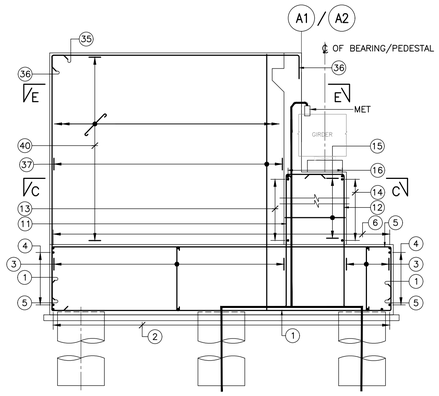
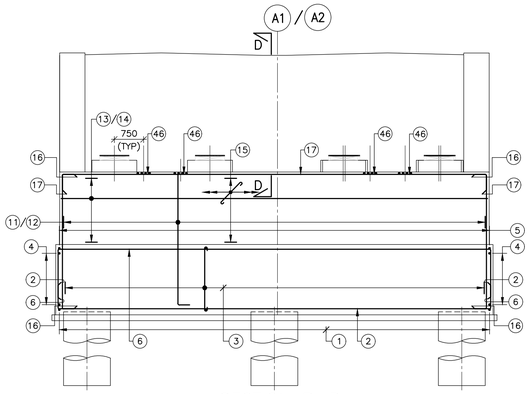
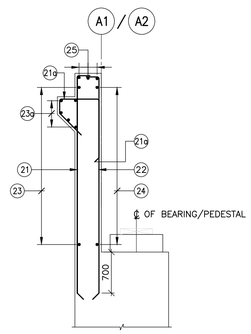


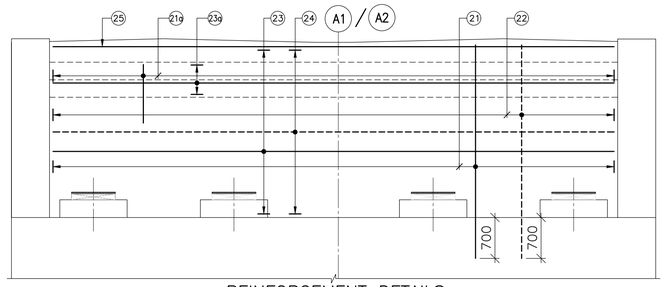

SECTION A–A
(SCALE 1:75)
(DIRT WALL REINFORCEMENT NOT SHOWN FOR CLARITY.)




SECTION B–B
(SCALE 1:75)
(DIRT WALL & RETURN WALL REINFORCEMENT NOT SHOWN FOR CLARITY.)



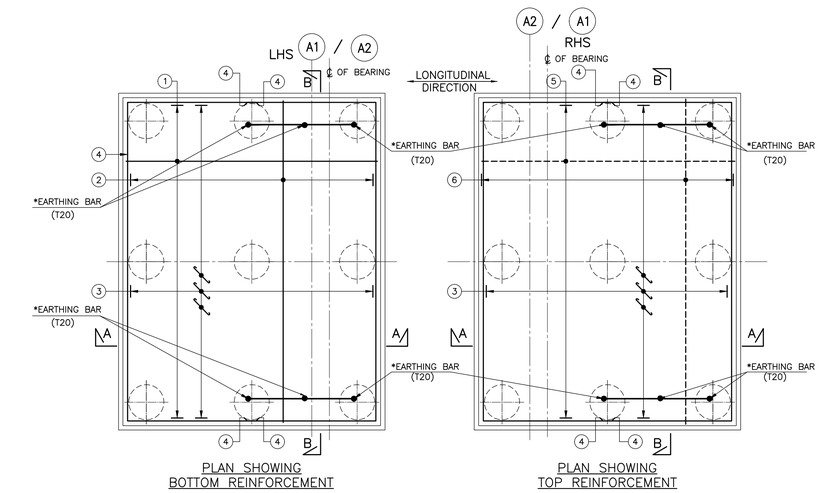

SECTION D–D
(SCALE 1:50)




REINFORCEMENT DETAILS OF DIRT WALL
(SCALE 1:50)

## SCHEDULE OF REINFORCEMENT:

| ITEM | BAR MARK | BAR DIA. | SHAPE | TOTAL NOS./ SPACINGS | REMARKS |
|---|---|---|---|---|---|
| PILE CAP | 1 | ϕ25 | 825 | @ 100 c/c | |
| | 2 | ϕ25 | 825 | @ 100 c/c | |
| | 3 | ϕ12 | | @ 200 c/c LONGITUDINAL SPACING | @ 200 c/c TRANSVERSE SPACING |
| | 4 | ϕ12 | 300 | 12 Nos. | EQUISPACED |
| | 5 | ϕ25 | 150 | @ 100 c/c | |
| | 6 | ϕ25 | 150 | @ 100 c/c | |
| | 7 TO 10 | | | | NOT USED |
| ABUTMENT STEM | 11 | ϕ32 | 300 900 | @ 125 c/c | EARTH FACE |
| | 12 | ϕ12 | 900 300 | @ 125 c/c | OUTER FACE |
| | 13 | ϕ12 | 900 | @ 230c/c | EARTH FACE |
| | 14 | ϕ12 | 900 | @ 230c/c | OUTER FACE |
| | 15 | ϕ10 | | @ 230 c/c VERTICAL SPACING | @ 230 c/c TRANSVERSE SPACING |
| | 16 | ϕ12 | 300 | @ 115c/c | |
| | 17 | ϕ12 | 300 300 | @ 115c/c | |
| | 18 TO 20 | | | | NOT USED |
| DIRT WALL | 21 | ϕ20 | 300 | @ 115c/c | EARTH FACE |
| | 21a | ϕ20 | 900 | @ 115c/c | |
| | 22 | ϕ16 | 300 | @ 115c/c | OUTER FACE |
| | 23 | ϕ12 | 300 | @ 150c/c | |
| | 23a | ϕ12 | | 5 NOS | |
| | 24 | ϕ12 | 300 | @ 150c/c | |
| | 25 | ϕ12 | | 3 NOS. | |
| | 26 TO 34 | | | | NOT USED |
| RETURN WALL | 35 | ϕ16 | 300 300 | 6 NOS. | |
| | 36 | ϕ12 | 200 | @ 115c/c | EARTH FACE |
| | 37 | ϕ20 | 300 300 | @ 115c/c | EARTH FACE |
| | 38 | ϕ12 | 200 | @ 115c/c | OUTER FACE |
| | 39 | ϕ12 | 300 300 | @ 115c/c | OUTER FACE |
| | 40 | ϕ12 | | @ 230c/c VERTICAL SPACING | @ 230 c/c HORIZONTAL SPACING |
| PEDESTAL | 41 | ϕ12 | 300 | 15 NOS. | EACH FACE |
| | 42 | ϕ12 | 300 | 14 NOS. | EACH FACE |
| | 43 | ϕ12 | | @ 150c/c | PER PEDESTAL |
| | 44 | ϕ12 | | @ 150c/c | PER PEDESTAL |
| | 45 | ϕ 8 | | 2 NOS. | IN EACH PEDESTAL |
| | 46 | ϕ 8 | | 2 NOS. | AT EACH JACK LOCATION |
| | 47 TO 50 | | | | NOT USED |

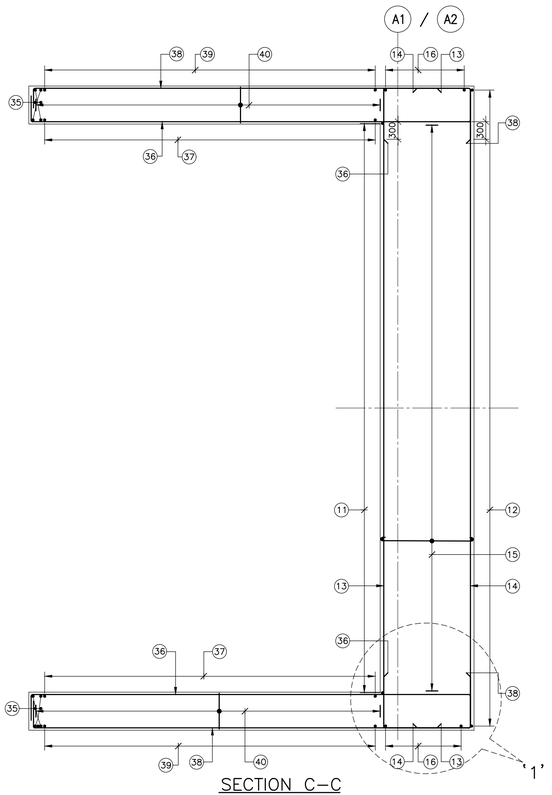



PLAN SHOWING BOTTOM REINFORCEMENT

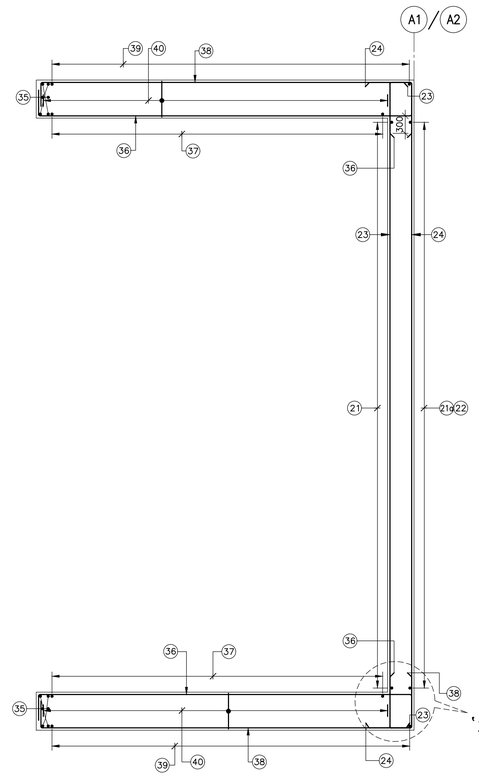
PLAN SHOWING TOP REINFORCEMENT

## REINFORCEMENT DETAILS OF PILE CAP
(SCALE 1:100)

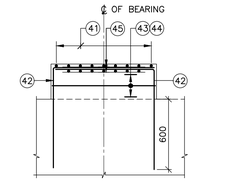
*DETAILS OF EARTHING REBAR WILL BE SHOWN IN SEPARATE DRAWING



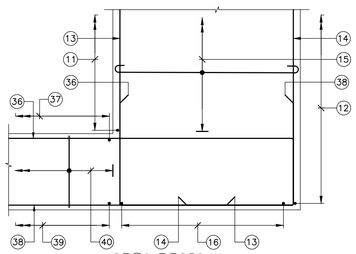

SECTION C–C
(SCALE 1:50)



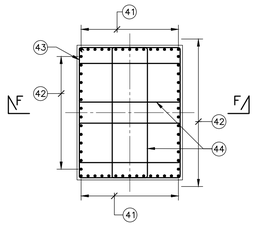

PLAN AT E–E
(SCALE 1:50)



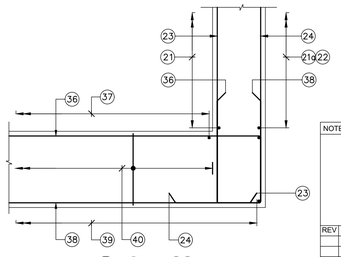

SECTION F–F
(SCALE 1:25)



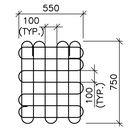
DETAIL–1
(SCALE 1:25)



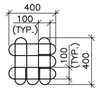

DETAILS OF PEDESTAL
(SCALE 1:25)



DETAIL–2
(SCALE 1:25)




BAR MARK 45
(SCALE 1:25)
(AT PEDESTAL)




BAR MARK 46
(SCALE 1:25)
(BELOW JACK LOCATION)

## NOTES:–

1. ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS UNLESS OTHERWISE MENTIONED.
2. DIMENSIONS SHALL NOT BE SCALED OFF FROM THE DRAWING. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
3. CONCRETE GRADE FOR ABUTMENT CAP, ABUTMENT STEM, PILE, PILE CAP :– M35, PEDESTAL :– M40, RCC RETAINING WALL :– M35
4. REINFORCEMENT:– Fe–500 BARS CONFORMING TO IS:1786–2008.
5. MINIMUM CLEAR COVER OF REINFORCEMENT SHALL BE 75MM TO EARTH FACE FOR ABUTMENT STEM, DIRT WALL, 75MM TO PILE, PILE CAP & 50MM TO OTHER FACE FOR ABUTMENT STEM, DIRT WALL.
6. DEVELOPMENT/LAP LENGTH SHALL BE 41d WHERE 'd' IS DIA. OF LAPPING BARS. EXCEPT FOR RETAINING WALL DEVELOPMENT / LAP LENGTH IS 51d. NOT MORE THAN 50% BARS SHALL BE LAPPED AT ANY LOCATION. THE LAPS SHALL BE STAGGERED BY MINIMUM 1.3 TIMES LAP LENGTH.
7. MAXIMUM COARSE AGGREGATE SIZE SHALL BE 20mm.
8. THE DESIGN IS SUITABLE FOR MODERATE ENVIRONMENT EXPOSURE CONDITIONS (i.e. DESIGN CRACK WIDTH NOT TO EXCEED 0.25mm AS PER CLAUSE NO. 10.2.1(a) OF IRS CONCRETE BRIDGE CODE).

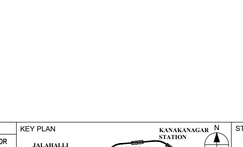
NOTES :

LEGEND :
- BOTTOM REINFORCEMENT / BACK FACE
- TOP REINFORCEMENT / FRONT FACE

REFERENCE DRAWINGS :
- 022077–BSRP–CR2–C–MB–0–20–1118 ....GENERAL ARRANGEMENT DRAWING
- 022077–BSRP–CR2–C–MB–0–20–1134 ....BRIDGE NO.560 AT BSRP CH:9.989 DIMENSION DETAILS OF SUBSTRUCTURE, FOUNDATION & RCC RETAINING WALL AND REINFORCEMENT DETAILS OF A1 &A2

REFERENCE DOCUMENTS :
- DOC–BSRP–CR2–AG–DGN–BR–1541.... DESIGN OF ABUTMENT A1 & A2 FOR MAJOR BRIDGE NO 560

KEY PLAN




STATION BOX KEY PLAN

| REV | DATE | BRIEF DESCRIPTION |
|---|---|---|
| F | 23.10.24 | MODIFIED AS PER GC's LATTER NO. 2509 |
| E | 18.06.24 | MODIFIED AS PER GC's LATTER NO. 2315 |
| D | 31.05.24 | REVISED AS PER SITE FEASIBILITY |
| C | 25.05.24 | MODIFIED AS PER GC's LATTER NO. 2031 |
| B | 08.12.23 | MODIFIED AS PER GC's LATTER NO. 1114 |
| X | 00.00.00 | FOR APPROVAL |

CONTRACTOR :
TRANSPORTATION INFRASTRUCTURE IC
EDRC-SPECIAL BRIDGES

DETAILED DESIGN CONSULTANT (DDC) :
STUP Consultants Pvt. Ltd.
JP 9 Devi Zenith Mathewar Arcade
# 66, 4th Floor,
Millers Road, Bangaluru-560052.
Tel: +91 80 4112 4000
Email: bangalore@stupcon.com
www.stupcon.com

L&T CONSTRUCTION
EDRC-SPECIAL BRIDGES - TIIC

PROOF CONSULTANT (PC) :
Indian Institute of Technology Madras
IIT P.O., Chennai
600 036 INDIA

QUALITY ASSURANCE
The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of Contract provisions in respect of design analysis and drawing rests with Design & Build Contractor.

| | DDC | | | PC | Contractor |
|---|---|---|---|---|---|
| SIGN | CHOU GULE Delip | NAVAT AKE Raghavendra | CHAKRABORTY Partha | MEHER PRASAD ANUMOLU | |
| DATE | 23.10.2024 | 23.10.2024 | 23.10.2024 | | 23.10.2024 |
| NAME | DPC | RAN | PC | | KVM |
| | PREPARED BY | CHECKED BY | APPROVED BY | APPROVED BY | ISSUED BY |

GENERAL CONSULTANTS

| | CHECKED & APPROVED | | COUNTER SIGN |
|---|---|---|---|
| | NAME | SIGN | PROJECT DIRECTOR |
| CIVIL:GAD | | | SIGN |
| CIVIL:ALIGNMENT | | | NAME |
| CIVIL:STRUCTURAL | | | DATE |
| CIVIL:GEOTECH | | | |

K RIDE

| | DESIGNATION | SIGN | DATE |
|---|---|---|---|
| CIVIL:GAD | | | |
| CIVIL:GAD | | | |
| CIVIL:ALIGNMENT | | | |
| CIVIL:STRUCTURAL | | | |
| GM/CIVIL/DESIGN | | | |

EMPLOYER :
RAIL INFRASTRUCTURE DEVELOPMENT COMPANY (KARNATAKA) LIMITED

GENERAL CONSULTANTS :
AECOM egis WSP AECOM-EGIS-WSP

PROJECT : BENGALURU SUBURBAN RAILWAY PROJECT (BSRP)
K-RIDE CORRIDOR - 2

DRAWING TITLE : REINFORCEMENT DETAILS OF ABUTMENT A1 & A2 AND RCC RETAINING WALL OF MAJOR BRIDGE NO.560 AT BSRP CH:9.989

DRAWING NO. : O22077-BSRP-CR2-C-MB-0-20-1135 | REVISION: F | DWG STATUS: D

SCALE : AS SHOWN | DATE : 01.08.2023

PRELIMINARY DWG (P), DEFINITIVE DWG (D), CONSTRUCTION DWG (C), AS BUILT DWG (B), SHOP DWG (S), MANUFACTURED DWG (M) | SHEET SIZE - A1

23/10/2024 4:29 PM
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