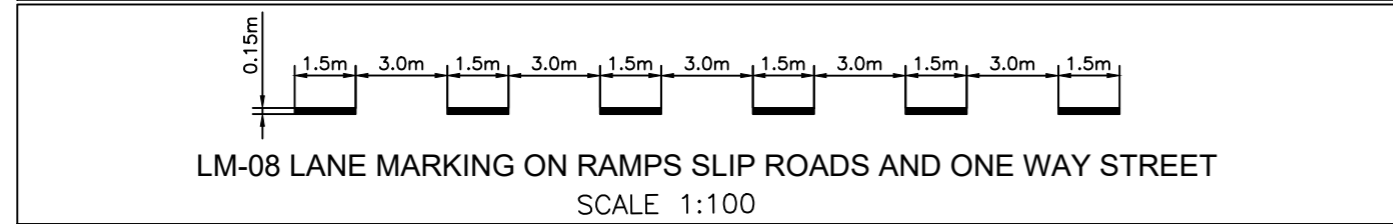
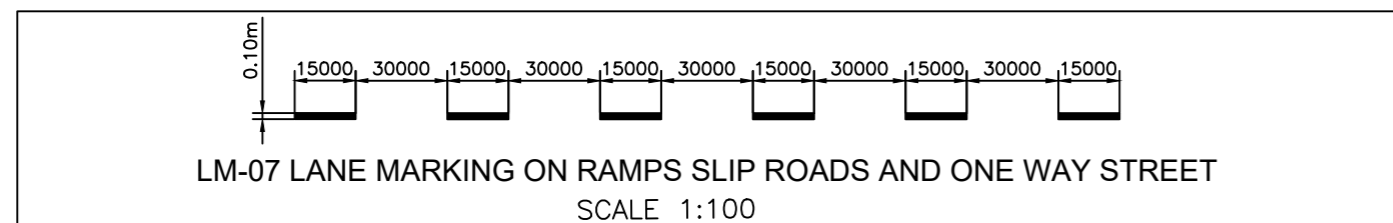
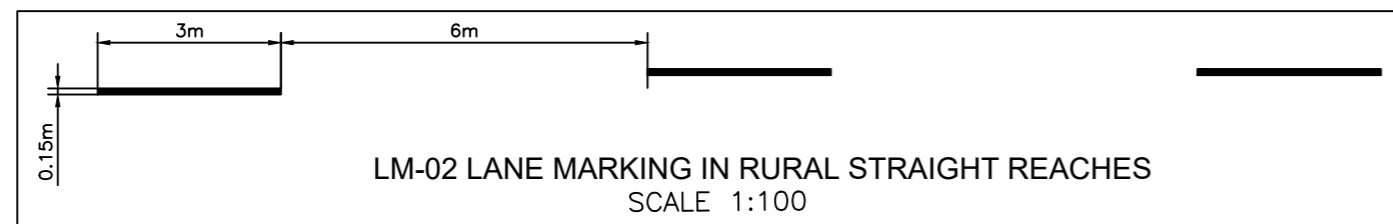
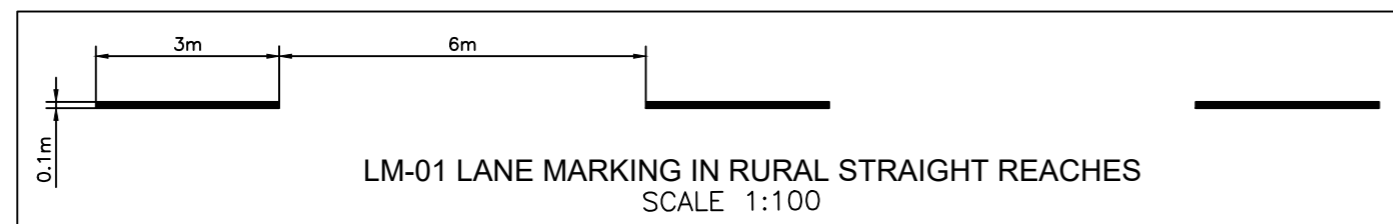
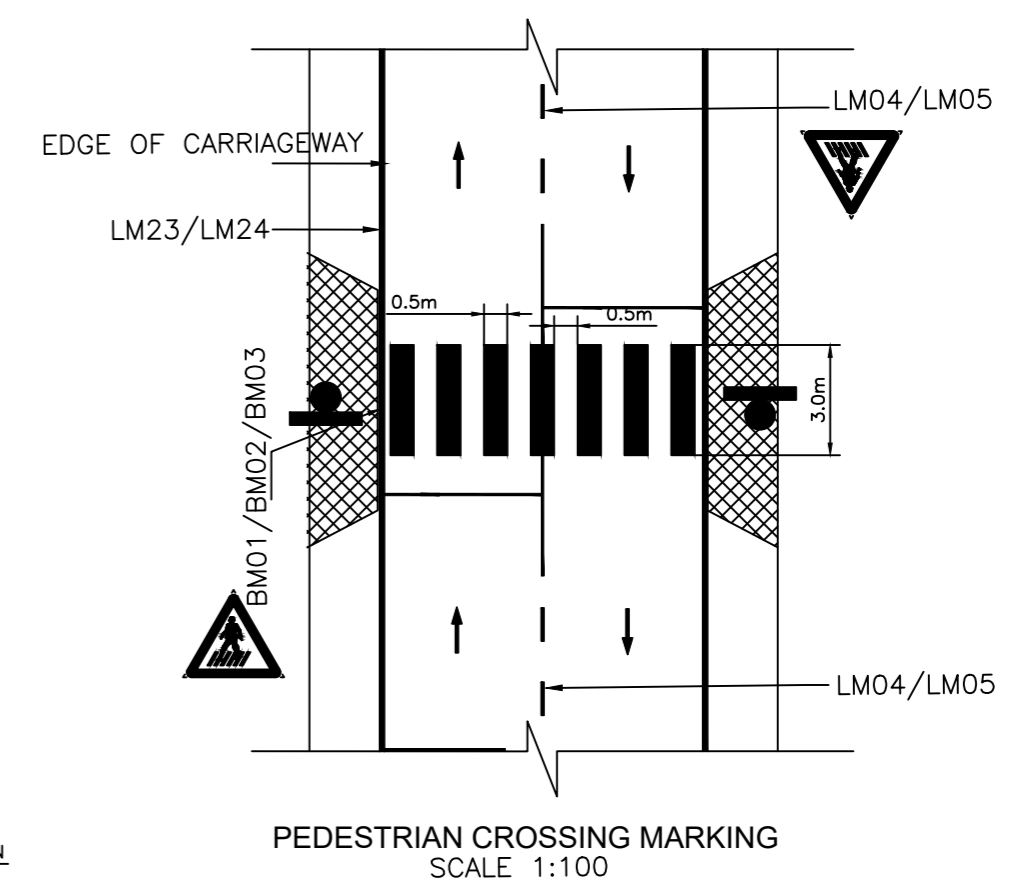
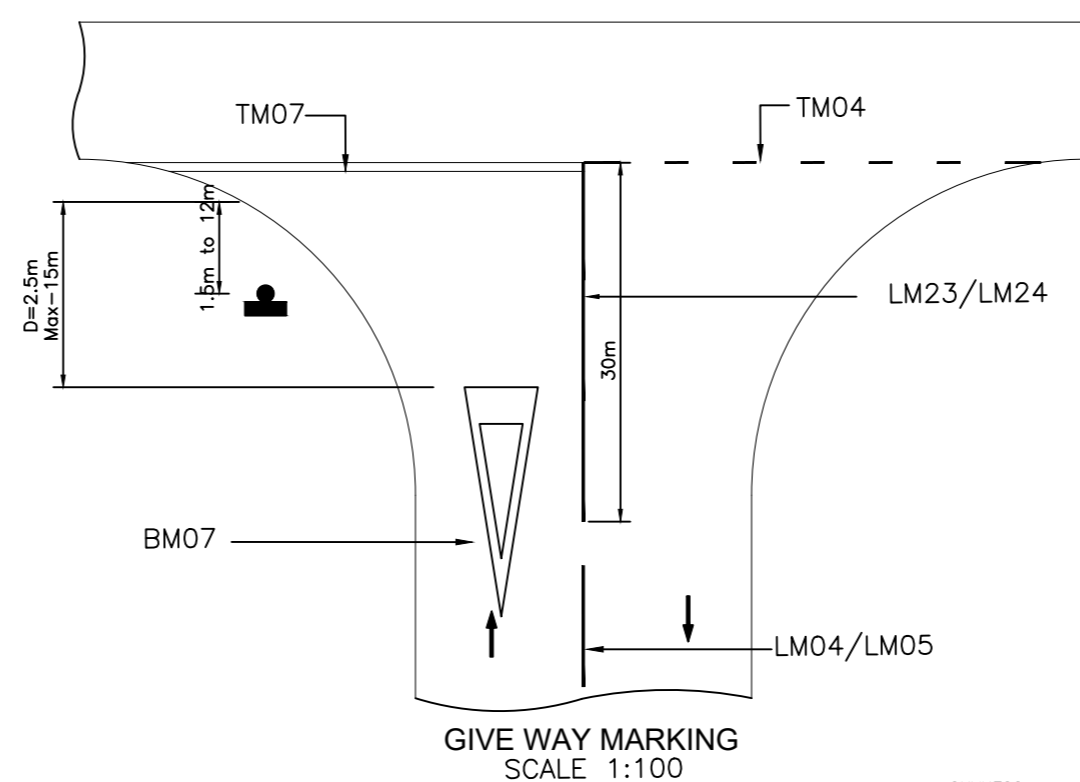
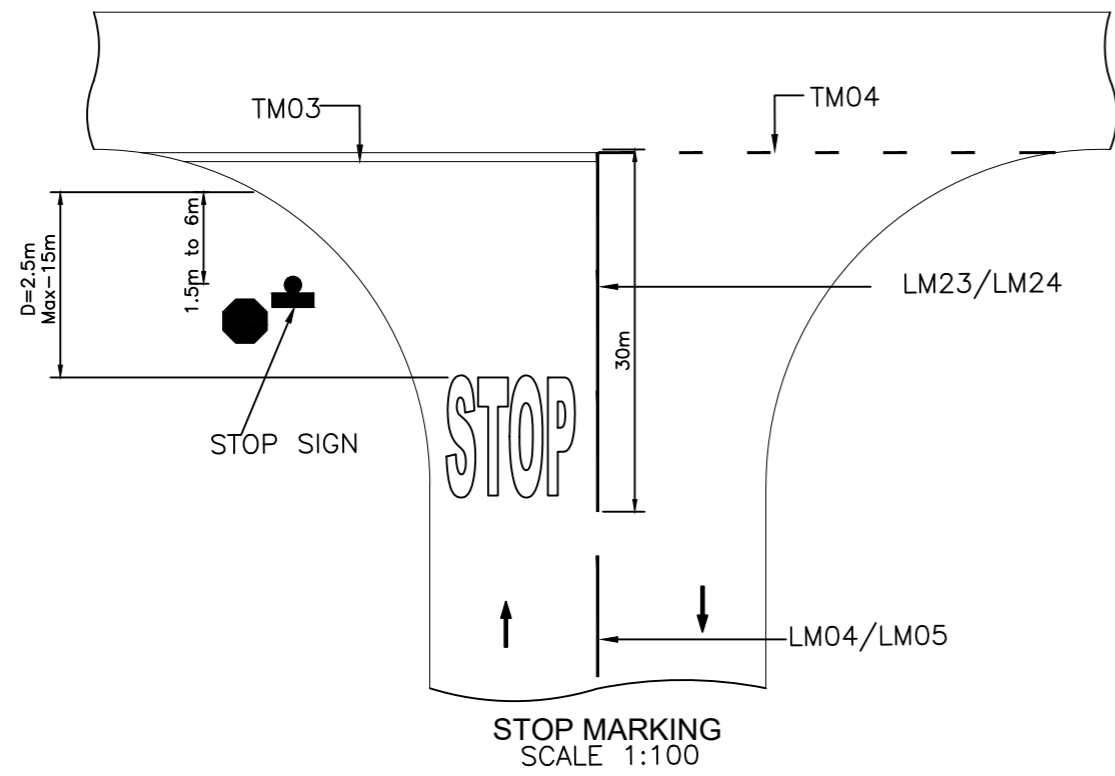
PROJECT :
CONSULTANCY SERVICES FOR PREPARATION OF DETAILED PROJECT REPORT FOR DEVELOPMENT OF ECONOMIC CORRIDORS, INTER CORRIDORS AND FEEDER ROUTES TO IMPROVE THE EFFICIENCY OF FREIGHT MOVEMENTS IN INDIA UNDER BHARATMALA PARIYOJANA (LOT-1:PACKAGE IV)

DESIGN CONSULTANT:

VOYANTS SOLUTIONS PVT LTD.
403, 4th Floor, Park Centra,
Sector-30, NH-8
Gurugram-122001, Haryana, India
CIN- U74140HR2004PTC046918
Ph: 0124-4598200, Fax: 0124-4019051,
E-mail: info@voyants.in, www.voyants.in

Detailed Project Report	
REV.	DATE
DESCRIPTION	

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
PD/PS	SS/SP	DGR	SKC
			
SCALE :	AS SHOWN	SHEET SIZE	A2

TITLE :	
Road Sign & Road Delineators	
DRG. No. :	VSPL/1718-082/DPR/PKG-4/MIS- 01 (Sheet 03 of 03)
REVISION:R0	OCTOBER 2022



Notes:

- All the arrows and marking are in white colour.
- Provided first arrow at distance of 15m from mouth of intersection & second at 30m from first arrow.
- Size of arrow shall be 3.5m (As per of IRC:35-2015) for design speed is less than 50km/hr.

PATH: C:\Sharma\0\Project\1718092_Bharatmala_Assam_P-4\2.October_2022\New Folder\Misc\MIS_02_Road_Marking.dwg

CLIENT :
NATIONAL HIGHWAYS AND INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.
(MINISTRY OF ROAD TRANSPORT AND HIGHWAYS)
GOVERNMENT OF INDIA

PROJECT :
CONSULTANCY SERVICES FOR PREPARATION OF DETAILED PROJECT REPORT FOR DEVELOPMENT OF ECONOMIC CORRIDORS, INTER CORRIDORS AND FEEDER ROUTES TO IMPROVE THE EFFICIENCY OF FREIGHT MOVEMENTS IN INDIA UNDER BHARATMALA PARIYOJANA (LOT-1:PACKAGE IV)

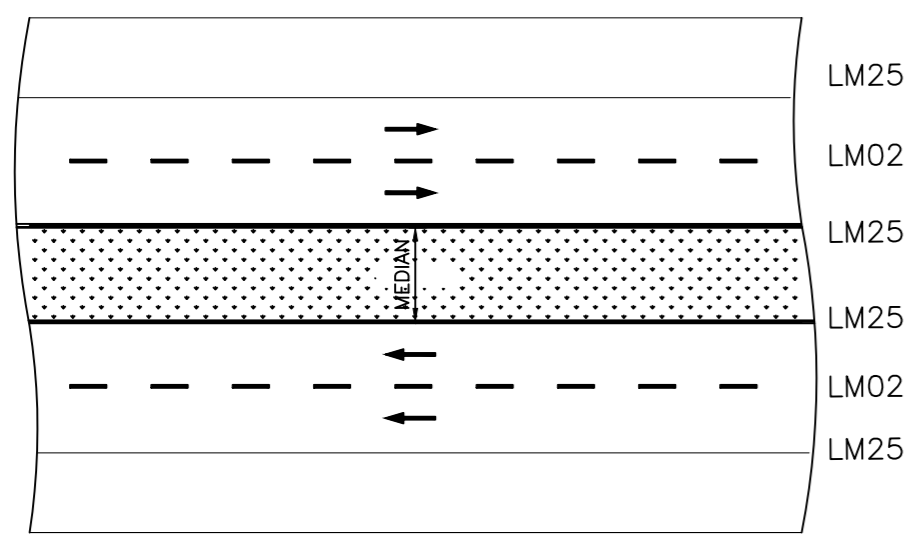
DESIGN CONSULTANT:
VOYANTS SOLUTIONS PVT LTD.
403, 4th Floor, Park Centra,
Sector-30, NH-8
Gurugram-122001, Haryana, India
CIN- U74140HR2004PTC046918
Ph: 0124-4598200, Fax: 0124-4019051,
E-mail: info@voyants.in, www.voyants.in

Detailed Project Report

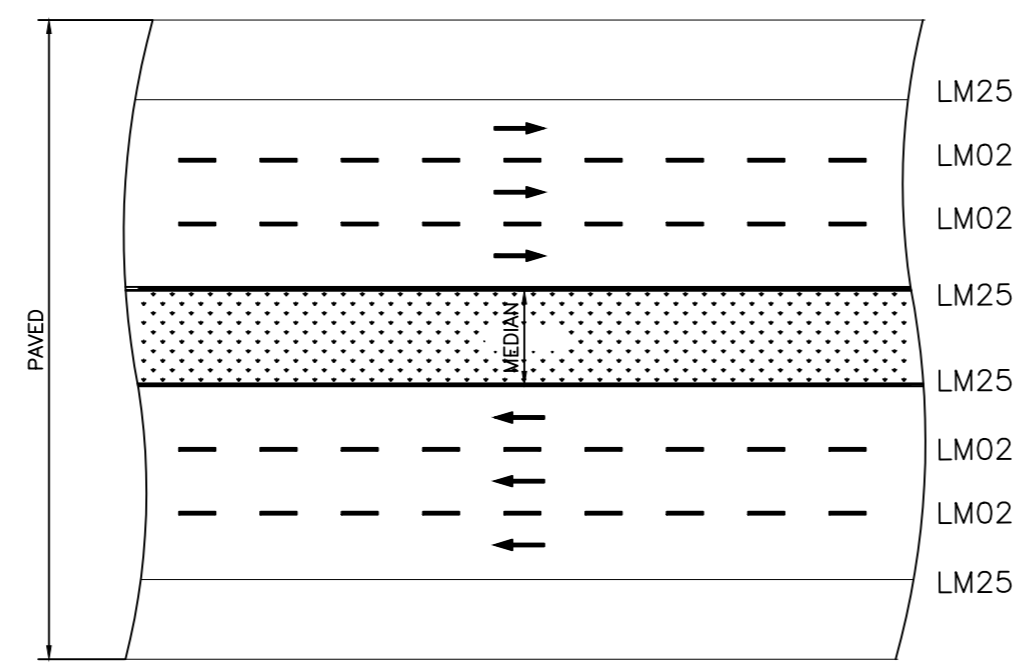
REV.	DATE	DESCRIPTION

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
PD/PS	SS/SP	DGR	SKC
<i>Sar.</i>	<i>SP</i>	<i>DGR</i>	<i>SKC</i>
SCALE :	N.T.S	SHEET SIZE	A2

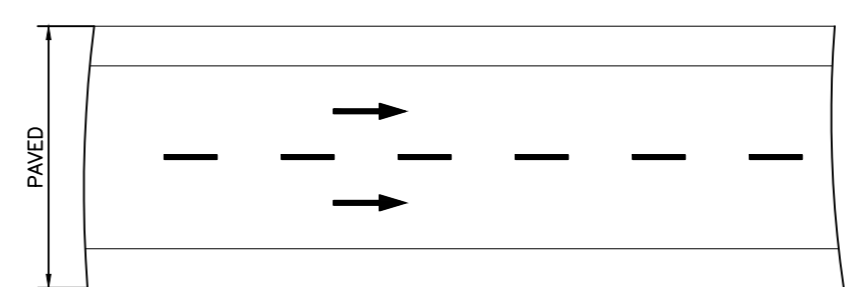
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DRG. No. :	VSPL/1718-082/DPR/PKG-4/MIS- 02 (Sheet 01 of 04)
REVISION:R0	OCTOBER 2022



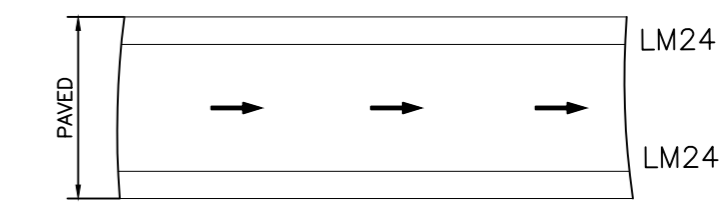
MAIN CARRIAGEWAY



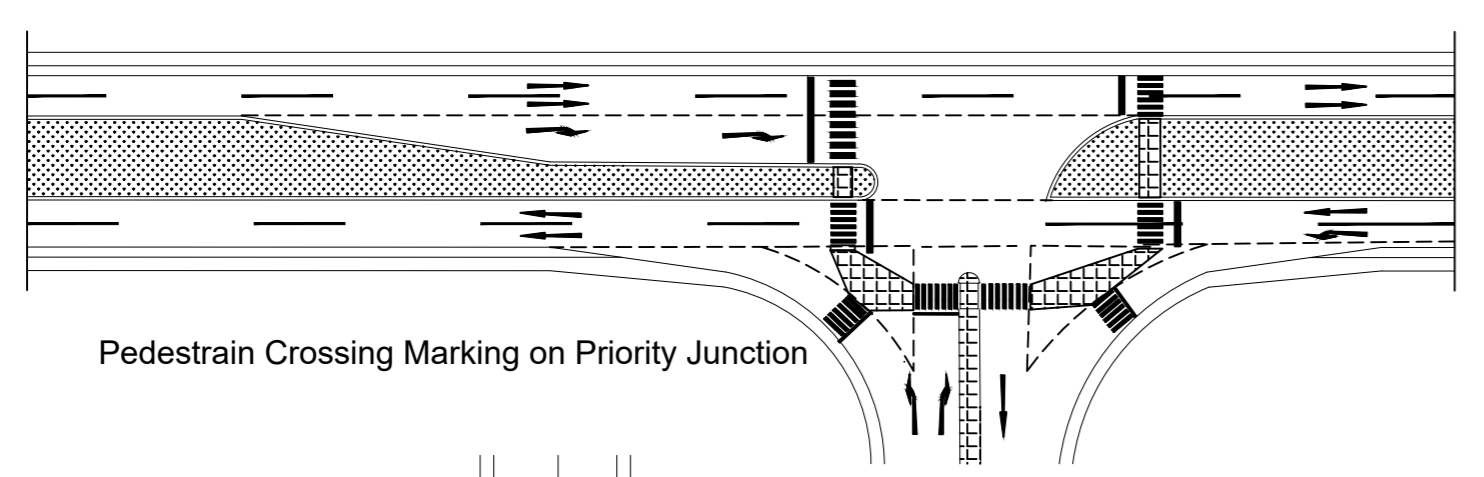
MAIN CARRIAGEWAY



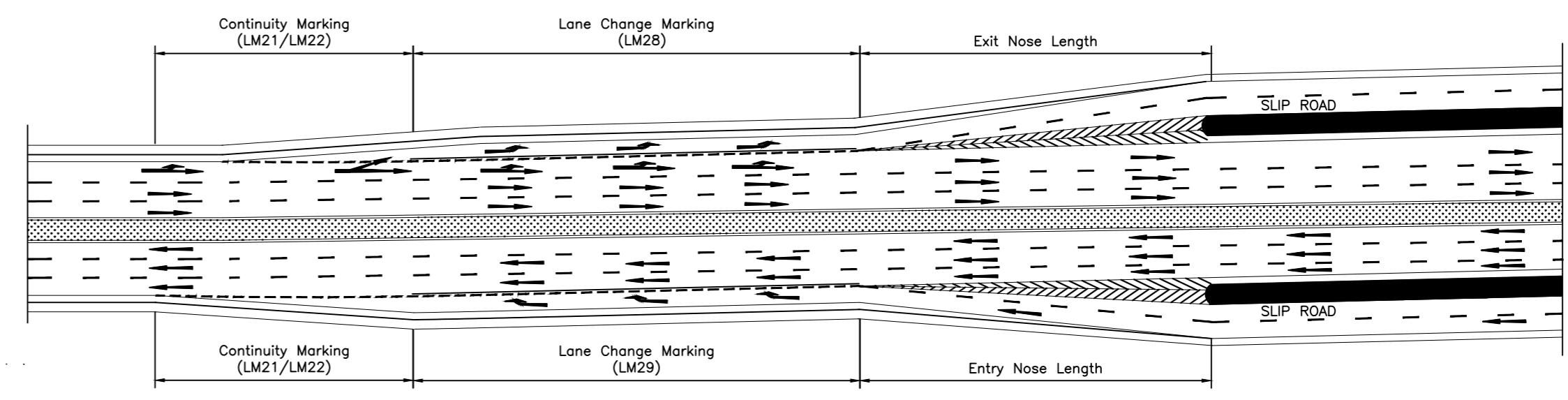
SERVICE / SLIP ROAD



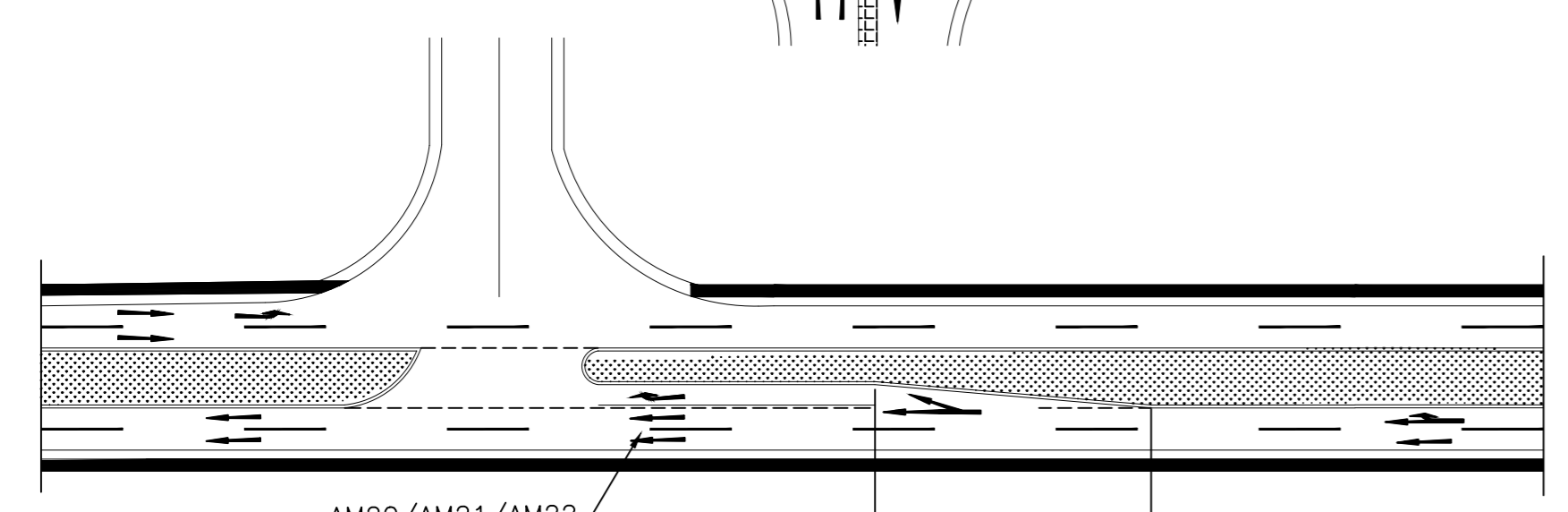
SERVICE / SLIP ROAD
TCS-19A



Pedestrian Crossing Marking on Priority Junction

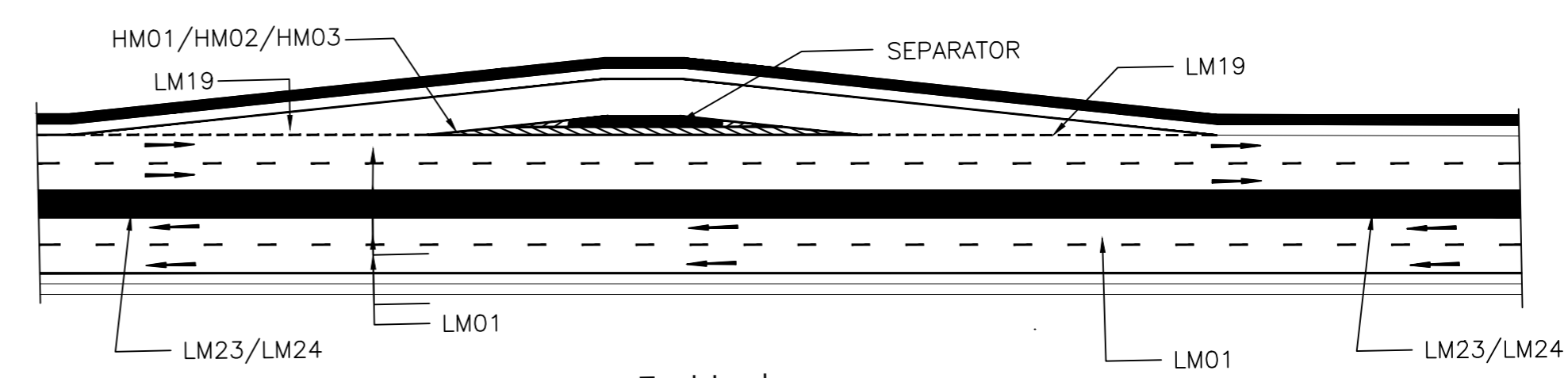


Mergen and Deceleration with Acceleration
at main carriageway and service road

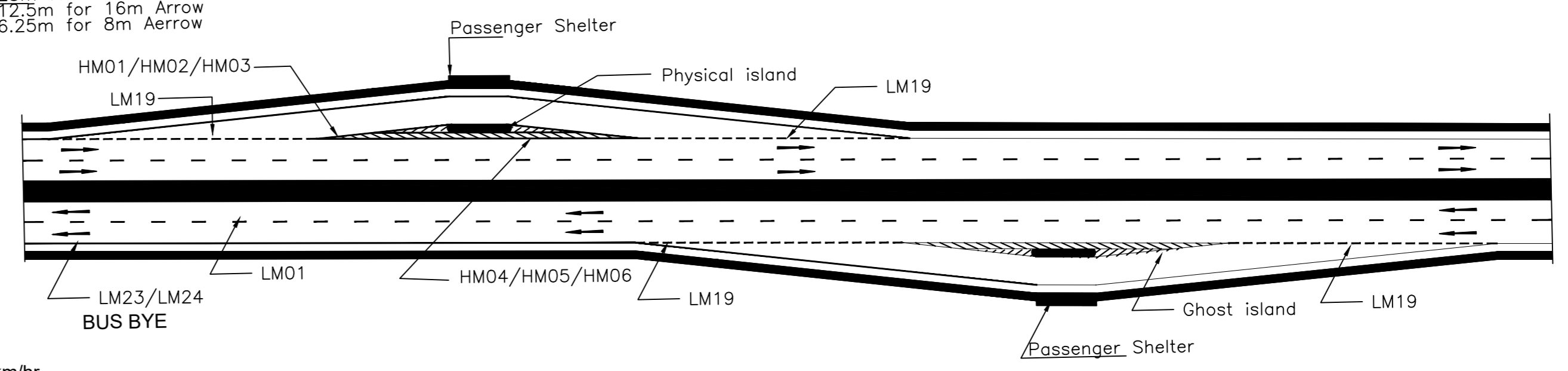


Shelter lane at median opening

25m for 32m Arrow
12.5m for 16m Arrow
6.25m for 8m Arrow



Truck Lay-by



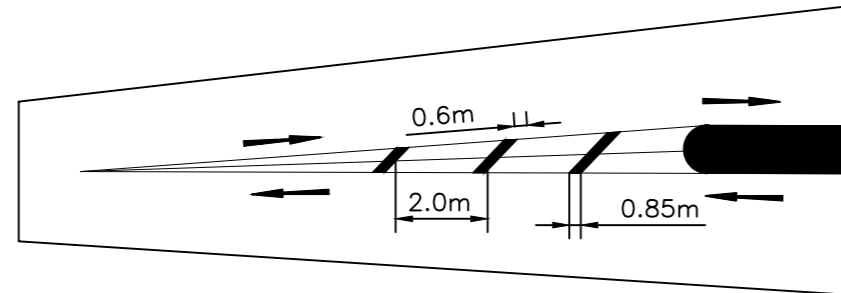
BUS BYE

Notes:

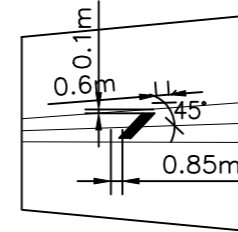
1. All the arrows are in white colour.
2. Provided first arrow at distance of 15m from mouth of intersection & second at 30m from first arrow.
3. Size of arrow shall be 3.5m (As per fig.21 of IRC:35-2015) for design speed is less than 50km/hr.

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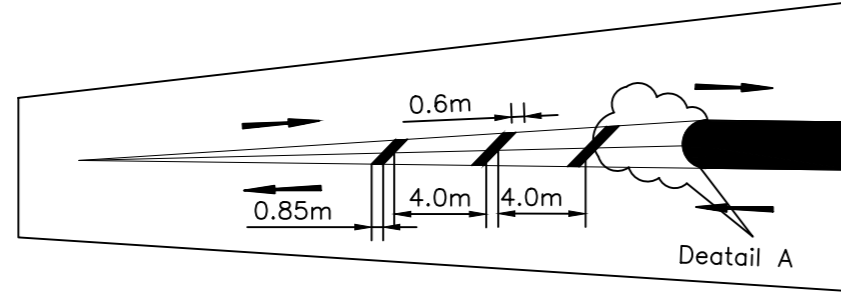
CLIENT :  NATIONAL HIGHWAYS AND INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. (MINISTRY OF ROAD TRANSPORT AND HIGHWAYS) GOVERNMENT OF INDIA	PROJECT : CONSULTANCY SERVICES FOR PREPARATION OF DETAILED PROJECT REPORT FOR DEVELOPMENT OF ECONOMIC CORRIDORS, INTER CORRIDORS AND FEEDER ROUTES TO IMPROVE THE EFFICIENCY OF FREIGHT MOVEMENTS IN INDIA UNDER BHARATMALA PARIYOJANA (LOT-1:PACKAGE IV)	DESIGN CONSULTANT:  VOYANTS SOLUTIONS PVT LTD. 403, 4th Floor, Park Centra, Sector-30, NH-8 Gurugram-122001, Haryana, India CIN- U74140HR2004PTC046918 Ph: 0124-4598200, Fax: 0124-4019051, E-mail: info@voyants.in, www.voyants.in	Detailed Project Report				DESIGNED BY PD/PS	DRAWN BY SS/SP	CHECKED BY DGR	APPROVED BY SKC	TITLE : Road / Kerb Marking DRG. No. : VSPL/1718-082/DPR/PKG-4/MIS- 02 (Sheet 02 of 04)
			REV. DATE	DESCRIPTION	SCALE : N.T.S	SHEET SIZE A2	REVISION:R0	OCTOBER 2022			



Total Length Of marking <10m

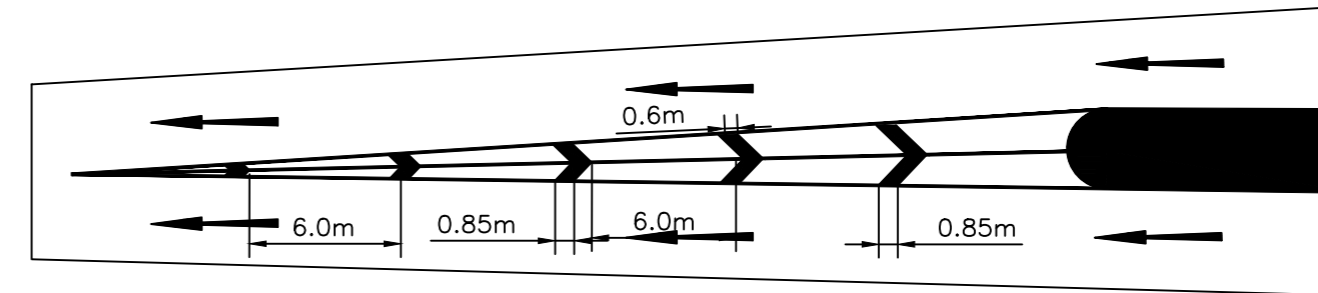


Detail A

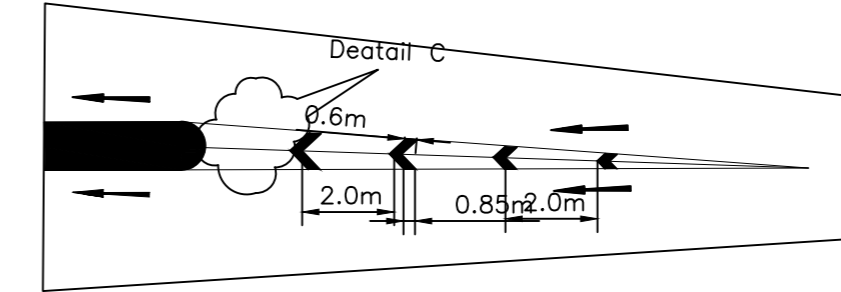


Total Length Of marking 10m to 22m

Deatail A

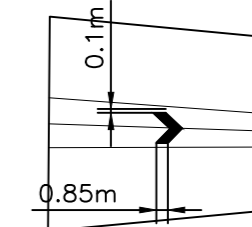


Total Length Of marking >22m
Chevron Marking (Merging)

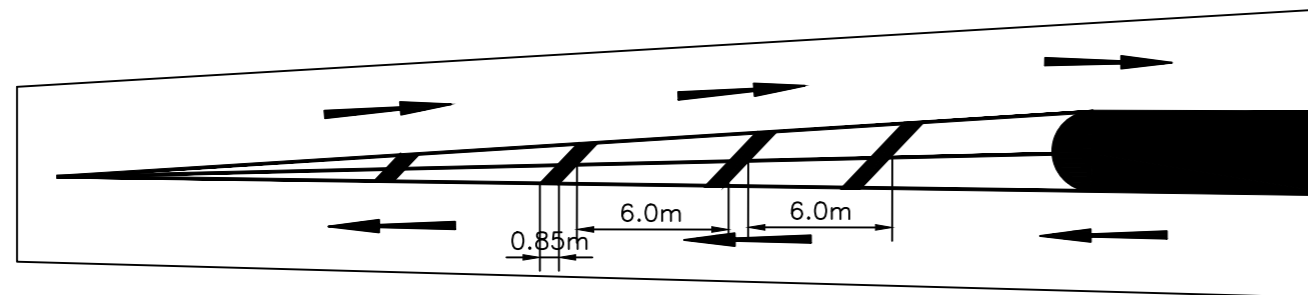


Total Length Of marking <10m

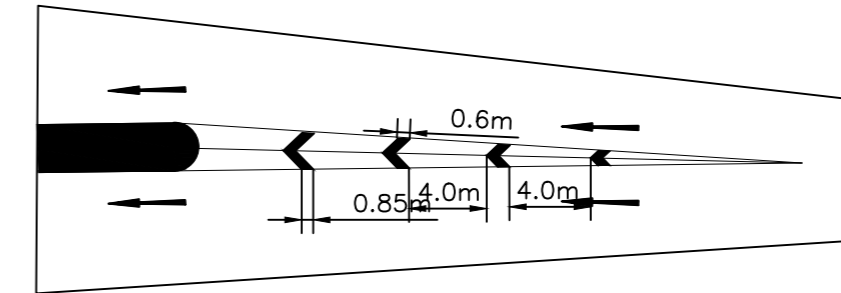
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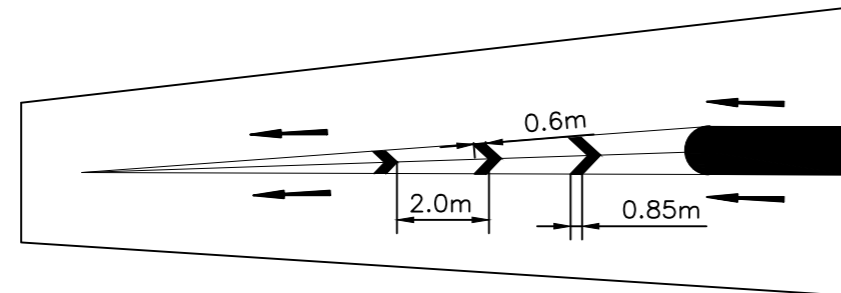
Detail C



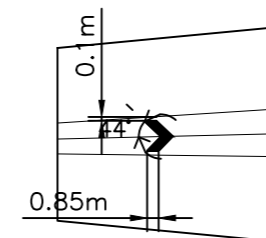
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Diagonal Marking



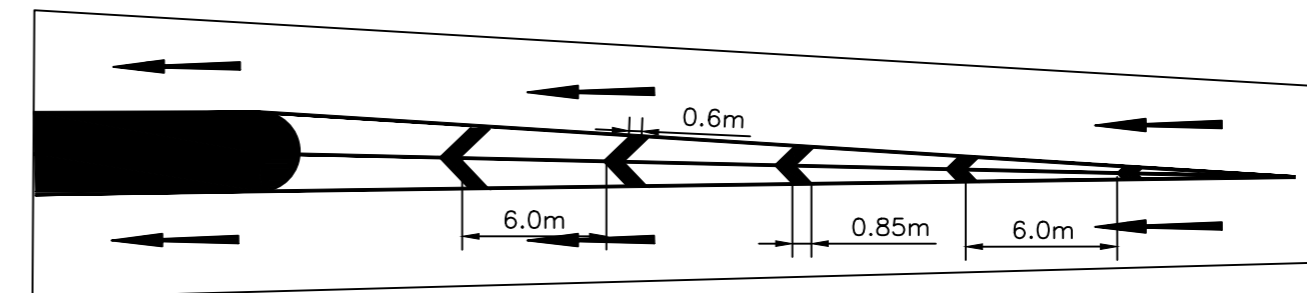
Total Length Of marking 10m to 22m



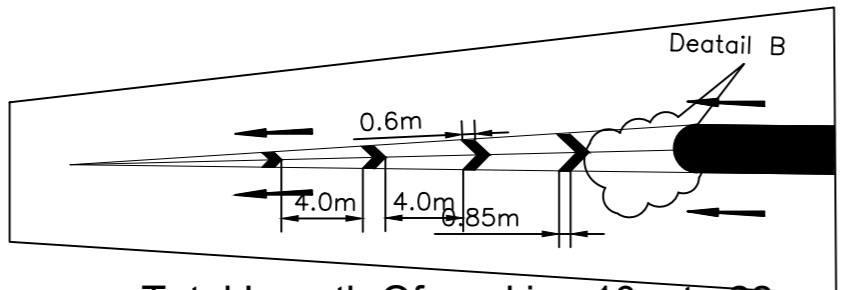
Total Length Of marking <10m



Detail B



Total Length Of marking >22m
Chevron Marling (Diverging)




Total Length Of marking 10m to 22m

Deatail B


Notes:

1. All the arrows are in white colour.
2. Provided first arrow at distance of 15m from mouth of intersection & second at 30m from first arrow.
3. Size of arrow shall be 3.5m (As per fig.21 of IRC:35-2015) for design speed is less than 50km/hr.





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CLIENT :

NATIONAL HIGHWAYS AND INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.
 (MINISTRY OF ROAD TRANSPORT AND HIGHWAYS)
 GOVERNMENT OF INDIA

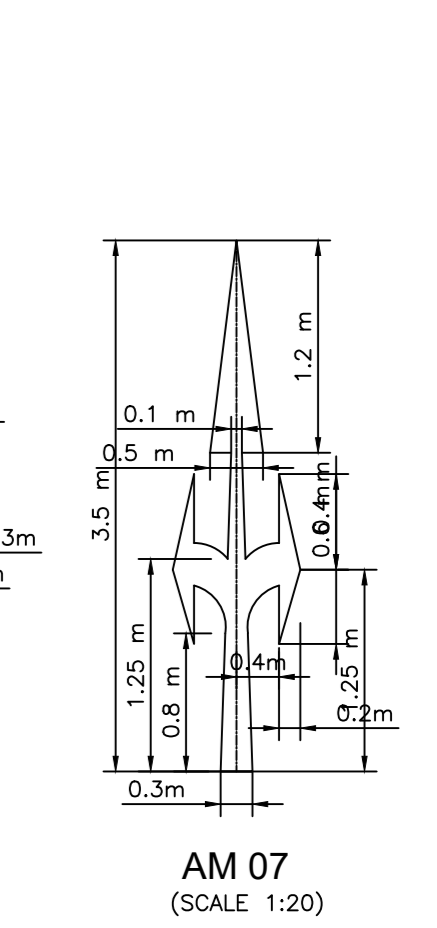
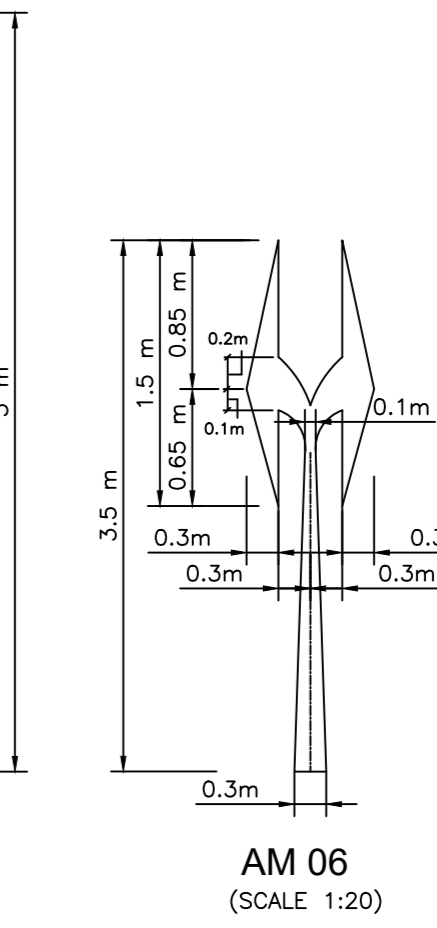
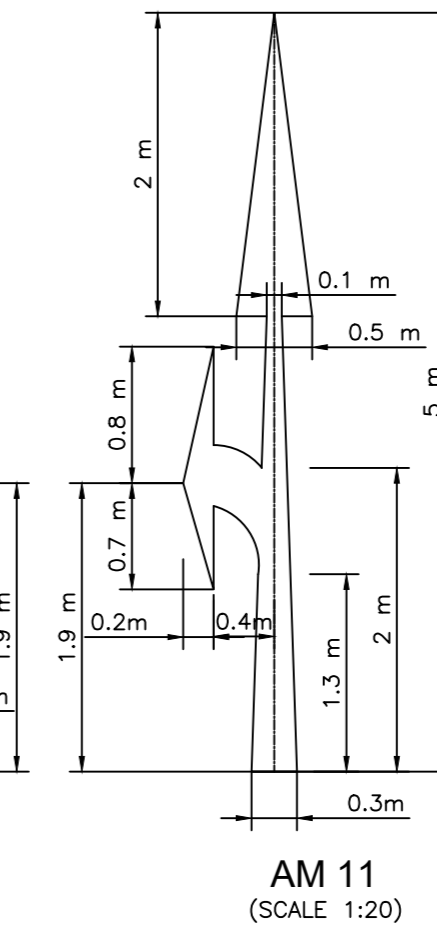
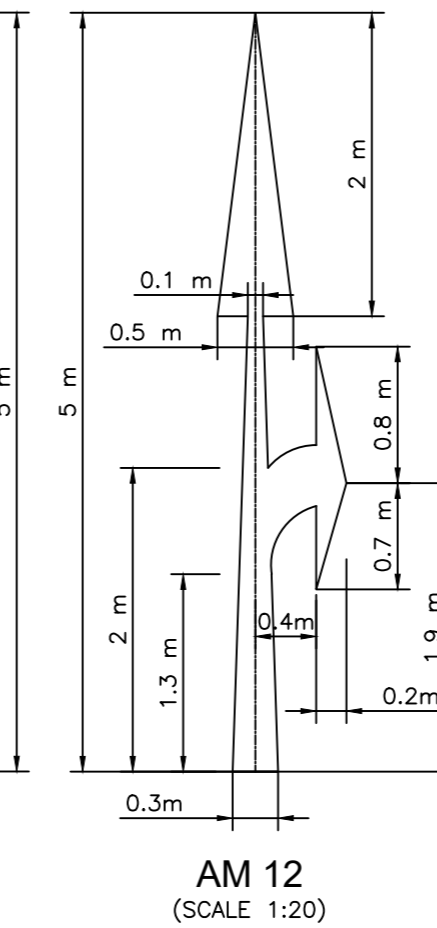
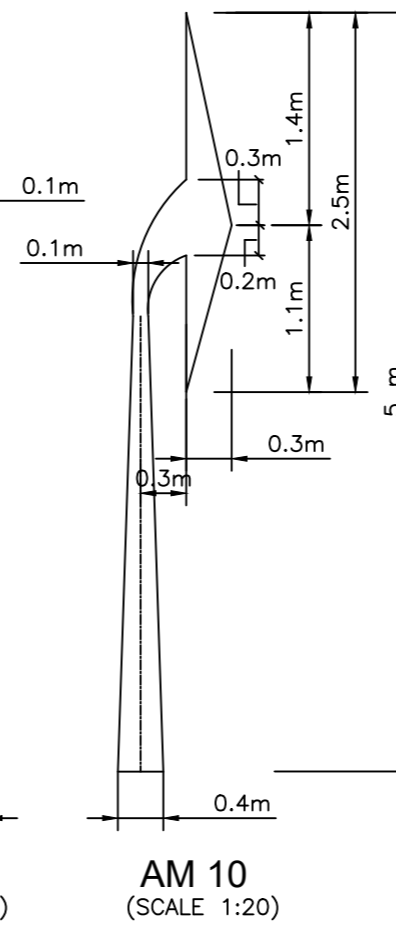
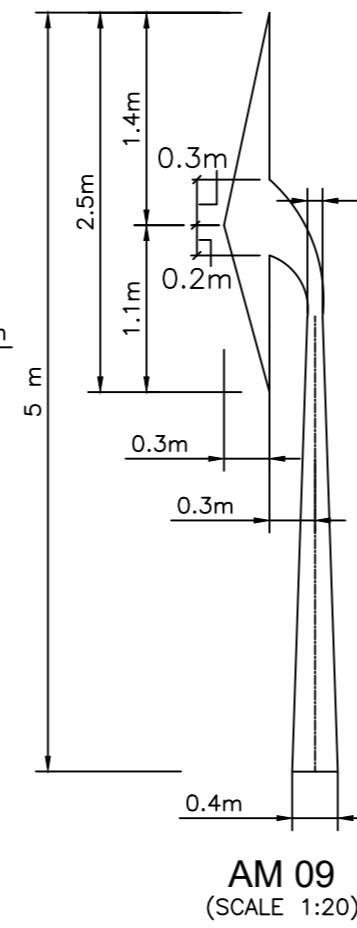
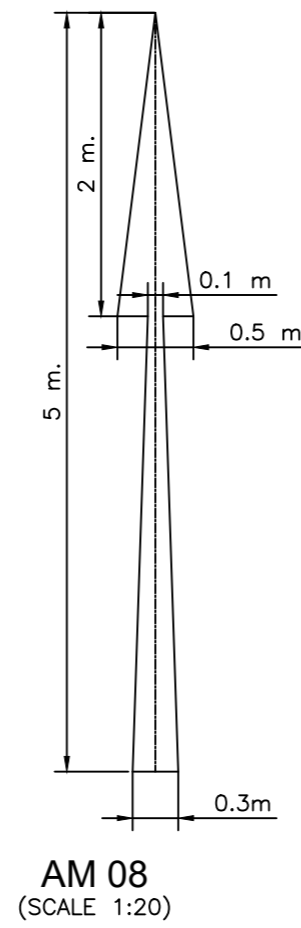
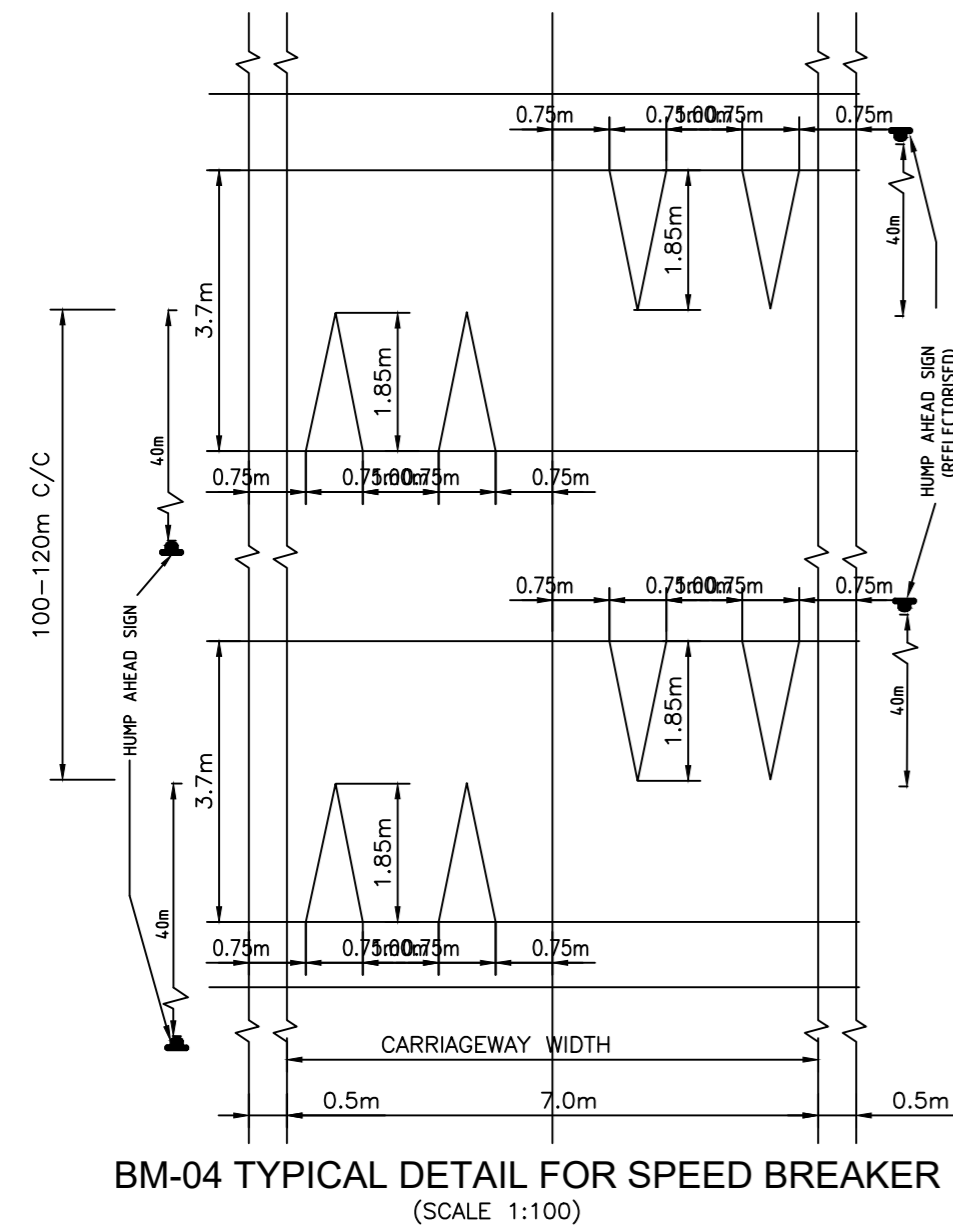
PROJECT :
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DESIGN CONSULTANT:

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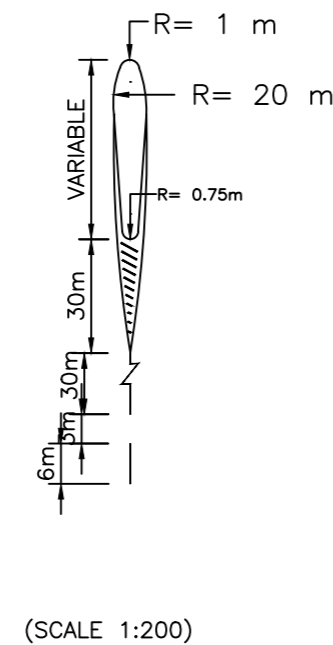
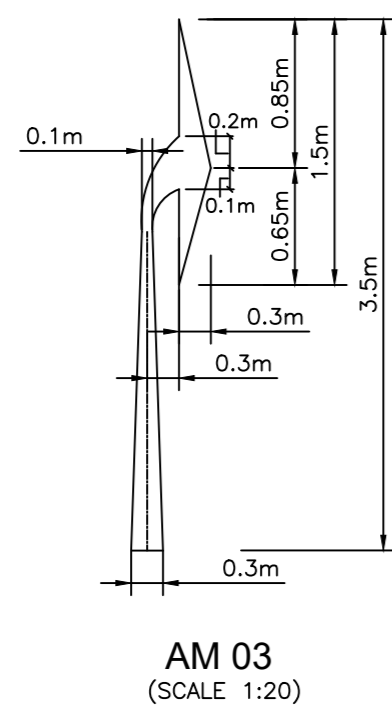
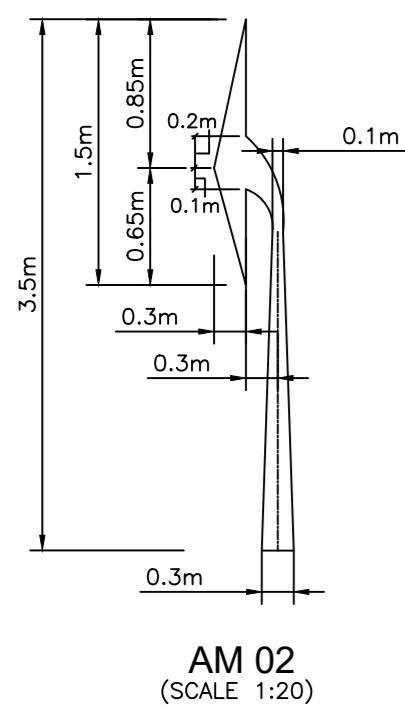
Detailed Project Report	
REV.	DATE
DESCRIPTION	

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
PD/PS	SS/SP	DGR	SKC
			
SCALE :	N.T.S	SHEET SIZE	A2

TITLE :	
Road / Kerb Marking	
DRG. No. :	VSPL/1718-082/DPR/PKG-4/MIS- 02 (Sheet 03 of 04)
REVISION:R0	OCTOBER 2022

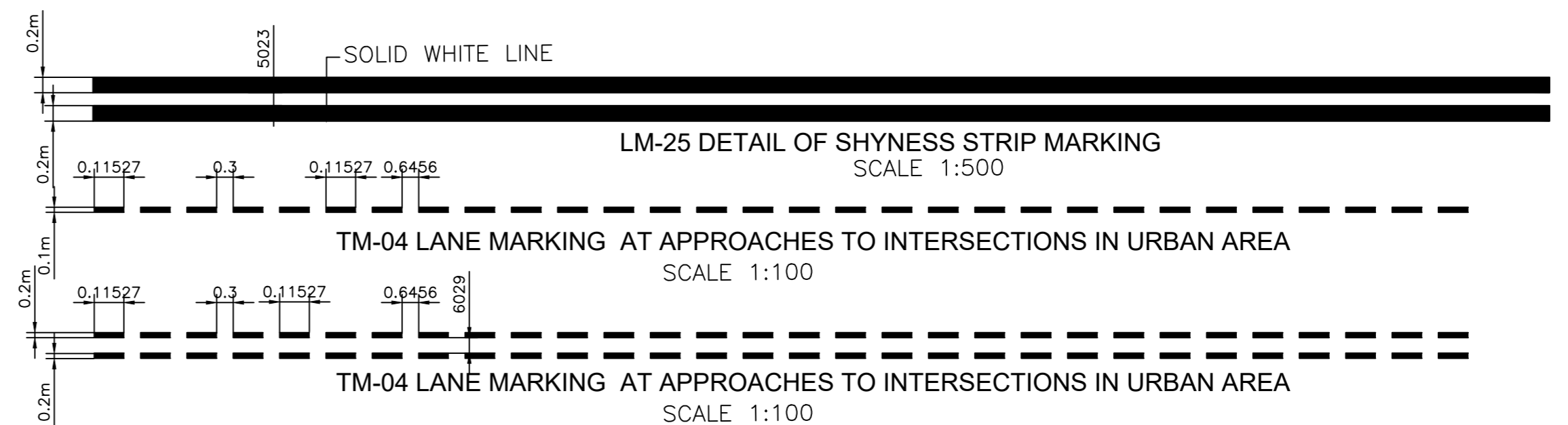
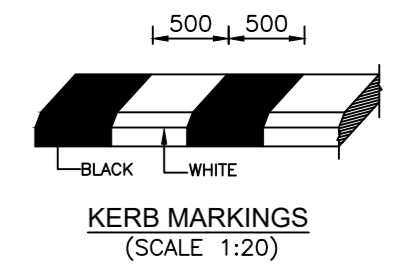


ARROW MARKING FOR ROUTE DIRECTION




DIAGONAL MARKING IN ADVANCE OF DIRECTIONAL ISLAND

TOTAL LENGTH OF MARKING (M)	SPACING BETWEEN BARS OR CHEVRONS (MM)	
	LOW SPEED (75 KM/H)	HIGH SPEED (75 KM/H)
< 5.7	2100	--
5.7 to 22.5	3500	--
>22.5	5000	--
< 10.5	--	4000
> 10.5	--	6000




Notes:

- All the arrows are in white colour.
- Provided first arrow at distance of 15m from mouth of intersection & second at 30m from first arrow.
- Size of arrow shall be 3.5m (As per fig.21 of IRC:35-2015) for design speed is less than 50km/hr.

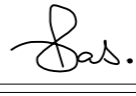



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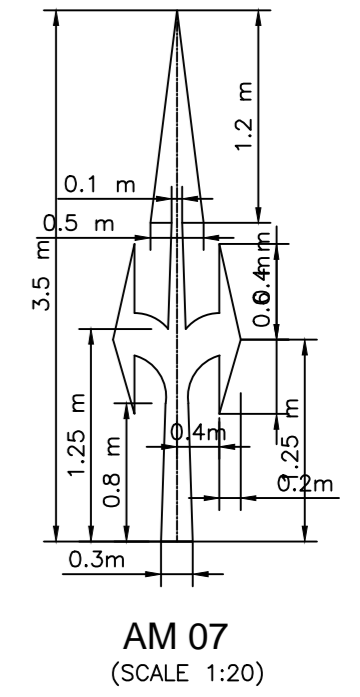
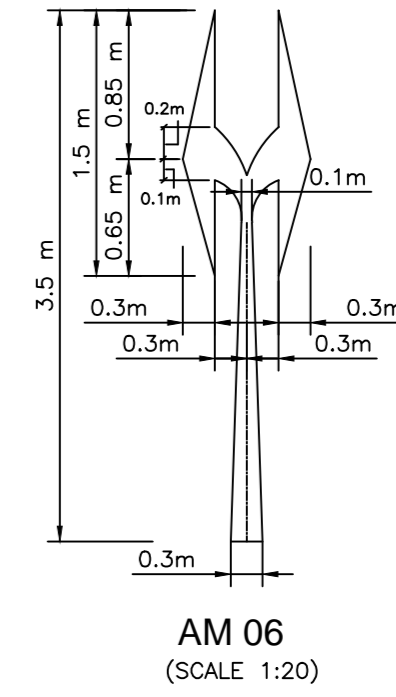
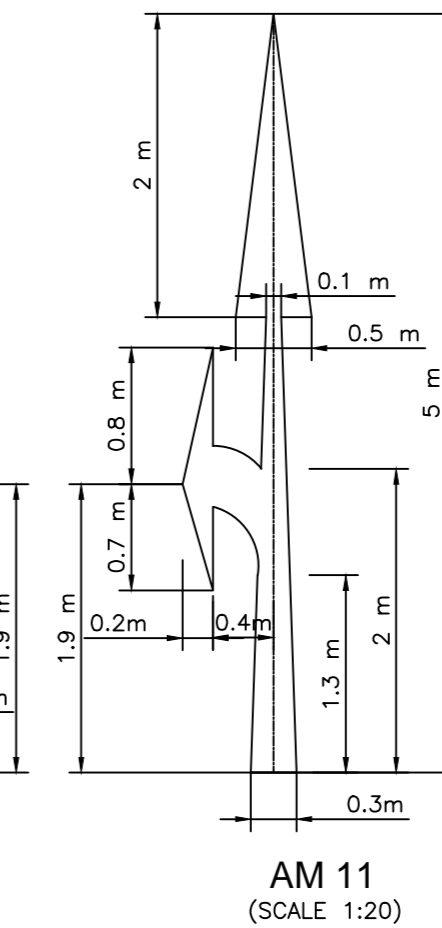
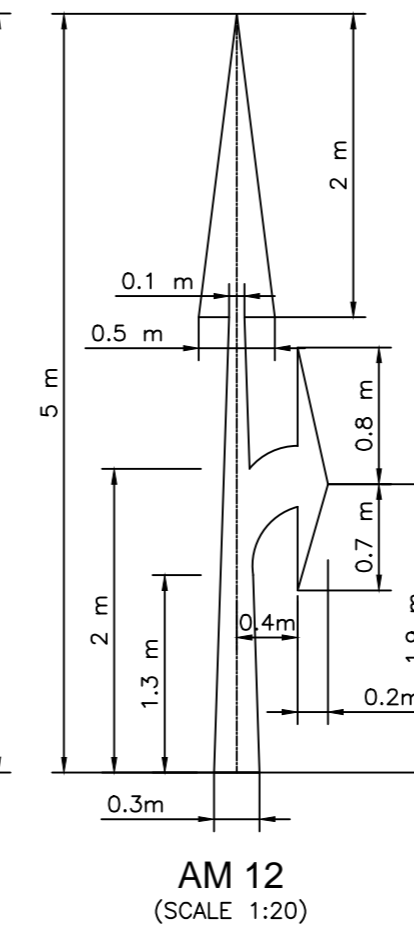
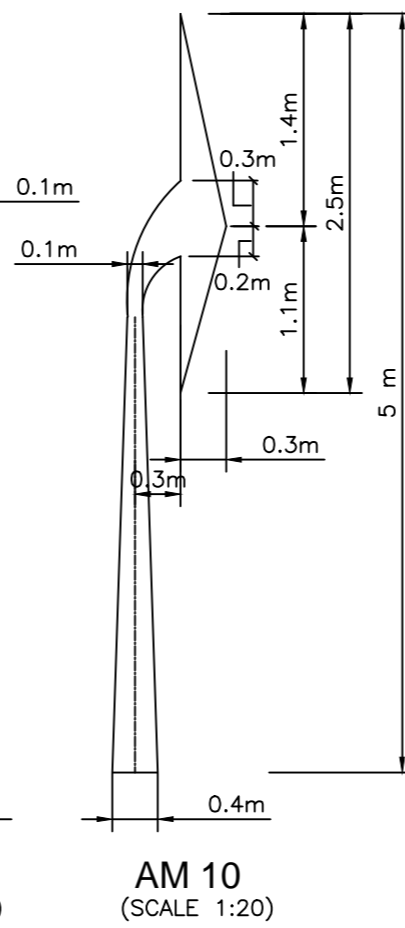
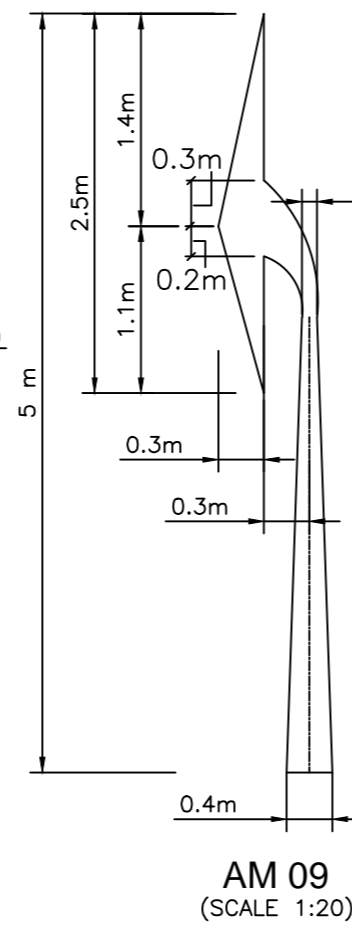
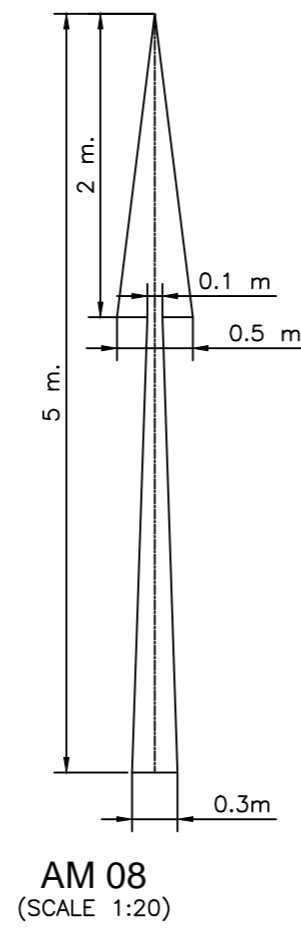
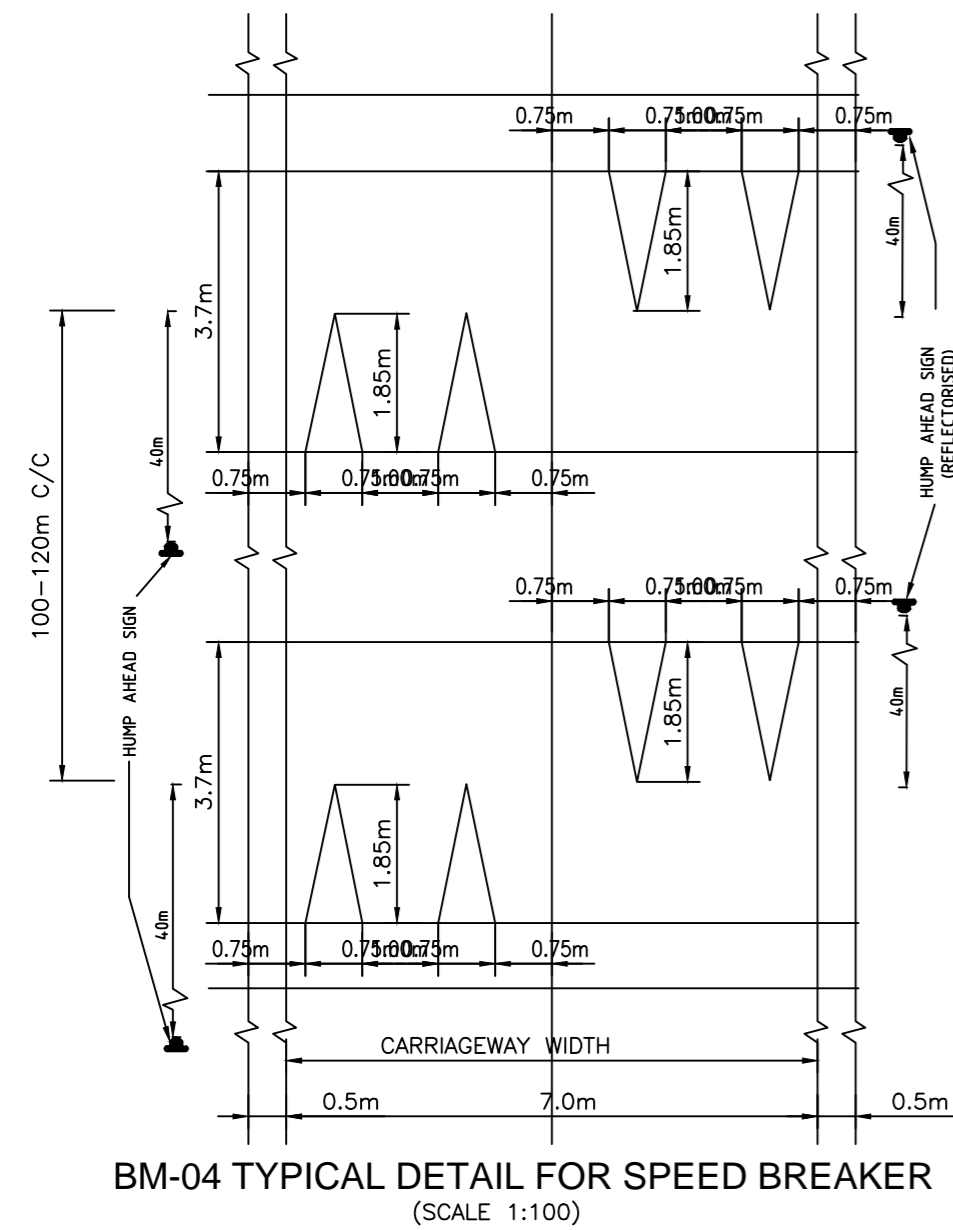
DESIGN CONSULTANT:

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 CIN: U74140HR2004PTC046918
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Detailed Project Report

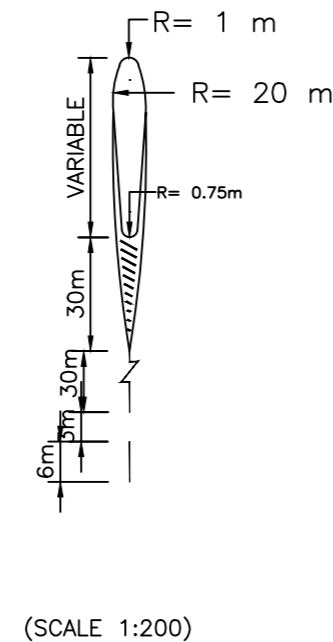
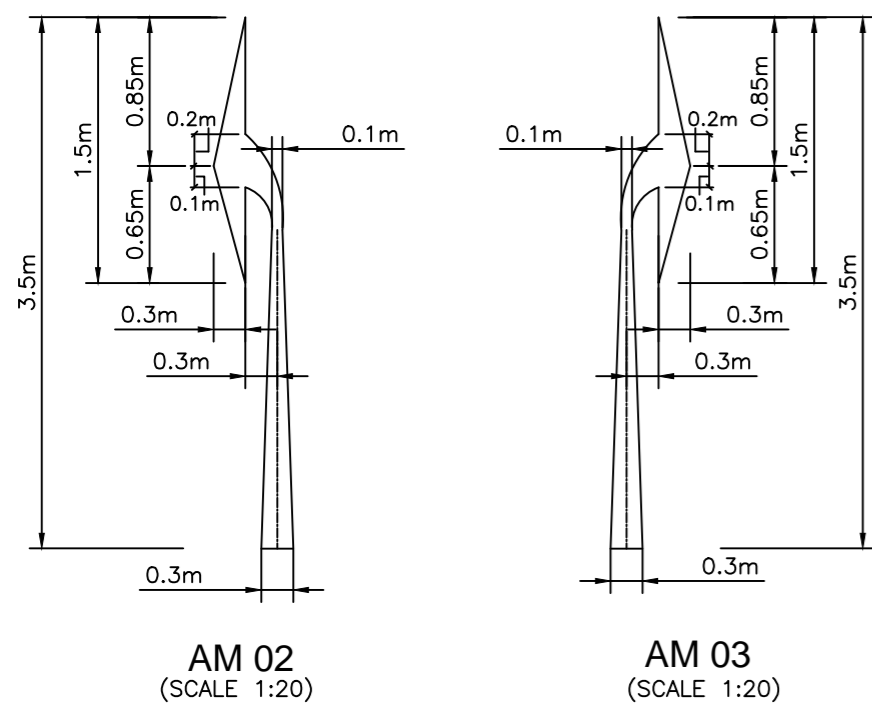
REV.	DATE	DESCRIPTION

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
PD/PS	SS/SP	DGR	SKC
			
SCALE :	N.T.S	SHEET SIZE	A2

TITLE :
Road / Kerb Marking
 DRG. No. :
 VSPL/1718-082/DPR/PKG-4/MIS- 02 (Sheet 04 of 04)
 REVISION:R0
 OCTOBER 2022

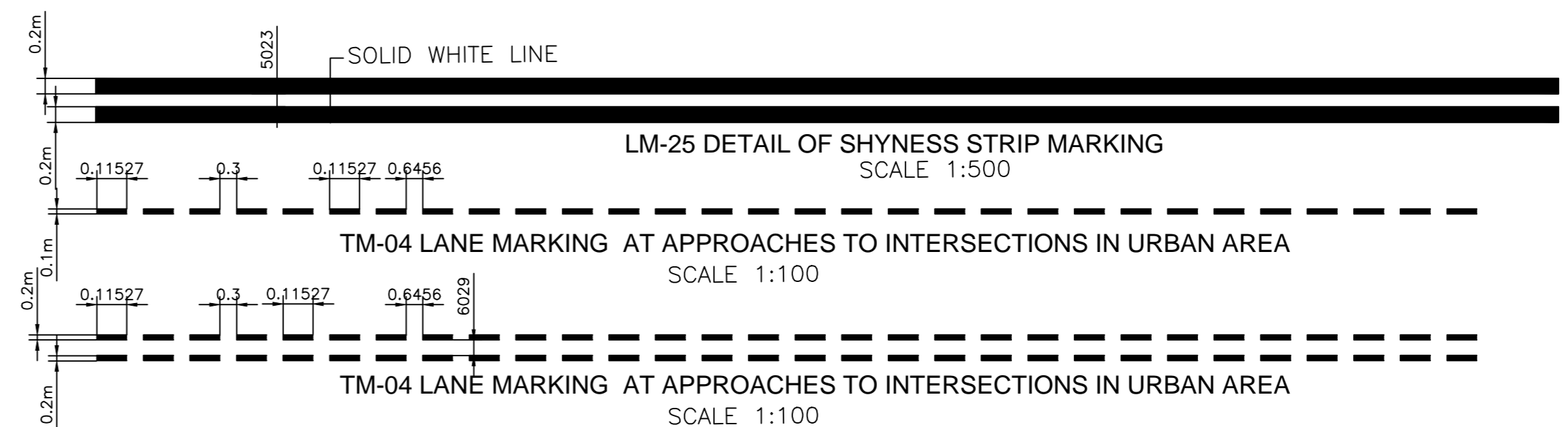
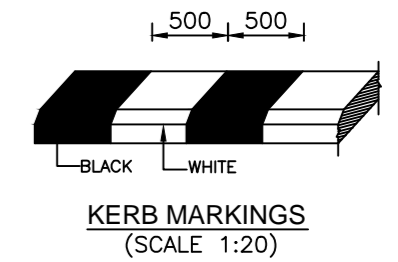


ARROW MARKING FOR ROUTE DIRECTION




DIAGONAL MARKING IN ADVANCE OF DIRECTIONAL ISLAND

TOTAL LENGTH OF MARKING (M)	SPACING BETWEEN BARS OR CHEVRONS (MM)	
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< 5.7	2100	--
5.7 to 22.5	3500	--
>22.5	5000	--
< 10.5	--	4000
> 10.5	--	6000




Notes:

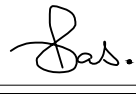



- All the arrows are in white colour.
- Provided first arrow at distance of 15m from mouth of intersection & second at 30m from first arrow.
- Size of arrow shall be 3.5m (As per fig.21 of IRC:35-2015) for design speed is less than 50km/hr.

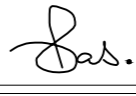



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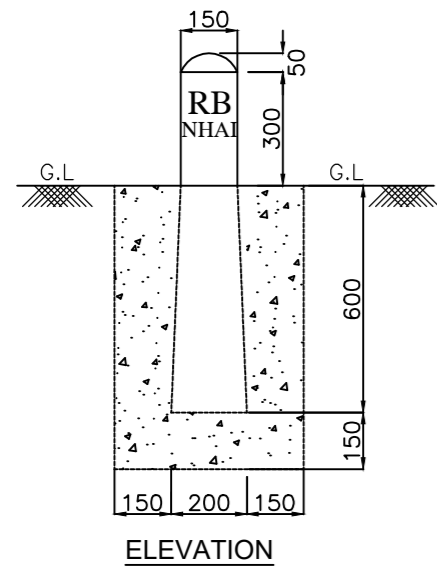
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Detailed Project Report

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PD/PS	SS/SP	DGR	SKC
			
REV.	DATE	DESCRIPTION	

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
PD/PS	SS/SP	DGR	SKC
			
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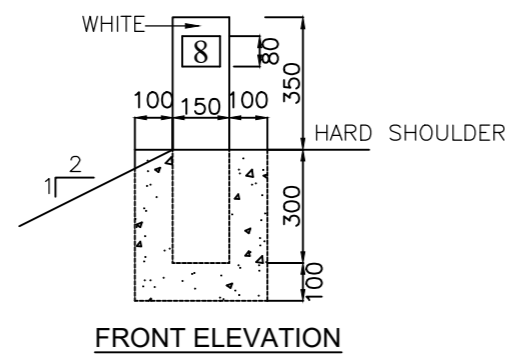
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Road / Kerb Marking
 DRG. No. :
 VSPL/1718-082/DPR/PKG-4/MIS- 02 (Sheet 04 of 04)
 REVISION:R1
 MARCH 2022



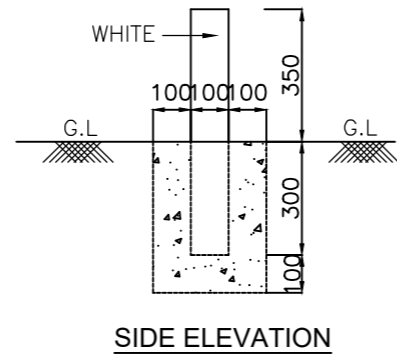
ELEVATION



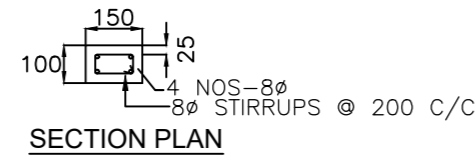
SECTIONAL PLAN
BOUNDARY STONE
SCALE-1:20



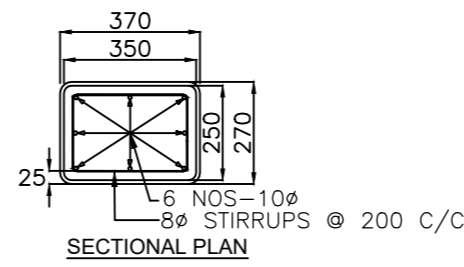
FRONT ELEVATION



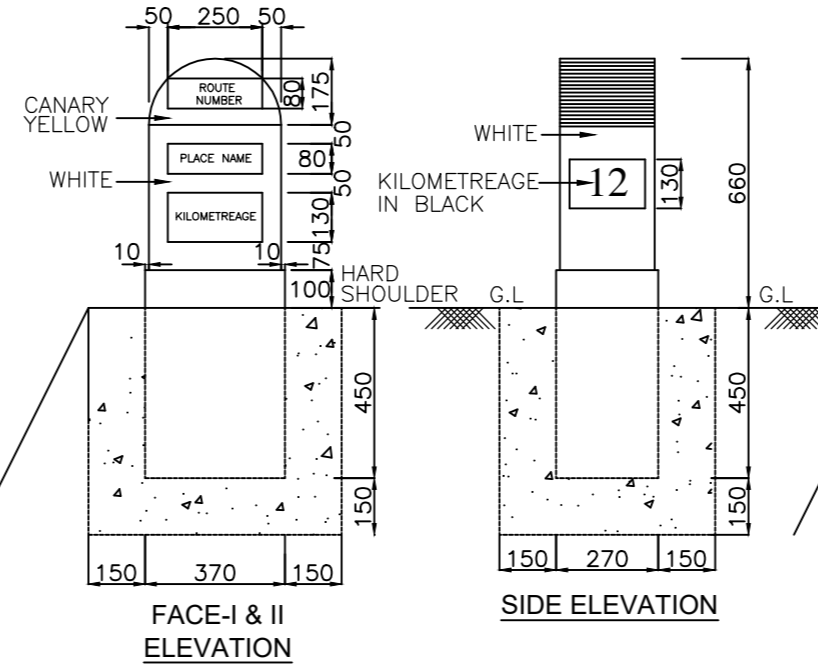
SIDE ELEVATION



SECTIONAL PLAN
HECTOMETRE STONE
SCALE-1:20

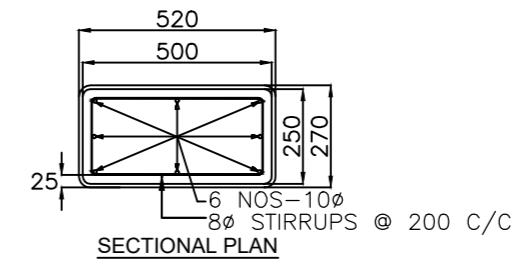


SECTIONAL PLAN

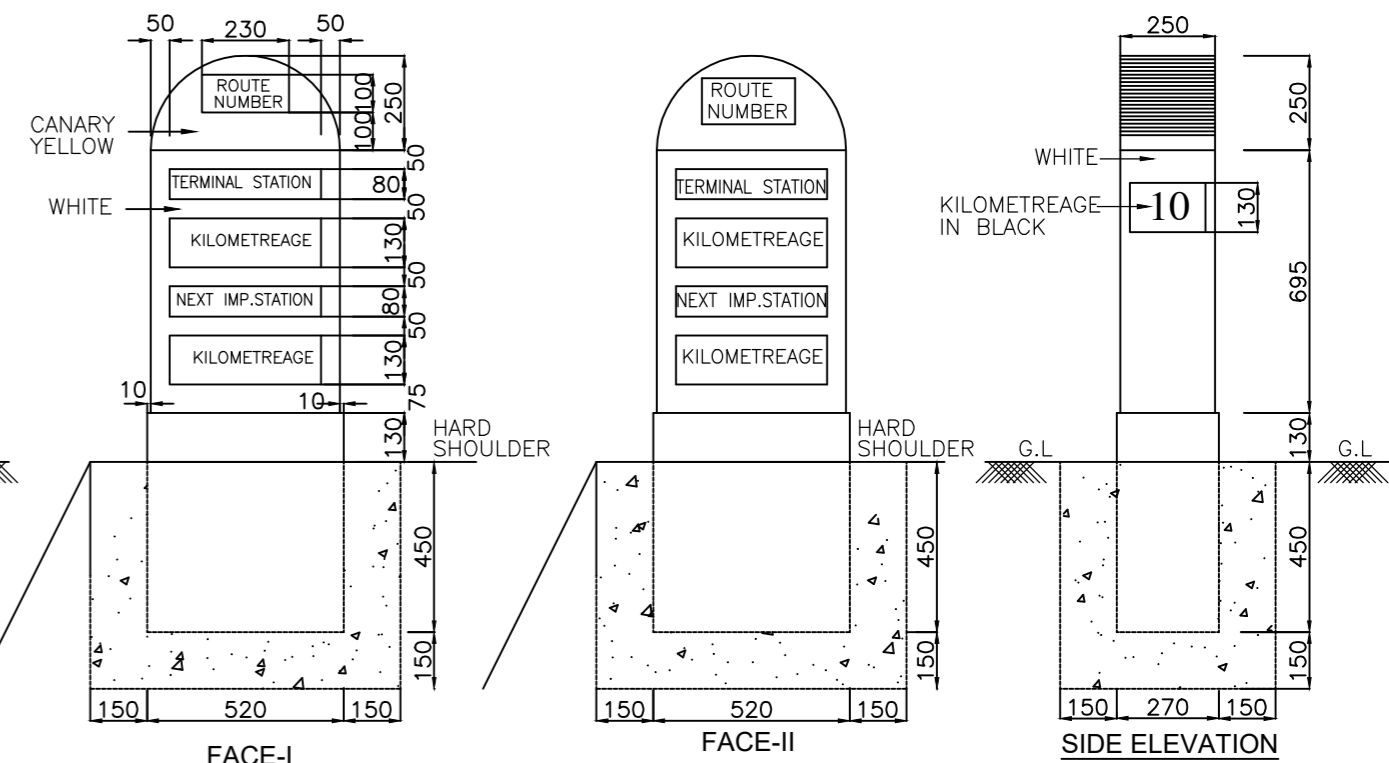


FACE-I & II
ELEVATION

KILOMETRE STONE
SCALE-1:20

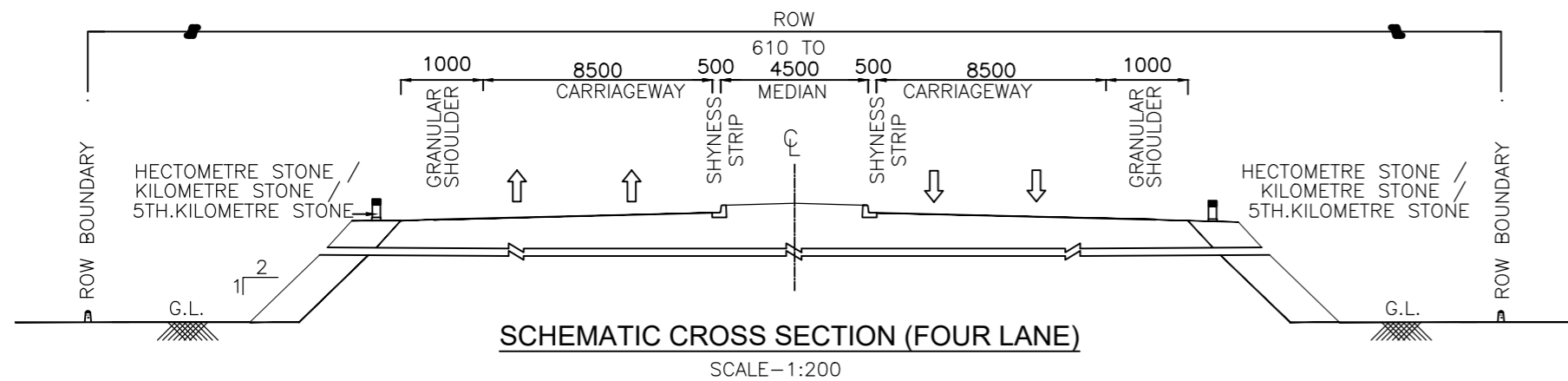


SECTIONAL PLAN

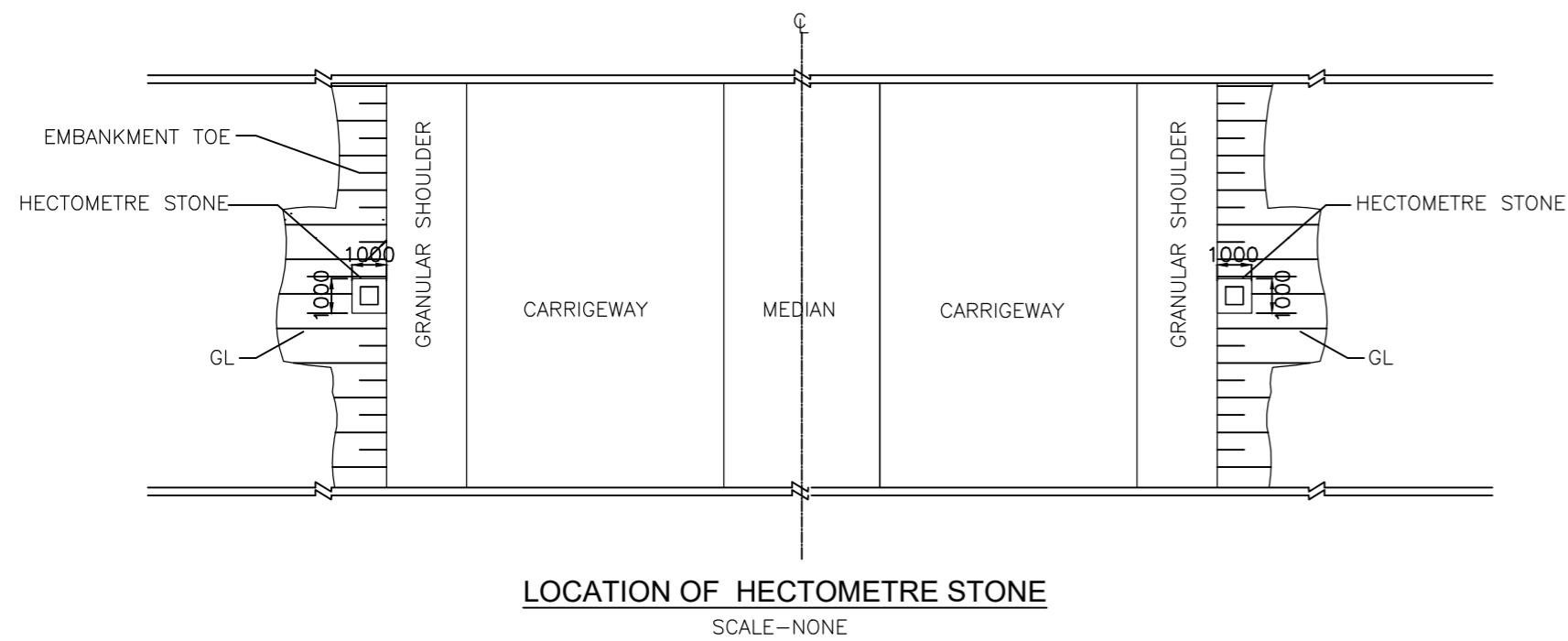


FACE-I
ELEVATION

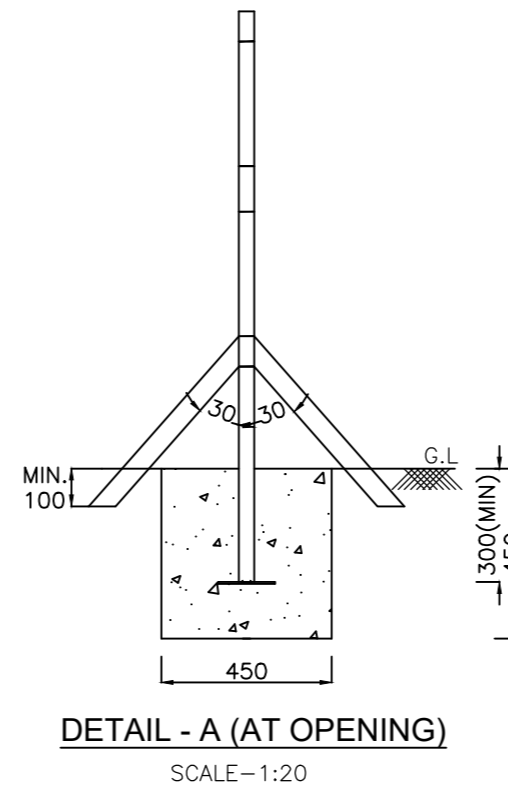
FACE-II
KILOMETRE STONE
SCALE-1:20



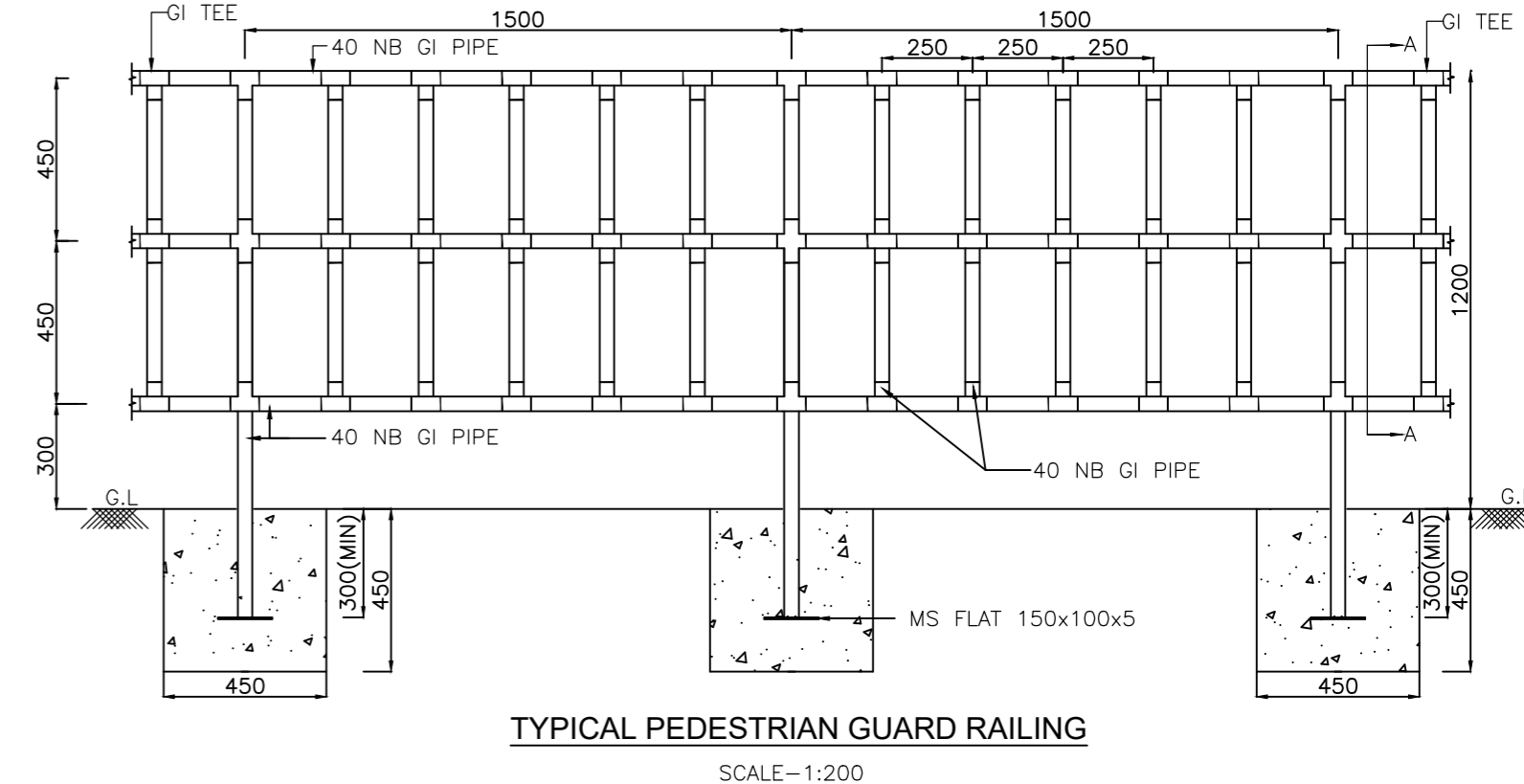
SCHMATIC CROSS SECTION (FOUR LANE)
SCALE-1:200



LOCATION OF HECTOMETRE STONE
SCALE-NONE



DETAIL - A (AT OPENING)
SCALE-1:20




TYPICAL PEDESTRIAN GUARD RAILING
SCALE-1:200

Notes:

1. Details of kilometre stone and 5th kilometre stone are generally based on IRC:8-1980
2. Details of 200m stones are generally based on IRC:26-1967.
3. The distance stones shall be provided on left side of the road as shown independently for each direction of traffic flow.
4. The letters and numerals on distance stones shall be as per IRC:8-1980.
5. Details of boundary stones are generally based on IRC:25-1967.
6. Besides the above, standards and specifications mentioned in IRC : SP : 84-2014 shall be followed strictly whenever applicable.
7. All dimensions are in millimetres unless otherwise mentioned.

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DESIGN CONSULTANT:

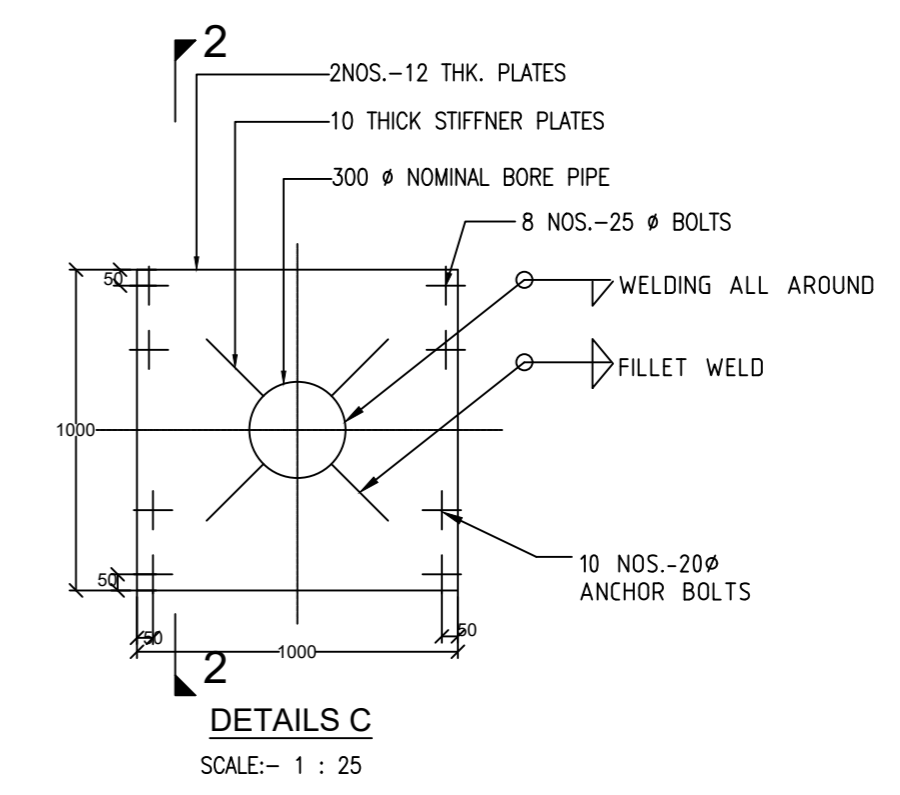
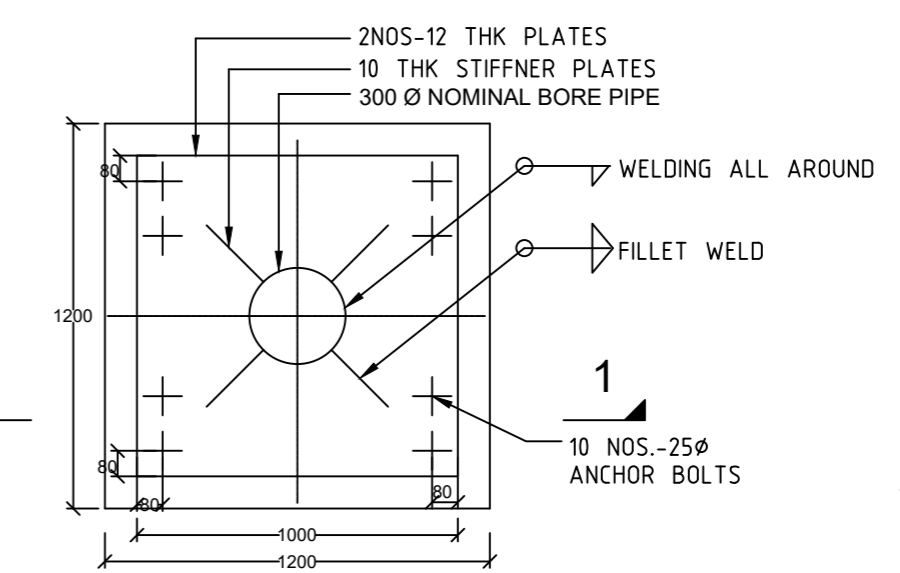
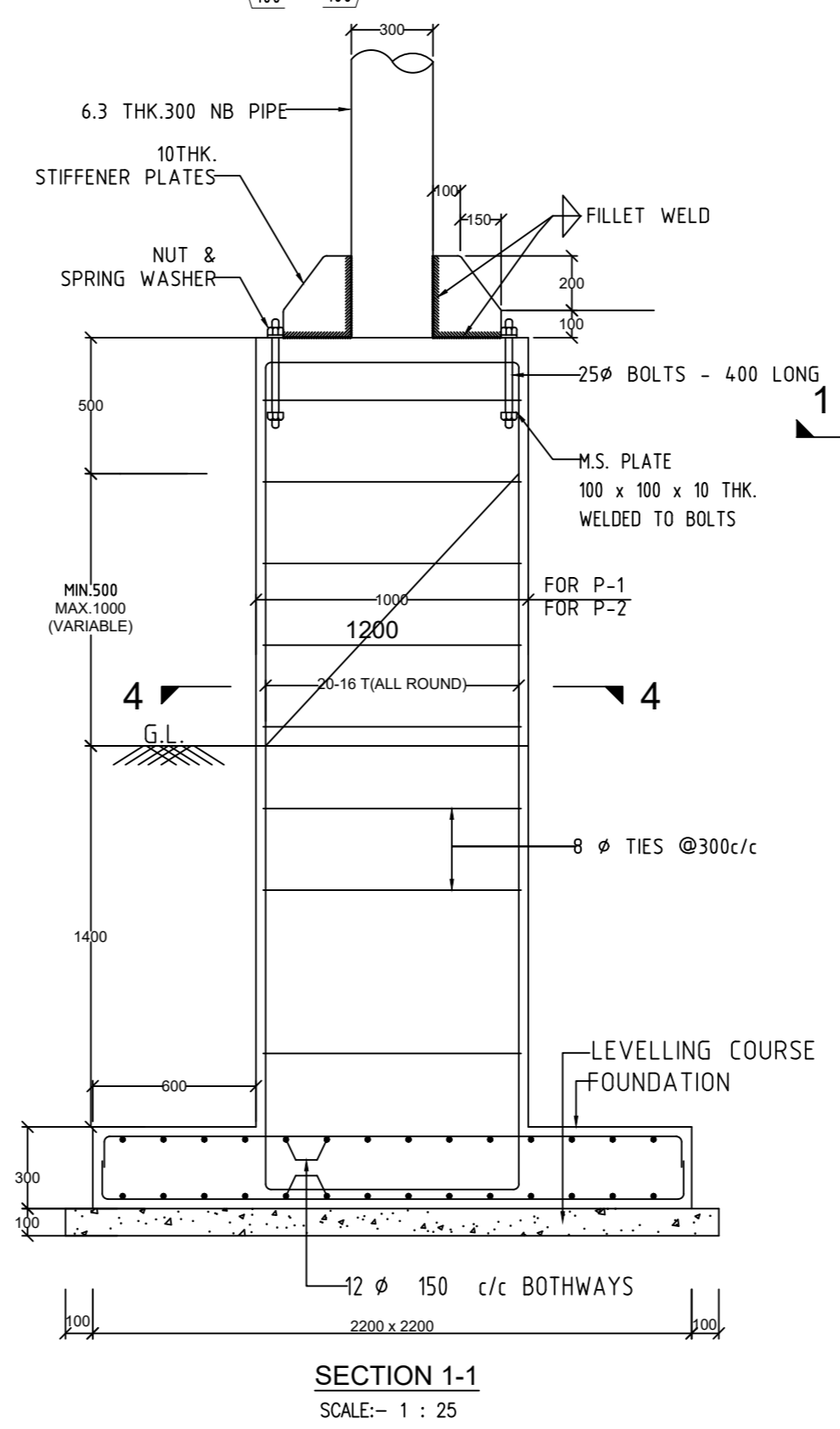
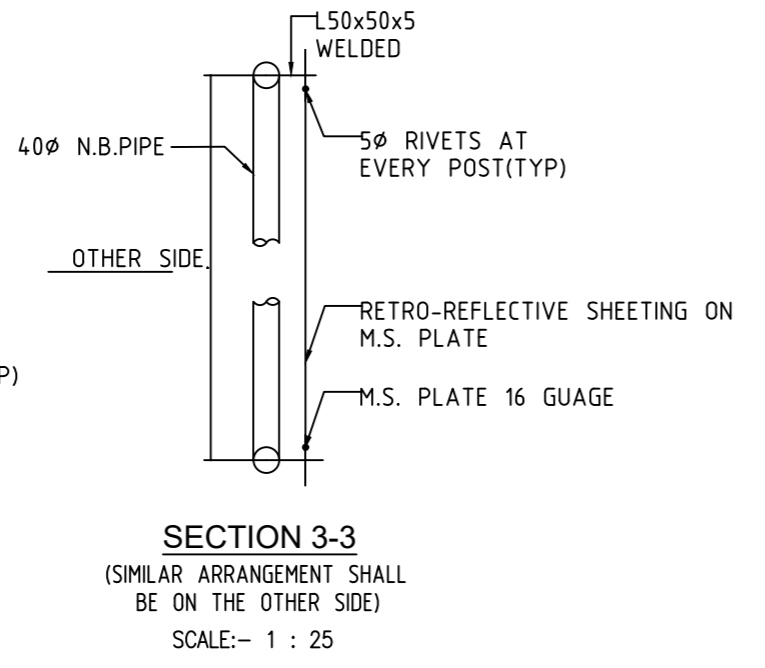
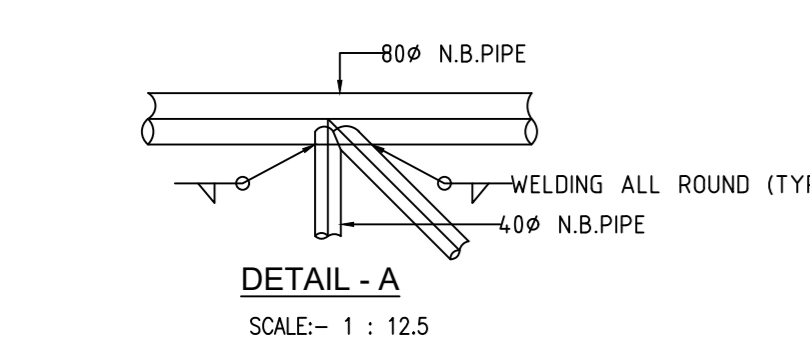
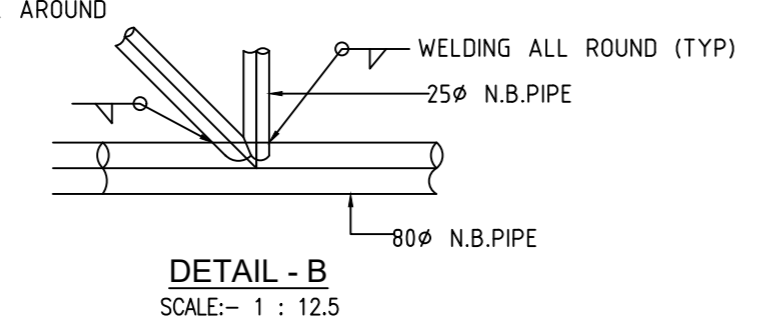
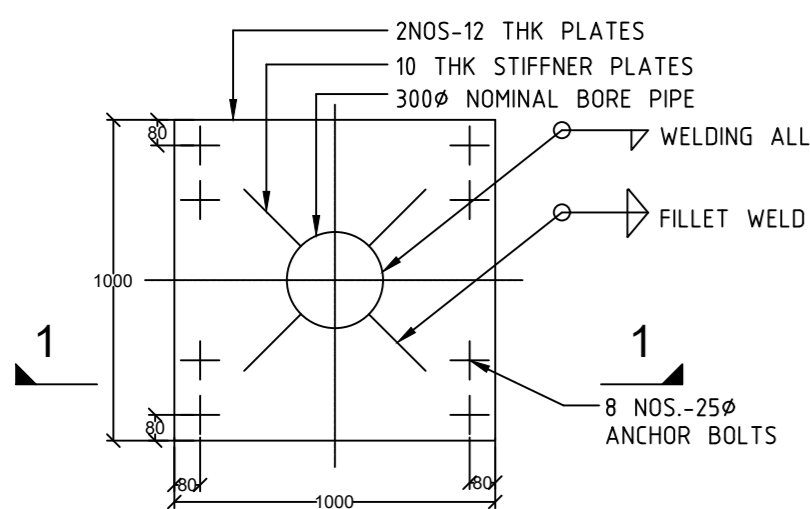
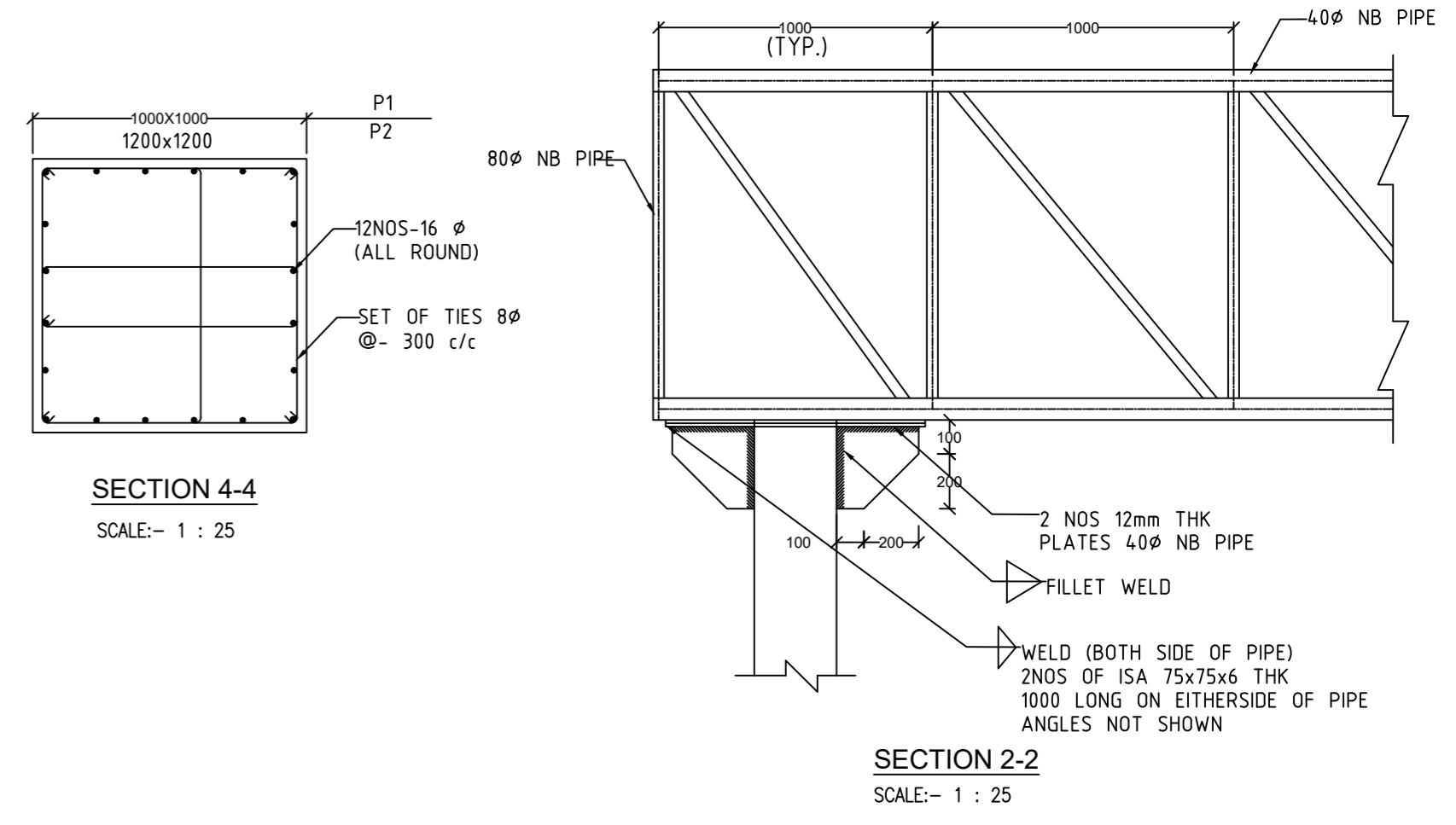
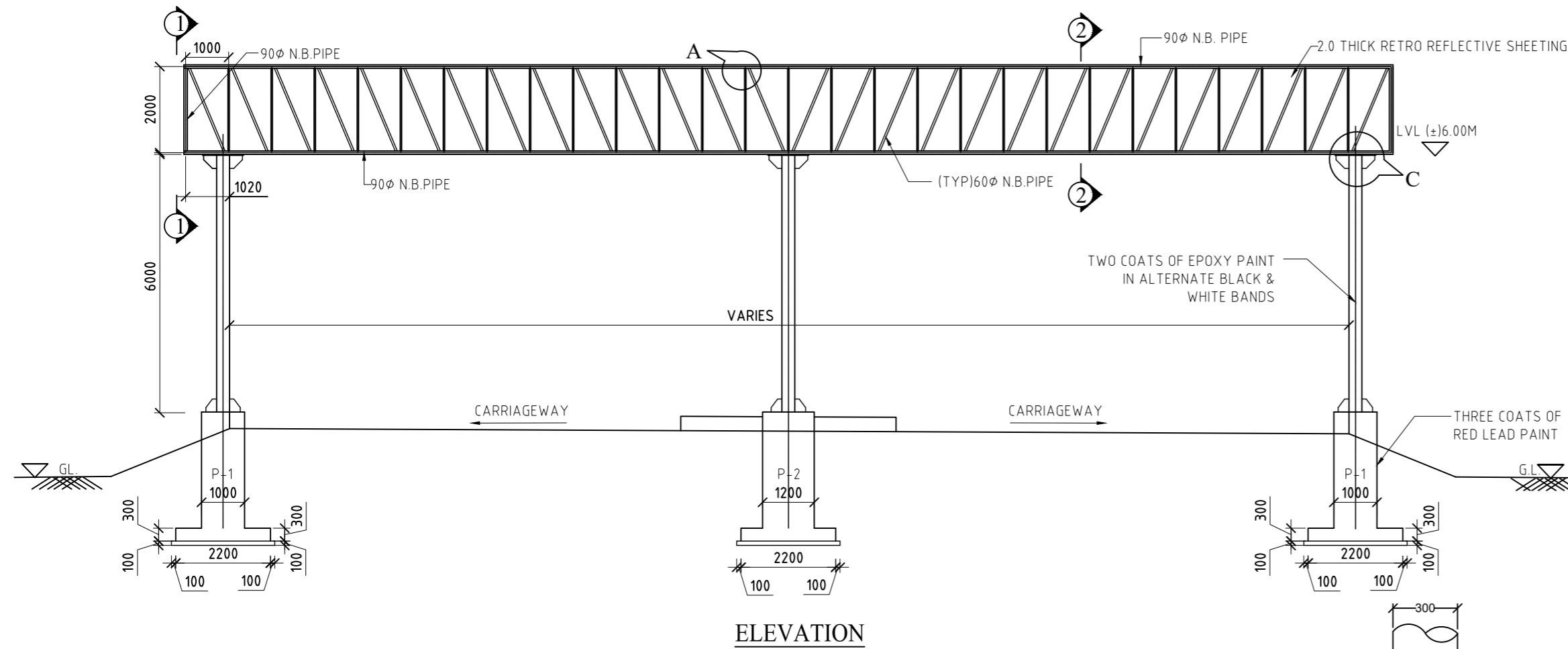


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DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
PD/PS	SS/SP	DGR	SKC
<i>Sar.</i>	<i>SP</i>	<i>SKC</i>	<i>SKC</i>
SCALE :	N.T.S	SHEET SIZE	A2

TITLE :	
Typical Details of Distance Stone, Boundary Stone & Guard Post	
DRG. No. :	VSPL/1718-082/DPR/PKG-4/MIS- 03
REVISION:R0	OCTOBER 2022



- NOTES:**
- ALL DIMENSIONS ARE IN mm, UNLESS OTHERWISE MENTIONED.
 - ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED, AND NO DIMENSIONS SHALL BE SCALED.
 - SAFE BEARING CAPACITY HAS BEEN TAKEN AS 10 MN/Sqm.
 - THE CONCRETE GRADE SHALL BE M-20 IN FOUNDATION AND M-15 IN LEVELING COURSE
 - CLEAR COVER TO THE OUTER MOST STEEL SHALL BE
 - PEDESTAL - 40mm
 - FOUNDATION - 50mm
 - STEEL TUBES ARE DESIGNATED BY THEIR NOMINAL BORES INDICATED ON DRAWING.
 - STEEL TUBES USED ARE CLASSIFIED MEDIUM TYPE STEEL TUBES.
 - STEEL TUBES SHALL CONFORM TO GRADE Yst 210.
 - STEEL TUBES USED SHALL BE CONFORMING TO IS:1161-1998.
 - TUBULAR MEMBERS SHALL HAVE ANNULAR CUT HEAD SMOOTH FINISHED SO AS TO HAVE PROPER SEAT OVER THE SUPPORTING TUBE.
 - ELECTRODE USED SHALL CONFORM TO RELEVANT I.S. SPECIFICATIONS AND THE CHEMICAL COMPOSITION OF ELECTRODE & THE TUBE SHOULD MATCH.
 - SLAG SHALL BE REMOVED BEFORE MEASURING THE DIMENSIONS OF FILLET WELD.
 - WELDING SHALL BE DONE BY ARC WELDING.
 - 4.5mm SIZE WELD SHALL BE MADE WITH A SINGLE PASS.
 - WELD SIZE SHALL BE 4.5mm UNLESS OTHERWISE MENTIONED AND SHALL BE DONE ALL ROUND ON THE CONTACT LENGTH OF MEMBERS.
 - HIGH STRENGTH BOLTS SHALL CONFORM TO IS:4000-1992.
 - DIA. OF HOLES IN MS PLATES SHALL BE MACHINE MADE & AS FOLLOWS

DIA OF BOLTS	DIA OF HOLES.
i) 20mm.	21.5mm.
ii) 25mm.	26.5mm.
 - SIZE OF LETTERS AND COLOUR OF PAINT SHALL BE DECIDED BY THE ENGINEER.
 - IRC : 67-2001
 - IRC : 30-1998
 - SHADE OF ANTIKORROSIVE PAINT FOR PIPES SHALL BE DECIDED BY THE ENGINEER.
 - RETRO-REFLECTIVE SHEETING SHALL BE BOLTED WITH 40 MM Ø PIPE WITH 20 MM HIGH STRENGTH BOLT.

CLIENT :

NATIONAL HIGHWAYS AND INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.
(MINISTRY OF ROAD TRANSPORT AND HIGHWAYS)
GOVERNMENT OF INDIA

PROJECT :

CONSULTANCY SERVICES FOR PREPARATION OF DETAILED PROJECT REPORT FOR DEVELOPMENT OF ECONOMIC CORRIDORS, INTER CORRIDORS AND FEEDER ROUTES TO IMPROVE THE EFFICIENCY OF FREIGHT MOVEMENTS IN INDIA UNDER BHARATMALA PARIYOJANA (LOT-1:PACKAGE IV)

DESIGN CONSULTANT:

VOYANTS SOLUTIONS PVT LTD.
403, 4th Floor, Park Centra,
Sector-30, NH-8
Gurugram-122001, Haryana, India
CIN- U74140HR2004PTC046918
Ph: 0124-4598200, Fax: 0124-4019051,
E-mail: info@voyants.in, www.voyants.in

Detailed Project Report

REV.	DATE	DESCRIPTION

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
PD/PS	SS/SP	DGR	SKC
SCALE :	N.T.S	SHEET SIZE	A2

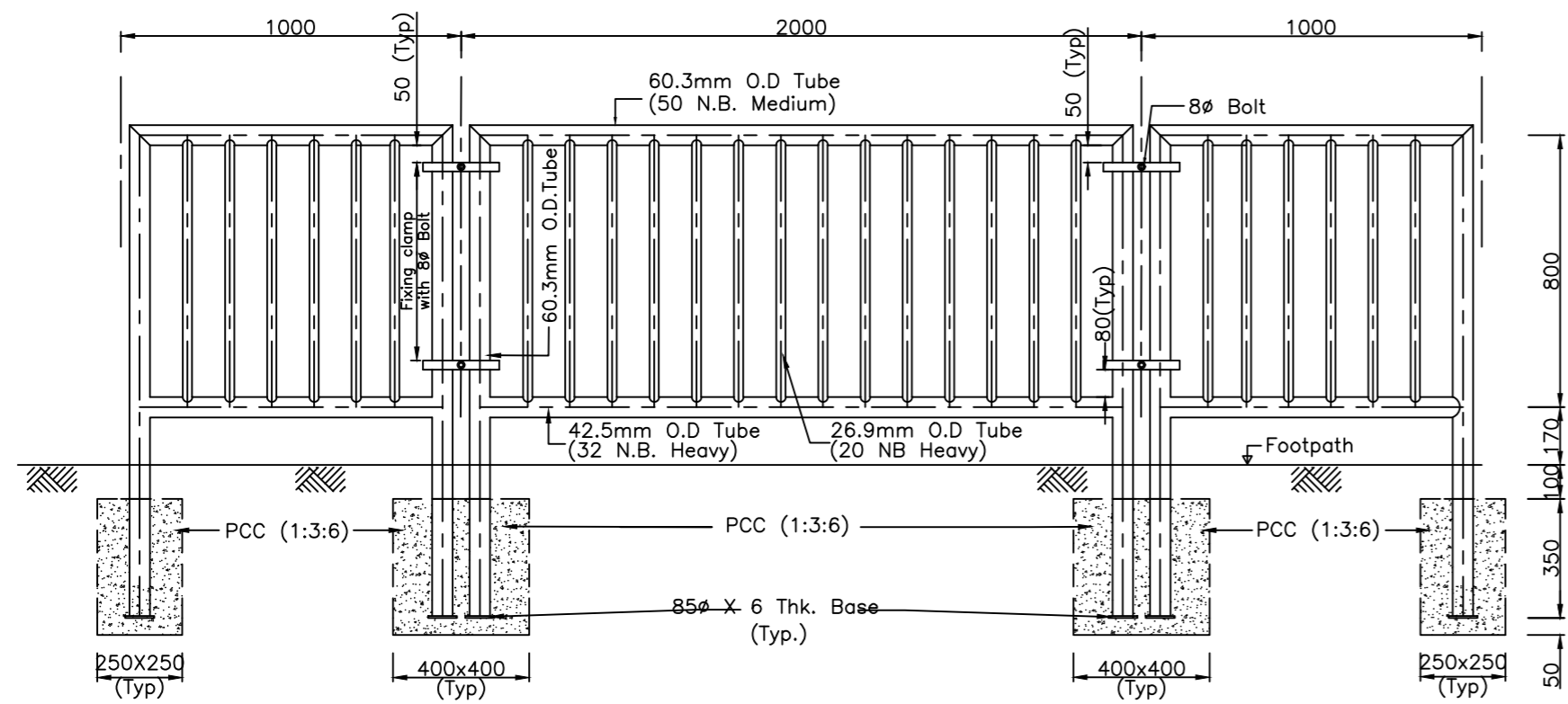
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Typical Details of Overhead Sign

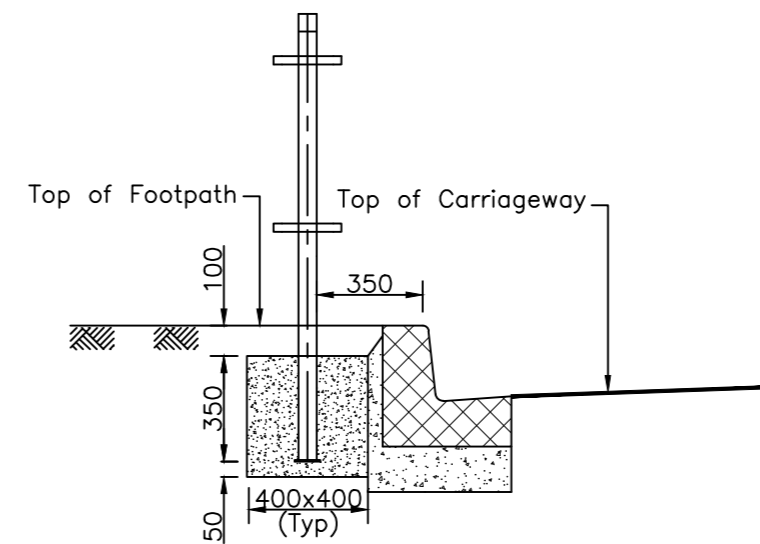
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REVISION:R0 OCTOBER 2022

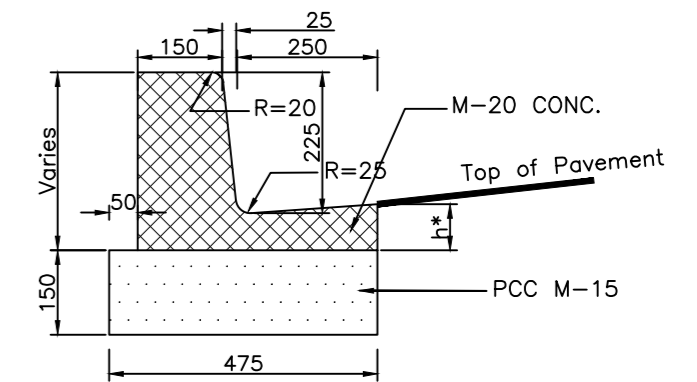
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Typical Details for Pedestrian Guard Rail (PGR)

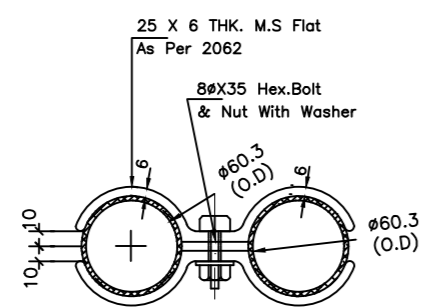


Side View of PGR

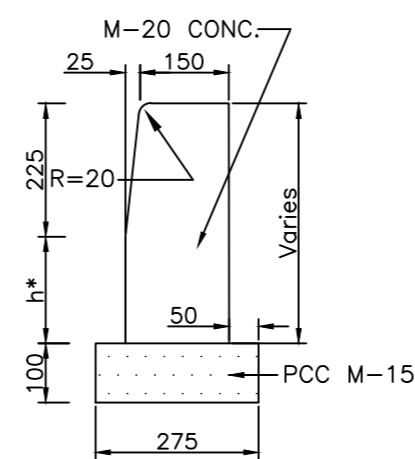


Kerb with Channel

*h - Depends on thickness (BC + DBM)

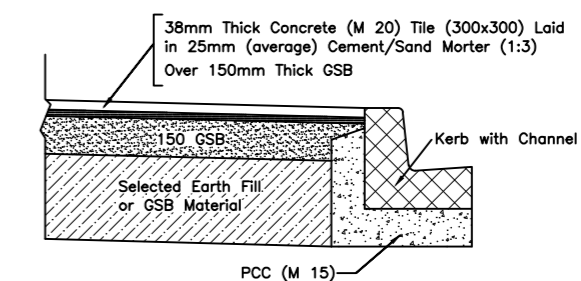


Details of Fixing Clamp (Pedestrian Guard Rail)



Kerb


*h - Depends on thickness (BC + DBM)




Details of Footpath

Notes:





- All dimensions are in millimetres unless otherwise mentioned.
- All fillet welds shall be 3 mm thick.
- Details of pedestrian guard rails are for typical modules in straight. Length of modules shall need some adjustments to fit in the individual runs of the fencing between discontinuities at locations of cross roads, driveways etc. A fencing plan finalising the details shall be prepared by the concessioner/contractor after final setting out and as approved by the Engineer.
- After erection, kerbs shall be painted with one coat of primer and two coats of colour paint. All colour paints shall be ready mix oil bound and shall be approved by the Engineer.
- Kerb shall be provided at every location except some selected stretches where kerb with channel shall be provided.
- Besides the above, standards and specifications mentioned in IRC : SP : 84-2014 shall be followed strictly whenever applicable.





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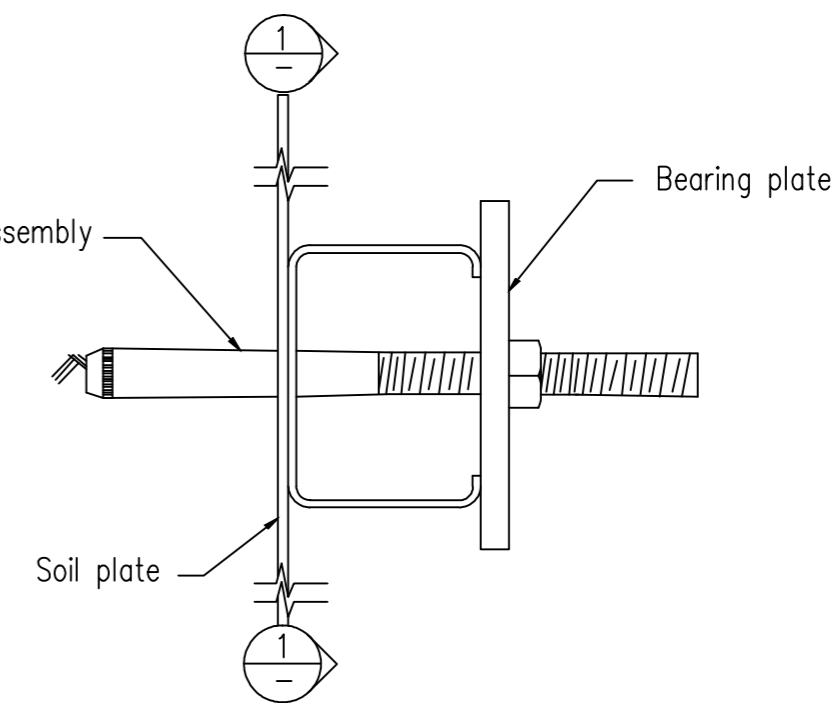
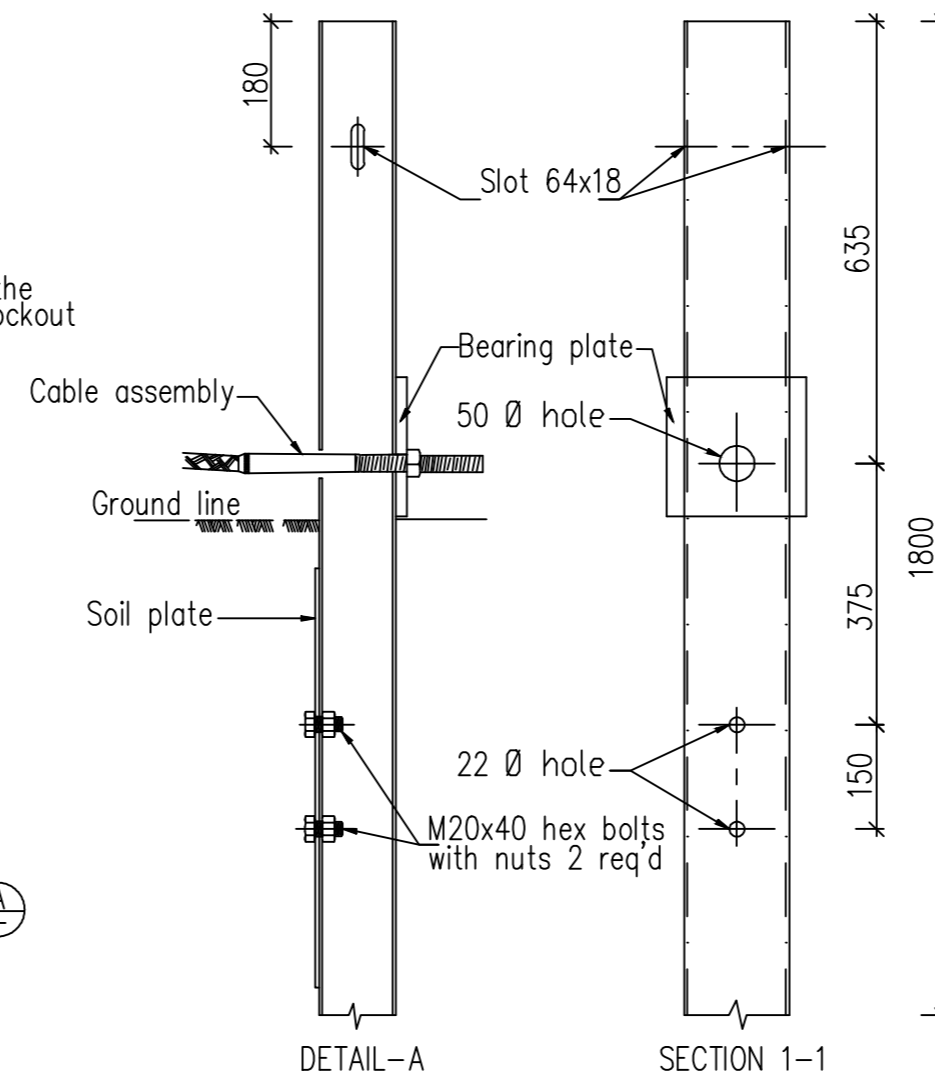
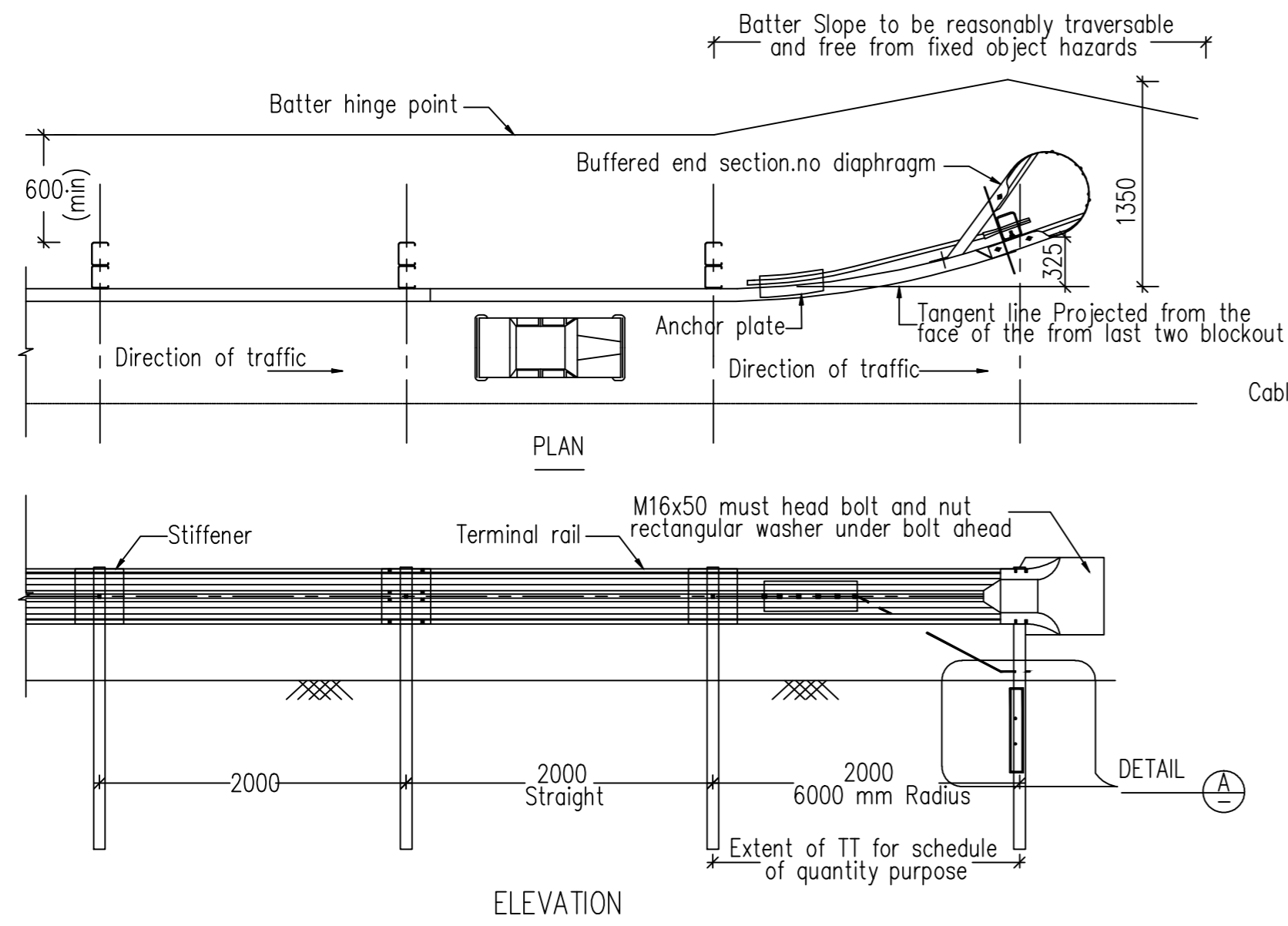
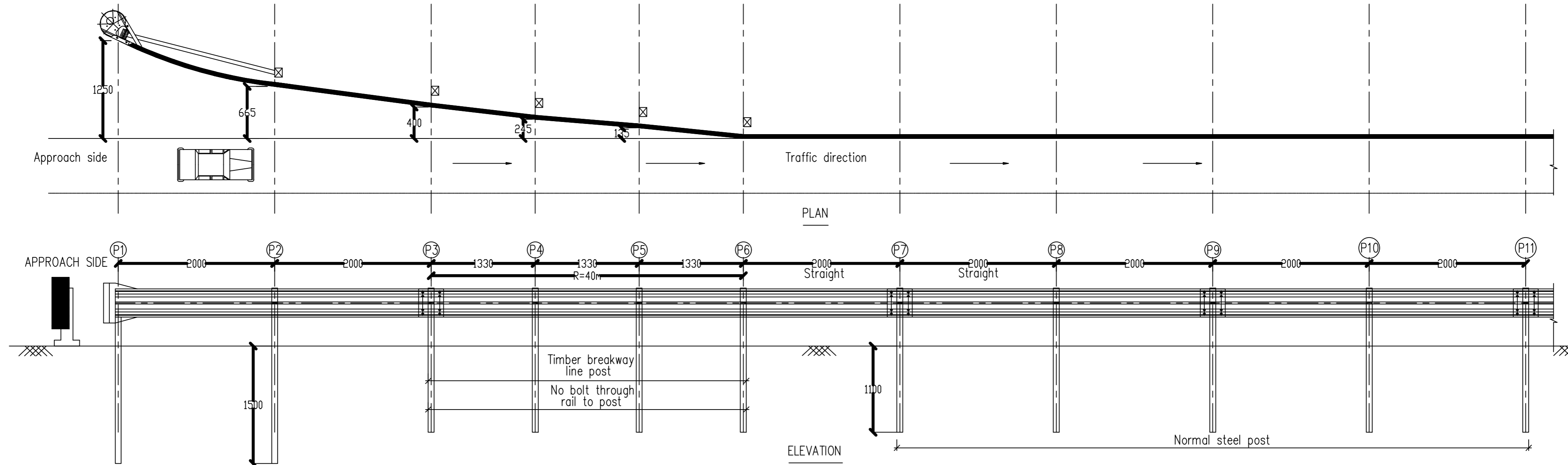
DESIGN CONSULTANT:

VOYANTS SOLUTIONS PVT LTD.
 403, 4th Floor, Park Centra,
 Sector-30, NH-8
 Gurugram-122001, Haryana, India
 CIN- U74140HR2004PTC046918
 Ph: 0124-4598200, Fax: 0124-4019051,
 E-mail: info@voyants.in, www.voyants.in

Detailed Project Report


DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
PD/PS	SS/SP	DGR	SKC
			
REV. DATE	DESCRIPTION		

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
PD/PS	SS/SP	DGR	SKC
			
SCALE :	N.T.S	SHEET SIZE	A2


TITLE :
Typical Deatils of Kerb, Kerb with Channel Footpath & Pedestrial Guard Rail
 DRG. No. :
 VSPL/1718-082/DPR/PKG-4/MIS- 05
 REVISION:R0
 OCTOBER 2022



- Notes:
1. All dimensions are in millimeter unless otherwise specified.
 2. Hot dipped galvanized section as per mort & h specification shall be used for vertical post & spacer.
 3. Thickness of W-beam shall be 3 mm.
 4. Thickness of channel section shall be 5 mm.





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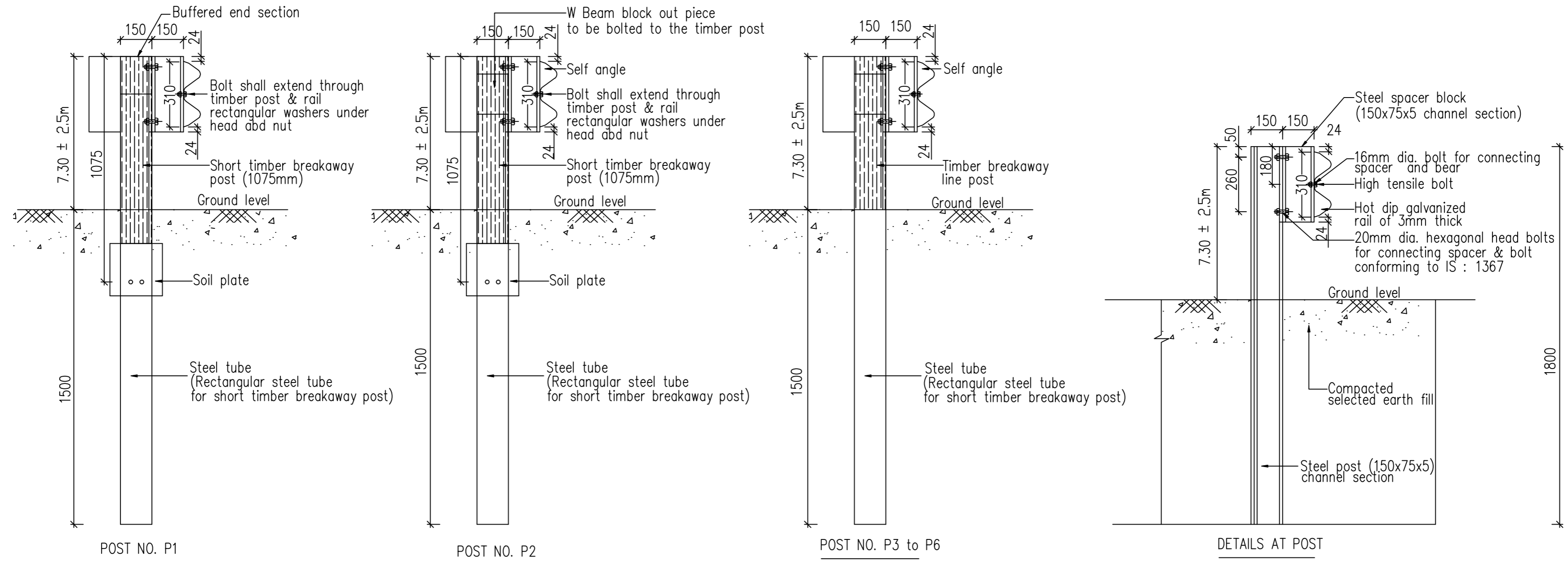
DESIGN CONSULTANT:

VOYANTS SOLUTIONS PVT LTD.
 403, 4th Floor, Park Centra,
 Sector-30, NH-8
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Detailed Project Report

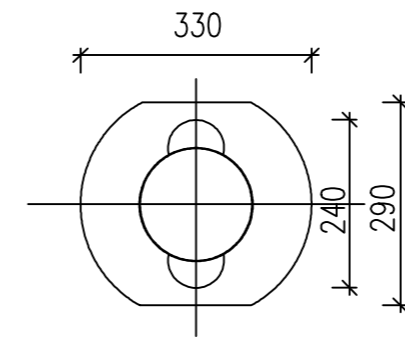
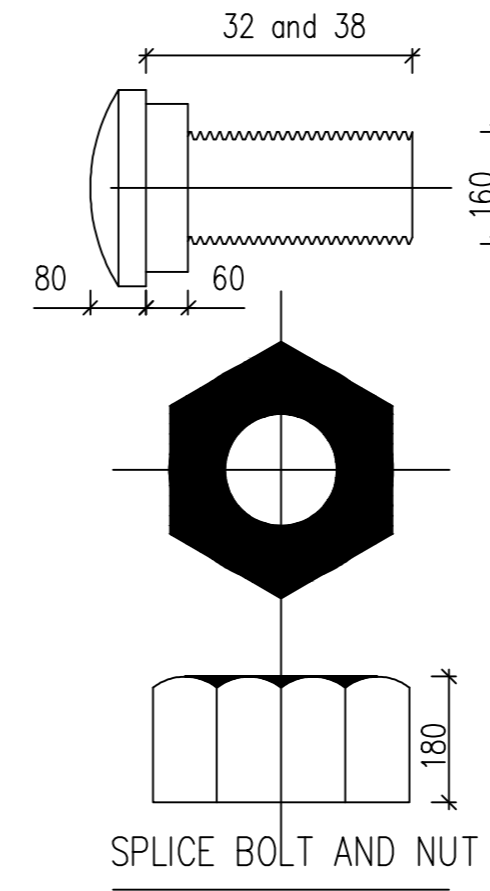
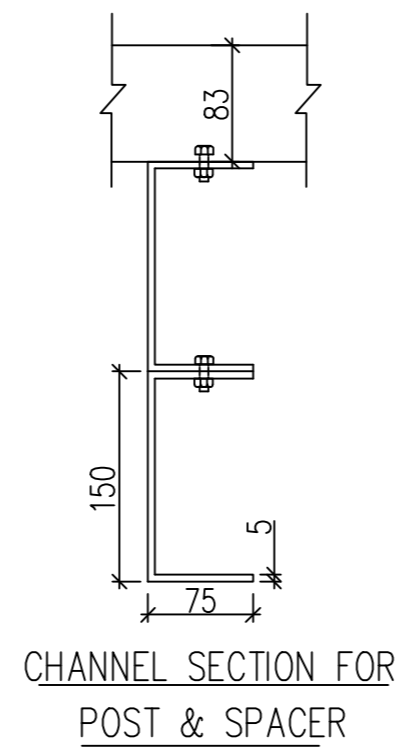
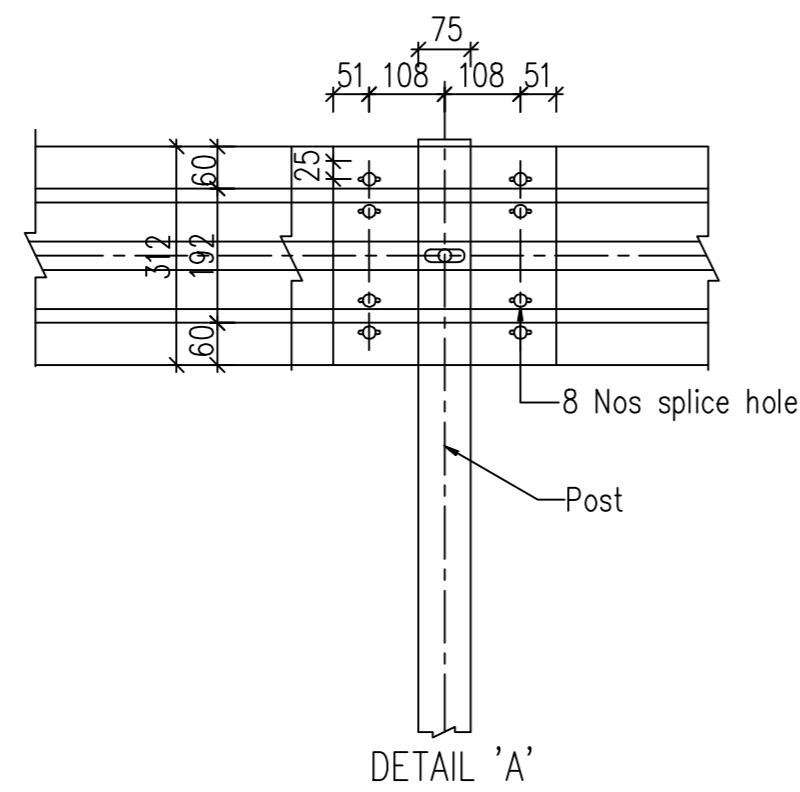
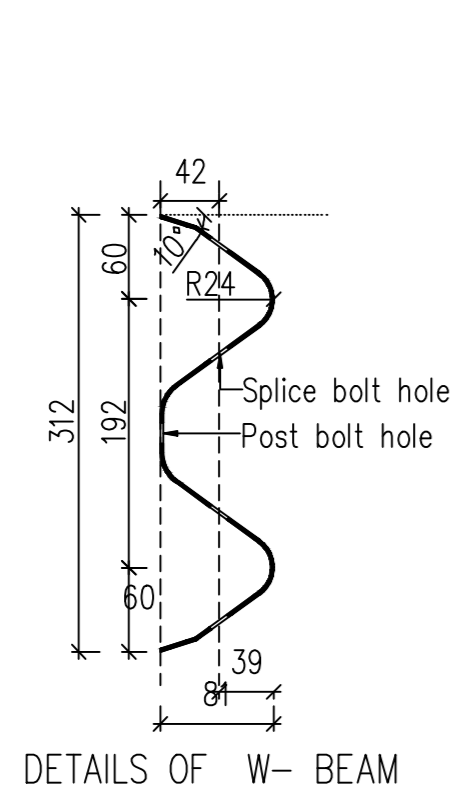
REV.	DATE	DESCRIPTION

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
PD/PS	SS/SP	DGR	SKC
			
SCALE :	N.T.S	SHEET SIZE	A2

TITLE :	
Typical Details of Metal Beam Crash Barrier	
DRG. No. :	VSPL/1718-082/DPR/PKG-4/MIS- 06 (Sheet 01 of 03)
REVISION:R0	OCTOBER 2022



MODIFIED ECCENTRIC LOADER TERMINAL (MELT)
GENERAL ARRANGEMENT



- Notes:
- All dimensions are in millimeter unless otherwise specified.
 - Hot dipped galvanized section as per mort & h specification shall be used for vertical post & spacer.
 - Thickness of W-beam shall be 3 mm.
 - Thickness of channel section shall be 5 mm.

CLIENT :
NATIONAL HIGHWAYS AND INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.
(MINISTRY OF ROAD TRANSPORT AND HIGHWAYS)
GOVERNMENT OF INDIA

PROJECT :
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DESIGN CONSULTANT:
VOYANTS SOLUTIONS PVT LTD.
403, 4th Floor, Park Centra,
Sector-30, NH-8
Gurugram-122001, Haryana, India
CIN- U74140HR2004PTC046918
Ph: 0124-4598200, Fax: 0124-4019051,
E-mail: info@voyants.in, www.voyants.in

Detailed Project Report

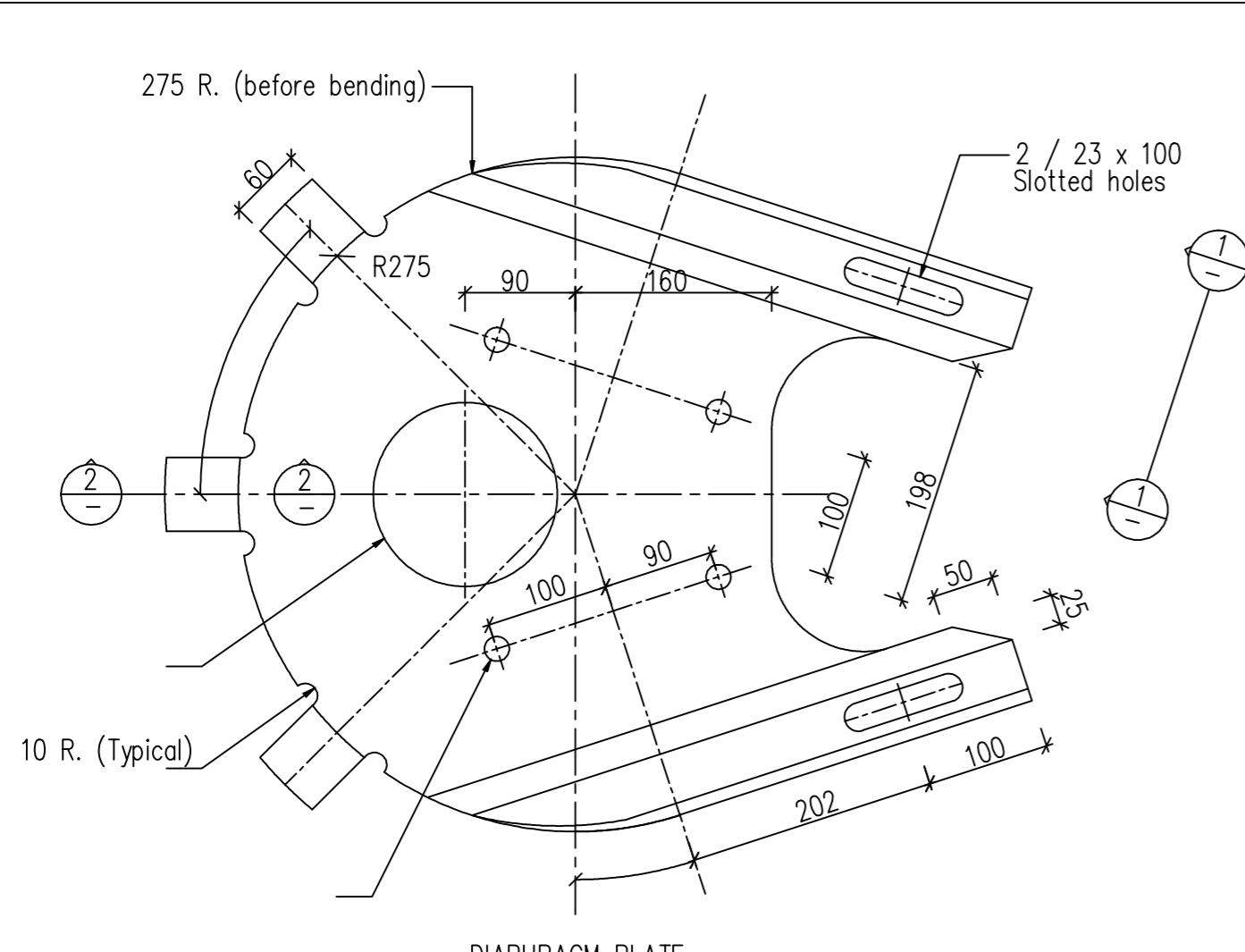
REV. DATE DESCRIPTION

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
PD/PS	SS/SP	DGR	SKC
<i>Sar.</i>	<i>SP</i>	<i>SKC</i>	<i>SKC</i>
SCALE :	N.T.S	SHEET SIZE	A2

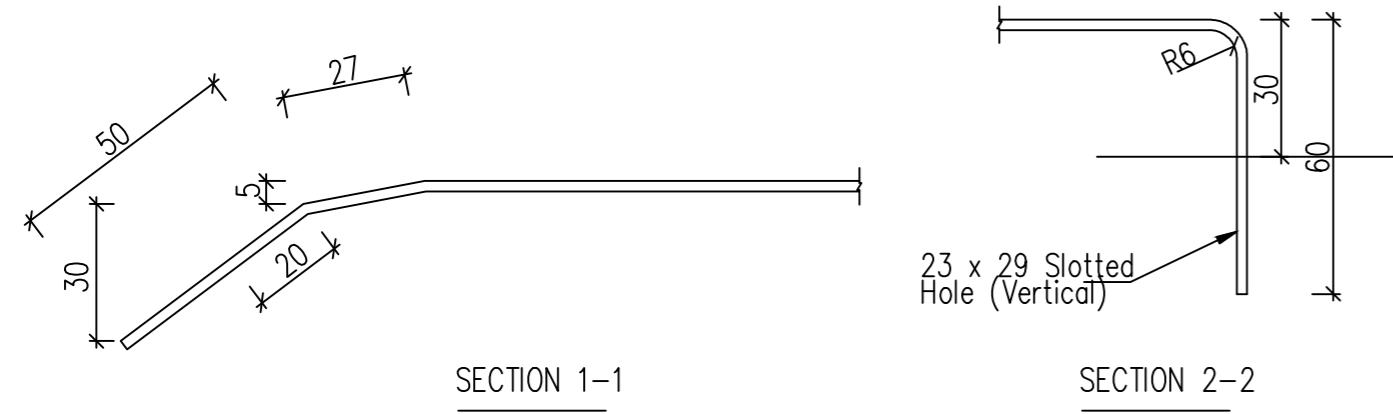
TITLE :
Typical Details of Metal Beam Crash Barrier

DRG. No. :
VSPL/1718-082/DPR/PKG-4/MIS- 06 (Sheet 02 of 03)

REVISION:R0
OCTOBER 2022

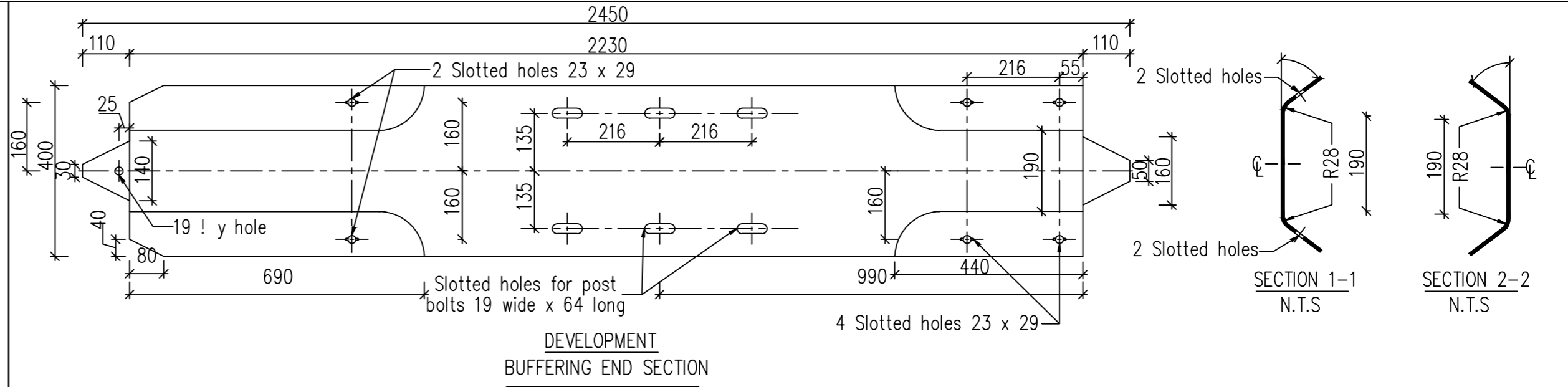


DIAPHRAGM PLATE

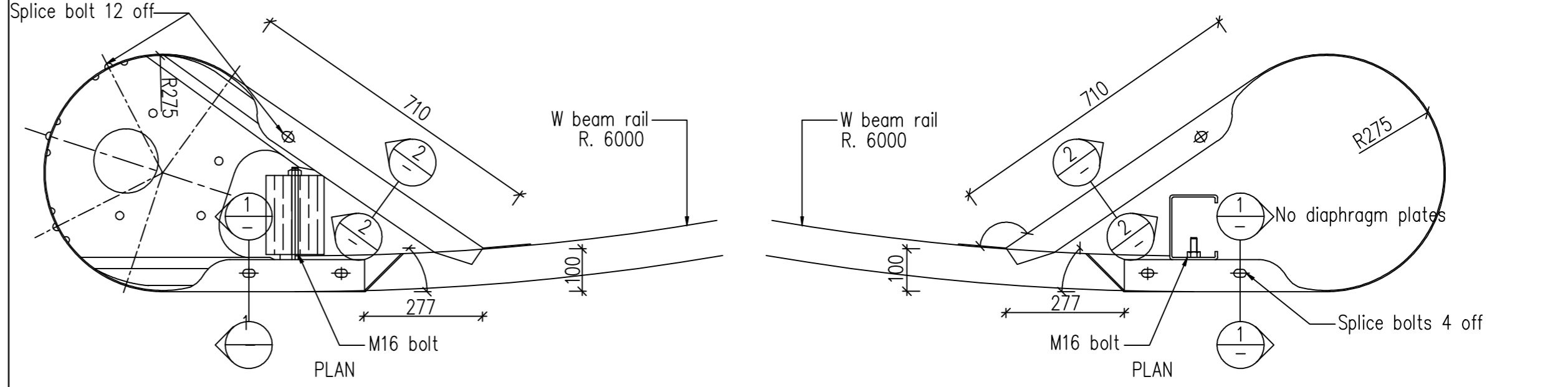


MODIFIED ECCENTRIC LOADER TERMINAL (MELT)
DIAPHRAGM PLATE DETAIL

- Notes:
1. All dimensions are in millimeter unless otherwise shown.
 2. Dimension are subject to manufacturer's tolerance except where allowable tolerance are nominated.

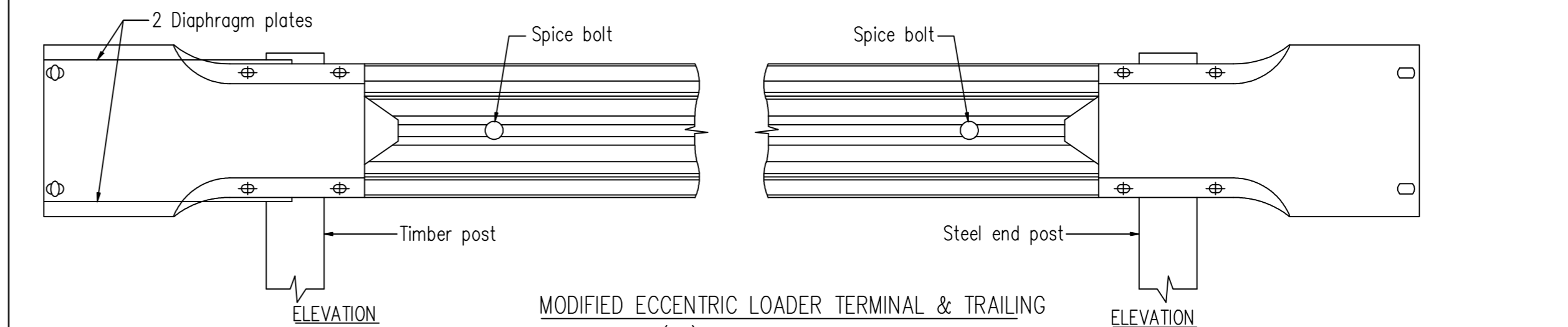


DEVELOPMENT BUFFERING END SECTION



PLAN

PLAN

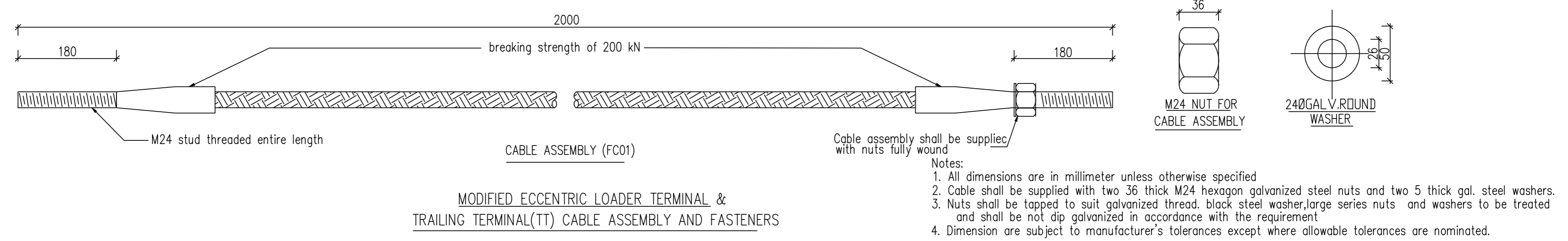


ELEVATION ASSEMBLED END - MELT

ELEVATION ASSEMBLED END - TT

MODIFIED ECCENTRIC LOADER TERMINAL & TRAILING TERMINAL (TT) BUFFERING END SECTION DETAIL

- Notes:
1. All dimensions are in millimeter unless otherwise shown.
 2. Dimension are subject to manufacturer's tolerance except where allowable tolerance are nominated.

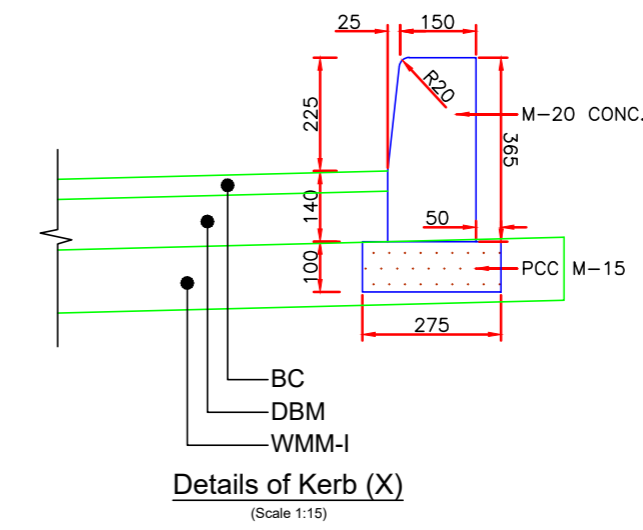
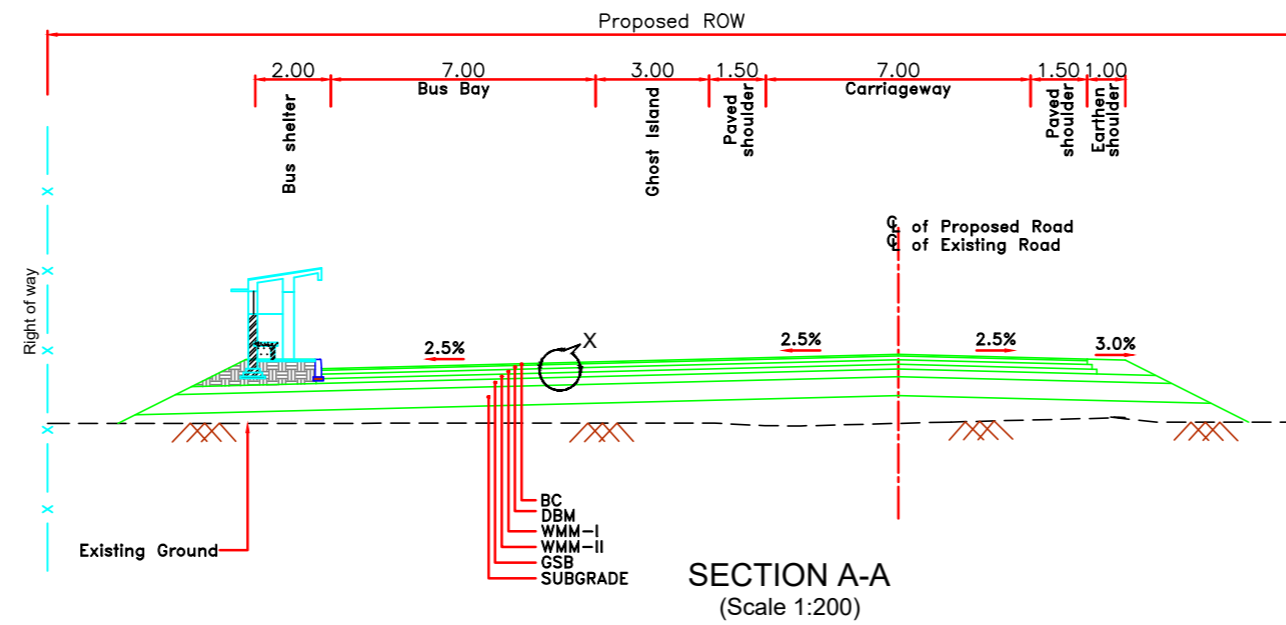
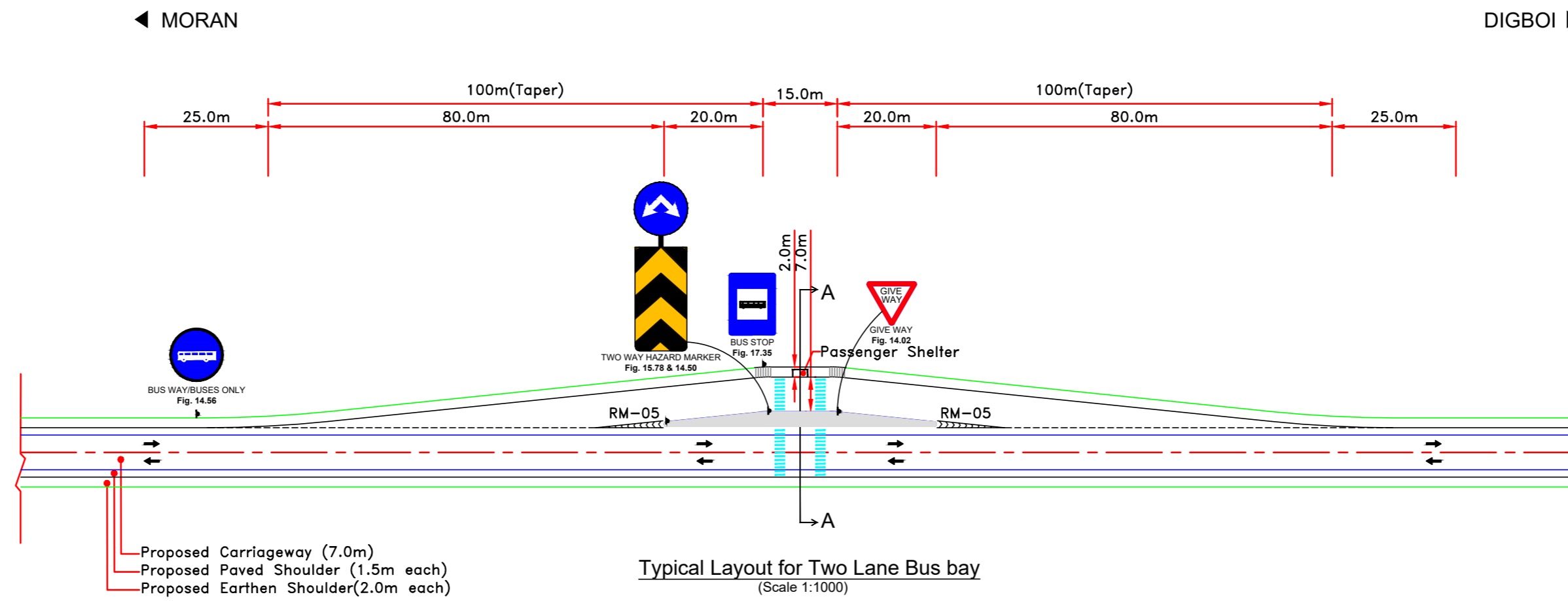


MODIFIED ECCENTRIC LOADER TERMINAL & TRAILING TERMINAL(TT) CABLE ASSEMBLY AND FASTENERS

- Notes:
1. All dimensions are in millimeter unless otherwise specified
 2. Cable shall be supplied with two 36 thick M24 hexagon galvanized steel nuts and two 5 thick gal. steel washers.
 3. Nuts shall be tapped to suit galvanized thread. black steel washer, large series nuts and washers to be treated and shall be not dip galvanized in accordance with the requirement
 4. Dimension are subject to manufacturer's tolerances except where allowable tolerances are nominated.


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CLIENT : NATIONAL HIGHWAYS AND INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. (MINISTRY OF ROAD TRANSPORT AND HIGHWAYS) GOVERNMENT OF INDIA	PROJECT : CONSULTANCY SERVICES FOR PREPARATION OF DETAILED PROJECT REPORT FOR DEVELOPMENT OF ECONOMIC CORRIDORS, INTER CORRIDORS AND FEEDER ROUTES TO IMPROVE THE EFFICIENCY OF FREIGHT MOVEMENTS IN INDIA UNDER BHARATMALA PARIYOJANA (LOT-1:PACKAGE IV)	DESIGN CONSULTANT: VOYANTS SOLUTIONS PVT LTD. 403, 4th Floor, Park Centra, Sector-30, NH-8 Gurugram-122001, Haryana, India CIN- U74140HR2004PTC046918 Ph: 0124-4598200, Fax: 0124-4019051, E-mail: info@voyants.in, www.voyants.in	Detailed Project Report				DESIGNED BY PD/PS 	DRAWN BY SS/SP 	CHECKED BY DGR 	APPROVED BY SKC 	TITLE : Typical Details of Metal Beam Crash Barrier
			REV. DATE	DESCRIPTION	SCALE : N.T.S	SHEET SIZE A2	DRG. No. : VSPL/1718-082/DPR/PKG-4/MIS- 06 (Sheet 03 of 03)				
REVISION:R0										OCTOBER 2022	



Note:
 1. All dimensions are in meter unless otherwise specified.

CLIENT :




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 GOVERNMENT OF INDIA

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DESIGN CONSULTANT:

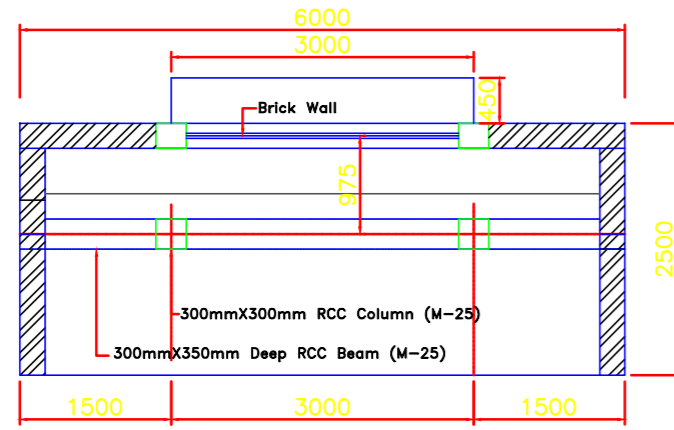


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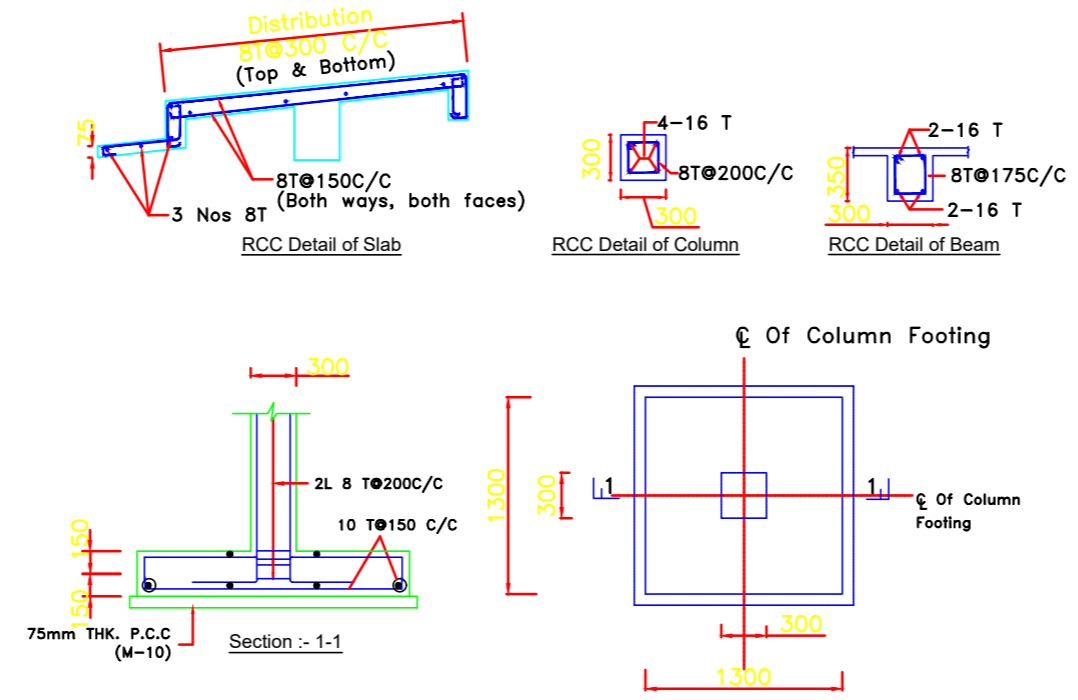
Detailed Project Report	
REV.	DATE
DESCRIPTION	

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
PD/PS	SS/SP	DGR	SKC
<i>Sas.</i>	<i>SP</i>	<i>SKC</i>	<i>SKC</i>
SCALE :	AS SHOWN	SHEET SIZE	A2

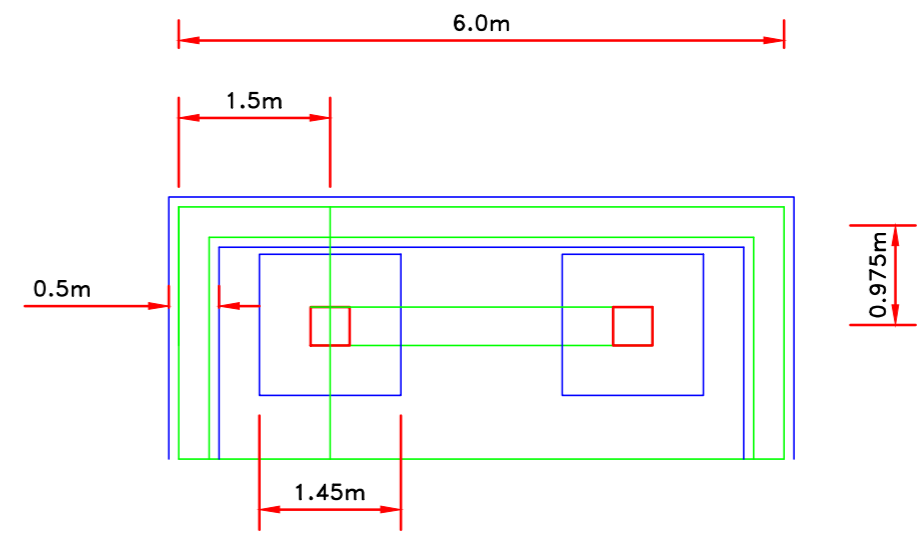
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DRG. No. : VSPL/1718-082/DPR/PKG-4/MIS- 07	
REVISION:R0	OCTOBER 2022



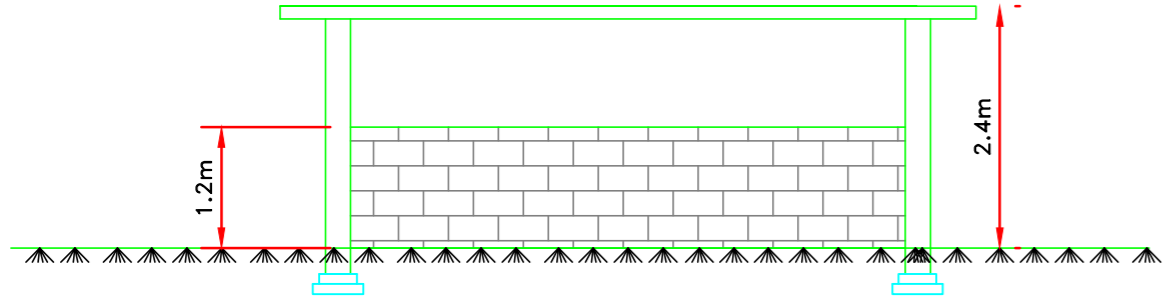
Plan of Passenger Shelter
Scale 1:75



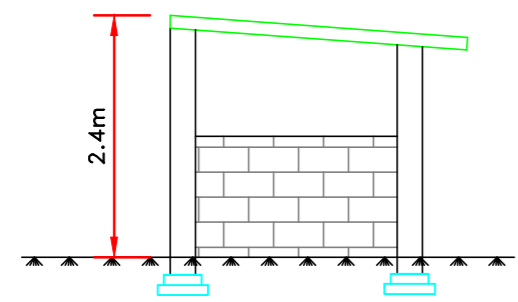
Plan Showing Column Foundation
Scale 1:50



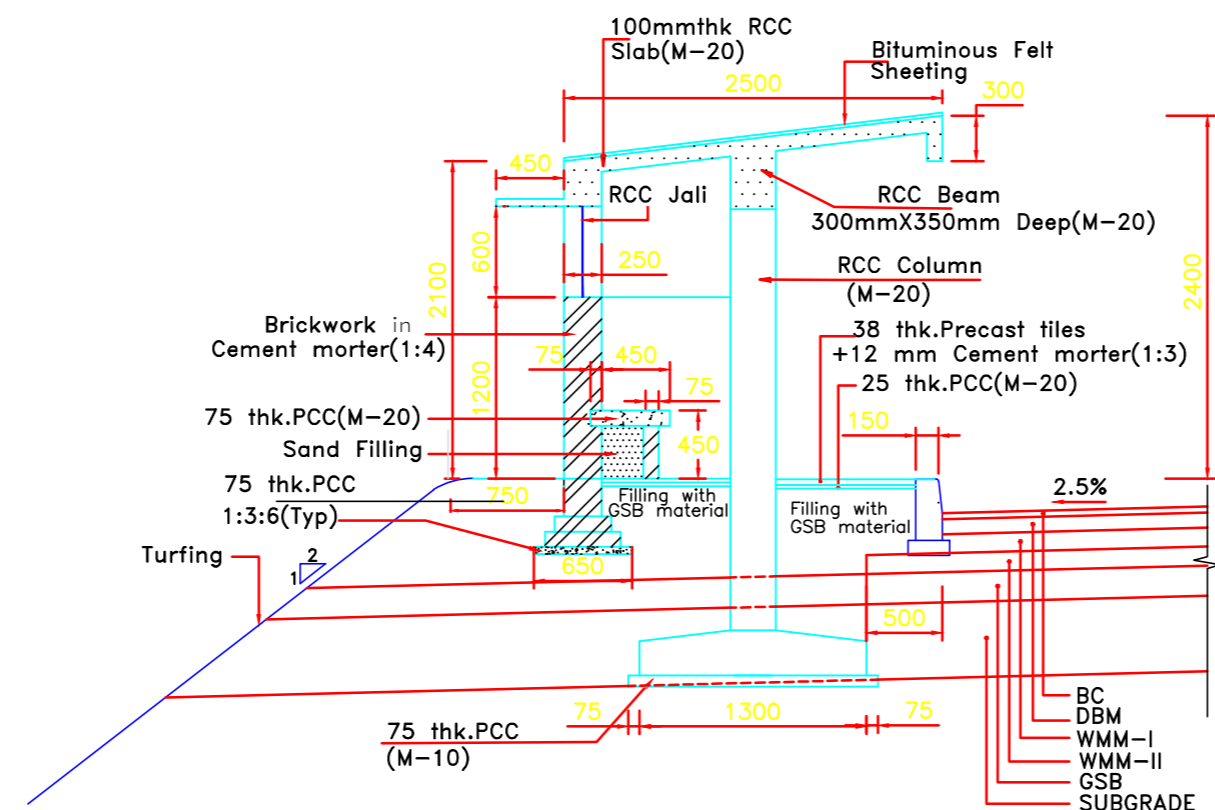
Foundation Plan
Scale 1:75



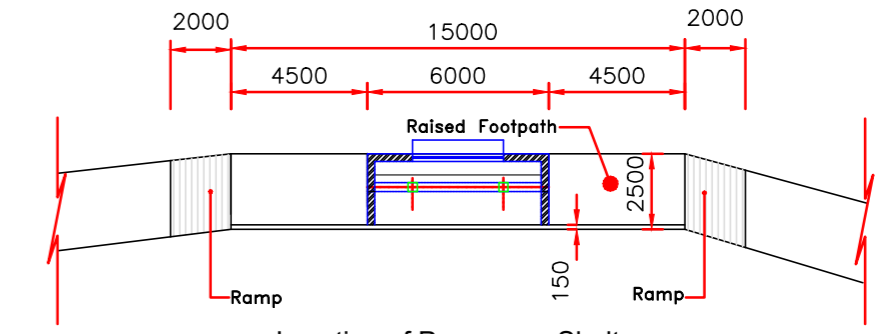
Front Elevation
Scale 1:75



Side Elevation
Scale 1:75



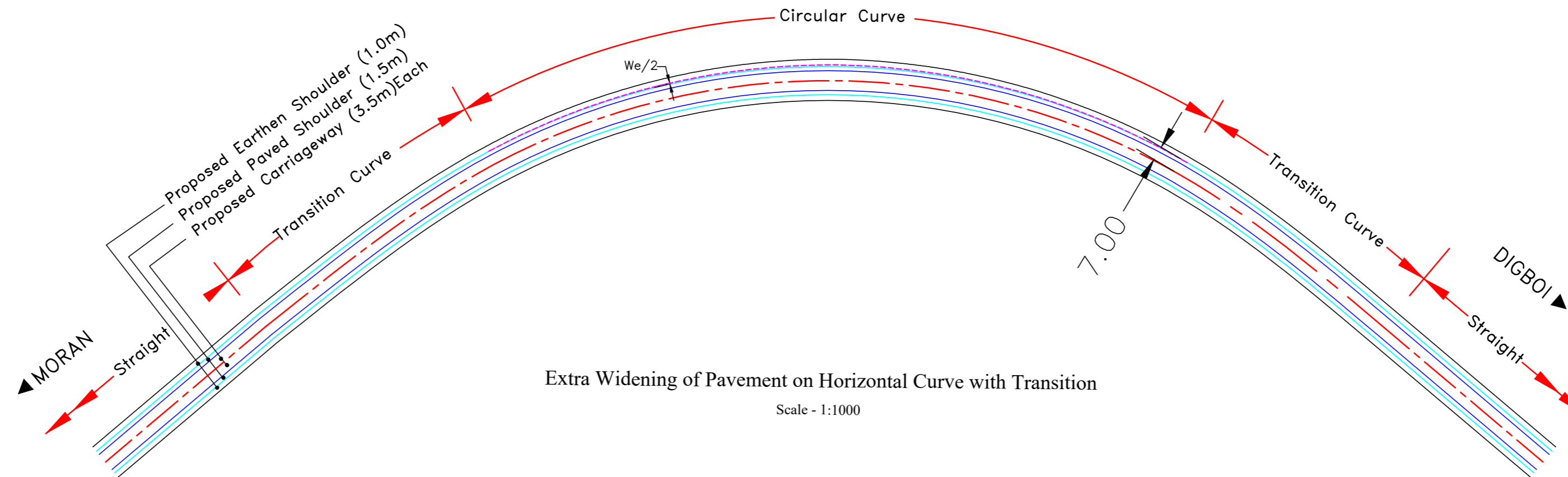
Section of Passenger Shelter
Scale 1:50



Location of Passenger Shelter
Scale 1:250

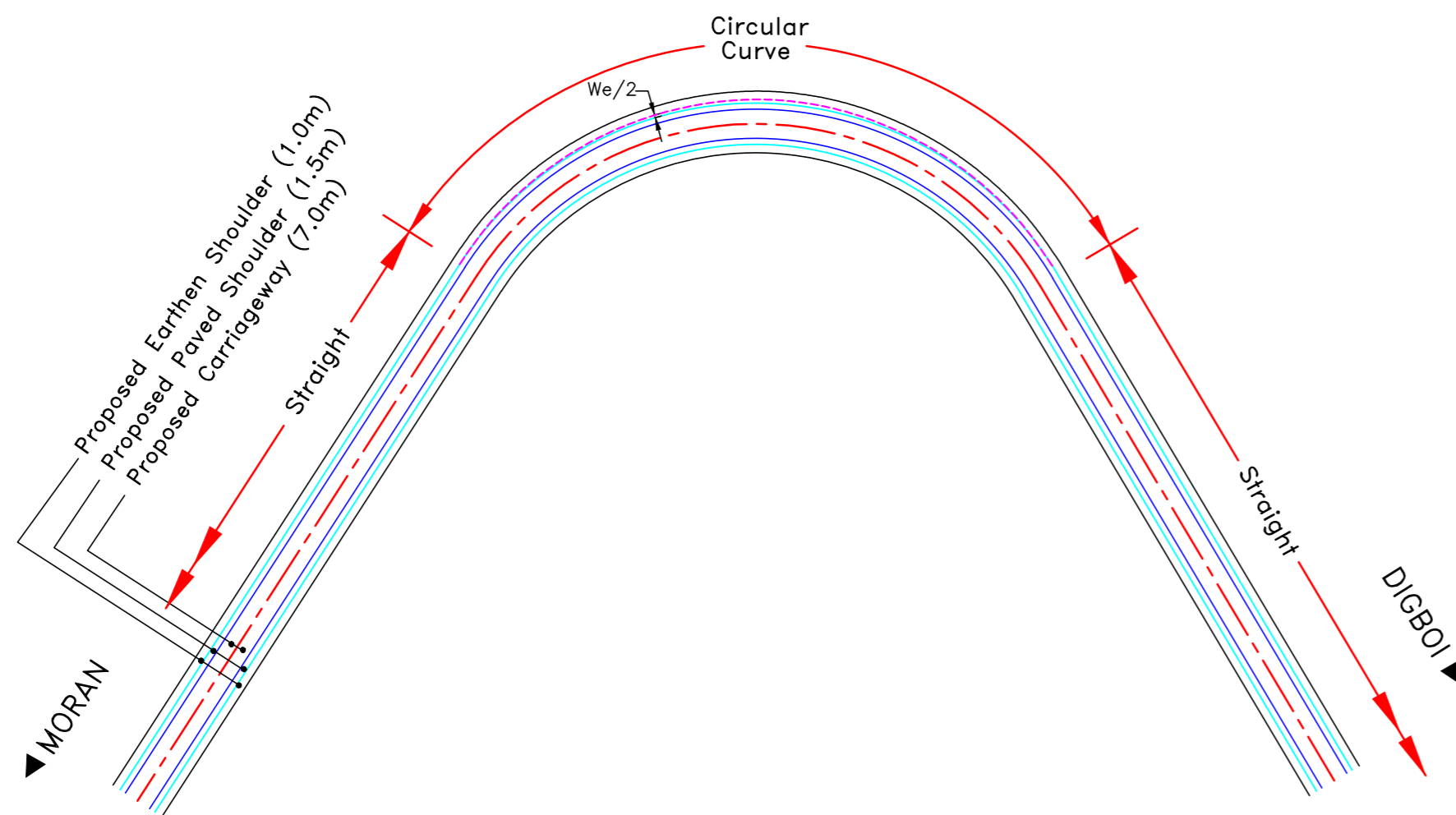
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CLIENT :  NATIONAL HIGHWAYS AND INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. (MINISTRY OF ROAD TRANSPORT AND HIGHWAYS) GOVERNMENT OF INDIA	PROJECT : CONSULTANCY SERVICES FOR PREPARATION OF DETAILED PROJECT REPORT FOR DEVELOPMENT OF ECONOMIC CORRIDORS, INTER CORRIDORS AND FEEDER ROUTES TO IMPROVE THE EFFICIENCY OF FREIGHT MOVEMENTS IN INDIA UNDER BHARATMALA PARIYOJANA (LOT-1:PACKAGE IV)	DESIGN CONSULTANT:  VOYANTS SOLUTIONS PVT LTD. 403, 4th Floor, Park Centra, Sector-30, NH-8 Gurugram-122001, Haryana, India CIN- U74140HR2004PTC046918 Ph: 0124-4598200, Fax: 0124-4019051, E-mail: info@voyants.in, www.voyants.in	Detailed Project Report				DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY	TITLE : Typical Detail Passenger Shelter
			PD/PS	SS/SP	DGR	SKC					
				REV. DATE	DESCRIPTION	SCALE :	N.T.S	SHEET SIZE	A2	REVISION:R0	OCTOBER 2022



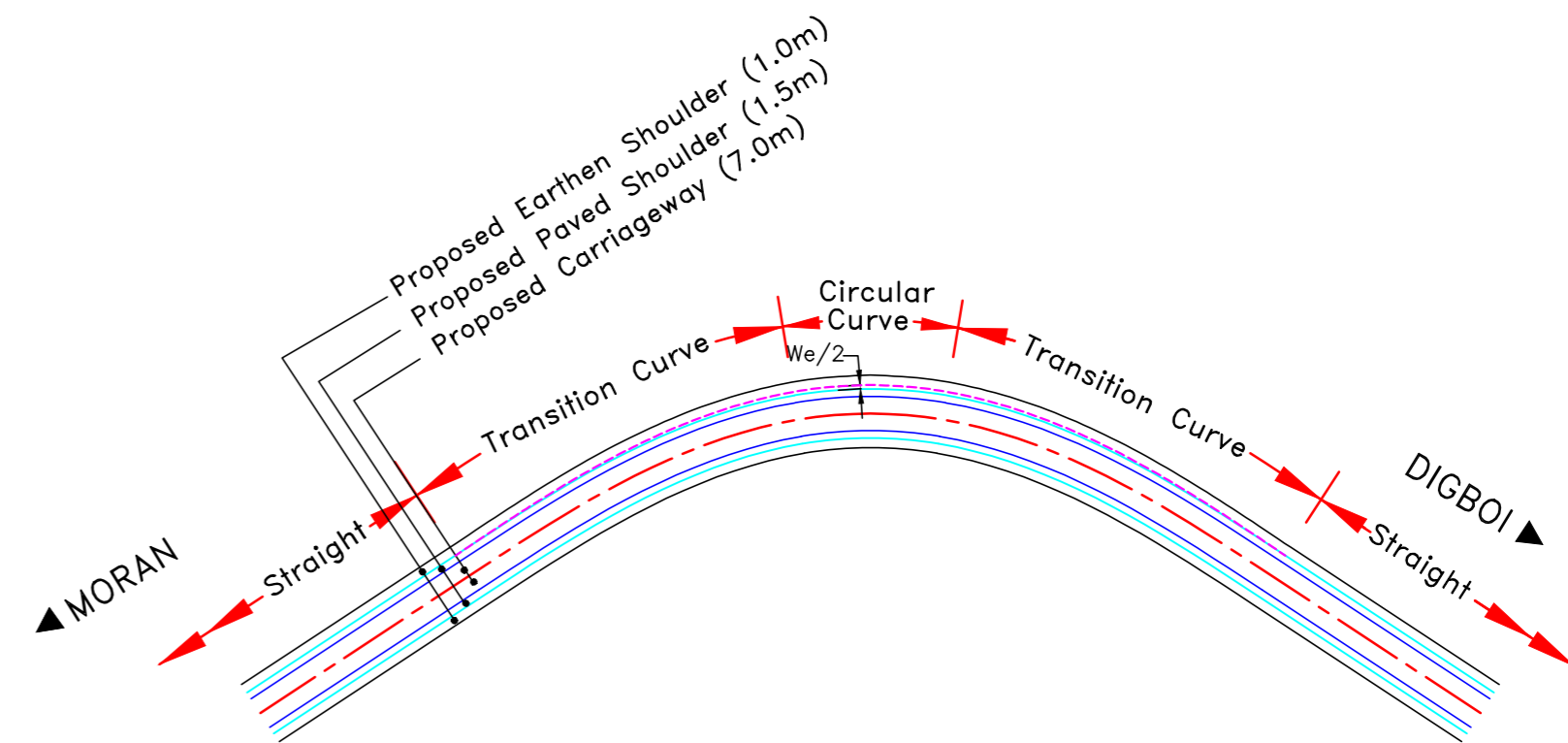
Extra Widening of Pavement on Horizontal Curve with Transition

Scale - 1:1000



Extra Widening of Pavement on Horizontal Curve (Without Transition)

Scale - 1:1000




Extra Widening of Pavement on Sharp Curve


Scale - 1:2500

Notes:

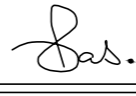



- 1.All dimensions are in metres unless otherwise mentioned.
- 2.Standards and specifications mentioned in IRC:SP:73-2015 shall be followed strictly whenever applicable.
- 3.This drawing is applicable for the stretches with raised median.

CLIENT :

NATIONAL HIGHWAYS AND INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.
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DESIGN CONSULTANT:

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 Gurugram-122001, Haryana, India
 CIN- U74140HR2004PTC046918
 Ph: 0124-4598200, Fax: 0124-4019051,
 E-mail: info@voyants.in, www.voyants.in

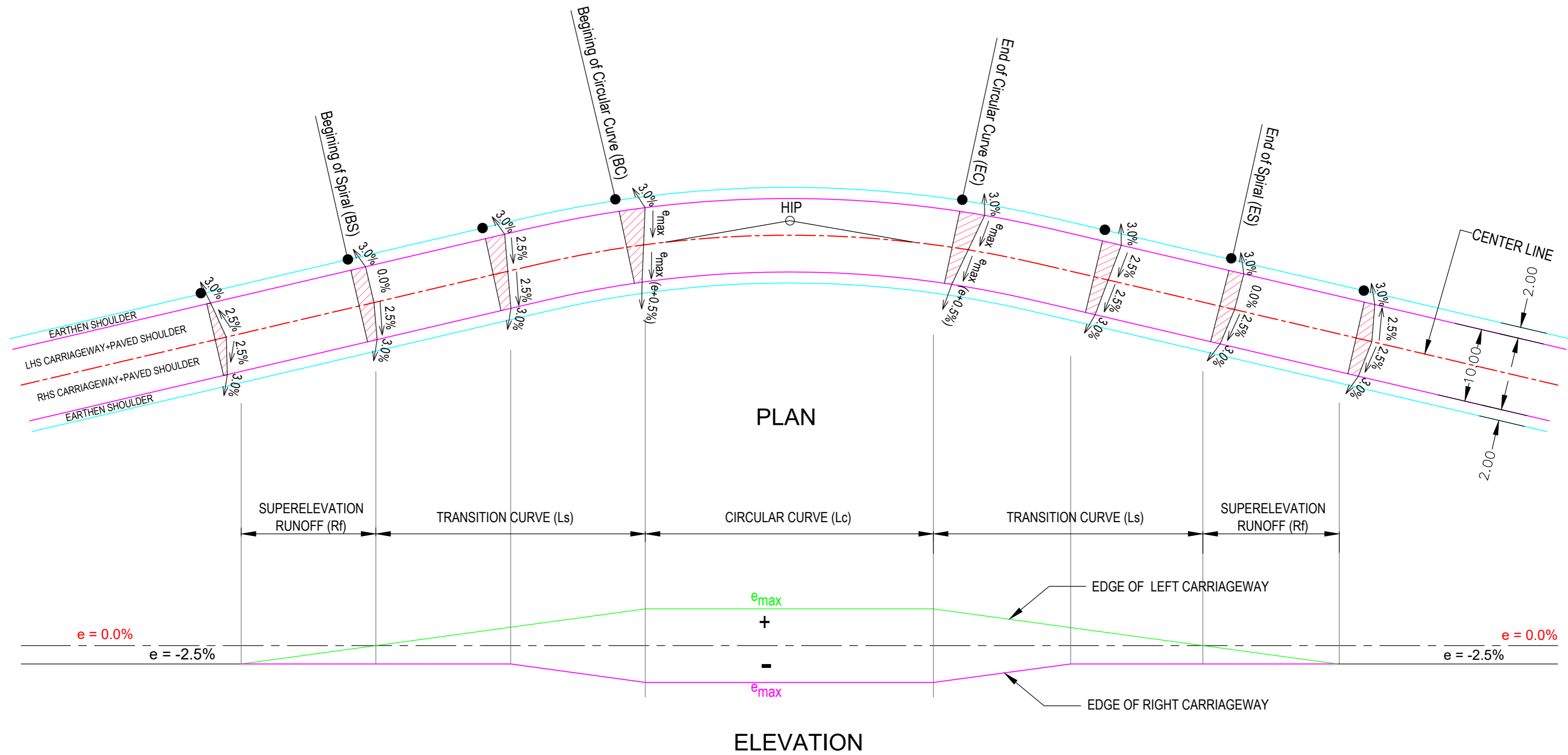
Detailed Project Report	
REV.	DESCRIPTION

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
PD/PS	SS/SP	DGR	SKC
			
SCALE :	N.T.S.	SHEET SIZE	A2

TITLE :	
Typical Details of Extra Widening	
DRG. No. :	VSPL/1718-082/DPR/PKG-4/MIS-09
REVISION:R0	OCTOBER 2022

◀ MORAN


DIGBOI ▶



Notes:

- $R_f = L_s \times 2.5 / e$
- Maximum Superelevation (e_{max}) = $V^2 / (225 \times R)$ Limited to 5%
- Besides the above, standards and specifications mentioned in IRC:SP:73-2015 shall be followed strictly whenever applicable.
- All dimensions are in metres unless otherwise mentioned.

CLIENT :




NATIONAL HIGHWAYS AND INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.
(MINISTRY OF ROAD TRANSPORT AND HIGHWAYS)
GOVERNMENT OF INDIA

PROJECT :

CONSULTANCY SERVICES FOR PREPARATION OF DETAILED PROJECT REPORT FOR DEVELOPMENT OF ECONOMIC CORRIDORS, INTER CORRIDORS AND FEEDER ROUTES TO IMPROVE THE EFFICIENCY OF FREIGHT MOVEMENTS IN INDIA UNDER BHARATMALA PARIYOJANA (LOT-1:PACKAGE IV)

DESIGN CONSULTANT:



VOYANTS SOLUTIONS PVT LTD.
403, 4th Floor, Park Centra,
Sector-30, NH-8
Gurugram-122001, Haryana, India
CIN- U74140HR2004PTC046918
Ph: 0124-4598200, Fax: 0124-4019051,
E-mail: info@voyants.in, www.voyants.in

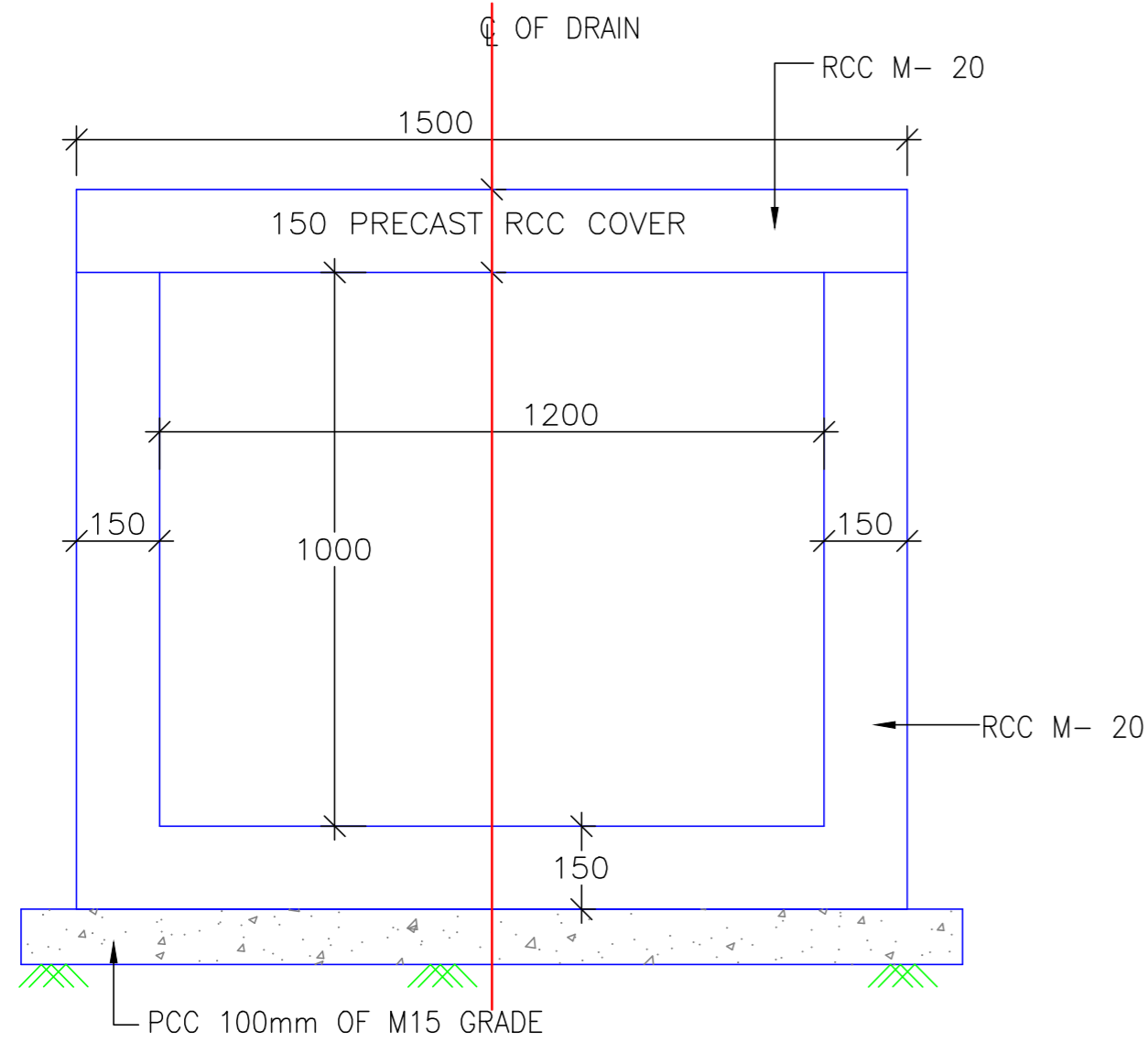
Detailed Project Report

REV.	DATE	DESCRIPTION

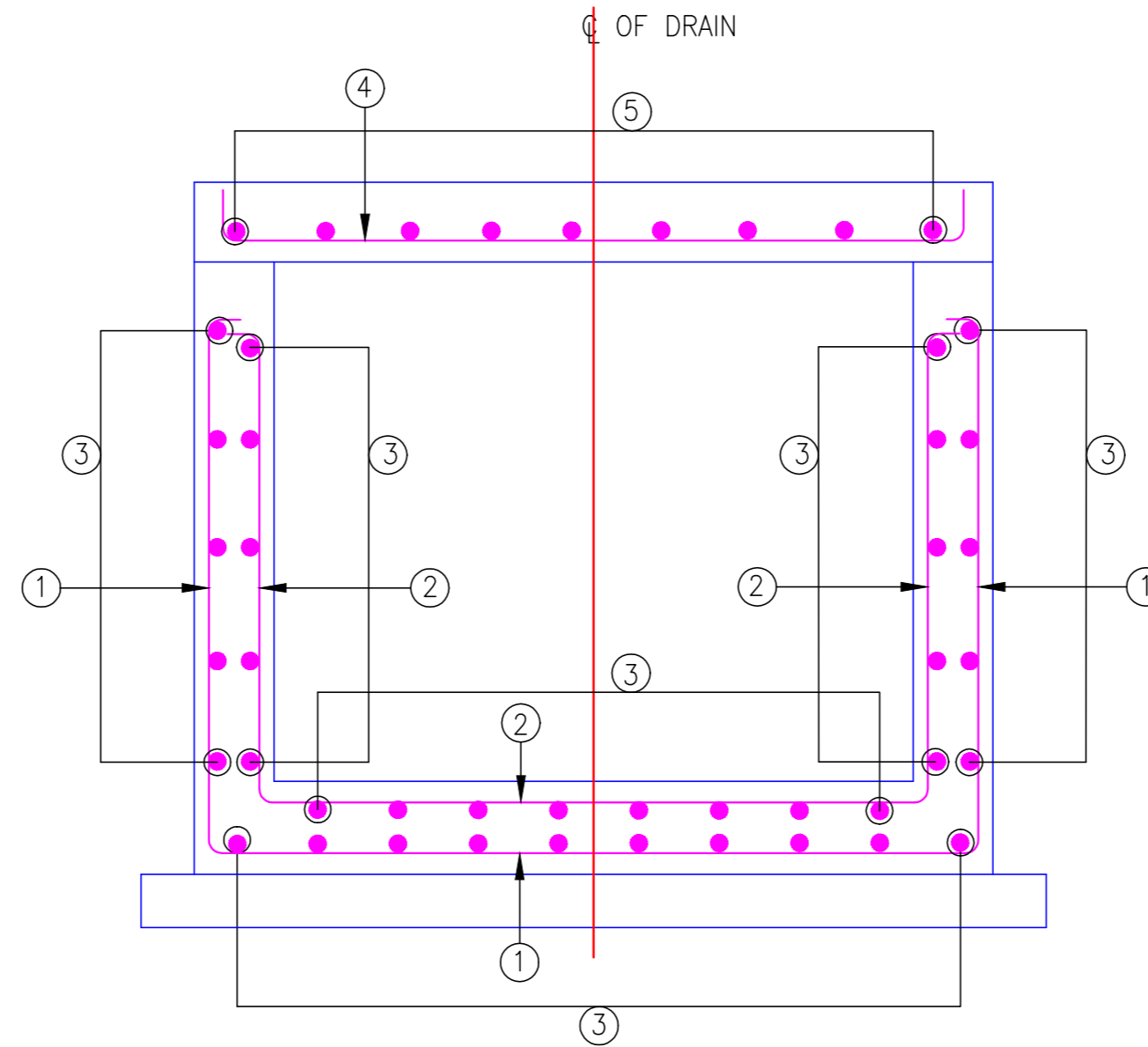
DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
PD/PS	SS/SP	DGR	SKC
<i>Sas.</i>	<i>SP</i>	<i>SKC</i>	<i>SKC</i>
SCALE :	N.T.S.	SHEET SIZE	A2

TITLE :	
Details of Superelevation	
DRG. No. :	VSPL/1718-082/DPR/PKG-4/MIS- 10
REVISION:R0	OCTOBER 2022

DETAILS OF DRAIN AT BUILT UP SECTION

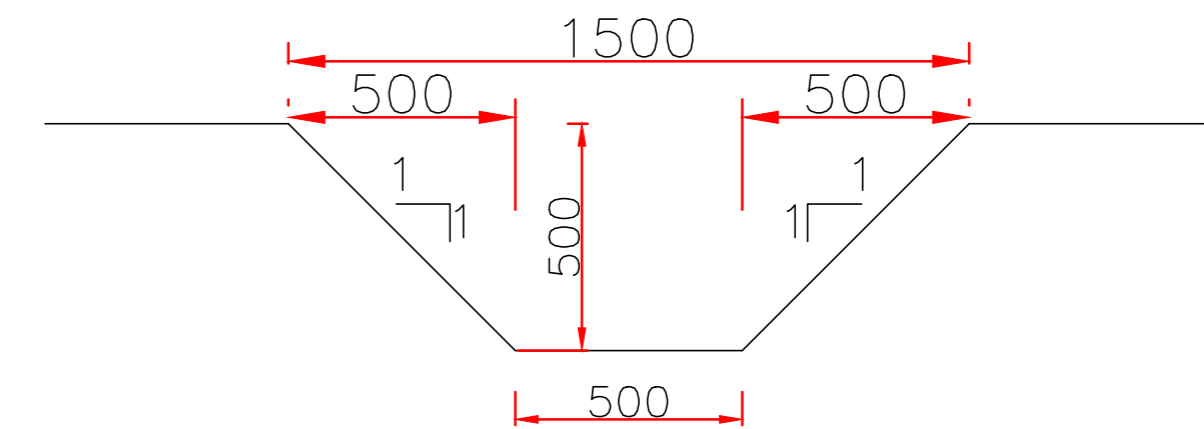


DETAILS OF DRAIN CROSS SECTION AT 2 LANE BUILT UP SECTION (SCALE 1:25)



REINFORCEMENT DETAIL OF DRAIN (SCALE 1:25)

REINF. SCHEDULE			
BAR MARK	SHAPE OF BARS (NOT TO SCALE)	BAR DIA. in mm.	SPACING in mm.
①		10	200
②		8	200
③		8	250
④		10	200
⑤		8	250



Trapezoidal Unlined Drain

Notes:

- All dimensions are in millimetres unless otherwise mentioned.
- Standards and specifications mentioned in IRC : SP: 73-2017 shall be followed strictly whenever applicable.

CLIENT :

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 GOVERNMENT OF INDIA

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DESIGN CONSULTANT:

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Detailed Project Report

REV.	DATE	DESCRIPTION

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
PD/PS	SS/SP	DGR	SKC
SCALE :	N.T.S.	SHEET SIZE	A2

TITLE :
Typical Details of Drain

DRG. No. :
 VSPL/1718-082/DPR/PKG-4/MIS- 12

REVISION:R0
 OCTOBER 2022