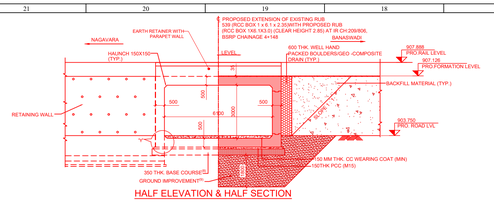
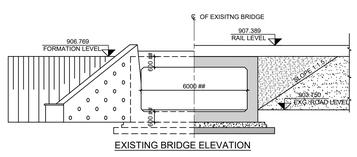
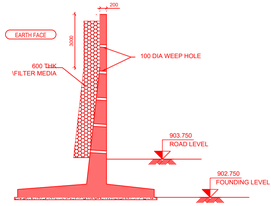
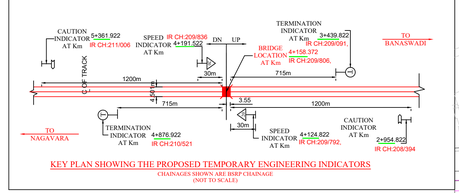
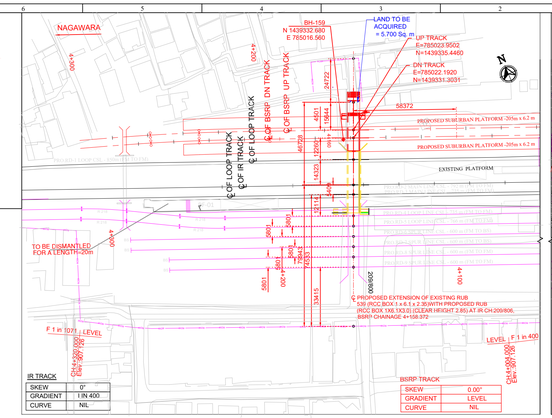
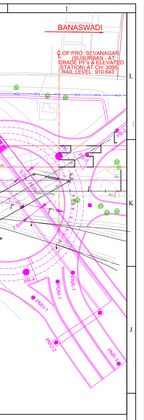


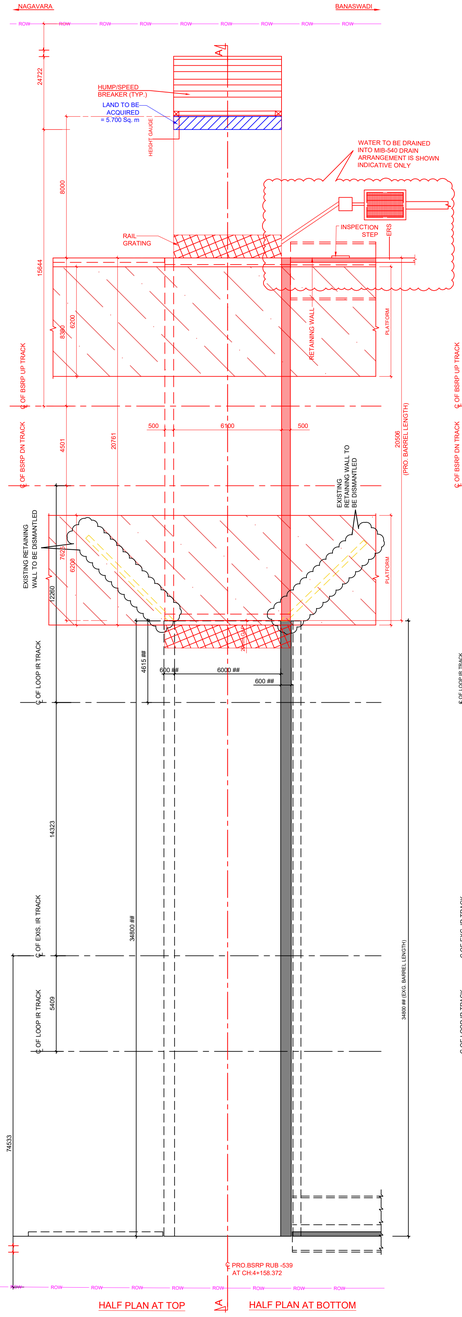


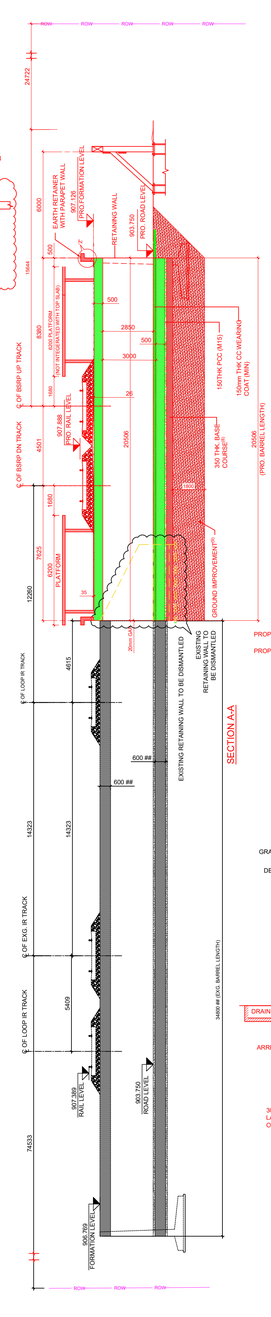


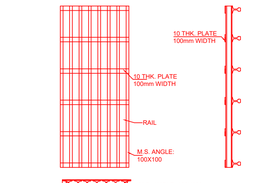








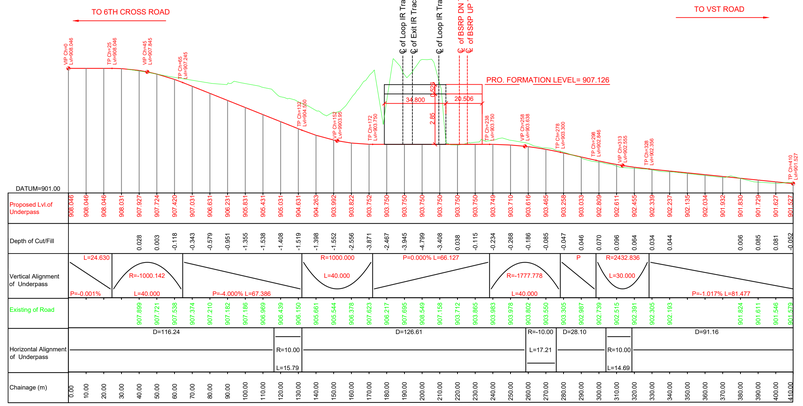




DETAILS OF RAILGRATING

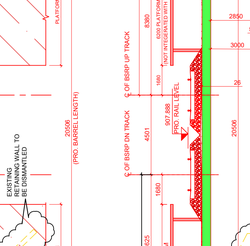
Scale: NTS

Scale: 1:50



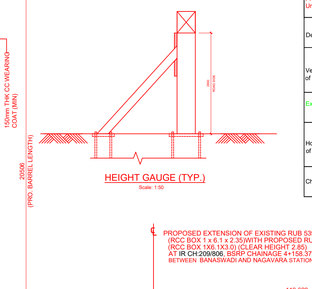
LONGITUDINAL SECTION ALONG PROPOSED RUB

(SCALE: HOR:1:1000 VER:1:100)

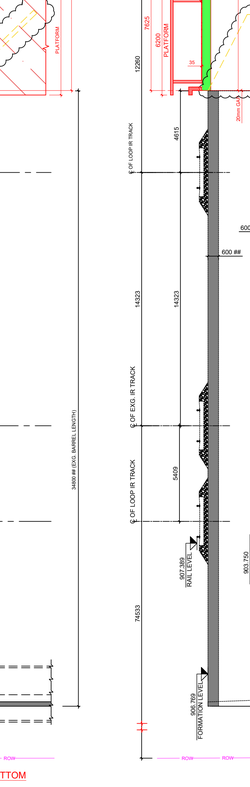


TYPICAL PAVEMENT DETAIL

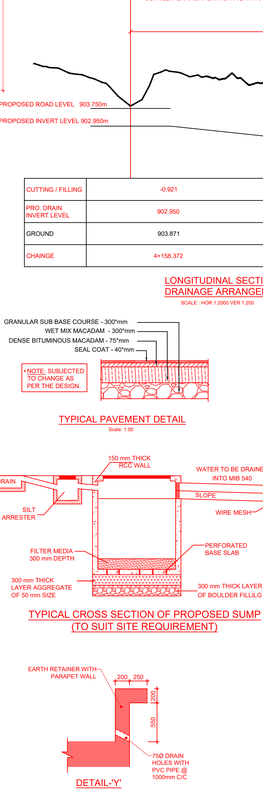
Scale: 1:50

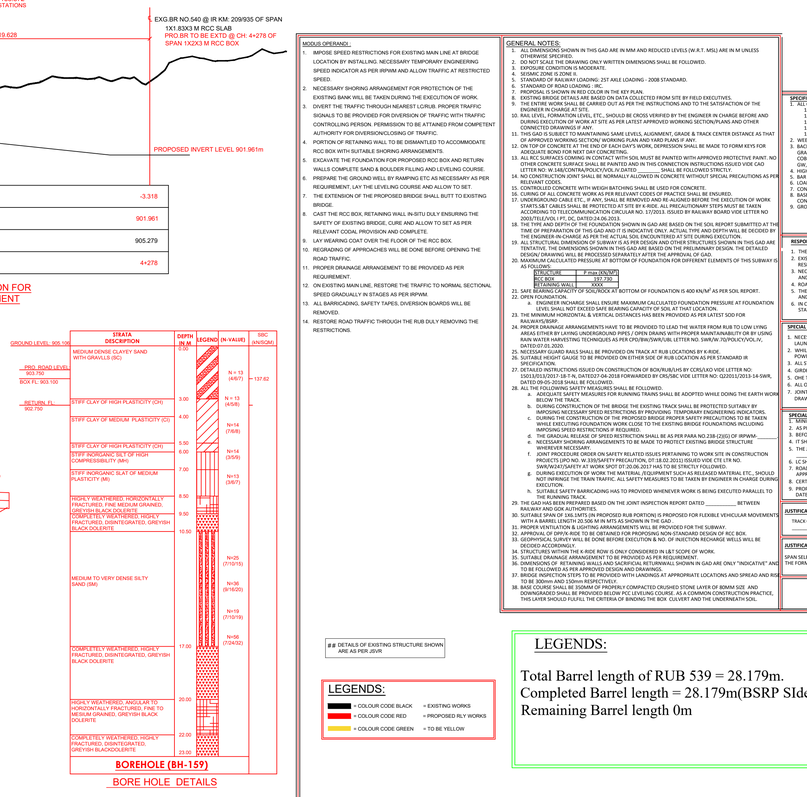


BORE HOLE DETAILS



TYPICAL CROSS SECTION OF PROPOSED SUMP (TO SUIT SITE REQUIREMENT)





MODUS OPERANDI :

1. IMPOSE SPEED RESTRICTIONS FOR EXISTING MAIN LINE AT BRIDGE LOCATION BY INSTALLING NECESSARY TEMPORARY ENGINEERING SPEED INDICATOR AS PER IRPWM AND ALLOW TRAFFIC AT RESTRICTED SPEED.
2. NECESSARY SHORING ARRANGEMENT FOR PROTECTION OF THE EXISTING BANK WILL BE TAKEN DURING THE EXECUTION OF WORK.
3. DIVERT THE TRAFFIC THROUGH NEAREST L/CRUB. PROPER TRAFFIC SIGNALS TO BE PROVIDED FOR DIVERSION OF TRAFFIC WITH TRAFFIC CONTROLLING PERSON. PERMISSION TO BE ATTAINED FROM COMPETENT AUTHORITY FOR DIVERSION/CLOSING OF TRAFFIC.
4. PORTION OF RETAINING WALL TO BE DISMANTLED TO ACCOMMODATE RCC BOX WITH SUITABLE SHORING ARRANGEMENTS.
5. EXCAVATE THE FOUNDATION FOR PROPOSED RCC BOX AND RETURN WALLS COMPLETE SAND & BOULDER FILLING AND LEVELING COURSE.
6. PREPARE THE GROUND WELL BY RAMPING ETC AS NECESSARY AS PER REQUIREMENT AT THE LEVELING COURSE AND ALLOW TO SET.
7. THE EXTENSION OF THE PROPOSED BRIDGE SHALL BUTT TO EXISTING BRIDGE.
8. CAST THE RCC BOX, RETAINING WALL IN-SITU DULY ENSURING THE SAFETY OF EXISTING BRIDGE, CURE AND ALLOW TO SET AS PER RELEVANT CODAL PROVISION AND COMPLETE.
9. LAY WEARING COAT OVER THE FLOOR OF THE RCC BOX.
10. REGRADING OF APPROACHES WILL BE DONE BEFORE OPENING THE ROAD TRAFFIC.
11. PROPER DRAINAGE ARRANGEMENT TO BE PROVIDED AS PER REQUIREMENT.
12. ON EXISTING MAIN LINE, RESTORE THE TRAFFIC TO NORMAL SECTIONAL SPEED GRADUALLY IN STAGES AS PER IRPWM.
13. ALL BARRICADING, SAFETY TAPES, DIVERSION BOARDS WILL BE REMOVED.
14. RESTORE ROAD TRAFFIC THROUGH THE RUB DULY REMOVING THE RESTRICTIONS.

GENERAL NOTES:

1. ALL DIMENSIONS SHOWN IN THIS GAD ARE IN MM AND REDUCED LEVELS (W.R.T. MSL) ARE IN M UNLESS OTHERWISE SPECIFIED.
2. DO NOT SCALE THE DRAWING ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
3. SEISMIC ZONE III (ZONE I) MODERATE.
4. SEISMIC ZONE II (ZONE I).
5. STANDARD OF RAILWAY LOADING: 25T AXLE LOADING - 2008 STANDARD.
6. STANDARD OF ROAD LOADING : IRC.
7. PROPOSAL IS SHOWN IN RED COLOR IN THE KEY PLAN.
8. THE FOUNDATION LEVELS ARE BASED ON THE DATA COLLECTED FROM SITE BY FIELD EXECUTIVES.
9. THE ENTIRE WORK SHALL BE CARRIED OUT AS PER THE INSTRUCTIONS AND TO THE SATISFACTION OF THE ENGINEER IN CHARGE AT SITE.
10. RAIL LEVEL, FORMATION LEVEL, ETC., SHOULD BE CROSS VERIFIED BY THE ENGINEER IN CHARGE BEFORE AND DURING EXECUTION OF WORK AT SITE AS PER LATEST APPROVED WORKING SECTION/PLANS AND OTHER CONNECTED DRAWINGS IF ANY.
11. THIS GAD IS SUBJECT TO MAINTAINING SAME LEVEL, ALIGNMENT, GRADE & TRACK CENTER DISTANCE AS THAT OF APPROVED WORKING SECTION/PLAN AND YARD PLANS IF ANY.
12. ON APPROVED GAD, THE LEVELS OF EACH DAY'S WORK, DEPRESSION SHALL BE MADE TO FORM KEYS FOR ADEQUATE BOND FOR NEXT DAY CONCRETING.
13. ALL RCC SURFACES COMING IN CONTACT WITH SOIL MUST BE PAINTED WITH APPROVED PROTECTIVE PAINT, NO OTHER CONCRETE SURFACE SHALL BE PAINTED AND IN THIS CONNECTION INSTRUCTIONS ISSUED VIDE CAD LETTER NO: W.1/BRIDGE/CIVIL/1/ IN DATED _____ SHALL BE FOLLOWED STRICTLY.
14. NO CONSTRUCTION JOINT SHALL BE NORMALLY ALLOWED IN CONCRETE WITHOUT SPECIAL PRECAUTIONS AS PER RDSO GUIDELINES.
15. CONTROLLED CONCRETE WITH ADMIXTURE HAVING SLUMP BE USED FOR CONCRETE.
16. CURING OF ALL CONCRETE WORK AS PER RELEVANT CODES OF PRACTICE SHALL BE ENSURED.
17. UNDERGROUND CABLE ETC., IF ANY, SHALL BE REMOVED AND RE-ALIGNED BEFORE THE EXECUTION OF WORK STARTS,S&T CABLES SHALL BE PROTECTED AT SITE BY K-RIDE. ALL PRECAUTIONARY STEPS MUST BE TAKEN ACCORDING TO TELECOMMUNICATION CIRCULAR NO. 3/7/2013- ISSUED BY RAILWAY BOARD VIDE LETTER NO 2001/TEL/VOL I PT, DC, DATED:24.06.2013.
18. THE TYPE AND DEPTH OF THE FOUNDATION SHOWN IN GAD ARE BASED ON THE SOIL REPORT SUBMITTED AT THE TIME OF PREPARATION OF THIS GAD AND IT IS INDICATIVE ONLY. ACTUAL TYPE AND DEPTH WILL BE DECIDED BY THE ENGINEER IN CHARGE AT SITE BASED ON SOIL ENCOUNTERED AT SITE DURING EXECUTION.
19. ALL STRUCTURAL DIMENSION OF SUBWAY IS AS PER DESIGN AND OTHER STRUCTURES SHOWN IN THIS GAD ARE TENTATIVE. THE DIMENSIONS SHOWN IN THIS GAD ARE BASED ON THE PRELIMINARY DESIGN. THE DETAILED DESIGN/ DRAWING WILL BE PROCESSED SEPARATELY AFTER THE APPROVAL OF GAD.
20. MAXIMUM CALCULATED PRESSURE AT BOTTOM OF FOUNDATION FOR DIFFERENT ELEMENTS OF THIS SUBWAY IS AS FOLLOWS:

STRUCTURE	P max (KN/M²)
RCC BOX	200.0
RETAINING WALL	200.0

21. SAFE BEARING CAPACITY OF SOIL/ROCK AT BOTTOM OF FOUNDATION IS 400 KN/M² AS PER SOIL REPORT.
22. OPEN FOUNDATION.
    a. ENGINEER INCHARGE SHALL ENSURE MAXIMUM CALCULATED FOUNDATION PRESSURE AT FOUNDATION LEVEL SHALL NOT EXCEED SAFE BEARING CAPACITY OF SOIL AT THAT LOCATION.
23. THE MINIMUM HORIZONTAL & VERTICAL DISTANCES HAS BEEN PROVIDED AS PER LATEST SOD FOR OVERHEAD WIRES.
24. PROPER DRAINAGE ARRANGEMENTS HAVE TO BE PROVIDED TO LEAD THE WATER FROM RUB TO LOW LYING AREAS EITHER BY LAYING UNDERGROUND PIPES / OPEN DRAINS WITH PROPER MAINTAINABILITY OR BY USING RAIN WATER HARVESTING TECHNIQUES AS PER CPD/ENV/SWR/GNL LETTER NO. SWR/W.TS/POLICY/VOL.IV, DATED:07.01.2020.
25. NECESSARY GUARD RAILS SHALL BE PROVIDED AND ALSO DURING ANY WORKING LESS THAN 2M WORKING CLEARANCE FROM ONE, THE WORK SHALL BE CARRIED OUT ONLY DURING POWER BLOCK DURATION BY OBTAINING PERMISSION TO WORK FORM AUTHORIZED TRD BRANCH OF OFFICIALS.
26. ALL STEEL STRUCTURE & GIRDERS INVOLVING THE ABOVE WORKS SHALL BE PROVIDED WITH EARTHING TO TRACTION RAIL. SEPARATE EARTH PIPE FOR SAFETY OF WORKING STAFF.
27. DETAILED PROCEDURE AND SAFETY RELATED ISSUES PERTAINING TO WORK SITE IN CONNECTION WITH 25T(13.01.2011)/2017-18 T-N, DATED27-04-2018 FORWARDED BY CRS,SEC VIDE LETTER NO: Q2201/2/2013-14-SWR, DATED:09-01-2018 SHALL BE FOLLOWED.
28. ALL THE FOLLOWING SAFETY MEASURES SHALL BE FOLLOWED:
    a. ADEQUATE SAFETY MEASURES FOR RUNNING TRAINS SHALL BE ADOPTED WHILE DOING THE EARTH WORK BELOW THE TRACK.
    b. DURING CONSTRUCTION OF THE BRIDGE THE EXISTING TRACK SHALL BE PROTECTED SUITABLY BY IMPOSING NECESSARY SPEED RESTRICTIONS BY PROVIDING TEMPORARY ENGINEERING INDICATORS.
    c. DURING THE CONSTRUCTION OF THE PROPOSED BRIDGE PROPER SAFETY PRECAUTIONS TO BE TAKEN WHILE EXECUTING FOUNDATIONS WORK CLOSE TO THE EXISTING BRIDGE FOUNDATIONS INCLUDING IMPOSING SPEED RESTRICTIONS IF REQUIRED.
    d. THE GRADUAL RELEASE OF SPEED RESTRICTION SHALL BE AS PER PARA NO.238-(2)(ii) OF IRPWM.
    e. NECESSARY SHORING ARRANGEMENTS TO BE MADE TO PROTECT EXISTING BRIDGE STRUCTURE WHILE EXCAVATION.
    f. SHORT PROCEDURE ORDER ON CONSTRUCTION OF BOX/RUB/LHS BY CDR(S)AND VIDE LETTER NO: 2015/01/(01)/2017-18 T-N, DATED27-04-2018 FORWARDED BY CRS,SEC VIDE LETTER NO: Q2201/2/2013-14-SWR, DATED:09-01-2018 SHALL BE FOLLOWED.
    g. DURING EXECUTION OF WORK THE MATERIAL /EQUIPMENT SUCH AS RELEASED MATERIAL ETC., SHOULD NOT INFRINGE THE MAIN TRAFFIC. ALL SAFETY MEASURES TO BE TAKEN BY ENGINEER IN CHARGE DURING EXECUTION.
    h. SUITABLE SAFETY BARRICADING HAS TO PROVIDED WHENEVER WORK IS BEING EXECUTED PARALLEL TO THE RUNNING TRACK.
29. THE GAD HAS BEEN PREPARED BASED ON THE JOINT INSPECTION REPORT DATED _____ BETWEEN RAILWAY AND GDE AUTHORITIES.
30. SUITABLE SPAN OF 1X6.1MTS (IN PROPOSED RUB PORTION) IS PROPOSED FOR FLEXIBLE VEHICULAR MOVEMENTS WITH A BARREL LENGTH 20.506 M IN MTS AS SHOWN IN THE GAD.
31. PROPER VENTILATION & LIGHTING ARRANGEMENTS WILL BE PROVIDED FOR THE SUBWAY.
32. APPROVAL OF DPR/K-RIDE TO BE OBTAINED FOR PROPOSING NON-STANDARD DESIGN OF RCC BOX.
33. GEOPHYSICAL SURVEY WILL BE DONE BEFORE EXECUTION & NO. OF INJECTION RECHARGE WELLS WILL BE DECIDED ACCORDINGLY.
34. STRUCTURES WITHIN THE K-RIDE ROW IS ONLY CONSIDERED IN L&T SCOPE OF WORK.
35. SUITABLE DRAINAGE ARRANGEMENT TO BE PROVIDED AS PER REQUIREMENT.
36. DIMENSIONS OF RETAINING WALLS AND SACRIFICIAL RETURNWALL SHOWN IN GAD ARE ONLY "INDICATIVE" AND TO BE FOLLOWED AS PER APPROVED DESIGN AND DRAWINGS.
37. BRIDGE INSPECTION STEPS TO BE PROVIDED WITH LANDINGS AT APPROPRIATE LOCATIONS AND SPREAD AND RISE TO BE 300mm AND 150mm RESPECTIVELY.
38. THE GRANULAR SUB BASE COURSE CONSISTS OF COMPACTED CRUSHED STONE LAYER OF 80MM SIZE AND DOWNGRADED SHALL BE PROVIDED BELOW PCC LEVELING COURSE. AS A COMMON CONSTRUCTION PRACTICE, THIS LAYER SHOULD FULFILL THE CRITERIA OF BINDING THE BOX CULVERT AND THE UNDERNEATH SOIL.

DETAILS OF EXISTING STRUCTURE SHOWN ARE AS PER JSVR

LEGENDS:

- = COLOUR CODE BLACK = EXISTING WORKS
- = COLOUR CODE RED = PROPOSED R/LY WORKS
- = COLOUR CODE GREEN = TO BE YELLOW

LEGENDS:

Total Barrel length of RUB 539 = 28.179m.
Completed Barrel length = 28.179m(BSRP SIde)
Remaining Barrel length 0m

SPECIFICATION:

1. ALL EARTHWORKS HAVE TO BE CARRIED OUT AS PER THE FOLLOWING
   1.1 INDIAN RAILWAY UNIFIED STANDARD SPECIFICATIONS FOR WORKS AND MATERIALS 2010.
   1.2 IRS CONCRETE BRIDGE CODE 2006 & RELEVANT I.S SPECIFICATIONS.
   1.3 IRS BRIDGE SUBSTRUCTURE AND FOUNDATION CODE 2013.
   1.4 IRS BRIDGE RULES, 2014
   1.5 IRS SCHEDULE OF DIMENSIONS 2004 CORRECTED UP TO LATEST CORRECTION SLIPS.
2. MS PIPE PILES: 300MM DIA PYLCNC PIPES 4S IRS SUBSTRUCTURE CODE 2013 CL:7.6
3. WATER PROOFING TREATMENT FOR CONCRETE SURFACES IN CONTACT WITH SOIL/DEBRIS, DATED 18.01.2018. BEHIND THE GEO-COMPOSITE DRAIN, BACKFILL MATERIALS SHALL CONSIST OF GRANULAR MATERIALS OF GW, GP, SW, GROUPS AS PER IS:1498-1970 (SUBSTRATE, RETAINING WALLS ...) (OR) THE BOULDER FILLING SHALL CONSIST OF WELL HAND-PACKED BOULDERS AND COBBLES TO THICKNESS NOT LESS THAN 600MM WITH SMALLER SIZE TOWARDS THE BACK. BEHIND THE BOULDER FILLING, BACKFILL MATERIAL SHALL CONSIST OF GRANULAR MATERIALS OF GW,GP,SW GROUPS AS PER IS 1498-1970(RCC BOX)
4. HIGH STRENGTH DEFORMED BARS (TOR) SHALL CONFORM TO IS: 1786-2008 (FE-500).
5. BAR BENDING SHALL BE CONFORMING TO IS:2502
6. LOADING STANDARD: 25T - 2008 AXLE LOAD.
7. CONCRETE SHALL BE MECHANICALLY MIXED, VIBRATED & THOROUGHLY CURED.
8. GRANULAR SUB BASE COURSE CONSISTS OF COMPACTED CRUSHED STONE LAYER OF 80MM SIZE AND DOWNGRADED SHALL BE PROVIDED BELOW PCC LEVELING COURSE. AS A COMMON CONSTRUCTION PRACTICE, THIS LAYER SHOULD FULFILL THE CRITERIA OF BINDING THE BOX CULVERT AND THE UNDERNEATH SOIL.
9. GEO-COMPOSITE DRAIN AS PER RAILWAY BOARD LR.NO. _____(RUB) CH:4+158.372 ETC.
10. GROUND IMPROVED SOIL SHALL BE OF SOIL QUALITY CLASS SG2 AND SG3 AS PER RDSO GUIDELINES.

RESPONSIBILITY NOTES:

1. THE RUB WORK WILL BE EXECUTED BY K-RIDE FOR BOTH RAILWAY AND APPROACH PORTION OF RUB EVEN BEYOND RAILWAY BOUNDARY ALONG WITH DRAINAGE ARRANGEMENTS.
2. EXISTING TELEGRAPH POSTS, ELECTRIC POSTS, SIGNAL CABLES, WATER & DRAINAGE, WATER MAINS AND ALL OTHER UTILITIES COMING IN THE WAY SHALL BE SHIFTED SUITABLY BY THE RESPECTIVE DEPARTMENTS OF RAILWAYS / STATE AUTHORITIES.
3. NECESSARY TEMPORARY DIVERSION OF ROAD TRAFFIC HAS TO BE PROVIDED BY THE K-RIDE AGENCY AT THE TIME OF EXECUTION OF WORK BASED ON THE JOINT INSPECTION BETWEEN STATE AND RAILWAY AUTHORITIES. SUITABLE TEMPORARY SERVICE ROADS FOR THE USE OF PUBLIC SHALL BE ARRANGED AND MAINTAINED BY THE K-RIDE WHEREVER & WHENEVER REQUIRED.
4. ROAD APPROACHES ON EITHER SIDE OF THE PROPOSED RUB SHOULD BE SUITABLY ALIGNED AND REGRADED BY K-RIDE AUTHORITY IN DUE CONSULTATION WITH STATE AUTHORITIES.
5. THE RESPONSIBILITY FOR THE MAINTENANCE OF ROAD PASSING THROUGH THE RUB, LIGHTING, DRAINAGE SYSTEM, DIVERSION ROAD AND ANY OTHER ALLIED WORKS IN RAILWAY PORTION AND BEYOND RAILWAY PORTION WILL BE WITH THE STATE GOVERNMENT.
6. IN CASE OF ANY LAND ACQUISITION INVOLVED FOR EXECUTING THE RUB WORK, K-RIDE AUTHORITY SHALL ACQUIRE SUCH LAND CHARGEABLE TO THE CONCERNED AS PER EXTANT RULES AND STATE GOVERNMENT HAS TO ACQUIRE SUCH LAND.

SPECIAL NOTES FOR 25 kV AC TRACTION SYSTEM

1. NECESSARY PROTECTIVE ARRANGEMENT SHALL BE MADE BY CONSTRUCTION ORGANIZATION IN CONSULTATION WITH ELECTRICAL TRD/BRANCH TO AVOID ANY ELECTRICAL INDUCTION DURING LAUNCHING OF GIRDER/EXECUTION OF WORK.
2. WHILE LAUNCHING OF GIRDER ABOVE THE ONE AND ALSO DURING ANY WORKING LESS THAN 2M WORKING CLEARANCE FROM ONE, THE WORK SHALL BE CARRIED OUT ONLY DURING POWER BLOCK DURATION BY OBTAINING PERMISSION TO WORK FORM AUTHORIZED TRD BRANCH OF OFFICIALS.
3. ALL STEEL STRUCTURE & GIRDERS INVOLVING THE ABOVE WORKS SHALL BE PROVIDED WITH EARTHING TO TRACTION RAIL. SEPARATE EARTH PIPE FOR SAFETY OF WORKING STAFF.
4. GIRDER LAUNCHING / EXECUTION OF WORK TO BE DONE WITHOUT DISTURBING OHE.
5. OHE TRACTION CONDUCTORS SHALL BE PROPELY SECURED TO GET MAXIMUM CONTACT WIRE HEIGHT WITH MECHANICAL CLEARANCE AFTER COMPLETION OF WORK BY OTD.
6. ALL OHE PROFILING WORKS, GIRDERS ERECTION ETC., WILL BE DONE UNDER THE SUPERVISION OF SSE/OL/TRD UNDER POWER BLOCK CONDITIONS.
7. JOINT PROCEDURE ORDER FOR PROVISION PROTECTIVE SCREEN OVER PROTECTIVE SCREEN OVER 25kV AC ELECTRIFIED SECTION CIRCULATED VIDE LETTER NO SWR/W. 352/BRIDGE -DESIGN AND DRAWING/VOL III DT _____ TO BE STRICTLY FOLLOWED.

SPECIAL NOTES FOR CONSTRUCTION RUB

1. MINIMUM VERTICAL CLEARANCE REQUIRED FOR RUB IS 2.85M.
2. AS PER IRC, THE APPROACH GRADIENT FOR THIS RUB SHALL NOT BE STEEPER THAN 1 IN 25.
3. BEFORE AND DURING EXECUTION OF WORK, CONCERNED STATE GOVERNMENT OFFICIALS SHOULD BE CONTACTED IN CONNECTION WITH CLOSURE OF LC.
4. IT SHOULD BE ENSURED THAT THE REDUCED LEVELS OF ROAD TOP IN APPROACHES AND RAILWAY PORTIONS SHOULD BE SMOOTH WITHOUT ANY ABRUPT CHANGE IN LEVELS. _____
5. THE JOINTS OF RCC BOX SEGMENTS SHALL BE SEALED AS ADVISED IN THE DETAILED SCHEME ISSUED BY CRE/SWR/UNDER CIRCULAR LETTER NO.SWR/W/NOTP/OLYC/_____ DATED _____
6. LC SHALL BE CLOSED AFTER COMMISSIONING OF RUB AFTER RECEIVING CONSENT FOR CLOSURE OF LEVEL CROSSING IS OBTAINED FROM CONCERNED AUTHORITY.
7. ROAD LEVELS FOR THE RUB SHOULD BE FIXED AFTER CONSULTING WITH ROAD AUTHORITIES TO AVOID ANY FUTURE LEVEL DIFFERENCES AT THE RAILWAY JUNCTION AND ROAD LEVEL CROSSINGS.
8. CERTIFICATION FOR DRAINAGE ARRANGEMENT FOR THE PROPOSED RUB IN LIEU OF CH:4+158.372 AT KM 209/806 TO BE OBTAINED FROM DC / EMPLOYER
9. PROPER DRAINAGE ARRANGEMENTS HAVE TO BE PROVIDED TO RUB AS PER PCE CIRCULAR NO. 05/2021 DATED _____ &CBE/SWR LETTER NO._____BRIDGE-DESIGN & DRAWING/VOL-III DATED _____

JUSTIFICATION FOR TRACK CENTRE DISTANCE

TRACK CENTRE DECIDED BASED ON THE APPROVED ALIGNMENT PLAN OF IR / BSRP.

JUSTIFICATION FOR SELECTION THE SPAN

SPAN SELECTED BASED ON THE JOINT INSPECTION REPORT DATED _____ BETWEEN RAILWAY OFFICIALS AND BSMP OFFICIALS. FOR THIS PURPOSE SBC DIVISION DEMANDED FOR A 6.1M ROAD IN THE FORMATION. HENCE A BARREL LENGTH OF 20.506 M HAS BEEN PROPOSED IN THIS GAD.

BRIDGE DETAILS

DESCRIPTION	EXISTING IR BRIDGE 539	PROPOSED BSRP BRIDGE 539
CHAINAGE AT CENTER OF BRIDGE (km)	209.806	4+158.372
RAIL LEVEL AT CENTER OF BRIDGE (m)	907.389	907.888
FORMATION LEVEL AT CENTRE OF BRIDGE (m)	906.769	907.126
DIMENSIONS (Nos x SPAN(m) x HEIGHT(m))	1 x 6.1x 2.35	1 x 6.1 x 3.00
STRUCTURE CONFIGURATION	RCC SLAB	RCC BOX

TRACK DETAILS (PRO.BRIDGE)

LOADING	25 T AXLE LOAD 2008-STD
ALIGNMENT	STRAIGHT
GRADE	LEVEL
RAIL LEVEL	907.888 m
FORMATION LEVEL	907.126m

LOADING STANDARD

A) PRO.BRIDGE:25T-AXLE LOAD 2008 STD
B) EXG.BRIDGE:MBG-1987 LOADING

GROUND IMPROVEMENT DETAILS

| DEPTH OF GI BELOW BASE COURSE | WIDTH AT BOTTOM OF EXCAVATION | LENGTH AT BOTTOM OF EXCAVATION |
|---|---