

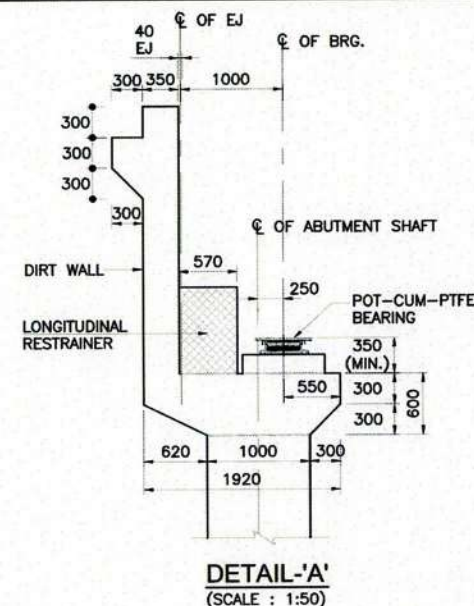
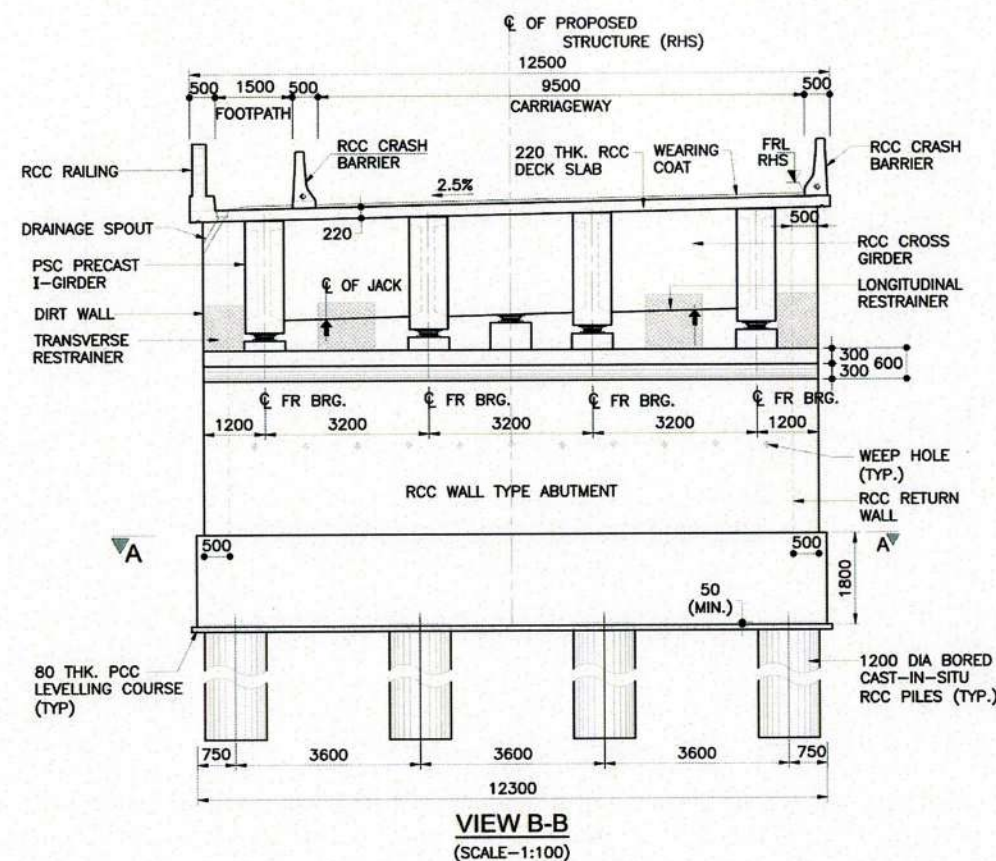
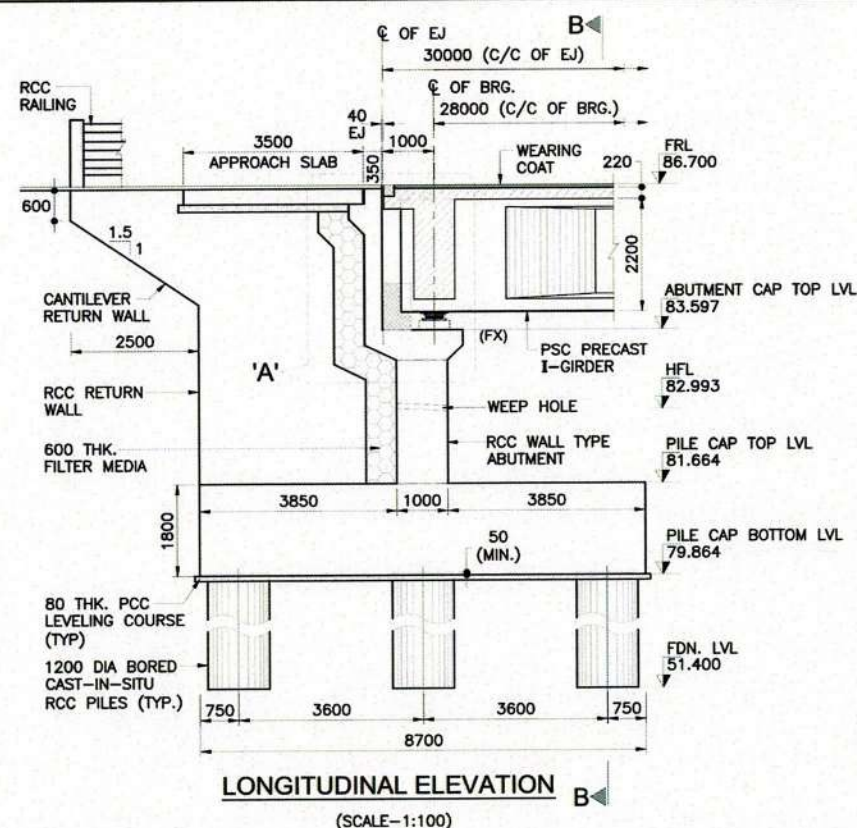
# **MINOR BRIDGES AT CHAINAGE 566+844**

# DRAWING INDEX

## MINOR BRIDGE AT DESIGN CH.- 566+844

| SR. No. | DRAWING TITLE                                              | DRAWING NUMBER                                      |
|---------|------------------------------------------------------------|-----------------------------------------------------|
| 1       | GENERAL ARRANGEMENT DRAWING                                | NHIDCL/MB/JOR-DIB/ST/MNB/566+844/101 (SHEET 1 OF 1) |
| 2       | KEY PLAN                                                   | NHIDCL/MB/JOR-DIB/ST/MNB/566+844/102 (SHEET 1 OF 1) |
| 3       | DIMENSION DETAILS OF ABUTMENT & FOUNDATION FOR A1 & A2     | NHIDCL/MB/JOR-DIB/ST/MNB/566+844/201 (SHEET 1 OF 1) |
| 4       | REINFORCEMENT DETAILS OF ABUTMENT & FOUNDATION FOR A1 & A2 | NHIDCL/MB/JOR-DIB/ST/MNB/566+844/202 (3 SHEETS)     |
| 5       | DIMENSION DETAILS OF SUPER STRUCTURE                       | NHIDCL/MB/JOR-DIB/ST/MNB/566+844/301 (2 SHEETS)     |
| 6       | CABLE & PRESTRESSING DETAILS                               | NHIDCL/MB/JOR-DIB/ST/MNB/566+844/302 (SHEET 1 OF 1) |
| 7       | REINFORCEMENT DETAILS OF LONGITUDINAL GIRDER               | NHIDCL/MB/JOR-DIB/ST/MNB/566+844/303 (SHEET 1 OF 1) |
| 8       | DETAILS OF END BLOCK AND ANCHORAGES                        | NHIDCL/MB/JOR-DIB/ST/MNB/566+844/304 (SHEET 1 OF 1) |
| 9       | GENERAL NOTES FOR PRESTRESSING GIRDER                      | NHIDCL/MB/JOR-DIB/ST/MNB/566+844/305 (SHEET 1 OF 1) |
| 10      | REINFORCEMENT DETAILS OF END CROSS GIRDER                  | NHIDCL/MB/JOR-DIB/ST/MNB/566+844/306 (SHEET 1 OF 1) |
| 11      | REINFORCEMENT DETAILS OF INTERMEDIATE CROSS GIRDER         | NHIDCL/MB/JOR-DIB/ST/MNB/566+844/307 (SHEET 1 OF 1) |
| 12      | REINFORCEMENT DETAILS OF RCC DECK SLAB                     | NHIDCL/MB/JOR-DIB/ST/MNB/566+844/308 (SHEET 1 OF 1) |
| 13      | DETAILS OF LOADS FOR POT CUM PTFE BEARING                  | NHIDCL/MB/JOR-DIB/ST/MNB/566+844/309 (SHEET 1 OF 1) |





#### NOTES:-

- ALL DIMENSIONS ARE IN MILLIMETERS, LEVELS ARE IN METERS UNLESS OTHERWISE MENTIONED.
- NO DIMENSION SHALL BE MEASURED FROM THE DRAWINGS. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
- THE REINFORCEMENT SHALL BE HYSD BARS OF GRADE DESIGNATION Fe 500D CONFORMING TO IS 1786-2008.
- CONCRETE SHALL BE DESIGN MIX WITH A MINIMUM 28 DAYS CHARACTERISTIC CUBE STRENGTH FOR DIFFERENT ELEMENTS AS FOLLOWS:
 

|                                 |     |
|---------------------------------|-----|
| a. RCC ABUT. & ABUT. CAP        | M35 |
| b. RCC PILE & PILE CAP          | M35 |
| c. RCC CRASH BARRIER            | M40 |
| d. PCC LEVELING COURSE          | M15 |
| e. RCC PEDESTALS AND RESTRAINER | M40 |
- CLEAR COVER TO OUTER STEEL SHALL BE AS FOLLOWS:-
 

|                              |      |
|------------------------------|------|
| a. RCC ABUT. STEM EARTH SIDE | 75MM |
| b. RCC ABUT. OUTER SIDE      | 40MM |
| c. RCC ABUT. CAP             | 40MM |
| d. RCC RESTRAINERS           | 40MM |
| e. RCC PILE & PILE CAP       | 75MM |
| f. RCC CRASH BARRIER         | 40MM |
| g. RCC PEDESTAL              | 40MM |
- 600MM THICK FILTER MEDIA SHALL BE PROVIDED BEHIND SOLID ABUTMENT WALL & RETURN WALLS.
- BACK FILLING BEHIND WALLS/ABUTMENT SHALL CONSISTS OF SELECTED EARTH CONFORMING TO APPENDIX 6 OF IRC:76-2014 HAVING PROPERTIES  $C=0$ ,  $\phi>=30^\circ$ ,  $\gamma=2.0t/cu.m$ .
- ALL SOLID WALLS RETAINING THE EARTH SHALL BE PROVIDED WITH WEED HOLES (100MM DIA AND SLOPE 1V:20H) STARTING 150MM ABOVE THE GROUND LEVEL AND SPACED 1000MM C/C BOTH HORIZONTALLY AND VERTICALLY IN STAGGERED MANNER.
- PERMANENT STEEL LINER 6MM THK. SHALL BE PROVIDED UPTO MAX. SCOUR LEVEL.
- LAPPING OF REINFORCEMENT SHALL BE AVOIDED AS FAR AS POSSIBLE. IN CASE LAPPING OF BARS BECOME UNAVOIDABLE, LAP LENGTH SHALL BE PROVIDED AS PER CLAUSE 15.2.5 IRC:112-2020:
 

|                                    |                                    |
|------------------------------------|------------------------------------|
| * $\phi \times 36\phi$             | (GRADE M35) FAVOURABLE CONDITION   |
| * $\phi \times 1.43 \times 36\phi$ | (GRADE M35) UNFAVOURABLE CONDITION |

| PERCENTAGE OF LAPPED BARS RELATIVE TO TOTAL CROSS-SECTIONAL AREA | <25% | 33%  | 50% | >50% |
|------------------------------------------------------------------|------|------|-----|------|
| $\phi$                                                           | 1    | 1.15 | 1.4 | 1.5  |

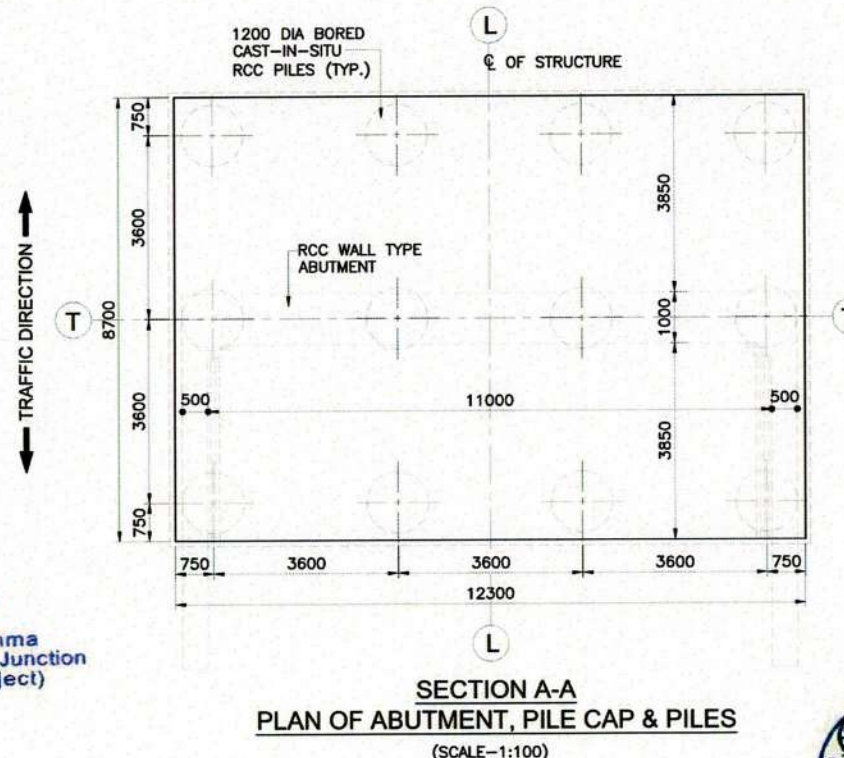
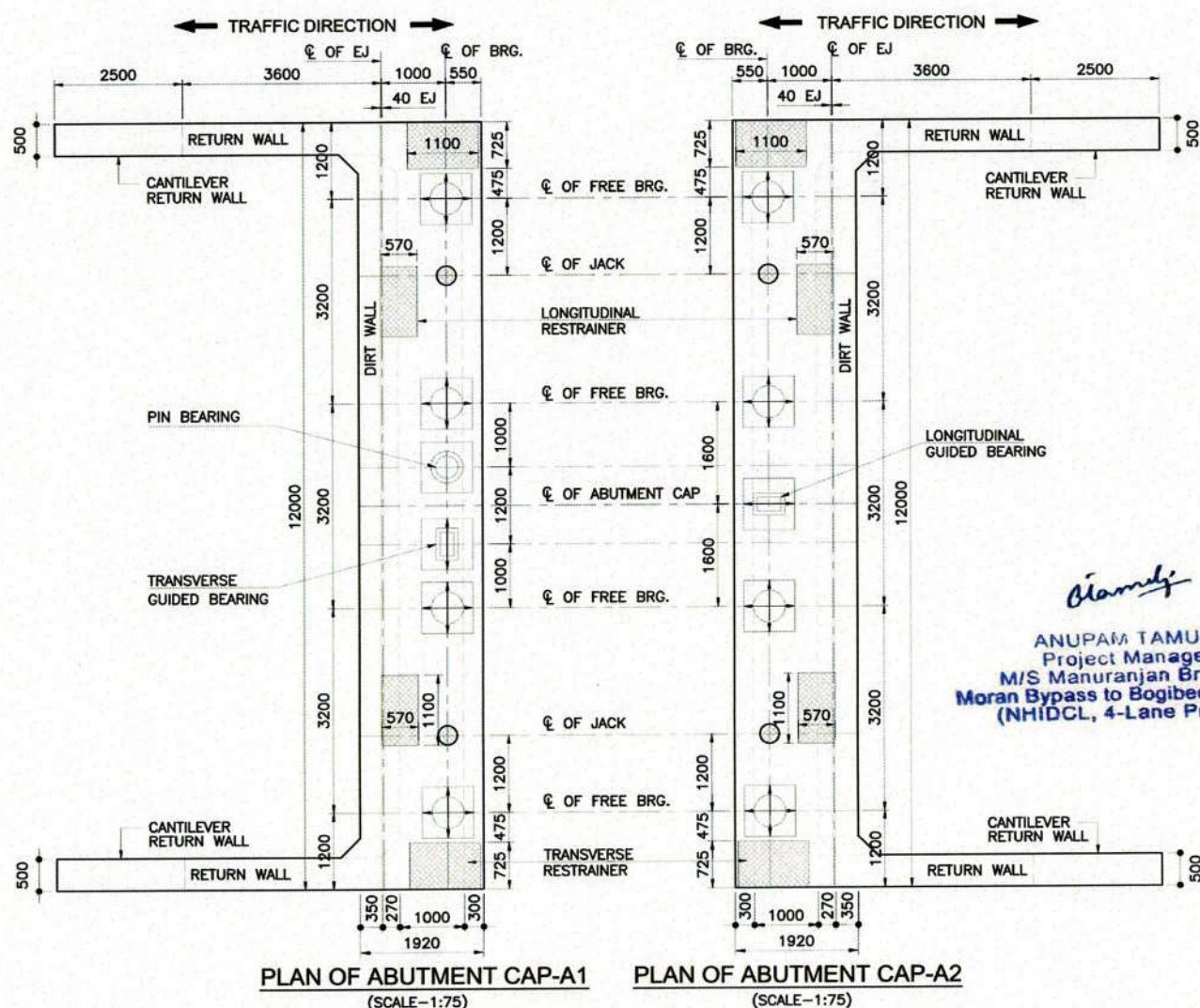
- ANCHORAGE LENGTH SHALL BE AS PER CLAUSE 15.2.3 & 15.2.4, IRC:112-2020:
 

|                        |                                    |
|------------------------|------------------------------------|
| * $36\phi$             | (GRADE M35) FAVORABLE CONDITION    |
| * $1.43 \times 36\phi$ | (GRADE M35) UNFAVOURABLE CONDITION |

#### LEGEND:-

- BEARING IN PLAN
- POT-CUM-PTFE BEARING IN ELEVATION
- JACK LOCATION IN PLAN
- JACK LOCATION IN ELEVATION
- BRG - BEARING
- EJ - EXPANSION JOINT
- LVL - LEVEL
- FRL - FINISHED ROAD LEVEL
- FDN - FOUNDATION
- LVL - LEVEL
- FR - FREE

Bridge Engineer  
VSPL, Sivasagar

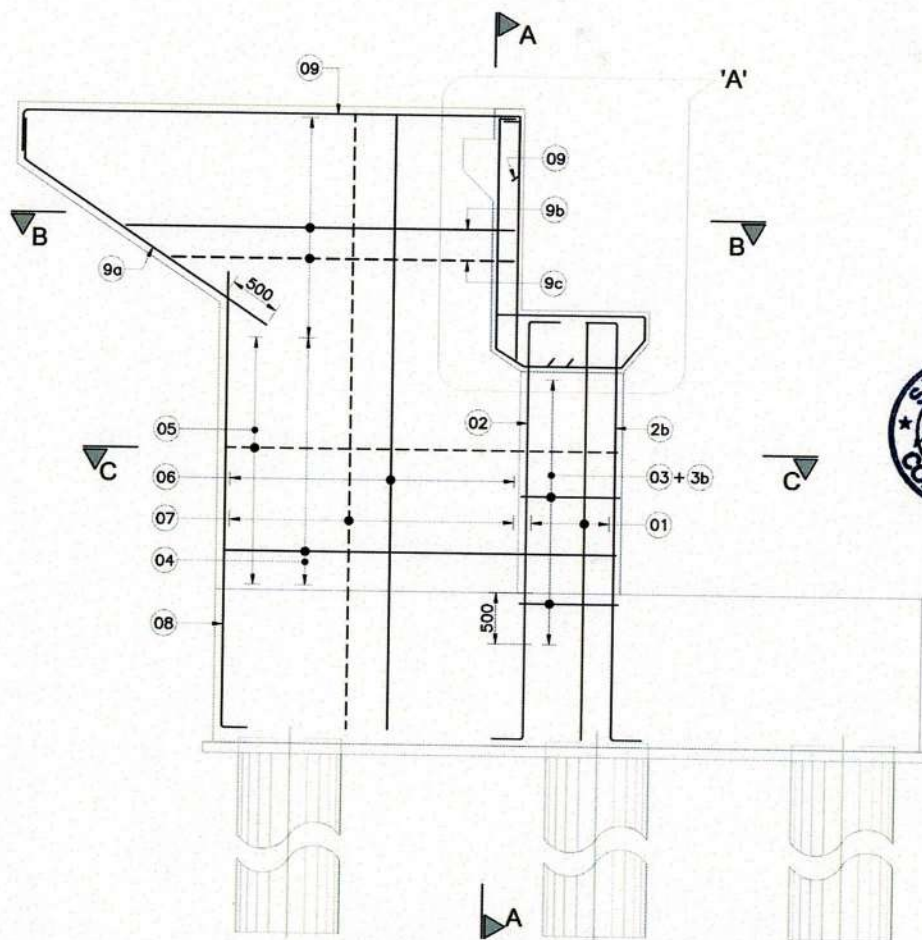


SECTION A-A  
PLAN OF ABUTMENT, PILE CAP & PILES  
(SCALE: 1:100)

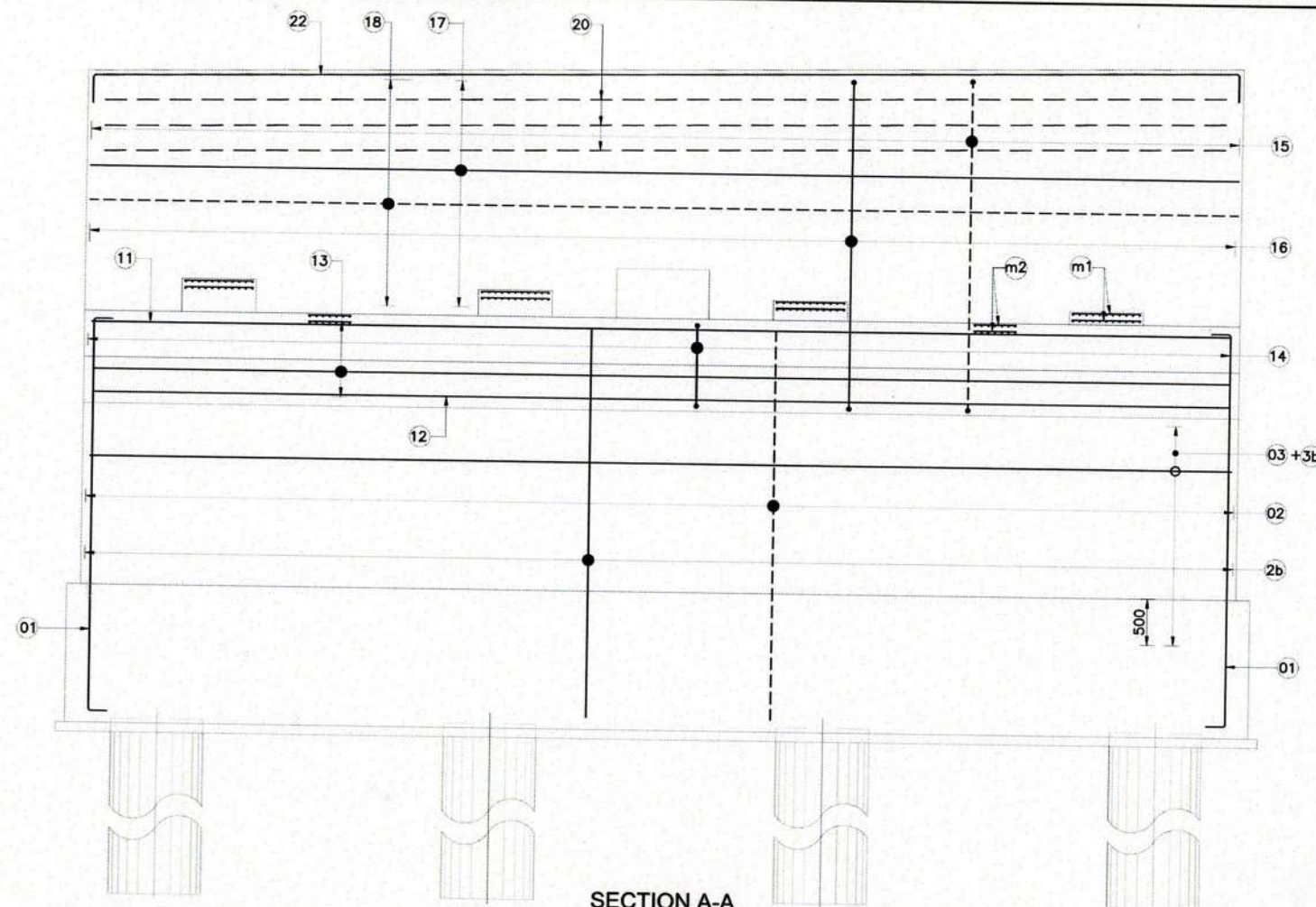
#### REFERENCE DRAWING:-

- GENERAL ARRANGEMENT DRAWING  
NHIDCL/MB/JOR-DIB/ST/MNB/566+844/101 (2 SHEETS)
- REINFORCEMENT DETAILS OF ABUTMENT & FOUNDATION FOR A1 & A2  
NHIDCL/MB/JOR-DIB/ST/MNB/566+844/202 (3 SHEETS)

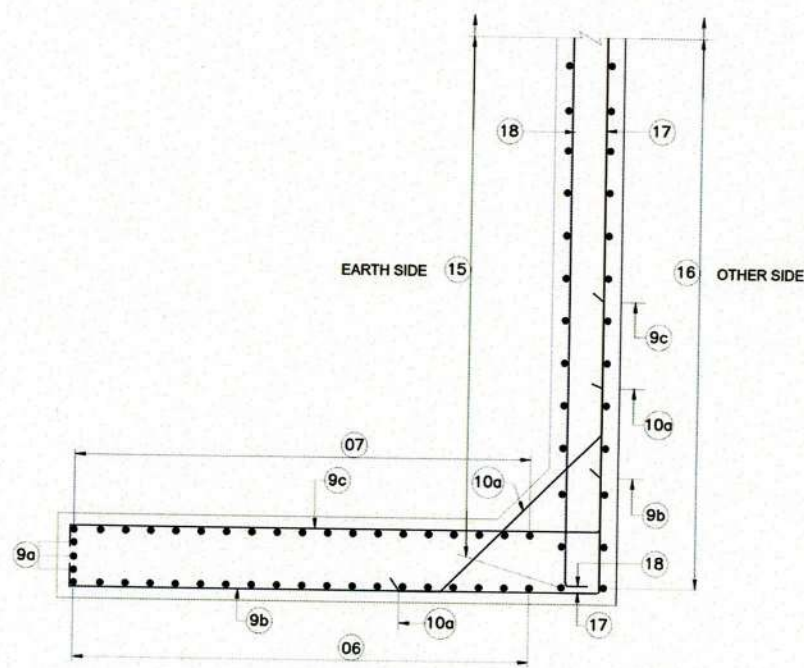
| REV. NO | DATE      | DESCRIPTION                   | CLIENT: | AUTHORITY ENGINEER :        | EPC CONTRACTOR:                                                                                        | SAFETY CONSULTANT:                                                                        | PROOF CONSULTANT:                                                                                                | PROJECT: | DRAWN | S.S. | TITLE: | DESIGN DIRECTOR: |
|---------|-----------|-------------------------------|---------|-----------------------------|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|----------|-------|------|--------|------------------|
| R0      | JAN, 2020 | INITIAL SUBMISSION FOR REVIEW | NHIDCL  | VOYANTS SOLUTIONS PVT. LTD. | M/S MANURANJAN BRAHMA<br>WARD NO. 4, DEPOT ROAD,<br>KOKRAJHAR, DIST: KOKRAJHAR,<br>PIN : 783370, ASSAM | SUVADRA CONSULTANTS<br>H.Q-PP-97 TANKAPANI ROAD,<br>BHUBANESWAR-751018, ODISHA<br>(INDIA) | INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI<br>NEAR DOUL GOBINDA ROAD,<br>AMBIGAOUL NORTH GUWAHATI,<br>GUWAHATI, ASS |          |       |      |        |                  |



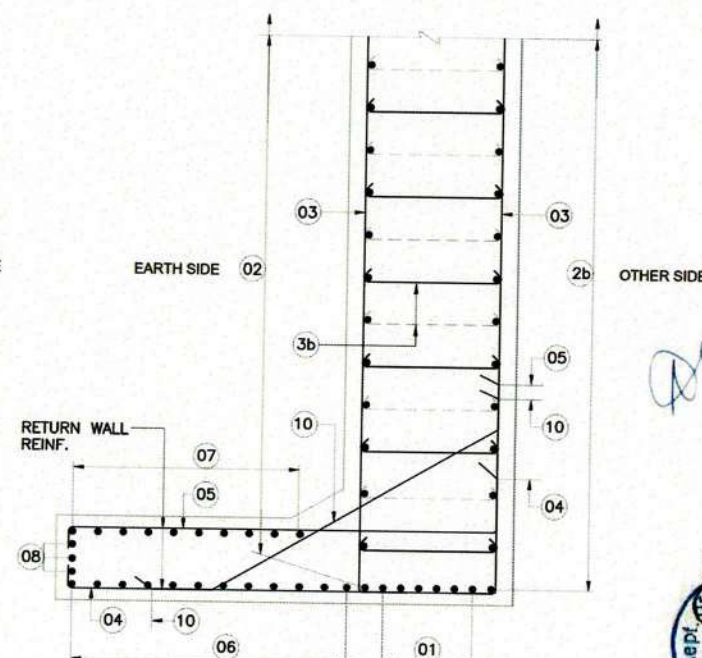
REINFORCEMENT DETAILS OF ABUTMENT  
(SCALE 1:50)



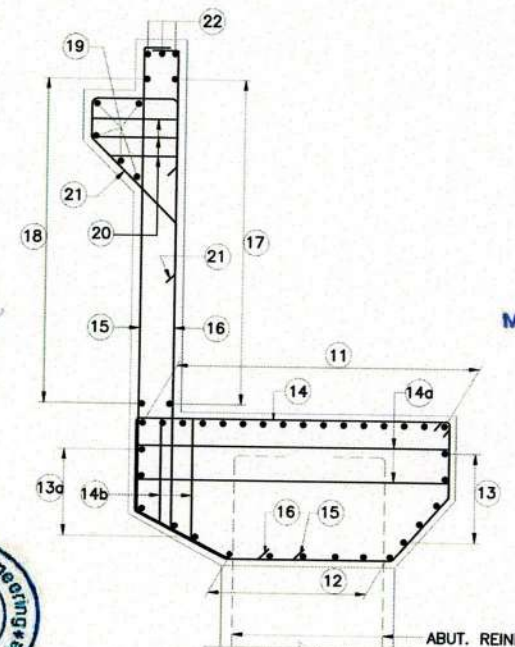
SECTION A-A  
(CORBEL R/F OF ABUTMENT CAP NOT SHOWN FOR CLARITY)  
(SCALE 1:50)



SECTION B-B  
(SCALE-1:30)



SECTION C-C  
(SCALE-1:30)



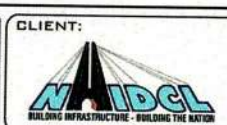
DETAIL - 'A'  
(SCALE 1:30)

LEGEND:-  
— EARTH SIDE  
— OTHER SIDE

*Anupam Tamuli*  
ANUPAM TAMULI  
Project Manager  
M/S Manuranjan Brahma  
Moran Bypass to Bogibee Junction  
(NHIDCL, 4-Lane Project)

*Sivasagar*  
Bridge Engineer  
VSPL, Sivasagar

| REV. NO | DATE      | DESCRIPTION                   |
|---------|-----------|-------------------------------|
| R0      | JAN, 2020 | INITIAL SUBMISSION FOR REVIEW |



AUTHORITY ENGINEER :  
VOYANTS SOLUTIONS  
PVT. LTD.  
*Team Leader*

EPC CONTRACTOR:  
M/S MANURANJAN BRAHMA  
WARD NO. 4, DEPOT ROAD,  
KOKRAJHAR, DIST. KOKRAJHAR,  
PIN : 783370, ASSAM

SAFETY CONSULTANT:  
SUVADRA CONSULTANTS  
H.O. PP-97 TANKAPANI ROAD,  
BHUBANESWAR-751018, ODISHA  
(INDIA)

PROOF CONSULTANT:  
INDIAN INSTITUTE OF  
TECHNOLOGY GUWAHATI  
NEAR DOKAL GORINDA ROAD,  
AMBIGACHI NORTH GUWAHATI,  
GUWAHATI, ASSAM,  
PIN : 781009

PROJECT:  
**MORAN BYPASS ROAD (NH-37)**  
FOUR LANE OF NH-37 FROM END OF MORAN BYPASS (KM  
562.525) TO BOGIBEE JUNCTION NEAR LAPETKETA (KM  
561.700) IN THE STATE OF ASSAM UNDER SARDI-NE, PHASE 'A'  
ON EPC MODE - BALANCE WORK.

DRAWN : S.S.  
DESIGNED : A.M.  
CHECKED : B.O.  
DATE: JAN, 2020

TITLE: REINFORCEMENT DETAILS OF ABUTMENT & FOUNDATION FOR  
A1 & A2 FOR MINOR BRIDGE AT CH. 566+844  
SCALE: AS SHOWN  
DRG. NO: NHIDCL/MB/JOR-DIB/ST/MNB/566+844/202

DESIGN DIRECTOR:  
REVISION: R0  
Sheet: 1 OF 3























