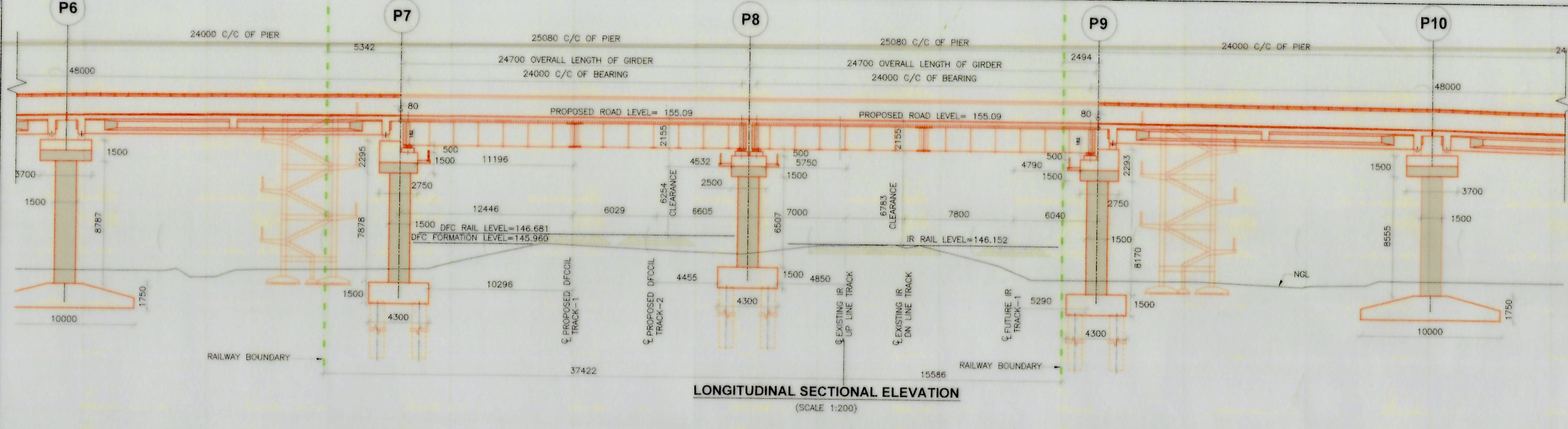
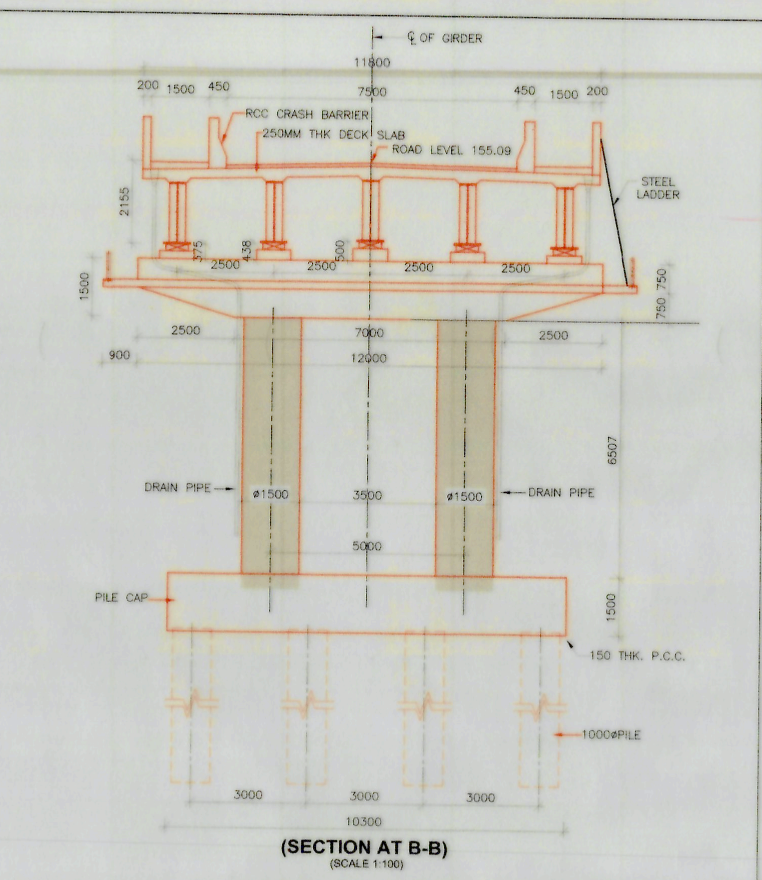
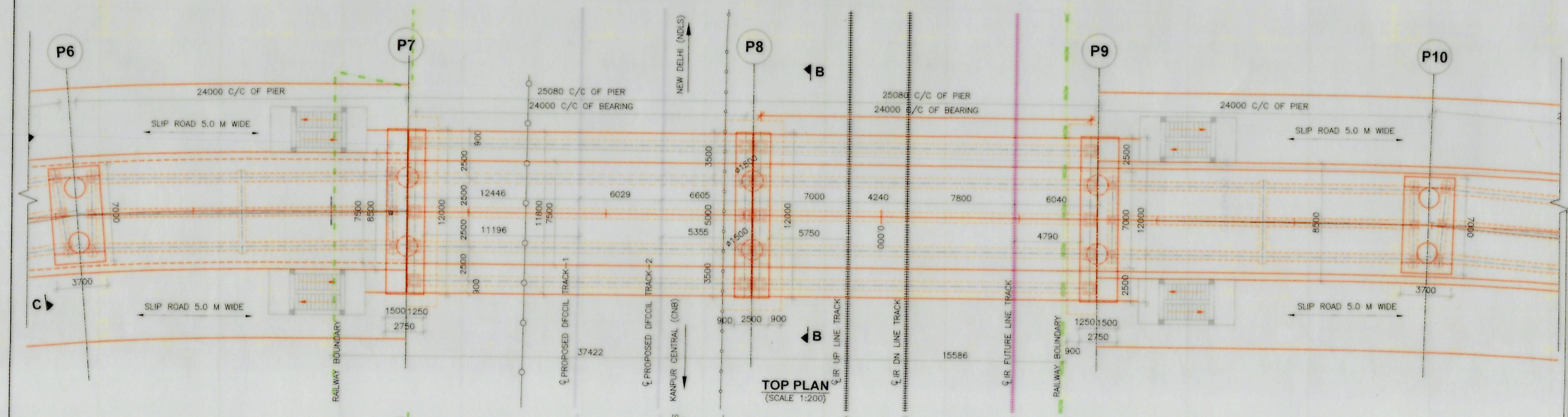


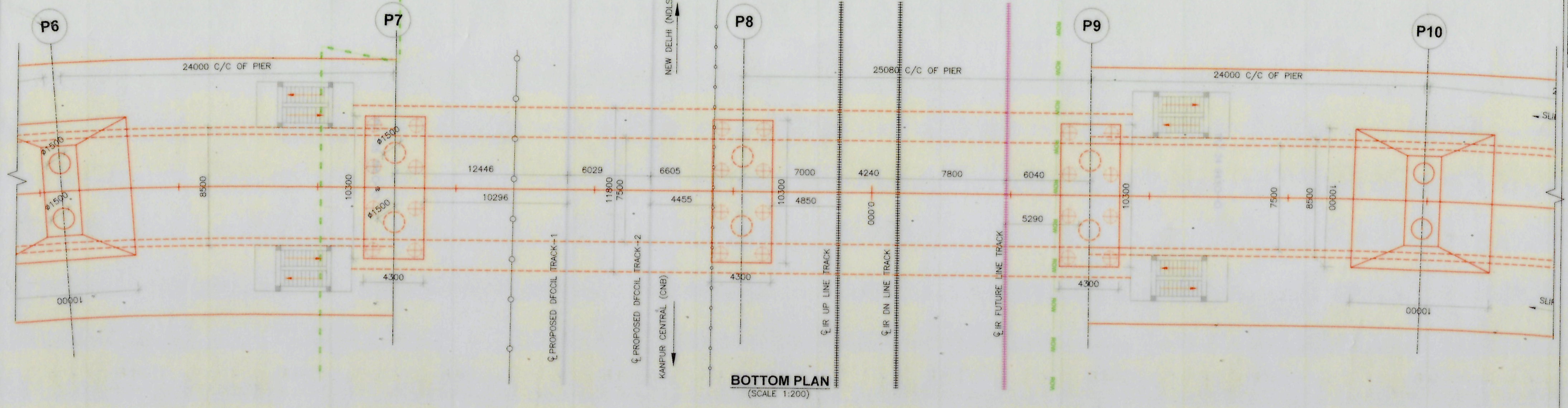
LONGITUDINAL SECTIONAL ELEVATION
(SCALE 1:200)



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



TOP PLAN
(SCALE 1:200)



BOTTOM PLAN
(SCALE 1:200)

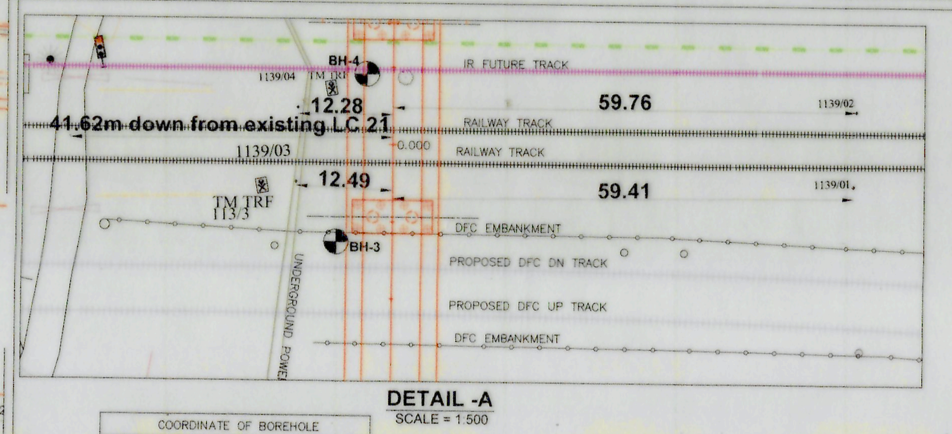
BORELOG

BH-3

DEPTH (M) BELOW G.L.	OVSERVED 'N' VALUE	SOIL
0.00		YELLOW SOFT SILTY CLAY
1.50	18	
3.00	UDS RECEIVED C=0.900,φ =5++	
4.50	9	
6.00	UDS RECEIVED C=1.00,φ =5++	
7.50	17	
9.00	UDS RECEIVED C=0.960,φ =4++	YELLOW MEDIUM STIFF SILTY CLAY
10.50	23	
12.00	UDS RECIVED	
13.50	27	
15.00	UDS RECEIVED C=1.100,φ =6++	
16.50	39	
18.00	UDS RECIVED	
19.50	57	
21.00	UDS NOT RECIVED	
22.50	54	
24.00	UDS NOT RECIVED	
25.50	66	
27.00	UDS NOT RECIVED	YELLOW STIFF SILTY CLAY
28.50	71	
30.00	UDS NOT RECIVED	
31.50	65	
33.00	UDS NOT RECIVED	
34.50	76	
36.00	UDS NOT RECIVED	
37.50	83	
39.00	UDS NOT RECIVED	
40.00	89	

BH-4

DEPTH (M) BELOW G.L.	OVSERVED 'N' VALUE	SOIL
0.00		YELLOW SOFT SANDY SILT
1.50	10	
3.00	UDS NOT RECIVED	
3.45	10	
4.50	14	
6.00	UDS RECEIVED C=0.800,φ =29+	
7.50	16	
9.00	UDS RECEIVED C=1.100,φ =6++	
10.50	21	YELLOW MEDIUM STIFF SILTY CLAY
12.00	UDS RECEIVED C=1.100,φ =5++	
13.50	43	
15.00	UDS RECEIVED C=0.900,φ =5++	
16.50	47	
18.00	UDS RECIVED	
19.50	53	
21.00	UDS NOT RECIVED	
21.45	71	
22.50	65	
24.00	UDS NOT RECIVED	YELLOW STIFF SILTY CLAY
25.50	55	
27.00	UDS NOT RECIVED	
28.50	61	
30.00	UDS NOT RECIVED	
31.50	65	
33.00	UDS NOT RECIVED	
34.50	61	
36.00	UDS NOT RECIVED	
37.50	68	
39.00	UDS NOT RECIVED	
40.00	74	



DETAIL -A
SCALE = 1:500

COORDINATE OF BOREHOLE		
BH. NO.	X	Y
BH-03	320463.800	2960462.610
BH-04	320471.000	2960483.000

RECOMMENDED SAFE LOAD CARRYING CAPACITY

BH. NO.	DIMENSION OF PILE LENGTH (M)	DIMENSION OF PILE DIAMETER (M)	RECOMMENDED SAFE LOAD (TONNES)
21/3	15.00	1.00	113.00
21/3	25.00	1.00	174.00
21/3	30.00	1.00	225.00
21/4	15.00	1.00	105.00
21/4	25.00	1.00	152.00
21/4	30.00	1.00	200.00

SAFE BEARING CAPACITY

BH. NO.	SIZE OF FOUNDATION LENGTH (M)	WIDTH (M)	DEPTH (M)	RECOMMENDED SBC (T/M²)
21/3	10.00	10.00	3.00	14.00
21/4	10.00	10.00	3.00	15.00

LONGITUDINAL PROFILE

KANDHESI PANCHAR VILLAGE ROAD — TO BHARATHAN-ETAWAHA (JAWAHAR) ROAD; SLOPE 1:30; A1, P1–P15, A2 (spans 24m, P7–P8 and P8–P9 25m)

CHAINAGE	EXISTING LEVEL	PROPOSED LEVEL	LEVEL DIFFERENCE
-396.000	144.421	145.500	1.079
-380.000	144.956	145.500	0.541
-360.000	144.865	155.090	10.225
-340.000	144.645	155.080	10.435
-320.000	144.655	146.372	1.717
-300.000	144.911	147.038	2.127
-280.000	144.995	147.705	2.710
-260.000	144.818	148.372	3.554
-240.000	144.735	149.038	4.303
-220.000	144.662	149.705	5.043
-200.000	144.349	150.372	6.023
-180.000	143.773	151.038	7.265
-160.000	143.864	151.705	7.841
-140.000	143.729	152.372	8.643
-120.000	143.692	153.038	9.346
-100.000	143.695	153.705	10.010
-80.000	143.706	155.090	11.384
-60.000	143.723	155.074	11.351
-40.000	143.969	154.842	10.873
-20.000	145.814	155.090	9.276
0.000	146.109	155.090	8.981
20.000	143.774	155.084	11.310
40.000	143.955	154.885	10.930
60.000	143.116	154.409	11.293
80.000	144.090	153.747	9.657
100.000	144.335	153.081	8.746
120.000	144.222	152.414	8.192
140.000	144.471	151.747	7.276
160.000	144.406	151.081	6.675
180.000	144.494	150.414	5.920
200.000	144.396	149.747	5.351
220.000	144.599	149.081	4.482
240.000	144.867	148.414	3.547
260.000	144.622	147.747	3.125
280.000	144.630	147.081	2.450
300.000	144.905	146.414	1.509
320.000	144.740	145.779	1.039
340.000	144.583	145.503	0.920
360.000	144.958	145.500	0.542
369.000	145.186	145.500	0.314

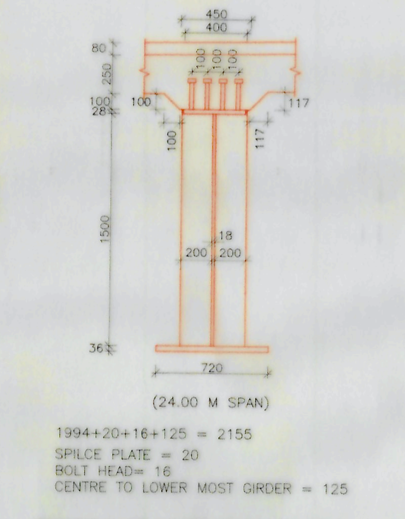
HORIZONTAL: Straight Length = 107.613; Left Arc Radius = -250.000 Length = 71.691; Straight; Right Transition RL = 3600.000 L = 45.000; Right Arc Radius = 80.000 Length = 90.356; Right Transition; Straight Length = 60.739; Right Transition RL = 4500.000 L = 45.000; Right Arc; Right Transition RL = 4500.000 L = 45.000; Straight Length = 104.685; Left Arc R = -250.000 L = 26.331; Straight

VERTICAL: Straight Gradient = 0.000% Length = 34.650; Sag Curve K = 9.000 Length = 30.000; Straight Gradient = 3.333% Length = 248.700; Hog Curve K = -14.400 Length = 48.000; Straight Gradient = 0.000% Length = 50.365; Hog Curve K = -14.400 Length = 48.000; Straight Gradient = -3.333% Length = 246.700; Sag Curve K = 9.000 Length = 30.000; Straight Gradient = 0.000% Length = 26.585

LOCATION AT P7

LOCATION AT P8
BEARING LAYOUT
(SCALE 1:100)

LOCATION AT P9



1994+20+16+125 = 2155
SPLICE PLATE = 20
BOLT HEAD= 16
CENTRE TO LOWER MOST GIRDER = 125

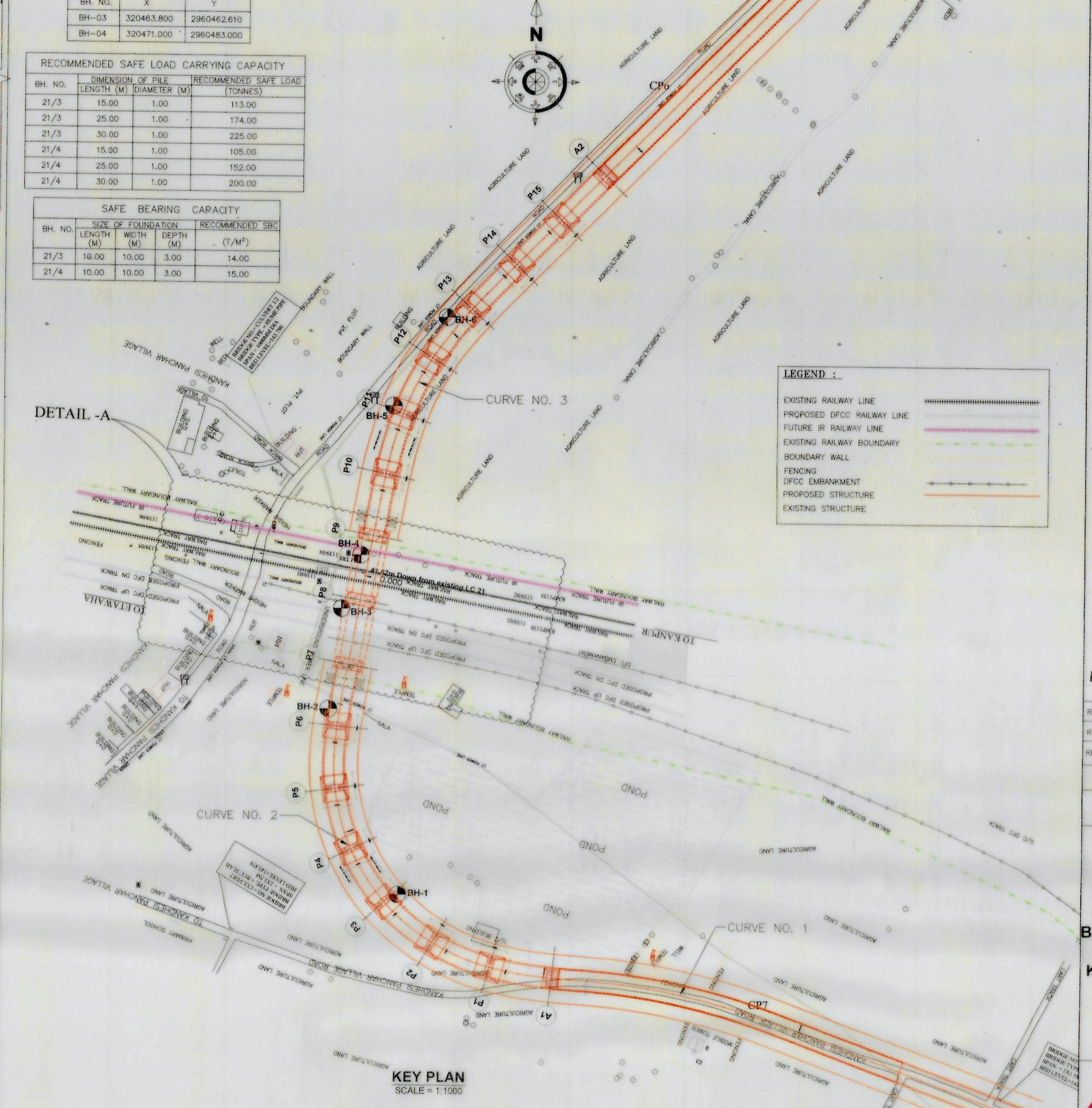
SECTION OF COMPOSITE GIRDER
(SCALE 1:25)

NOTES & SPECIFICATIONS :-

1. ALL DIMENSIONS ARE IN MILI METERS AND LEVEL IN METERS OTHERWISE WRITTEN.
2. NO DIMENSIONS SHALL BE SCALED FROM THIS DRAWING ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
3. ACTUAL LOCATION OF ROB SHALL BE DECIDED BY ENGINEER IN CHARGE OF RAILWAY IN CONSULTATION WITH ROAD AUTHORITY AT THE TIME OF ITS CONSTRUCTION.
4. THE STRUCTURAL DETAILS AND DIMENSIONS SHOWN IN THIS DRAWINGS ARE TENTATIVE AND ARE SUBJECT TO FINAL DESIGN AND DRAWING TO BE APPROVED BY THE RAILWAY.
5. CRS SANCTION WILL BE OBTAINED BEFORE LAUNCHING OF STEEL GIRDER IN RAILWAY SPAN.
6. TYPE / DEPTH OF FOUNDATION IS TENTATIVE AND MAY BE ALTERED BY ENGINEER-IN-CHARGE OF RAILWAY TO SUIT THE SOIL STRATA MET AT SITE.
7. PILES SHALL BE LOAD TESTED BEFORE CASTING OF MAIN PILE AS PER RELEVANT IRC/RAILWAY CODE.
8. BRIDGE WHEN CONSTRUCTED BE CLEAR OF MOVING DIMENSIONS MINIMUM VERTICAL CLEARANCE AND HORIZONTAL CLEARANCE AT RAIL LEVEL OF PIERS FROM THE NEAREST CENTRE LINE OF TRACK SHALL BE MINIMUM (AS PER RDSO LETTER NO.CBS/DRO DATED 15.04.2012)
9. GUARD RAIL SHALL BE PROVIDED IN THE TRACK ADJACENT TO PIERS AND ABUTMENTS AS PER STANDARD DRAWING.
10. WIDTH OF ROADWAY HAS BEEN PROVIDED AS PER REQUIREMENT OF SPONSORING AGENCY.
11. SINGLE SUMMIT CURVE SHALL BE PROVIDE AT THE APEX OF THE GRADIENT OF APPROACHES.
12. EACH 2 LANE UNIT OF ROB IS DESIGNED FOR 1-LANE OF IRC 70R OR 2 LANE OF IRC CLASS,A LOADING, WHICHEVER GOVERNS.
13. CRASH BARRIERS SHALL BE PROVIDED AS PER LATEST DESIGN BY IRC.
14. DRAWING AND DESIGN OF APPROACHE SLAB SHALL BE DECIDED BY SPONSORING AUTHORITY AS PER CLAUSE 217-3 IRC CODE.
15. POT-PTFE BEARING SHALL BE PROVIDED.
16. IN CASE BLASTING IS TO BE CARRIED OUT IN THE VICINITY OF RAILWAY LINE NECESSARY PRECAUTIONS AND BLOCK SHALL BE OBSERVED AS PER PARA 1006 OF IR WORKS MANUAL.
17. DRAINAGE ARRANGEMENTS IN RAILWAY PORTION SHALL BE PROVIDED AVOIDING TRACK BELOW AS PER STANDARD DRAWING OF MOST.
18. SUITABLE JACKING POINTS SHALL BE PROVIDED FOR FITTING GIRDERS FOR INSPECTION /REPAIR OF BEARINGS.
19. CONTROLLED CEMENT CONCRETE MIX TO BE PROVIDED AND SHOULD NOT BE LEANER THEN PROVISION IN RAILWAY'S CONCRETE BRIDGE CODE.
20. CONCERNED LEVEL CROSSING SHOULD BE CLOSED SIMULTANEOUS COMMISSIONING OF ROB.
21. 4 NO STAIRCASE SHOULD BE PROVIDED BEYOND RLYS BOUNDARY FOR THE USE OF PEDESTRIANS.
22. MOU TO BE DRAWN WITH TRAFFIC DEPARTMENT FOR BLOCK & CAUTIONS BEFORE STARTING THE WORK.
23. AGREEMENT DOCUMENT DULY SIGNED BY STATE AUTHORITY TO BE SUBMITTED.
24. LC SHOULD BE CLOSED AFTER CONSTRUCTION AND COMMISSIONING OF ROB.
25. INSPECTION LADDERS FROM ROAD TO PIERS TOP AND INSPECTION PLATFORMS IN THE PIERS SHALL BE INCORPORATED IN THE STRUCTURAL DRGS .
26. BARRICADING OF WORKS SITE WILL BE PROVIDED AS PER PCE'S LETTER NO 324/W/1/NCR/TP /PT-X ON 04.05.2013. & CBE'S LETTER NO 260/W-1/ROB/PT-II DATD. 17.05.2013.
27. WEARING COAT OF CONCRETING SHALL BE PROVIDED.
28. DETAILS OF TYPE & SIZE OF BED BLOCK & BEARING WILL BE GIVEN IN STRUCTURAL DRAWINGS.
29. REQUIRED LAND FOR CONNECTION ROAD WILL BE OBTAINED LATER.
30. PROTECTION SCREEN SHALL BE PROVIDED AS PER ACTM FROM INSIDE ONLY.
31. NECESSARY MODIFICATION IN OHE TO BE DONE BEFORE COMMISSIONING OF ROB. TRD ESTIMATE IS REQUIRED AND AGENCY DECIDED.
32. PROTECTION SCREEN ON THE ROB SHOULD BE PER LATEST RDSO DRAWING NO. ETI/C/0068/I FROM THE INSIDE OF CRASH BARRIER /RAILING.
33. TRAFFIC & POWER BLOCK OF ADEQUATE TIME WILL BE REQUIRED FOR GIRDER LAUNCHING.
34. FOR DETAILS OF SUPER STRUCTURE OF RAILWAY SPAN OF 24.00 M GIRDER REFER RDSO'S DRG. NO. RDSO/B-11757/R.
35. FOOTPATH HAS BEN PROVIDED IN SUPERSTRUCTURE AND STAIRCASE HAVE GIVEN HENCE LHS/FOB NOT REQUIRED FOR CLOSURE OF LC.
36. THE ARRANGEMENT FOR PROTECTION OF WORKSITE MUST BE DONE AS PER PROVISIONS OF IRPWM,RAILWAY BOARD INSTRUCTIONS & PCE CIRCULAR NO.103 WILL BE STRICTLY FOLLOWED. THERE SHOULD BE NO INCONSISTENCY IN STIPULATIONS.
37. THERE IS NO INFRIGMENT TO IRDSO.
38. EXISTING DETAIL SHOWN IN THE PLAN HAVE BEEN CHECKED AT SITE AND FOUND CORRECT.
39. FEASIBILITY OF PROPOSED WORK HAS BEEN CHECKED AND WORK IS FEASIBLE FOR ERECTION.

METHODOLOGY OF WORKING.

1. MODUS OPERANDI/METHODOLOGY CONSTRUCTION ACTIVITY, SAFETY PRECAUTIONS AND MEASURES TO BE OBSERVED DURING CONSTRUCTION OF ROB SHOULD BE IN ACCORDANCE OF RAILWAY BOARD LETTER NO. 97/CE-I/BRC/158/9/(POLICY) Pt. II DATED 16-07-09
2. FABRICATED STEEL GIRDER SHALL BE LAUNCHED FIRST AND THEN RCC DECK SLAB WILL BE CASTED IN SITU AFTER PROVIDING TEMP. ARRANGEMENT.
3. DETAILED LAUNCHING SCHEME WILL BE PREPARED AND SUBMITTED TO NCR FOR APPROVAL. LAUNCHING OF GIRFERS OVER RUNNING RAILWAY TRACK WILL BE DONE AS PER APPROVED LAUNCHING SCHEME.
4. CASTING/FABRICATING OF GIRDERS AND SLAB WILL BE EXECUTED UNDER SPEED RESTRICTION AS PER CBE LETTER 136-W/BR/POLICY CIRCULAR-II/1 DATED 22.06.2017.
5. THE WORK UNDER TRAFFIC BLOCK SHALL BE CARRIED OUT UNDER THE PROVISION OF BANNER FLAG AND PROTECTION OF ENGG. FLAGMEN.



LEGEND :

- EXISTING RAILWAY LINE
- PROPOSED DFCC RAILWAY LINE
- FUTURE IR RAILWAY LINE
- EXISTING RAILWAY BOUNDARY
- BOUNDARY WALL
- FENCING
- DFCC EMBANKMENT
- PROPOSED STRUCTURE
- EXISTING STRUCTURE

KEY PLAN
SCALE = 1:1000

NCR/HQ/PLAN No- NCR/EN GG/GAD/ROB/108/2019

REV.	DATED	DESCRIPTION
R2	FEB.-2019	REVISED AS PER RAILWAY LETTER NO.260-W/551/Bridge-GAD-ROB,DT:18.02.2019
R1	NOV.-2018	REVISED AS PER RAILWAY LETTER NO.260-WS No.ROB/CNB-TDL/DFCCIL-TDL,DT:30.10.2018

REVISIONS

ALLAHABAD DIVISION (N.C.RLY)

PROPOSED TWO LANE ROB COMPOSITE SPAN 2x24.00 M FOR OBLIGATORY SPAN, 24.0M PSC APPROACH SPAN IN LIEU OF L-XING NO.LC21C/3E AT RLY KM 1139/3-5 BETWEEN KANDHESI PANCHAR VILLAGE ROAD TO BHARATHAN-ETAWAHA (JAWAHAR) ROAD,STATION IN EKDIL TO BHARTHANAON SECTION TUNDLA TO KANPUR OF NORTH CENTRAL RAILWAY ALLAHABAD (SKEW ANGLE AT IR-0° & DFCC-0°)
(TVU: 47150, DT:04/2015)
GENERAL ARRANGEMENT DRAWING (RAILWAY PORTION)

डेडीकेटेड फ्रेट कॉरिडोर

DRG. NO.	RITES/RI/RCED/DFC/ROB./GAD LC 21C/RAILWAY PORTION
SH. NO.	1 OF 3
DATE	FEBRUARY, 2019
REV.	R2

RITES

NCR/HQ-OFFICERS		DIVISIONAL OFFICERS						DFCCIL OFFICERS		RITES/LTD.				
(SH. A.K. DADARYA) CBE/NCR	(SH. SINHA) AXEN/BR/NCR	(SH. AMITABH) DRM	(SH. ATUL GUPTA) SR.DEN/CO	(SH. MANU) SR.DOM	(SH. AMITABH SHARMA) SR.DEE/TRD	(SH. NEERAJ YADAV) SR.DSTE/SIG	(SH. P K SHAKYA) SR.DEN/IV	(SH. ATUL B. KHARE) CGM/DFC/TDL	(SH. SANDESH SHR[illegible]) GM/CIVIL/TDL	(NEELAM CHAUHAN) DRAWN BY	(ATIF AHMED) MANAGER/D	(MD. NOMAN) MANAGER/D	(D.S. NEGI) AGM/D	(A.K. MATHUR) GGM/RCED

(DURGESH CHANDRA) DY CE/BR/NCR
13.3.15
Sd/-