

Chhotubhai Gopalbhai Patel Institute of Technology
DEPARTMENT OF CIVIL ENGINEERING



**Chhotubhai Gopalbhai Patel Institute of Technology,
Civil Engineering Department,
Uka Tarsadia University**

**One day Educational visit at Sardar Bridge Widening and Cable
stayed bridge at Surat on 23/09/2017
B.Tech 7th Semester (Div.-A, B and C)**

Industrial Visit Report

Name of Industry: Cable Stayed Bridge

Location: Athwa side: (Near Panch pandav bungalow, agri. University on Surat dumas road) **Adajan side:** (Near Dr. V.S. Marg on Surat-Hajira road)

Date of Visit: 23/09/2017, Saturday

Total No. of Student: 115(UG-VII Semester Div- A, B and C of B.Tech Civil Branch)

Total No. of Faculty: 04

Faculty Coordinator: Prof. Anuj Chandiwala

Other Faculty:- Prof. Aditya Bhatt, Prof. Bijal Chaudhary and Prof. Maulik Kakadiya

The department has arranged an educational visit to Sardar Bridge Widening and Cable stayed bridge for final year students of Civil department. The visit was organized with the prior permission and guidance of Hon. Director Dr. N.C. Shah and Head of Civil Engineering Department, Mr. K.N. Gandhi.

Details of Cable Stayed Bridge:

1)	Location	Athwa side: (Near Panch pandav bungalow, Agri university on Surat – Dumas Road) Adajan side: (Near Dr.V.S.Marg on Surat-Hajira road)
2)	Details of Cable Stayed	
	a. Length	300 mt.
	b. Width (Avg.)	23.50 mt.
	c. Area	7050 Sq. Mt.(avg.)
	d. Pylon	Two nos. each 35 mt. height
3)	Details of RCC portion	
	a. Length	412.09 mt.
	b. Width (Avg.)	21 mt. to 32.3 mt.
4)	Details of Approach	

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	a. Length	
	Athwa Side	122.25 mt.
	Adajan Side	83.66 mt.
	b. Width	
	Athwa Side	15.30 mt.
	Adajan Side	21 mt. (Varing)
5)	Total Length of bridge	918 mt.
6)	Total Bridge Area	19681.63 Sq. mt.
7)	Nos of span	15 Nos
8)	Span Length	12.788+12.643+16.506+50x3+42.5+50+75+150+75+50+27.60+ 22.40+27.60 =712.037 mt
9)	Carriage Way	7.50 mt. + 7.50 mt. (Two Lane up & Two Lane Down)
10)	Footpath	2 mt. (both side)
11)	Type of Foundation	Pile Foundation
12)	Other details	
	(i) Design Discharge	--
	(ii) Design H.F.L.	9.2 mt
	(iii) Type of Bridge	High level cable stayed river bridge
	(iv) Finished Road Top	15.5 mt
13)	Sub Structure	R.C.C. Pier
14)	Super Structure	Segmental Multi cell Box Girder/ PSC Box Girder / Solid Slab type
15)	Bearing	POT / PTFE type
16)	Expansion Joint	STRIP SEAL / MODULAR Type
17)	Approach	Reinforced Earth Wall Type & RC Wall
18)	Tender Cost Balance Work	63.80 Crore
19)	Name of Contractor	Unique Construction, Surat
20)	Design Consultant	L & T Infra Engineering
21)	Proof Check Consultant	Design (R &B) Circle, Gandhinagar
22)	Project Management	Spectrum Techno Consultants Pvt Ltd., Navi Mumbai

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Cable Stayed Bridge visit

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Name of Industry: Widening on both sides of Sardar Patel River Bridge

Location: Adjoining Existing Sardar Bridge (Joining Athwa- Adajan)

Date of Visit: 23/09/2017, Saturday

Total No. of Student: 115(UG-VII Semester Div- A, B and C of B.Tech Civil Branch)

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Details of Widening on both side of Sardar Patel Bridge:

1	Location	Adjoining Existing Sardar Bridge (Joining Athwa- Adajan)	
2	River/Nala/Creek	Tapi River	
3	Lane	Four (Two Up + Two Down)	
4	Year of	Work in Progress	
5	Tender Cost	Rs.8075 Lacs	
6	Details of Bridge	Up Stream	Down Stream
7	No Of Span	20 nos.	19 nos.
8	Length of Bridge	759.603m	772.233m
		1 No. 3 mtr.	2 Nos. 5mtr.
		1 No. 5mtr.	2 Nos. 20mtr.
		1 No. 15mtr.	1 No. 25mtr.
		2 Nos. 20mtr.	1 No. 45mtr.
		1 No. 23.5mtr.	13 Nos. 50mtr.
		1 No. 36.9mtr.	
		1 No. 39.9mtr.	
		1 No. 45mtr.	
		11 Nos. 50mtr.	

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10.	Carriage Way	Bridge on Upstream side of Existing Bridge: 11.000 mtr. Consisting 1 x 7.5 mtr.. clear carriage way + 1 x 2.5 mtr.. footpath + 1 x 500 mm Crash barrier with 480 mm central verge.	Bridge on Downstream side of Existing bridge: 11.000 mtr. Consisting 1 x 7.5 mtr.. clear carriage way + 1 x 2.5 mtr.. footpath +1x 500 mm Crash barrier with 480 mm central verge.
11.	Design Discharge	34000 Cumecs	
12.	Design H.F.L.	R.L. 12mtr.	
13.	Type Of Bridge	High Level Bridge	
14.	F.R.L.	R. L. 16.360 mtr.	
15.	Structure Details		
	Foundation	RCC Bored Cast in Situ Pile having 1500mm/1200mm dia	
	Sub-Structure	RCC Pilecap , RCC Pier with R.C.C. Pier Cap	
	Super-Structure	Pre-stressed Concrete 4 Girder System Simply Supported over bearings and R.C.C. Slab	
	General Item	R.C.C. Crash Barrier	
	Types Of Bearing	Elastomeric Bearing	
	Types Of Expansion Joint	Strip Seal Type	
	Wearing Coat	75mm thick and 6mm thick micro-surfacing	



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Sardar Patel Bridge visit