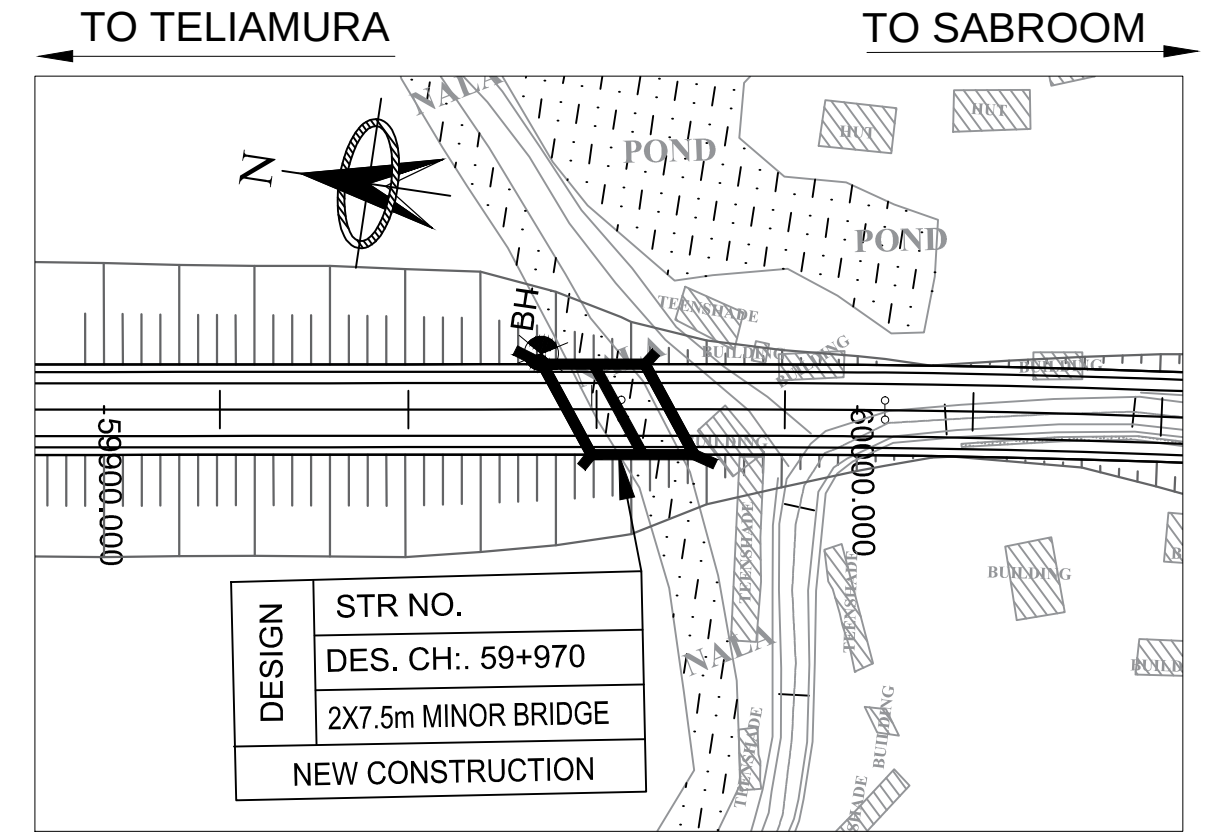
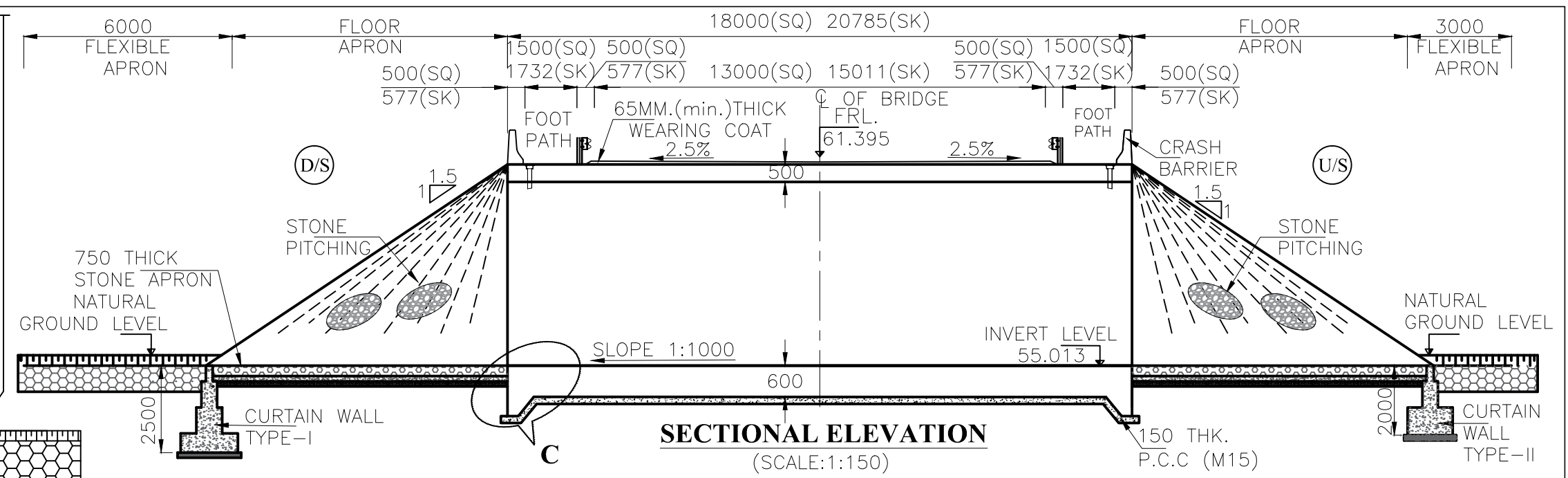
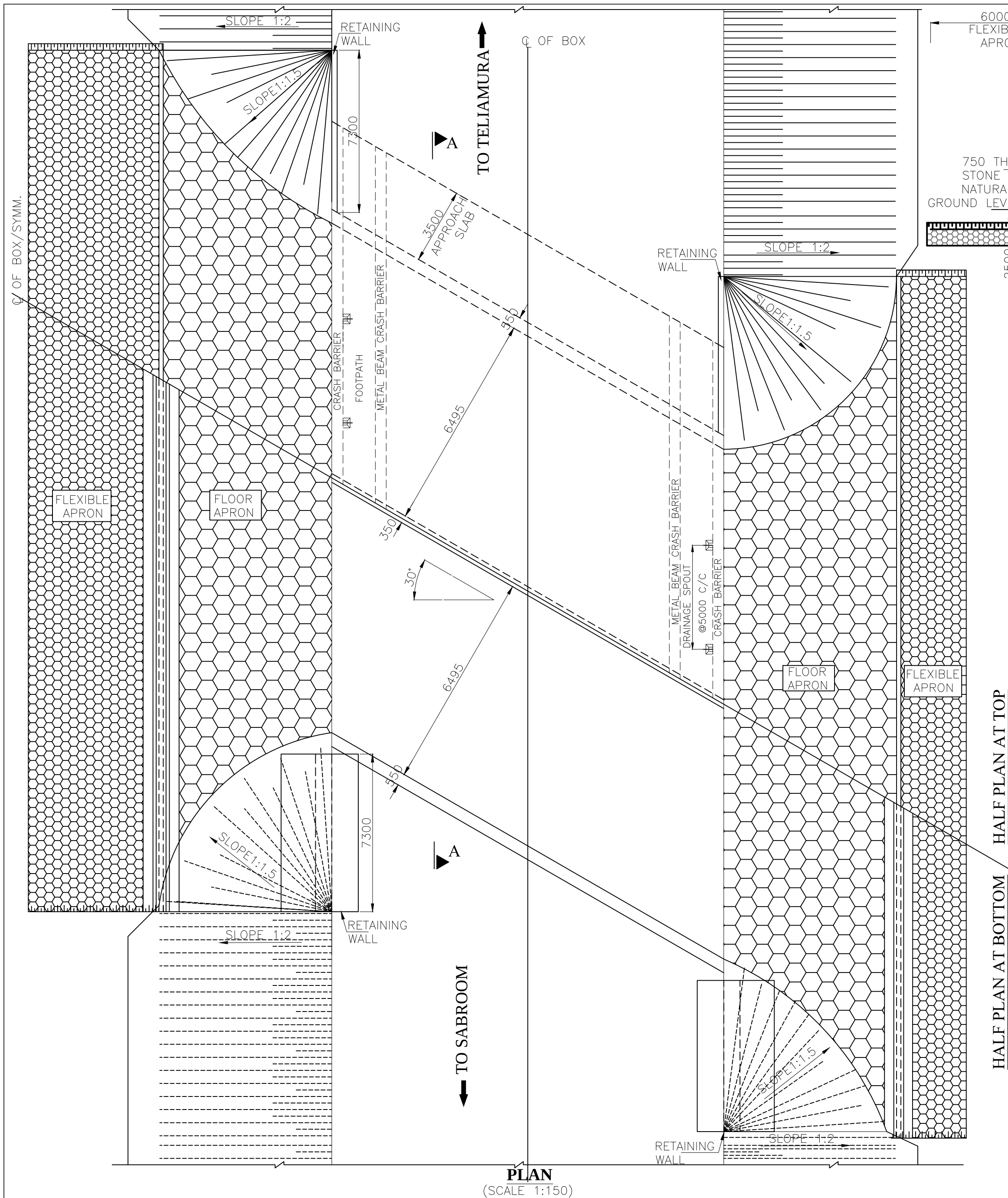




KEY PLAN

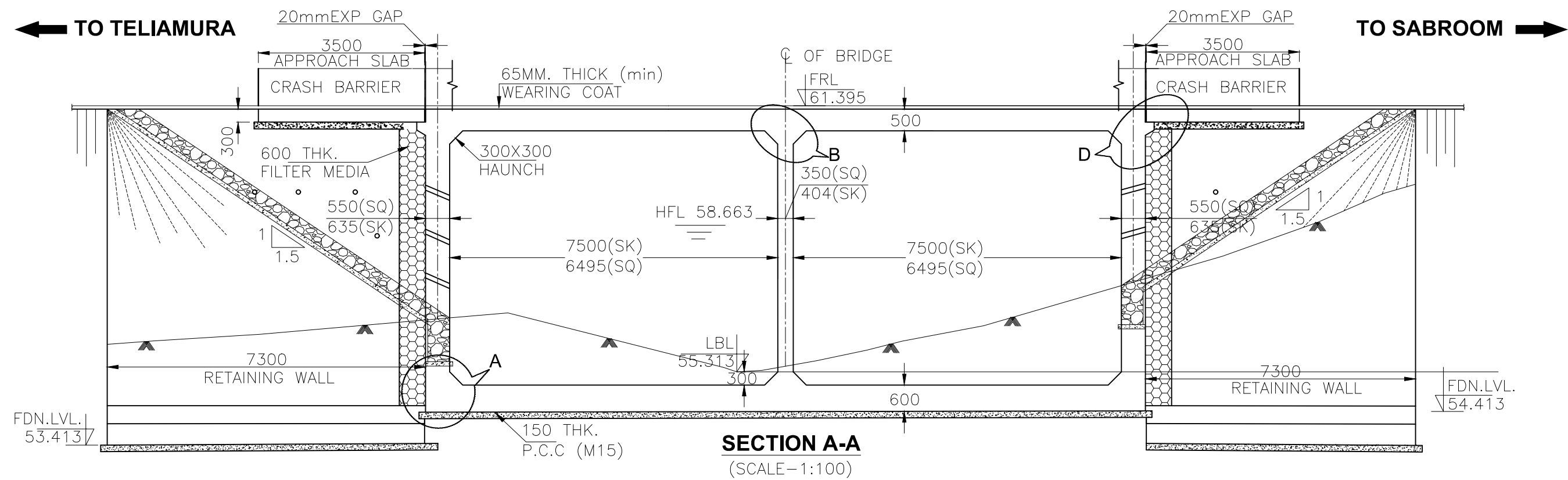
SCALE - 1:1

NOTES:-

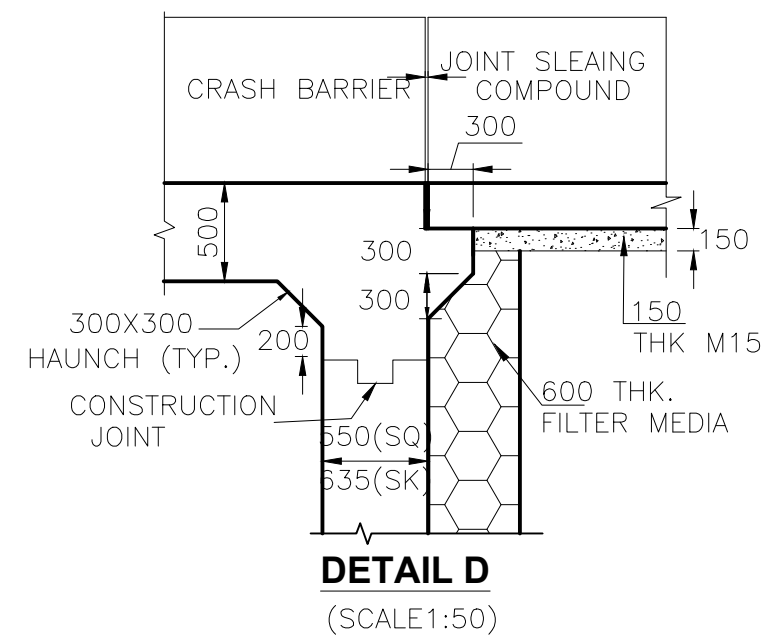
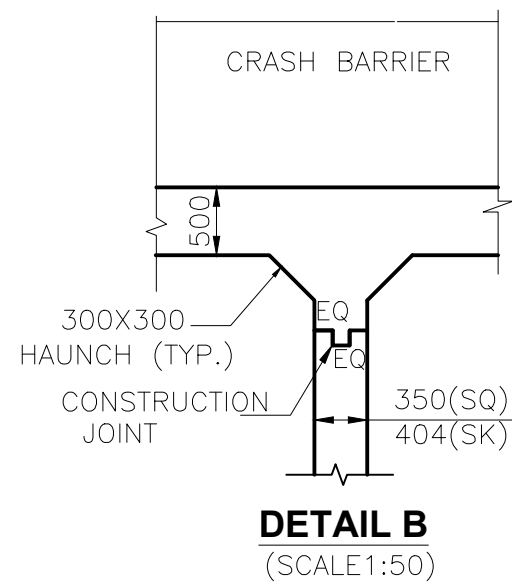
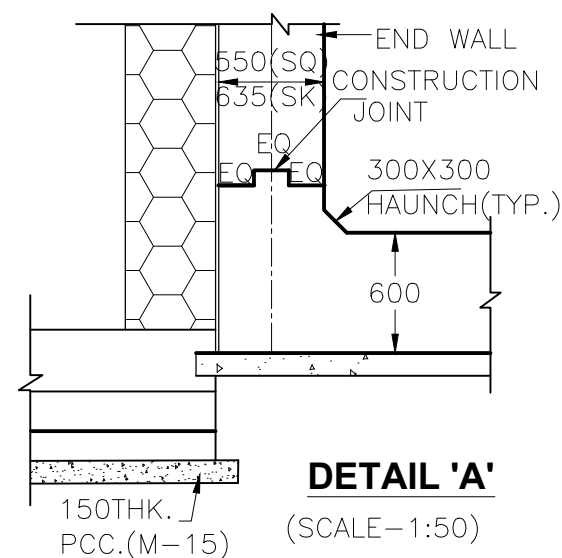
- ALL DIMENSION ARE IN MM, LEVEL ARE IN METER & CHAINAGE IN KILOMETER UNLESS SPECIFIED OTHERWISE.
- DO NOT MEASURE THE DRAWING FOLLOW WRITTEN DIMENSION ONLY.
- THIS DRAWING TO BE READ IN CONJUNCTION TO THE HIGHWAY DRAWINGS. IF THERE IS ANY DIFFERENCE IN CHAINAGE OR LEVELS H/W DRAWINGS WILL PREVAIL.
- BACKFILL GRANULAR SOIL MATERIAL BEHIND ABUTMENT SHALL HAVE THE FOLLOWING PROPERTIES = 2.0 T/m³, C = 0, & $\phi = 30^\circ$, CONFORMING TO IRC: 78-2014.
- THE NEW STRUCTURE IS DESIGNED FOR FOUR LANE LOADING AS PER IRC 6:2017.
- CONCRETE GARDE :-
 - M40 -- FOR CRASH BARRIER
 - M35 -- RCC BOX.
 - M15 -- FOR PCC LEVELLING COURSE
- UNTENSIONED REINFORCEMENT :- FE.500D (T.M.T. DEFORMED BARS) CONFIRMING TO IS:1786.
- TYPE OF STRUCTURE & CONSTRUCTION METHODOLOGY CONSIDERED IN DESIGN IS
 - RCC BOX STRUCTURE
 - WEARING COAT 65mm THK. C.C.
 - EXPANSION JOINTS - FILLER TYPE.
 - APPROACH SLAB-M30 GRADE.
- ALL STRUCTURAL DIMENSIONS SHOWN ARE BASED ON PRELIMINARY DESIGNS.

- 600MM THICK FILTER MATERIAL BEHIND PCC ABUTMENT/RETAINING WALL SHALL BE AS PER APPENDIX 6 OF IRC:78-2014.
- APPROACH SLAB, DRAINAGE SPOUT, CRASH BARRIER, RAILING & FOOTPATH DETAIL REFER MISCELLANEOUS DRAWING.
- 100MM DIA P.V.C. PIPE AT SPACING 1000 C/C IN HORIZONTAL/VERTICAL DIRECTION SHALL BE PROVIDED UP TO 150MM ABOVE LOW WATER LEVEL FOR WEEP HOLES IN VERTICAL WALL.
- ALL CONSTRUCTION SHALL CONFIRM TO CONTRACT SPECIFICATIONS.
- COMPACTED EARTH SHOULD CONFIRM TO CLAUSE 305.2.1.5 OF MORTH SPECIFICATIONS.
- HYDROLOGICAL DATA.

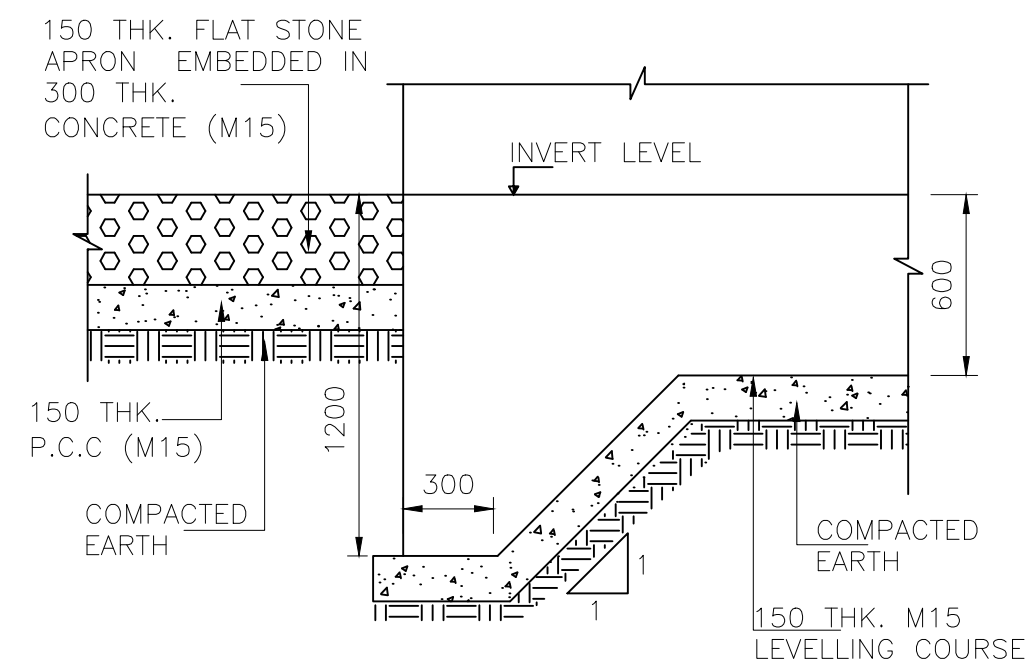
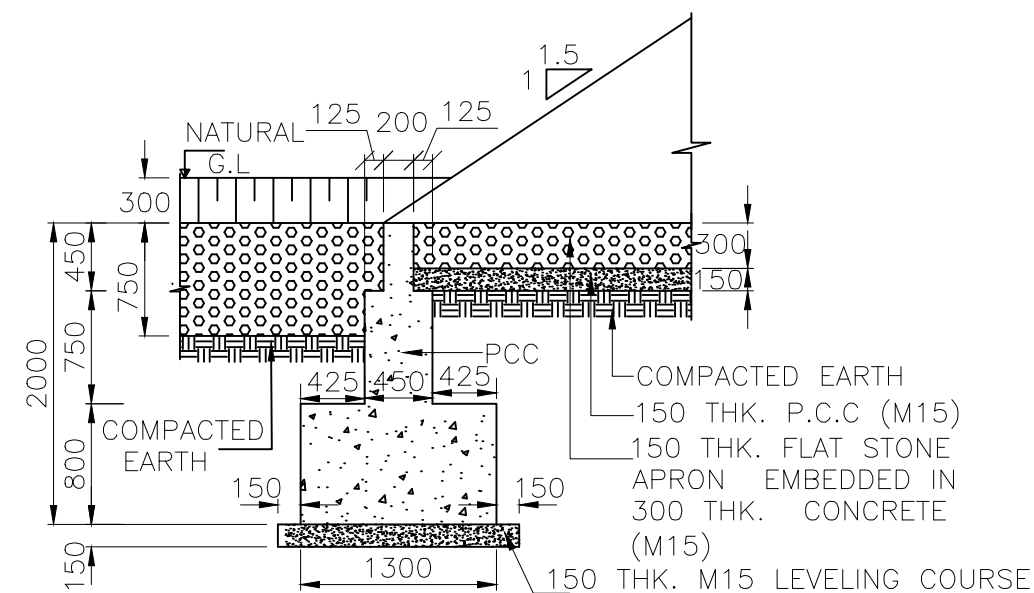
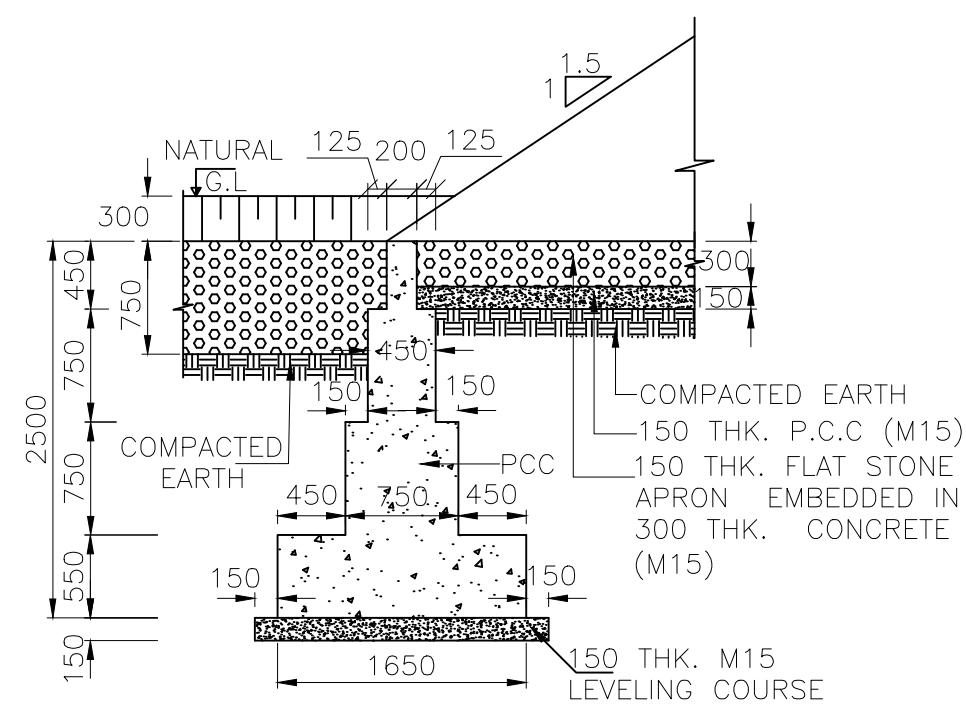
DISCHARGE	-- 36.998 CUMEC
HFL	-- 58.663 m
VELOCITY	-- 2.15 m/sec
MIN.VERTICAL CLEARANCE	-- 0.9 m (AS PER IRC:78:2014)
- CLEAR COVER TO REINFORCEMENT FOR FOOTING & EARTH FACE OF BOX SHALL BE 75 mm & FOR NON EARTH FACE OF BOX & TOP SLAB SHALL BE 50mm.
- NET BEARING CAPACITY OF SOIL REQUIRED FOR FOUNDATION IS 15T/m², WHICH SHOULD BE CONFIRMED AND VERIFY AT SITE BEFORE EXECUTION.
- BRIDGE IS DESIGN FOR SEISMIC ZONE V OF SEISMIC MAP OF INDIA.



FRL LEVEL	61.395	61.395	61.395
GROUND (M.)	55.782	55.456	56.345
CHAINAGE (M.)	59+962.05	59+970	59+977.95



LEGENDS:-
 FRL:-FINISH ROAD LEVEL
 HFL:-HIGHEST FLOOD LEVEL
 FDN:-FOUNDATION LEVEL
 LBL:-LOWEST BED LEVEL



DETAIL OF CURTAIN WALL-I
(DOWN STREAM SIDE)
(SCALE 1:50)

DETAIL OF CURTAIN WALL-II
(UP STREAM SIDE)
(SCALE 1:50)

DETAIL-'C'
(SCALE 1:25)



Project Title:-

CONSULTANCY SERVICES FOR FEASIBILITY STUDY, PREPARATION OF DETAILED PROJECT REPORT AND PROVIDING PRE-CONSTRUCTION SERVICES FOR UP-GRADATION OF SELECTED ROAD STRETCHES / CORRIDORS TO TWO LANE WITH PAVED SHOULDER NH CONFIGURATION UNDER BHARAT MALA PROJECT AND NATIONAL HIGHWAYS CONNECTIVITY TO BACKWARD AREAS/RELIGIOUS/TOURIST PLACES OF THE COUNTRY IN THE STATE OF TRIPURA.

TELIAMURA - SABROOM SECTION-4

CLIENT:-



NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD

Drawing Title:-

GENERAL ARRANGEMENT DRAWING OF MINOR BRIDGE AT CH. 59+970

Drawing No. :- **TASPL/NHIDCL/FDPR/GAD/09**

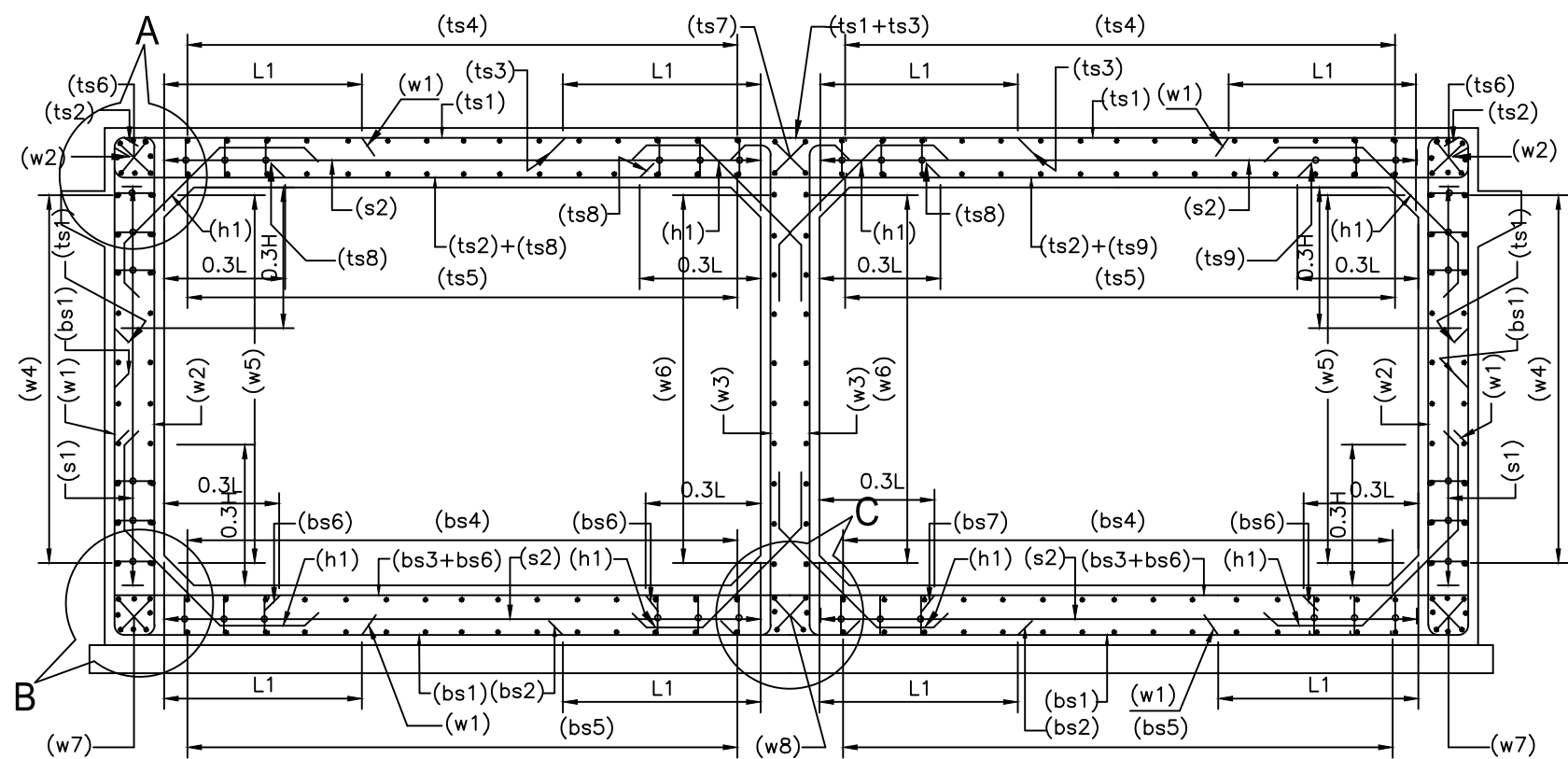
Scale :- **AS SHOWN**

Drn	Dgn.	Appd	Sheet :
D.S	D.P.S	B.Ram	02 OF 02

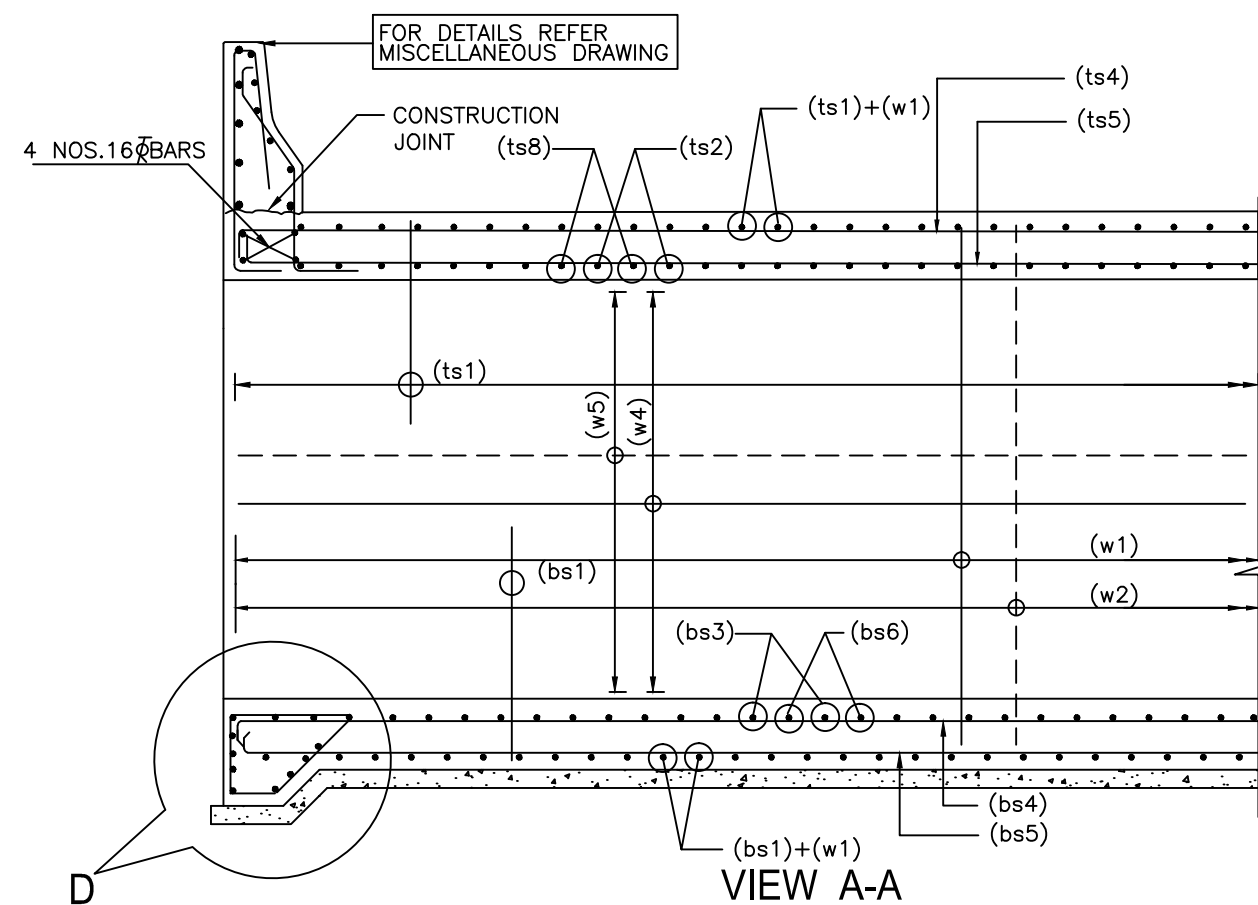
CONSULTANT:-



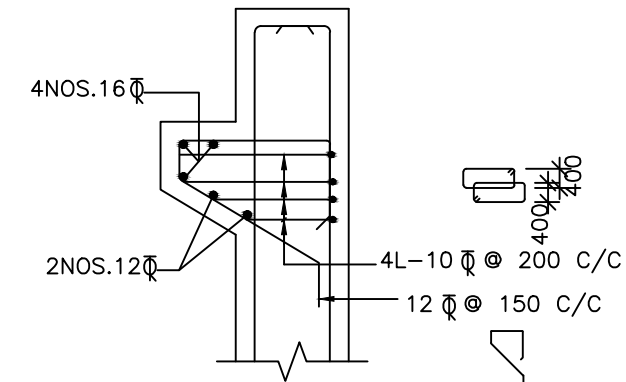
Technocrats Advisory Services Private Limited
 in association with Vaishnavi Infratech Services Pvt. Ltd
 68,Ajanta Apartments, 36, I.P. Extension
 Patparganj Delhi-110092.



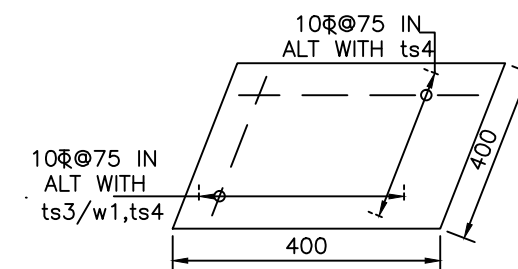
REINFORCEMENT DETAILS OF RCC BOX



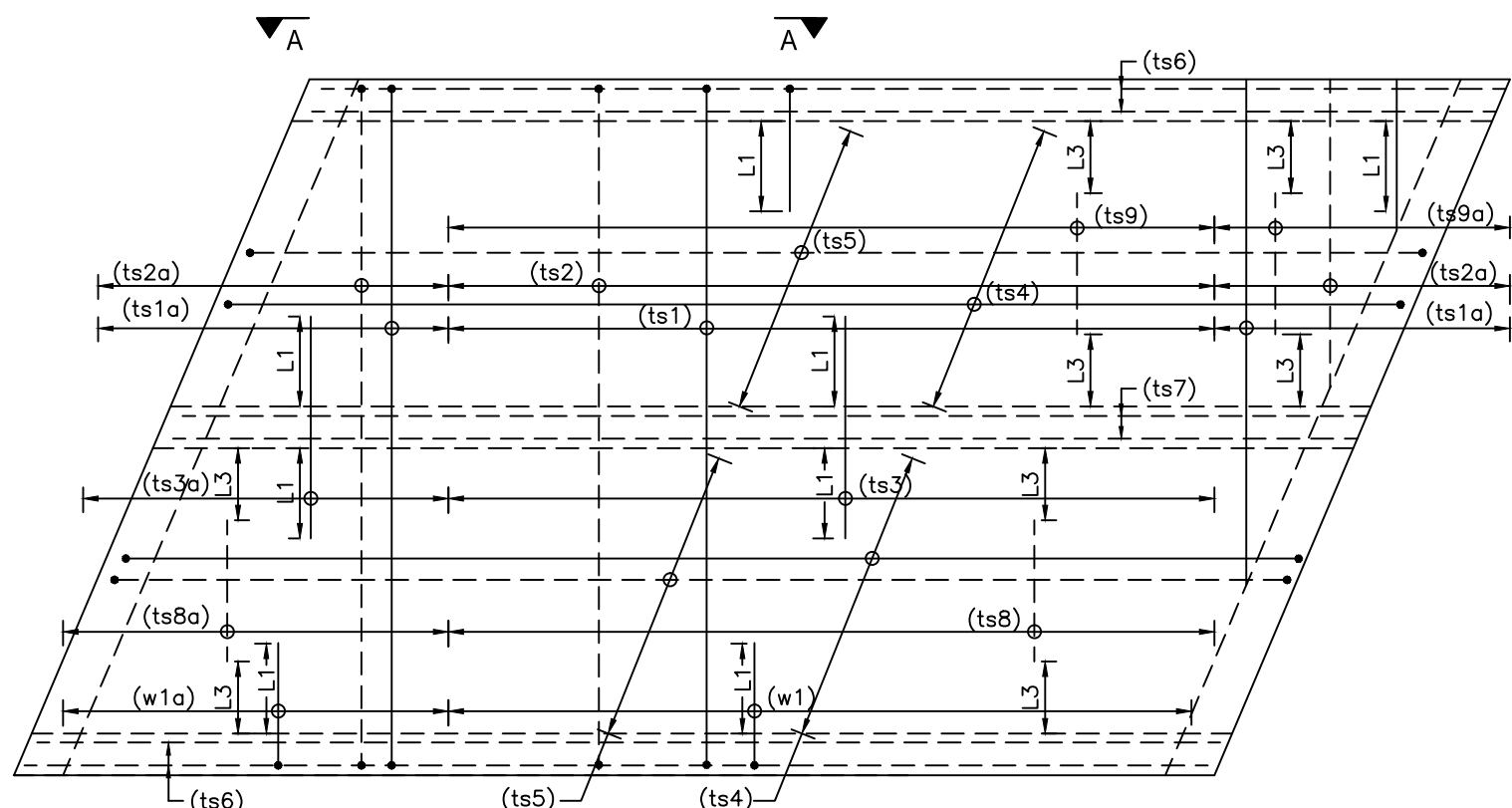
VIEW A-A



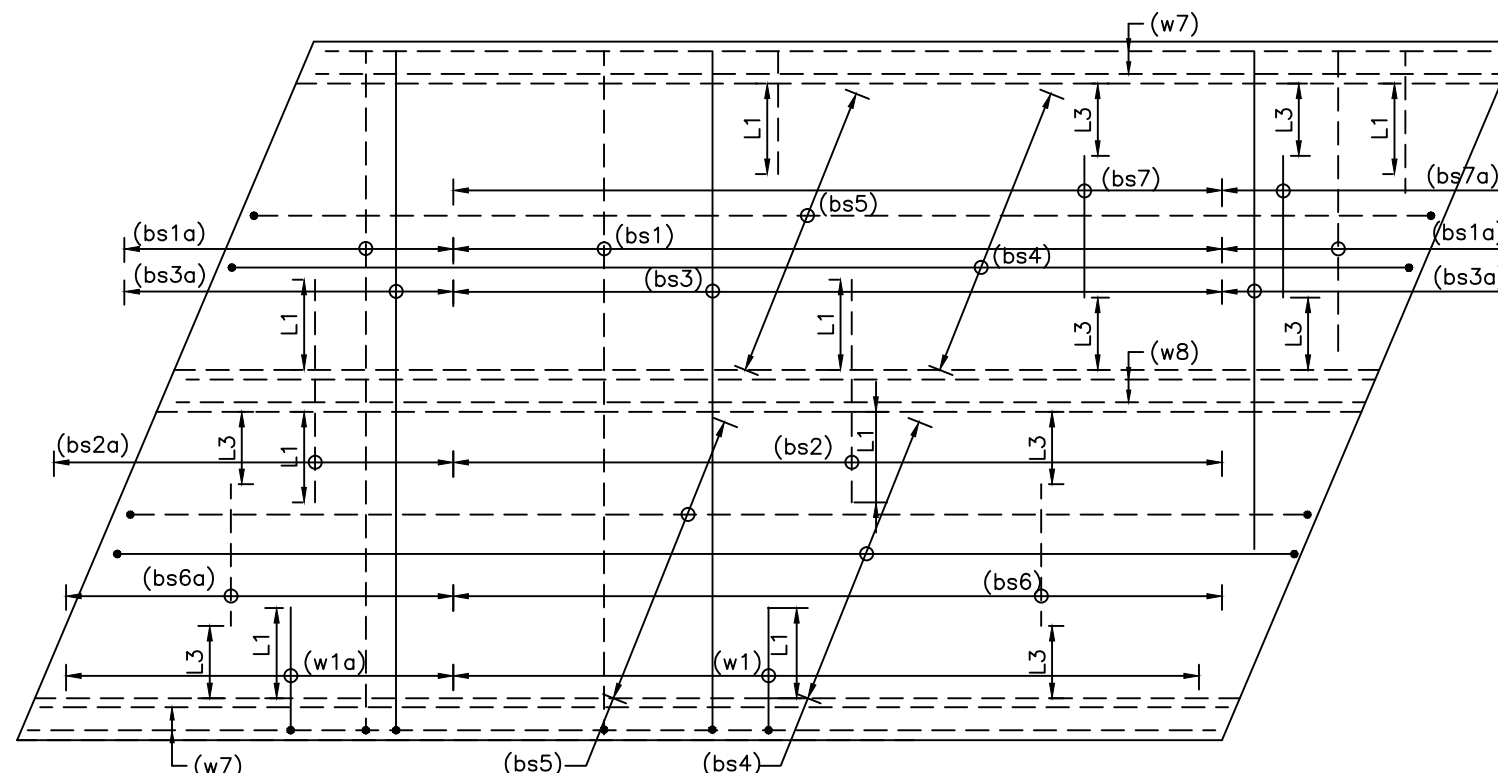
DETAIL AT 'A'



MESH REIN. FOR EVERY OBTUSE CORNER OF TOP SLAB.
(WHERE α IS THE CLEAR SPAN)



REINFORCEMENT DETAILS OF TOP SLAB
(MESH REIN.FOR OBTUSE CORNER IS NOT SHOWN FOR CLARITY)



REINFORCEMENT DETAILS OF BOTTOM SLAB
(MESH REIN.FOR OBTUSE CORNER IS NOT SHOWN FOR CLARITY)

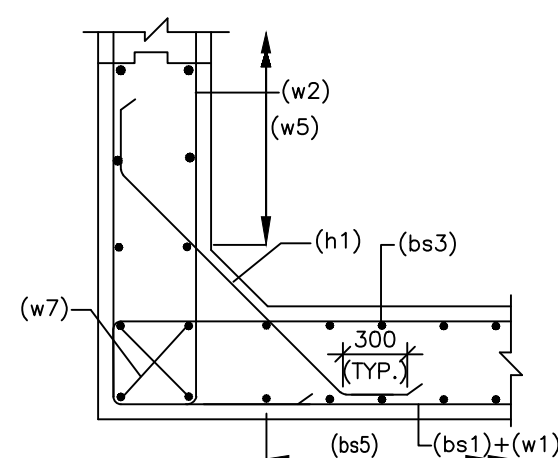
NOTES:

- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
- DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
- CONCRETE SHALL BE OF GRADE M35 AND STEEL GRADE SHALL BE Fe500D CONFORMING TO IS:1786.2008.
- CLEAR COVER TO MAIN REINFORCEMENT SHALL BE :-
(i) WITH EARTH FACE 75mm
(ii) WITHOUT EARTH FACE 50MM
- LAPS SHALL BE STAGGERED AND SUITABLY PLACED.
- LAP LENGTH SHALL BE CALCULATED AS PER IRC:112-2011.
- CONDITION OF EXPOSURE-MODERATE.

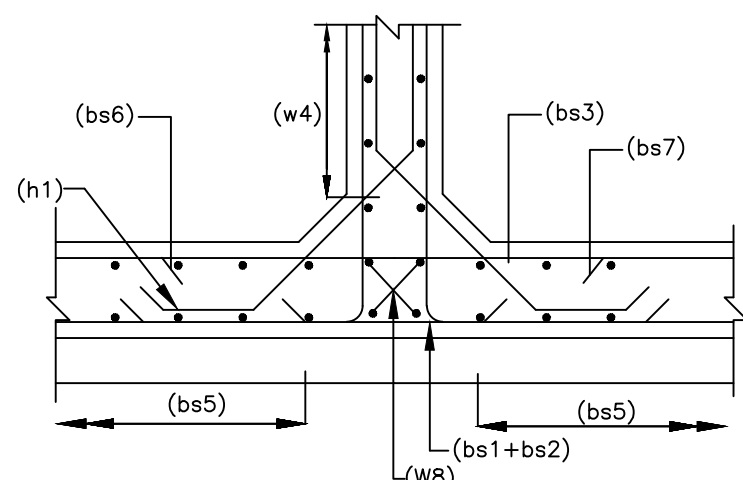
LEGEND:

TOP/NEAR FACE BAR SHOWN THUS ———
BOTTOM/FAR FACE BAR SHOWN THUS - - - - -
VL - VARYING LENGTH

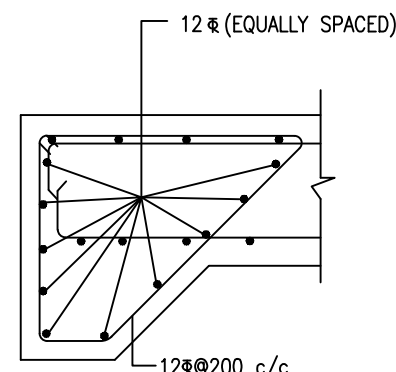
REINFORCEMENT TABLE



DETAIL-B



DETAIL-C



DETAIL-D



Project Title:-

CONSULTANCY SERVICES FOR FEASIBILITY STUDY, PREPARATION OF DETAILED PROJECT REPORT AND PROVIDING PRE-CONSTRUCTION SERVICES FOR UP-GRADATION OF SELECTED ROAD STRETCHES / CORRIDORS TO TWO LANE WITH PAVED SHOULDER NH CONFIGURATION UNDER BHARAT MALA PROJECT AND NATIONAL HIGHWAYS CONNECTIVITY TO BACKWARD AREAS/RELIGIOUS/TOURIST PLACES OF THE COUNTRY IN THE STATE OF TRIPURA.

TELIAMURA - SABROOM SECTION-4

CLIENT:-



NATIONAL HIGHWAYS & INFRASTRUCTURE
DEVELOPMENT CORPORATION LTD

Drawing Title:-

REINFORCEMENT DETAILS DRAWING
OF MINOR BRIDGE AT CH. 59+970

Drawing No. :-

TASPL/NHIDCL/FDPR/GAD/09

Scale :-

AS SHOWN

Drn

Dgn.

Appd

Sheet :

D.S

D.P.S

B.Ram

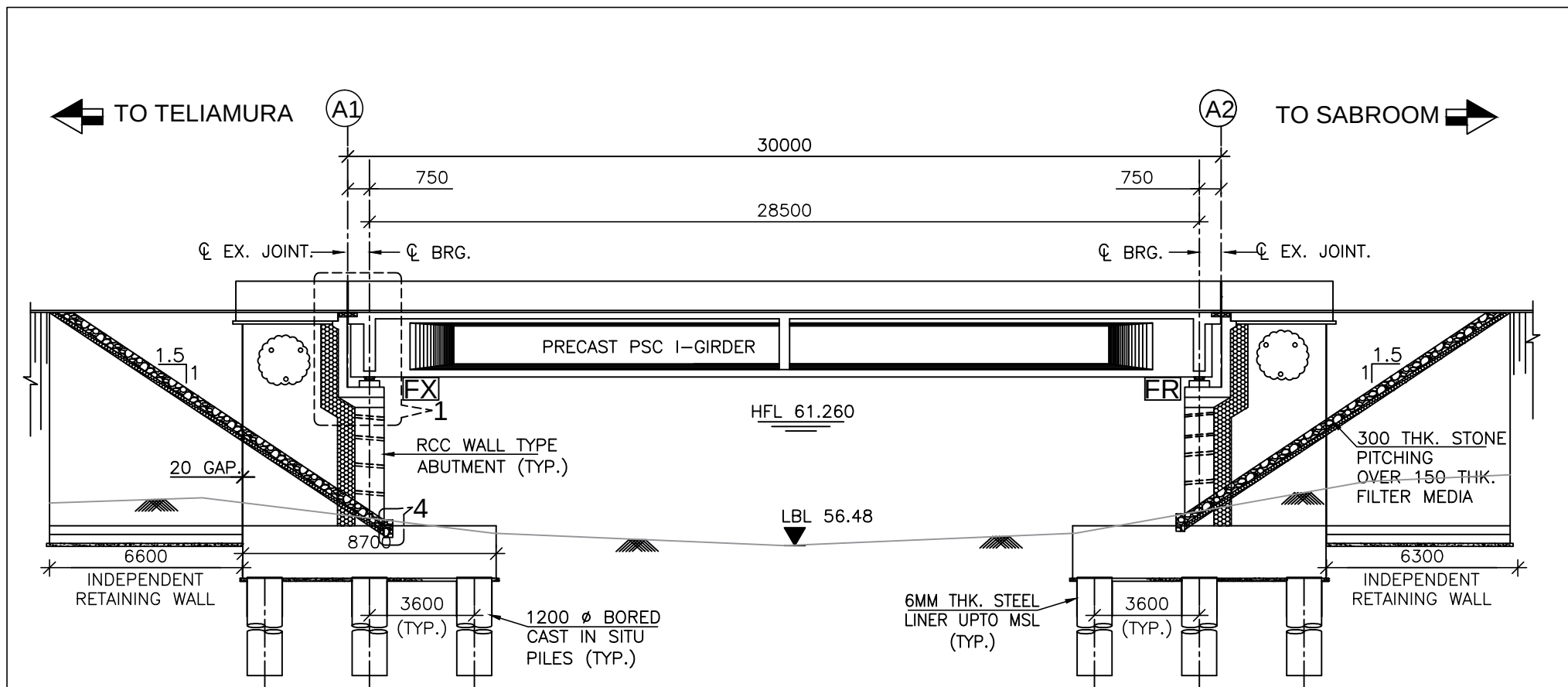
01 OF 01

CONSULTANT:-

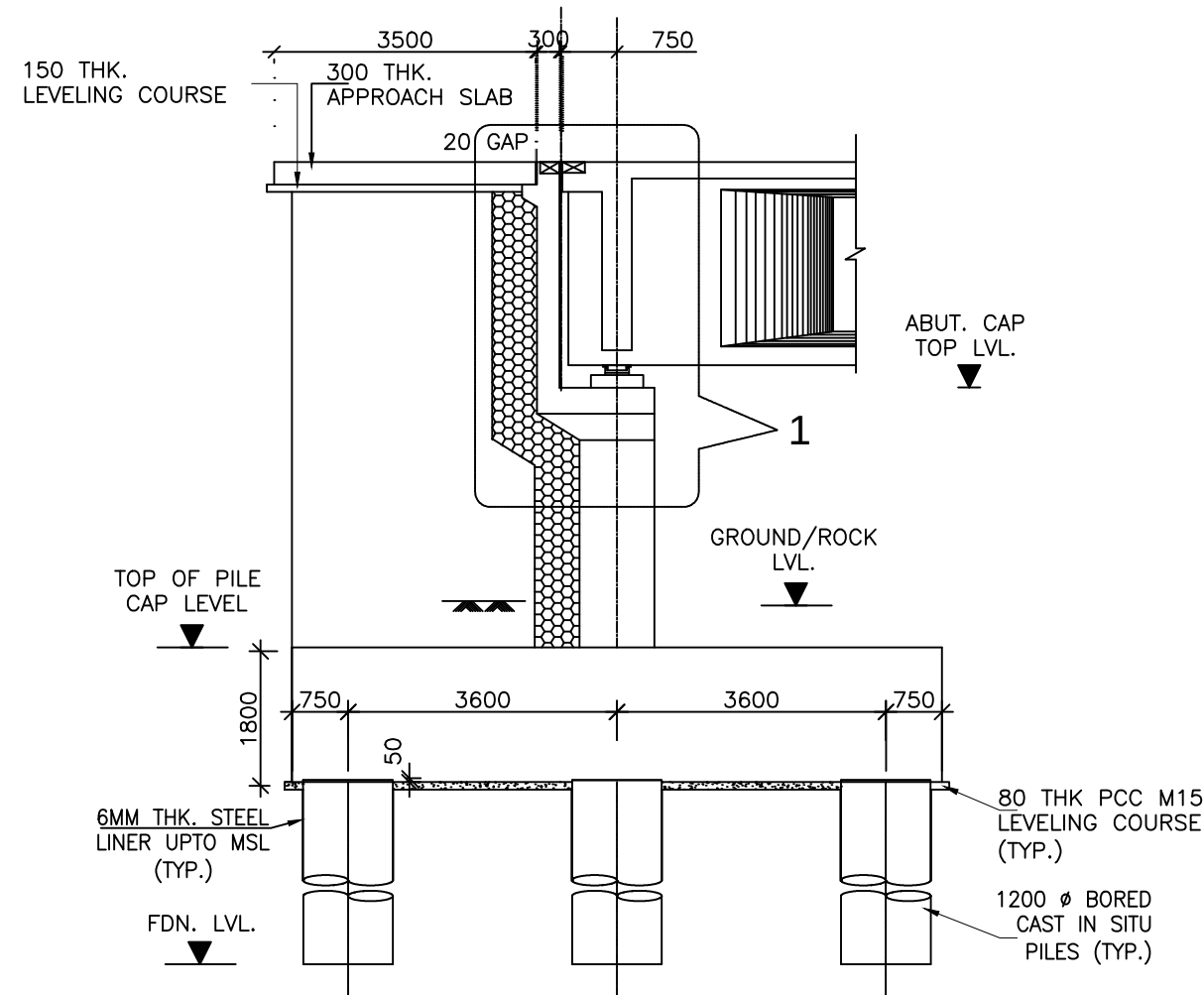


Technocrats Advisory Services Private Limited
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Patparganj Delhi-110092.

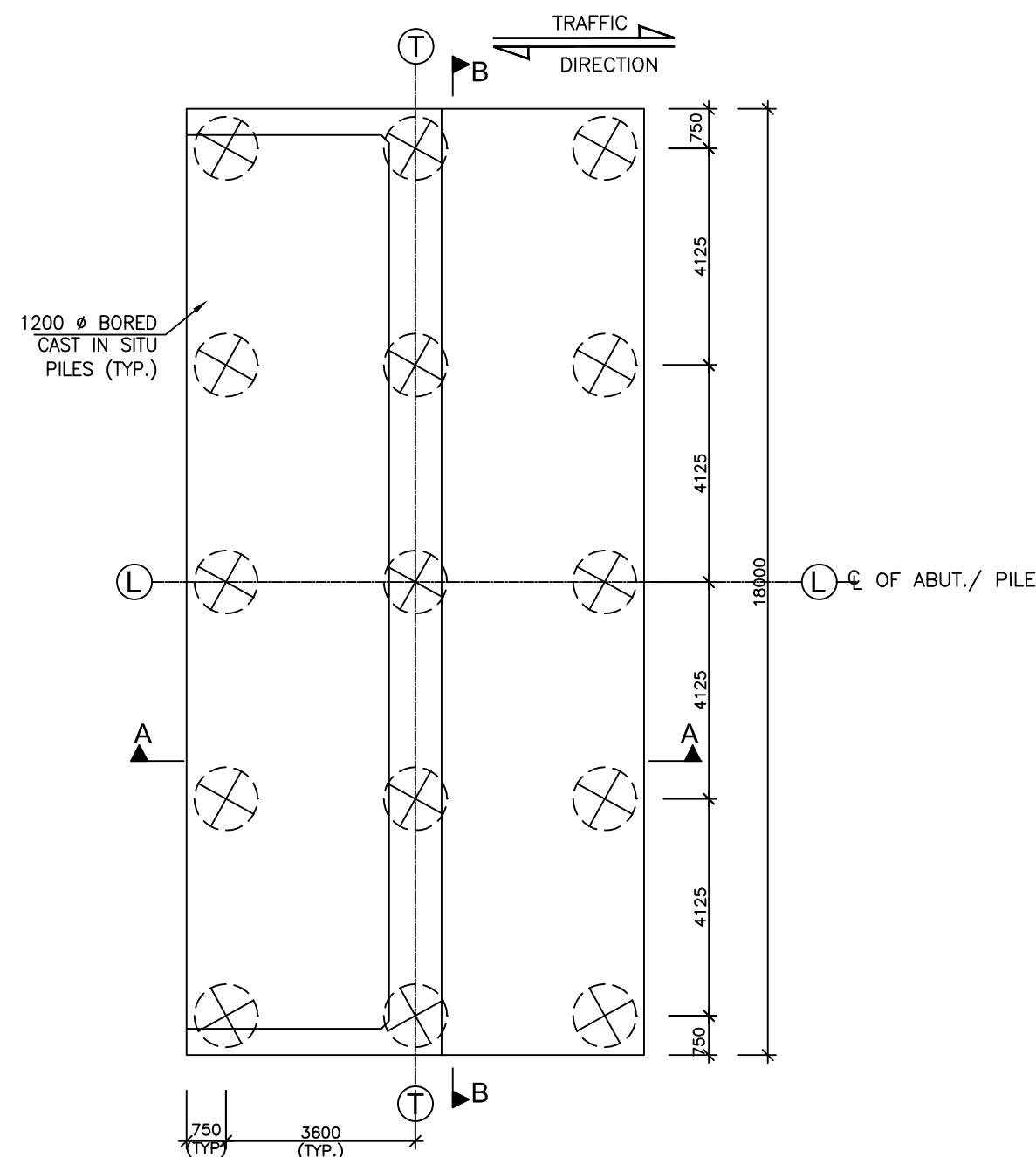
MINOR BRIDGE AT CH. 60+450 (1x30m SPAN) ►



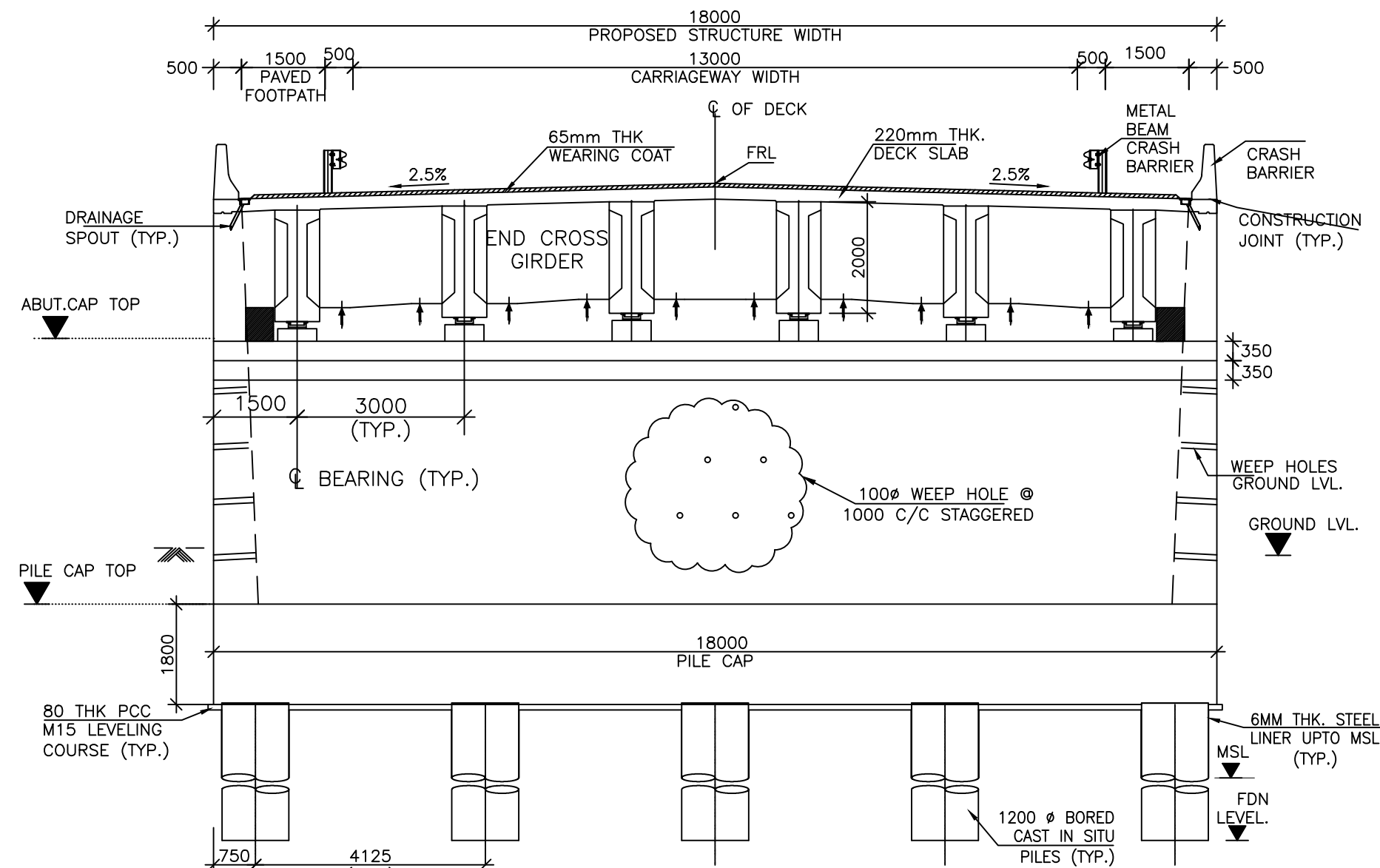
PROPOSED FRL (m)	64.557	64.557
ABT CAP LEVEL (m)	61.922	61.922
GROUND LEVEL (m)	57.423	57.661
PILE CAP TOP LEVEL (m)	55.861	55.861
FOUNDING LEVEL (m)	32.061	32.061
CHAINAGE (Km)	60+435	60+465



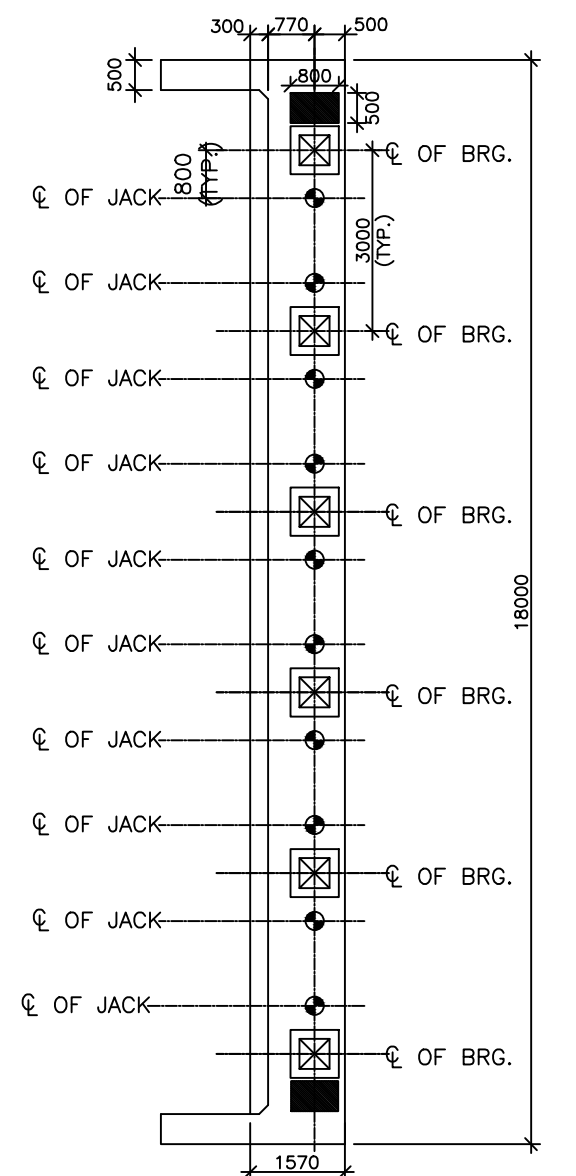
SECTION A-A
(SCALE 1:100)



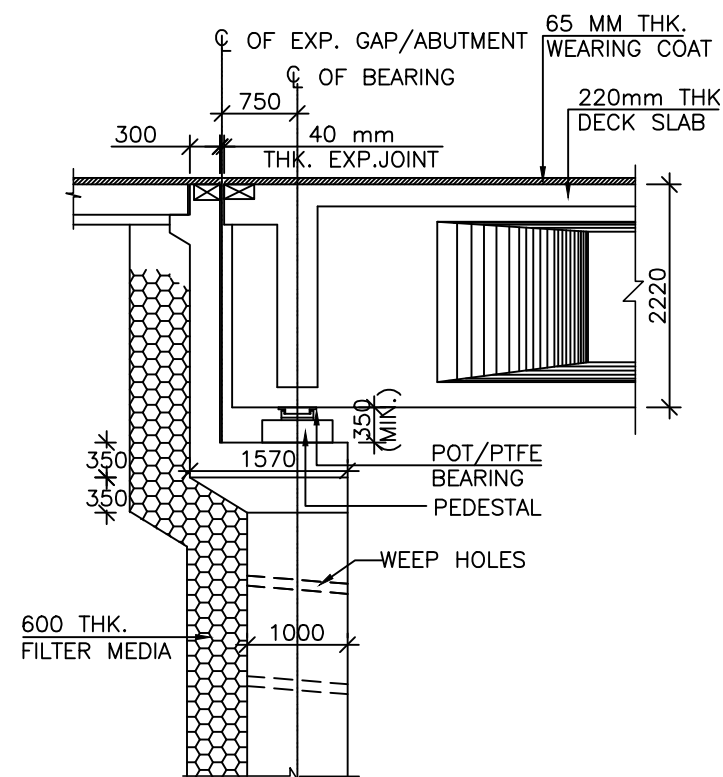
PLAN AT PILE CAP
(SCALE 1:125)



(SECTION B-B)
(SCALE 1:100)



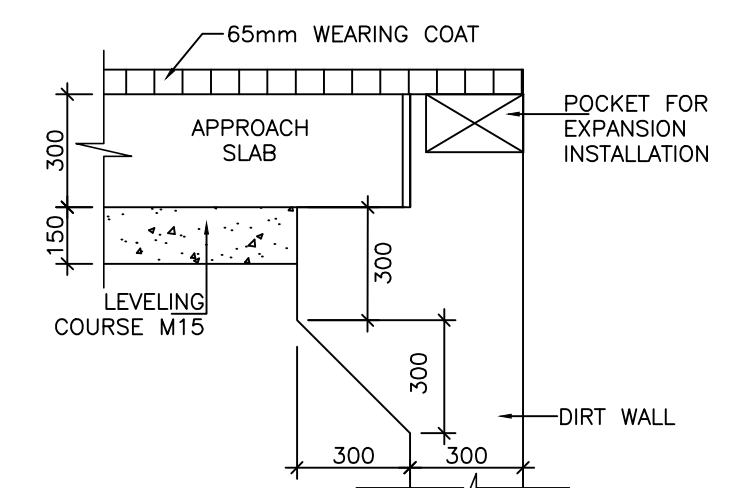
PLAN OF ABUTMENT CAP
(SCALE 1:125)



DETAIL '1'
(SCALE 1:75)

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS, AND LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
2. DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
3. L-L REPRESENTS LONGITUDINAL AXIS OF THE BRIDGE
T-T REPRESENTS TRANSVERSE AXIS OF THE BRIDGE
4. TOP LEVEL OF ABUTMENT CAP HAS BEEN WORKED OUT BY ASSUMING MINIMUM THICKNESS OF BEARING + PEDESTAL AS 0.35m THIS SHALL BE RECONFIRMED FROM THE BEARING MANUFACTURER BEFORE
5. THE LOCATION OF JACK OR LIFTING OF THE SUPERSTRUCTURE TO REPLACE BEARINGS ETC. IS SHOWN |. THIS SHALL BE DISTINCTLY ETCHED FOR EASY IDENTIFICATION ON THE END CROSS GIRDERS AND ABUTMENT CAPS.
7. CAPACITY OF JACKS SHOULD NOT BE LESS THAN 100 TONS.
8. FOLLOWING DESIGN MIX CONCRETE GRADES SHALL BE USED:-
 - i) ABUT. AND ABUT. CAP ---M35
 - ii) PILE AND PILE CAP ---M35
 - iii) RCC CRASH BARRIER ---M40
 - iv) PEDESTAL ---M40
 - v) LEVELLING COURSE ---M15



DETAIL '2'
TYP. DETAIL OF DIRT WALL BRACKET SUPPORTING APPROACH SLAB
SCALE 1:20



Project Title:-

CONSULTANCY SERVICES FOR FEASIBILITY STUDY, PREPARATION OF DETAILED PROJECT REPORT AND PROVIDING PRE-CONSTRUCTION SERVICES FOR UP-GRADATION OF SELECTED ROAD STRETCHES / CORRIDORS TO TWO LANE WITH PAVED SHOULDER NH CONFIGURATION UNDER BHARAT MALA PROJECT AND NATIONAL HIGHWAYS CONNECTIVITY TO BACKWARD AREAS/RELIGIOUS/TOURIST PLACES OF THE COUNTRY IN THE STATE OF TRIPURA.

TELIAMURA - SABROOM SECTION-4

CLIENT:-



NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD

Drawing Title:-

DIMENSIONAL DETAILS OF ABUTMENT CAP & ABUTMENT FOUNDATION

Drawing No. :- TASPL/NHIDCL/FDPR/GAD/09

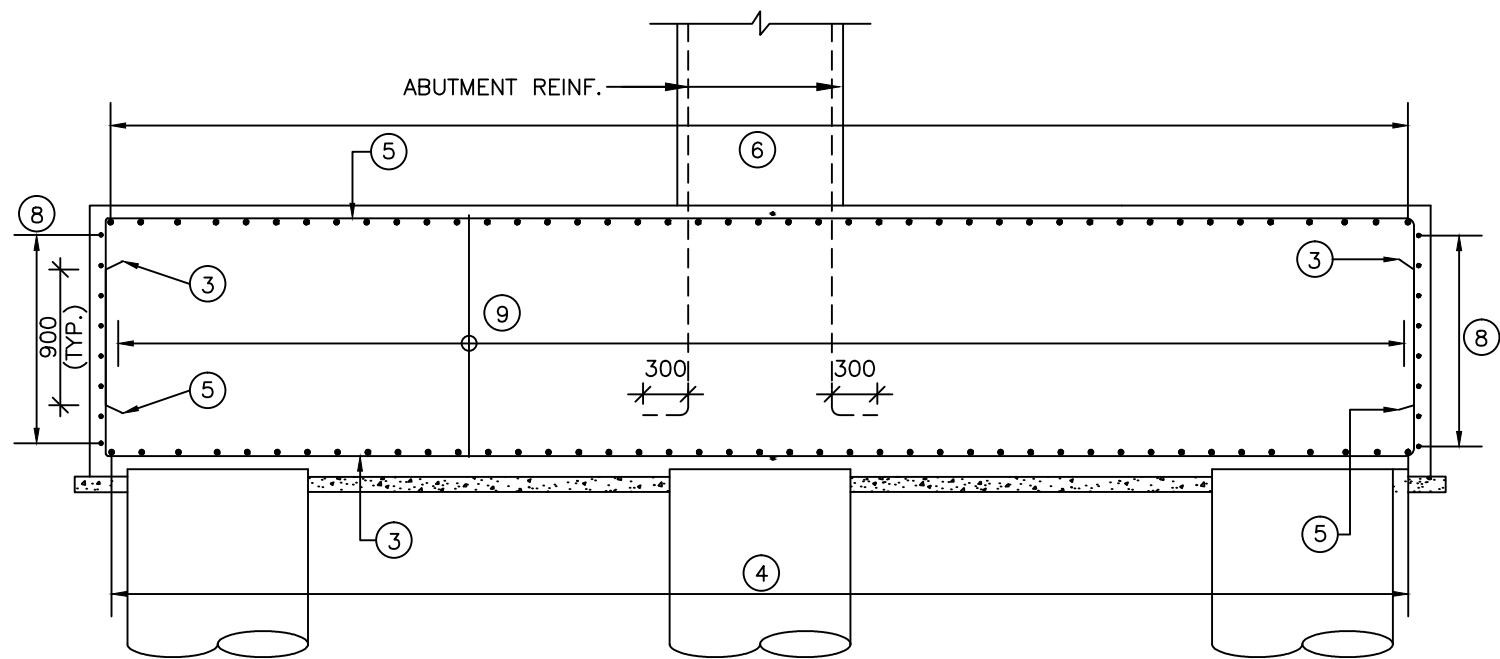
Scale :- AS SHOWN

Drn	Dgn.	Appd	Sheet :
D.S	D.P.S	B.Ram	01 OF 03

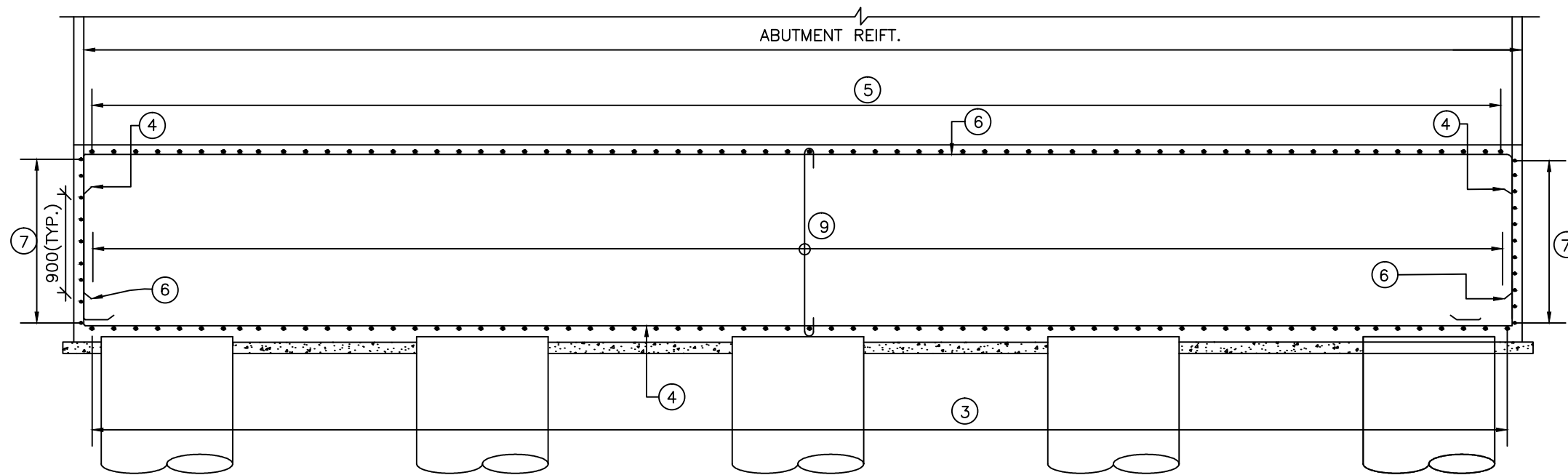
CONSULTANT:-



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68,Ajanta Apartments, 36, I.P. Extension
Patparganj Delhi-110092.



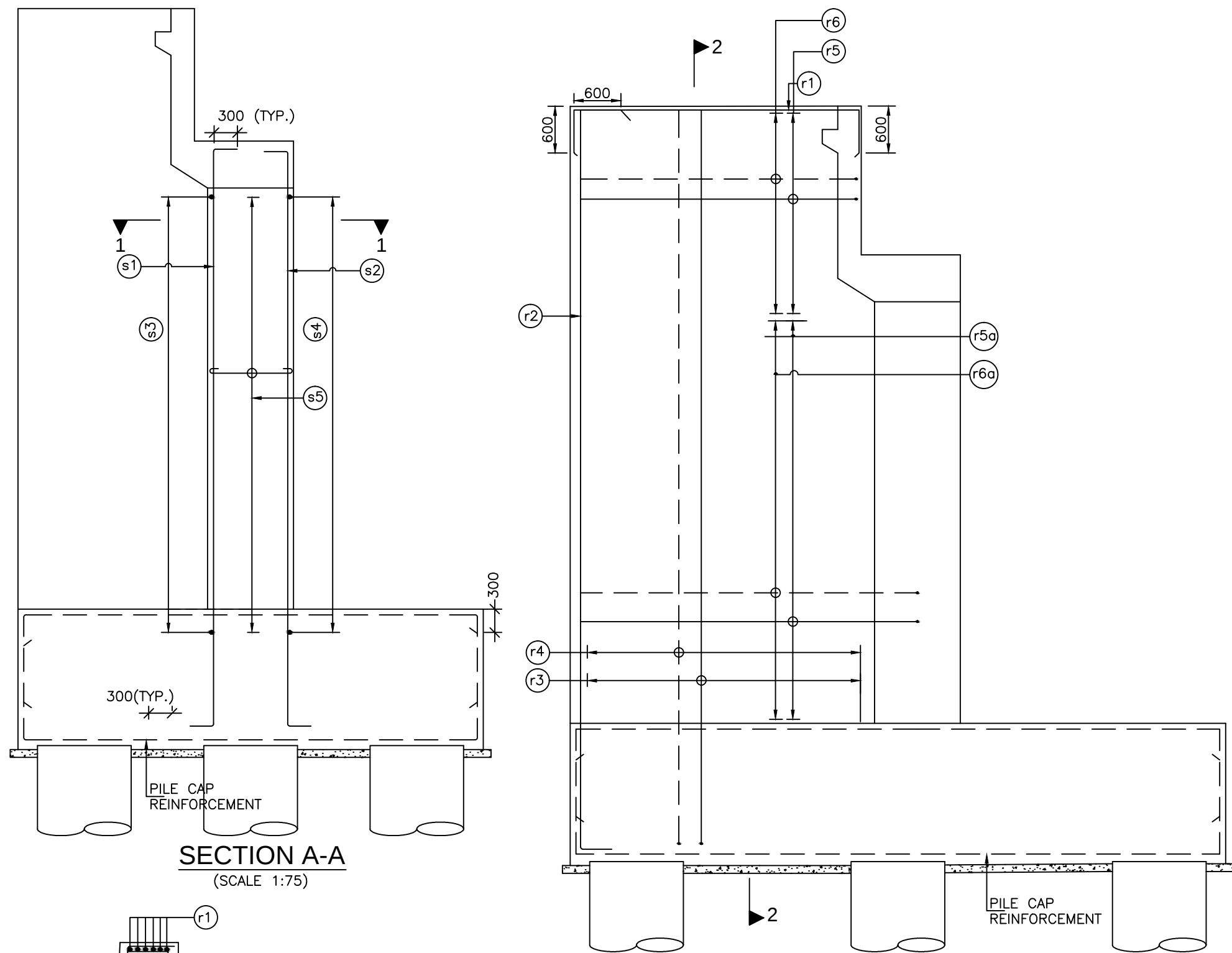
SECTION A-A
(SCALE 1:50)



SECTION B-B
(SCALE 1:50)

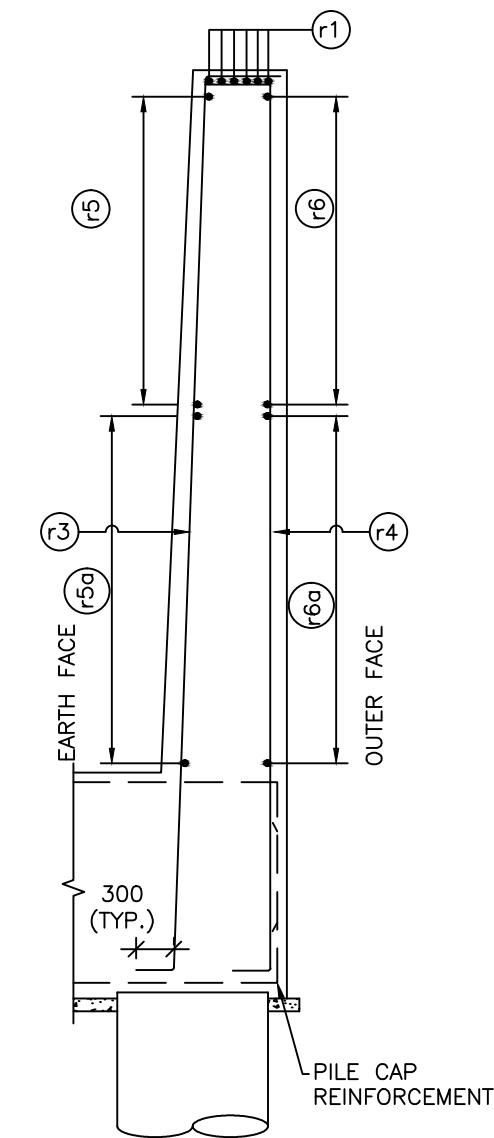
SCHEDULE OF PEDESTAL REINFORCEMENT

BAR MKD.	DIA (mm)	SPACING/Nos.	SHAPE
Pd1	12	75	

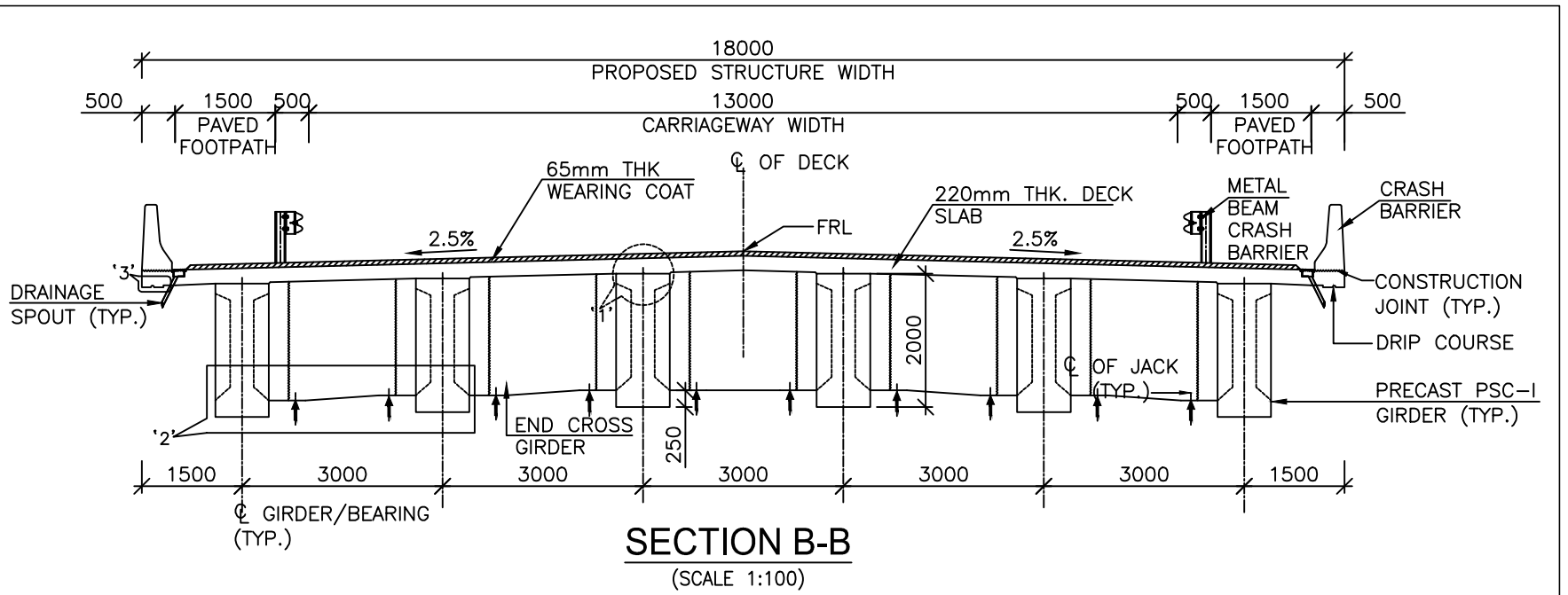
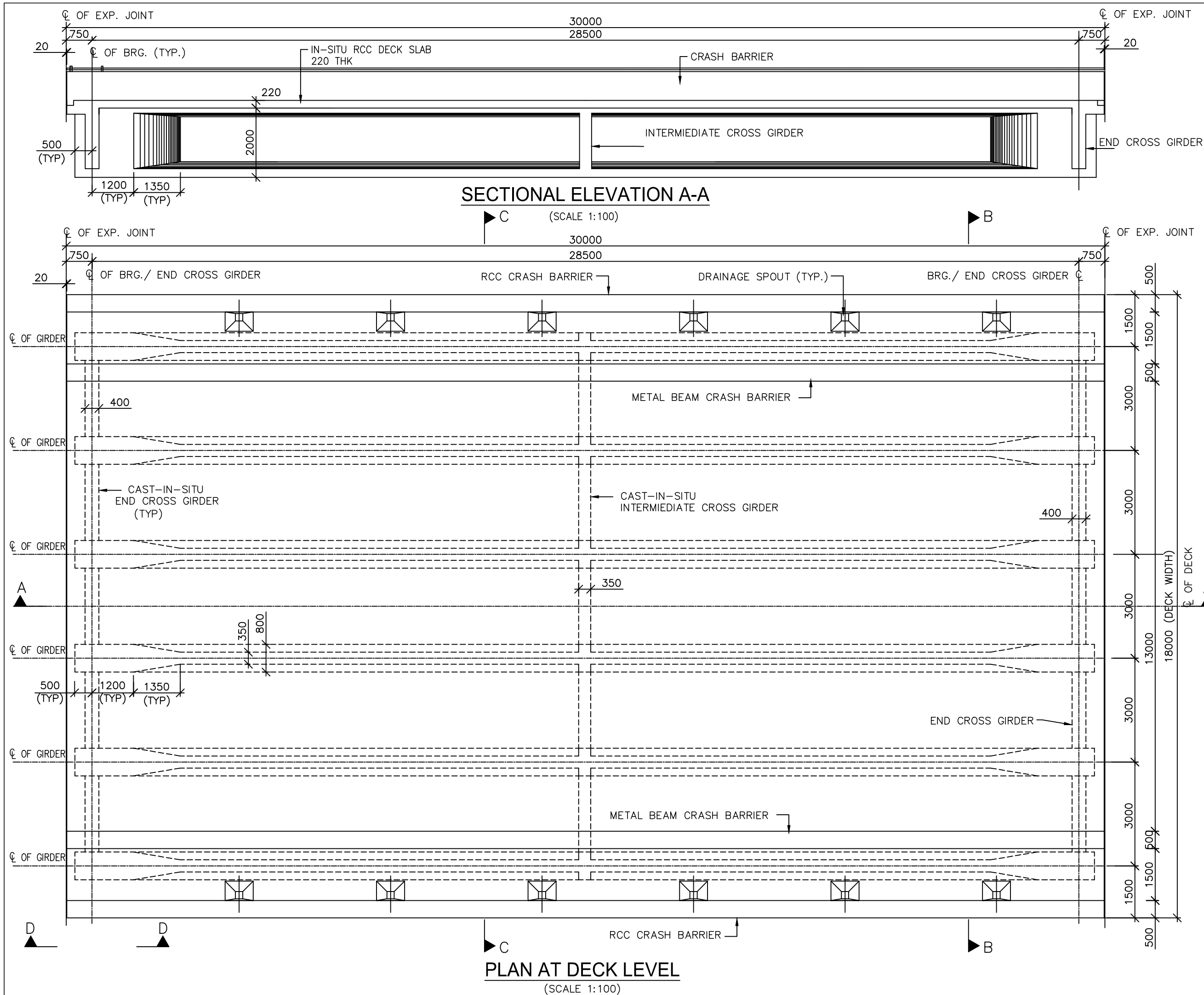


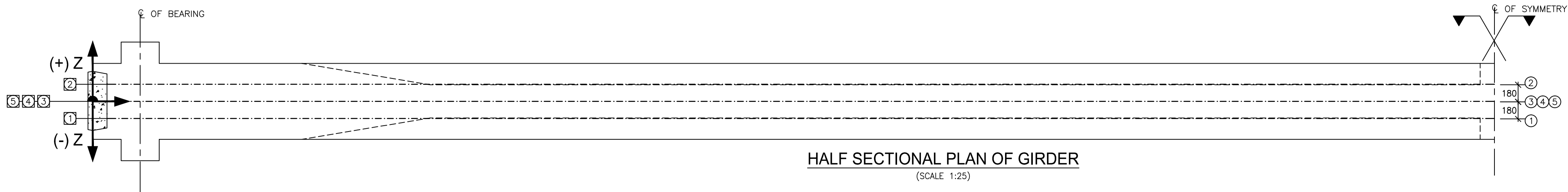
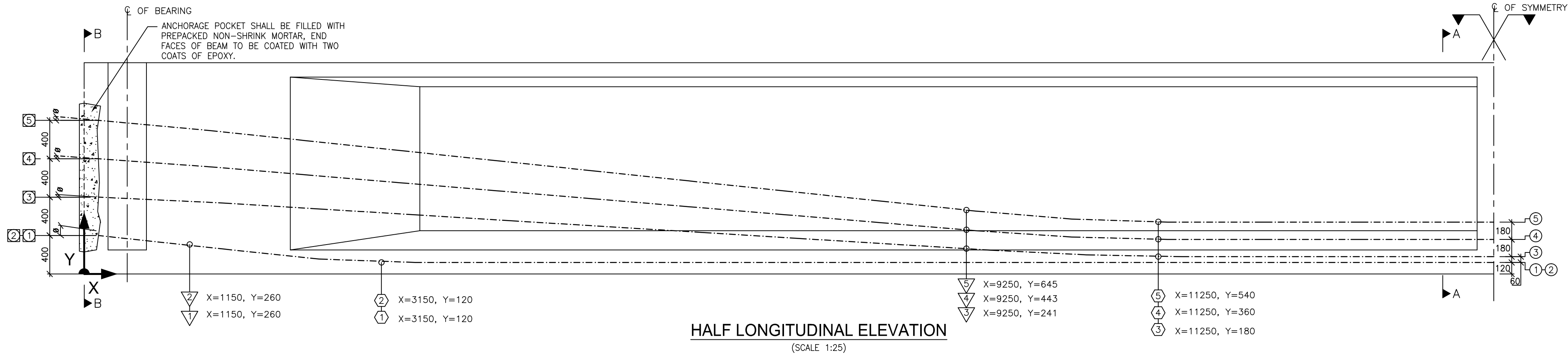
SECTION A-A
(SCALE 1:75)

R/F DETAILS OF RETURN WALL
(SCALE 1:60)



SECTION 2-





PRESTRESSING NOTES:–

1. ALL DIMENSIONS ARE IN MILLIMETERS, LEVELS ARE IN METERS UNLESS OTHERWISE MENTIONED.
2. DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
3. ANY DISCREPANCIES MUST BE BROUGHT TO THE NOTICE OF THE CONSULTANT BEFORE EXECUTION OF WORK AT SITE.

4. PRESTRESSING SYSTEM

- a) ALL PRESTRESSING STRANDS SHALL HAVE 7 PLY UNCOATED STRESS RELIEVED LOW RELAXATION HIGH TENSILE STRANDS OF 15.2mm DIA. CONFORMING TO CLASS 2 OF IS 14268–1995.

b) THE PARAMETERS ADOPTED FOR DESIGN ARE AS FOLLOWS:–

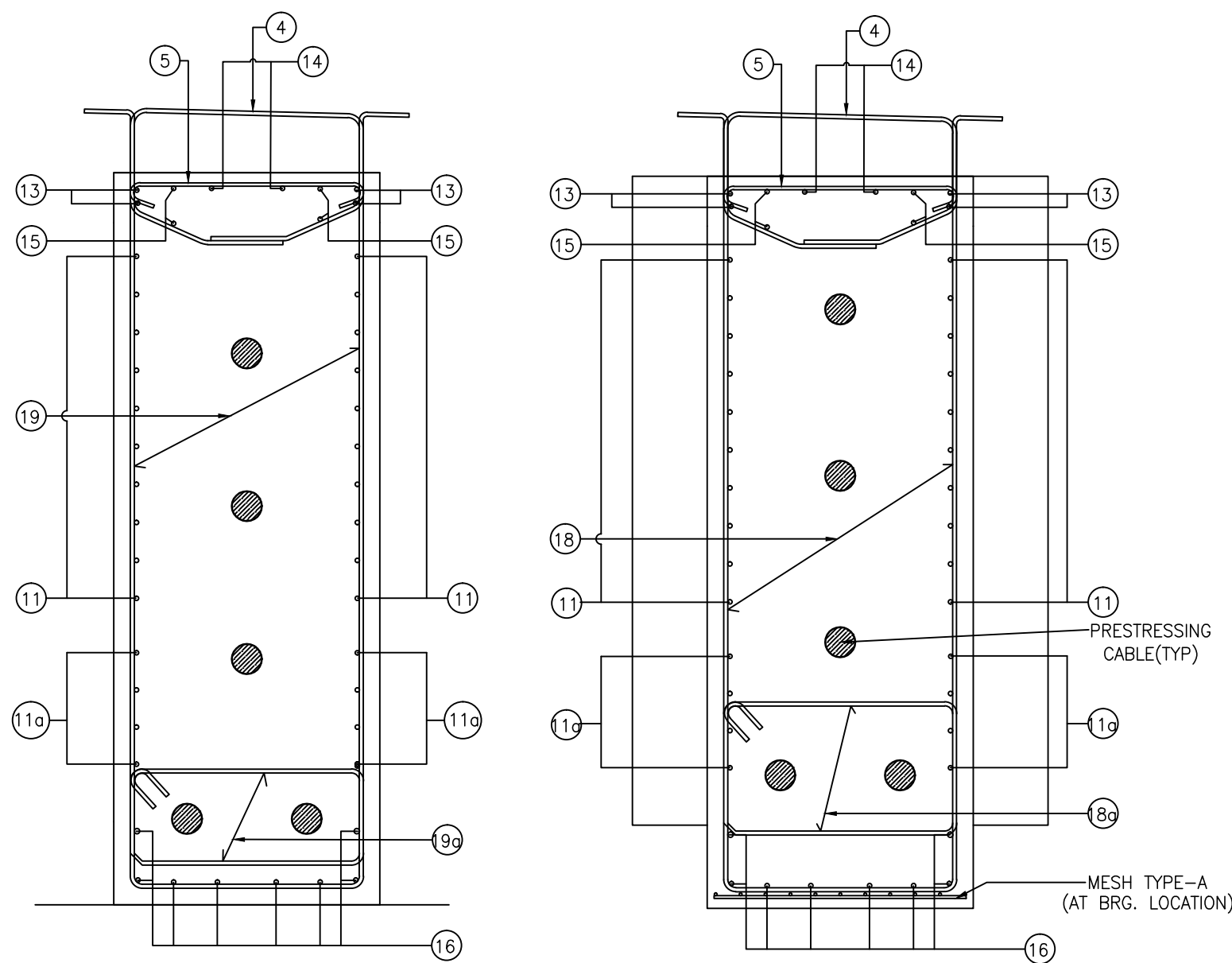
i) ANCHORAGE TYPE -----12 K 15

ii) SLIP AT EACH END ----- 6mm

iii) CO–EFFICIENT OF FRICTION(μ) ----- 0.17/ RADIAN

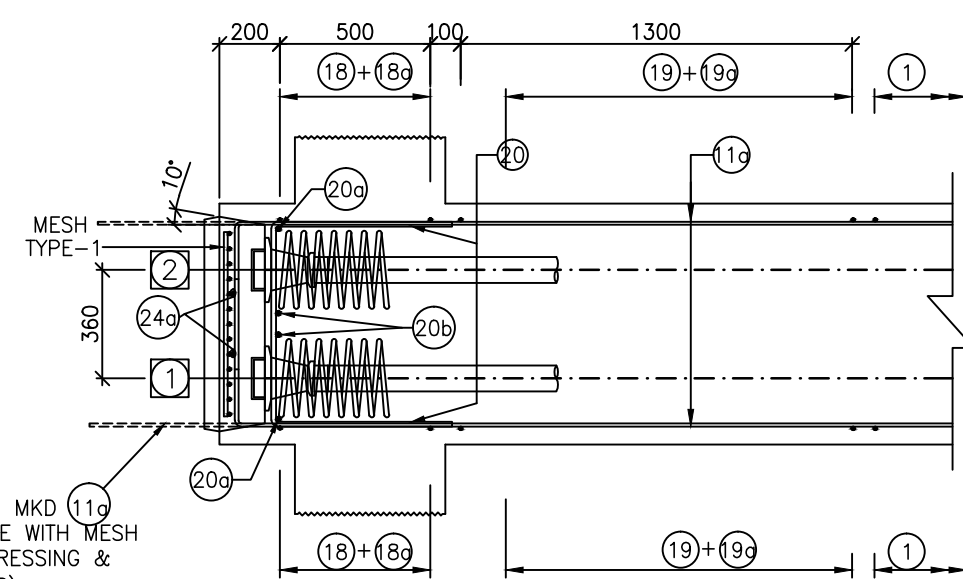
iv) WOBBLE CO–EFFICIENT (K)----- 0.0020/m

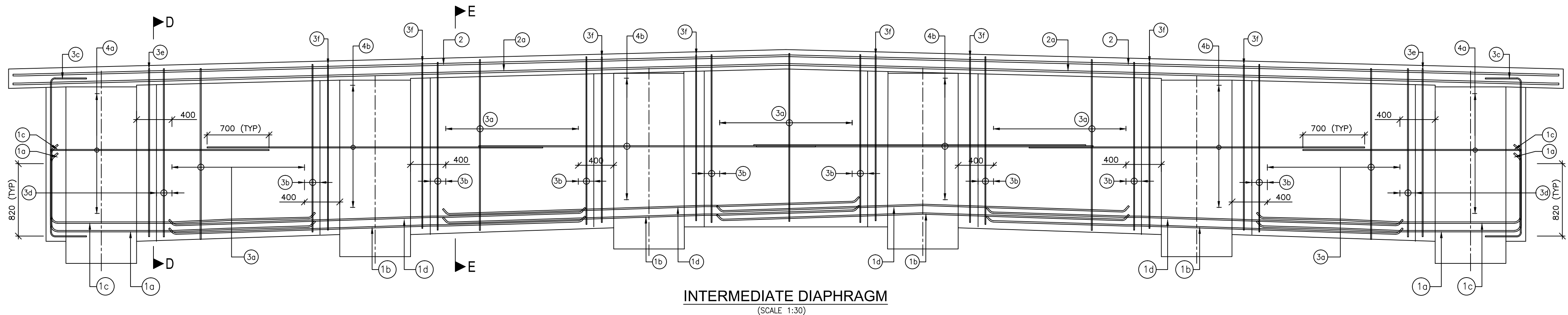
v) NOMINAL AREA OF EACH STRAND ----- 140 sq.mm



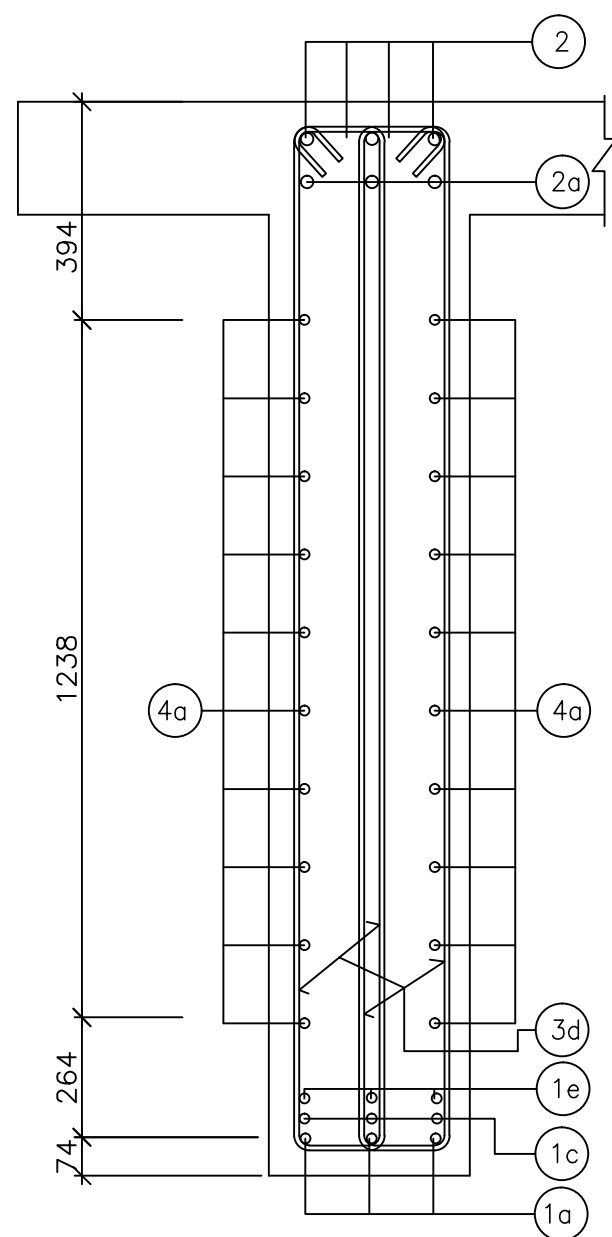
SECTION D-D
(SCALE 1:15)

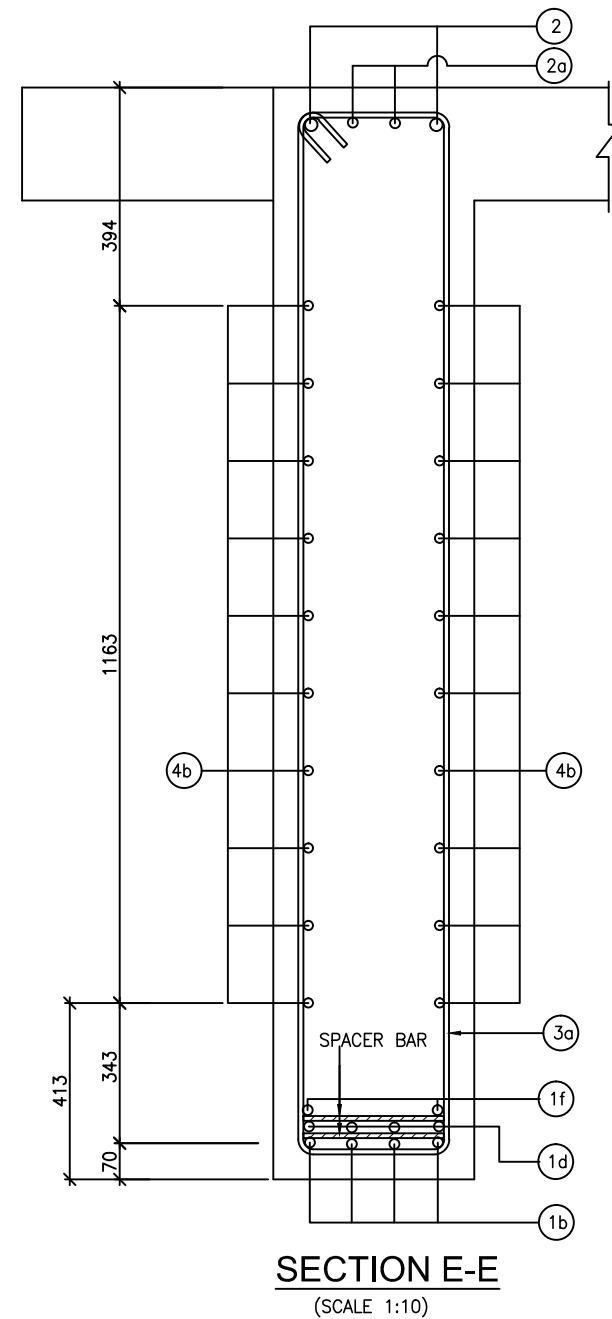
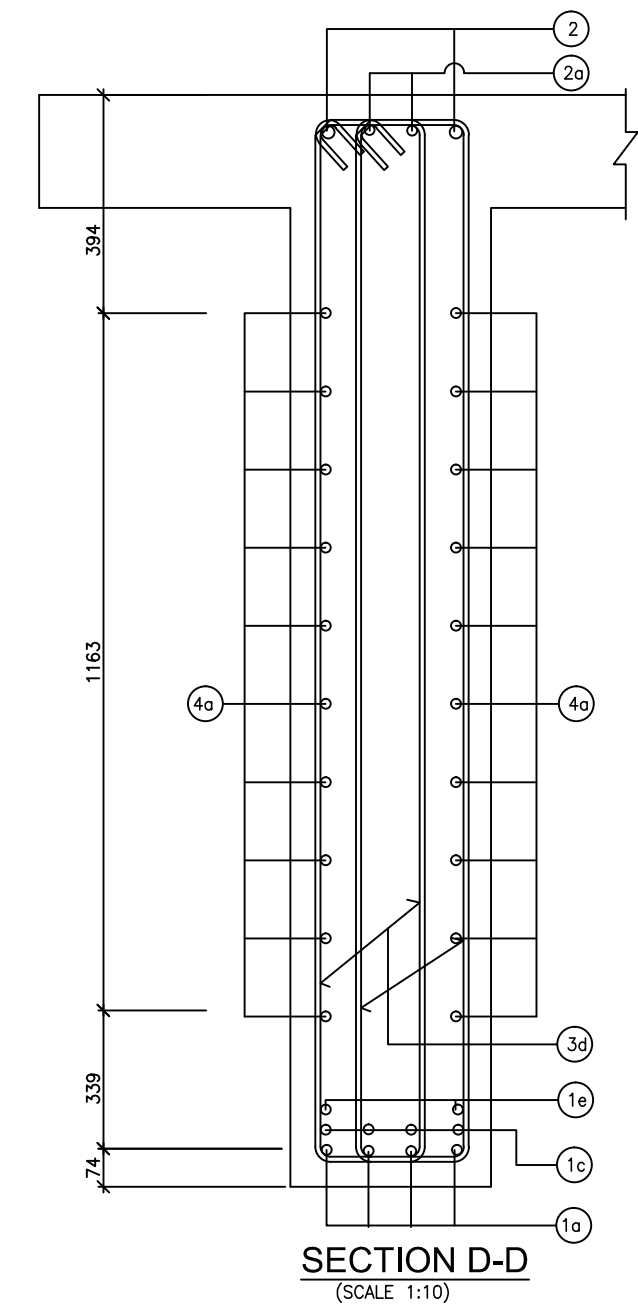
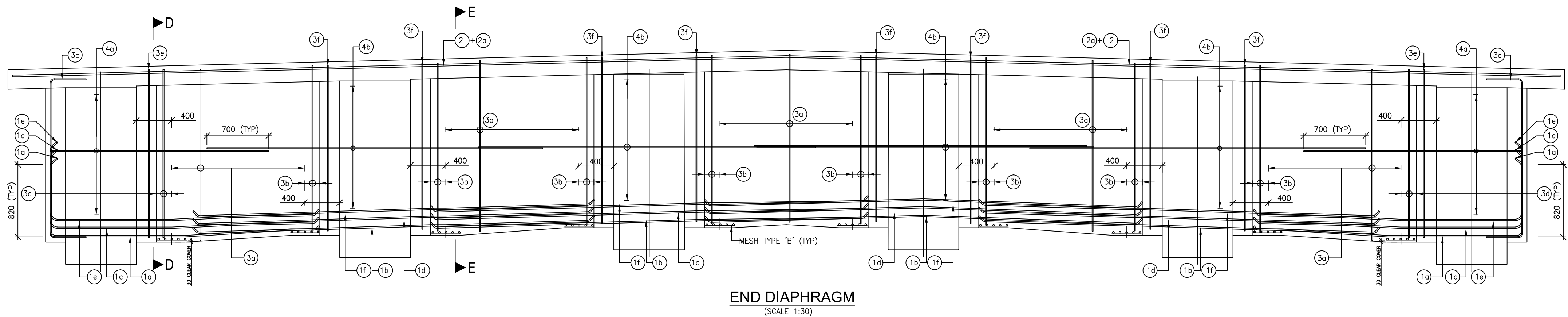
SECTION E-E
(SCALE 1:15)



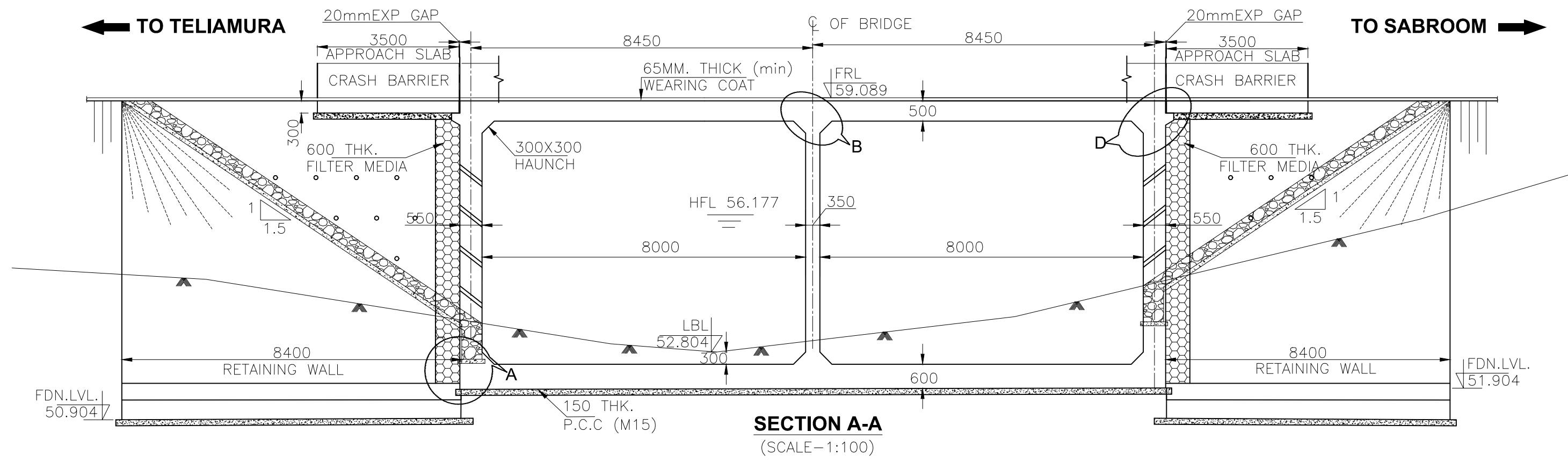


INTERMEDIATE DIAPHRAGM
(SCALE 1:30)

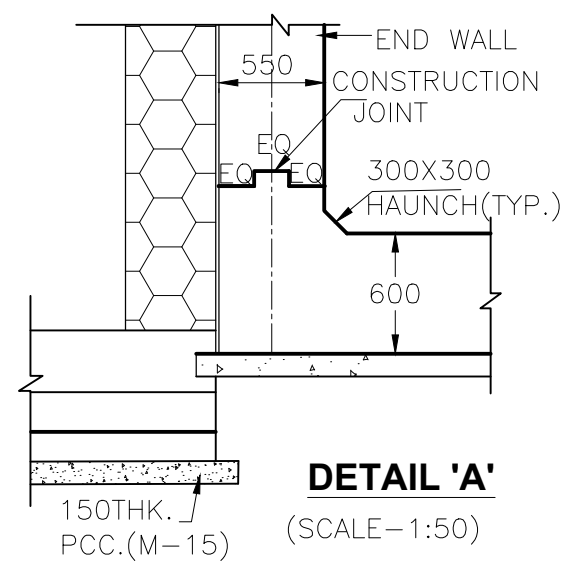


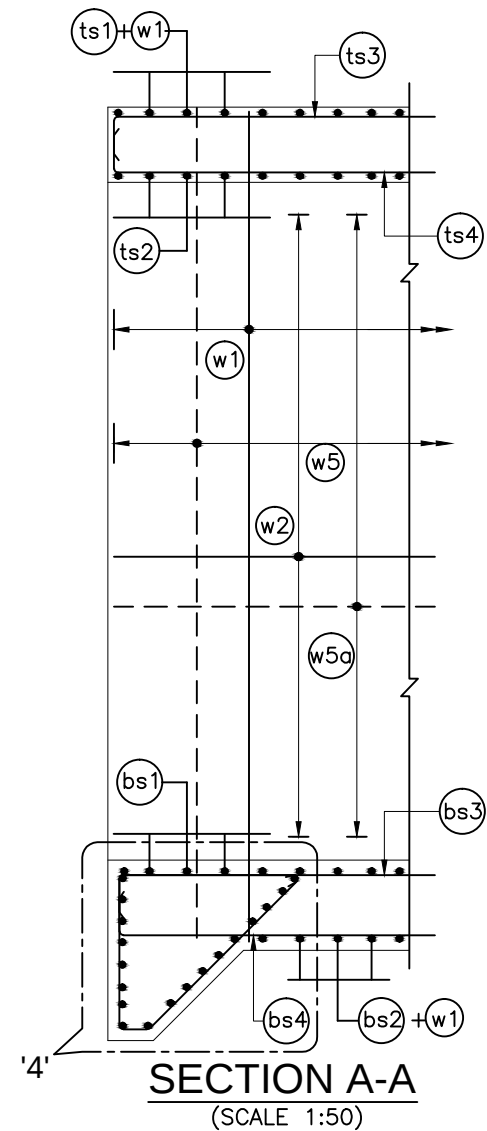
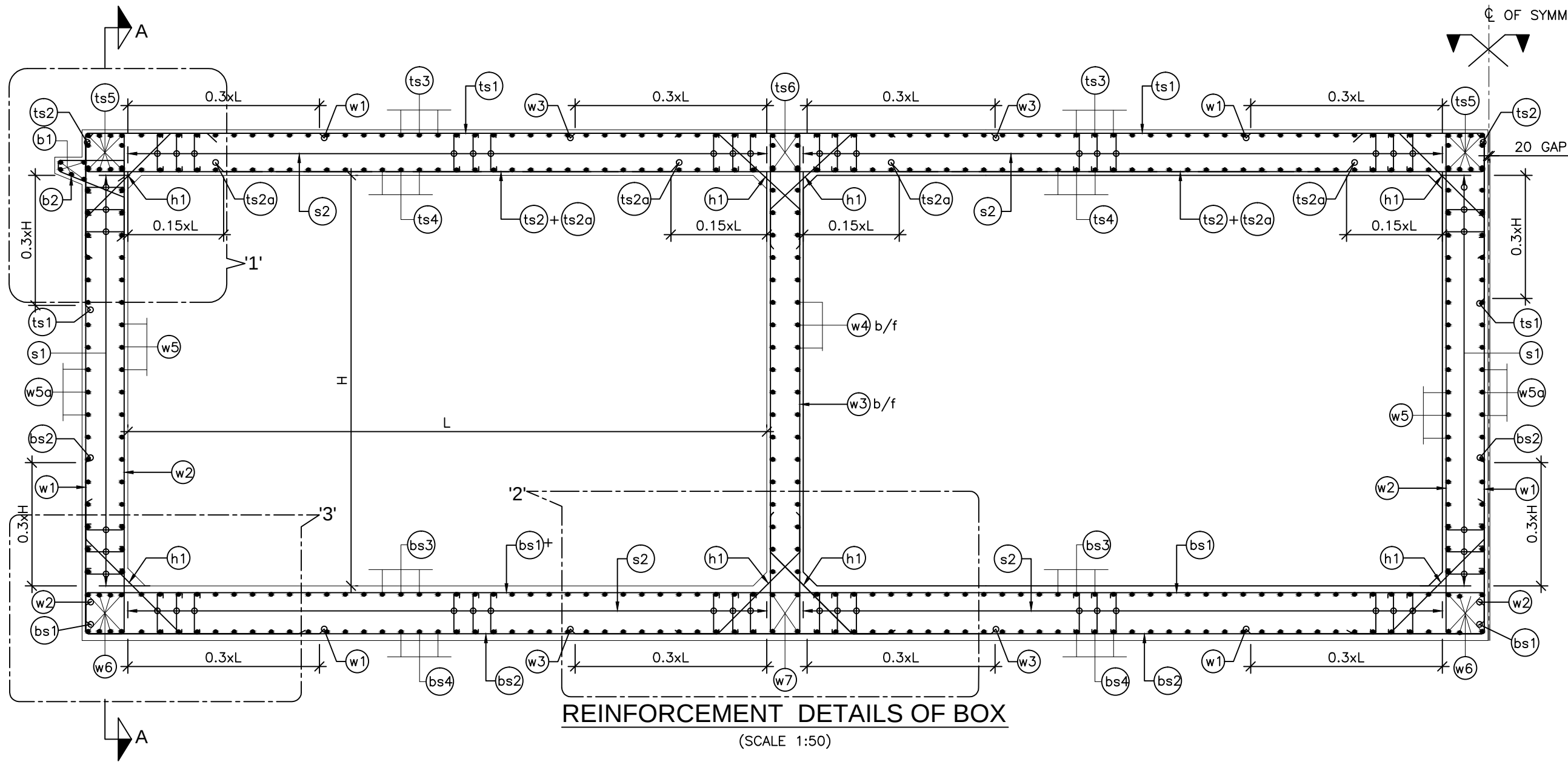


MINOR BRIDGE AT CH. 62+625 (2X8.0m SPAN) ►

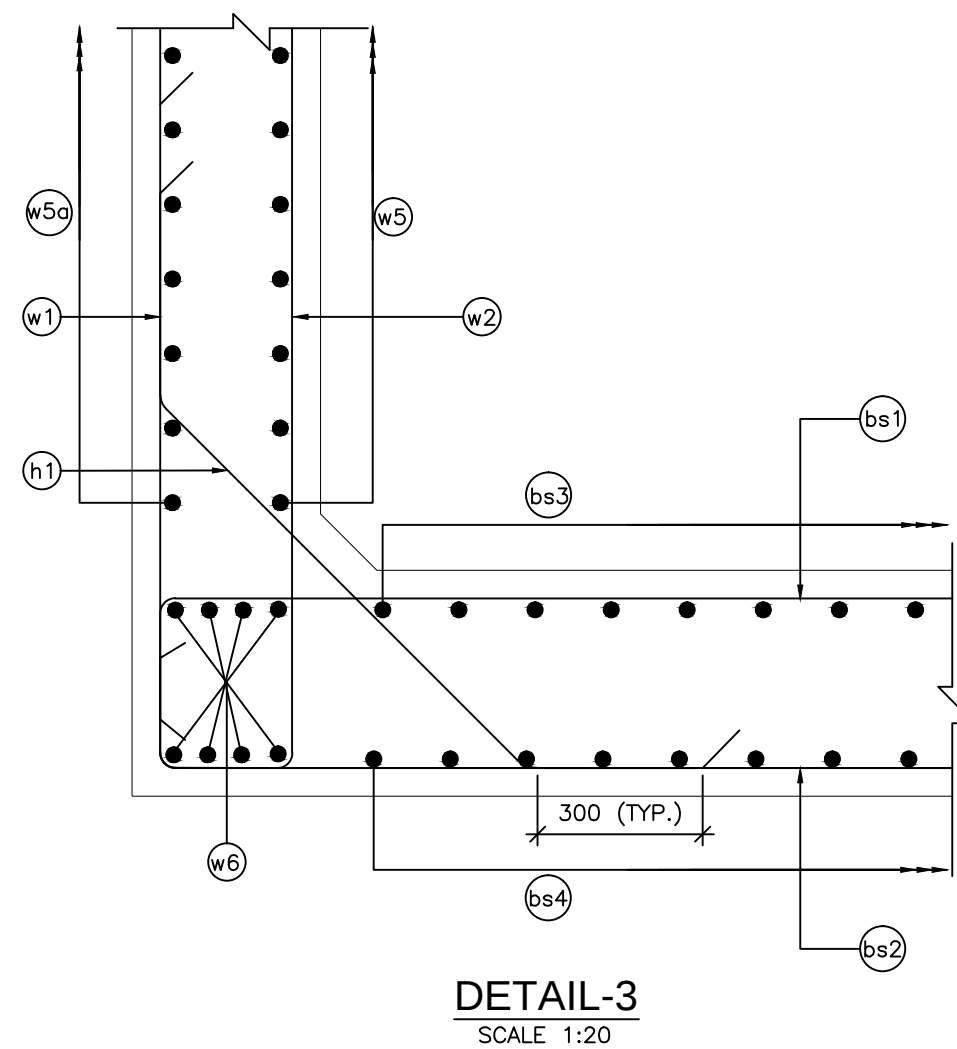
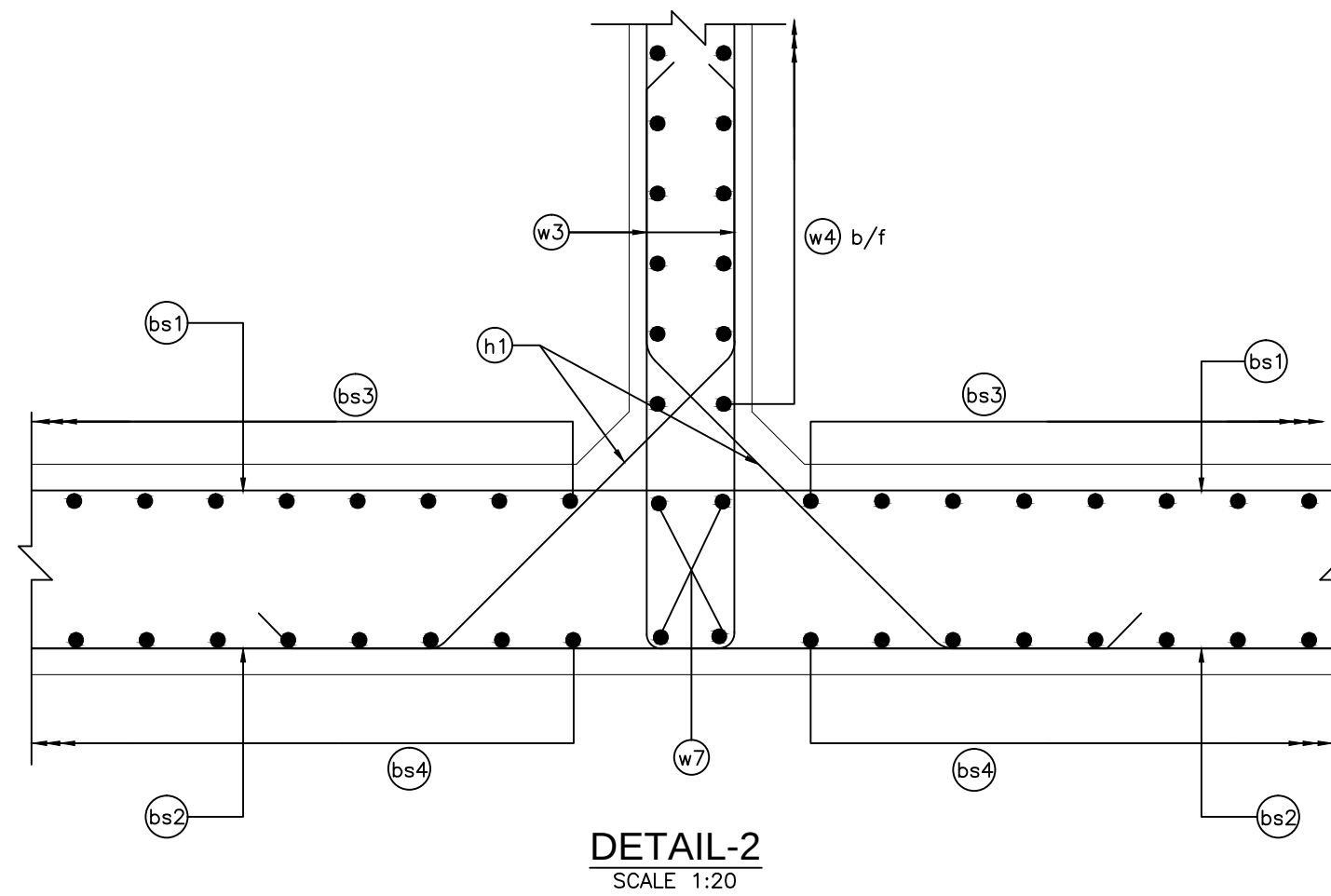
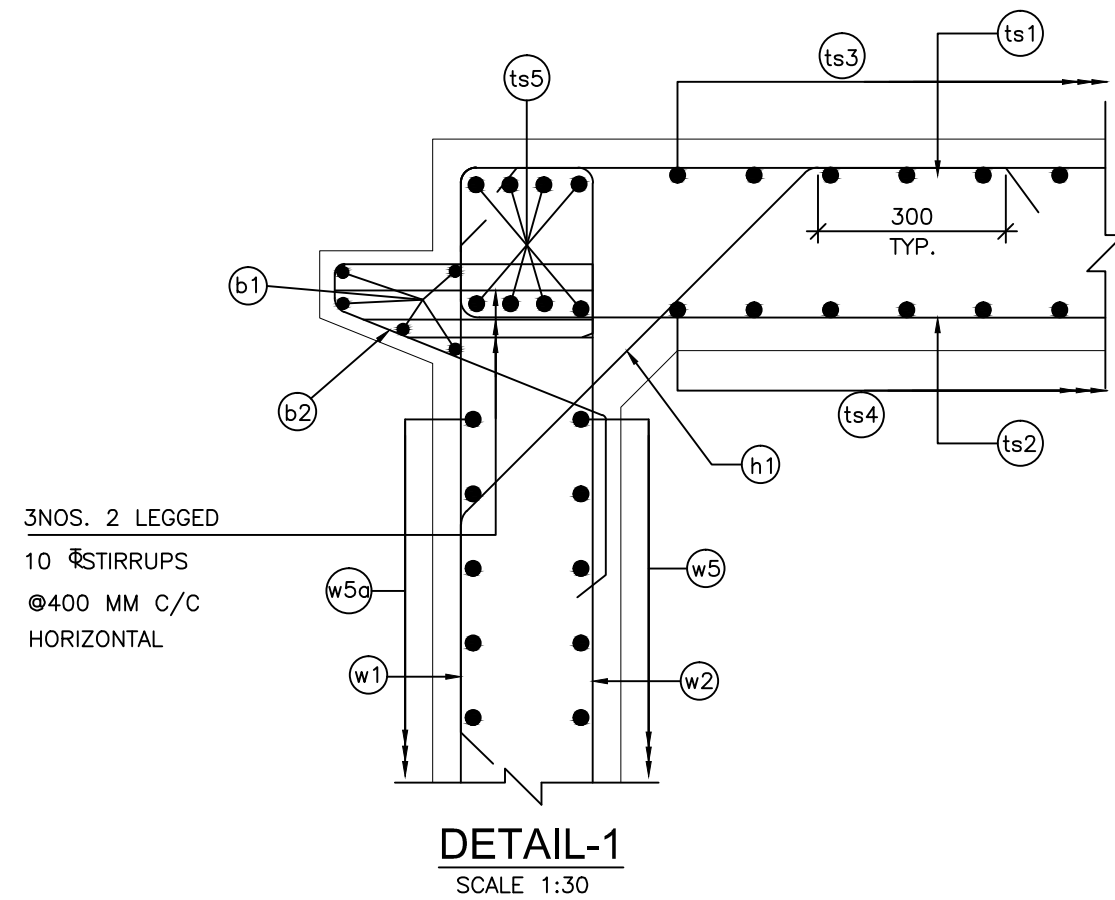


FRL LEVEL	59.089	59.089	59.089
GROUND (M.)	53.530	53.070	52.756
CHAINAGE (M.)	62+616.55	62+625	62+633.45

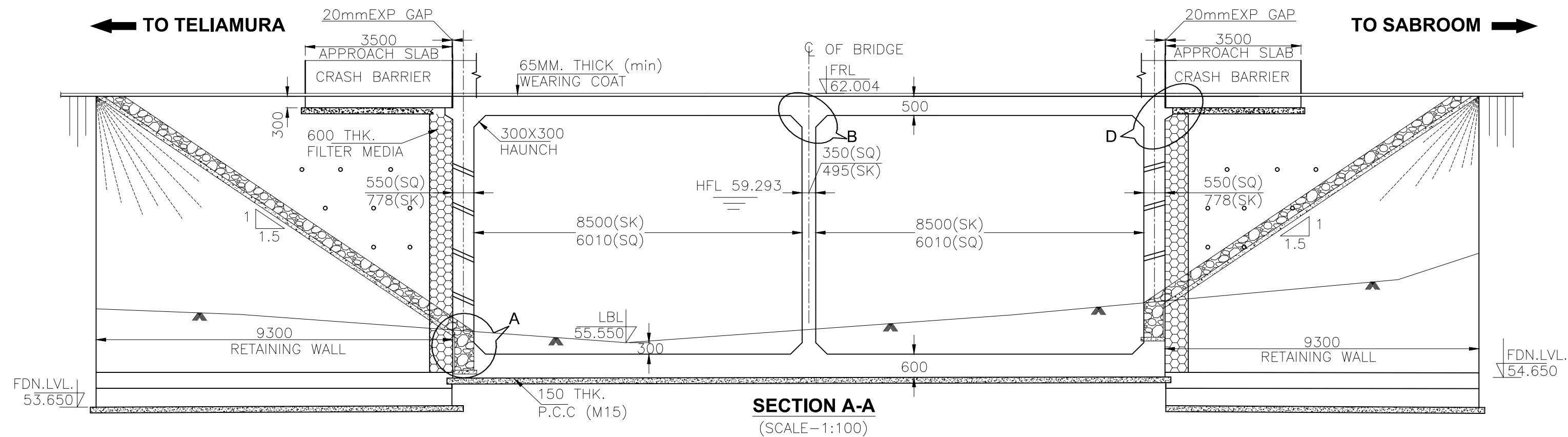




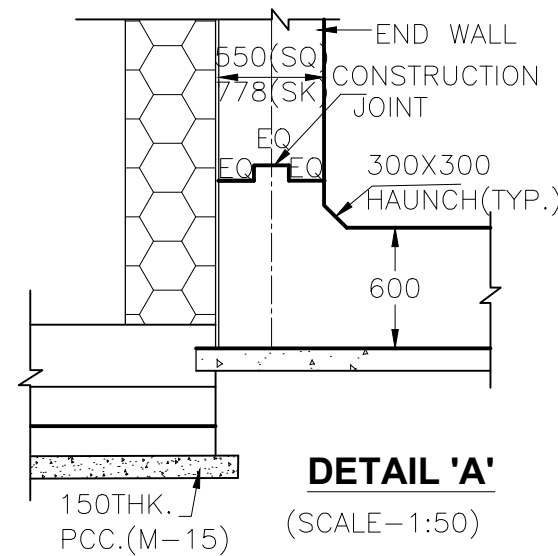
- NOTES:**
-



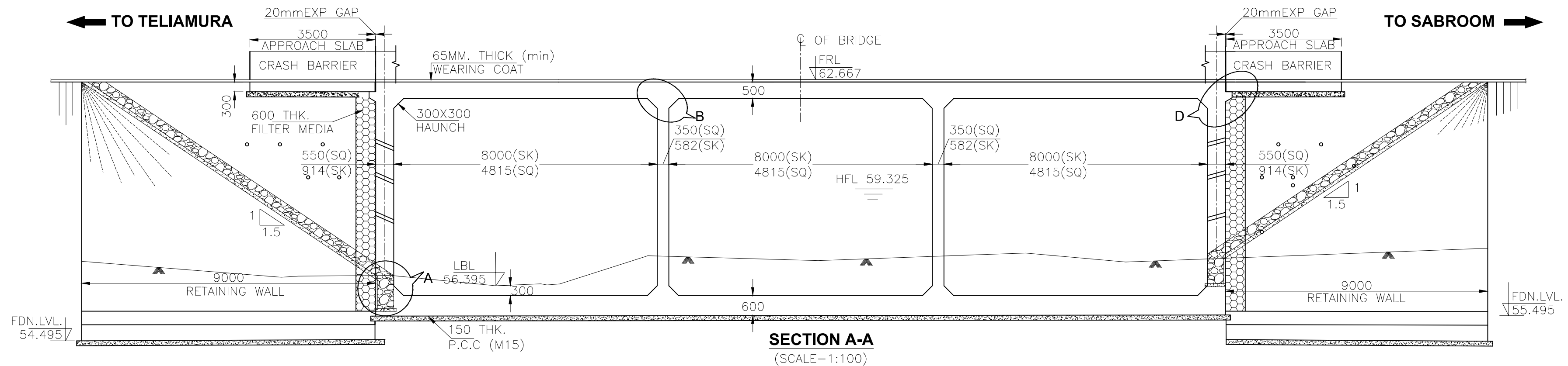
MINOR BRIDGE AT CH. 63+780 (2X8.5m SPAN) ►



FRL LEVEL	62.004	62.004	62.004
GROUND (M.)	55.672	55.679	55.981
CHAINAGE (M.)	63+771.05	63+780	63+788.950

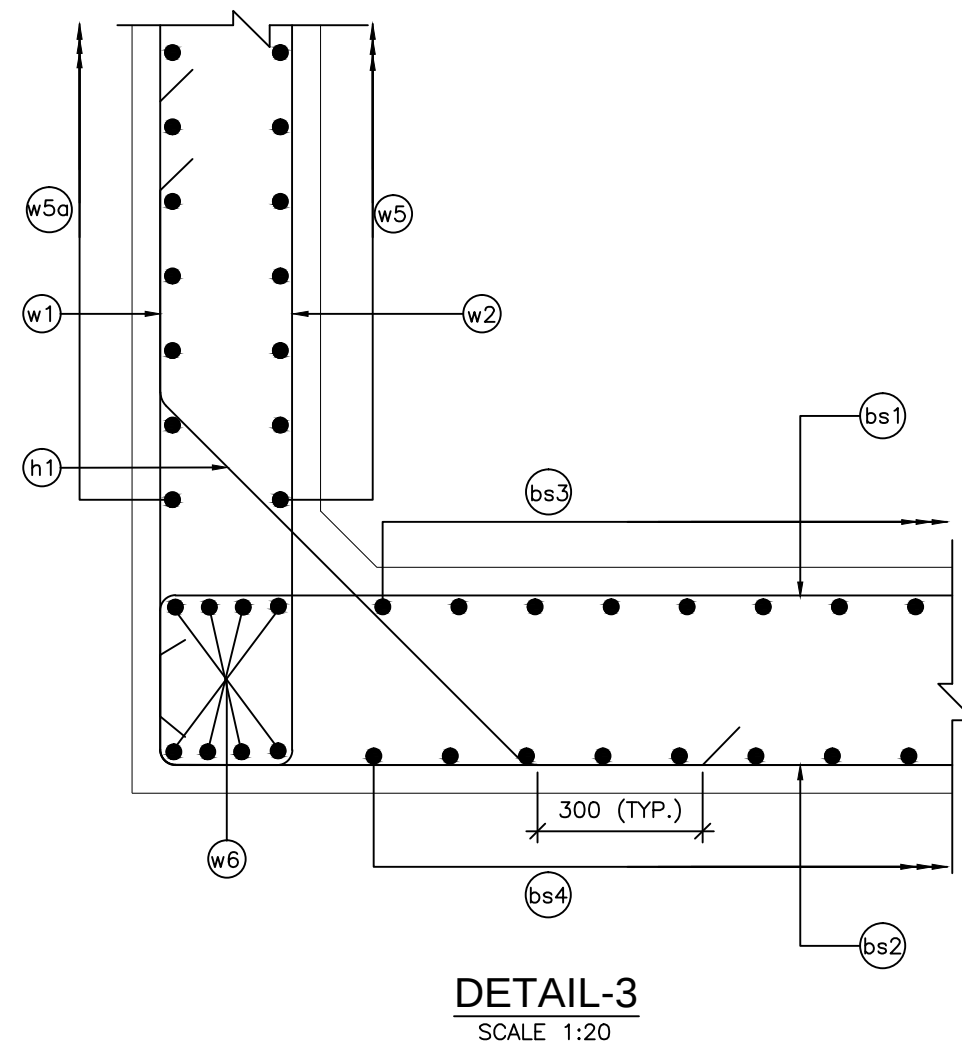
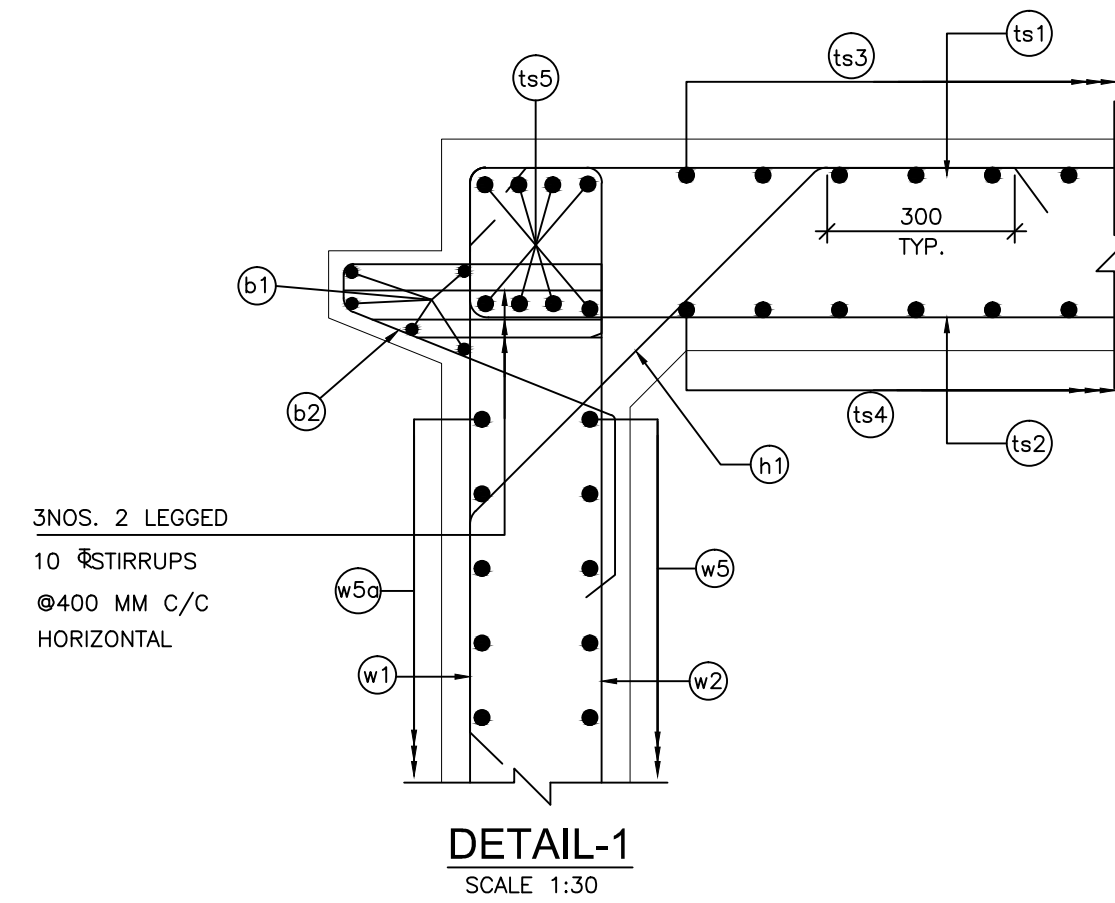
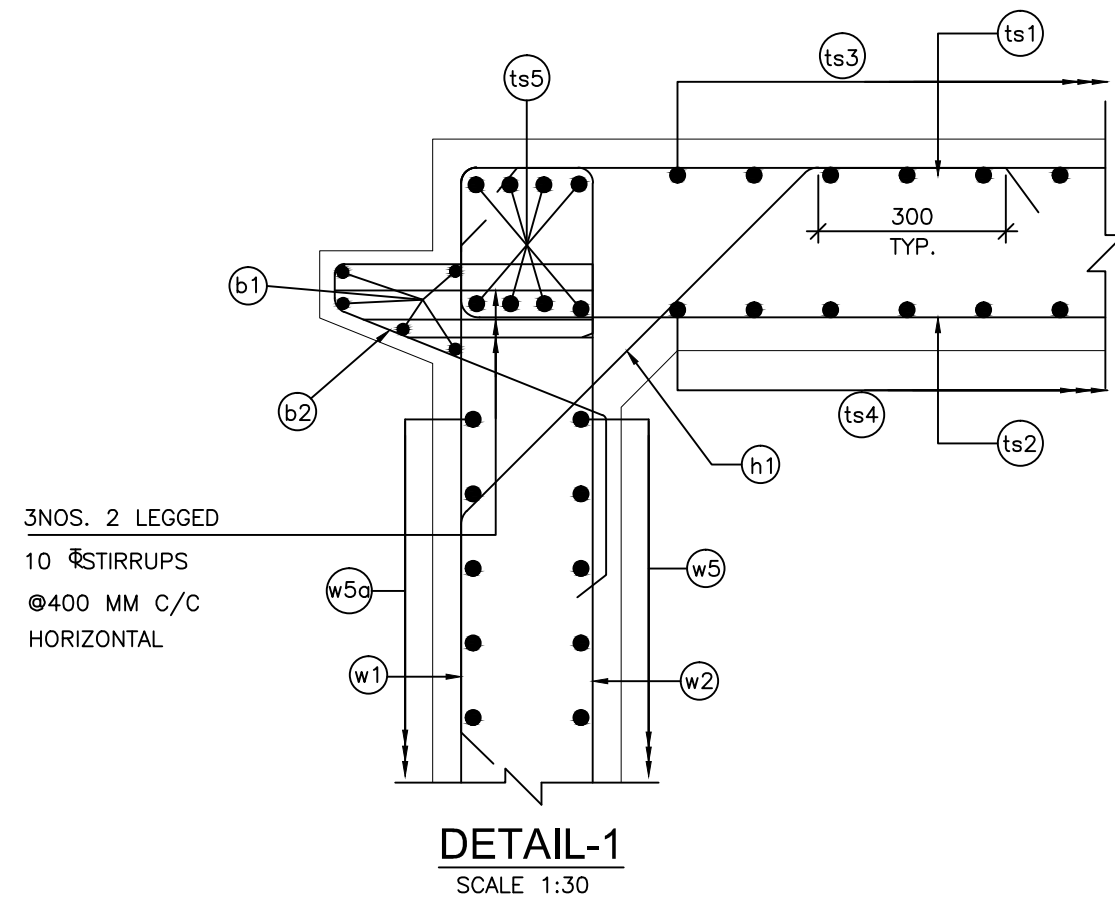


MINOR BRIDGE AT CH. 64+045 (3X8.0m SPAN) ►

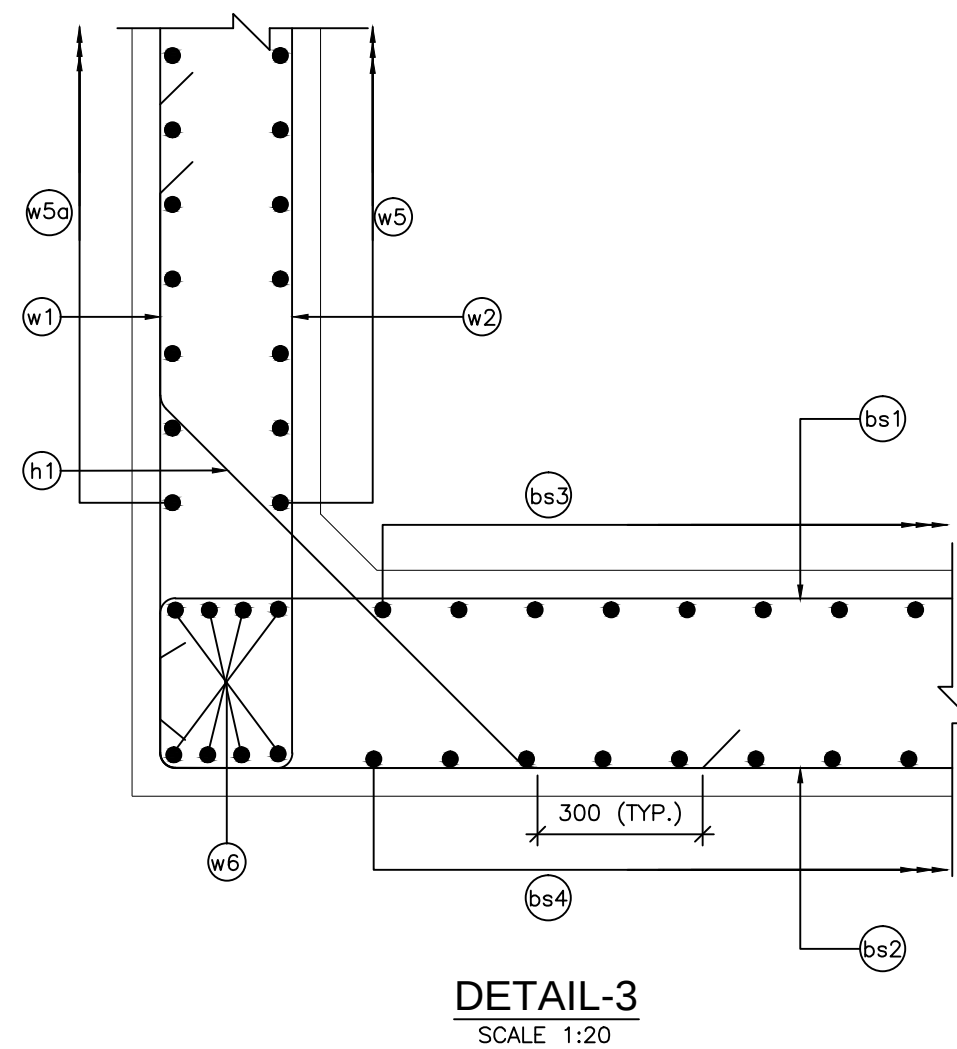
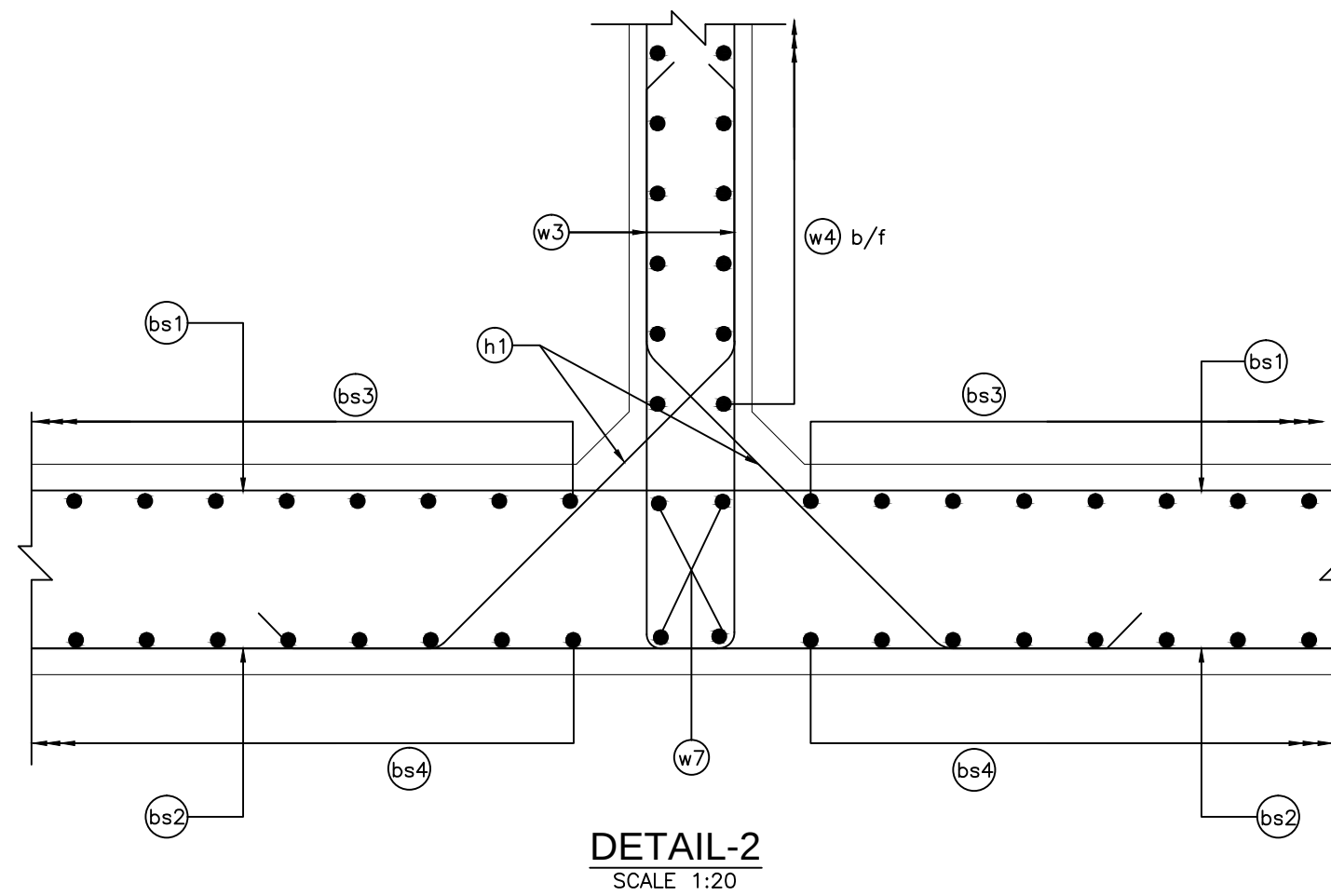
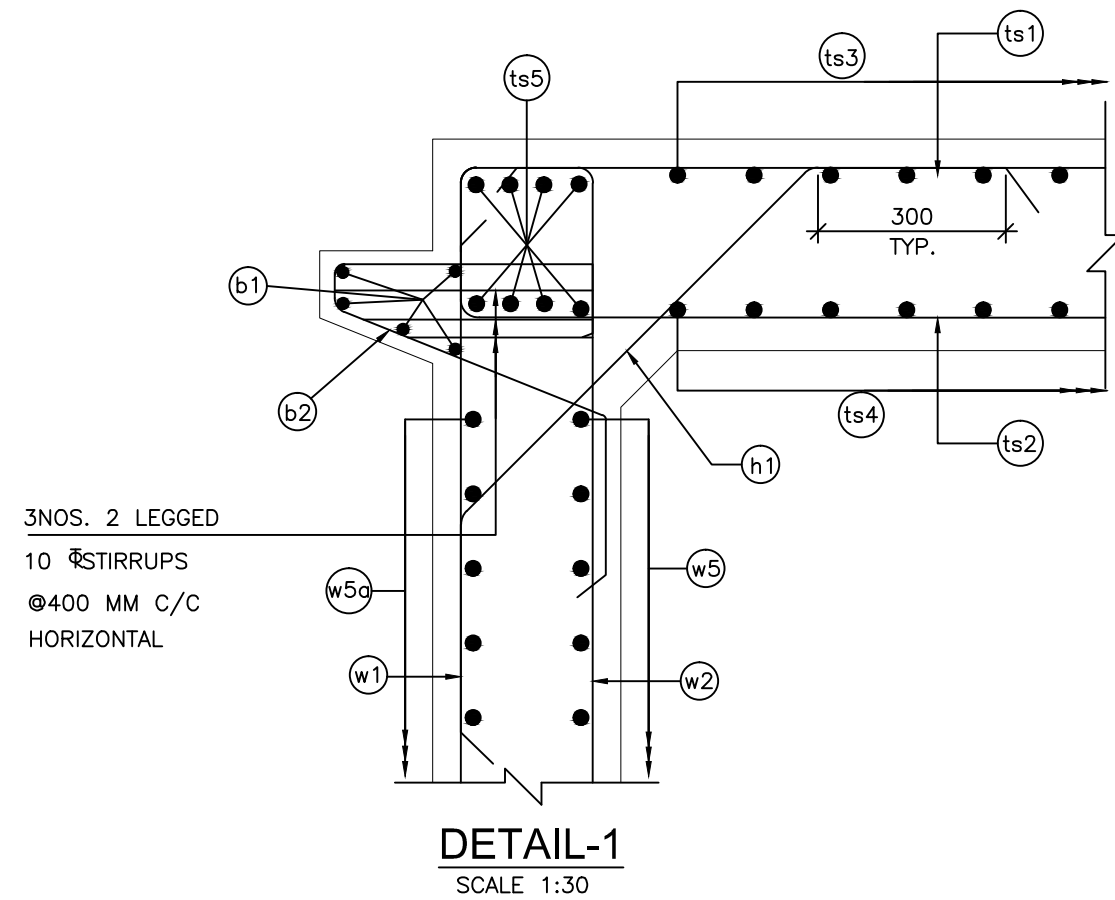


FRL LEVEL	62.667	62.667	62.
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MINOR BRIDGE AT CH. 69+895 (2X8.0m SPAN) ►



MINOR BRIDGE AT CH. 70+930 (2X8.0m SPAN) ►



MISCELLANEOUS DRAWING



CAUTIONARY/WARNING SIGNS

RIGHT HAND CURVE
CS-01

LEFT HAND CURVE
CS-02

STEEP ASCENT
CS-03

STEEP DESCENT
CS-04

ROAD WIDENS AHEAD
CS-05

PEDESTRIANS CROSSING
CS-08

SCHOOL
CS-09

CROSS ROAD SIGNS
CS-10

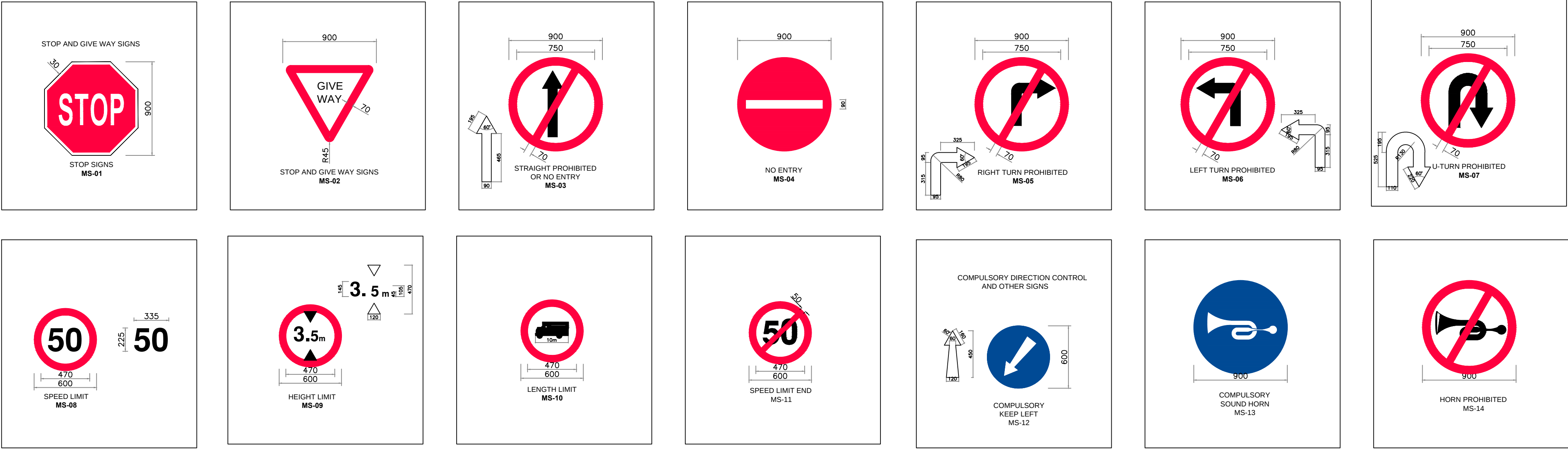
SIDE ROAD RIGHT
CS-11

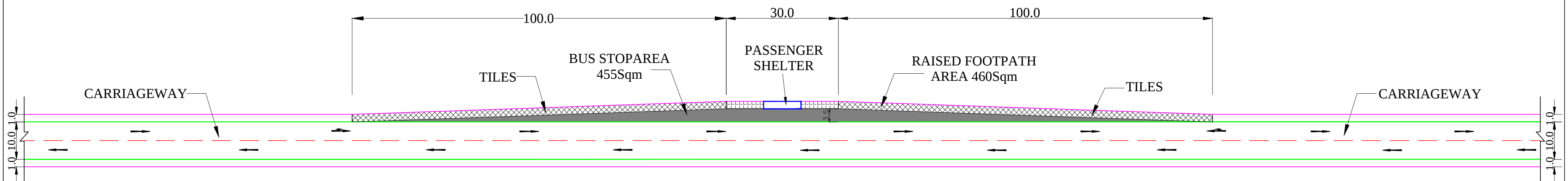
SIDE ROAD LEFT
CS-12

T' INTERSECTION
CS-13

SIDE ROAD AHEAD
CS-14

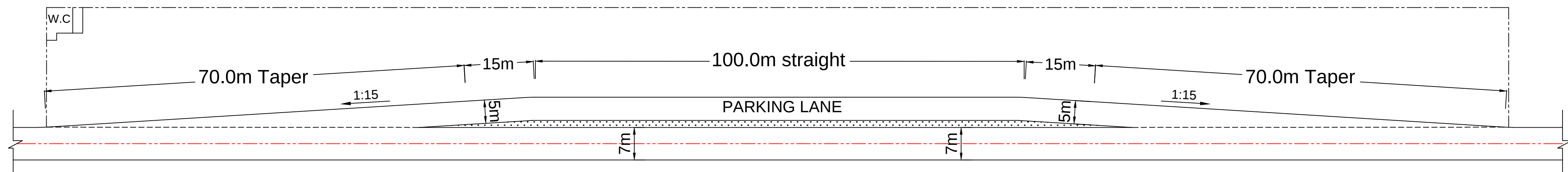
MANDATORY/REGULATORY SIGNS





LAYOUT FOR BUS BAYS

DETAILS OF BUS BAYS	
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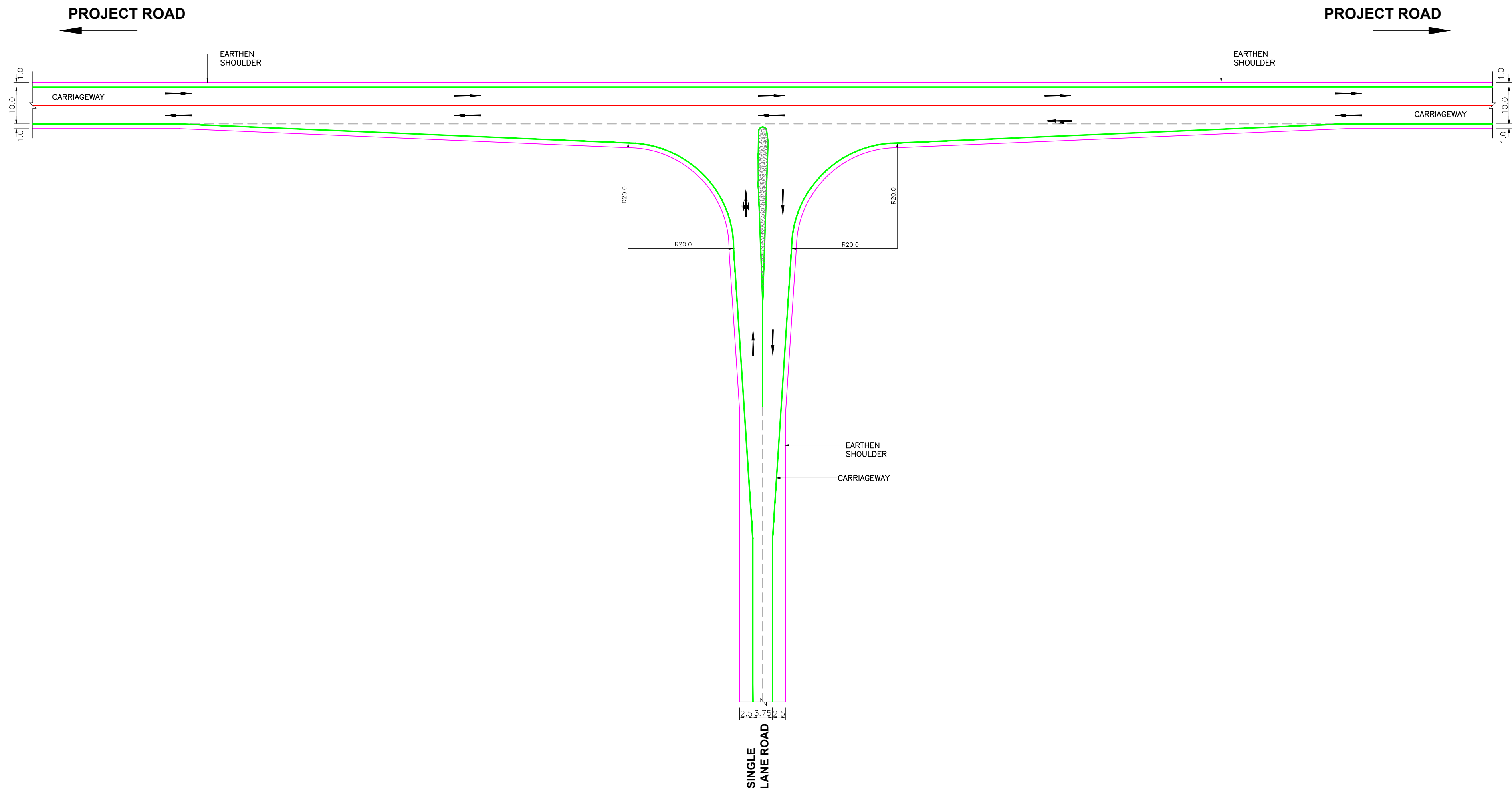


TYPICAL LAYOUT OF TRUCK LAY BYE IRC-SP73



Project Title:-

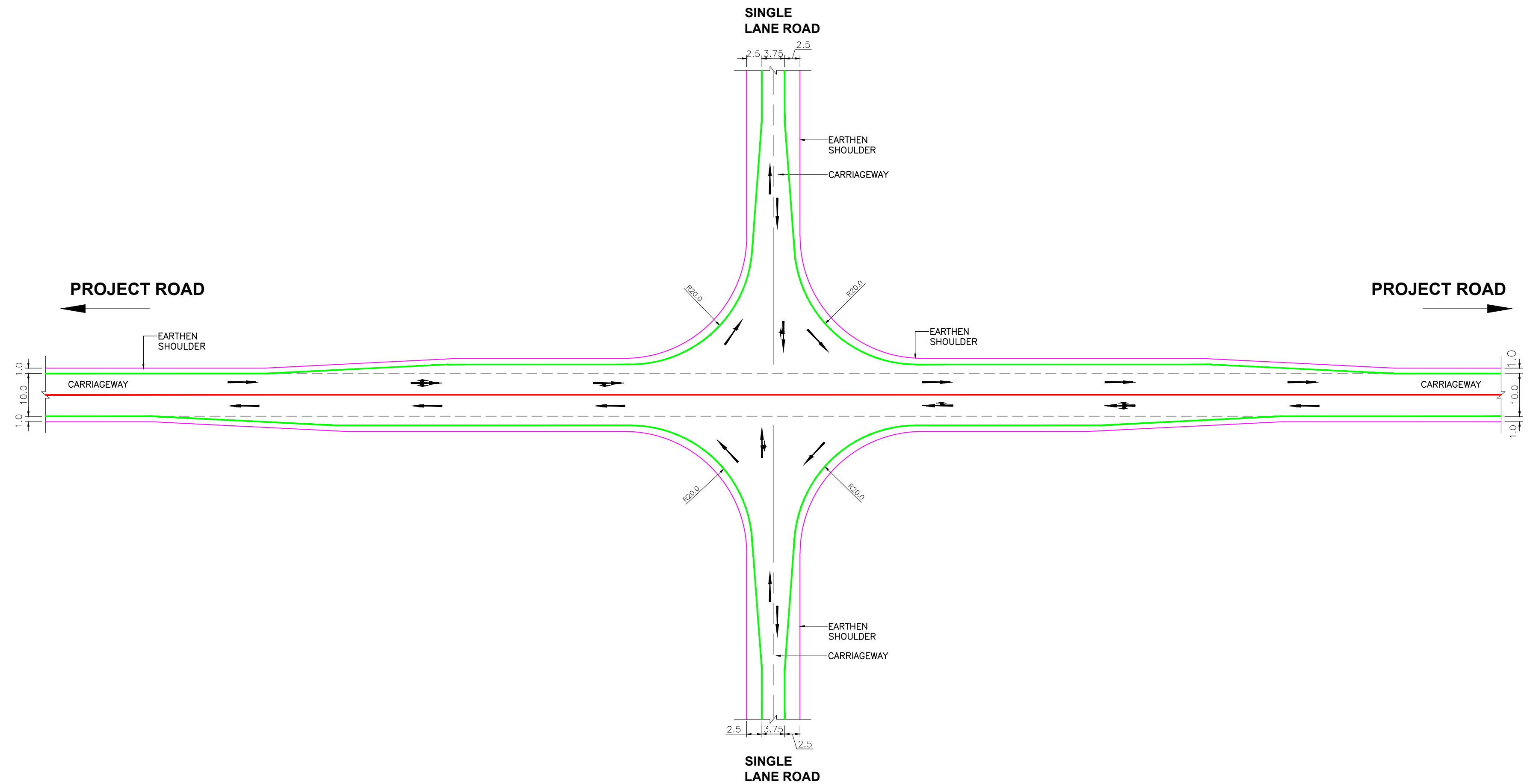
CONSULTANCY SERVICES FOR FEASIBILITY STUDY, PREPARATION OF DETAILED PROJECT REPORT AND PROVIDING PRE-CONSTRUCTION SERVICES FOR UP-GRADATION OF SELECTED ROAD STRETCHES / CORRIDORS TO TWO



TYPICAL 'THREE ARM' JUNCTION



Project Title:-



TYPICAL 'FOUR ARM' JUNCTION



PROTECTIVE ITEMS



RETAINING WALL ►

BREAST WALL ►

