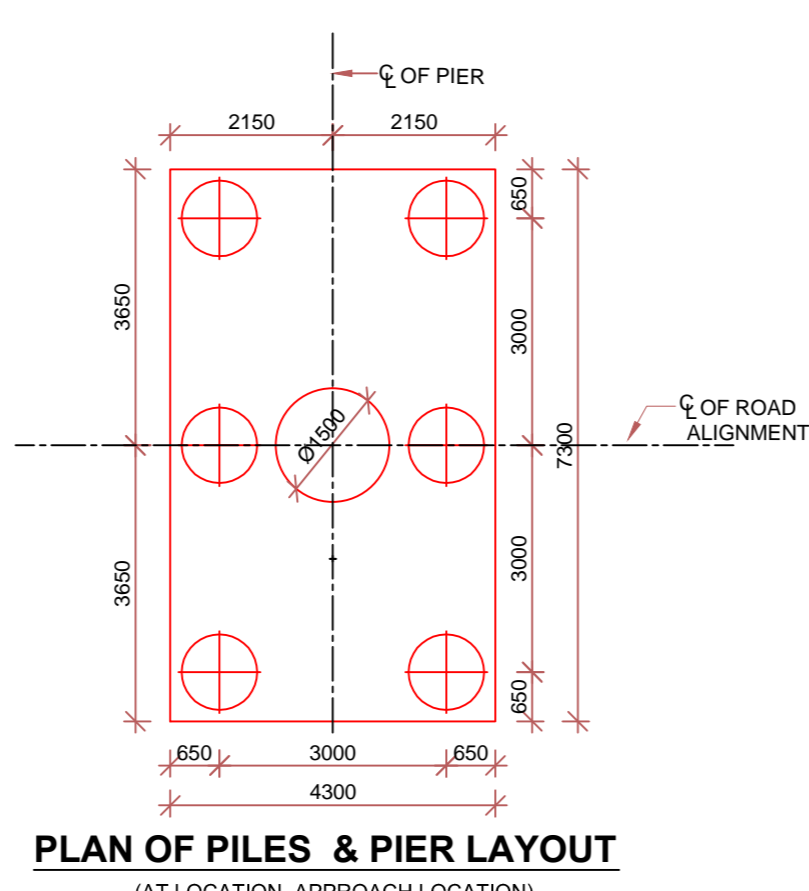
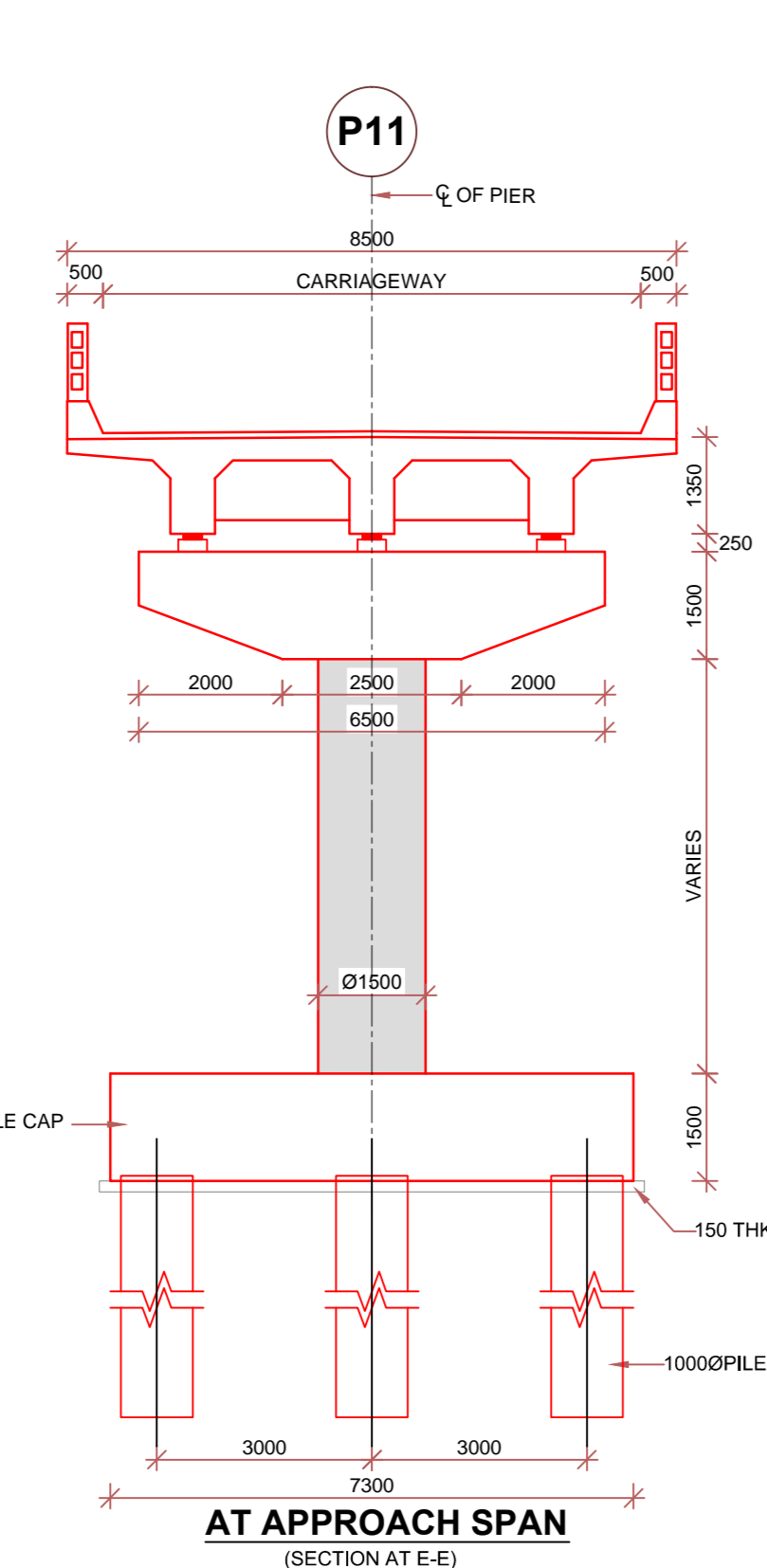
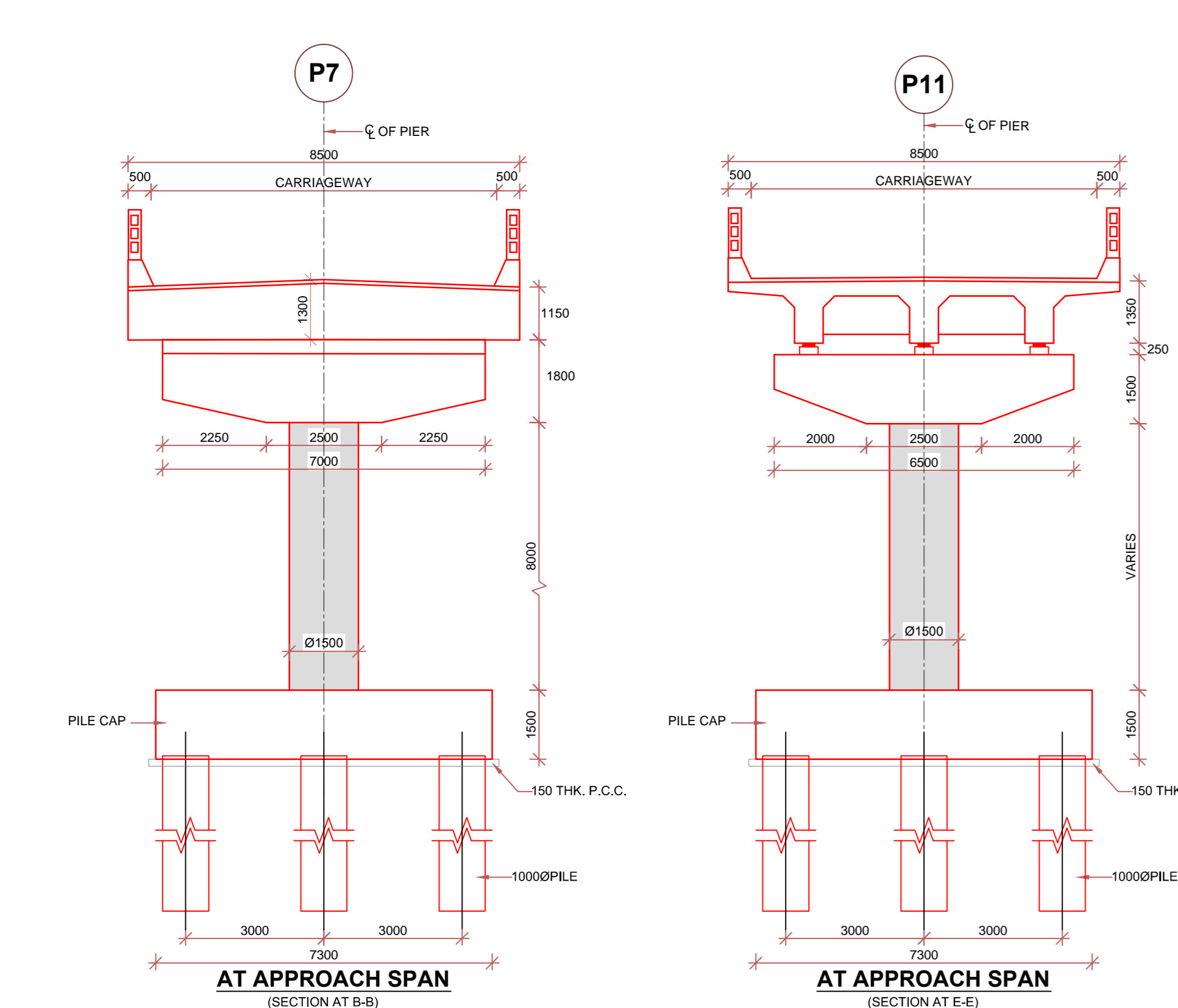


STATION	EXISTING LEVEL	PROPOSED LEVEL	HORIZONTAL	VERTICAL	LEVEL DIFFERENCE	CHAINAGE
0+000	74.684	76.000			1.436	371.000
0+200	73.719	76.000			2.281	360.000
0+400	74.548	76.000			1.452	340.000
0+600	75.516	76.000			0.484	320.000
0+800	75.088	76.000			0.912	300.000
1+000	75.059	76.790			1.731	280.000
1+200	74.880	77.447			2.567	260.000
1+400	75.195	78.113			2.918	240.000
1+600	74.683	78.790			4.117	220.000
1+800	73.658	79.447			5.789	200.000
2+000	73.465	80.113			6.648	180.000
2+200	73.546	80.790			7.244	160.000
2+400	73.640	81.447			7.807	140.000
2+600	73.830	82.113			8.283	120.000
2+800	73.628	82.790			9.162	100.000
3+000	73.347	83.447			10.100	80.000
3+200	73.242	84.113			10.871	60.000
3+400	73.509	84.890			11.381	40.000
3+600	74.321	84.390			12.069	20.000
3+800	75.205	84.390			13.810	0.000
4+000	74.413	84.390			9.977	20.000
4+200	72.833	84.390			11.557	40.000
4+400	71.928	84.390			12.462	60.000
4+600	71.907	83.713			11.806	80.000
4+800	71.583	83.047			11.464	100.000
5+000	71.550	82.390			10.840	120.000
5+200	71.939	81.713			9.774	140.000
5+400	72.490	81.047			8.547	160.000
5+600	72.884	80.390			7.394	180.000
5+800	72.838	79.713			6.125	200.000
6+000	73.114	79.047			4.967	220.000
6+200	73.278	78.390			4.888	240.000
6+400	73.031	77.713			5.318	260.000
6+600	72.785	77.047			5.738	280.000
6+800	72.539	76.390			6.149	300.000
7+000	72.509	75.713			6.204	320.000
7+200	72.628	75.047			6.419	340.000
7+400	72.742	74.390			6.644	360.000
7+600	72.801	73.689			6.886	380.000
7+800	72.833	73.008			7.025	400.000
8+000	72.866	73.526			7.266	420.000
8+200	73.013	73.754			7.741	440.000
8+400	73.085	73.682			7.600	460.000
8+600	73.066	73.611			7.545	480.000
8+800	73.072	73.539			7.467	500.000
9+000	73.038	73.508			7.470	520.000



SANCTION OF CRS TO BE TAKEN PRIOR TO EXECUTION OF WORK SPECIAL NOTES:

1. LAUNCHING SCHEME OF THE RAILWAY SPAN GIRDER WILL BE SUBMITTED SEPARATELY.
 2. MAINTENANCE AGREEMENT TO BE EXECUTED BEFORE EXECUTION OF WORK.
 3. NO WORK WITHIN RAILWAY BOUNDARY TO BE DONE WITHOUT PRESENCE OF RAILWAY REPRESENTATIVE.
 4. GIRDERS OVER ROB PROPER TO BE FABRICATED PREFERABLY BY RDSO APPROVED FIRMS.
- NOTES:-**
1. ALL DIMENSIONS ARE IN MM AND LEVELS ARE IN METERS UNLESS SPECIFIED OTHERWISE.
 2. DIMENSIONS ARE NOT TO BE SCALED ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED.
 3. ALL THE DIMENSIONS SHOWN SHOULD BE VERIFIED AT SITE BEFORE TAKING UP DESIGN WORK IN HAND. ANY DISCREPANCY NOTED SHOULD BE FORWARDED THROUGH ALL TO THE DESIGNER.
 4. MAXIMUM SAFE BEARING CAPACITY AT THE FOUNDING LEVEL CONSIDERED AS PER GEOTECHNICAL REPORT. IF IT IS LESS THAN THE SAFE BEARING CAPACITY, THE FOUNDATION HAS TO BE REDESIGNED.
 5. DRAINAGE SLOUT SHALL BE PROVIDED AS PER MORTH SPECIFICATION.
 6. EXPOSURE CONDITION OF THE BRIDGE AND ITS COMPONENTS SHOULD BE DECLARED AS PER IRC 21:2000/IRC 12:IS:46. ALL SPECIFICATION LAID DOWN IN IRC CODES IS:456 CODE FOR RELEVANT EXPOSURE CONDITION SHALL BE FOLLOWED.
 7. FOR DETAILS OF SUBSTRUCTURE AND FOUNDATION REFER SEPARATE DRAWING DULY APPROVED BY RAILWAY OFFICE.
 8. WORK SHOULD BE CARRIED OUT UNDER THE SUPERVISION OF RAILWAY ENGINEERS WITH RAILWAY LAND LIMIT.
 9. TYPE OF BEARING - POT-PTFE.
 10. SUITABLE UTILITY DUCTS IF REQUIRED SHOULD BE PROVIDED BELOW FOOTPATH SLAB WITH THE APPROVAL OF ENGINEER IN CHARGE.
 11. DESIGN SHALL BE AS PER LATEST RELEVANT CODE OF IRC INCLUDING SP-33 AND OTHER CODES AS APPROVED BY M.O.T.
 12. DFOCC/PRIVATE AUTHORITIES SHOULD BE INFORMED DURING EXECUTION OF WORK SAFETY OF RUNNING RAIL TRAFFIC SHOULD NOT BE AFFECTED.
 13. SUITABLE SR. IF REQUIRED SHOULD BE IMPOSED BEFORE TAKING UP THE EXECUTION OF WORK WITH THE APPROVAL OF ENGINEER IN CHARGE.
 14. TEMPORARY SIGNALING ARRANGEMENT WILL BE DONE AS PER G.R.15.09 (D) AS R.15.09 (2) OR GR15.09/2B AS R.15.09 (3) WHICHEVER IS APPLICABLE IF REQUIRED.
 15. LOADING STANDARD OF ROB AS PER IRC-8:2000.
 16. FULL FLEADED LOAD SHOULD BE PROVIDED FOR GONG AS PER IRC-SP-5 TO ENSURE QUALITY WORK.
 17. CONCRETE DESIGN MIX: RCC DECK SLAB - M40 CRASH BARRIER - M40 LEVELING COURSE - M15
 18. MANNED LEVEL CROSSING NO. 76 EXIST AT THIS LOCATION.
 19. L.C. SHALL BE CLOSED SIMULTANEOUSLY WITH COMMISSIONING OF ROB AND NOC IN THIS REGARD HAS BEEN ISSUED BY STATE GOVT. WIDE LETTER NO.0879/23-11-2015-1204/2015 DATED: 07.06.2016.
 20. T.V.V. OF L.C. IS 26.202 DATED 07.02.16.
 21. PROVISION OF CLAMPS IN THE SUPERSTRUCTURE FOR THE SUPPORTING THE AC TRACTION WIRE TO BE MADE INVARIABLY IN CONSULTATION WITH CONCERN AUTHORITIES BASED ON TYPICAL DRAWING.
 22. ALL R.C.C./P.C.C. WORK SHOULD CONFORM TO RELEVANT ISIRC CODES & MOST SPECIFICATION.
 23. FOR FABRICATION, WORKMANSHIP, INSPECTION TESTING, PROTECTION AGAINST CORROSION ETC. RELEVANT PROVISION OF IRC-24:2001 SHALL BE FOLLOWED.
 24. THE DEPTH OF FOUNDATION AND SLOPE OF THE DRAWING IS TENTATIVE & SHOULD BE DECIDED BY COMPETENT AUTHORITIES AS PER ACTUAL 'SOIL' PROPERTIES AND DESIGN CALCULATION.
 25. REPRESENTATIVE OF TELECOM & SIGNAL DEPARTMENTS SHOULD BE MADE AVAILABLE BEFORE COMMENCEMENT OF PROPOSED WORK. IN THE VICINITY OF SIGNAL & TELECOM CABLE.
 26. TEMPORARY ARRANGEMENT DRAWING FOR CONSTRUCTION OF ROB ON DEFECT WORK/COST SHARING WORK WITH STATE GOVT. AND PRIVATE AGENCY ISSUED BY ADVISOR CIVIL ENGINEERING RAILWAY BOARD LETTER NO. SP/IC/1981/590/CLC/P1-II, DATED: 16.07.2009, 27.10.2009, 15.02.2011 & 09.07.2012 SHOULD BE STRICTLY FOLLOWED.
 27. NO CONSTRUCTION JOINT SHALL BE NORMALLY ALLOWED IN CONCRETE WORKS WITHOUT SPECIAL PRECAUTIONS AS PER THE RELEVANT BRIDGE CODES AND SUITABLE PROTECTION PAINTING OF APPROVED MAKE SHOULD BE USED TO PAINT THE UNDERSIDE OF CONCRETE ROB GIRDERS ALSO TO ENSURE LONG LIFE. CONTROLLED CONCRETE WITH WEIGH BATCHING SHALL BE USED.
 28. GUARD RAIL SHOULD BE PROVIDED IN THE TRACK NEAR THE ISOLATED PILLAR OF ROB. NO CONSTRUCTION JOINT SHALL BE ALLOWED IN RCC OR RCC SLAB OR CURBING OF ALL CONCRETE AND MASONRY WORKS AS PER THE RELEVANT CODES OF PRACTICE SHALL BE ENSURED BEFORE USE.
 29. INSPECTION LADDER/STAIRS SHOULD BE PROVIDED TO ENSURE PROPER INSPECTION ACCESSIBILITY OF ROB.
 30. STRUCTURAL STEEL SHALL CONFORM TO IS:2062 (GRADE - B).
 31. STOP SEAL TO THE EXPANSION JOINTS SHALL BE PROVIDED AS PER LATEST MOST REQUIREMENT. CONTRACTOR SHOULD FURNISH DESIGN DRAWING OF EXPANSION JOINTS FROM FIRMS APPROVED BY MPT AT VARIOUS RELEVANT AMBIENT TEMPERATURE TO SUIT SITE CONDITIONS WITH THE APPROVAL OF ENGINEER IN CHARGE.
 32. TO PROTECT THE CONCRETE FROM DAMAGE DUE TO SHAKE OF LOCOMOTIVES, 4.00M WIDE STRIP WITH POLYURETHANE PAINT PREFERABLE IN BLACK COLOUR SHALL BE PROVIDED IN THE SOFFIT OF THE DECK OVER RUNNING TRACKS.
 33. STANDARD MAINTENANCE AGREEMENT SHOULD BE EXECUTED WITH RAILWAY AND STATE GOVT. AUTHORITIES FOR GRANT OF PERMISSION FOR CONSTRUCTION OF ROB/UB IN RAILWAY PORTION.
 34. NO WORK SHOULD BE TAKEN UP IN HAND TILL PROOF CHECK DESIGN AND DRAWING WITH RAILWAY PORTION AREA APPROVED BY RAILWAY.
 35. ALL STEEL STRUCTURES SHOULD HAVE ANTI - CORROSION PROTECTION OF LONG DURABILITY.
 36. FOR DETAILS OF SUPER STRUCTURE OF RAILWAY SPAN OF 30.00M SPAN REFER RDSO DRI. NO. RD/ROB/17/5R. AND FOR 30M GIRDER REFER RDSO'S DRI. NO. RD/ROB/17/5R.
 37. ANY CHANGE IN THE GAD FOR RAILWAY PORTION SHOULD BE DONE WITH PRIOR APPROVAL OF RAILWAY.
 38. CLEAR COVER TO OUTER MOST STEEL SHALL BE AS UNDER:
A. FOR SUPER STRUCTURE - 100MM.
B. FOR FOUNDATION - 75MM.
C. FOR ABUTMENT, DIRT WALL AND RETURN WALL - 50MM.
 39. FOR JACKING UP THE GIRDER FOR ANY HANDLING REQUIREMENTS IN FUTURE SUCH AS FOR REPLACEMENT OF BEARINGS ON ANY OTHER BEARINGS REQUIRED, SUITABLE FEATURES SHOULD BE PROVIDED TO ENABLE JACKING.
 40. THE DIMENSIONS & LEVELS SHOWN IN THE GAD ARE SUBJECT TO CHANGES AS PER SITE REQUIREMENT/DETAIL DESIGN AND WILL BE DONE WITH PRIOR APPROVAL OF RAILWAY.
 41. GAD SHALL BE METALISED AS PER IS:81:2001.
 42. VERTICAL CURVE WILL BE PROVIDED WHEREVER THERE IS CHANGE IN GRADIENT IN APPROACHES AS PER IRC SPEC.
 43. RESTRAINER ON BOTH SIDE OF OUTERMOST GIRDER ON PIER CAP & ABUTMENT CAP WILL BE PROVIDED IN SEISMIC ZONE IV & V.
 44. APPROACH SPAN CONFIGURATION ARE INDICATIVE ONLY. FINAL SPAN OF APPROACH SPAN DECIDED BY UPR&L END.
 45. WHEN SKEW ANGLE MORE THAN 20° GIRDER WILL BE DESIGNED BY M/RITES LTD.

OPERATION SCHEDULE FOR RAILWAY SPAN:

1. TRACK SHALL BE PROTECTED SUITABLY DURING THE CONSTRUCTION OF BRIDGE/ROB FOR SAFETY OF RUNNING TRAIN.
2. ADEQUATE MEASURES SHALL BE TAKEN AT SITE TO ENSURE SAFETY FOR WORKING MEN, MATERIALS, EQUIPMENTS, TRAFFIC ETC.
3. FOR SHIFTING OF THE MASTS AND SIGNALING EQUIPMENTS, DIVISION MAY BE CONSULTED AS PER EXISTING RULES.
4. FOR LAUNCHING OF GIRDERS OVER RAILWAY TRACK, SUITABLE BLOCK WILL BE TAKEN WITH ADVANCE NOTIFICATION.
5. DETAILED STRUCTURAL DRAWINGS OF THE ROB SHALL BE APPROVED BY COMPETENT AUTHORITY.
6. LAUNCHING SCHEME SHALL BE APPROVED BY COMPETENT AUTHORITY.
7. DRAWING APPROVAL SHALL BE SUBMITTED TO APPROVAL OF ALIGNMENT AND LEVELS BY STATE GOVT.
8. CONSTRUCTION OF ROB SHALL BE AS UNDER:
(i) CONSTRUCTION OF SUITABLE FOUNDATION FOR PIERS.
(ii) CONSTRUCTION OF SUITABLE ABUTMENT, PIER CAP AND ABUTMENT CAP.
(iii) CONSTRUCTION OF RCC PEDIESTALS.
(iv) FABRICATION OF STEEL GIRDERS, CROSS GIRDERS AND DIAPHRAGMS ETC.
(v) SPEED RESTRICTION OF 20 KMPH WILL BE IMPOSED BEFORE ERECTION OF TEMPORARY STAGING WORK.
(vi) POSITIONING OF CRANES FOR LIFTING AND PLACEMENT OF GIRDERS WITH RAILWAY TRAFFIC BLOCK IMPOSED AND LAUNCHING OF GIRDERS.
(vii) CASTING OF RCC DECK SLAB WITH SHUTTERING SUPPORTED ON GIRDERS.
(viii) CASTING OF STAGING AND SHUTTERING SUPPORTED ON GIRDERS.
(ix) COMPLETION OF ANCILLARY WORKS LIKE CRASH BARRIER, RAILING, WEARING COURSE, EXPANSION JOINT ETC.
9. ALL SAFETY RULES SHALL BE FOLLOWED DURING EXECUTION OF WORK.
10. RAILWAY AUTHORITIES SHALL BE INFORMED BEFORE STARTING ANY WORK. INSTRUCTIONS GIVEN BY RAILWAY AUTHORITIES TIME TO TIME DURING EXECUTION SHALL BE FOLLOWED.

EAST CENTRAL RAILWAY (E.C.RLY)

**PROPOSED TWO LANE ROB
SPAN 1x36.00+1x30.00 FOR OBLIGATORY SPAN
IN LIEU OF L-XING NO 71C, IR CH. 645/7-9
(SKEW ANGLE AT IR-43° & DFCC 23°)
(TVU-26120, DT.07/2015)
ON MUGHALSARAI - GAYA SECTION
OF EAST CENTRAL RAILWAY MUGHALSARAI
GENERAL ARRANGEMENT DRAWING**

DESIGNATION	SIGNATURE	DESIGNATION	SIGNATURE	DRAMAOS	DATE	REV.
(A.K. MISHRA) CPM/DFCC/LMGS		EXECUTIVE ENGINEER		Sr. DEN/CO-ORD/MGS	NOVEMBER, 2017	3 OF 3
DFM/ENGG/DFCC/L				Sr. DEN/MGS		
				Sr. DSTM/MGS		
				Sr. DEE/TRD/MGS		
				Sr. DEE/G/MGS		

ALL THE DIMENSIONS SHOWN ARE TENTATIVE AND MAY UNDERGO CHANGES DURING FINAL DESIGN.

DFCCIL/MGS STATE GOVT. U.P. MGS DIVISION

HQ. ECR HJP

SCALE: 100 0 100 200 300cm

RITES
THE INFRASTRUCTURE PEOPLE

DRG. NO. WTS/R/CRCD/DFCC/ROB. 710/GA.
DATE: NOVEMBER, 2017
REV. 3 OF 3

SCALE: 100 0 100 200 300cm
200 0 200 400 600cm

DRAWN BY: (BUNEL KUMAR) (ATP AHMED) (MD. NOJAM) (D.S. NEGI) (A.K. MATRUH) (SUNIL KUMAR) (AMD) (MANAGER) (JMD) (GM)

PROJECT: EAST CENTRAL RAILWAY (E.C.RLY)

SCALE: 100 0 100 200 300cm

DATE: NOVEMBER, 2017

REV: 3 OF 3

SCALE: 100 0 100 200 300cm

200 0 200 400 600cm

SCALE: 100 0 100 200 300cm

200 0 200 400 600cm

SCALE: 100 0 100 200 300cm

200 0 200 400 600cm