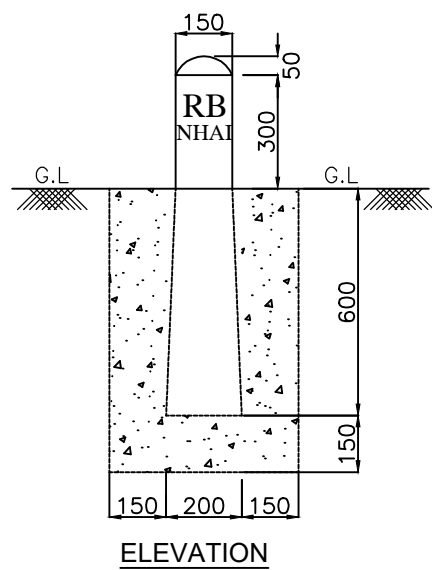
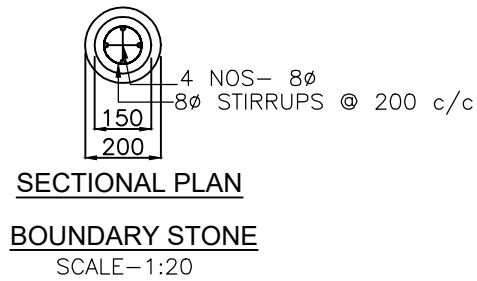


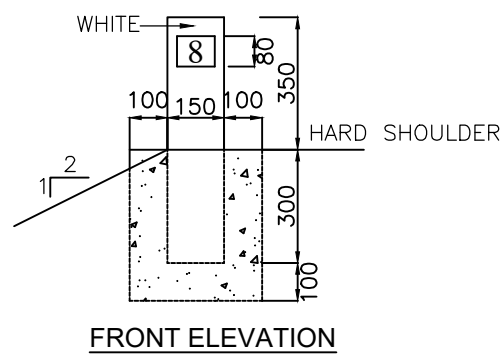
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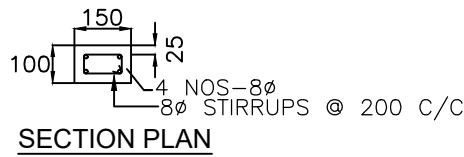
ELEVATION



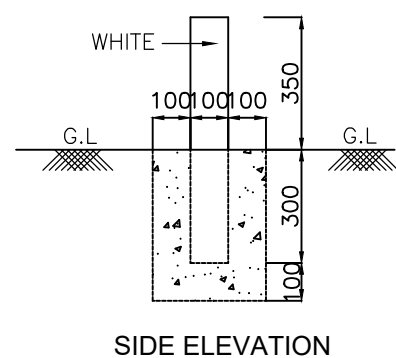
SECTIONAL PLAN
BOUNDARY STONE
SCALE-1:20



FRONT ELEVATION

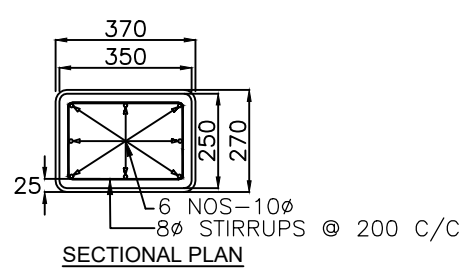


SECTION PLAN

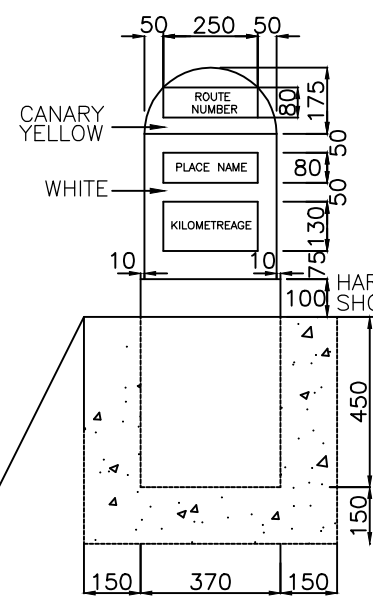


SIDE ELEVATION

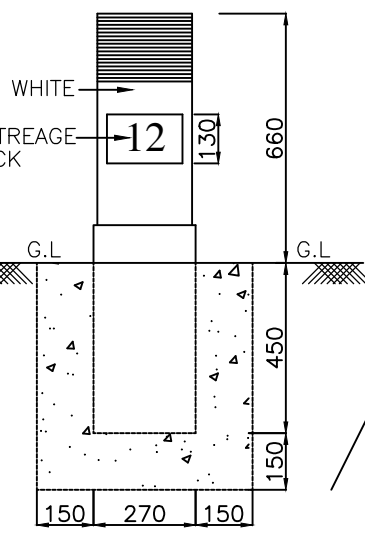
HECTOMETRE STONE
SCALE-1:20



SECTIONAL PLAN

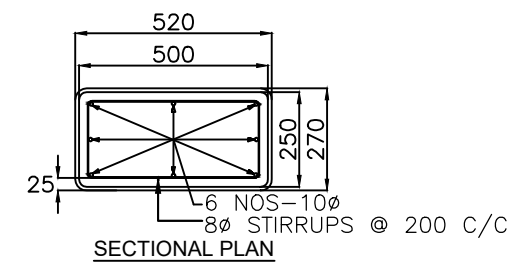


FACE-I & II
ELEVATION

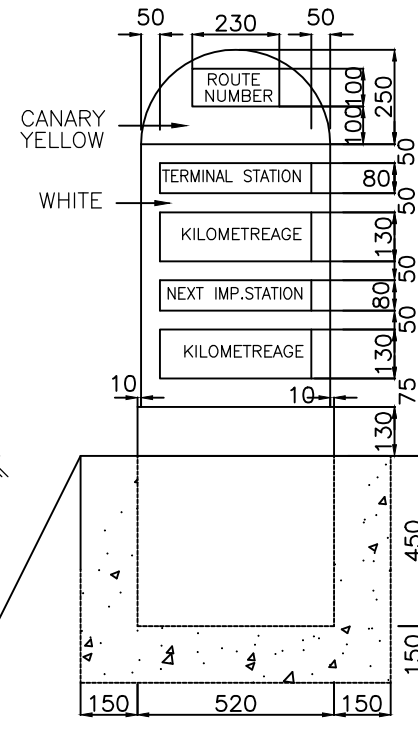


SIDE ELEVATION

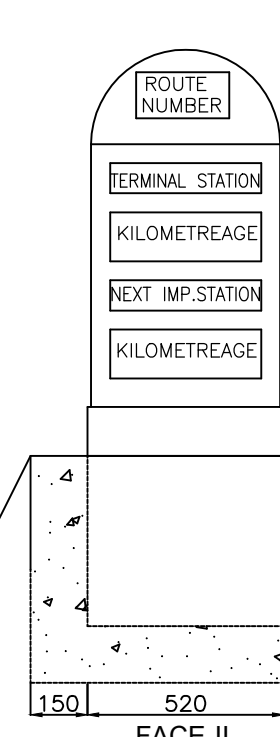
KILOMETRE STONE
SCALE-1:20



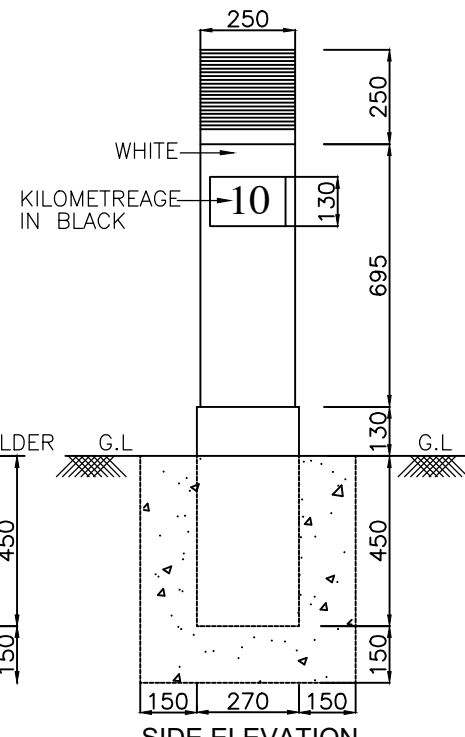
SECTIONAL PLAN



FACE-I
ELEVATION

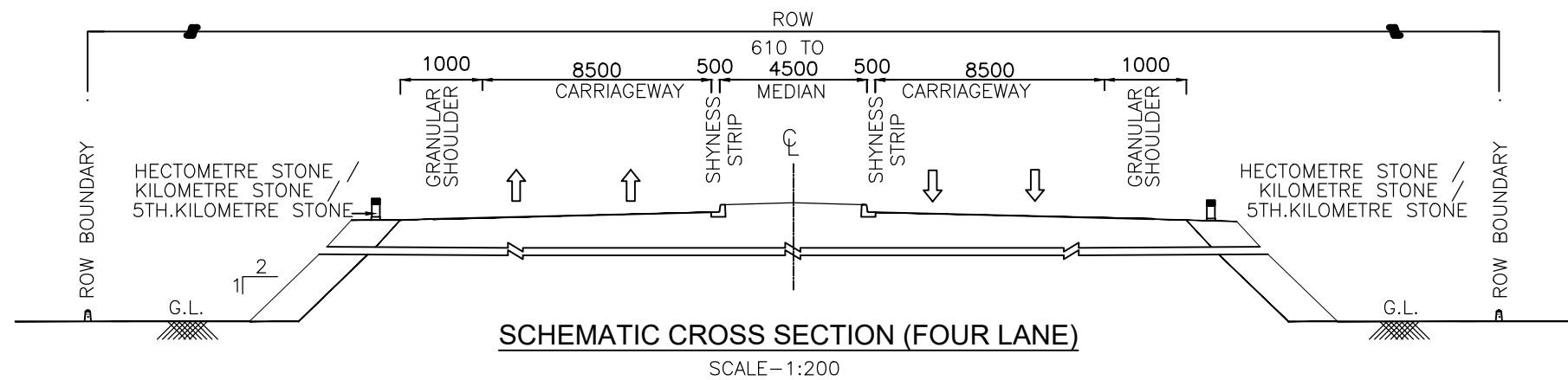


FACE-II

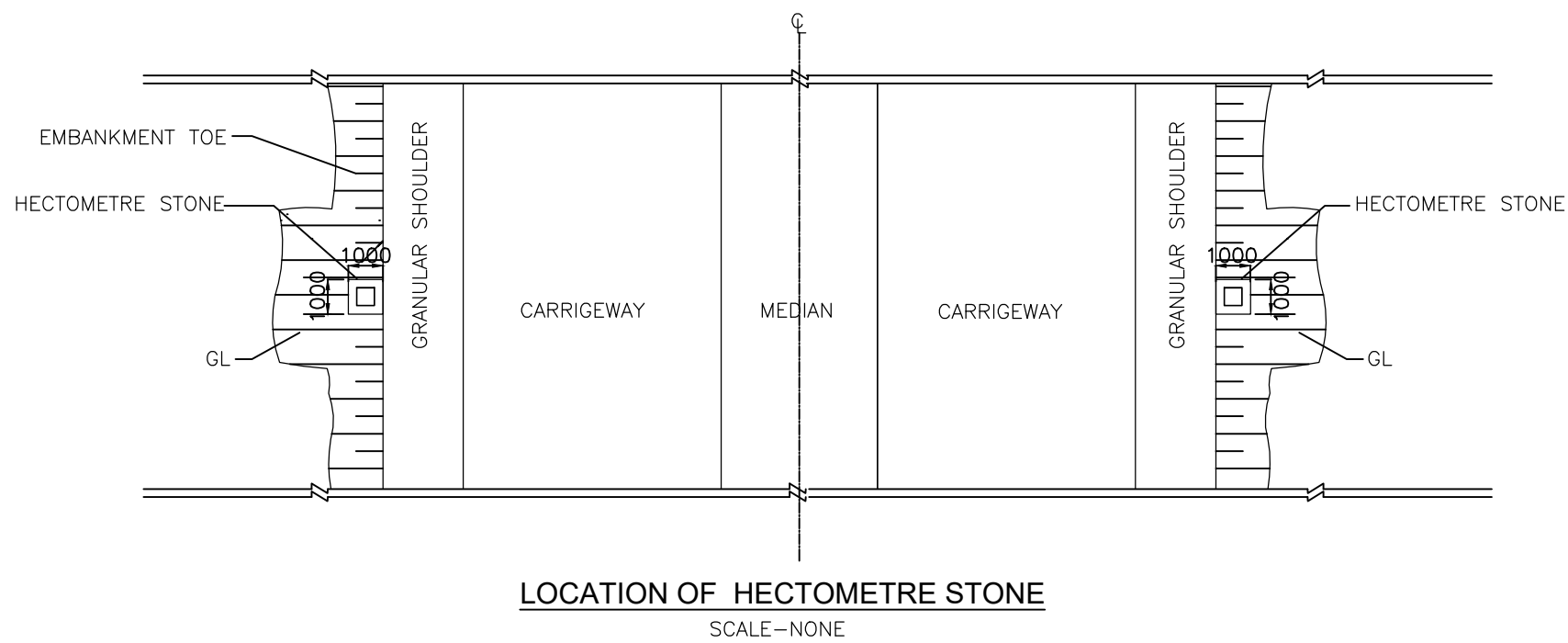


SIDE ELEVATION

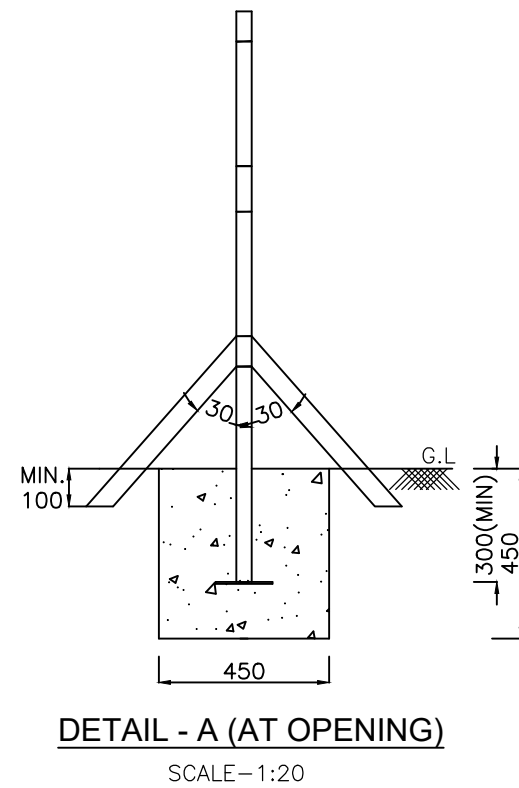
FIFTH KILOMETRE STONE
SCALE-1:20



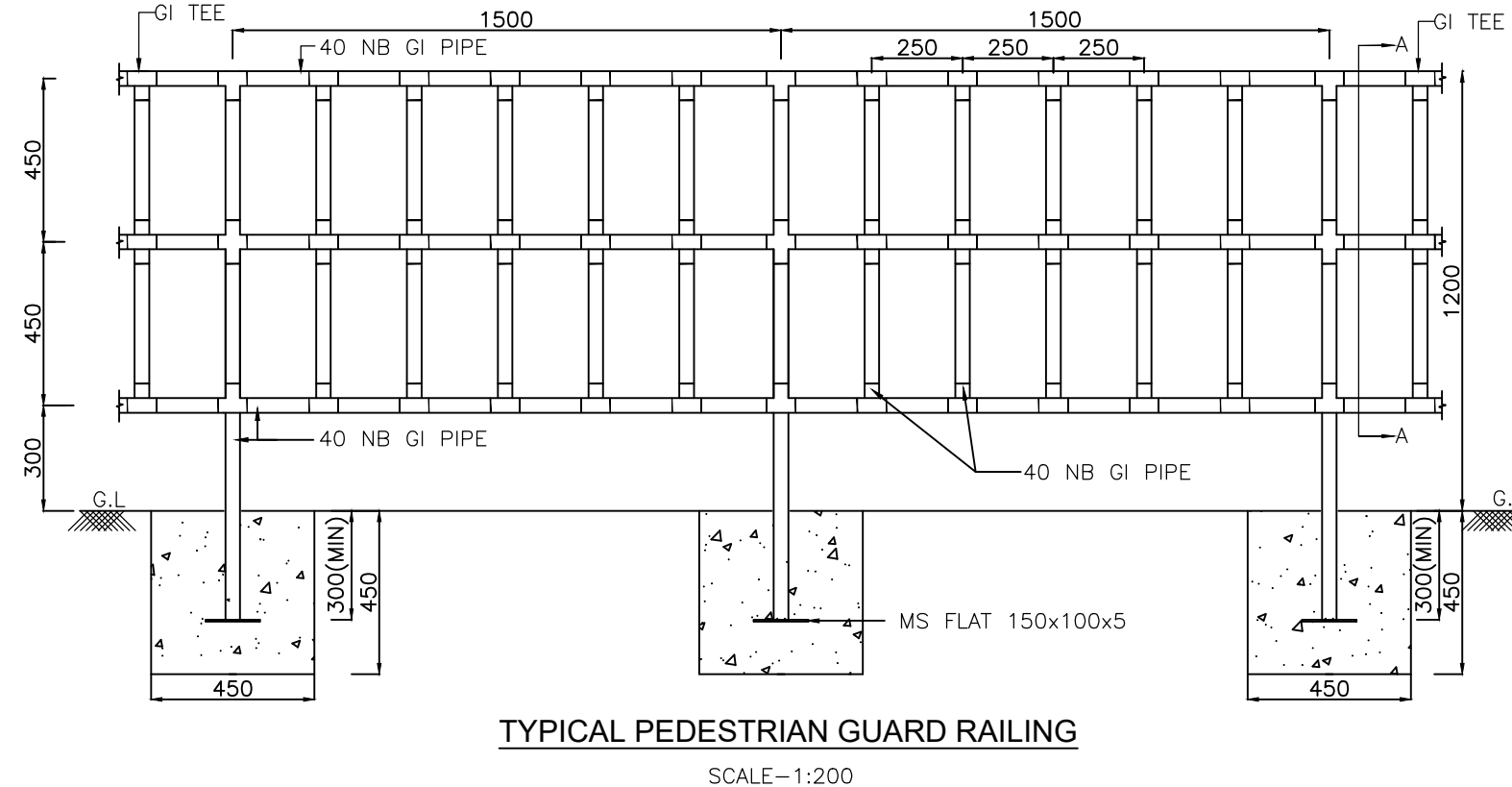
SCHEMATIC CROSS SECTION (FOUR LANE)
SCALE-1:200



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.

CLIENT :



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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

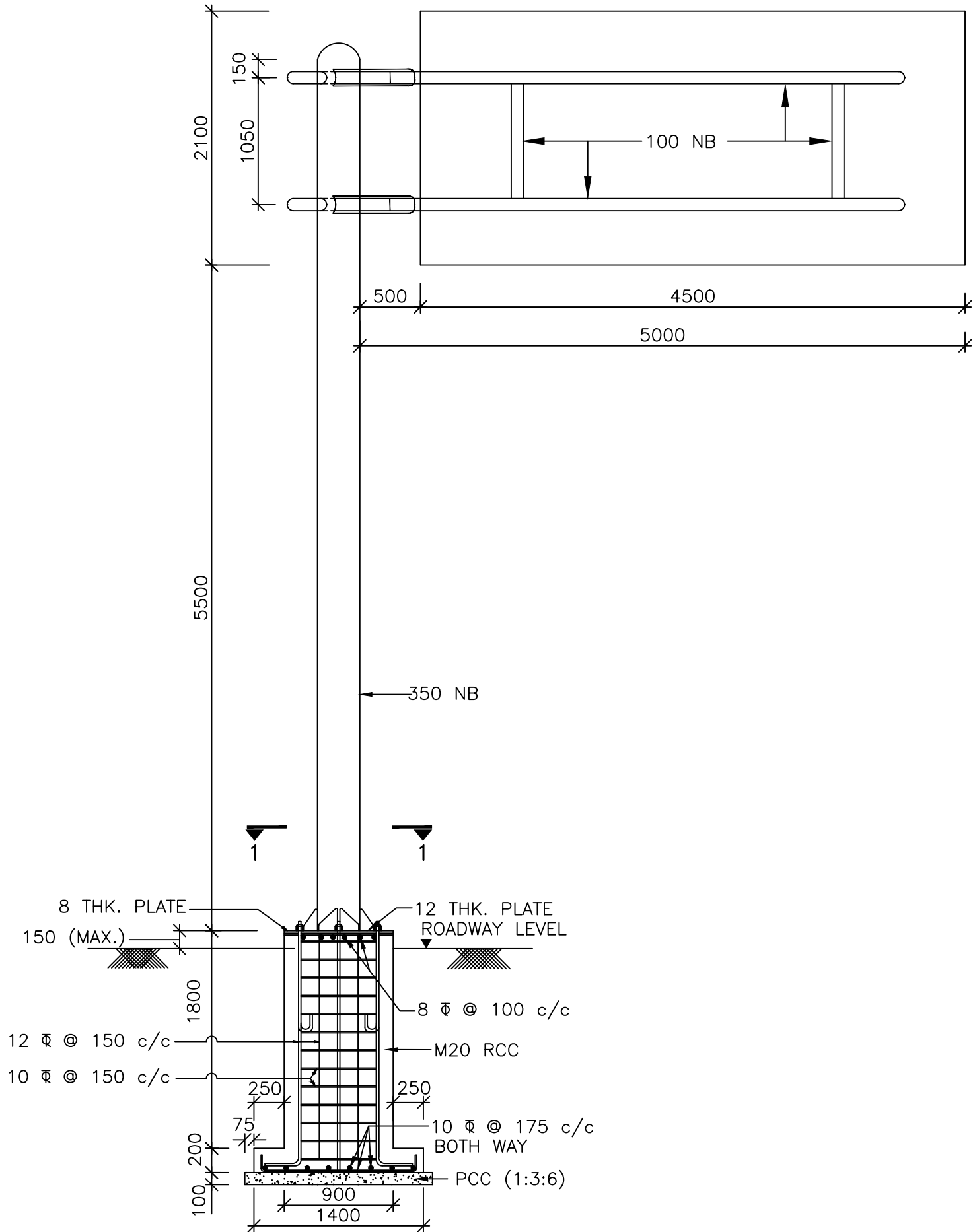
TITLE :

**Typical Deatils of Distance
Stone, Boundary Stone &
Guard Post**

DRG. No. :
VSPL/1718-082/DPR/PKG-4/MIS- 03

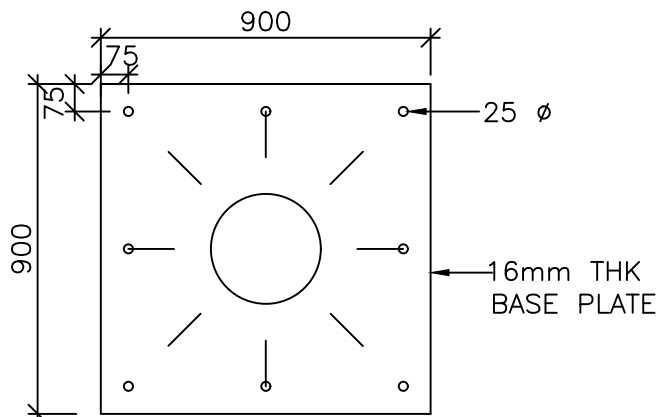
REVISION:R0
OCTOBER 2022

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DETAILS FOR CANTILEVER
TYPE OVERHEAD SIGN

SCALE-1:50



SECTION 1-1

SCALE-1:25

SIGN	MARK	SHAPE	C O L O U R			DIMENSION
			BORDER	BACKGROUND	SYMBOL	
WARNING	WS	EQUILATEROL TRIANGLE WITH APEX POINTING UPWARDS	RED REFLECTIVE	WHITE REFLECTIVE	BLACK	SIDE =900MM CORNER=900MM RADIUS BORDER=70MM
MANDATORY/ REGULATORY	MS	GENERALLY CIRCULAR BUT FOR STOP SIGN OCTOGONAL AND TRIANGULAR FOR GIVE WAY SIGN	RED REFLECTIVE	WHITE REFLECTIVE	ARROWS : BLACK BAND : RED	DIA =600MM BORDER =65MM BEND =60MM OCTAGON SIDE =370MM BORDER =30MM TRIANGULAR SIDE =900MM BORDER =900MM
INFORMATORY	IS	RECTANGULAR WITH LONGER SIDE VERTICAL	BLUE REFLECTIVE	WHITE REFLECTIVE	BLACK OR RED REFLECTIVE SQUARE IN WHITE	OVERALL = 800X600 CENTRAL SQUARE = 400X400
DIRECTION	DS	RECTANGULAR WITH LONGER SIDE HORIZONTAL	BACK REFLECTIVE	WHITE REFLECTIVE	BLACK	VARIES BORDER = 50MM

	KERBED ROAD	UN-KERBED ROADS
MINIMUM CLEARANCE (C)	>6 cm	2-3 METRE
BOTTOM EDGE OF SIGN HEIGHT (H) SHOULD BE	>2m ABOVE KERB	>1.5m ABOVE CROWN OF THE PAVEMENT

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Detailed Project Report

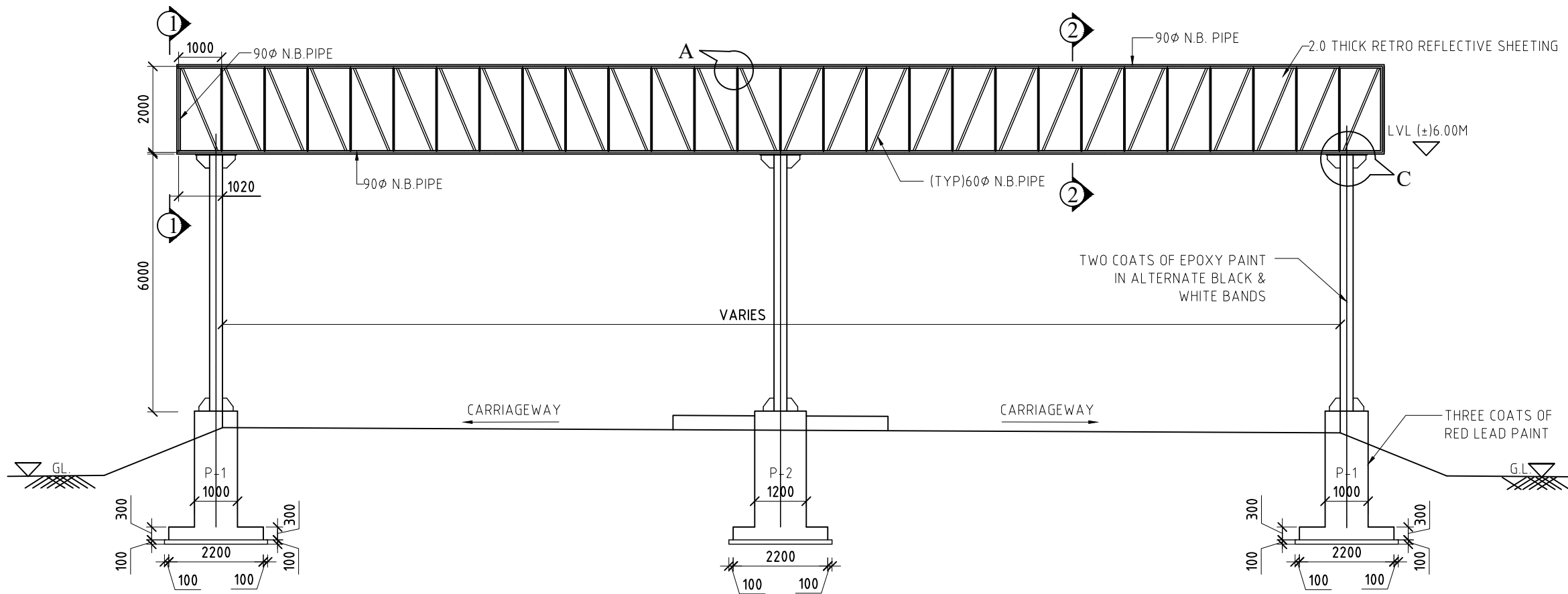
REV.	DATE	DESCRIPTION

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

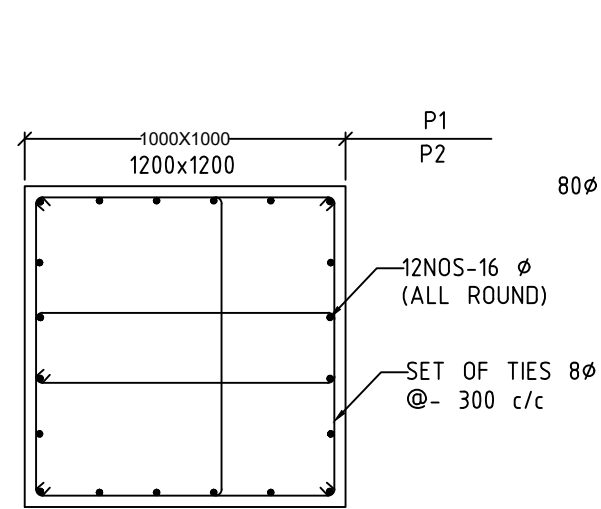
TITLE :

Typical Details of Overhead Sign

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

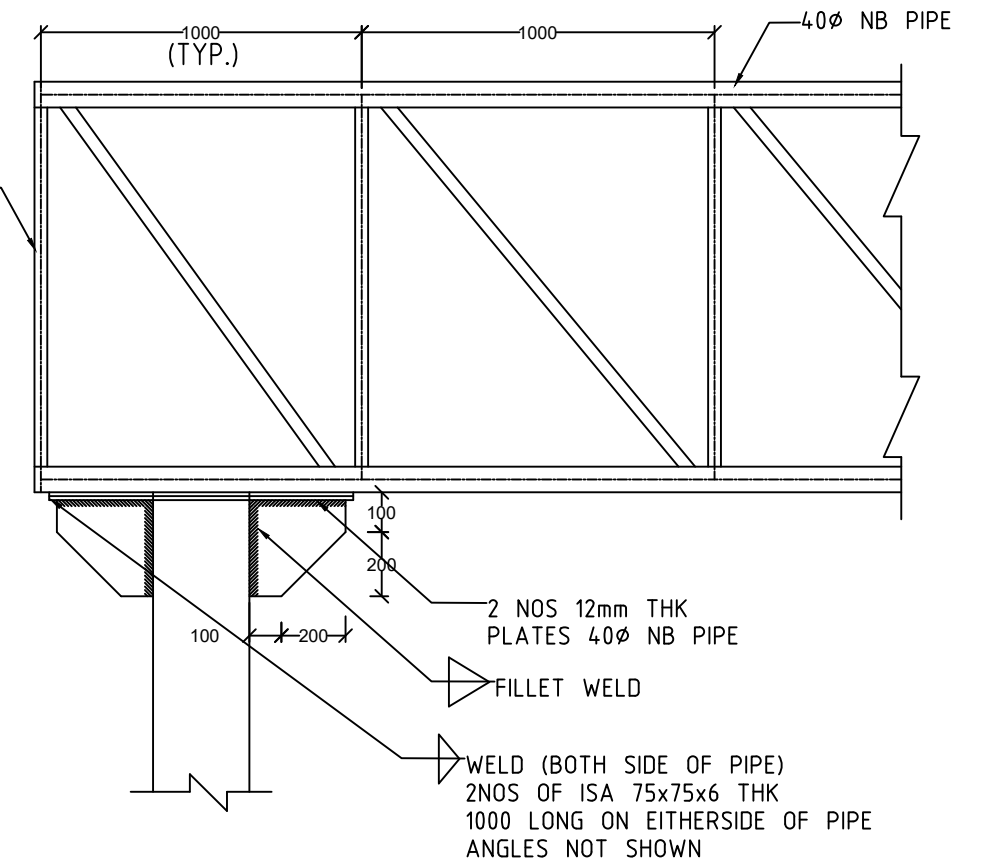


ELEVATION



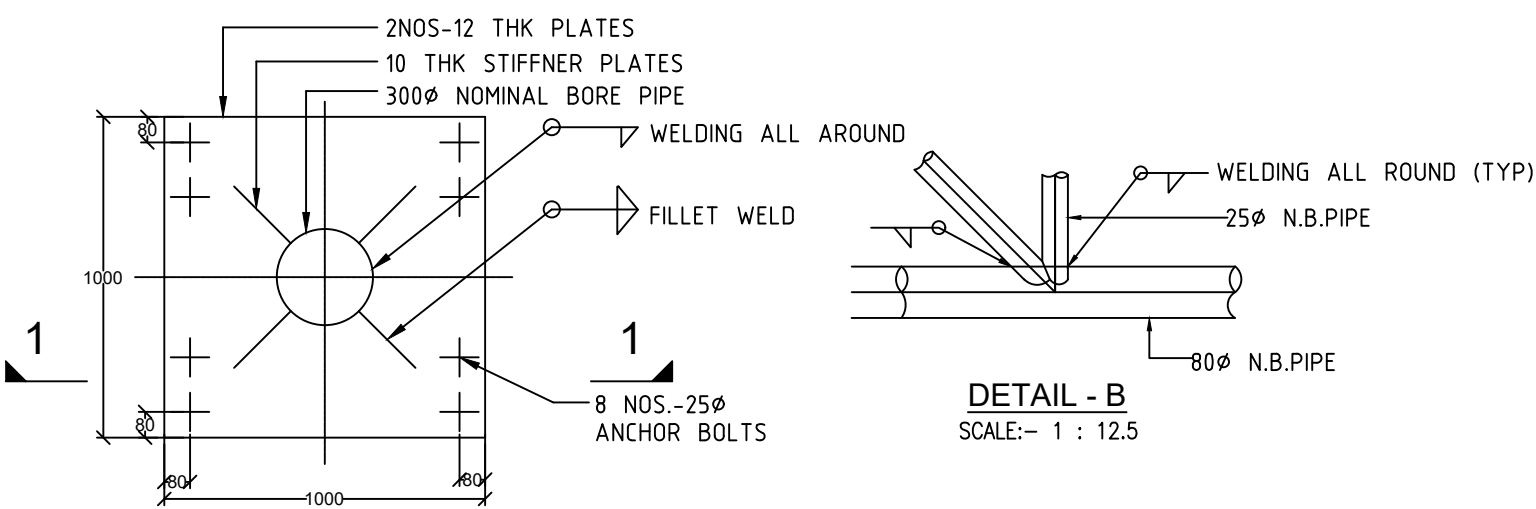
SECTION 4-4

SCALE:- 1 : 25



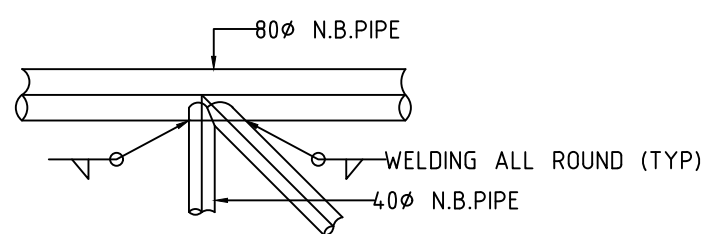
SECTION 2-2

SCALE:- 1 : 25



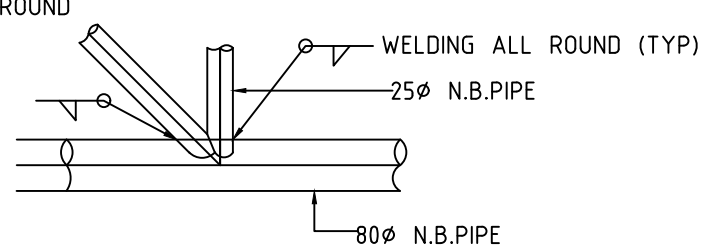
DETAILS OF COLUMN BASE P-1

SCALE:- 1 : 25



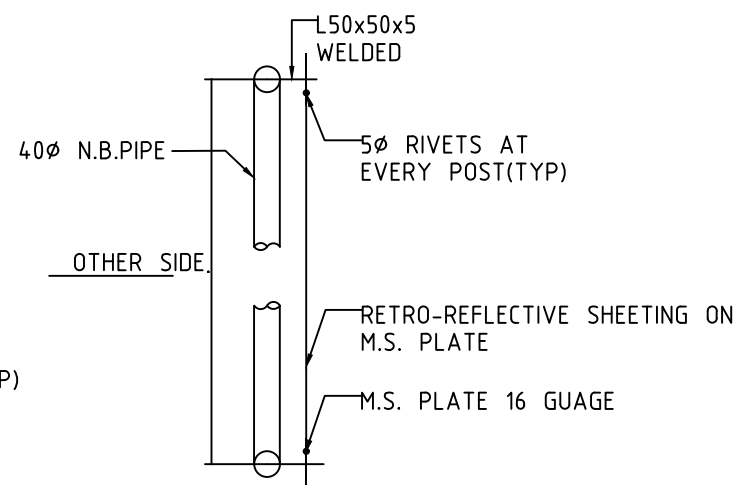
DETAIL - A

SCALE:- 1 : 12.5



DETAIL - B

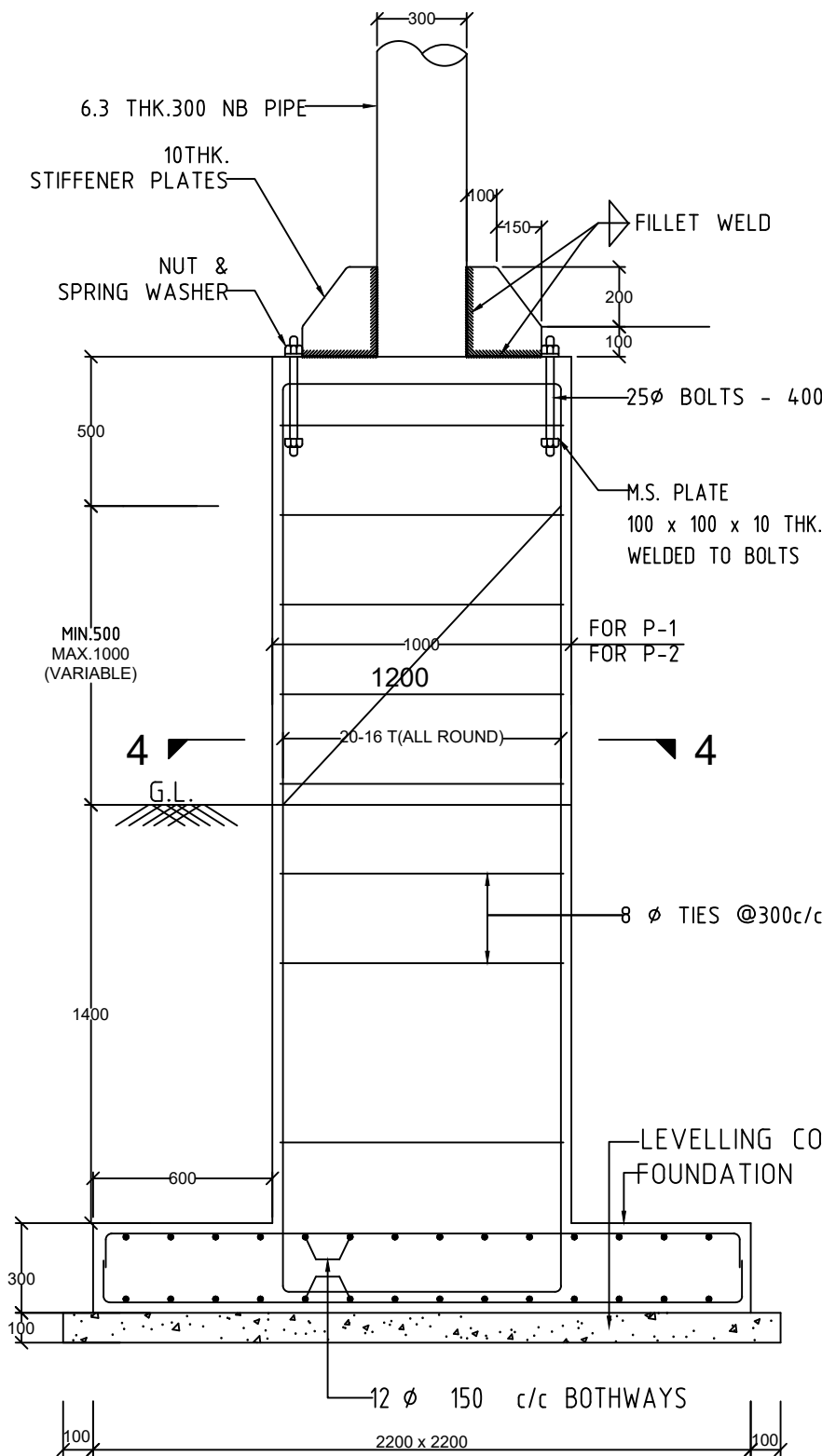
SCALE:- 1 : 12.5



SECTION 3-3

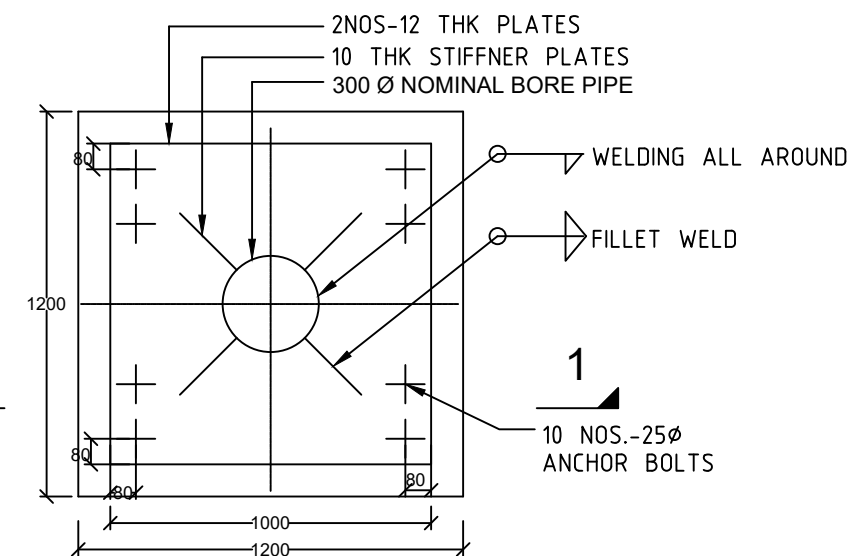
(SIMILAR ARRANGEMENT SHALL BE ON THE OTHER SIDE)

SCALE:- 1 : 25



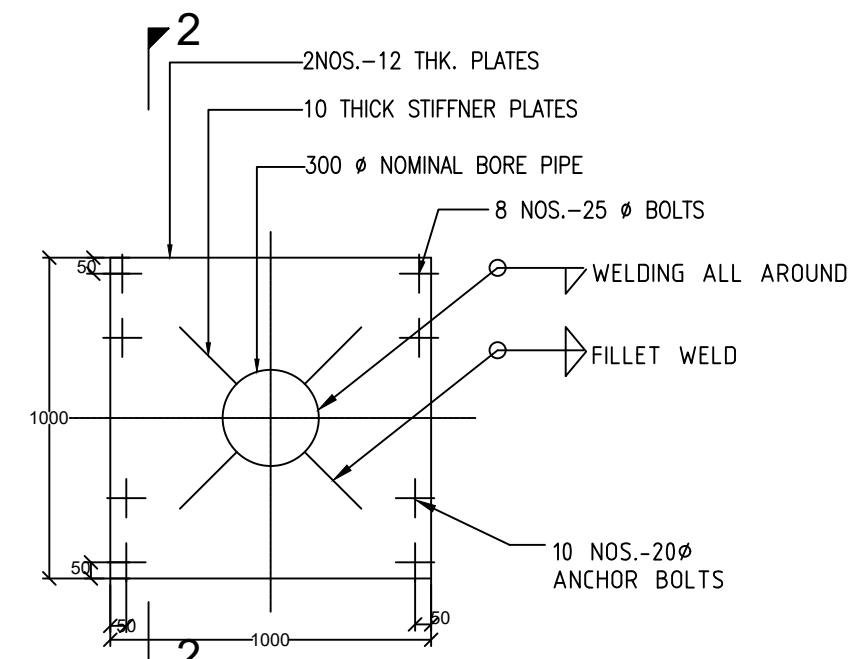
SECTION 1-1

SCALE:- 1 : 25



DETAILS OF COLUMN BASE P-2

SCALE:- 1 : 25



DETAILS C

SCALE:- 1 : 25

- NOTES :
1. ALL DIMENSIONS ARE IN mm, UNLESS OTHERWISE MENTIONED.
 2. ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED, AND NO DIMENSIONS SHALL BE SCALED.
 3. SAFE BEARING CAPACITY HAS BEEN TAKEN AS 10 MN/5sqm.
 4. THE CONCRETE GRADE SHALL BE M-20 IN FOUNDATION AND M-15 IN LEVELING COURSE
 5. CLEAR COVER TO THE OUTER MOST STEEL SHALL BE
i) PEDESTAL - 40mm
ii) FOUNDATION - 50mm
 6. STEEL TUBES ARE DESIGNATED BY THEIR NOMINAL BORES INDICATED ON DRAWING.
 7. STEEL TUBES USED ARE CLASSIFIED MEDIUM TYPE STEEL TUBES.
 8. STEEL TUBES SHALL CONFORM TO GRADE Yst 210.
 9. STEEL TUBES USED SHALL BE CONFORMING TO IS:1611-1998.
 10. TUBULAR MEMBERS SHALL HAVE ANNULAR CUT HEAD SMOOTH FINISHED SO AS TO HAVE PROPER SEAT OVER THE SUPPORTING TUBE.
 11. ELECTRODE USED SHALL CONFORM TO RELEVANT I.S. SPECIFICATIONS AND THE CHEMICAL COMPOSITION OF ELECTRODE & THE TUBE SHOULD MATCH.
 12. SLAG SHALL BE REMOVED BEFORE MEASURING THE DIMENSIONS OF FILLET WELD.
 13. WELDING SHALL BE DONE BY ARC WELDING.
 14. 4.5mm SIZE WELD SHALL BE MADE WITH A SINGLE PASS.
 15. WELD SIZE SHALL BE 4.5mm UNLESS OTHERWISE MENTIONED AND SHALL BE DONE ALL ROUND ON THE CONTACT LENGTH OF MEMBERS.
 16. HIGH STRENGTH BOLTS SHALL CONFORM TO IS:4000-1992.
 17. 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.
 18. SIZE OF LETTERS AND COLOUR OF PAINT SHALL BE DECIDED BY THE ENGINEER.
i) IRC : 67-2001
ii) IRC : 30-1968
 19. SHADE OF ANTIKORROSIVE PAINT FOR PIPES SHALL BE DECIDED BY THE ENGINEER.
 20. 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
Gurgaon-122001, Haryana, India
CIN- U74140HR2004PTC046918
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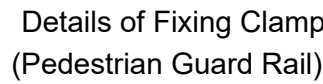
Detailed Project Report

REV.	DATE	DESCRIPTION

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY	TITLE :
PD/PS	SS/SP	DGR	SKC	Typical Details of Overhead Sign
				DRG. No. : VSPL/1718-082/DPR/PKG-4/MIS- 04 (Sheet 02 of 02)
SCALE :	N.T.S	SHEET SIZE	A2	REVISION:R0
				OCTOBER 2022



*h – Depends on thickness (BC + DBM)



*h - Depends on thickness (BC + DBM)



1. All dimensions are in millimetres unless otherwise mentioned.
2. All fillet welds shall be 3 mm thick.
3. 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.
4. 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.
5. Kerb shall be provided at every location except some selected stretches where kerb with channel shall be provided.
6. Besides the above, standards and specifications mentioned in IRC : SP : 84-2014 shall be followed strictly whenever applicable.

**NATIONAL HIGHWAYS AND INFRASTRUCTURE
DEVELOPMENT CORPORATION LTD.
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GOVERNMENT OF INDIA**

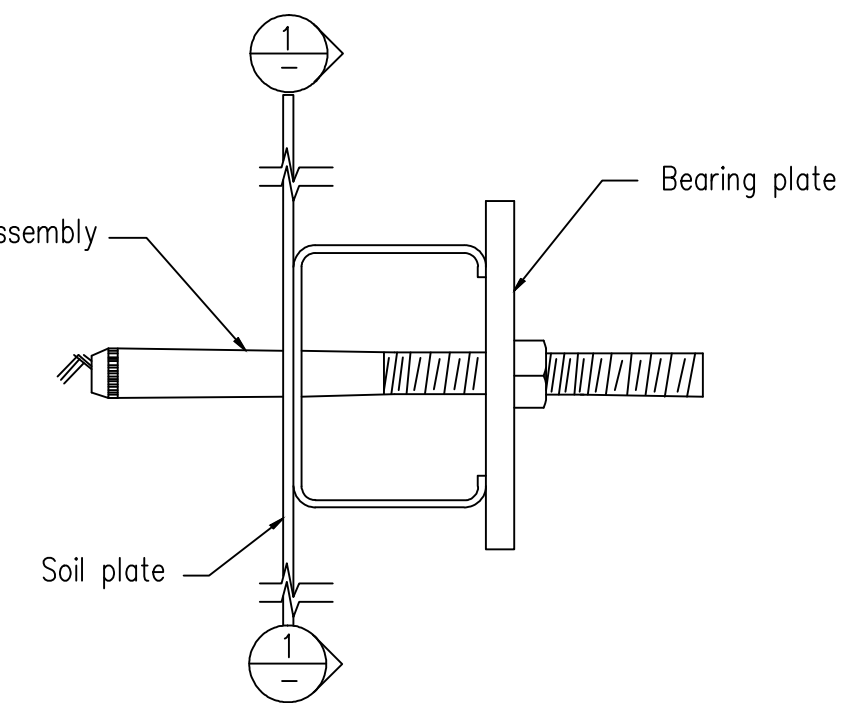
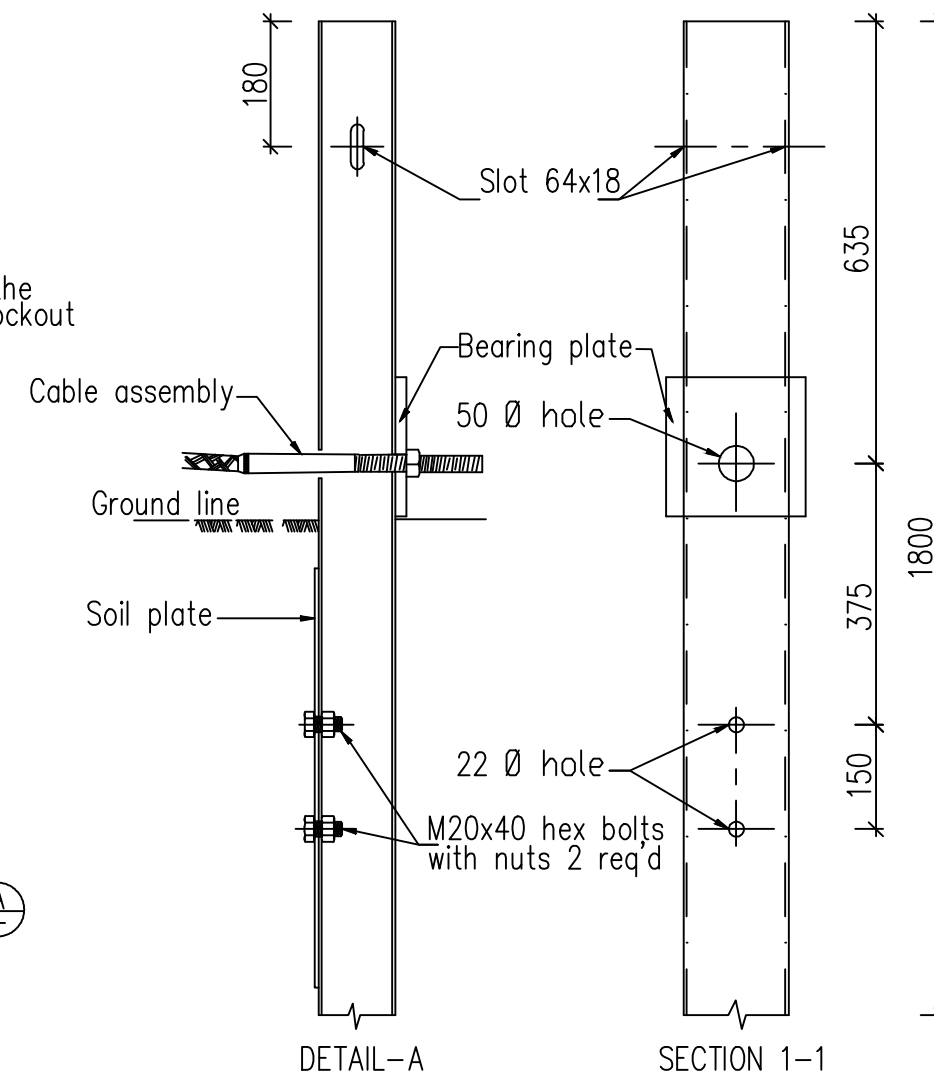
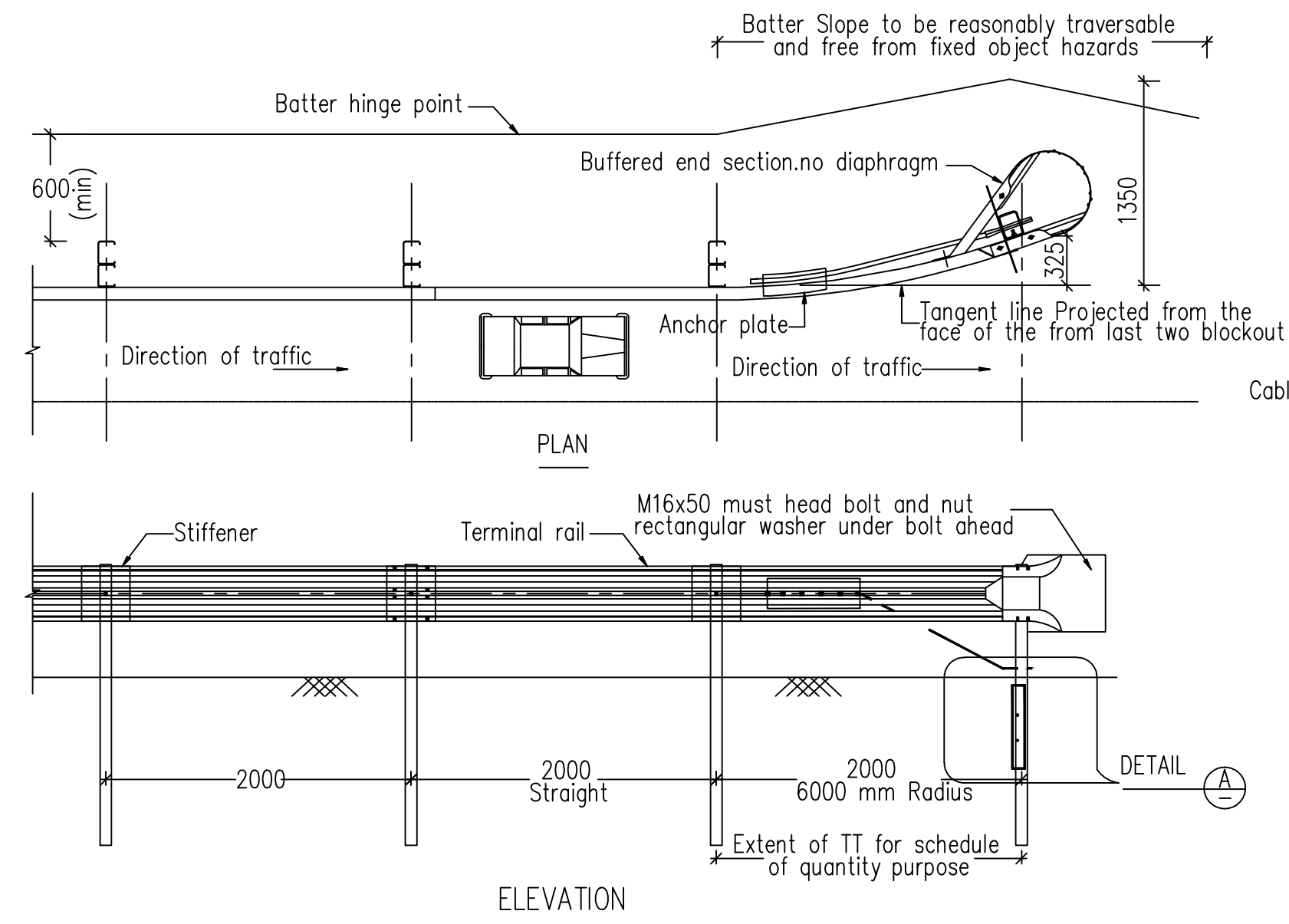
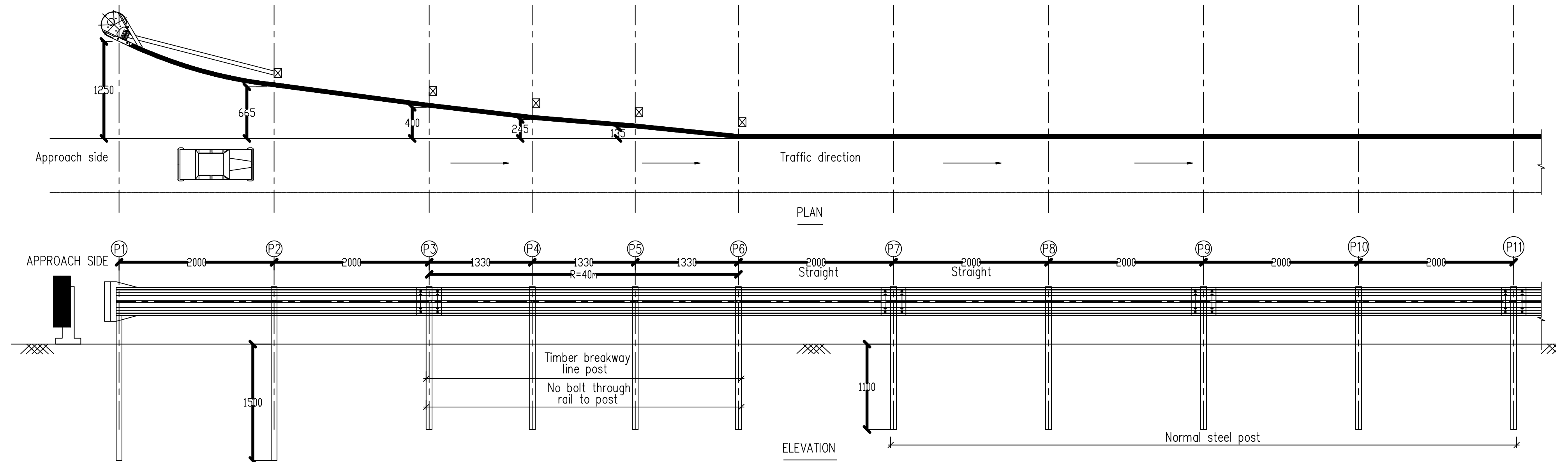
**CONSULTANCY SERVICES FOR PREPARATION OF
DETAILED PROJECT REPORT FOR DEVELOPMENT OF
ECONOMIC CORRIDORS, INTER CORRIDORS AND FEEDER
ROUTES TO IMPROVE THE EFFICIENCY OF FREIGHT
MOVEMENTS IN INDIA UNDER BHARATMALA PARIYOJANA
(LOT-1:PACKAGE IV)**

VOYANTS SOLUTIONS PVT LTD.
403, 4th Floor, Park Centra,
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CIN- U74140HR2004PTC046918
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E-mail: info@voyants.in, www.voyants.in

REV.	DATE	DESCRIPTION

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

REVISION:R0	OCTOBER 2022
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- 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 & h specification.
 3. Thickness of W-beam shall be 3 mm.
 4. 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 :

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:

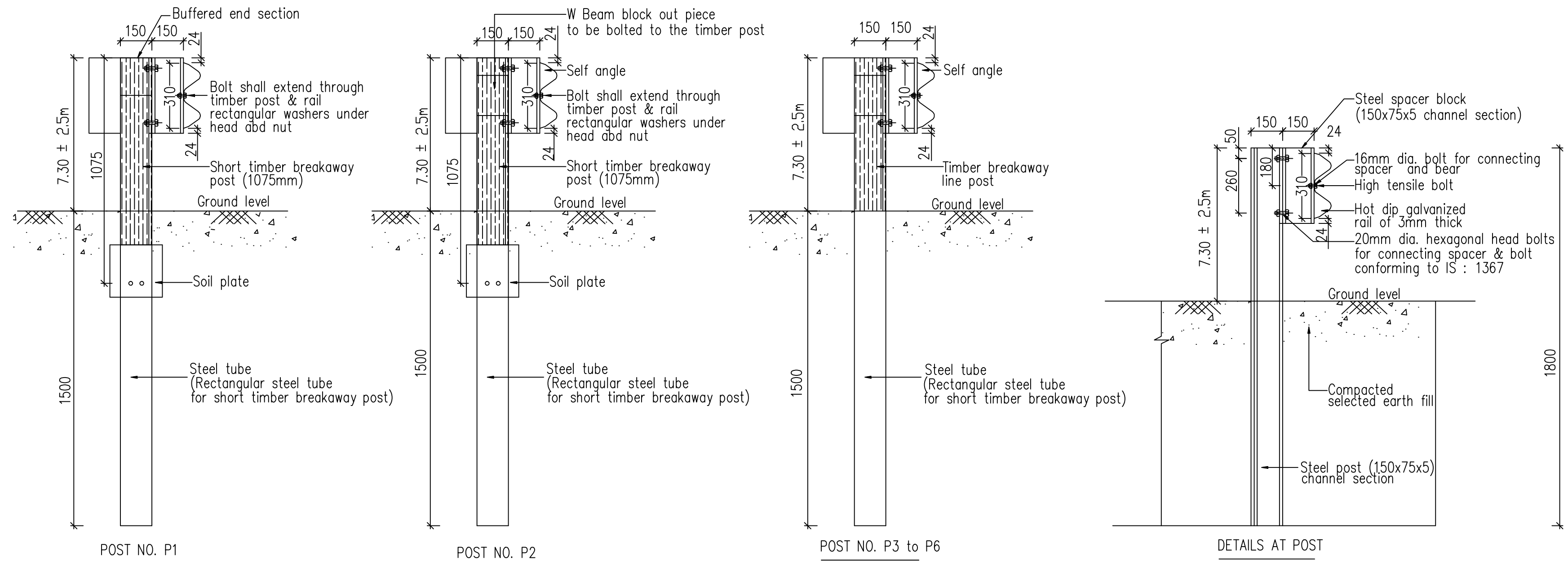
VOYANTS SOLUTIONS PVT LTD.
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Detailed Project Report

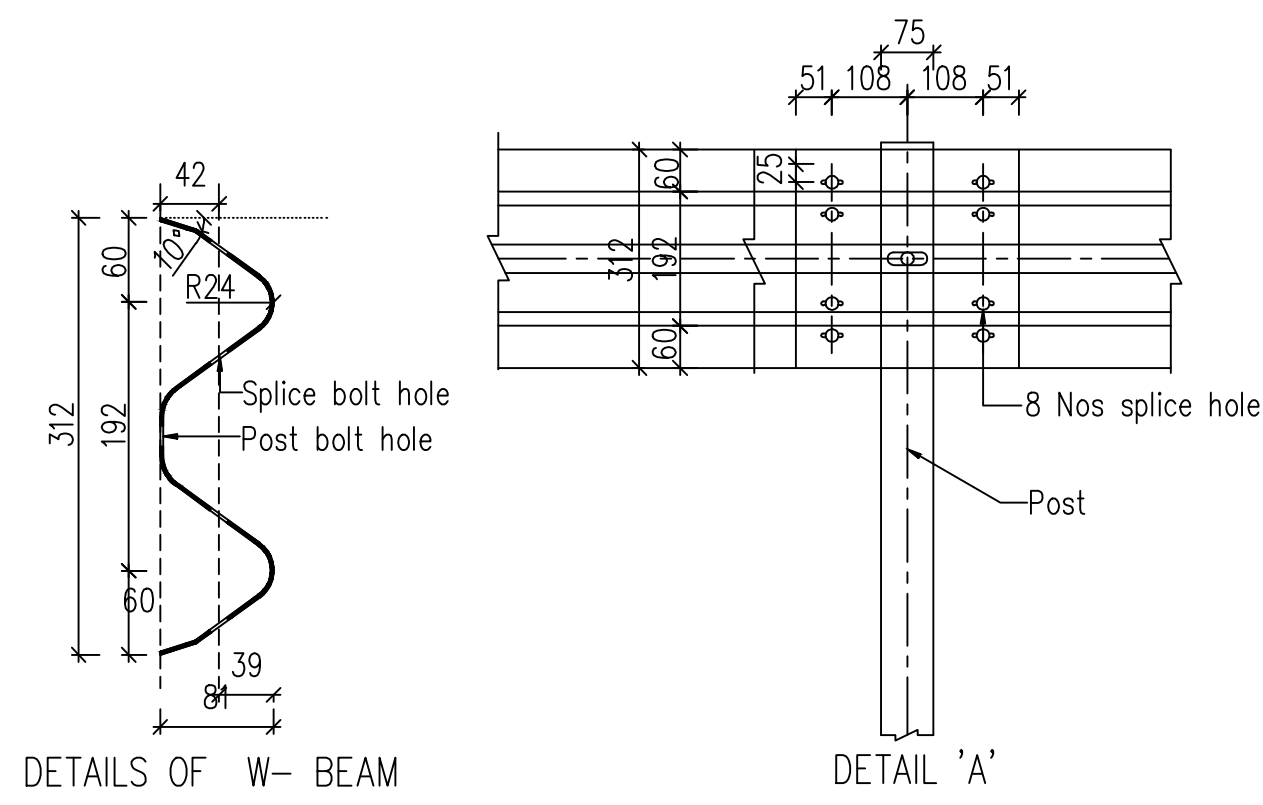
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DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
PD/PS	SS/SP	DGR	SKC
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SCALE :	N.T.S	SHEET SIZE	A2

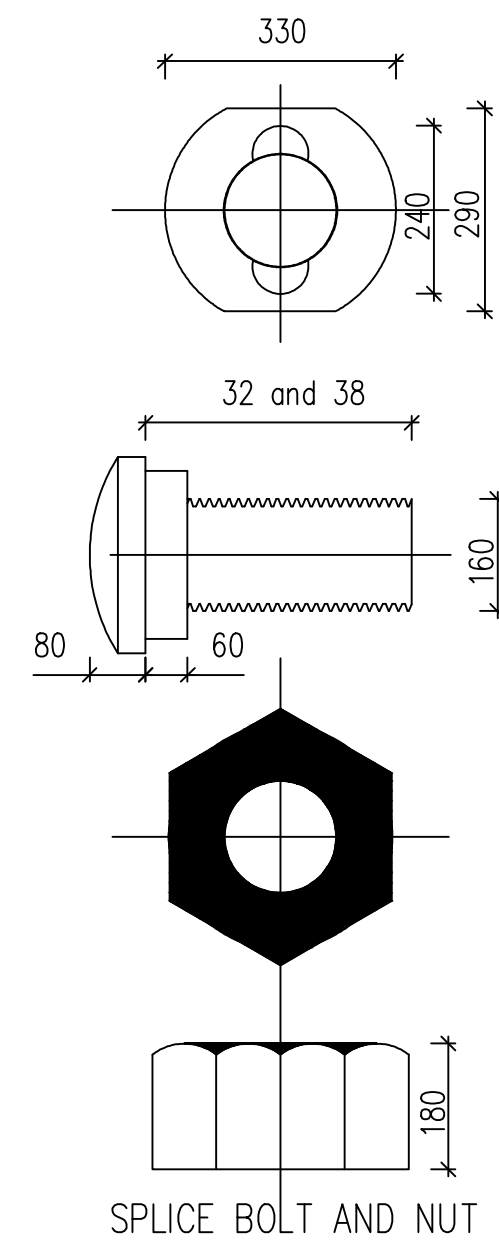
TITLE :	
Typical Details of Metal Beam Crash Barrier	
DRG. No. : VSPL/1718-082/DPR/PKG-4/MIS- 06 (Sheet 01 of 03)	
REVISION:R0	OCTOBER 2022



MODIFIED ECCENTRIC LOADER TERMINAL (MELT)
GENERAL ARRANGEMENT



CHANNEL SECTION FOR
POST & SPACER



- 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:

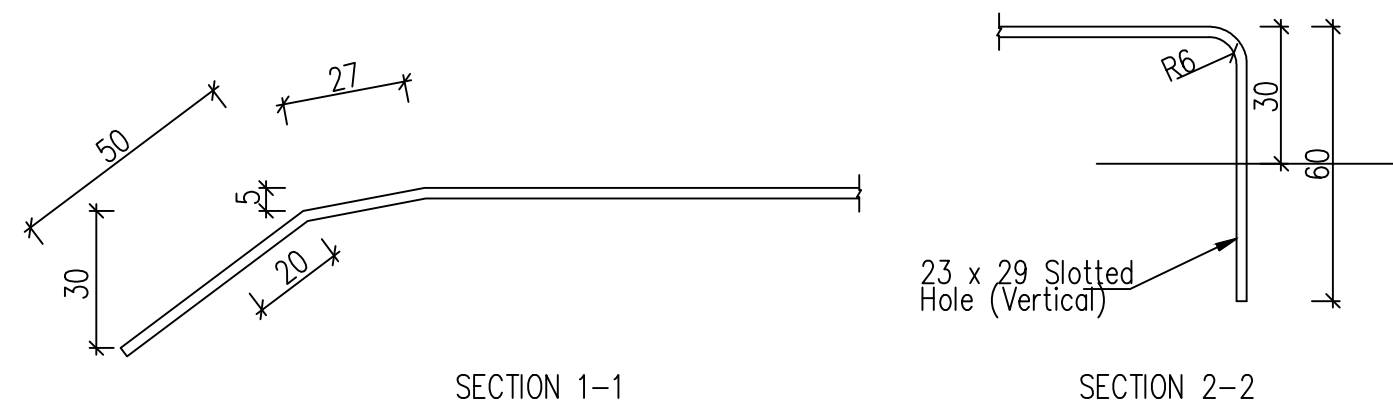
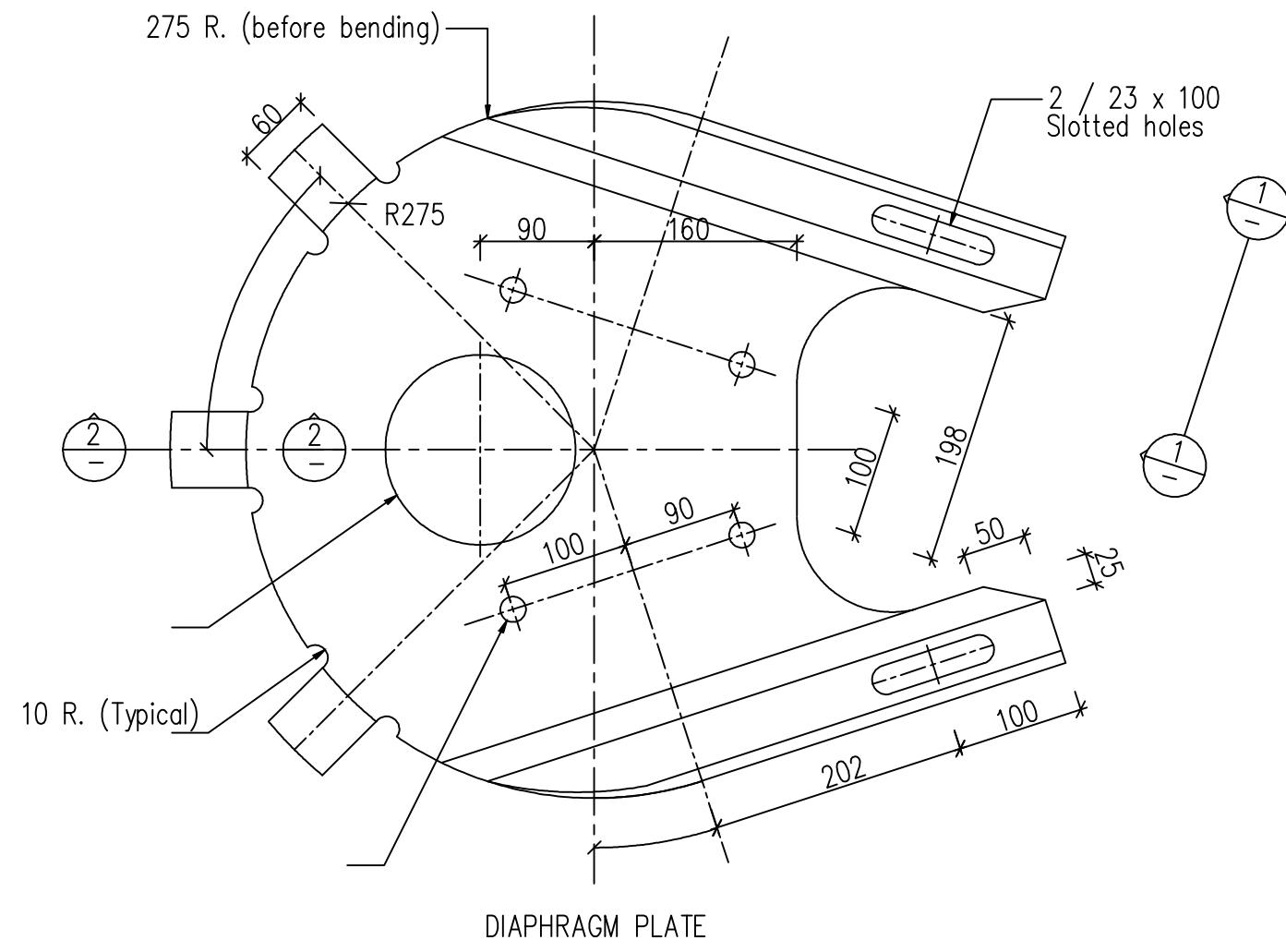
VOYANTS
VOYANTS SOLUTIONS PVT LTD.
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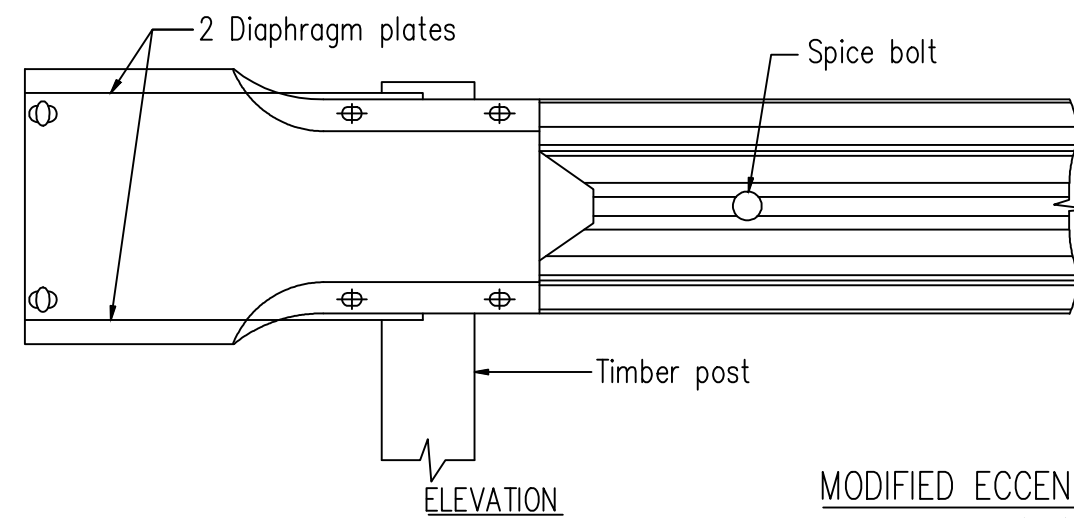
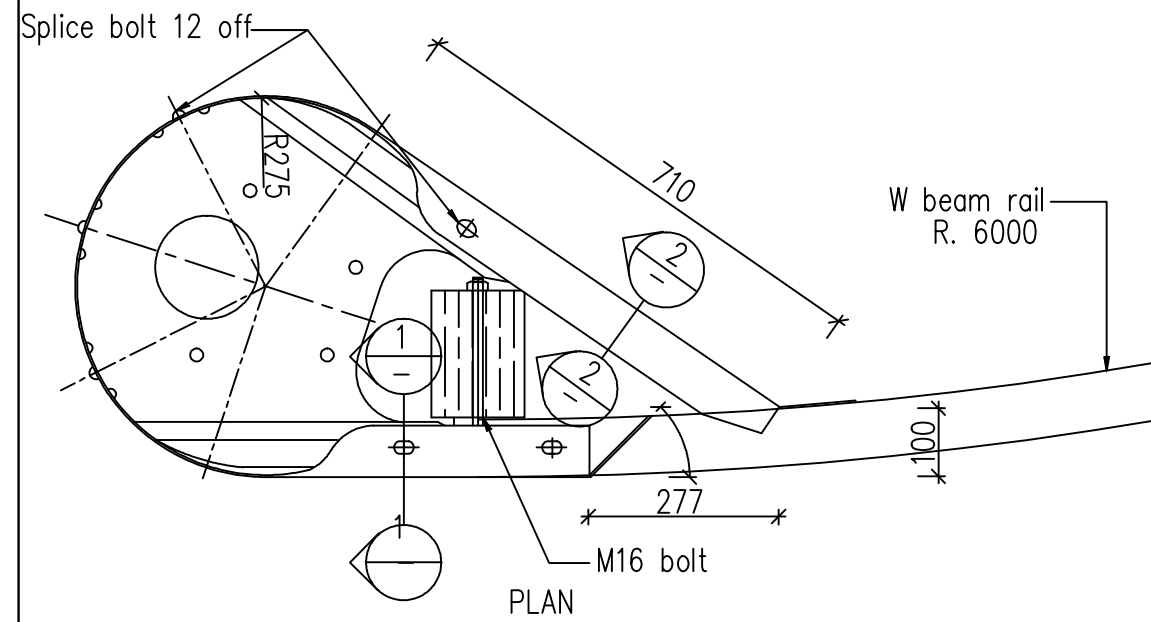
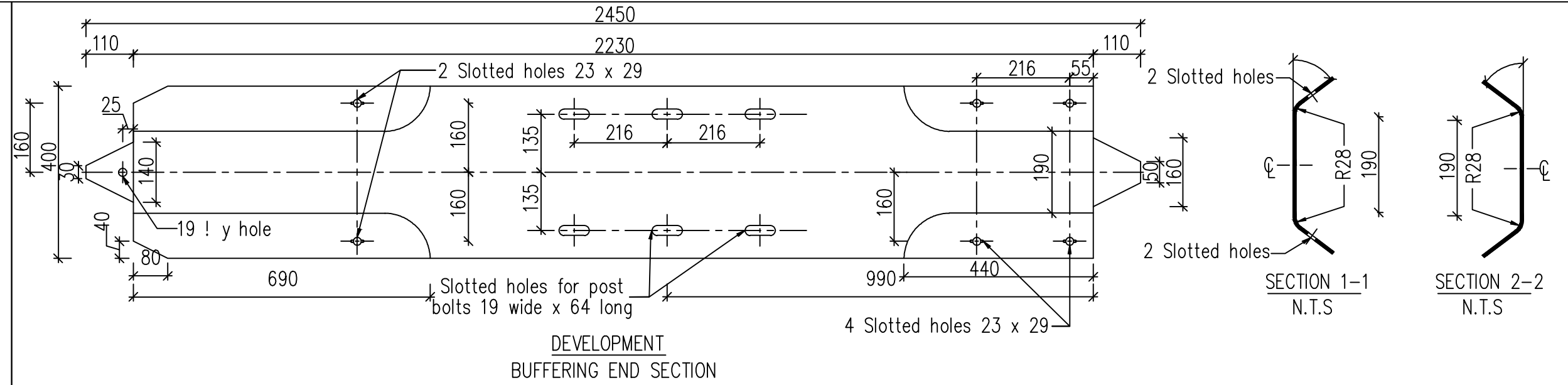
DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY	TITLE :
PD/PS	SS/SP	DGR	SKC	Typical Details of Metal Beam Crash Barrier
<i>Sas.</i>	<i>SP</i>	<i>SKC</i>	<i>SKC</i>	DRG. No. : VSPL/1718-082/DPR/PKG-4/MIS- 06 (Sheet 02 of 03)
SCALE :	N.T.S	SHEET SIZE	A2	REVISION:R0
				OCTOBER 2022

PATH: C:\Shampa\0\Project\1718082_Bharatmala_Assam_P-4\2.October_2022\New Folder\Assam_P4_S5\7.Misc\MIS_06_Metal_Beam_Barrier.dwg



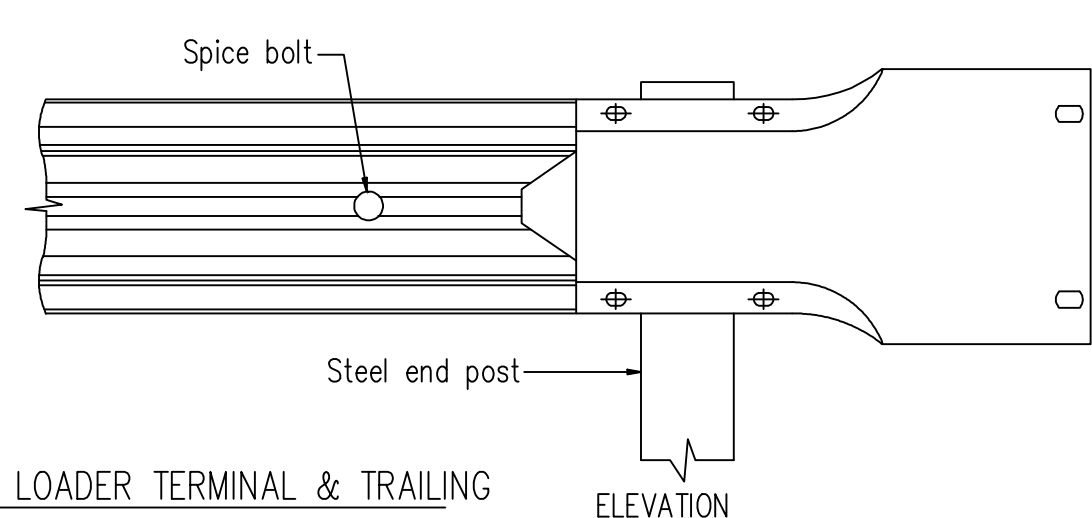
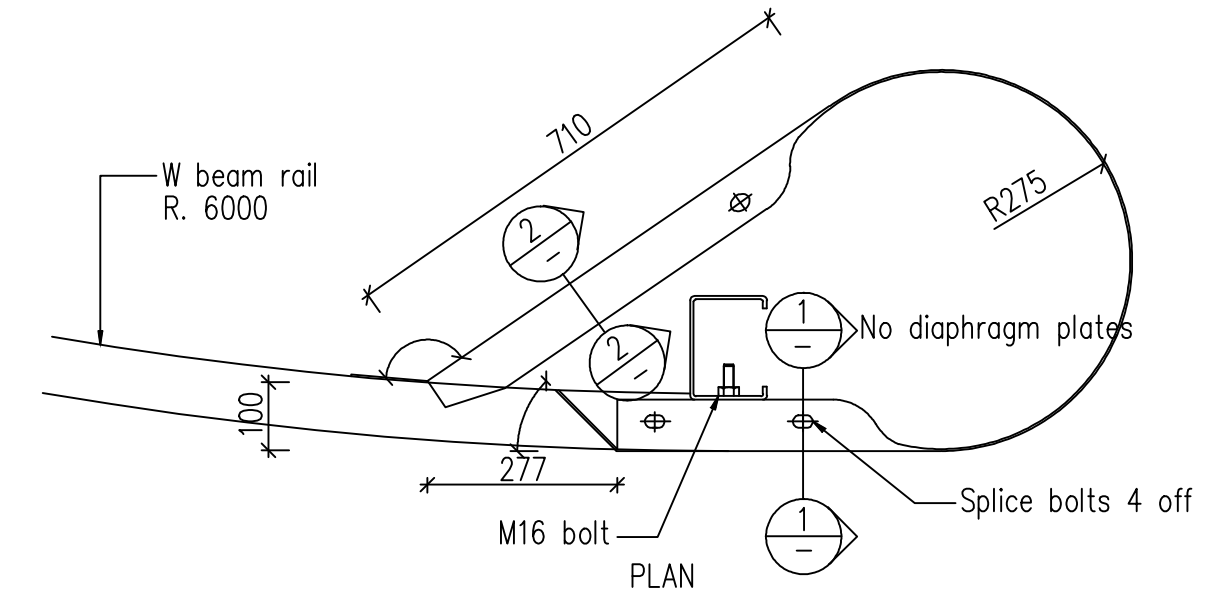
MODIFIED ECCENTRIC LOADER TERMINAL (MELT)
DIAPHRAGM PLATE DETAIL

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

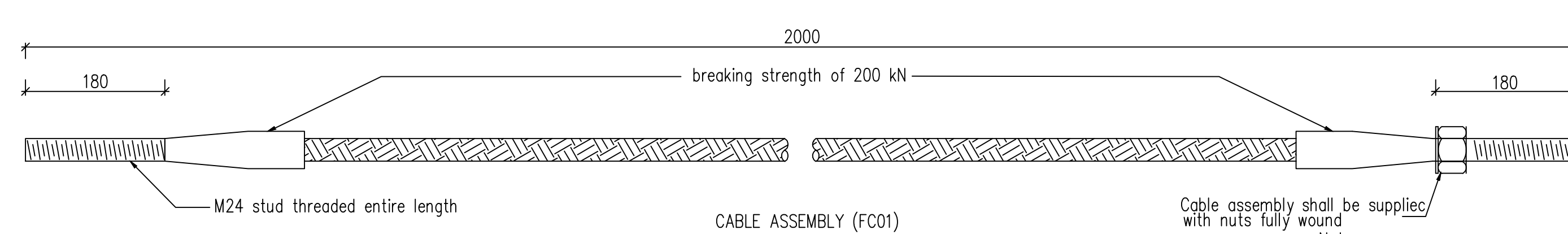


MODIFIED ECCENTRIC LOADER TERMINAL & TRAILING
TERMINAL (TT) BUFFERING END SECTION DETAIL

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



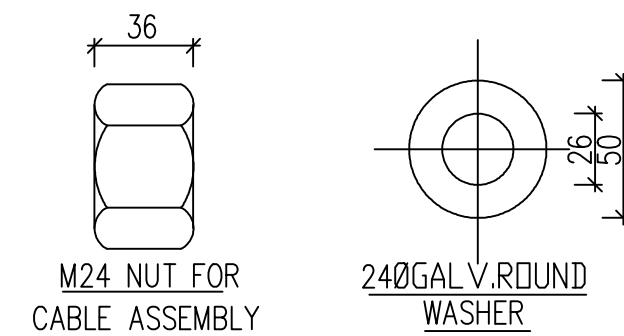
MODIFIED ECCENTRIC LOADER TERMINAL & TRAILING
TERMINAL (TT) BUFFERING END SECTION DETAIL



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

Cable assembly shall be supplied with nuts fully wound

- 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.



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

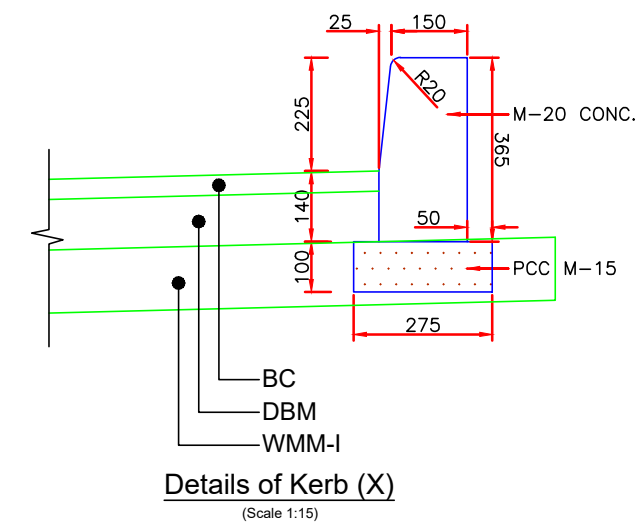
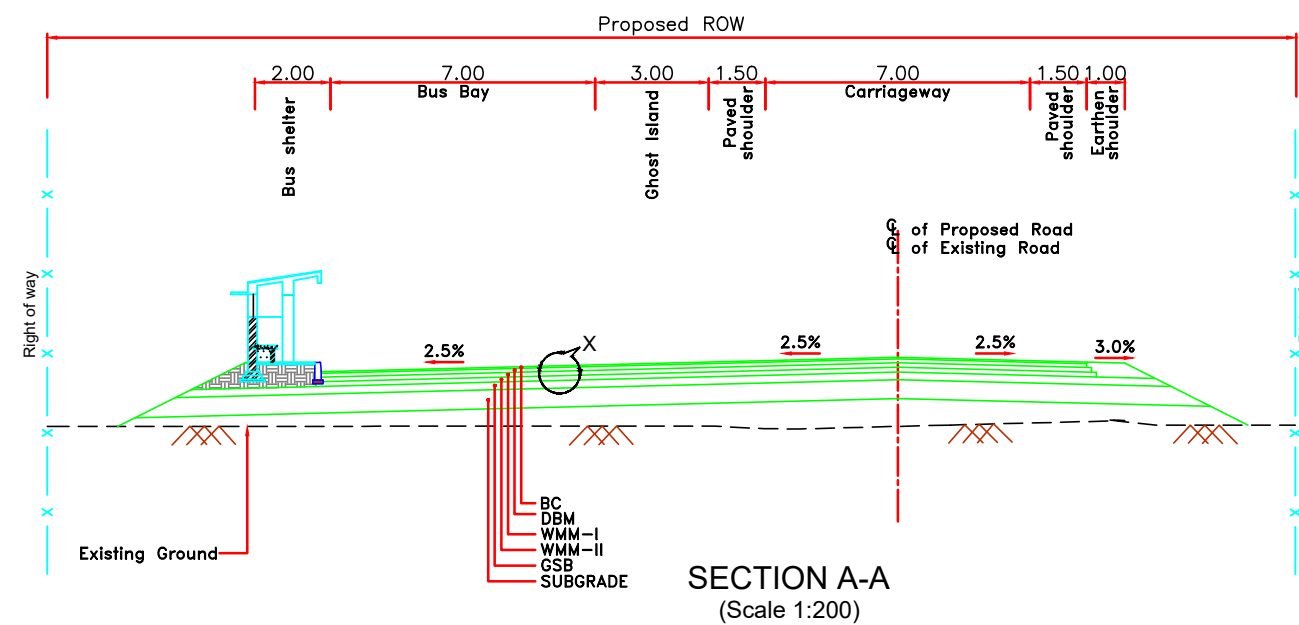
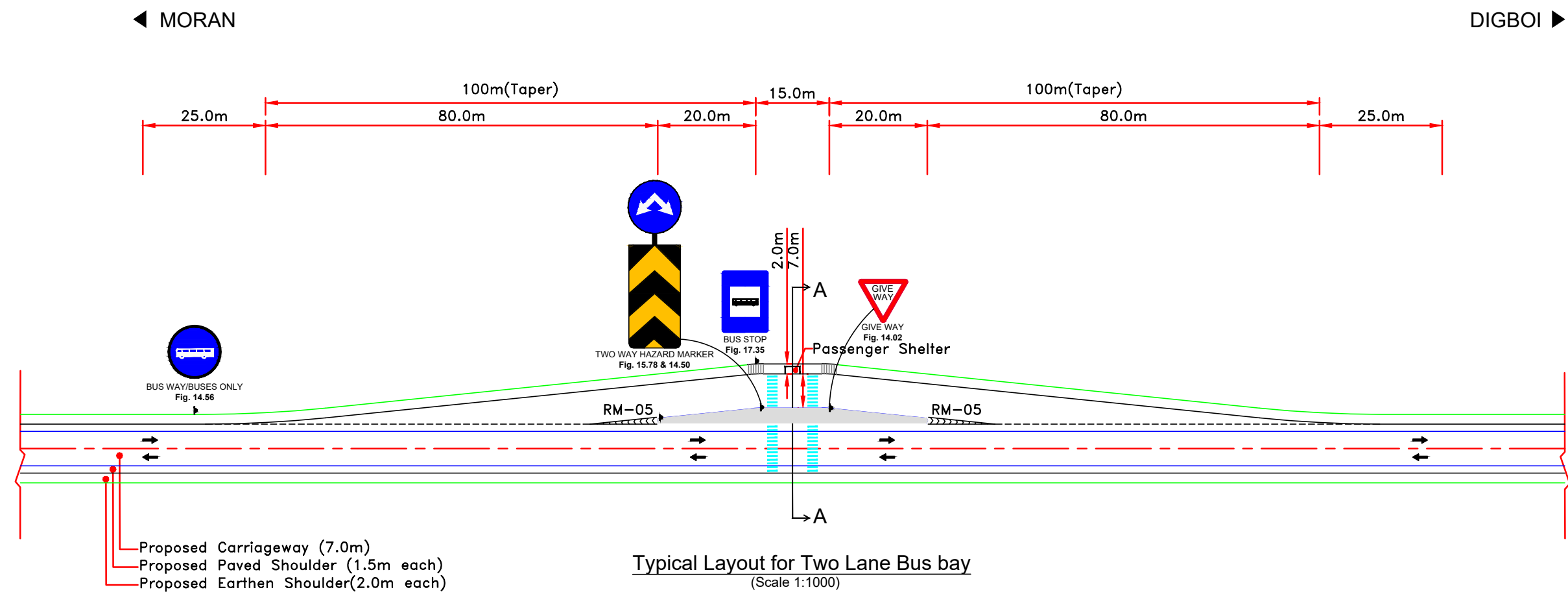
DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
PD/PS	SS/SP	DGR	SKC
SCALE :	N.T.S	SHEET SIZE	A2

TITLE :

**Typical Details of Metal Beam
Crash Barrier**

DRG. No. :
VSPL/1718-082/DPR/PKG-4/MIS- 06 (Sheet 03 of 03)
REVISION:R0
OCTOBER 2022

PATH: C:\Shampa\0\Project\1718082_Bharatmala_Asam_P-4\2.October_2022\New Folder\Asam_P-4_S5\7.Misc\MIS_07_Busbay.dwg



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

CLIENT :


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

PROJECT :

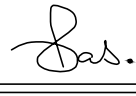
**CONSULTANCY SERVICES FOR PREPARATION OF
DETAILED PROJECT REPORT FOR DEVELOPMENT OF
ECONOMIC CORRIDORS, INTER CORRIDORS AND FEEDER
ROUTES TO IMPROVE THE EFFICIENCY OF FREIGHT
MOVEMENTS IN INDIA UNDER BHARATMALA PARIYOJANA
(LOT-1:PACKAGE IV)**

DESIGN CONSULTANT:


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Detailed Project Report

REV.	DATE	DESCRIPTION

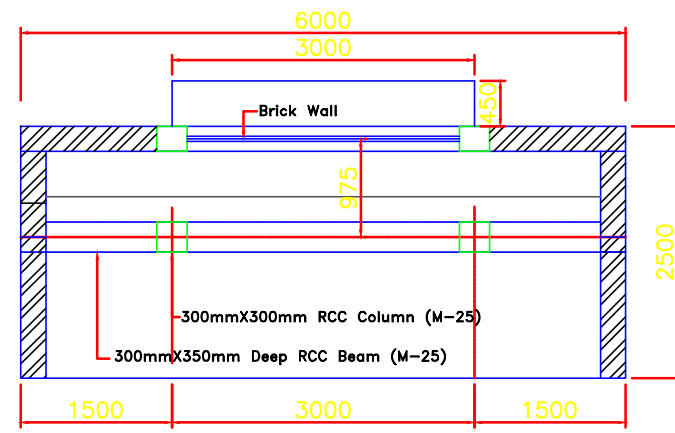
DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
PD/PS	SS/SP	DGR	SKC
			
SCALE :	AS SHOWN	SHEET SIZE	A2

TITLE :

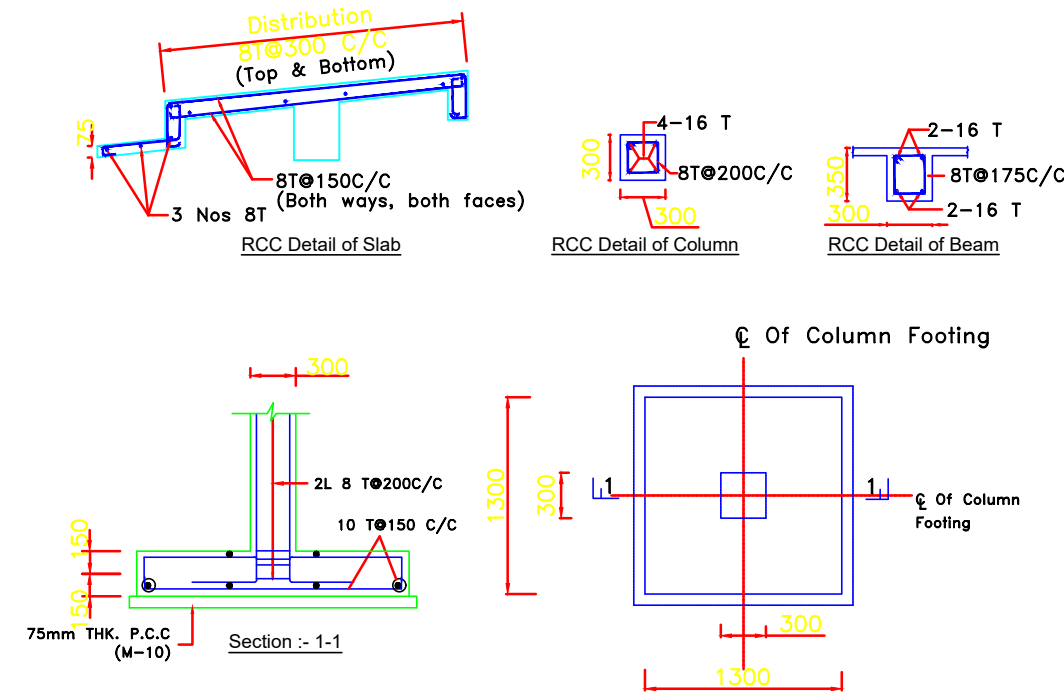
Typical Detail of Bus Bay

DRG. No. :
VSPL/1718-082/DPR/PKG-4/MIS- 07

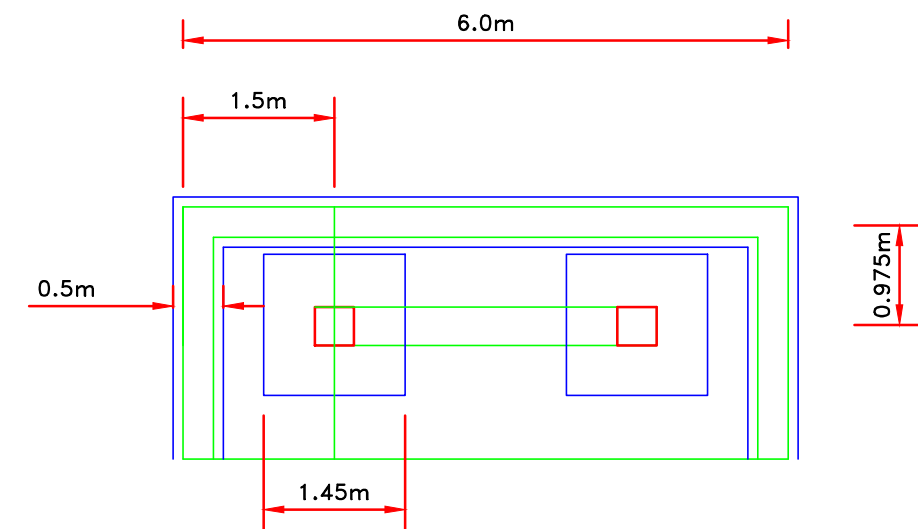
REVISION:R0
OCTOBER 2022



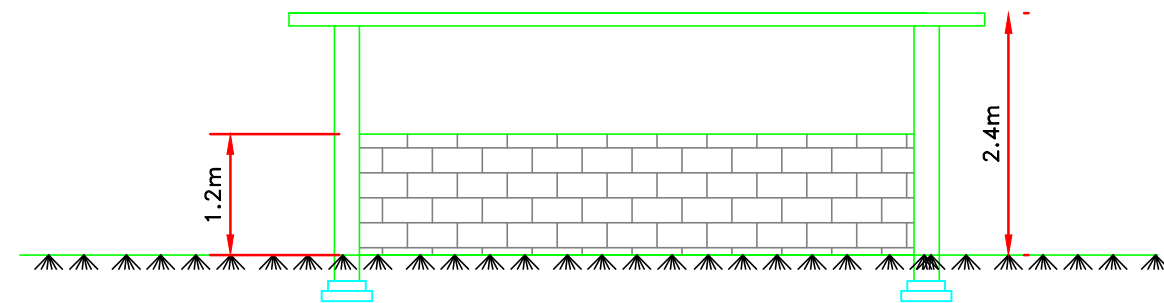
Plan of Passenger Shelter
Scale 1:75



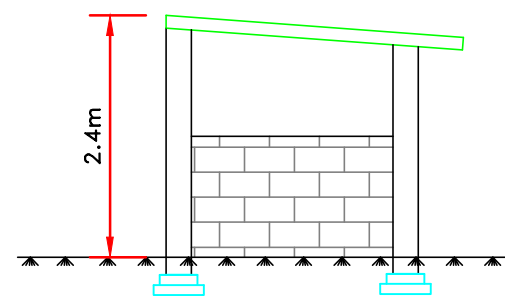
Plan Showing Column Foundation
Scale 1:50



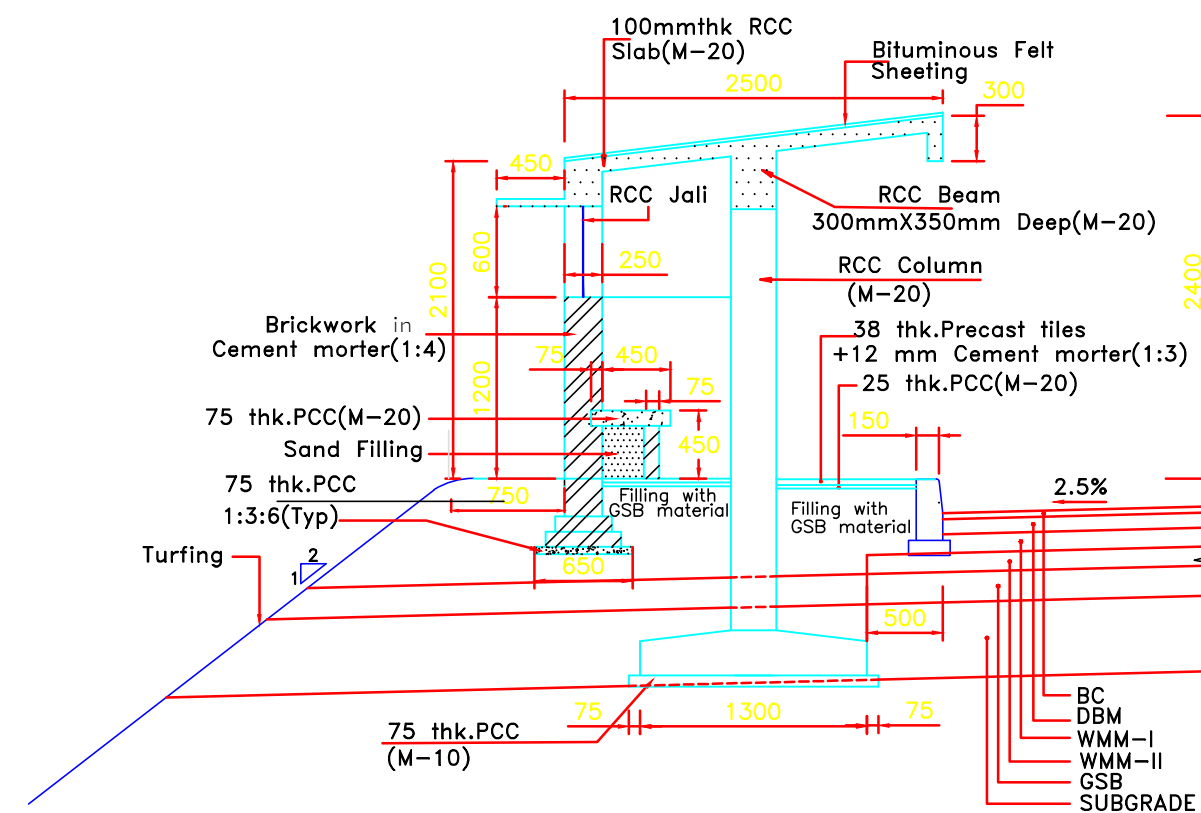
Foundation Plan
Scale 1:75



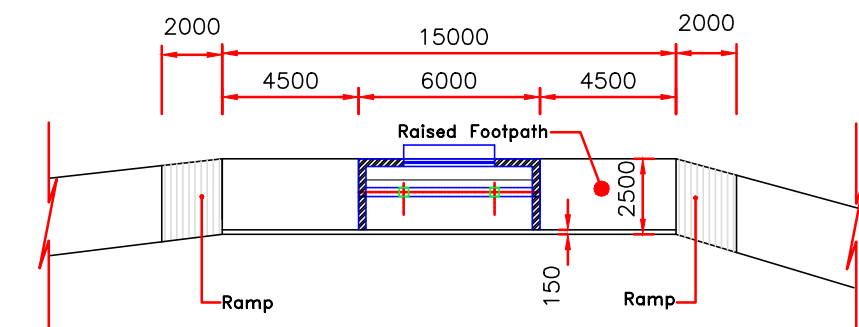
Front Elevation
Scale 1:75



Side Elevation
Scale 1:75



Section of Passenger Shelter
Scale 1:50



Location of Passenger Shelter
Scale 1:250

CLIENT :



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

PROJECT :

**CONSULTANCY SERVICES FOR PREPARATION OF
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ROUTES TO IMPROVE THE EFFICIENCY OF FREIGHT
MOVEMENTS IN INDIA UNDER BHARATMALA PARIYOJANA
(LOT-1:PACKAGE IV)**

DESIGN CONSULTANT:

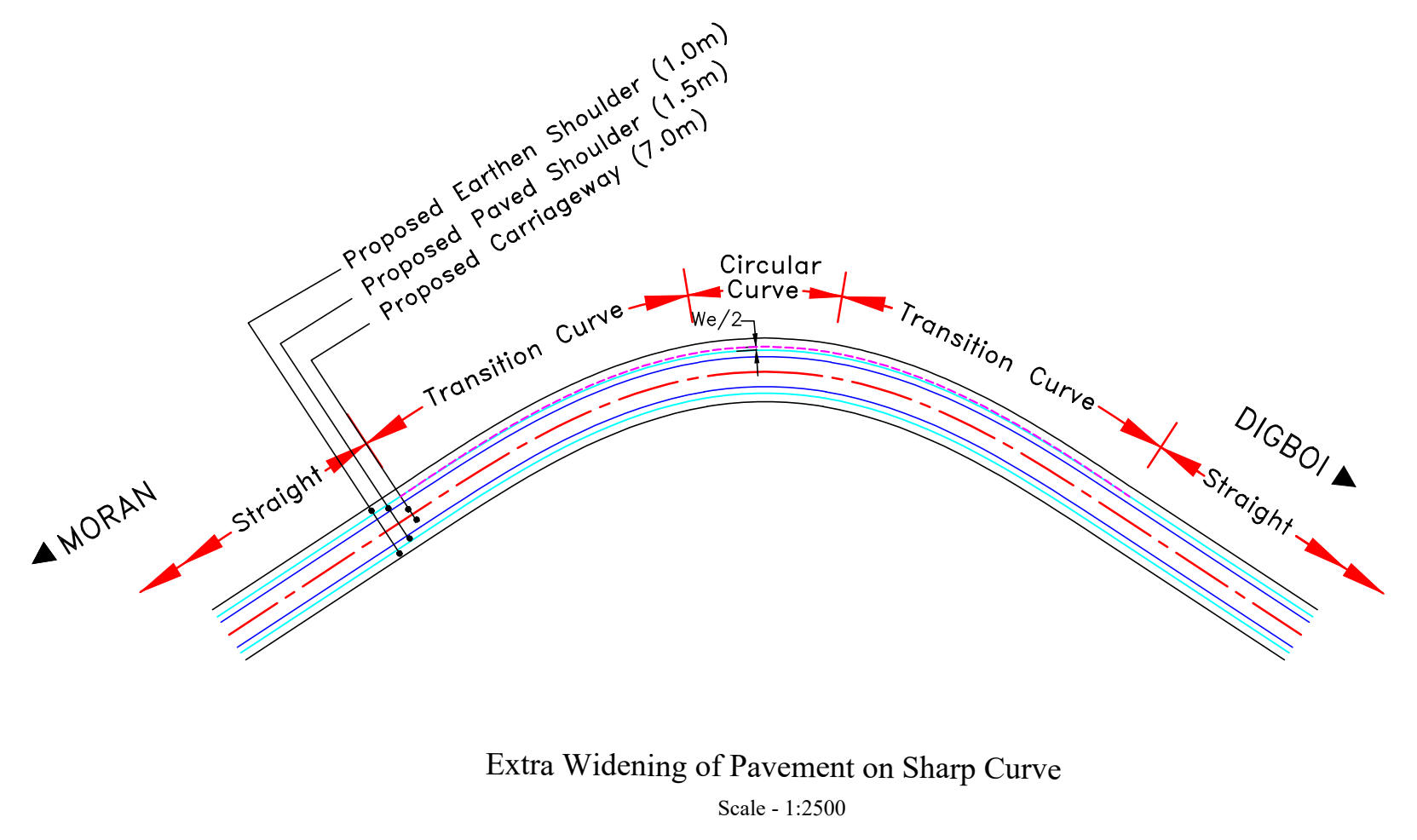
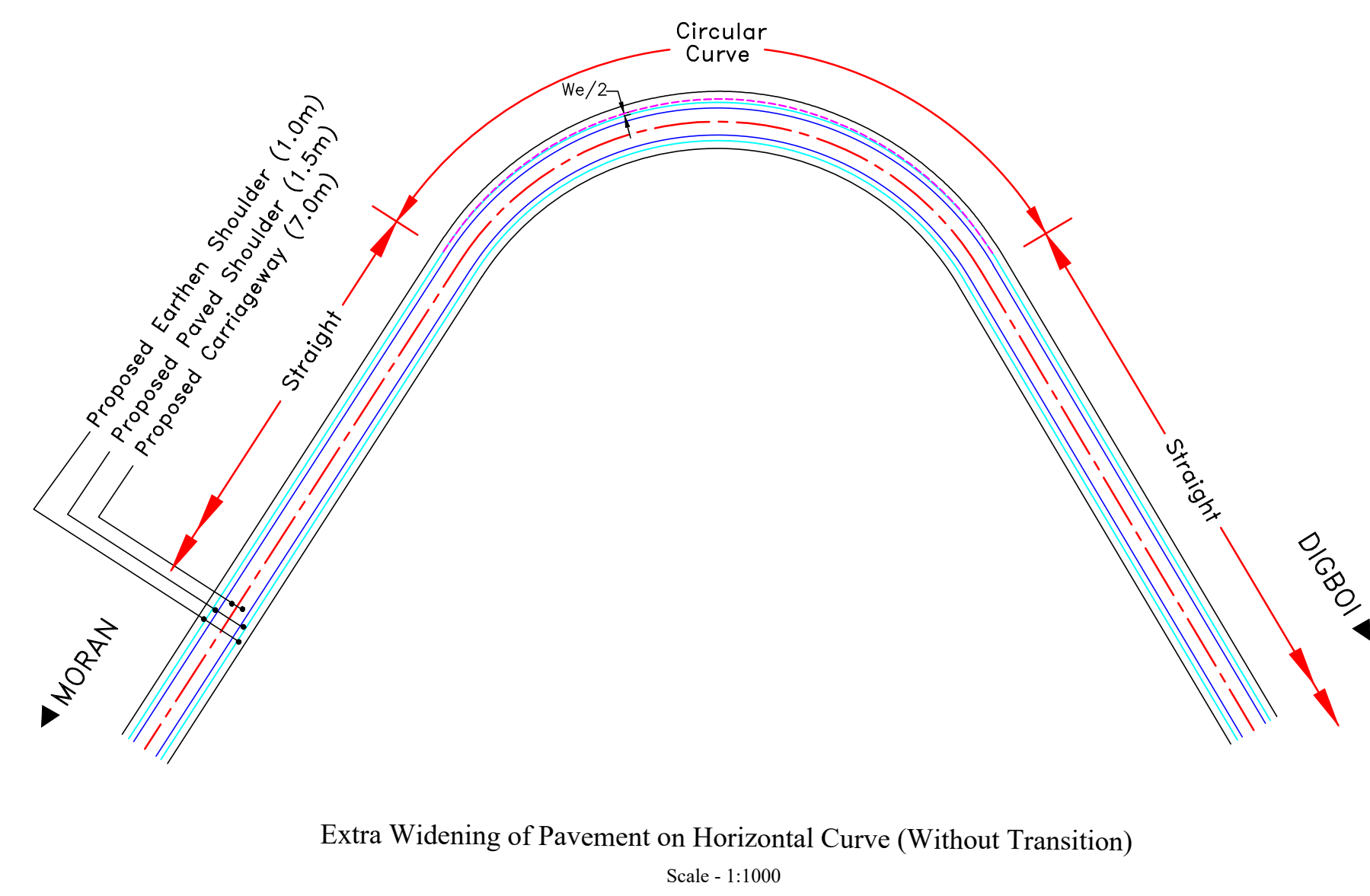
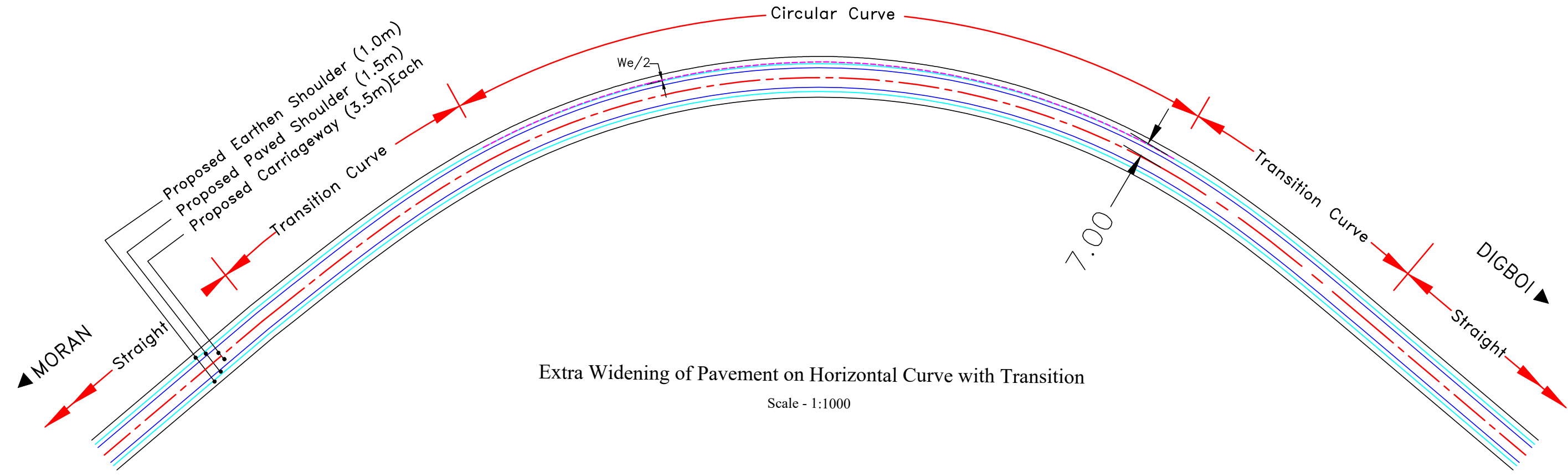


VOYANTS SOLUTIONS PVT LTD.
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E-mail: info@voyants.in, www.voyants.in

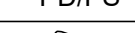
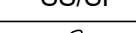
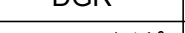
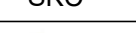
Detailed Project Report

REV.	DATE	DESCRIPTION

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY	TITLE :
PD/PS	SS/SP	DGR	SKC	Typical Detail Passenger Shelter
				DRG. No. : VSPL/1718-082/DPR/PKG-4/MIS- 08
SCALE :	N.T.S	SHEET SIZE	A2	REVISION:R0
				OCTOBER 2022



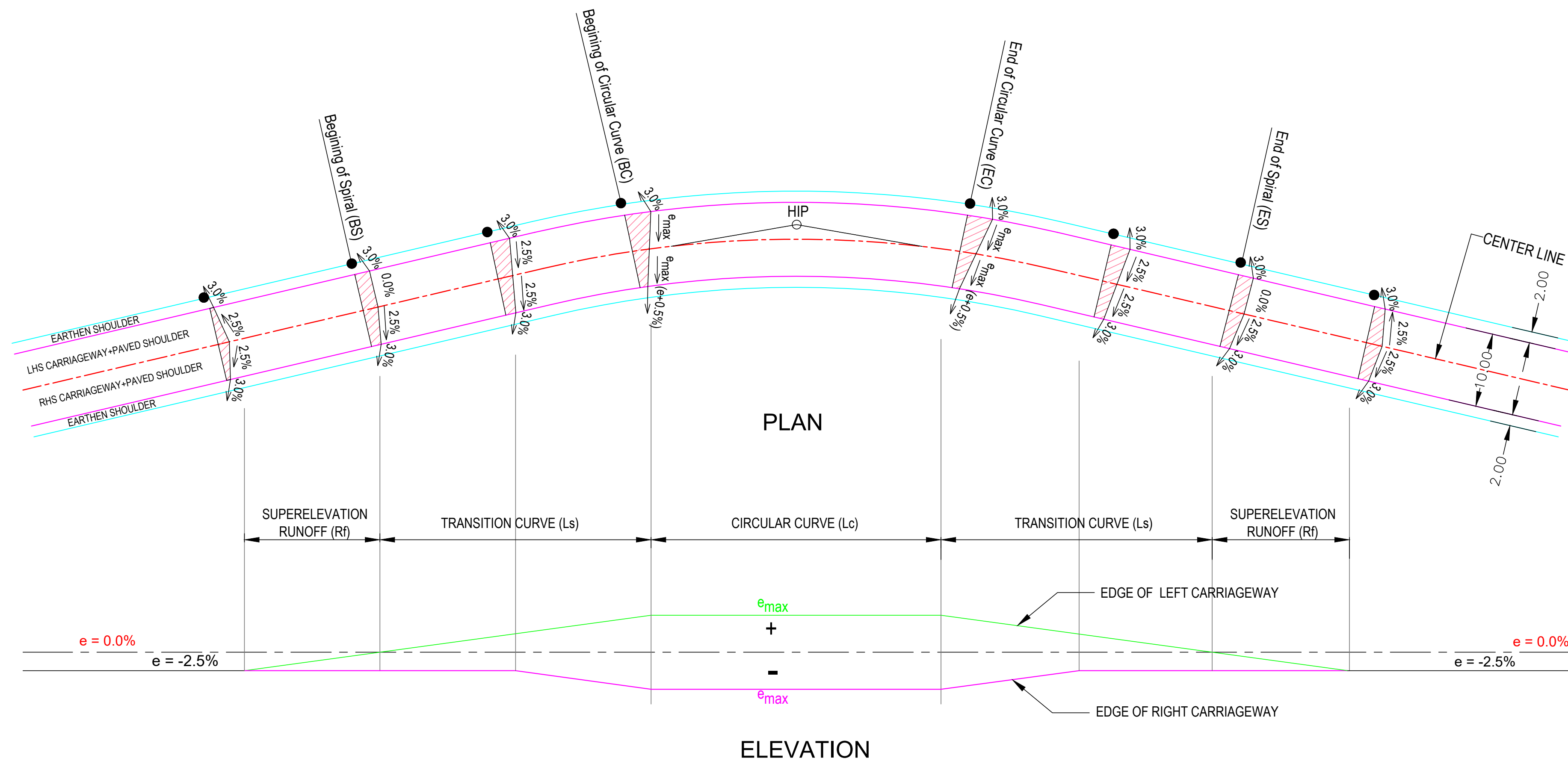
- Notes:**
- 1.All dimensions are in metres unless otherwise mentioned.
 - 2.Standards and specifications mentioned in IRC:SP:73-2015 shall be followed strictly whenever applicable.
 - 3.This drawing is applicable for the stretches with raised median.

CLIENT :  NATIONAL HIGHWAYS AND INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. (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 Details of Extra Widening	
					PD/PS	SS/SP	DGR	SKC	DRG. No. : VSPL/1718-082/DPR/PKG-4/MIS- 09	
									REVISION:R0	
					SCALE :	N.T.S.	SHEET SIZE	A2	OCTOBER 2022	
			REV.	DATE	DESCRIPTION					

PATH: C:\Shampa\0\Project\1718082_Bharatmala_Asam_P-4\2.October_2022\New Folder\Asam_P4_S5\7.Misc\MIS_09_Extra_Widening.dwg

◀ MORAN

DIGBOI ►



Notes:

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

CLIENT :



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**CONSULTANCY SERVICES FOR PREPARATION OF
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ROUTES TO IMPROVE THE EFFICIENCY OF FREIGHT
MOVEMENTS IN INDIA UNDER BHARATMALA PARIYOJANA
(LOT-1:PACKAGE IV)**

DESIGN CONSULTANT:



VOYANTS SOLUTIONS PVT LTD.
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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

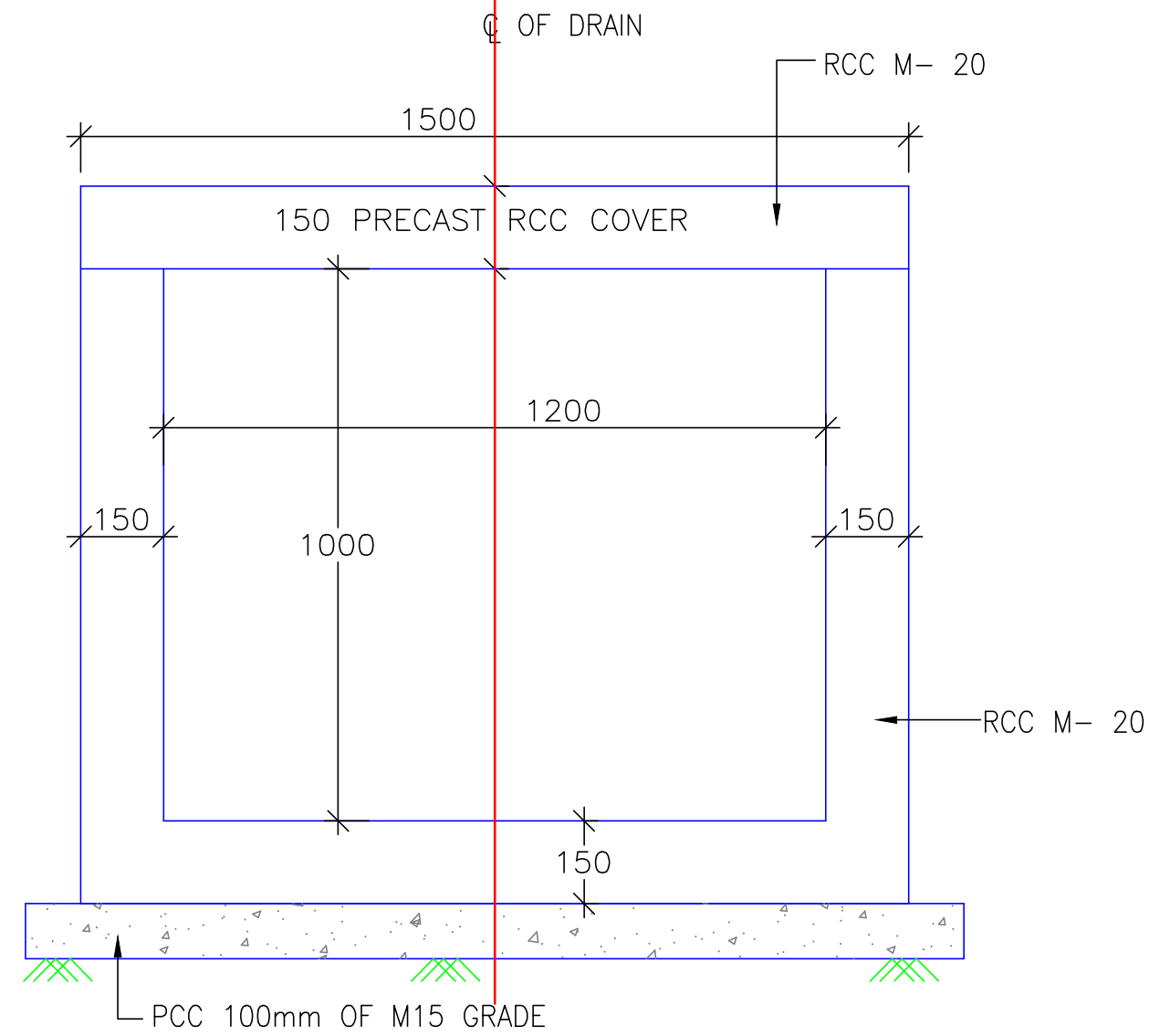
Y TITLE :

Details of Superelevation

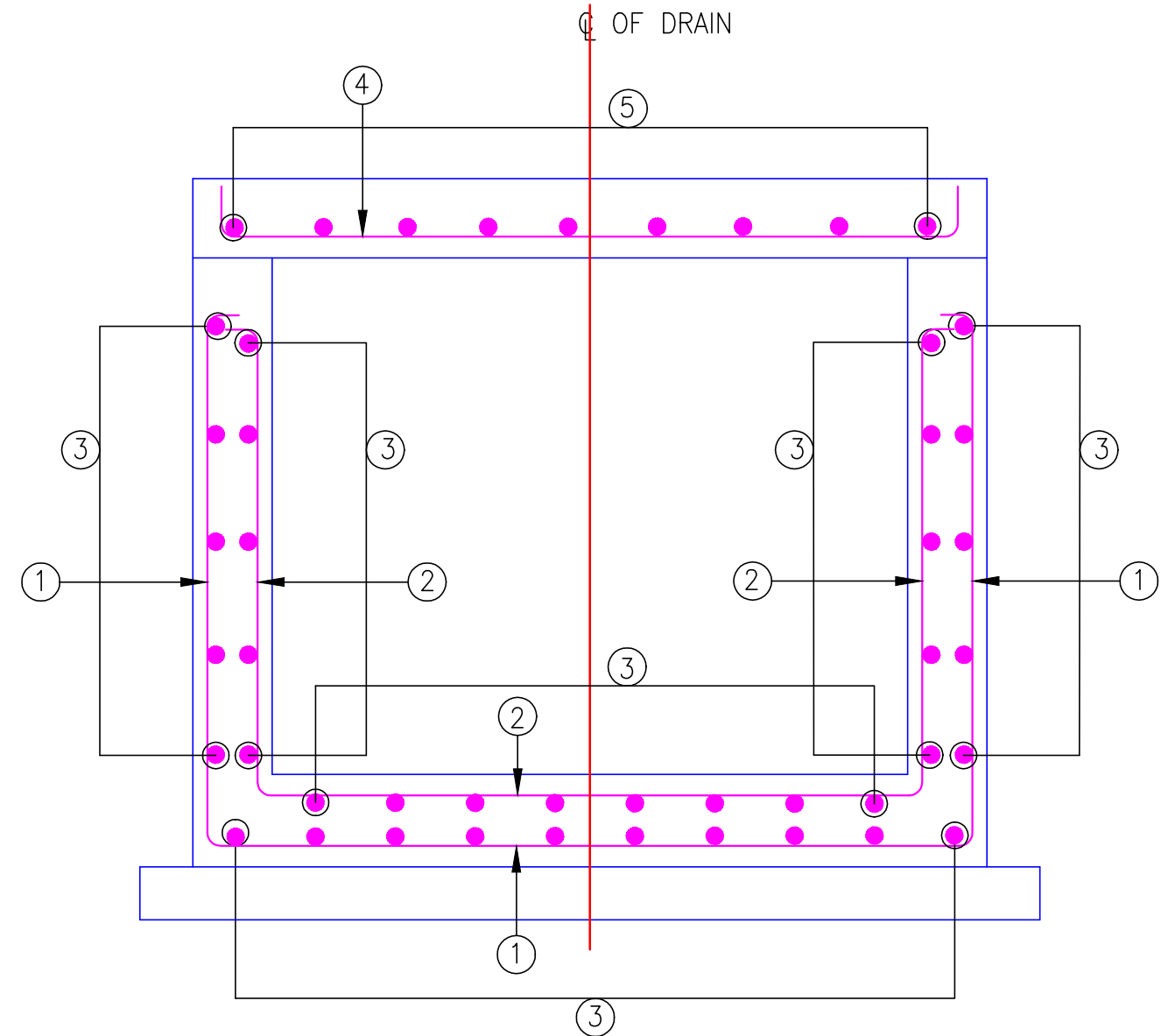
DRG. No. :
VSPL/1718-082/DPR/PKG-4/MIS- 10

OCTOBER 2022

DETAILS OF DRAIN AT BUILT UP SECTION



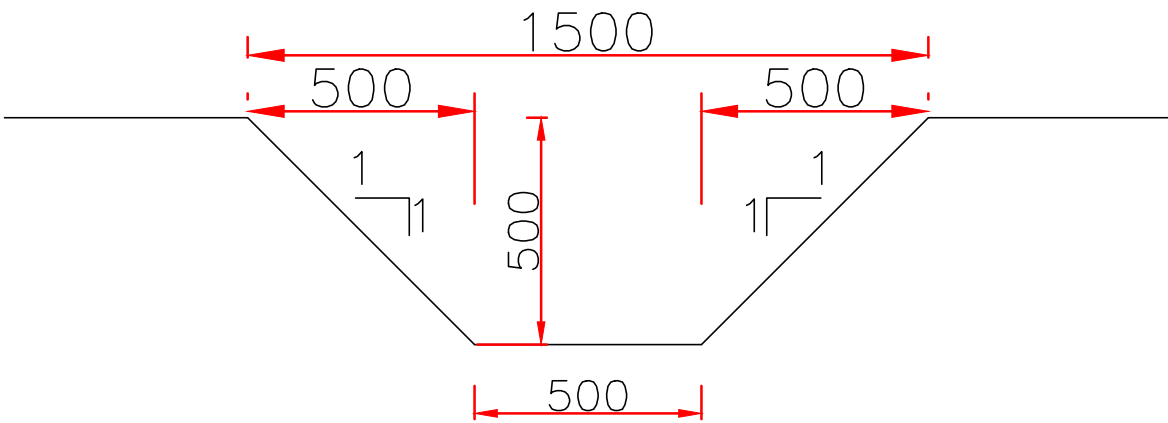
DETAILS OF DRAIN CROSS SECTION
AT 2 LANE BUILT UP SECTION
(SCALE 1:25)



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:

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

CLIENT :



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(MINISTRY OF ROAD TRANSPORT AND HIGHWAYS)
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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.
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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

TITLE :

Typical Details of Drain

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

REVISION:R0

OCTOBER 2022

PATH: C:\Shampa\Project\1718082_Bharatmala_Asam_P-4\2.October_2022\New Folder\Asam_P4_S5\8.TBM & GPS List\TBM & GPS List_PKG-4_Sec-3_Part-2.dwg

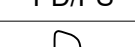
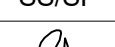
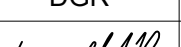
GPS List (Sec-5)_NH-38				
1	GPS - 1	761202.9680	3029526.5700	150.9440
2	GPS - 1A	761280.0610	3029466.5390	151.1250
3	GPS - 2	761353.4440	3029519.4430	150.0910
4	GPS - 2A	763249.4870	3027992.2050	155.8940
5	GPS - 3	763268.8430	3027798.0590	154.6350
6	GPS - 3A	764219.7610	3025672.3970	141.9890
7	GPS - 4	764338.4680	3025490.7940	140.3380
8	GPS - 4A	766171.3530	3023375.2290	138.7820
9	GPS - 5	766332.0300	3023254.6250	139.7020
10	GPS - 5A	769050.4380	3022786.8230	141.4590
11	GPS - 6	769164.8080	3022820.6070	140.8610
12	GPS - 6A	772301.9370	3023788.1100	143.9770
13	GPS - 7	772424.1160	3023770.4410	143.9460
14	GPS - 7A	775493.1110	3022988.6790	152.7320
15	GPS -8	775670.4520	3023156.5700	152.7430

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 : TBM & GPS List of NH-38		
					PD/PS	SS/SP	DGR	SKC			
											
			REV.	DATE	DESCRIPTION	SCALE : N.T.S.		SHEET SIZE	A2	DRG. No. : VSPL/1718-082/DPR/PKG-4/S5/List- 01	
										REVISION:R1	

TBM Pilar List (Sec-5)_NH-38				
1	PILLAR-1	762547.4420	3029505.0410	151.492
2	PILLAR-2	762754.8670	3029358.1310	152.8580
3	PILLAR-3	762954.6390	3029212.4430	152.6770
4	PILLAR-4	763066.3150	3028984.4410	151.0030
5	PILLAR-5	763143.8980	3028777.7900	153.4660
6	PILLAR-6	763187.1710	3028476.6540	155.7870
7	PILLAR-7	763231.9320	3028196.9650	155.9850
8	PILLAR-8	763321.6670	3027557.7100	150.3020
9	PILLAR-9	763361.5210	3027313.5870	153.2700
10	PILLAR-10	763401.4380	3027084.6430	151.4130
11	PILLAR-11	763416.1680	3026881.3910	143.5450
12	PILLAR-12	763471.8090	3026557.8340	142.9140
13	PILLAR-13	763602.4750	3026309.9170	144.2580
14	PILLAR-14	763762.0590	3026141.1940	142.9630
15	PILLAR-15	763942.5990	3025903.2550	145.6760
16	PILLAR-16	764462.1320	3025282.4610	139.6230
17	PILLAR-17	764696.8620	3025044.2270	139.7450
18	PILLAR-18	764911.3820	3024807.1950	140.3410
19	PILLAR-19	765019.5890	3024666.0740	140.6410
20	PILLAR-20	765227.6720	3024455.0470	142.2040
21	PILLAR-21	765227.6720	3024455.0480	142.2050
22	PILLAR-22	765352.7250	3024266.5920	140.2300
23	PILLAR-23	765482.1410	3024084.1630	137.5440
24	PILLAR-24	765482.1410	3024084.1640	137.5450
25	PILLAR-25	765713.7800	3023850.9850	136.9720
26	PILLAR-26	765982.8610	3023563.0130	138.4080
27	PILLAR-27	765982.8610	3023563.0120	138.4060
28	PILLAR-28	766489.8680	3023142.7890	139.7280
29	PILLAR-29	766660.0050	3023054.2420	138.7610
30	PILLAR-30	766906.1840	3022887.3600	139.5700
31	PILLAR-31	767117.7030	3022693.5420	139.2390
32	PILLAR-32	767117.7070	3022693.5390	139.2350
33	PILLAR-33	767161.6800	3022599.0300	137.8680
34	PILLAR-34	767324.4840	3022280.2740	139.5250

TBM Pilar List (Sec-5)_NH-38				
35	PILLAR-35	767526.8690	3022221.7600	139.7720
36	PILLAR-36	768073.8780	3022413.2440	140.0860
37	PILLAR-37	768289.0230	3022504.4490	141.3180
38	PILLAR-38	768565.2200	3022606.4750	140.7400
39	PILLAR-39	768833.9720	3022691.6530	140.8780
40	PILLAR-40	769415.8300	3022900.1330	141.5350
41	PILLAR-41	769645.2750	3023022.5230	142.1790
42	PILLAR-42	769901.0900	3023079.3320	142.1800
43	PILLAR-43	770155.9940	3023184.9990	142.1220
44	PILLAR-44	770426.0690	3023299.5280	141.3610
45	PILLAR-45	770760.0180	3023409.2090	141.9740
46	PILLAR-46	771058.5120	3023487.8430	143.7380
47	PILLAR-47	771330.7890	3023560.6040	141.9770
48	PILLAR-48	771585.0590	3023634.0920	142.0550
49	PILLAR-49	771777.6330	3023657.7150	141.9920
50	PILLAR-50	772054.1740	3023695.1780	148.2890
51	PILLAR-51	772772.7200	3023868.8160	143.1230
52	PILLAR-52	773024.7700	3023879.1890	146.6820
53	PILLAR-53	773276.2110	3023932.9290	148.6180
54	PILLAR-54	773506.2420	3023890.6930	148.1700
55	PILLAR-55	773726.2600	3023862.5130	147.9550
56	PILLAR-56	773960.1450	3023737.3040	147.7000
57	PILLAR-57	774260.4000	3023629.7370	146.7400
58	PILLAR-58	774538.1050	3023468.6170	148.7780
59	PILLAR-59	775149.8130	3023281.9420	149.5170
60	PILLAR-60	775348.6050	3023179.1870	152.5400
61	PILLAR-61	757872.265	3037358.627	138.926
62	PILLAR-62	757884.876	3037052.329	139.137
63	PILLAR-63	757937.173	3036764.897	138.986

PATH: C:\Shampa\0Project\1718082_Bharatmala_Asam_P-4\2.October_2022\New folder\Asam_P-4_S5\8.TBM & GPS List\TBM & GPS List_PKG-4_Sec-3_Part-2.dwg

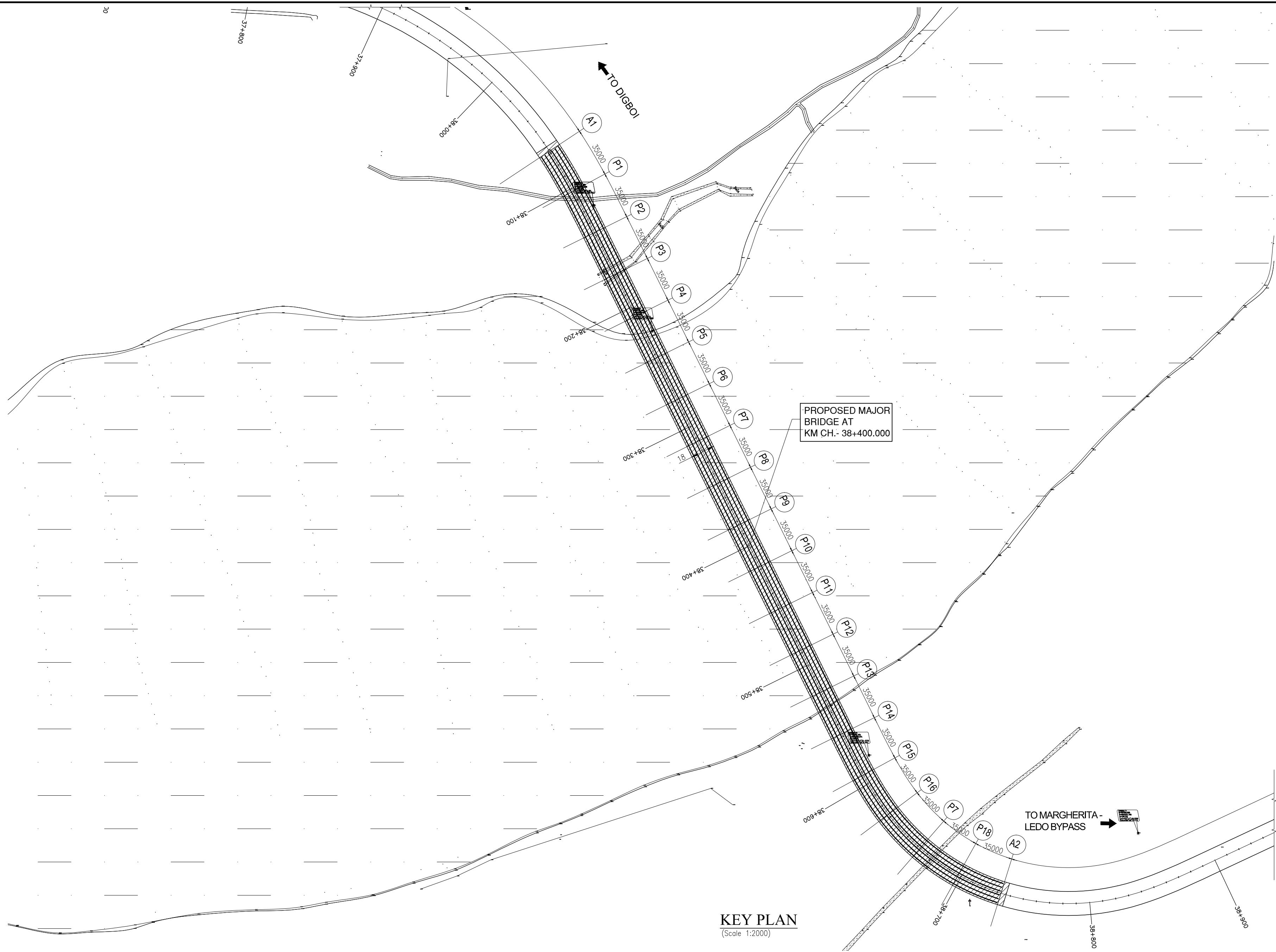
CLIENT :  NATIONAL HIGHWAYS AND INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. (MINISTRY OF ROAD TRANSPORT AND HIGHWAYS) GOVERNMENT OF INDIA	PROJECT : CONSULTANCY SERVICES FOR PREPARATION OF DETAILED PROJECT REPORT FOR DEVELOPMENT OF ECONOMIC CORRIDORS, INTER CORRIDORS AND FEEDER ROUTES TO IMPROVE THE EFFICIENCY 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 : TBM & GPS List of NH-38				
					PD/PS	SS/SP	DGR	SKC					
													
			REV.	DATE	DESCRIPTION	SCALE : N.T.S.		SHEET SIZE	A2	DRG. No. : VSPL/1718-082/DPR/PKG-4/S5/List- 02			
			REVISION:R1										OCTOBER 2022

STRUCTURAL DRAWINGS

-: List of Drawings :-

SL. No.	Description	Drawing No.	Rev No.	Sheet No.
01	General Arrangement Drawings of Major Bridge at ch. km. 38+400.000.	VSPL/1718-082/DPR/TRB/PKG-4/SEC-5/MJB-01.	R0	05
02	General Arrangement Drawings of Major Bridge at ch. km. 35+875.000	VSPL/1718-082/DPR/TRB/PKG-4/SEC-5/MJB-02.	R0	02
03	General Arrangement Drawings of Minor Bridge at ch. km. 31+740.00.	VSPL/1718-082/DPR/TRB/PKG-4/SEC-5/MNB-01.	R0	02
04	General Arrangement Drawings of Minor Bridge at ch. km. 37+135.000	VSPL/1718-082/DPR/TRB/PKG-4/SEC-5/MNB-02.	R0	02
05	General Arrangement Drawings of Minor Bridge at ch. km. 30+120, 33+980, 39+887 & 43+206.0	VSPL/1718-082/DPR/TRB/PKG-4/SEC-5/MNB-03.	R0	02
06	General Arrangement Drawings of Minor Bridge at ch. km. 29+457, 37+465, 45+736 & 46+957.00	VSPL/1718-082/DPR/TRB/PKG-4/SEC-5/MNB-04.	R0	02
07	General Arrangement Drawings of Small Vehicular Underpass	VSPL/1718-082/DPR/TRB/PKG-4/SEC-5/SVUP-01.	R0	01
08	General Arrangement Drawings of Light Vehicular Underpass	VSPL/1718-082/DPR/TRB/PKG-4/SEC-5/LVUP-01.	R0	01
09	General Arrangement Drawings of BOX Culvert	VSPL/1718-082/DPR/TRB/PKG-4/SEC-5/BC-01.	R0	02
10	General Arrangement Drawings of ROB cum EUP	VSPL/1718-082/DPR/TRB/PKG-4/SEC-5/ROBEUP-01	R0	06

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 : LIST OF DRAWING			
					SB	G. Das	SG	SKC				
							SCALE :	AS SHOWN		SHEET SIZE	A2	DRG. No. : VSPL/1718-082/DPR/PKG-4/SEC-5/LOD-01
			REV. DATE		DESCRIPTION							REVISION:



KEY PLAN
(Scale 1:2000)

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,
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Gurugram-122001, Haryana, India
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Detaild Project Report

REV.	DATE	DESCRIPTION

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SLM	G. Das	MK	SKC
SCALE :	AS SHOWN	SHEET SIZE	A2

TITLE :		
GENERAL ARRANGEMENT DRAWING OF MAJOR BRIDGE AT Km. Ch.- 38+400.0		
DRG. No. : VSPL/1718-082/DPR/TRB/PKG-4/SEC-5/MJB-01. (Sht. 1 of 5)		
REVISION:	R0	October, 2022

