

पुणे रेल्वे

कार्यालय  
प्रमुख मुरवंधणीनियर  
गोरखपुर

पत्रसंख्या - W/218/A/ROB/NH-5(PWD)

दिनांक 24.02.2020

उपपरियोजना प्रबंधक

उ०प्र० राज्य सेतु निगम

कार्यालय उपपरियोजना प्रबंधक

सेतु निर्माण इकाई - प्रथम-वरेली

जिला-क्रासिंग, वरेली-243001

विषय: पीलीभीत-मैकानी रेलरवड में स्थित

पीलीभीत-माला स्टेशनों के मध्य क्रि. 258/11-12

पर ROB का प्रस्ताव (समपरस. 197 के निकट)

संदर्भ: आपका पत्रांक 2392/ROB-9/5-6/BCU-BRY/

19-20 dt. 9.12.2019.

विषयांकित कार्य का सामान्य व्यवस्था आरेख अनुमोदन के पश्चात् दो नीलीप्रतियां आपको आवश्यक कार्यवाही हेतु प्रेषित हैं

*(Signature)*

24/2/20

(अनिल सप्र)

उपपु० ई० पुल/मु०

गोरखपुर

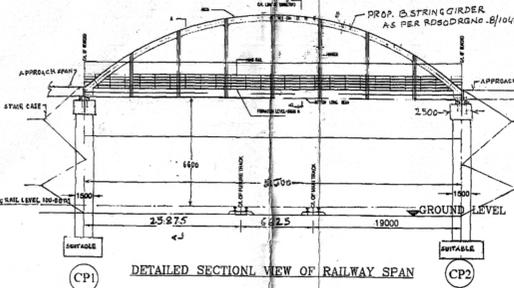
प्रतिक्रिया - वरिष्ठ मंडल इंजीनियर प्रथम, पुणे रेलवे

इज्जतनगर का आरेख की एक नीलीप्रति

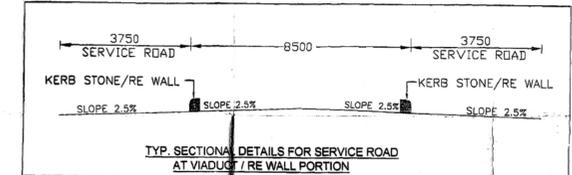
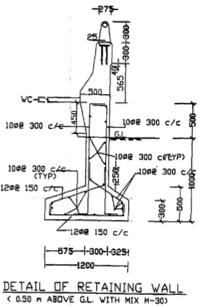
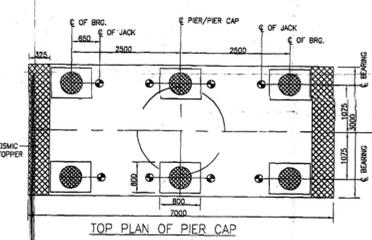
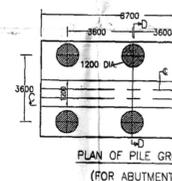
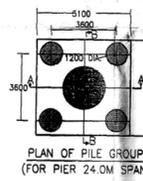
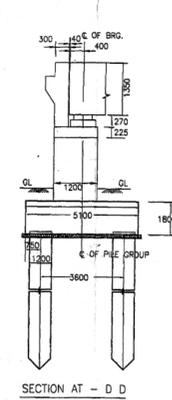
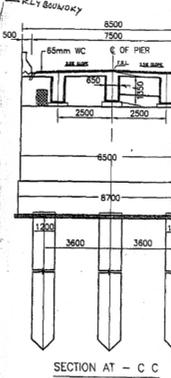
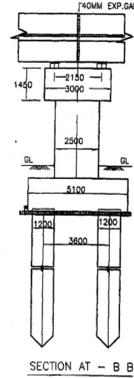
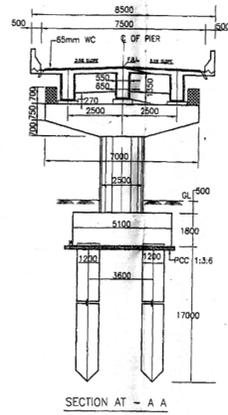
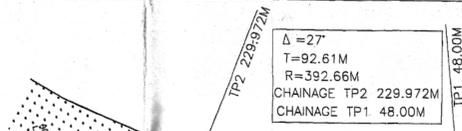
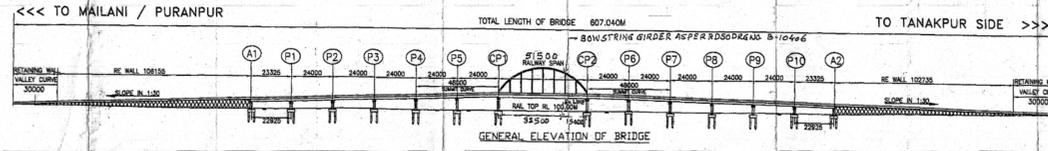
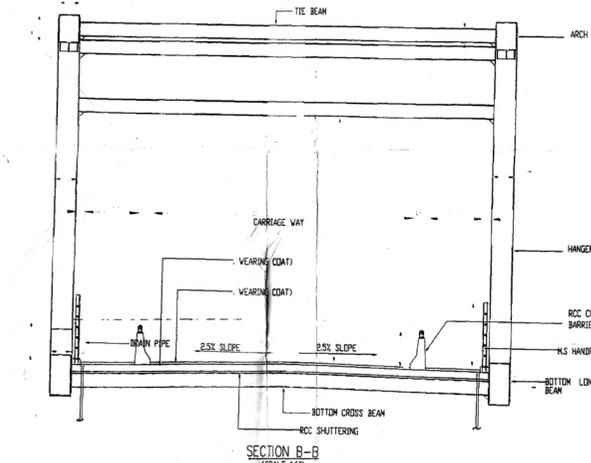
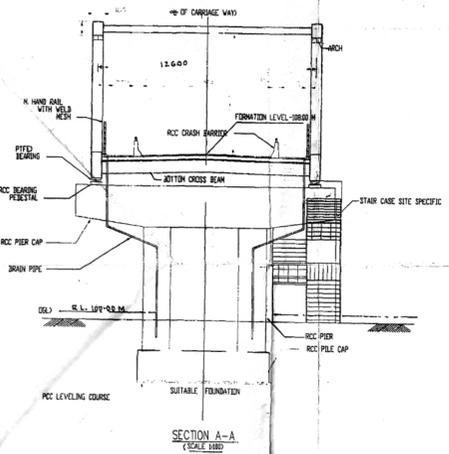
आवश्यक कार्यवाही हेतु उपरि।

RAILWAY PORTION

← TO MAILANI/PURANPUR TANAKPUR SIDE →



← TO MAILANI/PURANPUR TANAKPUR SIDE →



**NOTES**

- ADMINISTRATIVE APPROVAL & EXPENDITURE SANCTION OF CONSTRUCTION OF 02 LANE R.O.B FROM PILBHIT-MAILANI RAIL SECTION BETWEEN CHAINAGE 2981+18 & 2987+19 ON PILBHIT-BASTI MARG KM 6 TO LIPULAKE BHIND MARG KM 372 AT CONSTRUCTION OF BYPASS ROAD IN DISTRICT Pilibhit VIDE GO 18/11/2019-1/2/1442/2019 DATED 14.02.2019 OF LOK NIRMAN ANUBHAG-11 UP GOVERNMENT ON BASIS OF TENTATIVE GAD (NO. N.D. DATED 26.02.2019 IN CONTINUATION). THIS GAD IS PREPARED BASED ON PAPERS 6 FORMAT RECOMMENDED BY D.P.M. BCU-1 BAREILLY 6 APPROVED BY CMA (BAREILLY) PROVIDED VIDE FOLLOWING LETTERS REFERENCES:
  - (I) LETTER NO. 3174/ROB-25/19 DATED 26.02.2019
  - (II) LETTER NO. 3403/ROB-25/19 DATED 16.03.2019
- THIS WORKING GAD IS PREPARED BASED ON RAILWAY PROFILE SKETCHING AN/18/19/01/01 PART-01/05 DATED 07.03.2018 ON PLAN NO. GML/2021/02/902045 NOT SIGNED APPROVED BY C.E. (RAILWAY) & PROVIDED BY D.P.M. BAREILLY 6 LETTER NO. 3174/ROB-25/19 DATED 26.02.2019 & 3403/ROB-25/19 DATED 16.03.2019 AND SITE SECTION COMMITTEE REPORT.
- RAILWAY DETAILS:
  - (i) LENGTH OF RAILWAY PORTION = 51.500M (C/C OF COMMON PIERS)
  - (ii) (CONSISTING OF ONLY ONE SPAN)
  - (iii) RAIL TOP LEVEL = 100.00M
  - (iv) SKEW ANGLE = 27°
  - (v) FORMATION LEVEL = 108.00 METERS
- ALL DIMENSIONS SHOWN IN G.A.D ARE TENTATIVE AND SUBJECT TO MODIFICATION AT THE TIME OF DETAIL DESIGN.
- ONLY FILLED DIMENSIONS SHALL BE FOLLOWED AND NOT THE SCALED DIMENSIONS.
- QUALITY CONTROL SHALL CONFORM TO IS:2203/2000.
- CONCRETE GRADE SHALL BE AS PER FOLLOWING DETAILS:
  - (i) LEAN CONC = M 30
  - (ii) PILE FOUNDATION = M 35
  - (iii) PILE CAP = M 30
  - (iv) SUB STRUCTURE = M 30
  - (v) SUPER STRUCTURE = M 40
  - (vi) S.C BEAM = M 40
  - (vii) DECK SLAB = M 40
  - (viii) CRASH BARRIER = M 40
- 845 mm THICK ASPHALTIC WEARING COAT SHALL BE PROVIDED.
- LENGTH OF VIADUCT AND RE WALL HAS BEEN SHOWN ALONG THE CENTER LINE OF CARRIAGEWAY LEVELS SHOWN ARE WITH RESPECT TO TOP LEVEL OF RAIL AS 100.00 FORMATION LEVEL AS 108.00M AT THE CENTER LINE OF CARRIAGEWAY.
- DESIGN SPEED = 65 KM/H.
- LENGTH OF APPROACHES ON BOTH SIDE OF RAILWAY PORTION HAS BEEN CALCULATED TAKING FORMATION LEVEL OF RAILWAY SPAN AS 108.00M AT THE CENTER LINE OF CARRIAGEWAY AND G.L. AS INFORMED BY FIELD UNIT BCU-1 BAREILLY.
- FOLLOWING SEISMIC PARAMETER ARE TAKEN IN DESIGN:
  - (i) SEISMIC ZONE = IV
  - (ii) IMPORTANCE FACTOR = 1.5
  - (iii) IS:1893-2016
- LOAD CARRYING CAPACITY OF 12M DIA & 17.00M DEEP PILE IS TAKEN AS 200T APPROVED BY CPM (BAREILLY) DATED 26.02.2019.
- FOR LOAD TEST ON PILES, ALL PROVISIONS OF IS: 2911 (PART 4)-1986 (FIRST REVISION) SIXTH REPRINT JULY 2008 SHALL BE STRICTLY COMPLIED FOR INITIAL LOAD TEST AND FINITE TEST ACTUALLY CARRIED ON SINGLE PILE & ON GROUP OF PILES INCLUSIVE OF VERTICAL LOAD TEST, COMPRESSION & LATERAL LOAD TEST ON PILES (CLAUSE 89) RESPECTIVELY OF IS: 2911 PART 4-2013.
- IT SHALL BE THE RESPONSIBILITY OF UNIT-IN-CHARGE AND C.M. OF CONCERNING CONSTRUCTION UNIT TO ACTUALLY LOAD TESTS AT SITE AND TO ENSURE FULL COMPLIANCE OF IS: 2911 PART 4-2013 PRIOR TO CONSTRUCTION OF ANY WORKING PILE. IF ANY DEVIATION IS FOUND IN ACTUAL SAFE LOADS & TEST LOADS DERIVED FROM DESIGN TESTS, FROM VERTICAL DESIGN LOAD = 200T & HORIZONTAL DESIGN FORCE = 10 TONNES, THE MATTER SHALL BE REFERRED TO DESIGN UNIT FOR OBTAINING DESIGN.
- SPECIAL NOTE:
  - (i) PROVISIONS FOR PROTECTION UNDER 02 LANE R.O.B AT GROUND BELOW VIADUCT PORTION SHALL BE ENSURED AS PER IS: 2203 STANDARD DRAWING NO. 825/1/1/2/000/019 DATED 2010.
  - (ii) PROPER DRAINAGE SYSTEM SHALL BE PROVIDED TO DRAIN OUT THE WATER FROM BRIDGE PORTION.
  - (iii) THIS GAD IS APPLICABLE AFTER REVISED SANCTION AS PER LETTER NO. 128/SETU/SAMANYA/ VOL. I/05/2019 DATED 24.10.2019 OF ENGINEER IN CHARGE AND H.O.U.P. PWD.
  - (iv) THIS GAD IS PREPARED WITHIN THE SKEW ANGLE OF RAILWAY SPAN ON THE RECOMMENDATION OF SITE SELECTION COMMITTEE. THEREFORE IT IS RESPONSIBILITY OF SITE IN-CHARGE, THAT NO CONSTRUCTION WORK SHALL BE DONE AT SITE PRIOR TO APPROVAL OF THIS GAD FROM COMPETENT AUTHORITY OF RAILWAY & CHIEF ENGINEER BRIDGE RAILWAY.

**NOTE: - RAILWAY PORTION**

- All dimensions are given.
- No dimensions shall be scaled from this drawing, only written dimension shall be followed.
- This bridge span is designed for 70R and A-class loading per IRC-6:2010.
- This bridge span designed for earthquake zone IV.
- Analysis and design steel frame is as per IRC-24:2010.
- Analysis and design composite concrete deck per IRC-24:1996.
- This bridge shall not be converted into three lane after removal of RCC crash barrier because it is designed for two lane loading only (as per IRC-6:2010).
- All steel plates used in fabrication of this bridge are of grade 430B. Only ISMB 800 kg of grade Fe 410C.
- Grade of concrete for deck, crash barrier and concrete panels shall be M40.
- All material shall pass test/analysis prescribed by relevant IS specification.
- All steel work fabrication shall be done in accordance with Indian Codes.
- Workshop welding:
  - a. All workshop fabrication shall be done using SAW (Submerged Arc Welding) process only.
  - b. On site welding:
    - i. All welding, other than workshop welding, shall be done through Gas Shielded FCAW (Flux Core Arc Welding) process only. SMAW (Shielded Metal Arc Welding) also known as Manual Metal Arc Welding shall NOT be permitted anywhere in the structure.
    - ii. The gas shield to be used in the FCAW process may be CO<sub>2</sub>, Argon or CO<sub>2</sub>-Argon mixture.
    - iii. In FCAW process, wind screen and/or enclosures shall be provided around the welding location prevent shielding gas from blown out.
    - iv. Welding shall be performed on prepared metal surfaces free from rust, dust, moisture etc. and before every new pass, slag must carefully chipped off from weld surface.
  - c. Radiography test shall be conducted to ensure weld quality.
  - d. Method of launching shall be approved by RAILWAY.
- Pier and foundation used here are represent arrangement of box string girder. Actual dimensions of pier and foundation is site specific.

REVISION-1

|  |   |   |   |  |  |
|--|---|---|---|--|--|
| DATE   | NO                                      | REVISION  |   |  |  |
| 20-06-19   | 1                                       | THIS G.A.D. HAS BEEN REVISED TO SHOW THE RAILWAY COMPONENTS AND NOTES IN DETAIL PROVIDED BY CHIEF ENGINEER (BRIDGE) BARAMPUR VIDE LETTER NOS. W/18/1/BRIDGE DRAWING/PART-VIII DATED 16.05.2019. |   |  |  |
| DRAWN BY   | DESIGNED BY                             | REVIEWED BY   | RECOMMENDED BY                          | RECOMMENDED BY                           | APPROVED BY                                      |
| (L.M. CHAUDHARY)<br>CHIEF DRAFTER<br>BDU-9 GHAZIABAD                           | (J.N. SINGH)<br>P.M. BDU-9<br>GHAZIABAD | (S.K. CHAUHAN)<br>C.E. BDU-9<br>GHAZIABAD   | (I.P. SINGH)<br>C.P.M. (D)<br>GHAZIABAD | (V.N. PRAKASH)<br>J.N.D.(O)<br>GHAZIABAD | (U.K. GAHLAUT)<br>MANAGING DIRECTOR<br>UPSCB LKO |
| DRG. NO. 01(81)-GAD/ROB/Km.258/11-12/PILBHIT-MAILANI RAIL SECTION/PILBHIT/2019 |   |   |   |  |  |

CE'S PLAN NO. GML/2021/02/902045

|  |  |   |   |
|--|--|---|---|
| <p>U.P. STATE BRIDGE CORPORATION LTD.<br/>16-MADAN MOHAN MALVIYA MARG<br/>LUCKNOW - 226001</p> |  |   |   |
| PROJECT:   | CONSTRUCTION OF 2 LANE R.O.B ON PILBHIT-MAILANI RAIL SECTION CHAINAGE BETWEEN PILBHIT-MALA STNS. AT KM 258+12 PILBHIT-BAREILLY MARG KM 6 TO LIPULAKE BHIND MARG KM-372 AT CONSTRUCTION OF PILBHIT BYPASS IN DIST. PILBHIT NEAR L.C. NO. 19 |   |   |
| TITLE  | GENERAL ARRANGEMENT DRAWING  |   |   |
| SPAN   | 1X23.325+5X24.00M+RAILWAY SPAN [51.50M]+ 5X24.0M+1X23.325M C/C OF EXP. JOINT   |   |   |
| CARRIAGEWAY  | 7.5M CLEAR ROADWAY+50M CRASH BARRIER ON EACH SIDE  |   |   |
| LOADING  | SAFE FOR TWO LANES OF IRC CLASS A OR ONE LANE OF 70R LOADING   |   |   |
| DRAWN BY   | DESIGNED BY  | CHECKED BY  | RECOMMENDED BY  |
| (L.M. CHAUDHARY)<br>CHIEF DRAFTER<br>BDU-9 GZB   | (J.N. SINGH)<br>ASSISTANT ENGINEER(D)<br>BDU-9 GHAZIABAD   | (S.K. CHAUHAN)<br>PROJECT MANAGER(D)<br>BDU-9 GHAZIABAD | (I.P. SINGH)<br>CHIEF PROJECT MANAGER(D)<br>GHAZIABAD |
| DRG. NO. 01(81)-GAD/ROB/Km.258/11-12/PILBHIT-MAILANI RAIL SECTION/PILBHIT/2019                 |  |   |   |

APPROVED BY: (U.K. GAHLAUT) MANAGING DIRECTOR UPSCB LUCKNOW

DESIGNED BY: (J.N. SINGH) ASSISTANT ENGINEER(D) BDU-9 GHAZIABAD

CHECKED BY: (S.K. CHAUHAN) PROJECT MANAGER(D) BDU-9 GHAZIABAD

RECOMMENDED BY: (I.P. SINGH) CHIEF PROJECT MANAGER(D) GHAZIABAD

DATE: 20/06/19