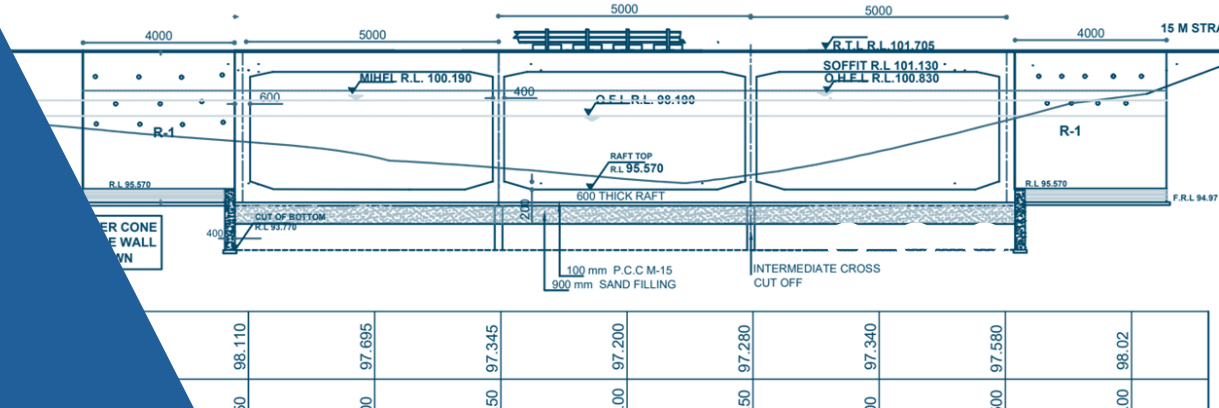
NABARD SUCCESS STORY

PUBLIC WORKS REGION, AMRAVATI

PUBLIC WORKS CIRCLE, AKOLA

PUBLIC WORKS DIVISION, AKOLA



Construction of minor bridge including approaches at Ch. 8/000 on Murtijapur chikhali Gajipur Palso Badhe Akola road SH-284 Taluka Murtijapur District Akola.

NABARD

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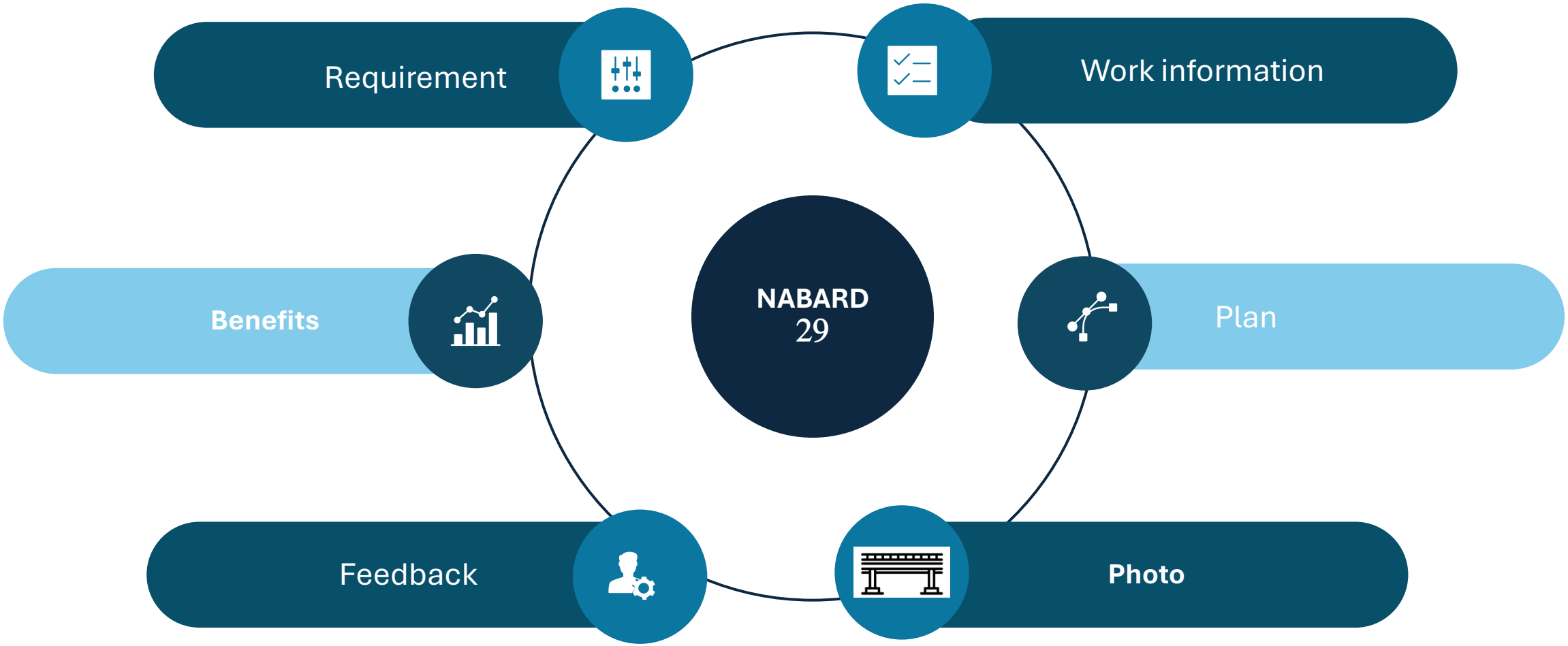
Project Information



Requirement

- As per the demand of Hon. MLA Mr. Harish Pimple, the said bridge goes under water due to rain water and creates hindrance to traffic, hence the construction of the said bridge was essential.

- As rainwater was flowing over the bridge, it caused traffic congestion, affecting school students, farmers transporting agricultural produce, and many users traveling for daily trade and work. Therefore, it was necessary to increase the height of the bridge to remove this recurring obstacle.

- This road is the main road connecting Daryapur Murtijapur Karanja S.H - 282 and Akola city, hence many villages in Murtijapur taluka are connected to the city.

- Now, farmers, citizens and school children are expressing satisfaction with the construction of a 24.60 m long unsinkable bridge at this location.

Work information

Name of Work - Construction of minor bridge including approaches at Ch. 8/000 on Murtijapur chikhali Gajipur Palso Badhe Akola road SH-284 Taluka Murtijapur District Akola.

- **Project ID- P202460000000000288**
- **Administrative Approval - No.NBD-2023/C.R.8452/Plan-3,Dt.21/11/2023 Amount - 183.82 Lakhs**
- **Structure -3 Span Of 6M each, Lenght = 18.00 M, Foundation - Raft Foundation**
- **Datul RL – 91.00 M , RTL R.L- 101.705 M , RAFT TOP R.L- 95.570 M, O.F.LR.L- 98.88 M, SOFFIT R.L- 101.130 M**
- **RCC Pier, PCC Abutment , Solid Deck Slab , Crash Barrier Railing, ANGLE OF SKEW – 44' , Width- 7.50 M**
- **3 SPANS 0F 6.00C/C m TOTAL LENGTH = 18 m**
- **Concrete Grade- 1) Box Cell- R.C.C. M 30 Grade, 2) Cut Off Wall- R.C.C. M 25 Grade, 3) Cantilever Returns- R.C.C. M 30 Grade 4) Cantilever Retaining Wall- R.C.C. M 30 Grade**
- **Contractor Name - S.D.Bajaj, Work Order Date. 12/03/2024 , Agreement No. - B -1/889/ 2023-24**

Benefits

- Perennial transportation possible.
- The main crops are sugarcane, soybean and cotton. The connection of Murtijapur Karanja and Akola taluka markets has made transportation and communication of agricultural products easier.
- The inconvenience and loss caused to farmers, citizens and school children here due to the lack of this bridge during the monsoon season has been curbed.
- "This road is a connecting road for Daryapur, Murtizapur, Karanja, SH282 & Akola. Due to this, many villages and urban areas are connected, and many opportunities are created as a result.

Feedback

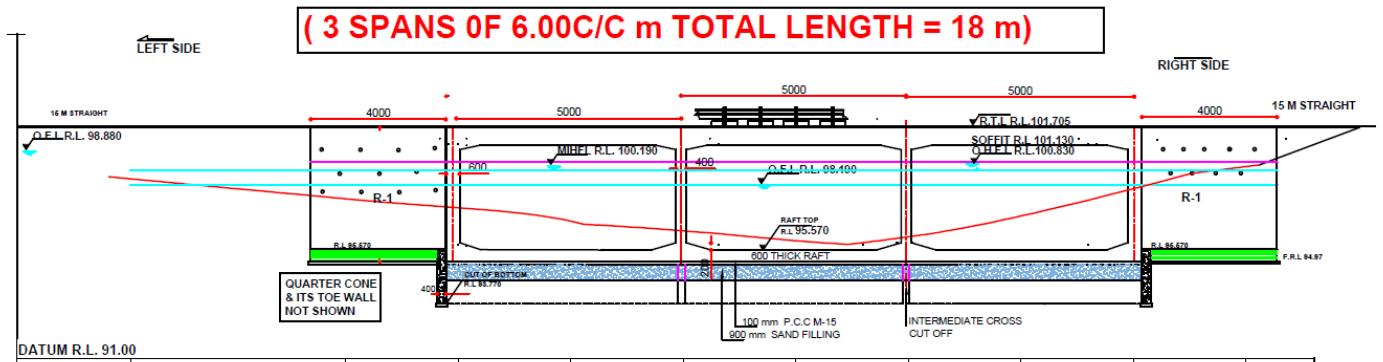
Mr. Sanjay Srivas, Ghazipur Tal. Murtijapur Dist. Akola

"A few years ago, the bridge on the road was in a very poor condition. Rainwater used to halt the traffic, causing difficulties for school students and creating obstacles for villagers traveling to the city. Since the reconstruction of the bridge, the traffic obstructions have been removed, providing great relief to everyone"

Mr. Shailesh Gedam, Ghazipur Tal. Murtijapur Dist. Akola

"The constructed bridge is situated between my farm and the village. Previously, rainwater would flow over the bridge, creating difficulties in transporting farm produce home during the monsoon, leading to financial losses as the goods spoiled in the field. However, this bridge is now operational throughout the year, providing relief for farm produce transpor"

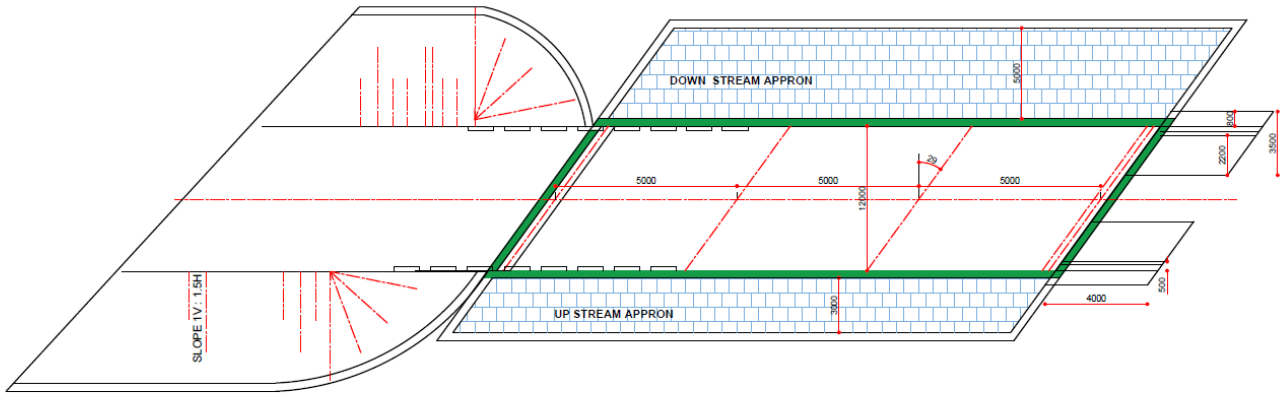
Plan



DATUM R.L. 91.00

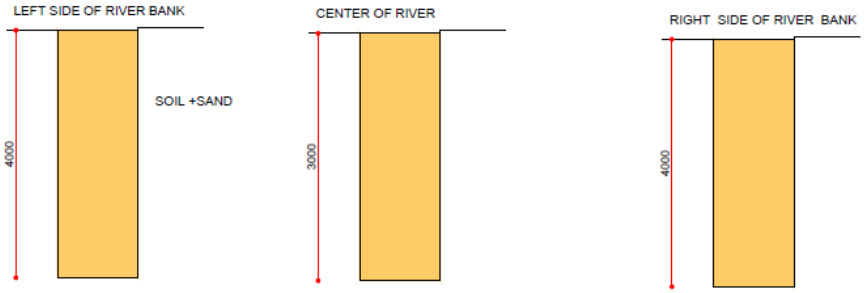
GROUND LEVELS IN METER	98.720	98.110	97.695	97.345	97.200	97.280	97.340	97.580	98.02
CHAINAGE IN METER	12.00	7.50	5.00	02.50	00.00	02.50	5.00	7.500	12.00

SECTIONAL ELEVATION



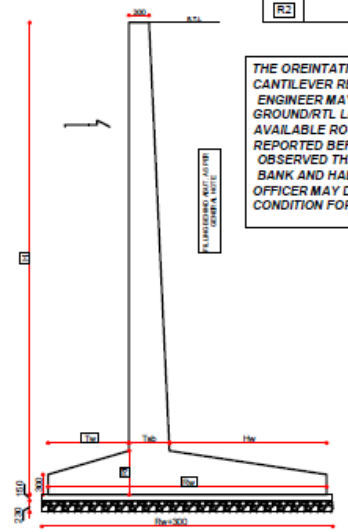
HALF PLAN AT TOP

HALF PLAN AT BOTTOM



WALL NO	LENGTH	TOTAL HEIGTH (H)	DIEMENSION				
			Rw	Rt	Hw	Tw	Tsb
R1	4000	6610	4800	600	3200	1000	600
R2							

THE OREINTATION, FOUNDING LEVELS, TOP AND LENGTH OF THE CANTILEVER RETURNS SHOWN ARE INDICATIVE, EXECUTIVE ENGINEER MAY CHANGE AS PER THE ADJOINING BED/ BANK/ GROUND/RTL LEVELS AND STRATA AVAILABLE AT THE SITE AND AVAILABLE ROW. THE DESCREPANCY IN THE SAME SHOULD BE REPORTED BEFORE ACTUAL EXECUTION.ALSO IT HAS BEEN OBSERVED THAT THERE ARE ROAD RUNNING PARALLEL TO BANK AND HABITABLE STRUCTURE NEARER TO BANKS SO FIELD OFFICER MAY DECIDE ORIENTATION OF RETURN TO SUIT THE SITE CONDITION FOR EACH SIDE BANK.

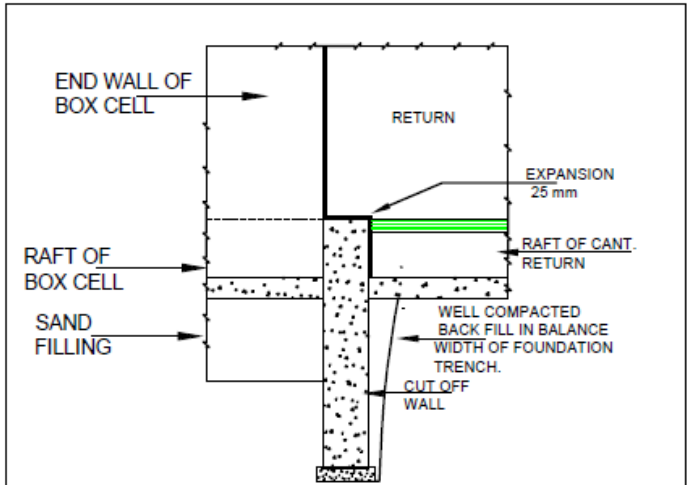


TYPICAL SECTION

TYPICAL DETAILS OF CANTILEVER RETURN WING WALL

HYDRAULIC DETAILS			
SR. NO	PARTICULARS	VALUES	REMARKS
1	ALIGNMENT	---	As Proposed By Executive Engineer.
2	CATCHMENT AREA	20 sqkm	
3	IRRIGATION AFFECTED	---	No
4	BED SLOPE	0.003	
5	RUGOCITY COEFFIENT (L.BANK/BED/R. BANK)	0.045/ 0.035/ 0.045	
6	MAXIMUM COMPARTMENTAL VELOCITY	2.42/3.66/4.27	OFL / OHFL/ MI HFL
7	LOWEST BED LEVEL	96.160	
8	% OBSTRUCTION	9.93/14.10	OFL / MI HFL
9	AFFLUX	0.07/0.10	OFL / MI HFL
10	SCOUR LEVEL	93.770	RAFT FOUNDATION
11	BRIDGE TYPE	High level Submersible	

DESIGN PARAMETERS			
SR. NO	PARAMETERS	VALUES	REMARKS
1	BRIDGE TYPE	High level Submersible	
2	NO OF LANE	TWO LANE (7.50 M CARRIAGEWAY)	
3	ANGLE OF SKEW	44 DEGREE	
4	SEISMIC ZONE	II	
5	EXPOSURE	MODERATE	
6	LOADING CLASS	2 LANE OF CLASS A OR ONE LANE OF 70 R	AS PER IRC 6
7	S.B.C	RAFT	
8	BOUYANCY	100 %	



DETAILS AT A-A BOX CELL, RETURN & CUTOFF WALL

MATERIAL TABLE

(FOR ESTIMATE PURPOSE ONLY)

SR.NO.	ITEM	DESCRIPTION	TYPE DRAWING NOS.	
1	R.C.C WEARING COAT	75 mm THICK R.C.C WEARING COAT	TP/DC-BR/MISC/2018-66-1/1	
2	RAILING / KERB	DISCONTINUOUS KERBS IN M-30 WITH R.C.C. POST & G.I. PIPER RAILLING	TP/DC-BR/MISC/2018-67-1-1	
3	PIER ABUTMENR	R.C.C. M 30 GRADE CONC WITH TMT 500D BARS	DRAWING TO BE OBTAINED FROM DESIGN CIRLCE.	
3	SUPERSTRUCTURE	R.C.C. M 30 GRADE CONC WITH TMT 500D BARS	DRAWING TO BE OBTAINED FROM DESIGN CIRLCE.	
4	EXPANSION JOINT	25 mm THICK PREMOULDED BITUMINOUS PAD	TP/DC-BR/MISC/2018-64-1/1	
5	CUT OFF WALL (DETACHED)	R.C.C. M 30 WITH MINIMUM REINFORCEMENT	TP/DC-BR/BOX/2018-27-1/2 FROM DESIGN CIRCLE.	
6	CANTILEVER RETURNS	R.C.C. M30 GRADE CONC. WITH TMT 500D. BAR	DRAWING TO BE OBTAINED	
7	FLEXIBLE STONE MAT	900 mm THICK	FROM DESIGN CIRCLE	

Photo

❖ **Information Board**

❖ **Bridge Traffic**

Photo

Photo

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THANK YOU !!!