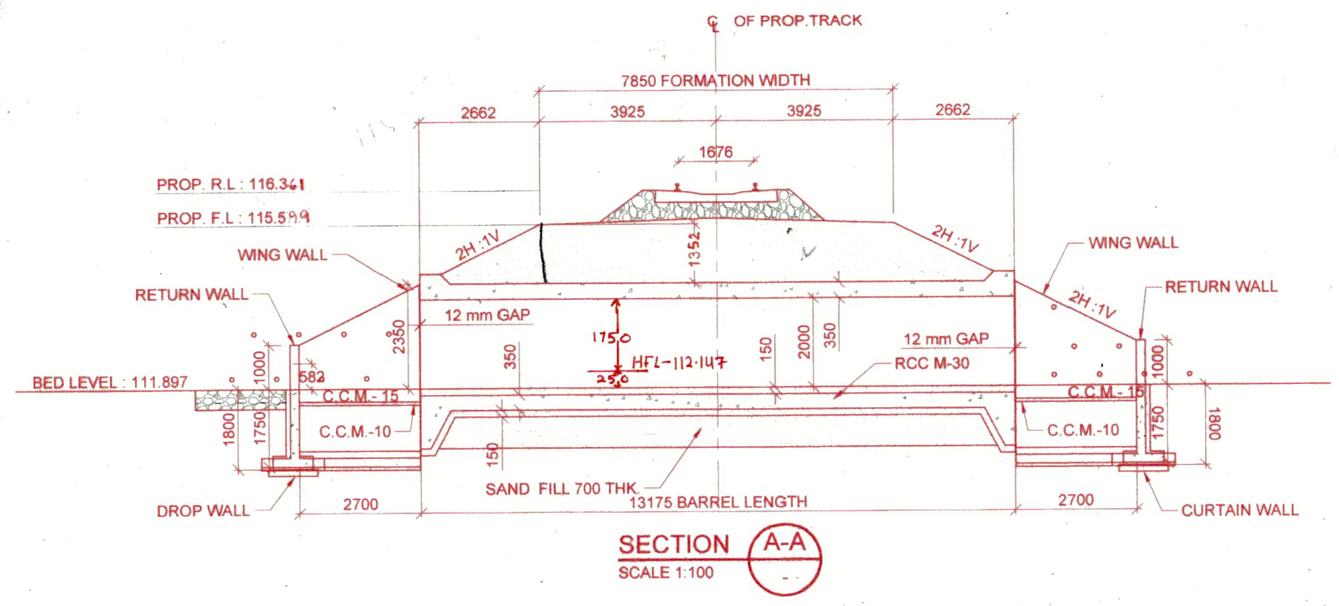
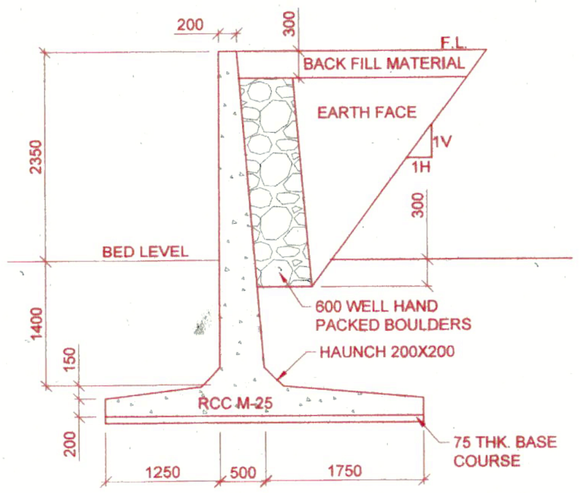
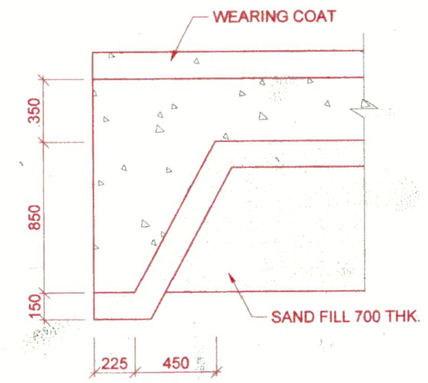


SECTION A-A
SCALE 1:100

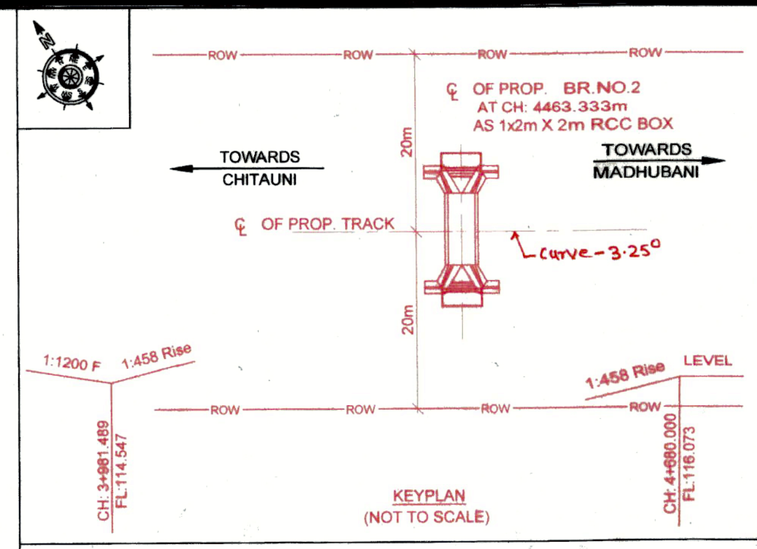


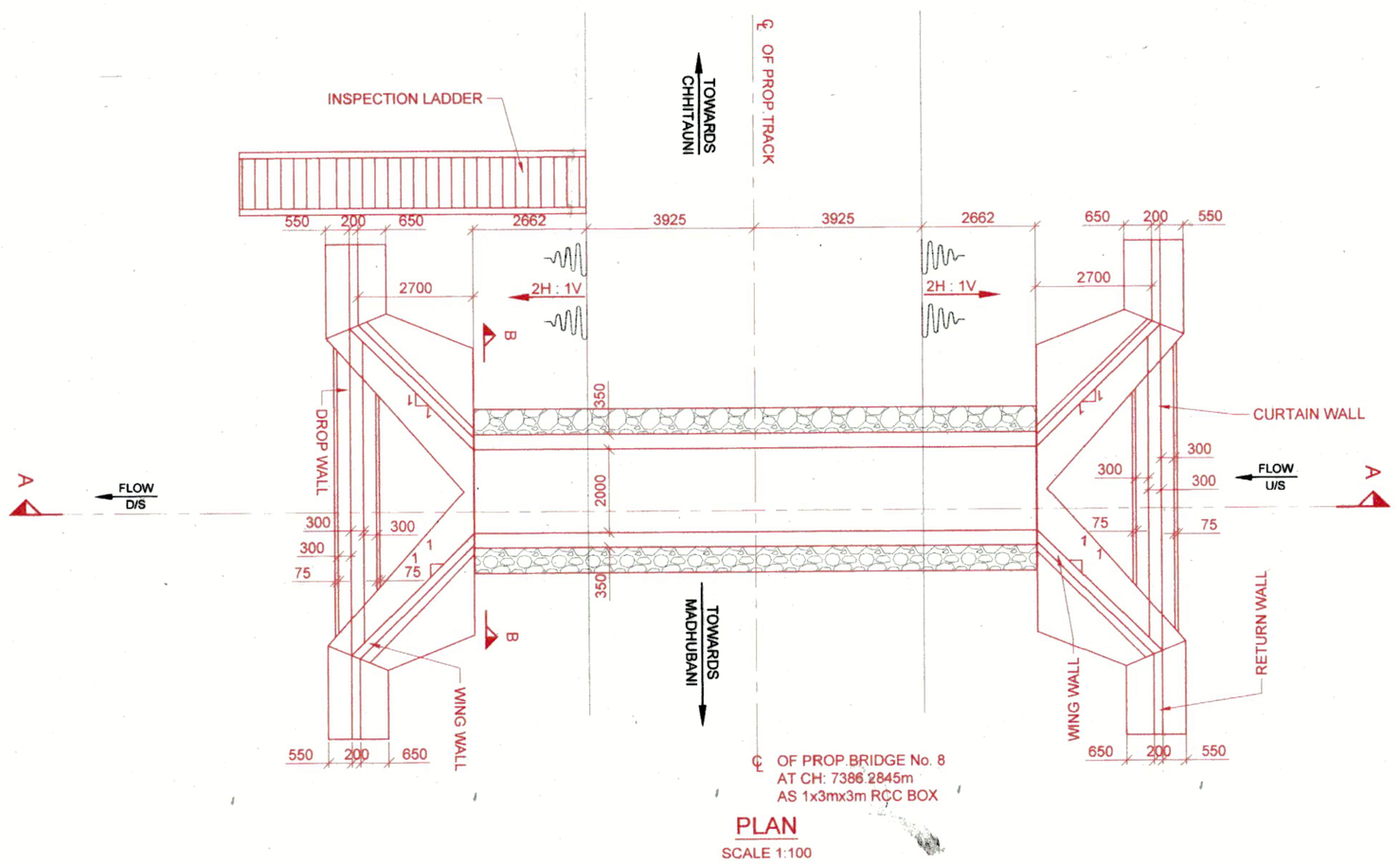
DETAIL OF WING WALL
AT MAXIMUM HEIGHT
SCALE 1:50

AUTHORITY OF WORK
PINK BOOK- 2024-25
PAGE NO.-4:2:1
ITEM NO. - 8

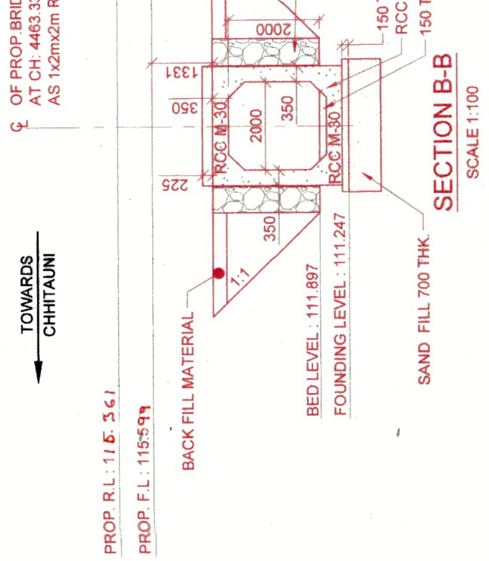


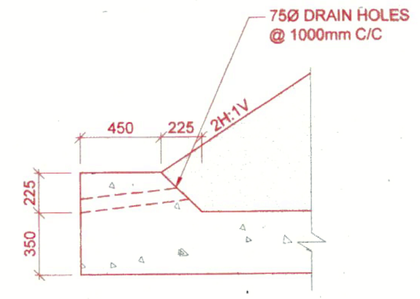
SHEAR KEY
SCALE 1:25



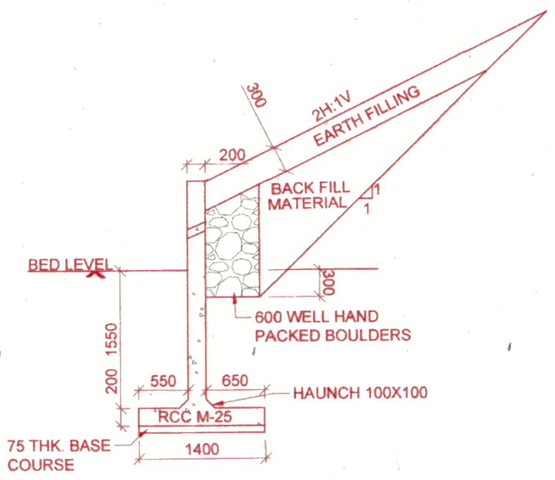


PLAN
SCALE 1:100





BALLAST RETAINER
SCALE 1:25

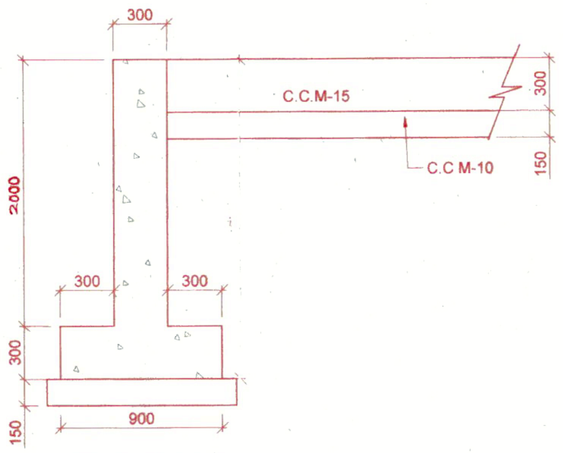


DETAIL OF RETURN WALL
SCALE 1:50

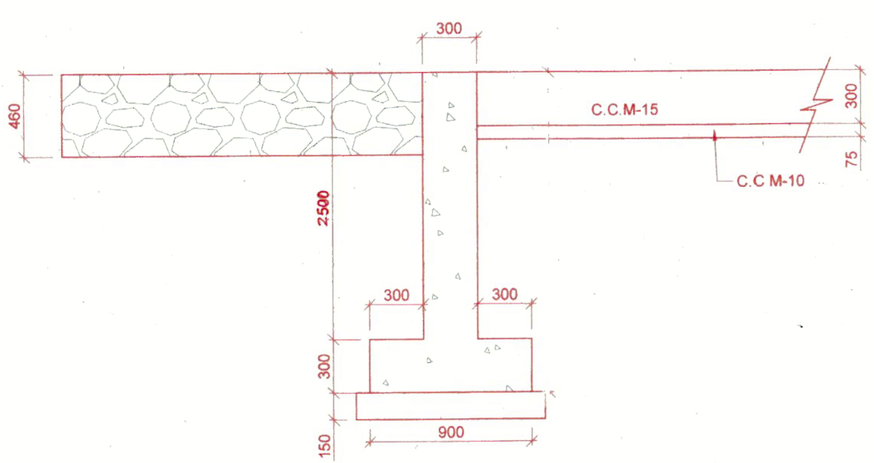
NOTES :

1. ALL DIMENSIONS ARE IN MILLIMETERS, LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
2. NO DIMENSIONS ARE TO BE SCALED FROM THE DRAWING (ONLY WRITTEN DIMENSIONS TO BE FOLLOWED).
3. SITE ENGINEER SHOULD VERIFY ALL THE DIMENSIONS AND LEVELS AT SITE BEFORE EXECUTION OF WORK IN THE FIELD.
4. RCC BOX AND STRUCTURE DETAILS ARE AS PER RDSO DRAWING NUMBER: RDSO/B-10155 & RDSO/B-10155/3
5. AS A PRECAUTIONARY MEASURE PROPER DROP WALL WITH BOULDER PITCHING AND CC FLOORING WILL BE PROVIDED AS PER THIS PLAN.
6. FOR MASS CONCRETE CC M-15 AND FOR RCC M-30 WILL BE USED EXCEPT OTHERWISE MENTIONED. ALL CONCRETING SHALL BE DONE CONFORMING TO IRS CONCRETE BRIDGE CODE.
7. ALL REINFORCEMENT SHALL BE HIGH YIELD STRENGTH DEFORMED BARS OF GRADE (FE-500D CONFORMING TO IS: 1786).
8. THE BACKFILL BEHIND RCC BOX, WING WALL AND RETURN WALL SHOULD BE AS PER CLAUSE 7.5 OF IRS BRIDGE SUB-STRUCTURE AND FOUNDATION CODE WITH UP TO DATE ALL CORRECTION SLIPS.
9. CIRCULAR WEEP HOLES OF 10 MM PVC PIPE SHALL BE PROVIDED IN THE WING WALL AND RETURN WALL ABOVE HFL AT INTERVALS OF 1000MM HORIZOTALLY AND VERTICALLY IN A STAGGERED POSITION.
10. THE MAXIMUM DESIGN FOUNDATION PRESSURE IS 22.44 T/m² SITE ENGINEER SHOULD GET THE SOIL CLASSIFICATION AND BEARING CAPACITY TESTED AND APPROVAL LEVEL SHOULD BE ENSURED.
11. ORDINARY PORTLAND CEMENT (OPC) GRADE 43 / 53 CONFIRMING I.S:811/I.S.12269 CAPABLE OF ACHIEVING THE REQUIRED DESIGED CONCRETE STRENGTH SHALL BE TAKEN IN CASE OF LOWER BEARING CAPACITY OR BAD SOIL.
12. ONLY ONE TYPE OF CEMENT AND STELL SHALL BE USED ON A PARTICULAR BRIDGE AND BRAND OF CEMENT AND STEEL SHOULD BE APPROVED BY SITE ENGINEER.
13. THE LOCATION AND PROVISION OF CONSTRUCTION JPOINTS SHALL BE DECIDED BY THE SITE ENGINEER. CONSTRUCTION JOINTS SHALL BE TESTED AS PER THE RELEVENT SPECIFICATION.
14. CONCRETE SHALL BE PRODUCED IN MECHANICAL MIXTURE OF CAPACITY NOT LESS THAN 200 LITERS HAVING INTEGRAL WEIGH BATCHING FACILITY AND AUTOMATIC WATER MEASURING AND DISPENSING.
15. PROPER COMPACTION OF CONCRETE SHALL BE ENSURED BY USE FORM AND/ OR NEEDLE VIBRATORS.
16. SHARP EDGES OF CONCRETE SHALL BE CHAMBERED.
17. WING/RETURN WALL AS PER CE/CON PLAN NO-B/14/02-11.
18. THIS BRIDGE LIES IN SEISMIC ZONE IV.
19. DROP WALL/ CURTAIN WALL AS PER DESIGN.
20. PROVISION OF INSPECTION STAIRCASE SHOULD BE MADE ON SITE.
21. A MINIMUM DEPTH BELOW FLOOR LEVEL OF CURAIN WALL SHOULD BE 2M ON UPSTREAM SIDE AND 2.5M ON DOWNSTREAM SIDE AS PER IRC 89'' AND SHOD DROP AND CURTAIN WALL WITH THESE DIMENSIONS.
23. FLEXIBLE APRON 1M THICK COMPRISING OF LOOSE STONE BOULDER (WEIGHING NOT LESS THAN 40KG) SHOULD BE PROVIDBEYOND THE CURTAIN WALLS FOR A MINIMUM DISTANCE OF 3M ON UPSTREAM SIDE AND 6M ON DOWNSTREAM AS PER IRC- SP13.
24. SOIL STABILISATION IN ORDER TO ACHIEVE THE REQUIRED CBR OF SOIL MUST BE DONE AND CONFIRMED BY PLATE LOAD TEST BEFORE WORK STARTS ON SITE.

THIS DRAWING SUPERCEDES CE/CON.PLAN No-B/CH-TOI/70/07/2018



SECTION OF
(CURTAIN WALL)
SCALE 1:25



SECTION OF
(DROP WALL)
SCALE 1:25

SECTION: CHITAUNI TO MADHUBANI
Bore Hole Terminated at : 10.45M.

DEPTH (M)		SPT N-VALUE	DESCRIPTION OF SOIL	IS CLASSIFICATION
0.00	0.50	--	SM	MEDIUM DENSE LITE GRAY, SILTY SAND (SM)
0.50	0.95	13		
1.50	1.95	15		
3.00	3.45	18		
4.50	4.95	18		
6.00	6.45	17		
7.50	7.95	21		
9.00	9.45	21		
10.00	10.45	21		

RL=111.897
FL=111.247
SBC=20.21 t/m²

BRIDGE NO.: 02
BOREHOLE NO.: 01

HFL IN (M)	FLOOR LEVEL IN (M)	PROPOSED FORMATION LEVEL (M)	PROPOSED RAIL LEVEL (M)	DISCHARGE IN CUMECS	VERTICAL CLEARANCE IN MM		FREE BOARD IN MM	
					PROVIDED (MM)	REQUIRED (MM)	PROVIDED (MM)	REQUIRED (MM)
112.147	111.897	115.599	116.361	0.922	1750	NIL	3452	1000

FOR EPC
TENDER ONLY

CONSTRUCTION DEPTH

1) RAIL (60kg)	172 mm
2) RUBBER PAD	10 mm
3) WIDER PSC SLEEPER HEIGHT AT RAIL SEAT	230 mm
4) MINIMUM BALLAST THK.	350 mm
TOTAL	762 mm

COLOR CODE LEGEND

RED	-	PROPOSED
CONTINUOUS	-	VISIBLE
DOTTED	-	INVISIBLE
BLACK	-	EXISTING
	-	TO BE DISMANTLED

LEGEND

F.L	FORMATION LEVEL
R.L	RAIL LEVEL
B.L	BED LEVEL
BOF.	BOTTOM OF FOUNDATION
PROP.	PROPOSED
EXG.	EXISTING
THK.	THICKNESS
CH.	CHAINAGE
PCC	PLAIN CEMENT CONCRETE
RCC	REINFORCED CEMENT CONCRETE
BR.	BRIDGE

(G.K.MISHRA) SSE/WCON/GKP	RANJEET KUMAR SINGH (R.K.SINGH) SSE/DRG./CON/GKP	JE/DES/CON/GKP	(BILAL AHMAD) SSE/DESI/CON/GKP	DRAWN	CHK. BY

LOADING STANDARD
25T-AXLE LOAD-2008

		CE / CON / I/GKP	(SANJAY KANOJIA)
DY. CE / CON /BSB	(PANKAJ PANDEY)	DY. CE / CON. / P&D	(SHAILENDRA SINGH)
XEN / CON / GKP.	(S.K.SINGH)	XEN / C / DESIGN	(R.K.SINGH)

CONST. & HQ. OFFICER'S SIGNATURE

CLIENT : NORTH EASTERN RAILWAY

PROJECT : CHITAUNI-TAMKUHI ROAD NEW LINE PART-1

TITLE : GENERAL ARRANGEMENT DRAWING FOR PROPOSED BR. NO. 2 (1X2.0MX2.0M) (MINOR) KM 4/4-5

BETWEEN STATION :-CHITAUNI-MADHUBANI | KM : 4/4-5 CH:- 4463.333 M

TYPE OF MAP : GENERAL ARRANGEMENT DRAWING

FILE NO. AAA/2644/STR/BR.NO. 2/GAD/001

CONSULTANT aarvee associates architects engineers & consultants pvt. ltd.

CE Plan No. B/CE-TOI/235/07-2025 | SCALE AS SHOWN

Date: 25/07/2025 | SHEET : 1/1