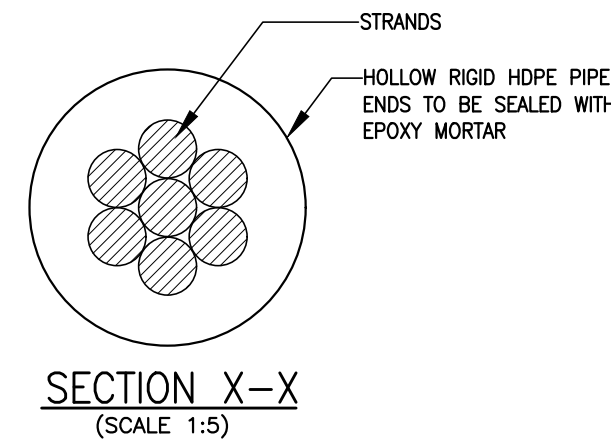
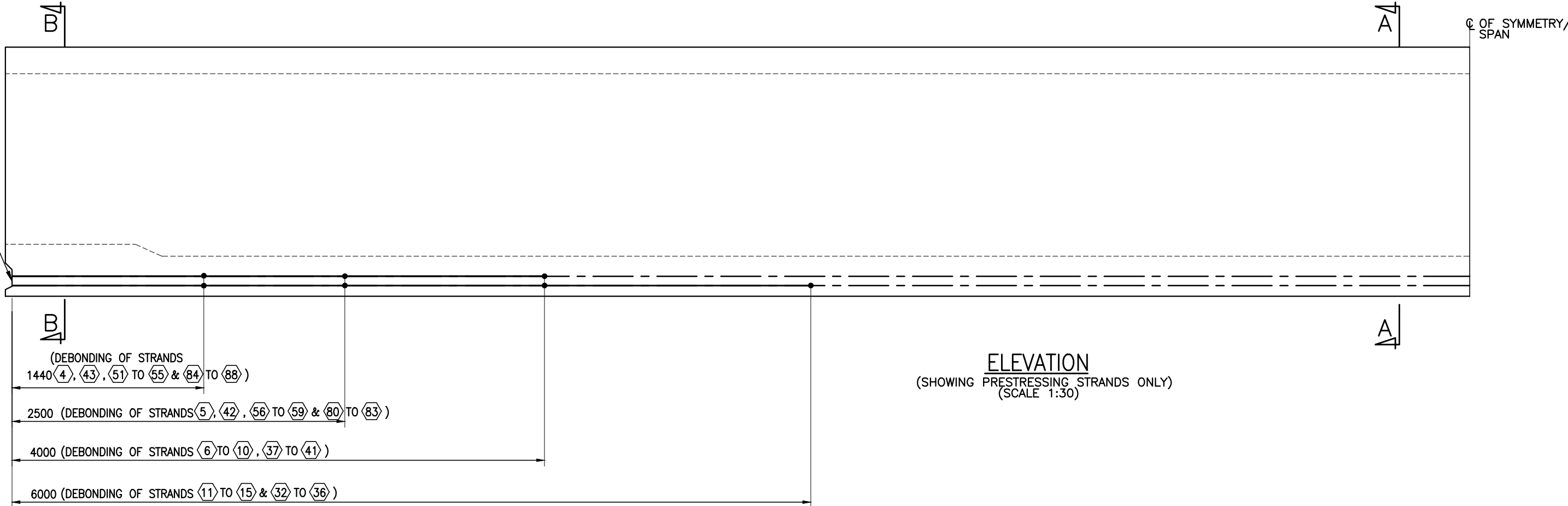
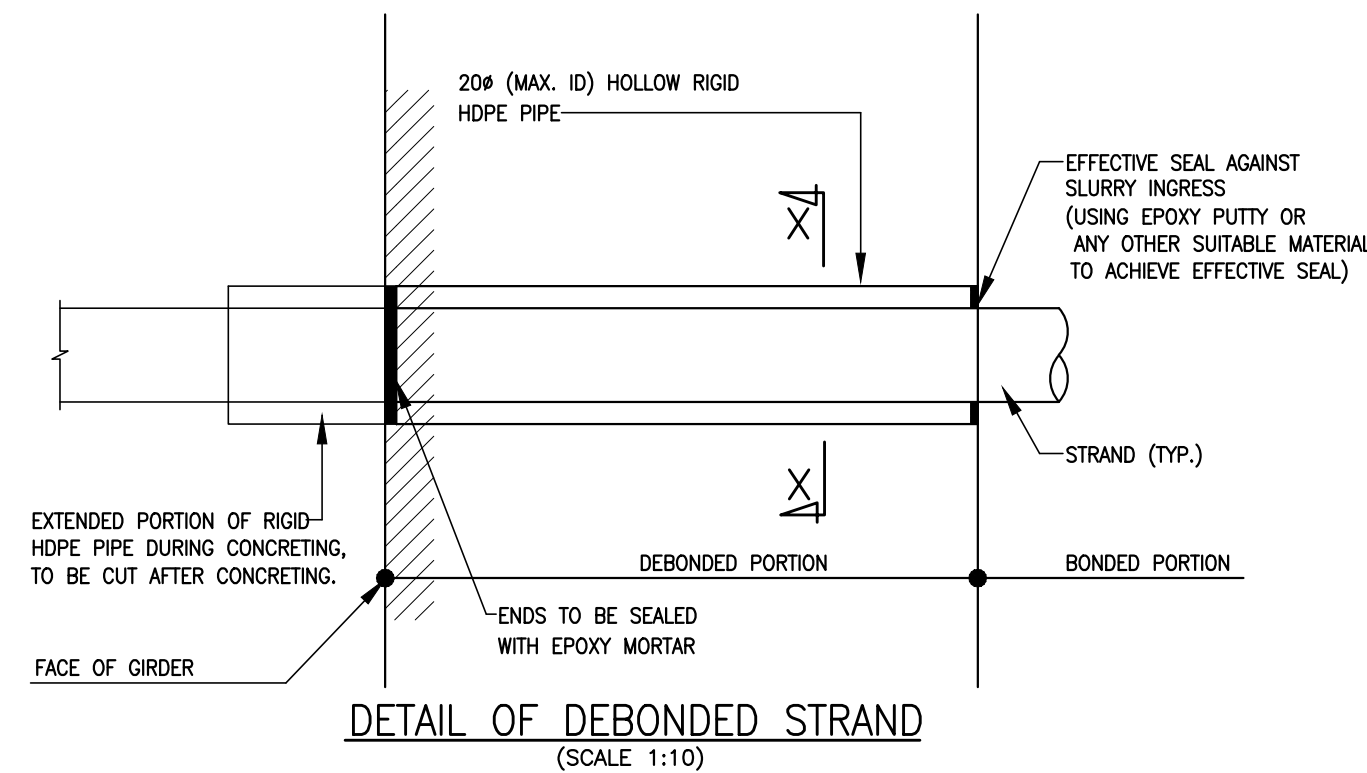


TO BE SEALED WITH CONBEXTRA GP2  
GROUT OF FOSROC MAKE AFTER  
PROVIDING A COAT OF NITO BOND EP  
OF FOSROC MAKE.



STRANDS USED	1 TO 15 & 32 TO 59 & 80 TO 92
STRANDS NOT USED	16 TO 31 & 60 TO 79



**GOOD FOR CONSTRUCTION**

#### GENERAL NOTES:

- ALL DIMENSIONS ARE IN MILLIMETRES, UNLESS OTHERWISE MENTIONED.
- DIMENSIONS ARE NOT TO BE SCALED, ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
- MATERIALS:
  - CONCRETE - GRADE OF CONCRETE IN PSC GIRDERS = M60.  
MINIMUM STRENGTH OF CONCRETE AT TIME OF TRANSFER SHALL BE 40 N/mm<sup>2</sup>
  - PRESTRESSING STEEL
    - PRESTRESSING STEEL SHALL BE UNCOATED STRESS RELIEVED 15.2mm DIA 7PLY STRANDS OF LOW RELAXATION CONFORMING TO CLASS 2 OF IS:14268 WITH MINIMUM ULTIMATE STRENGTH OF 1860N/mm<sup>2</sup>
    - STRANDS SHALL BE STRESSED SIMULTANEOUSLY AGAINST CASTING GIRDER.
    - STRESSING OF STRAND SHALL BE DONE FROM ONE END OF THE CASTING GIRDER.
  - PARAMETERS ASSUMED FOR DESIGN
    - MODULUS OF ELASTICITY OF STEEL = 1.95X10<sup>5</sup> MPa
    - CROSS SECTION AREA OF STRANDS = 140mm<sup>2</sup>
    - LOSS DUE TO 6MM ANCHORAGE SLIP IS CONSIDERED.
    - JACKING FORCE FOR EACH STRAND SHALL BE = 195.3 KN.
  - TOTAL ELONGATION OF STRAND AT JACKING END SHALL BE CALCULATED AS  
ELONGATION =  $\frac{\text{STRESS IN STRAND} \times \text{LENGTH OF STRAND}}{\text{MODULUS OF ELASTICITY OF STRAND}}$
  - DEBONDING OF STRANDS SHALL BE DONE AS SHOWN IN DRAWING.
  - SUITABLE LIFTING HOOKS SHALL BE PROVIDED AT THE ENDS OF THE GIRDER AS INDICATED IN THE GENERAL ARRANGEMENT DRAWING.

#### REFERENCE DRAWINGS: (LATEST REVISION)

- 022077-BSRP-CR2-C-VD-GEN-30-1031 - GENERAL ARRANGEMENT AND DIMENSIONAL DETAIL OF 22M CURVED SPAN SUPERSTRUCTURE (R<sub>2</sub>328M & R<438M)
- 022077-BSRP-CR2-C-VD-GEN-30-1032 - GENERAL ARRANGEMENT AND DIMENSIONAL DETAIL OF 22M CURVED SPAN SUPERSTRUCTURE (R<sub>2</sub>328M & R<438M)
- 022077-BSRP-CR2-C-VD-GEN-30-1034 - REINFORCEMENT DETAILS OF 22M CURVED SPAN SUPERSTRUCTURE (R<sub>2</sub>328M & R<438M) SHEET 1 OF 2
- 022077-BSRP-CR2-C-VD-GEN-30-1034 - REINFORCEMENT DETAILS OF 22M CURVED SPAN SUPERSTRUCTURE (R<sub>2</sub>328M & R<438M) SHEET 2 OF 2
- 022077-BSRP-CR2-C-VD-GEN-30-1035 - REINFORCEMENT DETAILS OF 22M CURVED SPAN SUPERSTRUCTURE (R<sub>2</sub>328M & R<438M) SHEET 1 OF 2
- 022077-BSRP-CR2-C-VD-GEN-30-1035 - REINFORCEMENT DETAILS OF 22M CURVED SPAN SUPERSTRUCTURE (R<sub>2</sub>328M & R<438M) SHEET 2 OF 2
- 022077-BSRP-CR2-C-VD-GEN-30-1036 - GAUGES AND CLEARANCES - 22 M SPAN - (R<sub>2</sub>328M & R<438M) - PLAN VIEW & SECTION VIEW
- 022077-BSRP-CR2-C-VD-GEN-30-5001 - PRE TENSIONED STRAND DETAILS FOR U-GIRDER
- 022077-BSRP-CR2-C-VD-GEN-30-5006 - TYPICAL DETAIL OF ANCHOR & REINFORCEMENT OF PEDESTAL & WEB OF U-GIRDER AT ONE MAST LOCATION
- 022077-BSRP-CR2-C-VD-GEN-30-5021 - PLACING OF U-GIRDER AND I-GIRDER FOR CR2 & CR4
- 022077-BSRP-CR2-C-VD-GEN-30-5008 - TYPICAL REINFORCEMENT DETAILS AT LIFTING HOLE LOCATION FOR U GIRDER

#### LICENSE:

"THIS DESIGN FOR THE PROJECT HAVE BEEN  
PREPARED UNDER LICENSE FROM M/S SYSTRAT"

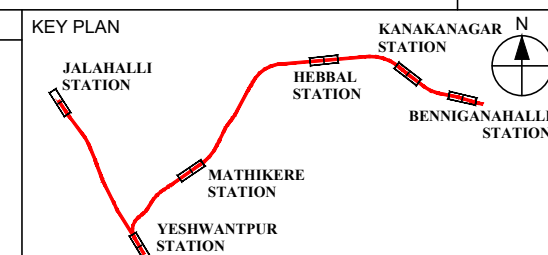
- NOTES:
- ALL DIMENSIONS ARE IN MILLIMETRES, UNLESS OTHERWISE MENTIONED.
  - DIMENSIONS ARE NOT TO BE SCALED, FOLLOW ONLY WRITTEN DIMENSIONS.

#### LEGEND:

- BONDING  
DEBONDING

#### REFERENCE DRAWINGS:

#### REFERENCE DOCUMENTS:



#### STATION BOX KEY PLAN

REV	DATE	FOR APPROVAL	BRIEF DESCRIPTION
0	23.05.2024		GOOD FOR CONSTRUCTION
E	10.04.2024		REVISION BY ADDING PATENT NOTE & DUE TO CONGESTION OF REINFORCEMENT
D	20.01.2024		REVISED AS MARKED
C	01.12.2023		REVISED AS PER GCV COMMENTS THROUGH LETTER NO. 1077
B	11.10.2023		REVISED AS MARKED
A	14.07.2023		FOR APPROVAL

CONTRACTOR: <b>TRANSPORTATION INFRASTRUCTURE IC</b> EDRC-SPECIAL BRIDGES	DETAILED DESIGN CONSULTANT (DDC): <b>STUP CONSULTANTS PVT. LTD.</b> P.O. Box 100, Bangalore-560002 Tel: 080-2656 1000 www.stupconsultants.com	PROOF CONSULTANT (PC): <b>Indian Institute of Technology Madras</b> IIT P.O., Chennai 600 036 INDIA
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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	SIGN	SIGN	SIGN
DATE: 23.05.2024	DATE: 23.05.2024	DATE: 23.05.2024	DATE: 23.05.2024
NAME: KAUSTUBH P. VAJAYENDRA J. SHASHIDHAR C.	NAME: KAUSTUBH P. VAJAYENDRA J. SHASHIDHAR C.	NAME: KAUSTUBH P. VAJAYENDRA J. SHASHIDHAR C.	NAME: KAUSTUBH P. VAJAYENDRA J. SHASHIDHAR C.
PREPARED BY	CHECKED BY	APPROVED BY	ISSUED BY

GENERAL CONSULTANTS			
CHECKED & APPROVED	COUNTER SIGN	PROJECT DIRECTOR	
NAME	SIGN	NAME	SIGN
CIVIL/GAD	SIGN	CIVIL/GAD	SIGN
CIVIL/ALIGNMENT	SIGN	CIVIL/ALIGNMENT	SIGN
CIVIL/STRUCTURAL	SIGN	CIVIL/STRUCTURAL	SIGN
CIVIL/GEOTECH	SIGN	CIVIL/GEOTECH	SIGN

EMPLOYER: <b>RAIL INFRASTRUCTURE DEVELOPMENT COMPANY (KARNATAKA) LIMITED</b>	GENERAL CONSULTANTS: <b>AECOM egis WSP AECOM-EGIS-WSP</b>
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PROJECT: <b>BENGALURU SUBURBAN RAILWAY PROJECT (BSRP)</b> <b>K-RIDE CORRIDOR - 2</b>	DRAWING TITLE: <b>PRE TENSIONED STRAND DETAILS FOR 22M CURVED SPAN SUPERSTRUCTURE (R<sub>2</sub>328M &amp; R&lt;438M)</b>
DRAWING NO.: <b>022077-BSRP-CR2-C-VD-GEN-30-1033</b>	REVISION <b>0</b>
SCALE: AS SHOWN	DATE: 23.05.2024
PRELIMINARY DWG (P), DEFINITIVE DWG (D), CONSTRUCTION DWG (C), AS BUILT DWG (B), SHOP DWG (S), MANUFACTURED DWG (M)	SHEET SIZE: A1