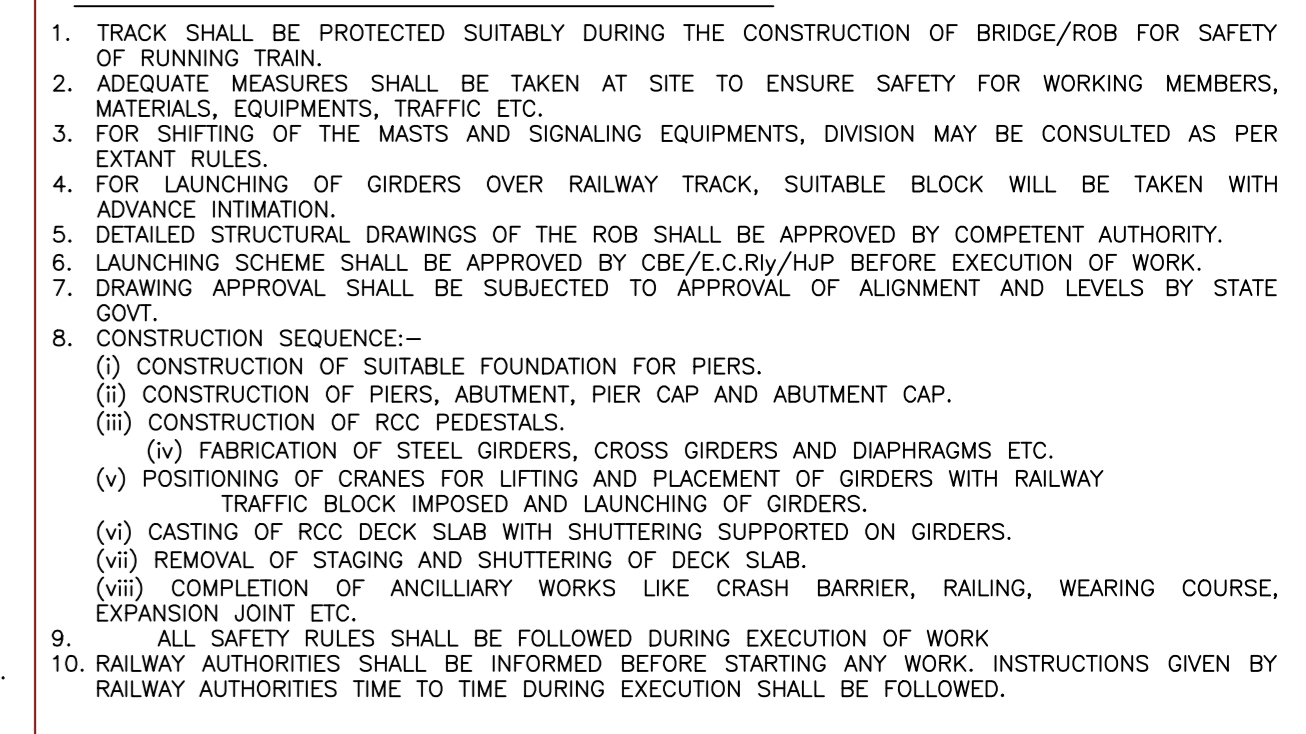


- SANCTION OF CRS TO BE TAKEN PRIOR TO EXECUTION OF WORK**
- LAUNCHING SCHEME OF THE ROW STRING GIRDER WILL BE SUBMITTED SEPARATELY.
 - MAINTENANCE AGREEMENT TO BE EXECUTED BEFORE EXECUTION OF WORK.
 - WORK WITHIN RAILWAY BOUNDARY TO BE DONE WITHOUT PRESENCE OF RAILWAY REPRESENTATIVE.
 - GIRDERS OVER ROB PROPER TO BE FABRICATED PREFERABLY BY RDSO APPROVED FIRMS.
 - SEE SEPARATE DRAWING FOR FOUNDATION, SUB STRUCTURE & OTHER STRUCTURAL DETAILS.
 - APPROVAL FOR CONSTRUCTION OF ROB ON PILE FOUNDATION HAS BEEN OBTAINED BY CAG/CON/SOUTH VIDE NOTE NO. - ECR/CE/CON/S/ROB DATED 22.03.2017.
 - SUITABLE RE WALL/ RE TURN WALL WILL BE PROVIDED AS PER DESIGN WHERE EVER REQUIRED.
- NOTES:**
- ALL DIMENSIONS ARE IN MM AND LEVELS ARE IN METERS UNLESS SPECIFIED OTHERWISE.
 - DIMENSIONS ARE NOT TO BE SCALED ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED.
 - ALL THE DIMENSIONS SHOWN SHOULD BE VERIFIED AT SITE BEFORE TAKING UP DESIGN WORK IN HAND. ANY DISCREPANCY NOTED SHOULD BE FORWARDED TO THE ENGINEERS DUTY SIGNED.
 - MAXIMUM SAFE BEARING CAPACITY AT THE FOUNDING LEVEL CONSIDERED AS PER GEOTECHNICAL REPORT. IF IT IS LESS THAN THE BASE SPECIFICATION THE FOUNDATION DESIGN CONSULTANT SHOULD SUBMIT SEPARATE SHEET OF DRAINAGE SPOUTS FOR THE BEST AVAILABLE STANDARDS.
 - DRAINAGE SPOUT SHALL BE PROVIDED AS PER MONTH SPECIFICATION. DESIGN CONSULTANT SHOULD SUBMIT SEPARATE SHEET OF DRAINAGE SPOUTS FOR THE BEST AVAILABLE STANDARDS.
 - EXPOSURE CONDITION OF THE BRIDGE AND ITS COMPONENTS SHOULD BE DECLARED AS PER IRC 21-2000/IS-456. ALL SPECIFICATION LAB DOWN IN IRC CODE/IS-456 CODE FOR RELEVANT EXPOSURE CONDITION SHALL BE FOLLOWED.
 - DETAILS OF SUBSTRUCTURE AND FOUNDATION REFER SEPARATE DRAWING DULY APPROVED BY RAILWAY.
 - WORK SHOULD BE CARRIED OUT UNDER THE SUPERVISION OF RAILWAY ENGINEERS WITHIN RAILWAY LAND.
 - SANCTION OF CRS SHOULD BE OBTAINED PRIOR TO EXECUTION OF PROPOSED WORK.
 - TYPE OF BEARING TO BE PROVIDED SHOULD BE PROVIDED BELOW FOOTPATH SLAB WITH THE APPROVAL OF ENGINEER IN CHARGE.
 - DESIGN SHALL BE AS PER LATEST RELEVANT CODE OF IRC INCLUDING SP-33 AND OTHER CODES AS APPROVED BY M.O.S.T.
 - STATE GOVT./PRIVATE AUTHORITIES SHOULD BE ENSURE DURING EXECUTION OF WORK SAFETY OF RUNNING RAIL TRAFFIC SHOULD NOT BE AFFECTED.
 - SUITABLE SIGN ARRANGEMENT WILL BE DONE AS PER G.R.15.09 (10) & S.R.15.09 (2) OR G.R.15.09 (2) & S.R.15.09 (2) WHICHEVER IS APPLICABLE IF REQUIRED.
 - LOADING STANDARD OF BRIDGE SHALL BE AS PER G.R.15.09 (10) & S.R.15.09 (2) TO ENSURE QUALITY WORK.
 - FULL FLEDGED LOAD TEST OF SUPER STRUCTURE SHOULD BE DONE AS PER IRC-SP-5 TO ENSURE QUALITY WORK.
 - CONCRETE DESIGN MIX : M40 PIER,PIER CAP,PILE,PILE CAP : M35
 - RCC DECK SLAB : M40
 - LEVELLING COURSE : M15
 - CRASH BARRIER : M15
 - PEDESTAL : M40
 - MANNED LEVEL CROSSING NO 50/C EXIST AT THIS LOCATION.
 - L.C. SHALL BE CLOSED SIMULTANEOUSLY WITH COMMISSIONING OF ROB AND NOC IN THIS REGARD HAS BEEN ISSUED BY STATE GOVT. VIDE LETTER NO.887(11-2015-1/2(304)/2015 DATED 07.06.2015.
 - TVL OF L.C. IS 58128 OF YEAR OCT-2015.
 - TEMPORARY DIVERSION OF ROAD TRAFFIC DURING CONSTRUCTION OF ROB/ROB WILL BE THROUGH DIVERSION ROAD. AUTHORITY WILL ENSURE DIVERSION OF EXISTING ROAD TRAFFIC THROUGH THE PROPOSED DIVERSION BEFORE EXECUTION.
 - REINFORCEMENT SHALL BE TMT DEFORMED BARS GRADE Fe 500 CONFORMING TO IS 1786.
 - PROVISION OF CLAMPS IN THE SUPERSTRUCTURE FOR THE SUPPORTING THE AC TRACING WIRE TO BE MADE INWARDLY IN CONSULTATION WITH CONCERN AUTHORITIES BASED ON TYPICAL DRAWING.
 - ALL E.C.C./M.C.C./P.C.C. WORK SHOULD CONFORM TO RELEVANT IS/IRC CODES & MOST SPECIFICATION.
 - FOR FABRICATION, WORKMANSHIP, INSPECTION & TESTING, PROTECTION AGAINST CORROSION ETC. RELEVANT PROVISION OF IRC-24-2001 SHALL BE FOLLOWED.
 - THE DETAILED FOUNDATION DESIGN/DRAWING OF EXPANSION JOINTS IS TENTATIVE & SHOULD BE DECIDED BY COMPETENT AUTHORITIES AS PER ACTUAL SOIL PROPERTIES AND DESIGN CALCULATION.
 - REPRESENTATIVE OF FOUNDATION & SIGNAL DEPARTMENTS SHOULD BE MADE AVAILABLE BEFORE COMMENCEMENT OF PROPOSED WORK IN THE VICINITY OF SIGNAL & TELECOM CABLE.
 - ARRANGEMENT DRAWING FOR METHODOLOGY TO LAUNCH GIRDERS OVER RAILWAY TRACK SHOULD BE GOT APPROVED FROM RAILWAY AUTHORITY BEFORE START THE WORK.
 - DIMENSION GIVEN IN THIS DRAWING MUST BE RECONCILED AT SITE BEFORE START OF WORK FOR FEASIBILITY.
 - PRECAUTIONARY MEASURES FOR CONSTRUCTION OF ROB ON DEPOSIT WORK/COST SHARING WORK WITH STATE GOVT. AND PRIVATE AGENCY ISSUED BY ADVISOR CIVIL ENGINEERING RAILWAY BOARD LETTER NO. 97/CE-1/BRG/158/POLY/PT-1, DATED -16.07.2009, 27.10.2009, 15.02.2011 & 08.07.2015 SHOULD BE STRICTLY FOLLOWED.
 - 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 MESH BATCHING SHALL BE USED.
 - GUARD RAIL SHOULD BE PROVIDED IN THE TRACK NEAR THE ISOLATED PILLAR OF ROB. NO CONSTRUCTION JOINT SHALL BE ALLOWED IN PSC OR RCC SLAB OR GIRDER AND CURING OF ALL CONCRETE AND MASONRY WORKS AS PER THE RELEVANT BRIDGE CODES OF PRACTICE SHALL BE ENSURED BEFORE USE.
 - INSPECTION LADDER/STEPS SHOULD BE PROVIDED TO ENSURE PROPER INSPECTION/ACCESSIBILITY OF ROB.
 - STRUCTURAL STEEL SHALL CONFORM TO IS:2062 (GRADE B).
 - STRIP SEAL TYPE EXPANSION JOINTS SHALL BE PROVIDED AS PER LATEST MOST REQUIREMENT. CONTRACTOR SHOULD FURNISH DESIGN/DRAWING OF EXPANSION JOINTS FROM FIRMS APPROVED BY MOST AT VARIOUS RELEVANT AMBIENT TEMPERATURE TO SUIT SITE CONDITIONS WITH THE APPROVAL OF ENGINEER IN CHIEF.
 - TO PROTECT THE CONCRETE FROM DAMAGE DUE TO SMOKE OF LOCOMOTIVES, 4.00M WIDE STRIP WITH POLYSULPHIDE PAINT PREFERABLE IN BLACK COLOUR SHALL BE PROVIDED IN THE SOFFIT OF THE DECK OVER RUNNING TRACKS.
 - STANDARD MAINTENANCE AGREEMENT SHOULD BE EXECUTED WITH RAILWAY AND STATE GOVT. AUTHORITIES FOR GRANT OF PERMISSION FOR CONSTRUCTION OF ROB/ROB IN RAILWAY PORTION.
 - ROAD AUTHORITY SHOULD ENSURE THAT BEFORE LAYING OF ANY NEW WEARING COAT IN FUTURE EXISTING WEARING COAT SHOULD BE COMPLETELY REMOVED.
 - NO WORK SHOULD BE TAKEN UP IN HAND TILL PROOF CHECKED DESIGN AND DRAWING WITHIN RAILWAY PORTION AREA APPROVED BY RAILWAY.
 - ALL STEEL STRUCTURES SHOULD HAVE ANTI-CORROSION PROTECTION OF LONG DURABILITY.
 - FOR DETAILS OF SUPER STRUCTURE OF 18.00M SPAN REFER RDSO'S DRG. NO. RDSO/D-11756/R/ AND FOR 50M RAILWAY SPAN OF ROW STRING GIRDER REFER RDSO DRG. NO. B-10411/R/.
 - ANY CHANGE IN THE GAD FOR RAILWAY PORTION SHOULD BE DONE WITH PRIOR APPROVAL OF RAILWAY.
 - CLEAR COVER TO OUTER MOST STEEL SHALL BE AS UNDER
A. FOR SUPER STRUCTURE = 50MM.
B. FOR FOUNDATION = 75MM.
C. FOR ABUTMENT DIRT WALL AND RETURN WALL = 50MM.
 - BACK FILLING BEHIND ABUTMENTS SHALL CONSISTS OF SELECTED EARTH CONFORM TO SOIL PROPERTIES C-0, D-3, S7, B-25 & H-8M/SOM.
 - FOR JACKING UP THE GIRDER FOR ANY HANDLING REQUIREMENTS IN FUTURE SUCH AS FOR REPLACEMENT OF BEARING OR ANY OTHER WORK REQUIRED, SUITABLE BLOCKS SHOULD BE PROVIDED TO ENABLE JACKING.
 - THE DIMENSIONS & LEVELS SHOWN IN THE GAD ARE SUBJECT TO CHANGES AS PER SITE REQUIREMENT AND WILL BE DONE WITH PRIOR APPROVAL OF RAILWAY.
 - THE BRIDGE IS DESIGNED FOR SEISMIC ZONE IV.
 - DIMENSIONS MAY GET CHANGED AFTER ITS DETAILED DESIGN.
 - AS PER DATA GIVEN BY DFC OFFICIAL, THE DISTANCE BETWEEN PROPOSED DFC TRACK FROM DN LINE AND ITS PROPOSED LEVEL HAVE BEEN SHOWN IN THE DRAWING.
 - PROVISION OF EXPANSION JOINT SHOULD BE BEYOND THE GIRDER.
 - GIRDER SHALL BE METALLIZED AS PER IS81-2001.
 - VERTICAL CLEARANCE WILL BE TAKEN FROM HIGHEST RAIL LEVEL.
 - VERTICAL CURVE WILL BE PROVIDED WHEREVER THERE IS CHANGE IN GRADIENT IN APPROACHES AS PER IRC SP-23.
 - SAFE BEARING CAPACITY AT 2.0M DEPTH 13.00 T/M².
 - RESTRAINER ON BOTH SIDE OF OUTERMOST GIRDER ON PIER CAP & ABUTMENT CAP WILL BE PROVIDED.
 - DRAWING FOR SHIFTING OF LC WILL BE GOT APPROVED FROM COMPETENT AUTHORITY BEFORE START OF WORK.
 - SAT CABLE SHOULD BE SHIFTED BEFORE UNDER TAKING DIGGING OR TRENCHING NEAR IR TRACK BY S&T/CONSTRUCTION.

- OPERATION SCHEDULE FOR RAILWAY SPAN:**
- TRACK SHALL BE PROTECTED SUITABLY DURING THE CONSTRUCTION OF BRIDGE/ROB FOR SAFETY OF RUNNING TRAIN.
 - ADEQUATE MEASURES SHALL BE TAKEN AT SITE TO ENSURE SAFETY FOR WORKING MEMBERS, MATERIALS, EQUIPMENTS, TRAFFIC ETC.
 - FOR SHIFTING OF THE MASTS AND SIGNALING EQUIPMENTS, DIVISION MAY BE CONSULTED AS PER EXISTENT RULES.
 - FOR LAUNCHING OF GIRDERS OVER RAILWAY TRACK, SUITABLE BLOCK WILL BE TAKEN WITH ADVANCE INTIMATION.
 - DETAILED STRUCTURAL DRAWINGS OF THE ROB SHALL BE APPROVED BY COMPETENT AUTHORITY.
 - LAUNCHING SCHEME SHALL BE APPROVED BY CBE/CE/RA/SP BEFORE EXECUTION OF WORK.
 - DRAWING APPROVAL SHALL BE SUBJECTED TO APPROVAL OF ALIGNMENT AND LEVELS BY STATE GOVT.
- CONSTRUCTION SEQUENCE:-**
- CONSTRUCTION OF SUITABLE FOUNDATION FOR PIERS.
 - CONSTRUCTION OF PIERS, ABUTMENT, PIER CAP AND ABUTMENT CAP.
 - CONSTRUCTION OF RCC PEDESTALS.
 - FABRICATION OF STEEL GIRDERS, CROSS GIRDERS AND DIAPHRAGMS ETC.
 - POSITIONING OF CRANES FOR LIFTING AND PLACEMENT OF GIRDERS WITH RAILWAY TRAFFIC BLOCK IMPOSED AND LAUNCHING OF GIRDERS.
 - CASTING OF RCC DECK SLAB WITH SHUTTERING SUPPORTED ON GIRDERS.
 - REMOVAL OF STAGING AND SHUTTERING OF DECK SLAB.
 - COMPLETION OF ANGLUARY WORKS LIKE CRASH BARRIER, RAILING, WEARING COURSE, EXPANSION JOINT ETC.
- ALL SAFETY RULES SHALL BE FOLLOWED DURING EXECUTION OF WORK.
- 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

PROPOSED TWO LANE ROB SPAN 2x30.00 FOR OBLIGATORY SPAN IN LIEU OF L-LING NO 83, (SKEW ANGLE 8°) (TVU-450206, DT.06/2015) ON MUGHALSARAI - GAYA SECTION OF EAST CENTRAL RAILWAY MUGHALSARAI GENERAL ARRANGEMENT DRAWING

DRG. NO.	WTS/RA/NEED/DFC/ROB_83C/GA
SH. NO.	3 OF 3
DATE	SEPTEMBER, 2017
REV.	
SCALE	100 0 100 200 300mm 200 0 200 400 600mm

(SUNEEL KUMAR)	(ATP /HMD)	(M. NONAM)	(D.S. NEG)	(A.K. MATHUR)
DRAWN BY	MANAGER/D	MANAGER/D	GM/D	GM/D

RITES LTD.

DFCCIL DRG NO.	Sr. DOM/MGS			
REFERENCE RDSO DRAWING NO : RDSO/B -	Sr. DEN/CA-ORD/MGS			
ALL THE DIMENSIONS SHOWN ARE TENTATIVE AND MAY UNDERGO CHANGES DURING FINAL DESIGN.	Sr. DEN-1/MGS			
DESIGNATION	SIGNATURE	DESIGNATION	SIGNATURE	Sr. DEE/ROB/MGS
(A.K. MISHRA)		EXECUTIVE ENGINEER		Sr. DEE/ROB/MGS
CPM/DFCCIL/MGS				Sr. DEE/G/MGS
DY CPM/ENGG/DFCCIL				
DPM/ENGG/DFCCIL				
DFCCIL/MGS	STATE GOVT. U.P	MGS DIVISION		