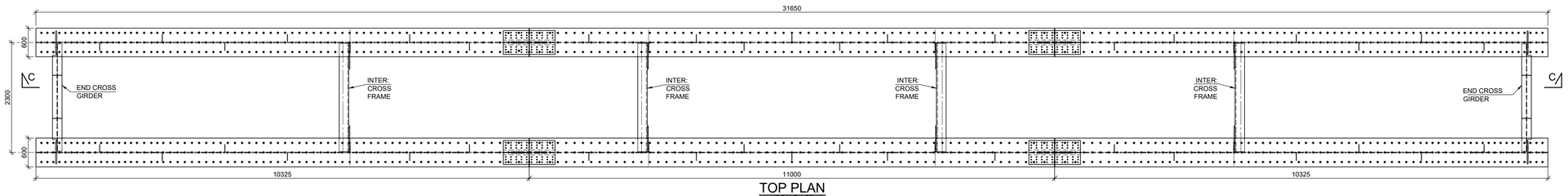
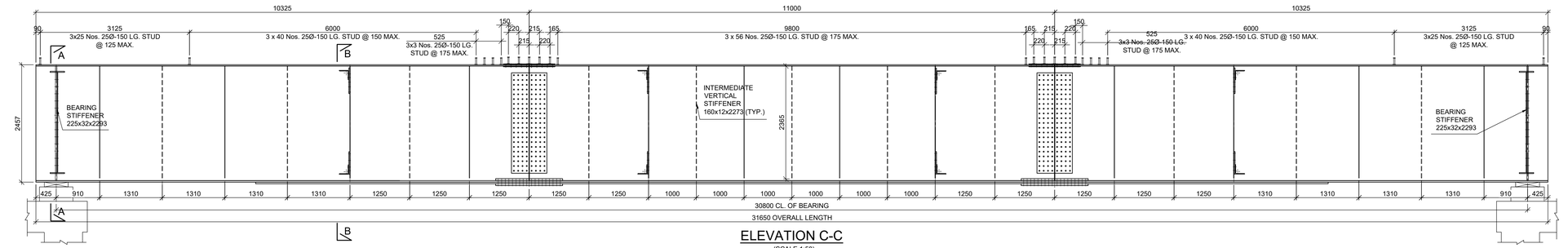
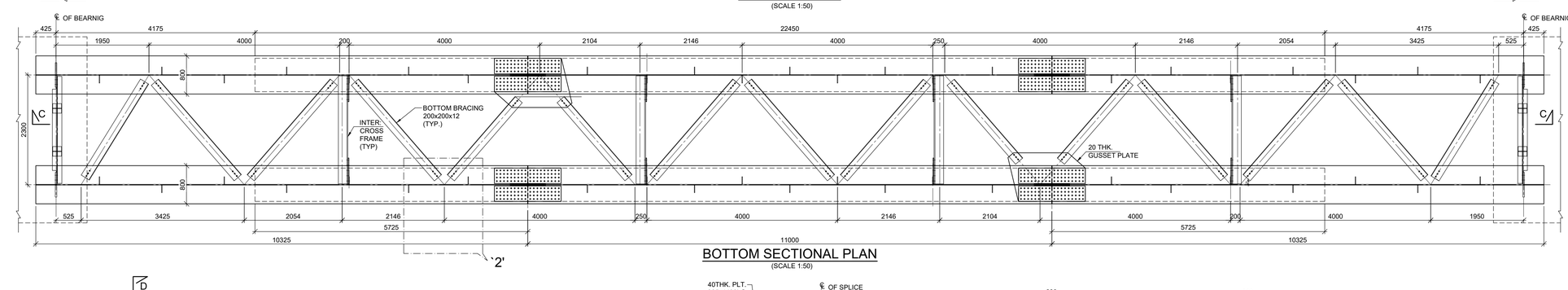


TOP PLAN
(SCALE 1:50)



ELEVATION C-C
(SCALE 1:50)



BOTTOM SECTIONAL PLAN
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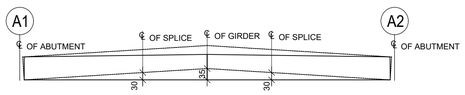
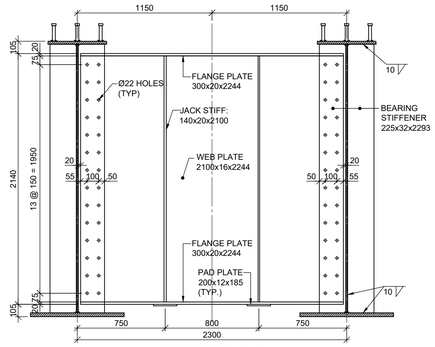
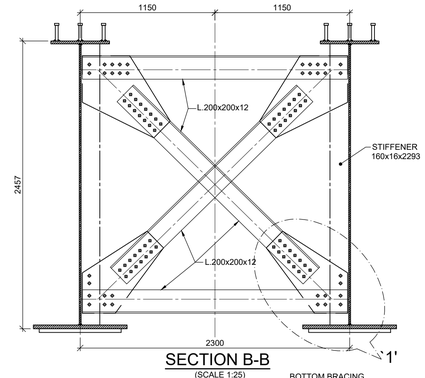


PRECAMBER FOR MAIN GIRDER
(SCALE 1:250)



SECTION A-A
(SCALE 1:25)



SECTION B-B
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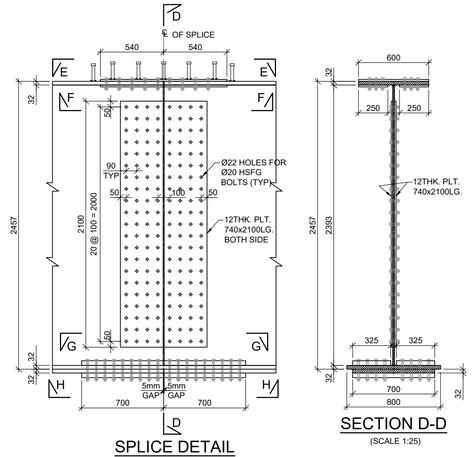
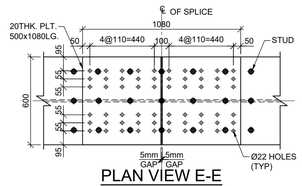
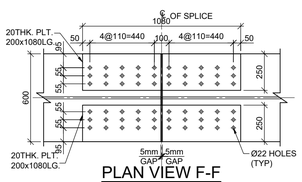


SPLICE DETAIL
(SCALE 1:25)

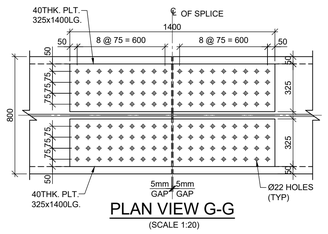
SECTION D-D
(SCALE 1:25)



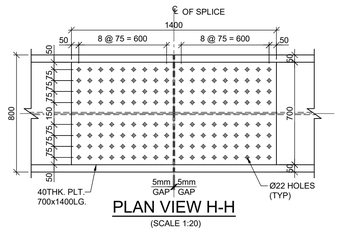
PLAN VIEW E-E
(SCALE 1:20)



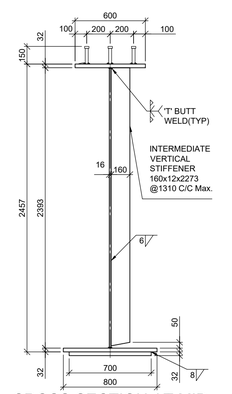
PLAN VIEW F-F
(SCALE 1:20)



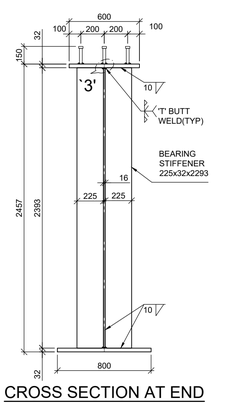
PLAN VIEW G-G
(SCALE 1:20)



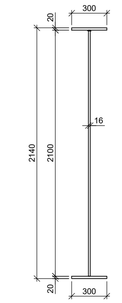
PLAN VIEW H-H
(SCALE 1:20)



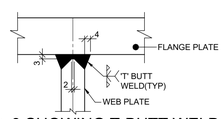
CROSS SECTION AT MID
(SCALE 1:25)



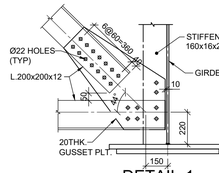
CROSS SECTION AT END
(SCALE 1:25)



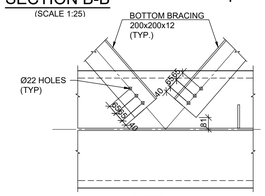
SECTION OF END CROSS GIRDER
(SCALE 1:25)



DETAIL-3 SHOWING T-BUTT WELD
(SCALE 1:2)



DETAIL-1
(SCALE 1:20)



DETAIL-2
(SCALE 1:20)

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. DESIGN CRITERIA
   - i) I.R.S. BRIDGE RULES.--------2014 25 T LOADING
   - ii) STEEL BRIDGE CODE------- 2017.
   - iii) WELDED BRIDGE CODE------ 2001
   - iv) CONCRETE BRIDGE CODE---- 2014
3. ALL PLATES ARE OF HTS STEEL E350 (B0) QUALITY CONFIRMING TO IS:2062-2011, AND ALL ANGLES ARE MS STEEL E250 QUALITY CONFIRMING TO IS:2062-2011.
4. GRADE OF CONCRETE FOR DECK SLAB SHALL BE M40.
5. ALL BOLTS ARE 20Ø GRADE 8.8, HSFC NUTS & BOLTS UNLESS OTHERWISE SPECIFIED.
6. AUTOMATIC SUBMERGED ARC WELDING SHOULD BE EMPLOYED FOR BUTT WELDS IN FLANGES WEB AND ANGLE TO WEB FILLET WELDS. OTHER WELDS ALSO TO BE MADE BY SUBMERGED ARC WELDING PROCESS TO THE MAX. EXTENT POSSIBLE. THE SPECIFICATION OF WELDING MATERIAL (ELECTRODES) SHALL BE COMPATIBLE WITH PARENT MATERIAL.
7. BUTT WELDING IN FLANGE PLATES AS WELL AS WEB PLATES SHALL BE DONE PRIOR TO JOINING WEB AND FLANGE.
8. ALL WELDS TO BE MADE BY USING APPROVED WELDING PROCEDURES AND BY QUALIFIED WELDERS.
9. STUD SHEAR CONNECTORS SHOULD BE WELDED TO TOP OF FLANGE AFTER TO WELDING OF FLANGES TO WEB. STUD SHEAR CONNECTORS SHALL HAVE TENSILE STRENGTH OF 495 MPa & YIELD STRENGTH OF 385 MPa.
10. TRACK ON BRIDGE SHOULD BE PROVIDED WITH GUARD RAIL.
11. THE BUTT WELD SURFACES SHALL BE FULLY FLUSHED BOTH AT TOP & BOTTOM BY GRINDING/MACHINING THE BUTT WELD ALSO BE CHECKED BY RADIOGRAPHIC/ULTRASONIC METHOD.
12. INTERMEDIATE STIFFENERS SHOULD BE FITTED TIGHT AGAINST BOTTOM FLANGE WHERE X-FRAMES ARE PROVIDED AND END STIFFENERS SHOULD BE WELDED TO TOP AND BOTTOM FLANGE.
13. SURFACE OF MEMBERS IN CONNECTION REGION, SPLICE PLATES, GUSSET PLATES, PACKING PLATES SHALL BE BLAST CLEANED AND SPRAY METALLIZED WITH ALUMINIUM (THICKNESS > 100µm) WITH NO COVER COATING.
14. THE HSFC BOLTS SHALL BE TIGHTNED BY PROCEDURE GIVEN IN IRS SPECIFICATION FOR FABRICATION AND ERECTION OF STEEL GIRDER BRIDGES AND LOCOMOTIVE TURN TABLES (FABRICATION SPECIFICATION) SERIAL NO. B1-2001.

CONSTRUCTION SEQUENCE:-

1. GIRDER TO BE ASSEMBLED AT SITE WITH CROSS BRACINGS.
2. BOTH GIRDERS TO BE LIFTED & PLACED ON BEARINGS.
3. DECK SLAB TO BE CAST IN SITU - GIRDER CARRIES WEIGHT OF GREEN CONCRETE.
4. CASTING OF SIDL SHOULD BE DONE AFTER 28 DAYS OF CASTING OF DECK SLAB.

NOTES :

NOTES :

LEGEND :

REFERENCE DRAWINGS :

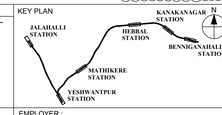
022077-BSRP-CR2-C-MB-0-20-1118 .... GENERAL ARRANGEMENT DRAWING

022077-BSRP-CR2-C-MB-0-20-1120 .... DIMENSION AND REINFORCEMENT DETAILS OF DECK SLAB

REFERENCE DOCUMENTS :

DOC-BSPR-CR2-AG-DGN-BR-20-1540....DESIGN CALCULATION FOR 30.8m SPAN STEEL COMPOSITE SUPERSTRUCTURE

KEY PLAN



STATION BOX KEY PLAN

EMPLOYER :

DESIGNATION	NAME	SIGN

REVISIONS

REV	DATE	BRIEF DESCRIPTION
D	12.04.24	MODIFIED AS PER GC'S COMMENTS THROUGH LETTER NO. 1769
C	12.02.24	MODIFIED AS PER GC'S COMMENTS THROUGH LETTER NO. 1360
B	08.12.23	MODIFIED AS PER GC'S COMMENTS THROUGH LETTER NO. 1099
A	18.07.23	FOR APPROVAL

CONTRACTOR :

TRANSPORTATION INFRASTRUCTURE IC EDRC-SPECIAL BRIDGES

DETAILED DESIGN CONSULTANT (DDC) :

STUP Consultants Pvt. Ltd. 3rd & 2nd Jakkasandra Arcade # 69, 4th Floor, Millers Road, Bangaluru-560052 Tel.: 080-2286 9560 E-mail: info@stupecosystem.com www.ecosystem.com

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					
DATE	12.04.2024	12.04.2024	12.04.2024		12.04.2024
NAME	KSP	RAN	ADR		SKS
	PREPARED BY	CHECKED BY	APPROVED BY	APPROVED BY	ISSUED BY

GENERAL CONSULTANTS

	NAME	SIGN	REVIEWED DY. PD	PROJECT DIRECTOR
CHECKED				
CIVIL & STRUCTURAL				
GEO-TECHNICAL				
		SIGN		
		NAME		
		DATE		

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 : MAJOR BRIDGE NO.560 AT BSRP CH:9.989 DIMENSIONAL DETAIL OF STEEL COMPOSITE I-GIRDER FOR 30.8m SPAN

DRAWING NO. : O22077-BSRP-CR2-C-MB-0-20-1119

REVISION	DWG STATUS
D	D

SCALE : AS SHOWN | DATE : 18.07.2023

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

12/4/2024 3:42 PM

B S:\02 - E&I Production\03 - Mumbai\04 - SH_ENGIN\0542\CAD\WORKING\MAJOR BRIDGE\O22077-BSRP-CR2-C-MB-0-20-1119_D.dwg