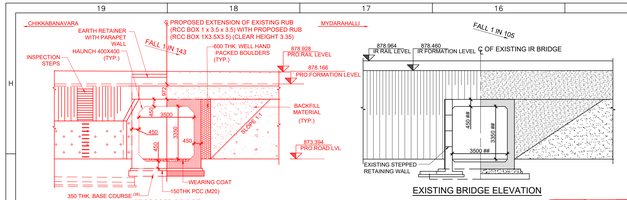
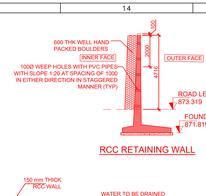
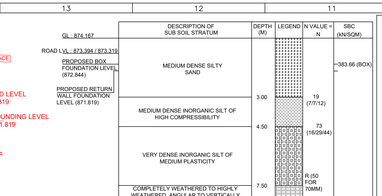
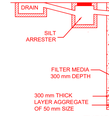
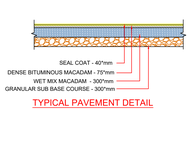
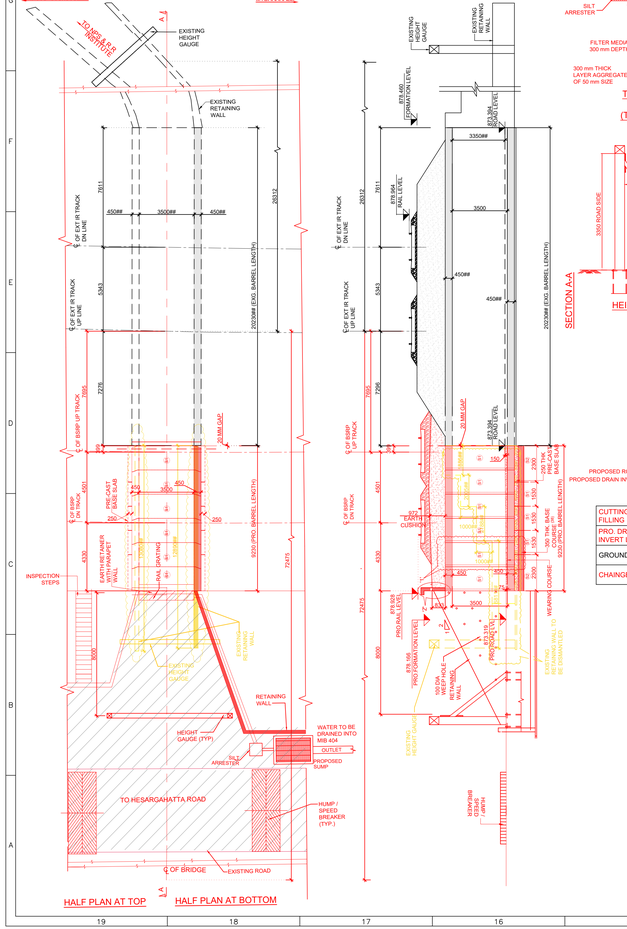


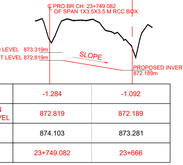






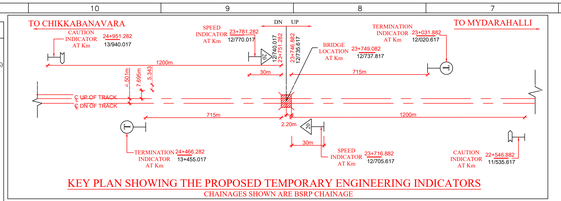






CUTTING / FILLING	-1.284	-1.092
PRO. DRAIN INVERT LEVEL	872.819	872.189
GROUND	874.103	873.281
CHAINGE	23+749.082	23+666

LONGITUDINAL SECTION FOR DRAINAGE ARRANGEMENT
SCALE : HOR 1:2000 VER 1:200



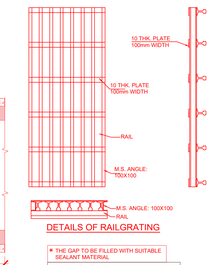
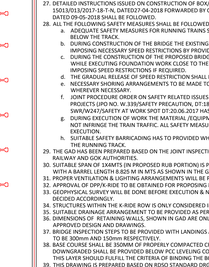
KEY PLAN SHOWING THE PROPOSED TEMPORARY ENGINEERING INDICATORS
CHAINAGES SHOWN ARE BSRP CHAINAGE

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 LC/RUB. 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, LAY 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. SHORING ARRANGEMENT FOR PROTECTION OF THE EXISTING BANK WILL BE REMOVED.
11. REGRADING OF APPROACHES WILL BE DONE BEFORE OPENING THE ROAD TRAFFIC.
12. PROPER DRAINAGE ARRANGEMENT TO BE PROVIDED AS PER REQUIREMENT.
13. ON EXISTING MAIN LINE, RESTORE THE TRAFFIC TO NORMAL SECTIONAL SPEED GRADUALLY IN STAGES AS PER IRPWM.
14. ALL BARRICADING, SAFETY TAPES, DIVERSION BOARDS WILL BE REMOVED.
15. 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. EXPOSURE CONDITION IS MODERATE.
4. SEISMIC ZONE II ZONE II
5. STANDARD OF LOADING : CLASS 25T AXLE LOADING - 2008 STANDARD.
6. STANDARD OF LOADING : IRC.
7. PROPOSAL IS SHOWN IN RED COLOR IN THE KEY PLAN.
8. EXISTING BRIDGE DETAILS ARE BASED ON 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 EXCAVATION 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 LEVELS, ALIGNMENT, GRADE & TRACK CENTER DISTANCE AS THAT OF APPROVED WORKING SECTION/ WORKING PLAN AND YARD PLANS IF ANY.
12. ON TOP OF CONCRETE AT THE END 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 CAO LETTER NO: W.148/CONTRA/POLICY/VOL.IV.DATED SHALL BE FOLLOWED STRICTLY.
14. NO CONSTRUCTION JOINT SHALL BE NORMALLY ALLOWED IN CONCRETE WITHOUT SPECIAL PRECAUTIONS AS PER RELEVANT CODES.
15. CONTROLLED CONCRETE WITH WEIGH BATCHING SHALL 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-LAYED 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. 17/2013 ISSUED BY RAILWAY BOARD VIDE LETTER NO 2013/TE/LM/7/0/2 DATED 16.04.2013.
18. THE TENTATIVE 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 AS PER THE ACTUAL 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	170
RETAINING WALL	185.51

21. SAFE BEARING CAPACITY OF SOIL/ROCK AT BOTTOM OF FOUNDATION IS 383.66 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 DISTANCE BETWEEN VERTICAL FACES OF PILES SHALL BE AS PER LATEST SOD FOR RAILWAYS/BSRP.
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/RWH/SWR/UEL LETTER NO: SWR/W.70/POLICY/VOL.IV, DATED:07.01.2020.
25. NECESSARY GUARD RAILS SHALL BE PROVIDED ON TRACK AT RUB LOCATIONS BY K-RIDE.
26. SUITABLE HEIGHT GAUGE TO BE PROVIDED ON EITHER SIDE OF RUB LOCATION AS PER STANDARD IR SPECIFICATION.
27. DETAILED INSTRUCTIONS ISSUED ON CONSTRUCTION OF BOX/RUB/LHS BY CPDS/LKO VIDE LETTER NO: 150/LEI/013/2017-18-TA, DATED27-04-2018 FORWARDED BY CRS/SBC VIDE LETTER NO: SD2011/2013-14-SWR, DATED 09-01-2018 SHALL BE FOLLOWED.
28. ALL THE GUIDELINES IN THE MEMO 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 FOUNDATION 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)(G) OF IRPWM/_____
    e. NECESSARY SHORING ARRANGEMENTS TO BE MADE TO PROTECT EXISTING BRIDGE STRUCTURE WHEREVER NECESSARY.
    f. JOINT PROCEDURE ORDER ON SAFETY RELATED ISSUES PERTAINING TO WORK SITE IN CONSTRUCTION PROJECTS (JPO NO. W.339/SAFETY PRECAUTION, DT:18.02.2011) ISSUED VIDE CTE LTR NO. SWR/W/347/SAFETY AT WORK SPOT DT:20.06.2017 HAS TO BE STRICTLY FOLLOWED.
    g. DURING EXECUTION OF WORK THE MATERIAL /EQUIPMENT SUCH AS RELEASED MATERIAL ETC., SHOULD NOT INFRINGE THE TRAIN 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 GOK AUTHORITIES.
30. SUITABLE SPAN OF 1X4MTS (IN PROPOSED RUB PORTION) IS PROPOSED FOR FLEXIBLE VEHICULAR MOVEMENTS WITH A BARREL LENGTH 8.825 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. ANY MODIFICATION 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, 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. BASE COURSE SHALL BE 350MM OF PROPERLY 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.
39. THIS DRAWING IS PREPARED BASED ON RDSO STANDARD DRG NO. RDSO/B-10153 & 10153/2 , AS PER BOX SIZE 1x4mx3.6m METER WITH 1m FILL HEIGHT.