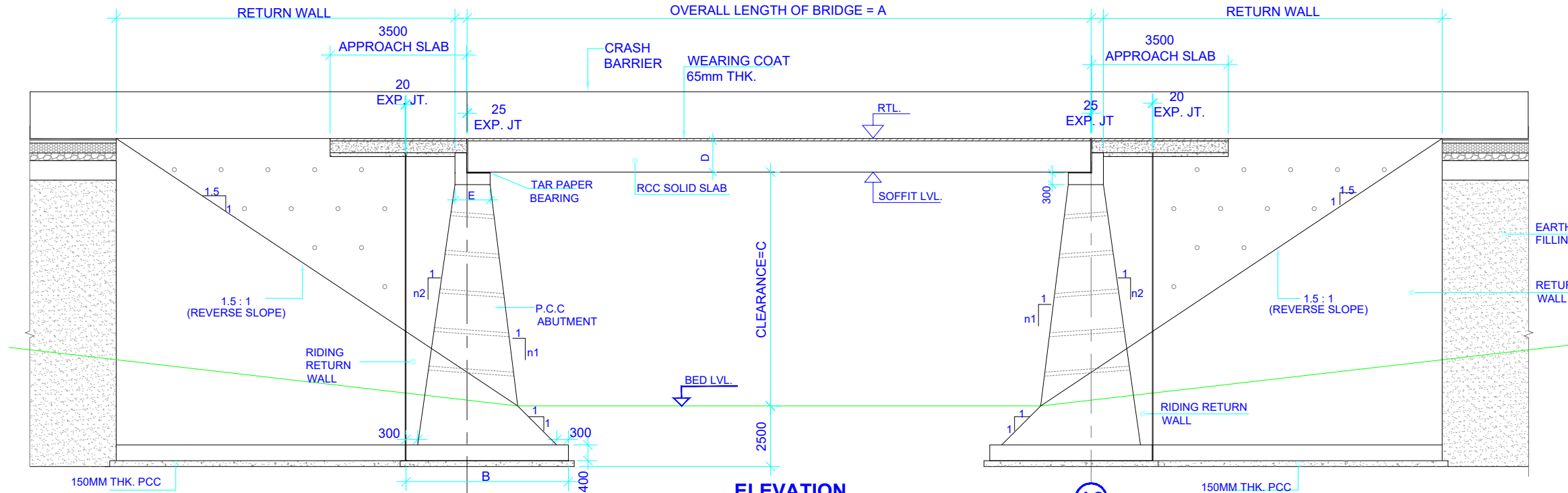
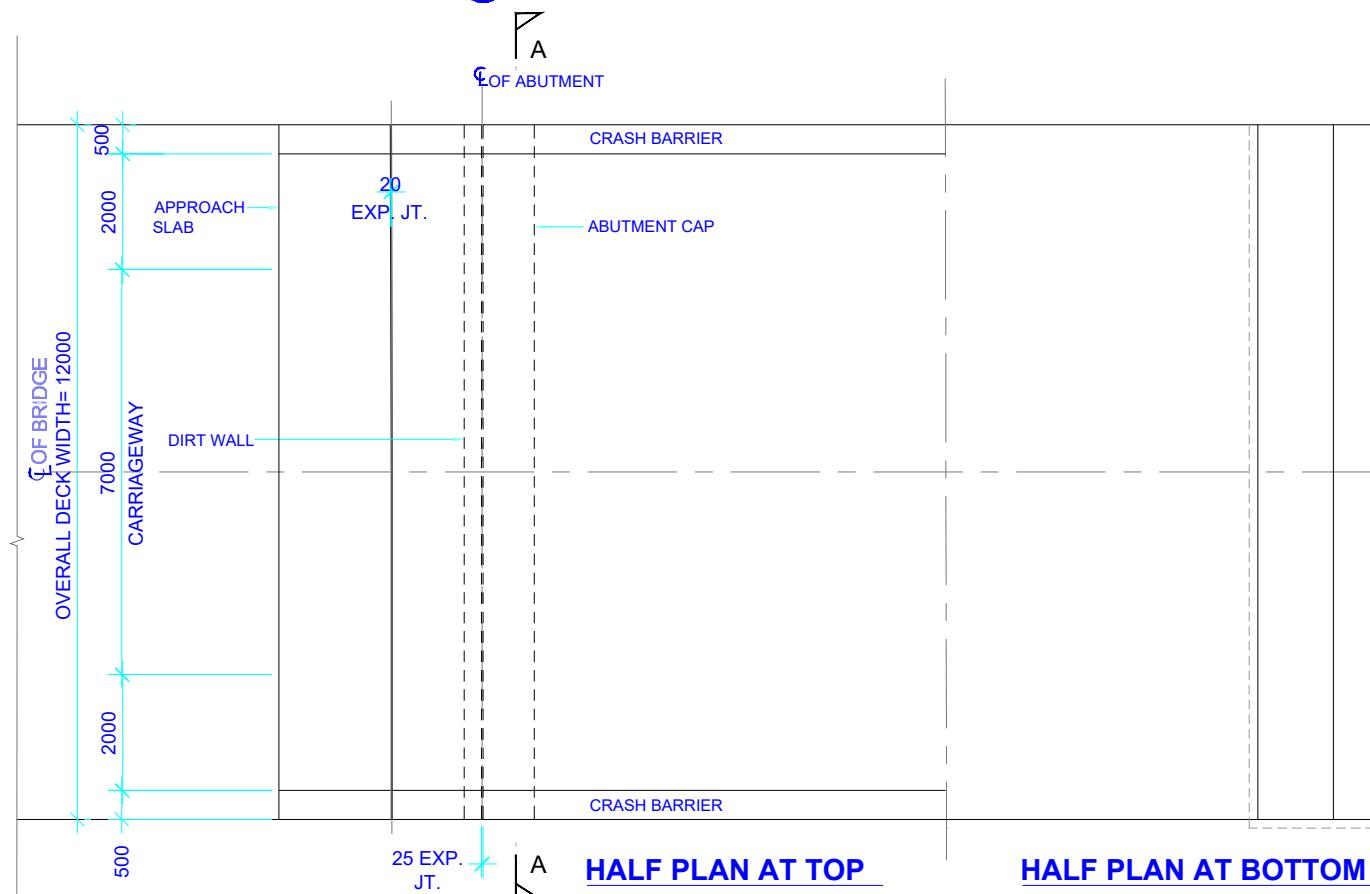


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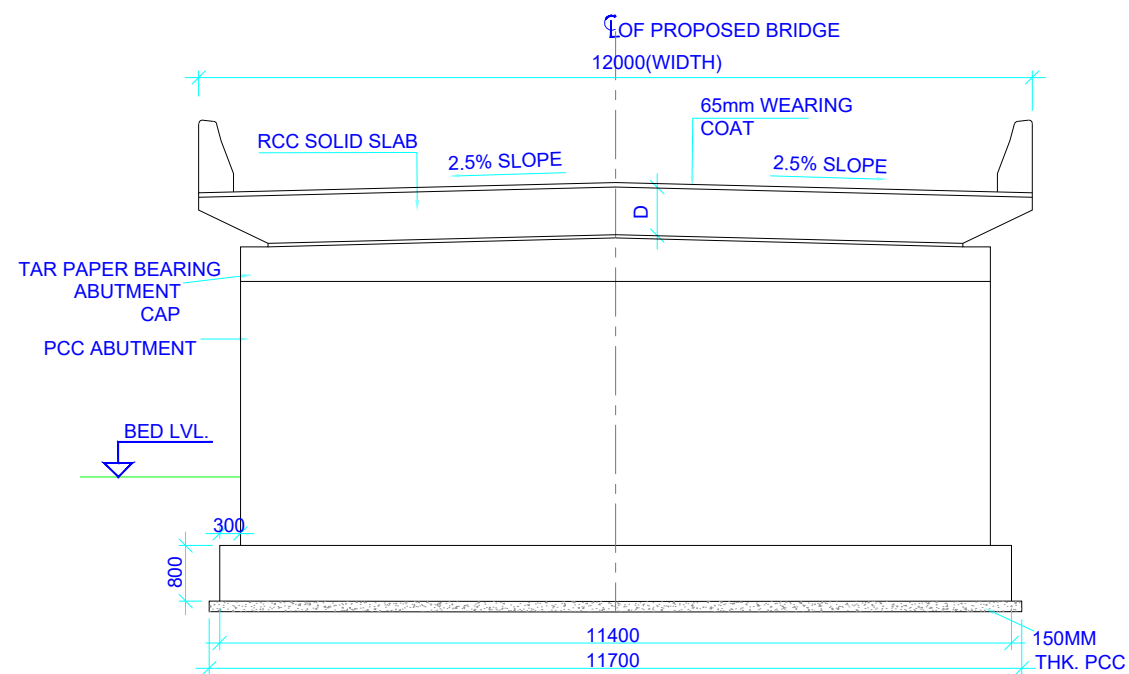
ELEVATION
(SCALE 1:120)



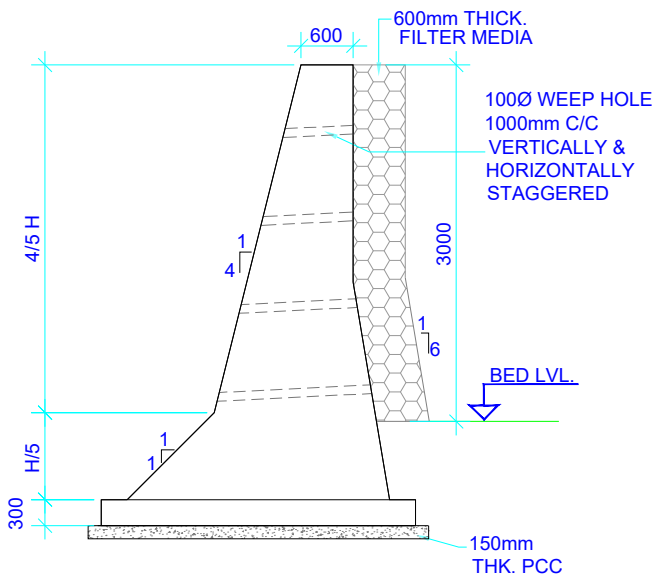
HALF PLAN AT TOP

HALF PLAN AT BOTTOM

PLAN
(SCALE 1:120)

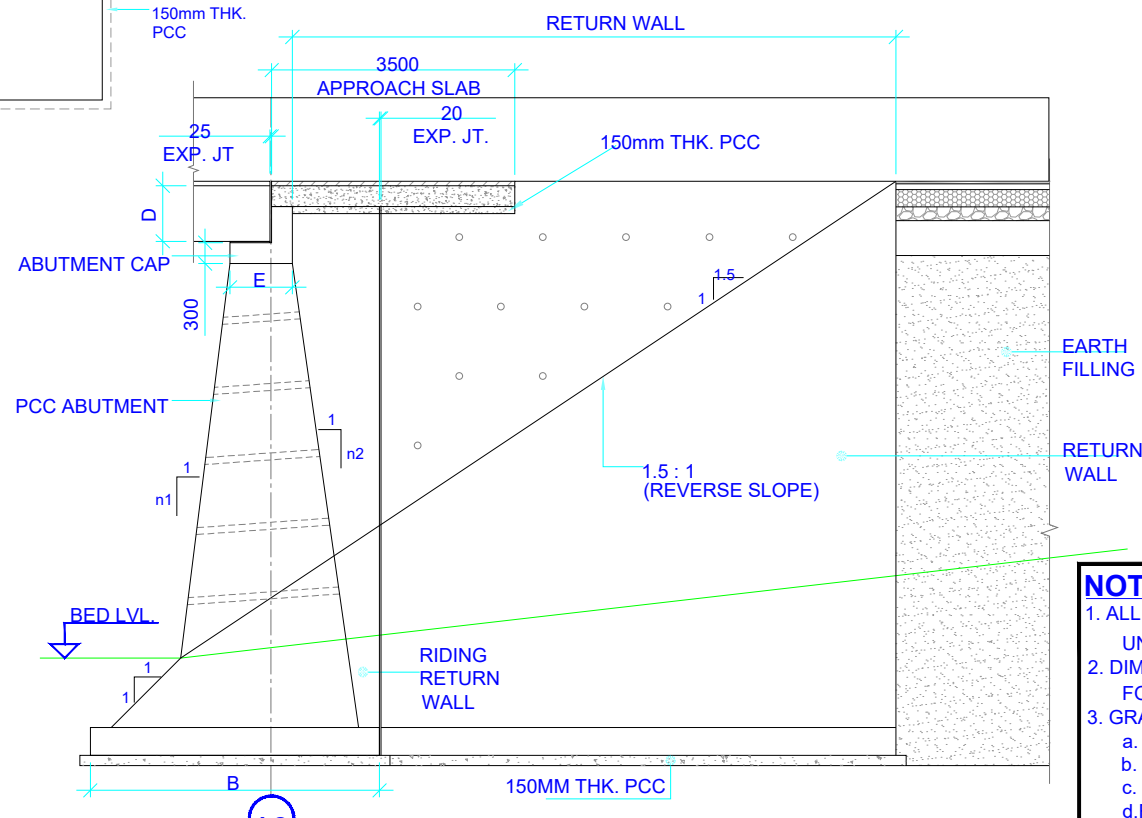


CROSS SECTION AT A-A
(SCALE 1:100)



TYPICAL SECTION OF RETURN WALL
(SCALE 1:80)

CHAINAGES	A	B	C	D	E	FRONT (1/n1)	BACK (1/n2)
0+706	1x8	4.50	3.0	0.64	0.9	1:6	1:6



TYPICAL SECTION OF ABUTMENT
(SCALE 1:100)

FOR ESTIMATION PURPOSE ONLY

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS, CHAINAGES AND LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
2. DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
3. GRADE OF CONCRETES ARE :
 - a. PCC - M15, FOR LEVELING COURSE
 - b. PCC ABUTMENT - M20
 - c. PCC FOUNDATION - M20
 - d. RCC SOLID SLAB - M30
 - e. CRASH BARRIER & PARAPET - M40
4. GRADE OF STEEL Fe 500.
5. MINIMUM SBC REQUIRED FOR FOUNDATION SHOULD BE 30 T/M².

CONSULTING ENGINEERS:



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(Formerly known as S.N.BHOBE & ASSOCIATES Pvt. Ltd.)
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Opposite Sanpada Railway Station, Sion - Panvel Highway,
Vashi, Navi Mumbai - 400705
Tel: +91-22-6906 3300/ 30
www.tpfepl.com - www.tpf.ee

DATE	23.11.2023	SIGN	
DRAWN	RSP		
CHECKED	NVL		
DESIGN	PSP		
CHECKED	GRN		
APPROVED	DBJ		

JOB NO.: 1037	SCALE: AS SHOWN	REV. NO.	DATE OF ISSUE	REVISION DETAILS	DRAWN	CHKD.	DES.	APRD.

CLIENT:



**National Highways and
Infrastructure Development
Corporation Limited**

PROJECT:
CONSULTANCY SERVICES FOR PREPERING OF DPR OF 2 LANING OF PROPOSE
FRONTIER HIGHWAY FROM NAFRA TO VIJANAGAR IN THE STATE OF ARUNACHAL
PRADESH IN PACKAGES (PACKAGE06-MIGGING-TUTING-ZIDO AND SINGA ANELIH-
HUNLI 230 KM)

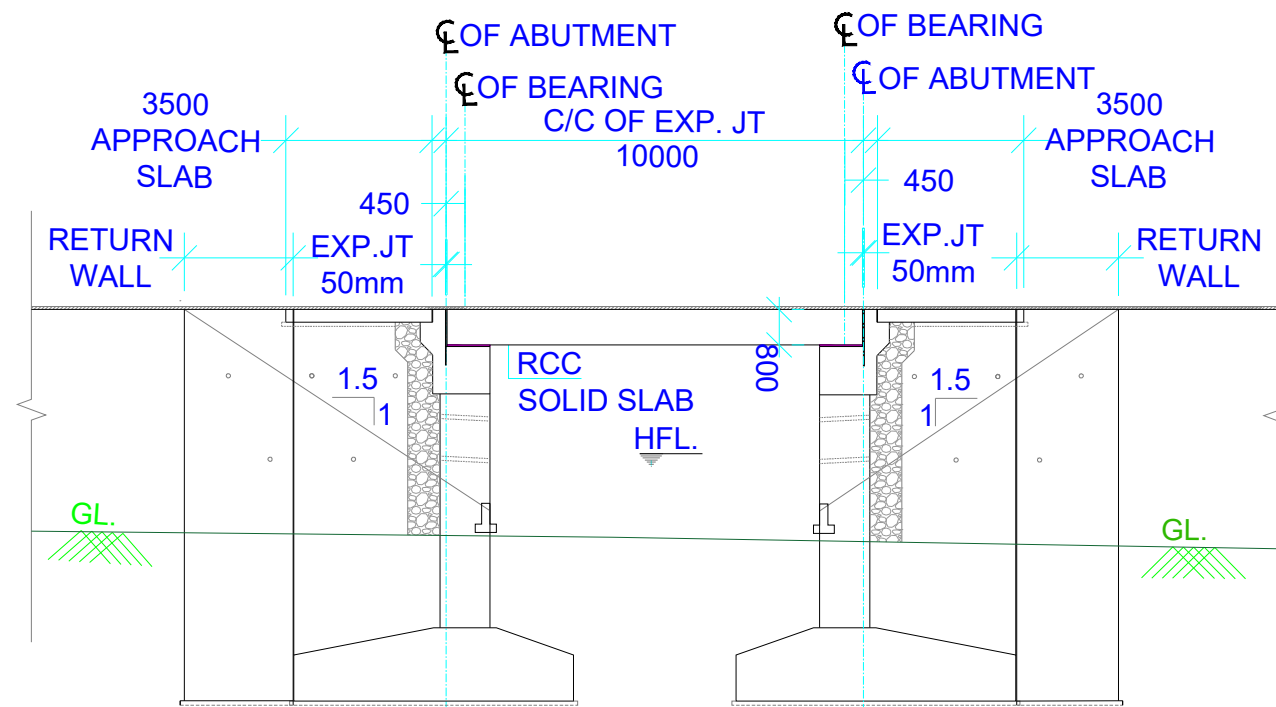
TUTTING-ZIDO STRETCH

TITLE: GENERAL ARRANGEMENT DRAWING FOR MINOR BRIDGES

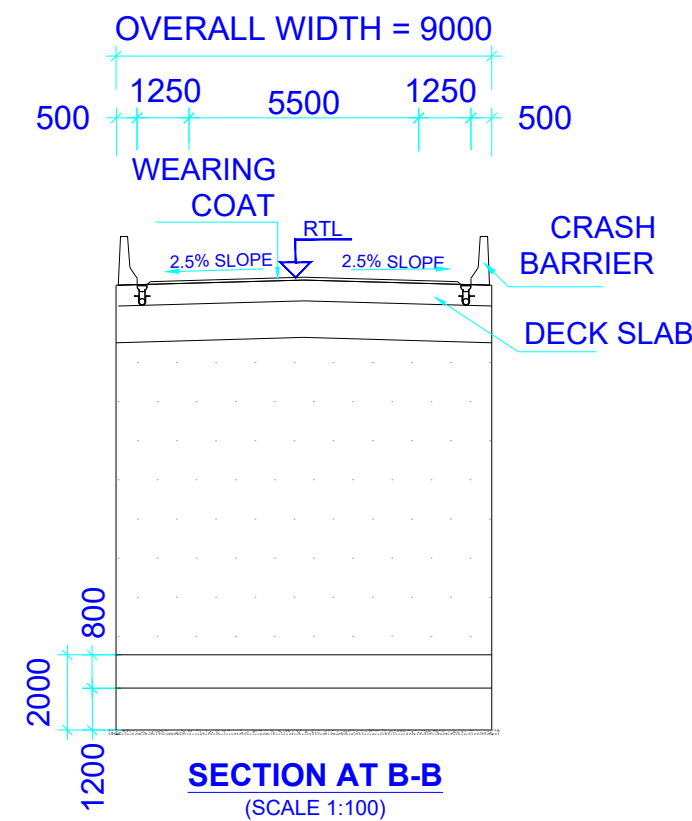
DRG. NO.: TPFEPL/NAIDCL-24/DPR-Nafra-to-Vijaynagar-Pkg-6-Arunachal-Pradesh/
RD-AP-RD-GEN-MNB-103

REV. R0

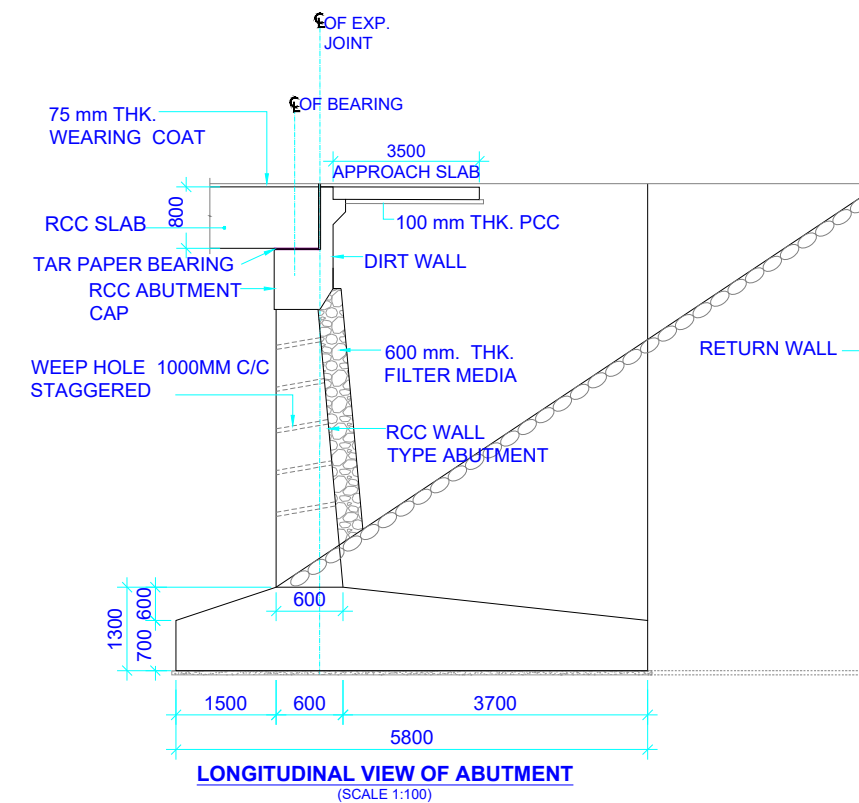
A2



SECTIONAL ELEVATION
SECTION A-A
(SCALE-1:225)



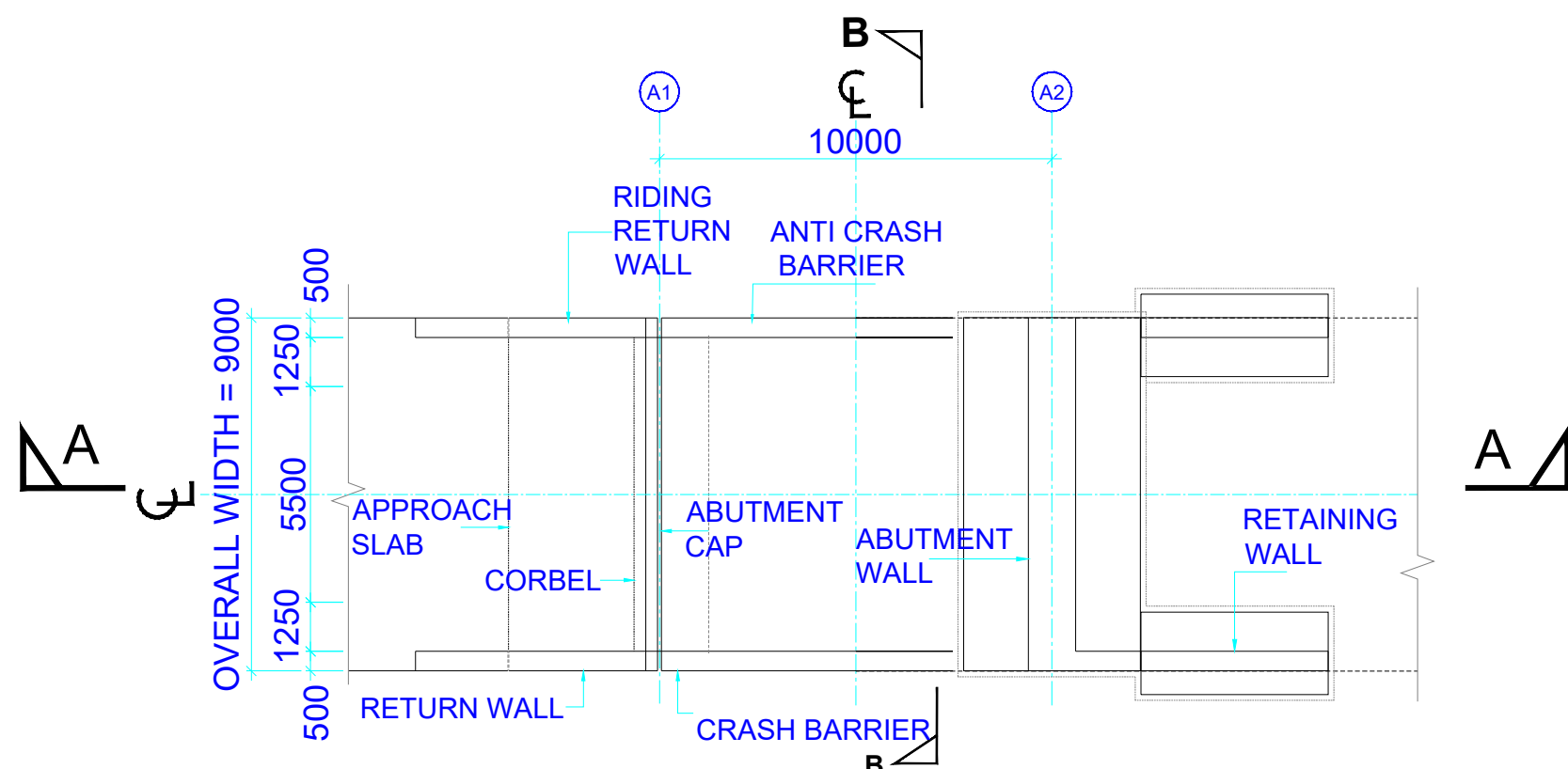
SECTION AT B-B
(SCALE 1:100)



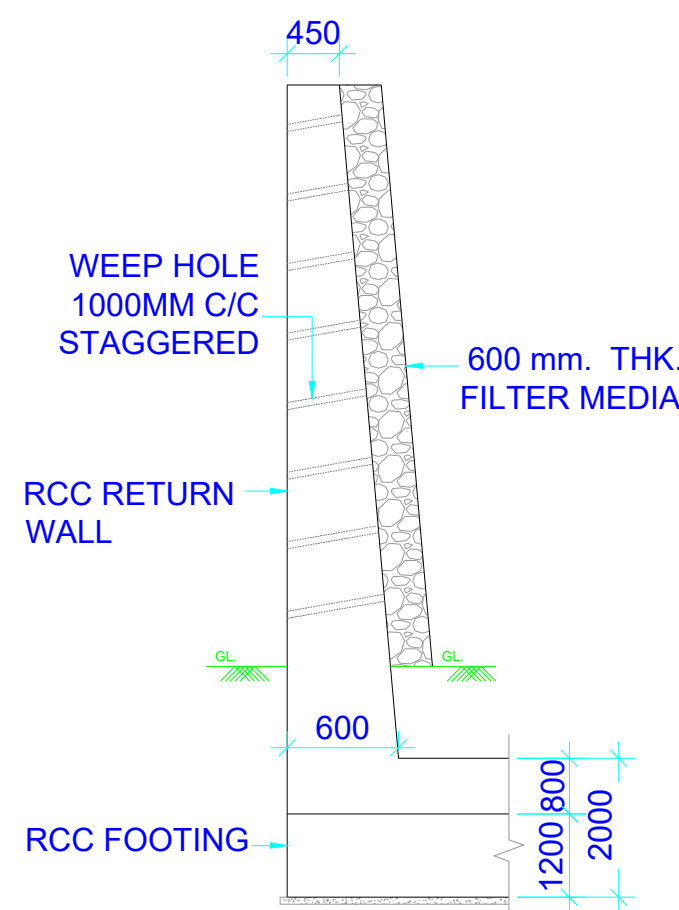
LONGITUDINAL VIEW OF ABUTMENT
(SCALE 1:100)

SCHEDULE :-		
SL No.	Design Chainage	Proposed RTL 'm'
1	2+520	667.365
2	4+820	550.723
3	12+360	499.421

FOR TENDER PURPOSE ONLY



PLAN AT PEDESTAL LEVEL **PLAN AT FOUNDATION LEVEL**
PLAN
(SCALE 1:225)



TYPICAL SECTION OF RETURN WALL
(SCALE 1:100)

* LATEST PPD SHOULD BE REFERRED FOR LEVELS & GEOMETRY SHOWN IN DRAWING

NOTE:

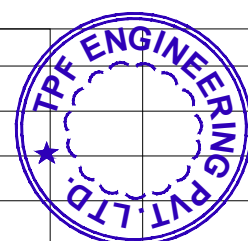
- ALL DIMENSIONS ARE IN MILLIMETERS, CHAINAGES AND LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
- DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
- FRL, CROSS SLOPE/SUPER ELEVATIONS, LONGITUDINAL GRADIENTS, ETC., SHALL BE VERIFIED WITH LATEST APPROVED PLAN & PROFILE DRAWINGS.
- WEARING COAT OF BITUMINOUS CONCRETE 40mm THK. OVERLAID WITH 35 mm THK. MASTIC ASPHALT SHALL BE PROVIDED AS PER MOST SPECIFICATION NO.2702.1.1.
- GRADE OF CONCRETE :-
a. RCC BOX CULVERT - M30
b. RCC RETAINING WALL - M30
c. LEVELING COURSE PCC - M15
- SBC AT FOUNDING LEVEL SHALL NOT BE LESS THAN 20T/M² FOR ALL STRUCTURES.
- IN CASE OF WEAK SOIL 300MM THICK GRANULAR FILL SHOULD BE LAID BELOW LEVEL COURSE. ALSO SOFT AND LOOSE PATCHES IN THE BEARING AREA ARE TO BE REPLACED BY COMPACTED GRANULAR FILLS.
- 100 mm DIA WEEP HOLES SHALL BE PROVIDED ABOVE LOW WATER LEVEL OR NATURAL GROUND LEVEL AT 1.0M C/C HORIZONTALLY AND 1.0M C/C VERTICALLY WELL STAGGERED.
- BACK FILL BEHIND BOX AND RETURN WALL SHALL CONSIST OF SELECTED EARTH CONFORMING TO APPENDIX: 6 OF IRC: 78 HAVING PROPERTIES C = 0, φ >= 30°, γD= 19 KN/M3.
- FILLING BEHIND THE SIDE WALLS SHALL NOT BE DONE BEFORE COMPLETION OF BOX, ALSO AFTER COMPLETION BACK FILLING SHALL BE DONE SIMULTANEOUSLY ON BOTH SIDES OF BOX.
- FILLER EXPANSION JOINT SHALL BE PROVIDED WITH COMPRESSED BOARD & SUITABLE SEALANT MATERIAL AS PER MORTH SPECIFICATION.
- ALL INVERT LEVELS ARE 300mm BELOW EXISTING BED LEVEL.
- DESIGN CRITERIA (LATEST SPECIFICATIONS): IRC : 5, IRC : 6, IRC : 112 & IRC : 78
- ENSURE INVERT LEVEL AND FLOW DIRECTION ON SITE BEFORE EXECUTION IF ANY DISCREPANCY FOUND, IMMEDIATELY BROUGHT INTO THE NOTICE OF DESIGN CONSULTANT FOR NECESSARY MODIFICATION IN THE DRAWING.
- PROPER TRAINING WORK HAS TO BE DONE TO DISCHARGE DRAIN WATER IN TO STREAM ON BOTH D/S & U/S.

CONSULTING ENGINEERS:



M/s TPF Engineering Pvt. Ltd. In association with M/s Zoma Engineers
TPF Engineering Pvt. Ltd., 1401, Rupa Sapphire, Plot No. 12, Sector 18, Opp. Sanpada Railway Station, Sion-Panvel Highway, Vashi, Navi Mumbai - 400 705, India. Ph: +91 22 69063300

	01.02.2024	SIGN								
DRAWN	RKS									
CHECKED	GRN									
DESIGN	GRN									
CHECKED	GRN									
APPROVED	PDS									
JOB NO.: 1037		SCALE:	REV. NO.	DATE OF ISSUE	REVISION DETAILS	DRAWN	CHKD.	DES.	APRD.	



CLIENT:



National Highways and Infrastructure Development Corporation Ltd.

PROJECT:

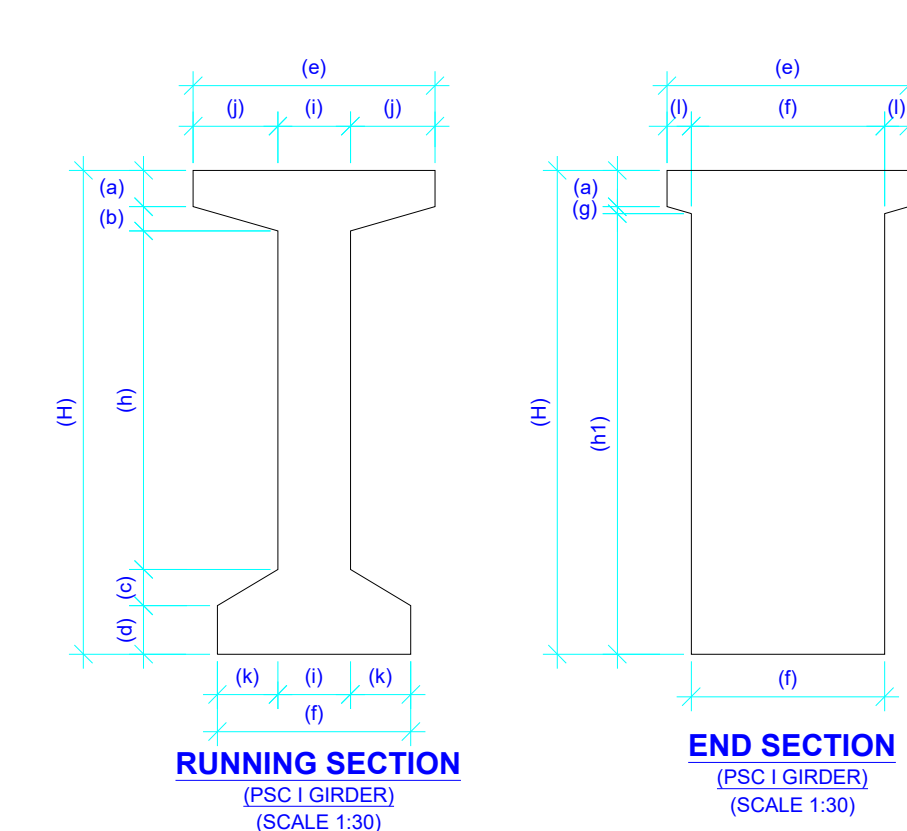
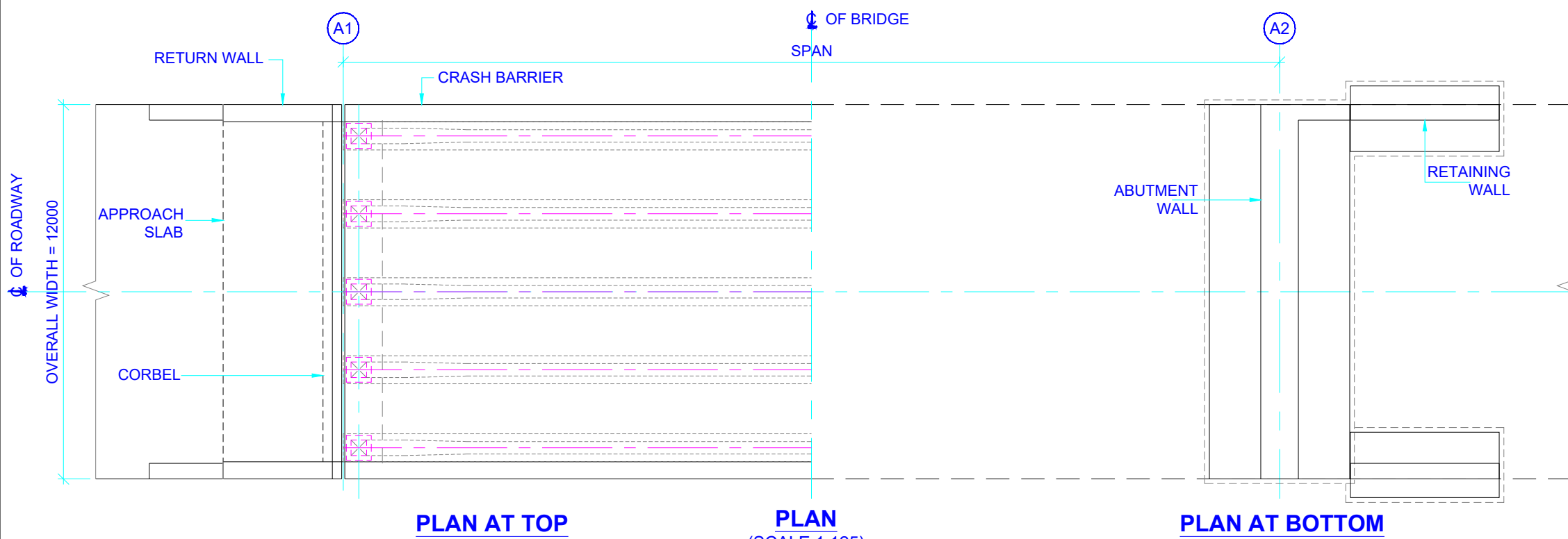
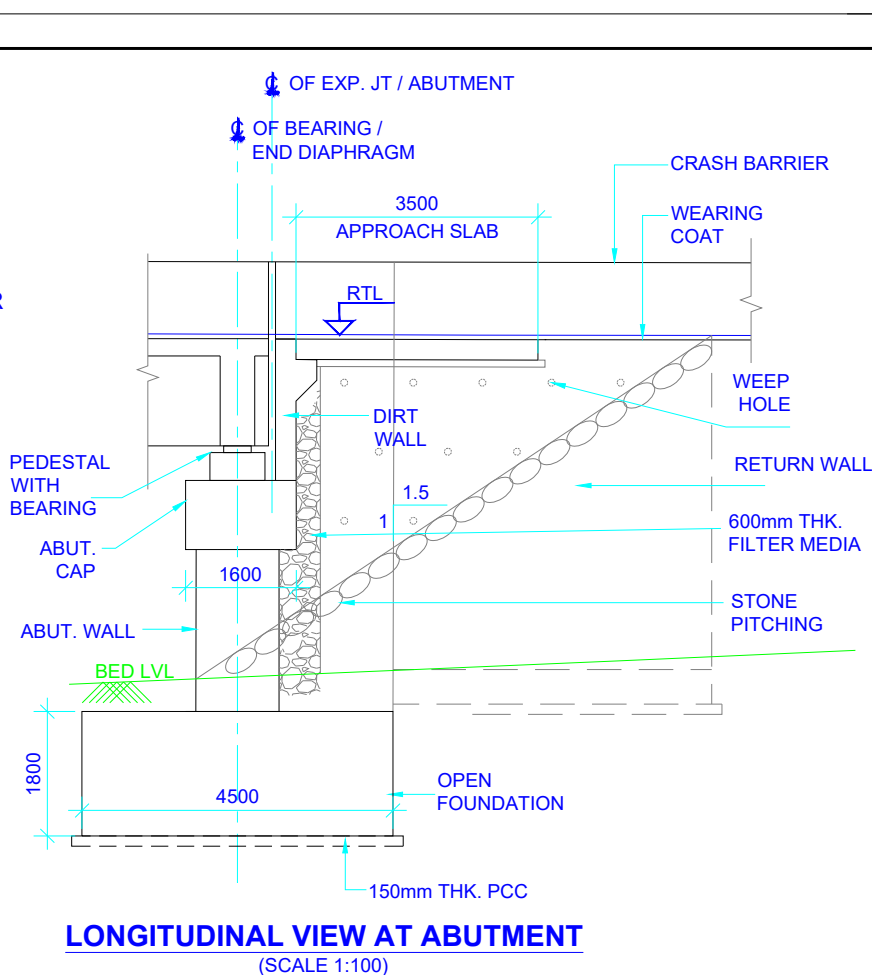
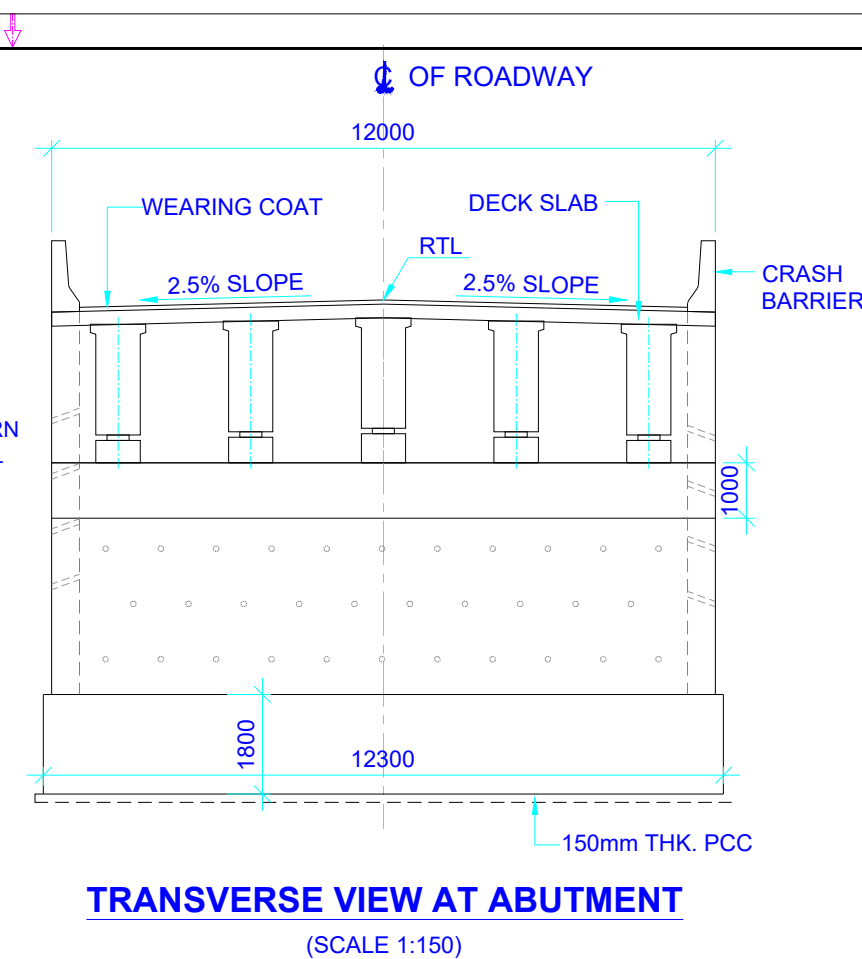
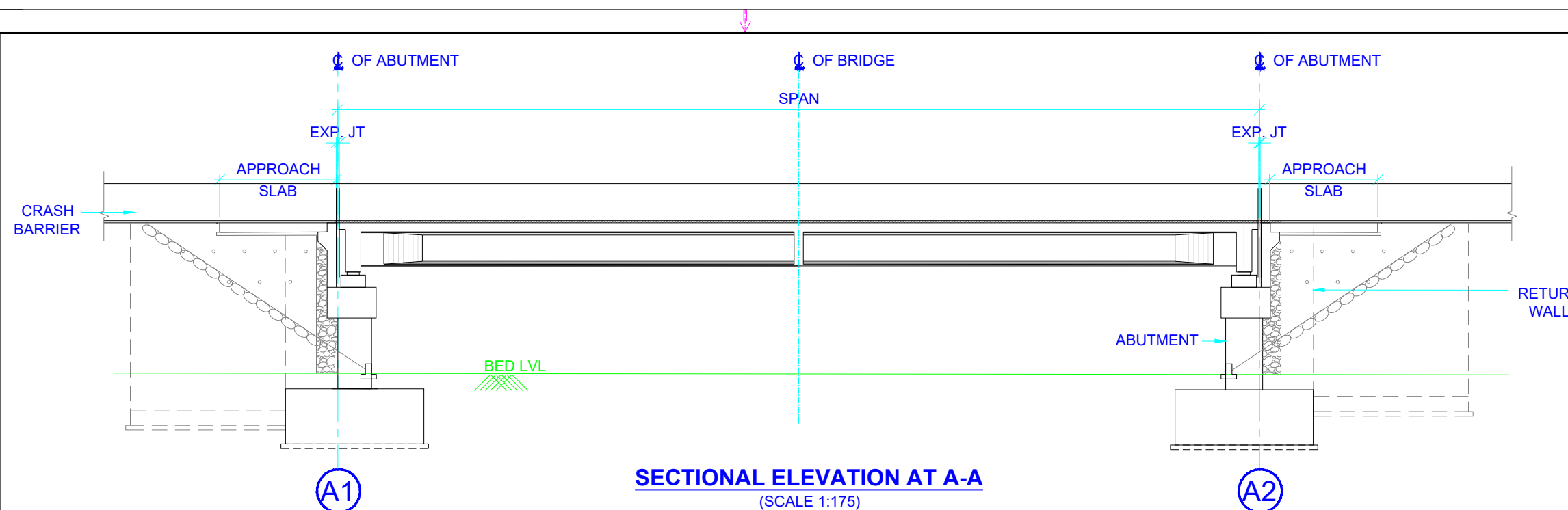
CONSULTANCY SERVICES FOR PREPERING OF DPR OF 2 LANING OF PROPOSE FRONTIER HIGHWAY FROM NAFRA TO VIJANAGAR IN THE STATE OF ARUNACHAL PRADESH IN PACKAGES (PACKAGE06-MIGGING-TUTING-ZIDO AND SINGA ANELIH-HUNLI 230 KM)

TUTTING-ZIDO STRETCH

TITLE: GENERAL ARRANGEMENT DRAWING OF MINOR BRIDGE SPAN 1 X 10M

DRG. NO.: TPFEP/ NHIDCL-24/DPR-Nafra-to-Vijaynagar-Pkg-6-Arunachal-Pradesh/ RD-AP-RD-GEN-MNB-102

REV. A2 NO.



SR. NO.	CHAINAGE	SPAN	a	b	c	d	e	f	g	H	h	h1	i	j	k	l
1	12+990	1X30	150	100	150	200	1000	800	29	2000	1400	1821	300	350	250	100

FOR ESTIMATION PURPOSE ONLY


NOTE:

1. ALL DIMENSIONS ARE IN MM AND LEVELS IN METRES UNLESS OTHERWISE MENTIONED ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED NO DIMENSION ARE TO BE SCALED.
2. THE STRUCTURE HAS BEEN DESIGNED FOR SEISMIC ZONE V AS PER IRC 6-2017.
3. THE SBC FOR THE FOUNDATION OF RCC GIRDER BRIDGE SHOULD NOT BE LESS THAN 50 T/M².
4. THE SBC FOR THE FOUNDATION OF RETURN WALL SHOULD NOT BE LESS THAN 30 T/M².
5. GRADE OF CONCRETE SHALL BE AS FOLLOWS :
- | | | |
|-----|--|-----|
| a.) | FOR SUPERSTRUCTURE - GIRDER, DIAPHRAGM, DECK SLAB : | M40 |
| b.) | FOR SUB-STRUCTURE - ABUTMENT, ABUTMENT CAP, DIRT WALL & PEDESTAL : | M40 |
| c.) | FOUNDATION : | M40 |
| d.) | CRASH BARRIER : | M40 |
| e.) | RCC RETURN WALL : | M30 |
| f.) | PCC LEVELING COURSE : | M15 |
| g.) | APPROACH SLAB : | M30 |
6. GRADE OF STEEL SHALL BE FE-500D (HYSD) AS PER IS:1786 WITH LATEST AMENDMENTS
7. MINIMUM CLEAR COVER TO THE OUTERMOST REINFORCEMENT SHALL BE AS FOLLOWS :-
- FOUNDATION: 75 MM
 - GIRDER, DIAPHRAGM & DECK SLAB: 40 MM
 - PIER, PIERCAP & PEDESTAL: 40 MM
 - DIRTWALL: 50 MM
8. WEARING COAT SHALL BE 75MM THK.
9. BACK FILL BEHIND RETURN WALL/RE WALL SHOULD CONSIST OF SELECTED ENTIRE CONFORMING TO APPENDIX: 6 OF IRC: 78 HAVING PROPERTIES $C = 0$, $\phi \geq 30^\circ$, $\gamma_d = 20 \text{ KN/M}^3$.
10. STRIP SEAL TYPE EXPANSION JOINT SHALL BE PROVIDED.
11. POT -PTFE BEARING SHALL BE ADOPTED.
12. RTL GIVEN IN THE DRAWING SHALL BE VERIFIED WITH PROFILE DRAWINGS BEFORE EXECUTION.
13. DIMENSIONS ARE TENTATIVE AND ARE TO BE RECALCULATED AS PER CODAL PROVISIONS.

CONSULTING ENGINEERS:

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(Formerly known as S N BHOBE & ASSOCIATES PVT. Ltd.)
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Tel: +91-22-6906 3300/ 30
www.tpfepl.com - www.tpf.eu


 **SHANKAR'S**
BUILDING PVT. LTD.
 **RDB**
CIVILS PVT. LTD.



ZOMA ENGINEERS

[illegible]

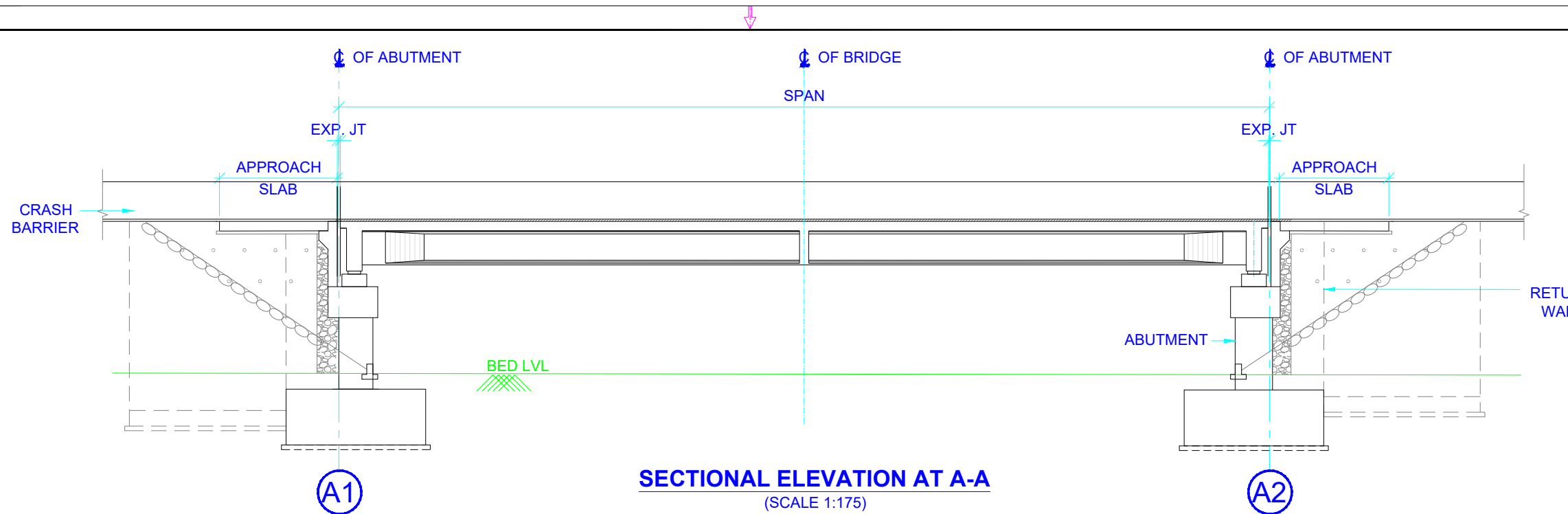
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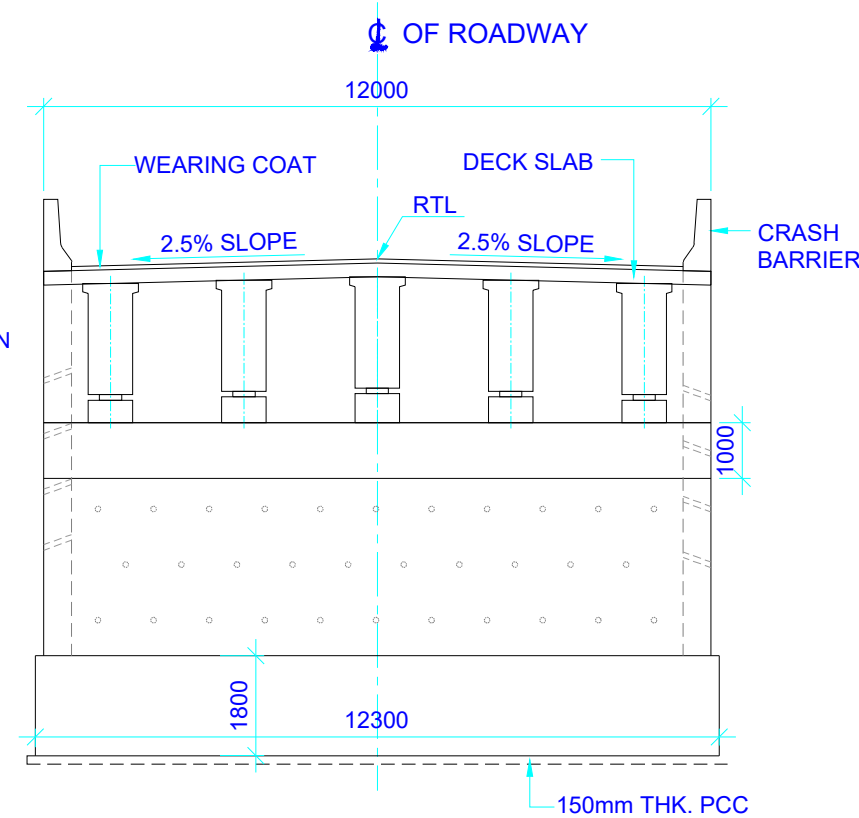
**National Highways and
Infrastructure Development
Corporation Limited**

PROJECT: CONSULTANCY SERVICES FOR PREPERING OF DPR OF 2 LANING OF PROPOSE FRONTIER HIGHWAY FROM NAFRA TO VIJANAGAR IN THE STATE OF ARUNACHAL PRADESH IN PACKAGES (PACKAGE06-MIGGING-TUTING-ZIDO AND SINGA ANELIH-HUNLI 230 KM)		
TUTTING-ZIDO STRETCH		
TITLE: GENERAL ARRANGEMENT DRAWING FOR MINOR BRIDGES		
DRG. NO.: TPFEPL/NHIDCL-24/DPR-Nafra-to-Vijaynagar-Pkg-6-Arunachal-Pradesh/ RD-AP-RD-GEN-MNB-101	REV. R0	A2

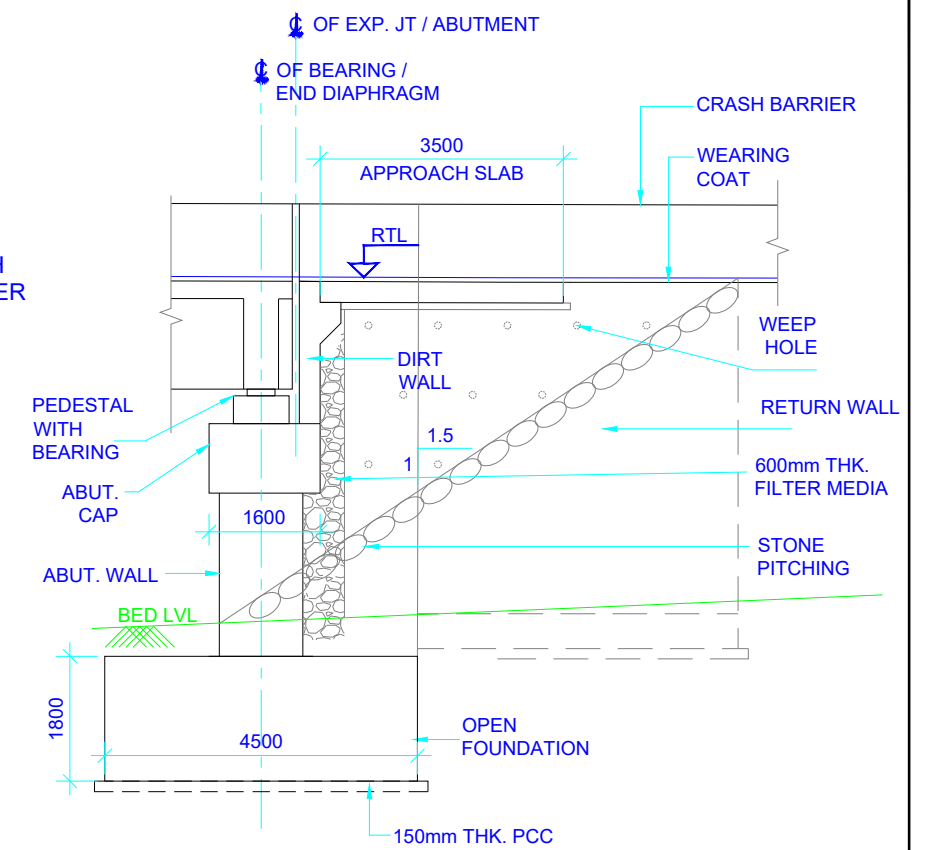
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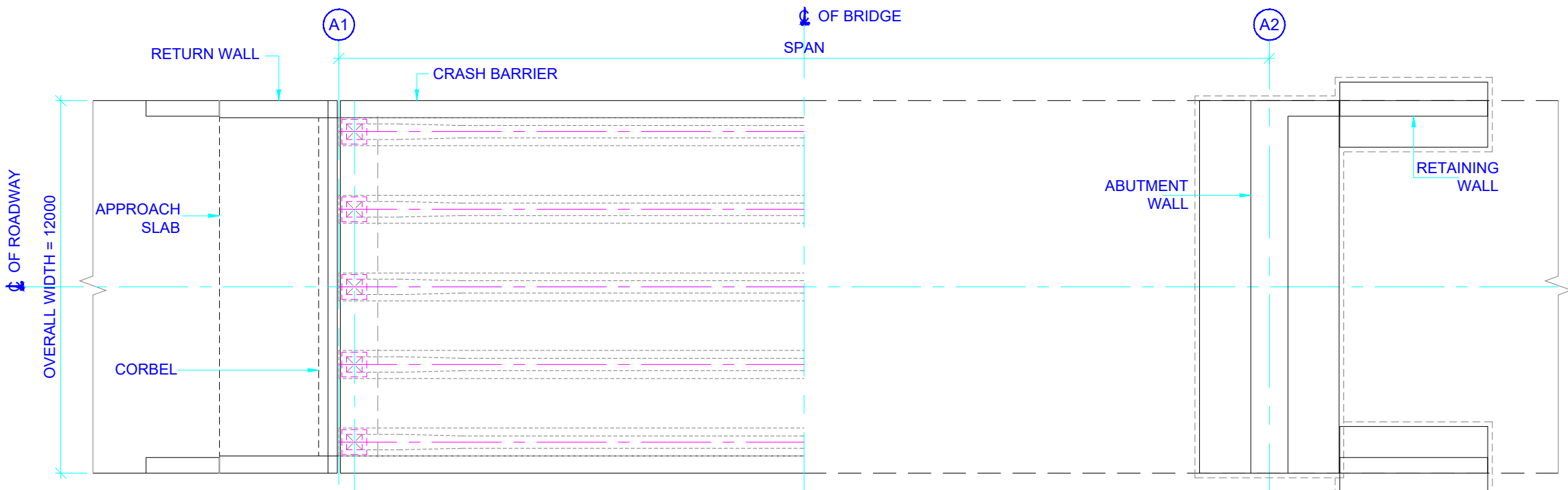
SECTIONAL ELEVATION AT A-A
(SCALE 1:175)



TRANSVERSE VIEW AT ABUTMENT
(SCALE 1:150)



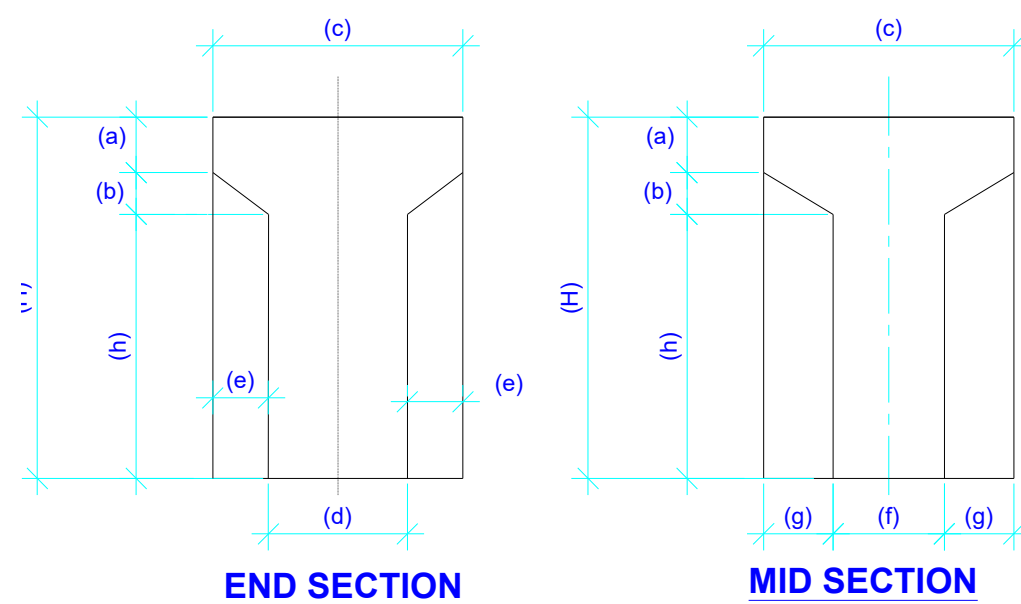
LONGITUDINAL VIEW AT ABUTMENT
(SCALE 1:100)



PLAN AT TOP

PLAN
(SCALE 1:125)

PLAN AT BOTTOM



END SECTION

MID SECTION

CROSS SECTION OF RCC "T" GIRDER
(SCALE 1:40)

SR. NO.	CHAINAGE	SPAN	a	b	c	d	e	f	g	H	h
1	0+750	1X15	200	150	900	500	200	400	250	1300	950
2	4+460	1X20	200	150	900	500	200	400	250	1500	1150
3	4+640	1X20	200	150	900	500	200	400	250	1500	1150

FOR ESTIMATION PURPOSE ONLY

NOTE:

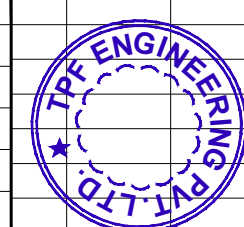
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- THE SBC FOR THE FOUNDATION OF RETURN WALL SHOULD NOT BE LESS THAN 30 T/M².
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 - FOR SUB-STRUCTURE - ABUTMENT, ABUTMENT CAP, DIRT WALL & PEDESTAL : M40
- | | |
|-------------------------|-------|
| c.) FOUNDATION | : M40 |
| d.) CRASH BARRIER | : M40 |
| e.) RCC RETURN WALL | : M30 |
| f.) PCC LEVELING COURSE | : M15 |
| g.) APPROACH SLAB | : M30 |
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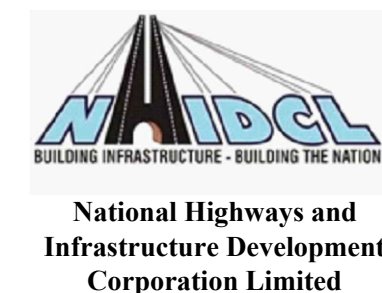


DATE	23.11.2023	SIGN	
DRAWN	SBS		
CHECKED	NVL		
DESIGN	PSP		
CHECKED	GRN		
APPROVED	DBJ		



JOB NO.:	SCALE:	REV. NO.	DATE OF ISSUE	REVISION DETAILS
1037	AS SHOWN			

CLIENT:



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DRG. NO.:	TPFEPL/NHIDCL-24/DPR-Nafra-to-Vijaynagar-Pkg-6-Arunachal-Pradesh/RD-AP-RD-GEN-MNB-100	REV. R0	A2
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