



- DESIGN NOTES -**
- 1) THE DESIGN IS BASED ON FOLLOWING CODES: IRC-2000, IRC-18-2000, IRC-75-2000, IRC-21-2000.
 - 2) CONCRETE GRADES SHALL BE AS FOLLOWS: R18-40, R20-40, R25-40, R30-40, R40-40, R45-40, R50-40, R55-40, R60-40, R65-40, R70-40, R75-40, R80-40, R85-40, R90-40, R95-40, R100-40.
 - 3) TBM ON LIGHT ONE WASTE PEDESTAL AT LINK ROAD JUNCTION OPPOSITE TO HOTEL EAGLE EXECUTIVE AT KM. 3/000 NORTHING = 742.5848, EASTING = 3834.4995, ELEVATION = 561.605 TBM ON GA. 5/70 AT SANT GARDEN NORTHING = 723.8493, EASTING = 3744.0713, ELEVATION = 559.555
 - 4) ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.
 - 5) NO DIMENSIONS SHALL BE SCALED FROM THIS DRG. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
 - 6) VERTICAL & HORIZONTAL CLEARANCE SHOWN FROM THE RAILWAY TRACK IS OBLIGATORY AND SHOULD NOT BE REDUCED.
 - 7) THE DESIGN OF THE ROB SHALL CONFORM TO THE LATEST IRC-2000 STANDARD. DESIGN LOADS - CARRIAGEWAY - 70R (FOR THE LANE OF CLASS A WHICHER PROVIDES MAXIMUM EFFECT).
 - 8) ACTUAL LOCATION OF R.O.B. SHALL BE DECIDED BY ENGINEER IN CHARGE IN CONSULTATION WITH ROAD AUTHORITIES AT THE TIME OF ITS CONSTRUCTION.
 - 9) DEPTH OF FOUNDATION MAY BE ALTERED BY ENGINEER IN CHARGE TO SUIT THE SOIL STRATA MET WITH AT SITE.
 - 10) SHAPES & SIZE OF P.C.C. ORDER, P.T.E BEARING, BEARING PEDESTALS, R.C.C COLUMN CAP, COLUMNS, FOUNDATIONS SHOWN IN THIS DRAWING TENTATIVE AND ARE SUBJECT TO CHANGE IN FINAL EXECUTION DRG. & DESIGN.
 - 11) DRAWING AND DESIGN OF APPROACH ROAD SPANS AND APPROACHES SHALL BE DECIDED BY SPONSORING AUTHORITY AS PER CLAUSE 217-3 OF IRC CODE.
 - 12) IN CASE BLASTING IS TO BE CARRIED OUT IN THE VICINITY OF RAILWAY LINE, NECESSARY PRECAUTIONS AND TRAFFIC BLOCK SHALL BE OBTAINED AS PER PARA 1006 OF (I.R.W) MANUAL.
 - 13) NO PLASTERING AND REPAIR WORK, OVER THE CONCRETE SHALL BE PERMITTED. ANY BAD WILL BE SUMMARILY REJECTED.
 - 14) GUARD RAILS TO BE PROVIDED AS PER RLY'S STANDARD DRAWING.
 - 15) ADDITIONAL LOAD TRANSFERRING FROM FUTURE TRACKS SHALL BE CONSIDERED WHILE DESIGNING OPEN FOUNDATION.
 - 16) SITE OFFICE FOR RAILWAY ENGINEER WILL BE PROVIDED WITH PROPER EXECUTIVE TABLE, CHAIRS, DAILY EQUIPPED WITH TELEPHONIC COMMUNICATION AIR CONDITIONER ATTACHED TOILET ETC. COMPLETE AS DESIRED BY RAILWAY ENGINEER AT THE BRIDGE SITE OR AT THE NEAR BY LOCATION DECIDED BY THE RAILWAY SHALL BE PROVIDED BY ROAD SPONSORING AUTHORITY AND MAINTAINED DURING THE PERIOD OF CONSTRUCTION OF THE PROJECT.
 - 17) STRIP SEAL TYPE EXPANSION JOINT SHALL BE PROVIDED.
 - 18) VERTICAL CLEARANCE FROM THE HIGHEST RAIL LEVEL TO BOTTOM OF GIRDER SHALL NOT BE LESS THAN 6.525M.
 - 19) CONTROLLED CEMENT CONCRETE SHALL BE AS PER RAILWAYS SPECIFICATION ISSUED AS ON DEC 2000.
 - 20) A SEPARATE LAUNCHING SCHEME HAS TO BE SUBMITTED WHICH WILL BE APPROVED BY C.B.E BEFORE COMMENCEMENT OF LAUNCHING.
 - 21) CASTING OF P.C.C. ORDERS CAST IN SITU SHALL NOT BE PERMITTED OVER RUNNING LINE. THOSE WILL BE PRECAST OUTSIDE AND LAUNCHING.
 - 22) EXECUTION OF ANY WORK WITHIN RLY BOUNDARY FOR CONSTRUCTION OF ROB SHALL BE DONE ONLY IN PRESENCE OF RAILWAYS AUTHORITY REPRESENTATIVE TO ENSURE THE SAFETY OF RUNNING TRAINS. NO HEAVY MACHINERY WILL WORK ALONG THE TRACK WITHOUT PRESENCE OF ANY RAILWAY AUTHORITY.
 - 23) ANTI-CRASH BARRIERS TO BE PROVIDED AS PER APPROVED DRAWING OF M.O.R.T.M STANDARD AND SHALL BE CAST IN SITU.
 - 24) POT P.T.E BEARING SHALL BE PROVIDED UNDER P.C.C. ORDERS.
 - 25) IN ORDER TO OFFER RESISTANCE AGAINST CORROSION, ALL REINFORCEMENT BARS SHALL BE PROVIDED WITH EPOXY COATING AS ENVIRONMENT CONDITION AT LOCATION OF PROPOSED ROB IS MODERATE.
 - 26) FOR GENERAL ARRANGEMENT OF ENTIRE BRIDGE, DRAWING NO. _____
 - 27) ALL TECHNICAL RECORDS I.E. CURB STRENGTH REGISTER, PRESTRESSING DETAILS ETC. SHOULD BE HANDED OVER TO RAILWAY ENGINEER WHENEVER REQUIRED.
 - 28) COMPLETION DRAWING OF R.O.B. DULY APPROVED BY ROAD AUTHORITY SHOULD BE HANDED OVER TO RAILWAY ENGINEER IN CHARGE.
 - 29) CONCRETE USED FOR CONSTRUCTION SHALL BE READY MIXED CONCRETE (RMC) OR CONCRETE MIXED FROM BATCHING PLANT. NECESSARY SPEED RESTRICTION WILL BE IMPOSED BY RAILWAY IF ANY EXCAVATION IS DONE BY THE SIDE OF RLY TRACK.
 - 30) STRUCTURAL DRAWINGS/DESIGN SHALL BE PROOF CHECKED BY RAILWAY APPROVED DESIGNERS FOR FINAL APPROVAL OF RLY ENGINEER AT CBE'S OFFICE.
 - 31) BEFORE OPENING RAILWAY ROB FOR ROAD TRAFFIC, APPROVAL OF RLY ENGINEER INCHARGE IS TO BE OBTAINED.
 - 32) APPROVAL OF GAD SHALL BE OBTAINED IN TRACING PAPER FROM PUNE DIVISIONAL OFFICE & FURTHER FROM CBE'S OFFICE DAILY HEAD QUARTERS.
 - 33) WHILE INVITING TENDERS THE SPECIFICATIONS ENCLOSED SHALL FROM PART OF CONTRACT FOR CONSTRUCTION OF BRIDGE OVER RAILWAY SPAN.
 - 34) FOR QUALITY AUDIT AN INDEPENDENT 3rd PARTY SHALL BE ENGAGED, WITH PRIOR APPROVAL OF CBE RAILWAYS WHO SHALL SUBMIT PERIODIC REPORTS TO CBE FOR MONITORING.
 - 35) EXISTING RAIL LEVEL 565.475 HAS ONLY BEEN CONSIDERED FOR ALL PURPOSE IN PREPARING GAD.
 - 36) IN CASE OF OPEN FOUNDATION ANCHOR ROOBS 32mm DIA HYSD (TREATED WITH ANTI CORROSION TREATMENT) AT A SPACING OF 1m/2m, DULY STAGGERED, SHALL BE PROVIDED FOR ALL FOUNDATIONS. THESE ANCHOR ROOBS SHALL BE ANCHORED INTO FOUNDING STRATA UP TO A DEPTH OF 1.20 M AND EPOXY GROUTED.
 - 37) IT IS TO CERTIFY THAT CONSTRUCTION OF SUBWAY OR LIGHT FOOT OVER BRIDGE IS NOT NECESSARY. IT IS FURTHER TO CERTIFY THAT THERE IS NO EXISTING LEVEL CROSSING.
 - 38) EXPOSURE CONDITIONS - MODERATE.
 - 39) IF REQUIRED ONE MODIFICATION FOR WHICH SEPARATE DRAWING WILL BE SUBMITTED.
 - 40) ONE ROAD INSPECTION VEHICLE (CAR/VEP) FOR THE INSPECTION PURPOSE FOR RAILWAY ENGINEER SHALL BE PROVIDED BY ROAD SPONSORING AUTHORITY FOR THE ENTIRE PERIOD OF CONSTRUCTION OF R.O.B. THE COST OF PROVIDING SUCH VEHICLE, ITS MAINTENANCE AND FUEL ETC. COMPLETE SHALL BE BORN BY ROAD SPONSORING AUTHORITY (BRODER).
 - 41) SEPARATE SKETCH AND ESTIMATE WILL BE SUBMITTED FOR SHIFTING OF TELECOM CABLE.
 - 42) IN ORDER TO OFFER RESISTANCE AGAINST CORROSION, THE REINFORCEMENT BARS SHALL BE PROVIDED WITH SUITABLE PROTECTIVE COATING DEPENDING UPON THE ENVIRONMENTAL CONDITIONS AS PER PARA 7.1.5 OF CONCRETE BRIDGE CODE CORROSION SLIP NOT DATED 28-04-2000.
 - 43) ORDER SHOULD BE DESIGNED KEEPING IN MIND STABILITY DURING LAUNCHING.
 - 44) AS FAR AS POSSIBLE IN DESIGN OF P.C.C. GIRDER BOTTOM FLANGE SHOULD BE NARROW/LESSER IN WIDTH THAN TOP FLANGE.
 - 45) DIAPHRAGM SHOULD BE PROVIDED IN SUPERSTRUCTURE TO CONNECT THE GIRDER AS PER C.B.C. CL. 18.9.2.2. TILL DIAPHRAGMS ARE CASTED STEEL BRACKETS AT END OF GIRDER SHOULD BE PROVIDED AND WILL NOT BE REMOVED TILL END DIAPHRAGMS ARE CASTED. DRAWING FOR STEEL BRACKETS SHALL BE SUBMITTED SEPARATELY.
 - 46) JACK SHOULD BE TESTED BEFORE USING AT THE TIME OF LAUNCHING OF THE GIRDER/REPLACEMENT OF BEARINGS.
 - 47) STOPPERS SHOULD BE PROVIDED AT THE TOP OF PIER TO PREVENT POSSIBILITY OF TOPPLING OF GIRDER WHILE LAUNCHING OF GIRDER.
 - 48) MINIMUM GRIP LENGTH IN ROCK SHOULD BE KEPT 1.5m AS PER BRIDGE MANUAL (PARA 403).
 - 49) IF THE LAUNCHING IS DONE BY CRANE, THE CAPACITY/ROOM LENGTH OF THE CRANE WILL BE APPROVED BY THE RAILWAY ENGINEER AND ADDITIONAL STAND BY CRANE WILL HAVE TO BE PROVIDED IN CASE OF FAILURE OF WORKING CRANE.
 - 50) THE DESIGN OF REINFORCEMENT FOR THE BRIDGE SHALL BE PROVIDED IN CASE OF FAILURE OF WORKING CRANE.
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 - 53) SKEW ANGLE IS 0° DEGREES.
 - 54) SHIFTING OF TOWER WILL BE 10 TO 20 METRES FROM EXISTING LOCATIONS.
 - 55) SIZE OF THE BEAM 1.0 Metre X 1.0 Metre.
 - 56) DIMENSIONS IN SKEW ARE SHOWN INTO BRACKET ().