



# REPUBLIC OF INDIA

BRIDGE PROJECTS



Bridge Design & Engineering Services

# WIECON



# REPUBLIC OF INDIA

## BRIDGE PROJECTS

### Wiecon Introduction



#### About Us

We don't just design bridges; we create engineering benchmarks that stand as testaments to innovation, precision, and excellence. With a legacy spanning three decades, we have emerged as leaders in the field of bridge engineering, driven by an unwavering commitment to pushing boundaries and exceeding expectations.

#### Our Approach

Our passion for bridge structures is matched only by our dedication to integrating cutting-edge designs and the latest technologies with our vast reservoir of experience and expertise. We provide comprehensive multi-disciplinary engineering consultancy services that encompass every facet of bridge engineering, construction processes, and project management.

#### 30 Years of Excellence

With a rich portfolio spanning over 30 years, WIECON has been at the forefront of bridge engineering projects. Our in-house team of experts offers a diverse range of design services, including precast segmental, full-span erection, balanced cantilever, advanced shoring, incrementally launched, cable stay, suspension, and other specialized bridges. We handle projects from the initial preliminary studies and detailed design stages to the design of bridge construction equipment, major temporary works, and the supervision of the final erection stages.



### Design & Engineering Services



### Sonepur Extradosed Bridge, State of Odisha.



**Client:**

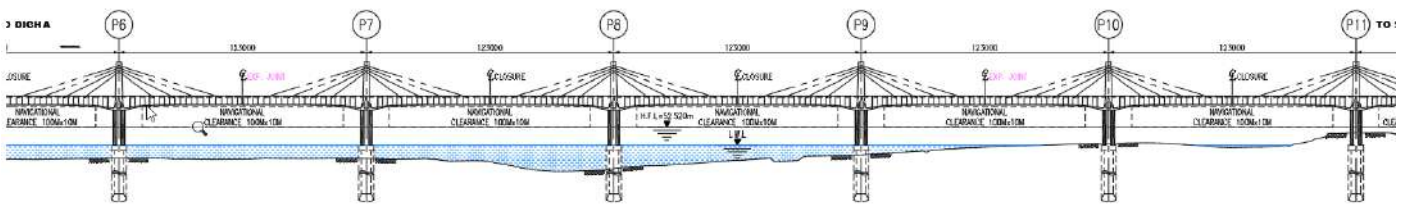
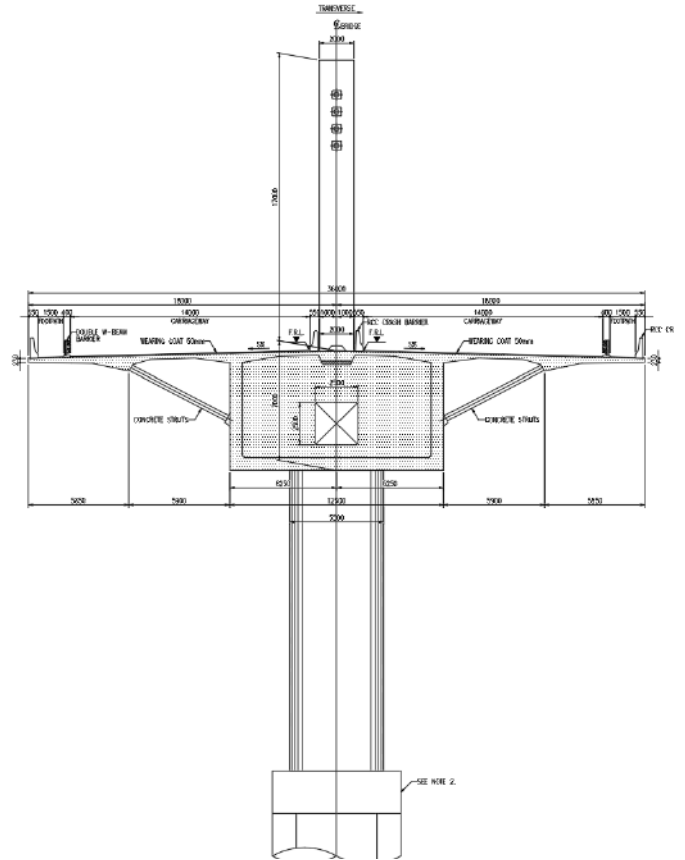
SP Singla Construction

**Services:**

- Detail Design
- Construction Engineering
- Contractors Consultant
- Contractors Engineer

**Specifications:**

- Total Bridge Length: 4.6km
- Max Span: 123m
- Min Span: 64m
- Total No. of Spans: 38
- Deck Width: 36m
- Pylon Height: 17m (Above Deck Level)



LONGITUDINAL ELEVATION  
SCALE 1:1000



LONGITUDINAL PLAN VIEW  
SCALE 1:1000

Typical Part Plan View & Elevation of The Bridge

### Shepur~Dighwara FCC Bridge, State of Pradesh.



**Client:**

SP Singla Construction

**Services:**

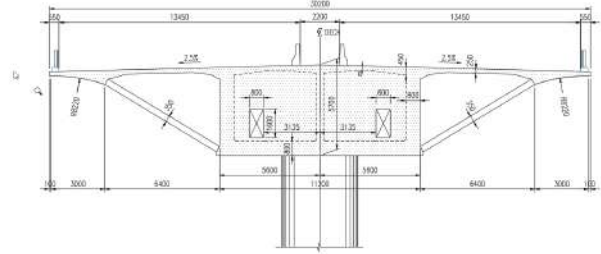
- Detail Design
- Construction Engineering
- Contractors Engineer

**Specifications:**

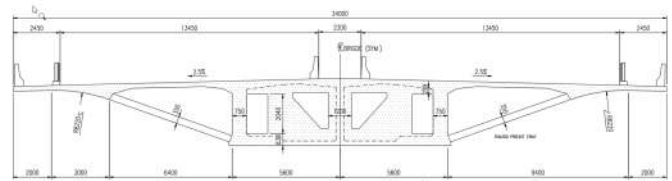
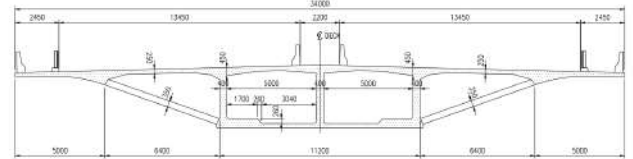
- **Free Cantilever Main Bridge**
- Total Bridge Length: 764m
- Span Configuration: 95.5m\*8 Spans
- Deck Width: 34m
- Deck Depth (FCC Bridge): 3.5m~5.7m

**Project Duration:**

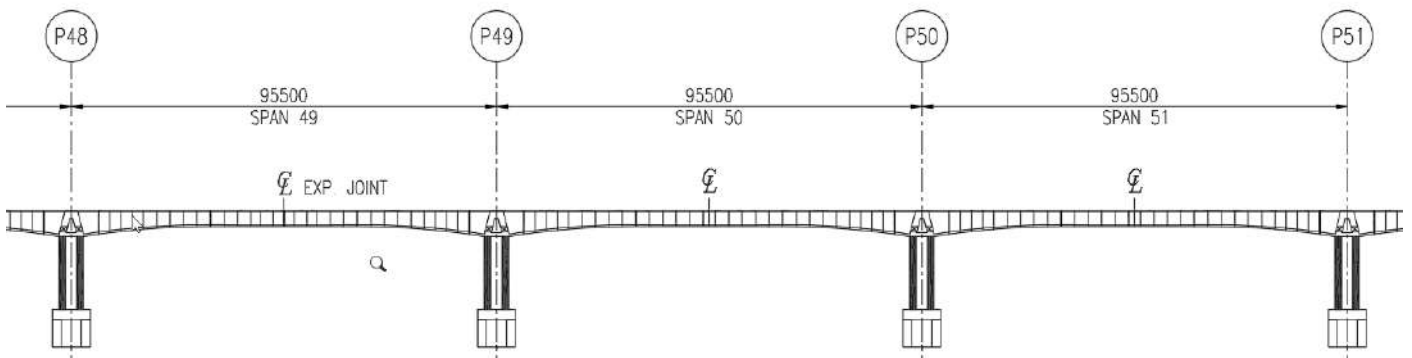
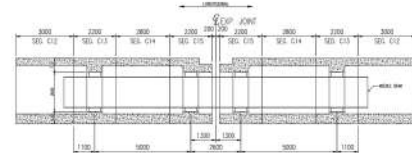
2024-2029



**Typical Deck Section**



**Typical Deck Section at Exp. Joint**



**Typical Part Span Elevation of Bridge**



**Client:**

Navayuga Engineering Co.Ltd.

**Services:**

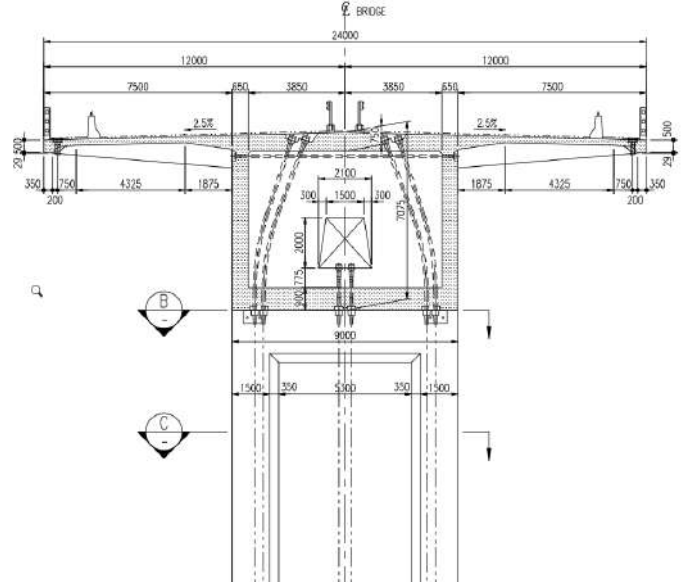
- Construction Engineering
- Detail Design
- Contractors Engineer

**Specifications:**

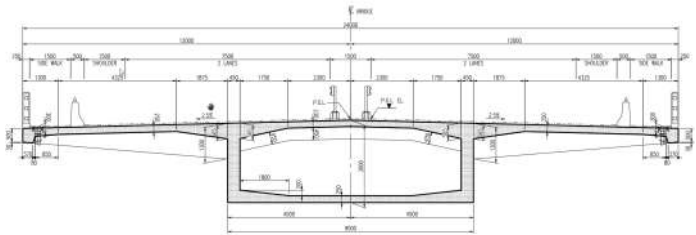
- Free Cantilever Construction Method
- Total Bridge Length: 1570.5km
- Span Configuration: 125m\*12+70.50m
- Deck Width: 24.m
- Deck Depth: 3m~7.05m

**Project Duration:**

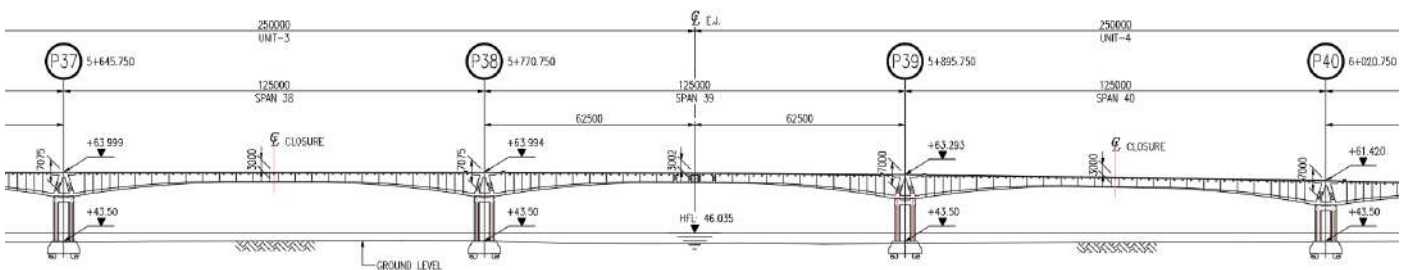
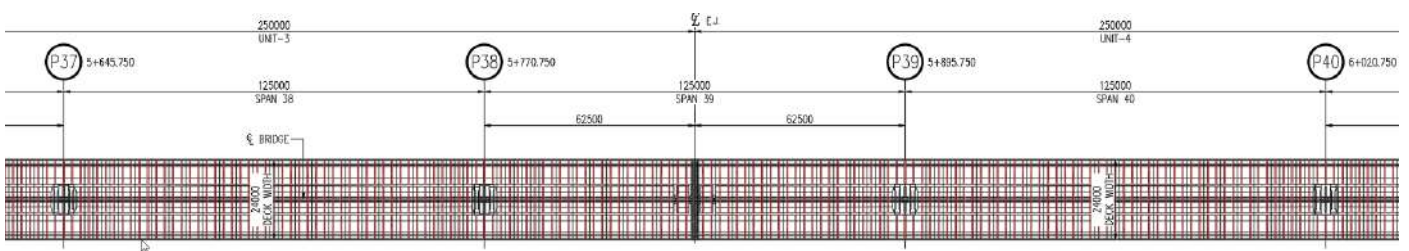
2024-2027



**Typical Section at Piers**



**Typical Section at Midspan**



**Typical 125m Span Elevation**



**Client:**  
Sierra Engineering Solutions

**Services:**

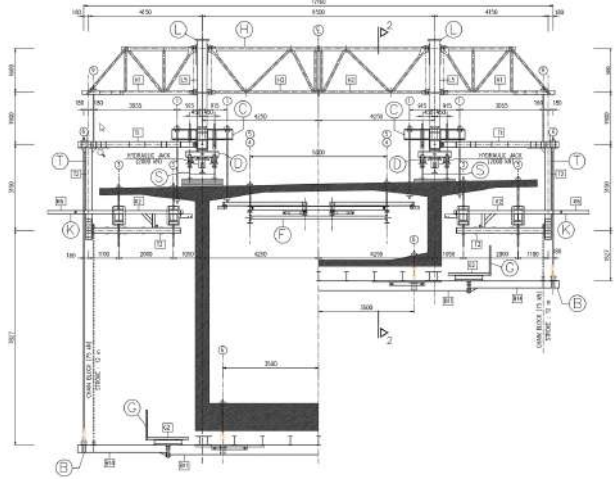
- Construction Engineering
- FCC Form Traveler Design
- Contractors Engineer
- Major Temporary Works Design

**Specifications:**

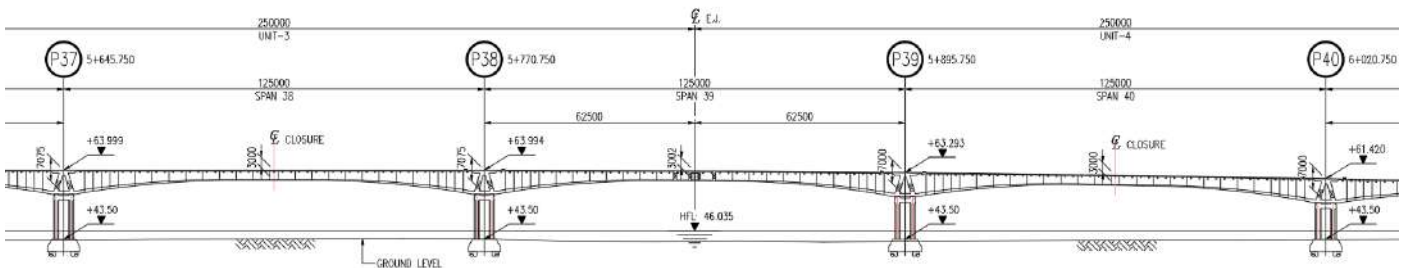
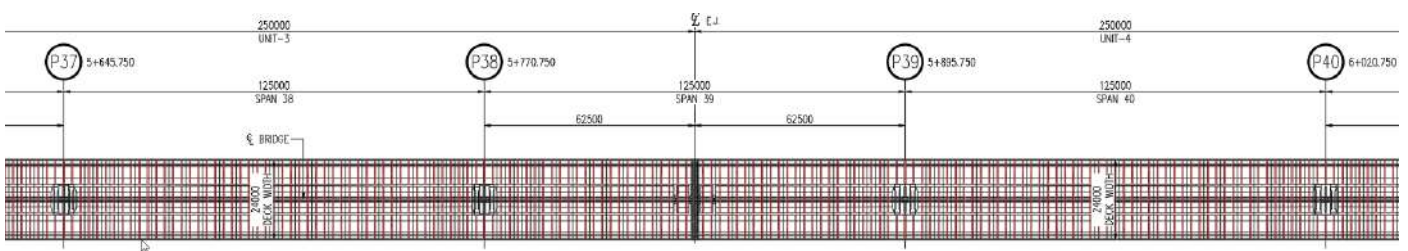
- Free Cantilever Construction Method
- Total Bridge Length: 1570.5km
- Span Configuration: 125m\*12+70.50m
- Deck Width: 24.m
- Deck Depth: 3m~7.05m

**Project Duration:**

2024-2027



**Typical FCC Form Traveler**



**Typical 125m Span Elevation**

### Vikramshila Setu Extradosed Bridge, State of Bihar.



**Client:**

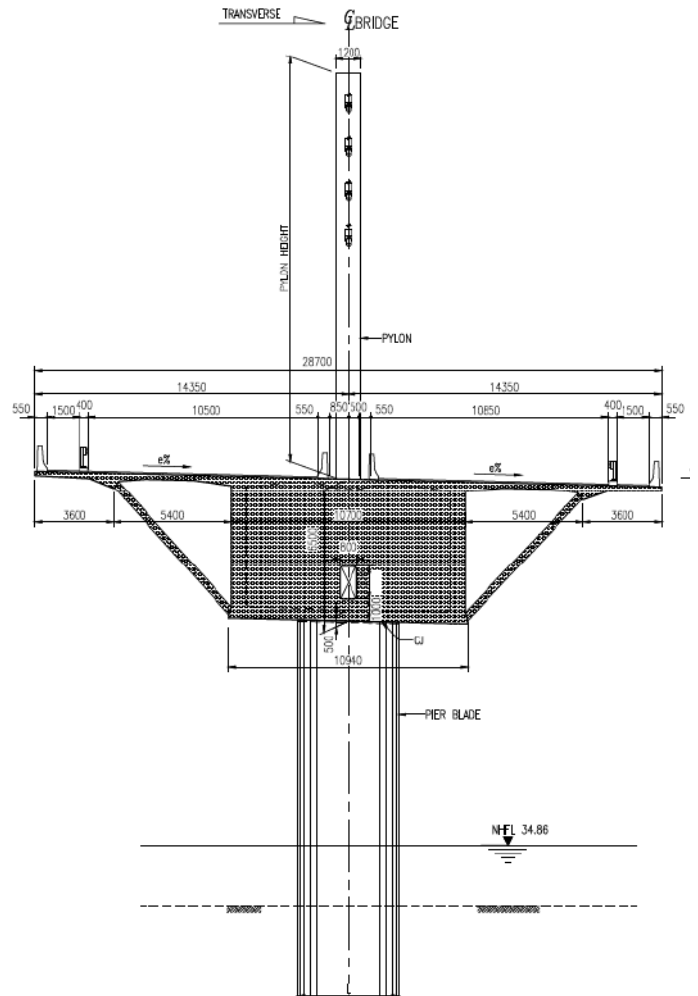
SP Singla Construction  
EPC Project

**Services:**

- Construction Engineering
- Detail Design
- Shop Drawings
- Contractors Engineer

**Specifications:**

- **Precast Deck Segmental Construction**
- Total Bridge Length: 4298m (4.3km)
- Span Configuration:
- 57m+115.4m\*16+121m+126m\*8+135.3 m+120m\*4+109m\*2+142m+120m+104.4 m+64.8m
- Deck Width: 28.7m
- Max Pylon Height: 21.7m (From Deck Level).



**Typical Deck Section At Pylons**

**Project Duration:** 2023-2028



### Sherpu to Dighwara Ganga River Bridge, State of Bihar.



**Client:**

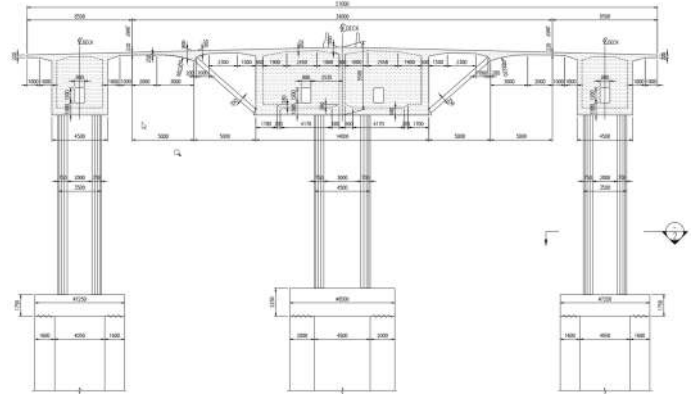
SP Singla Construction

**Services:**

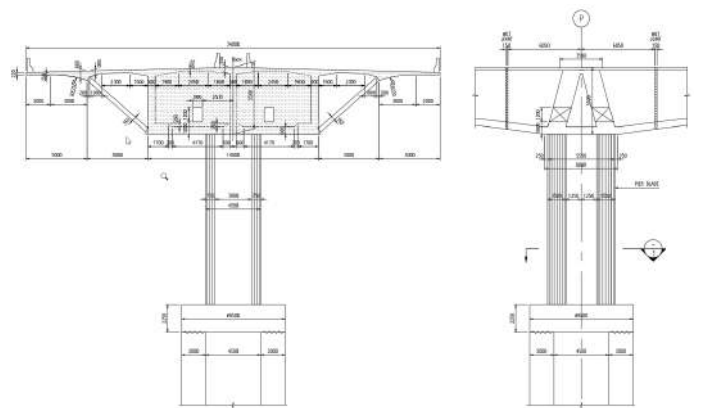
- Construction Engineering
- Detail Design
- Contractors Engineer

**Specifications:**

- **Precast Deck Segmental Construction**
- Constructed by Cantilever Method
- Total Bridge Length: 9.8km
- **Longest Bridge In India**
- Total Spans: 102
- Max Span: 95.5m
- First Span: 67m
- End Span: 61m
- Standard Deck Width: 34m
- Deck Width at Interchange: 51m
- Ramp Deck Width: 8.5m

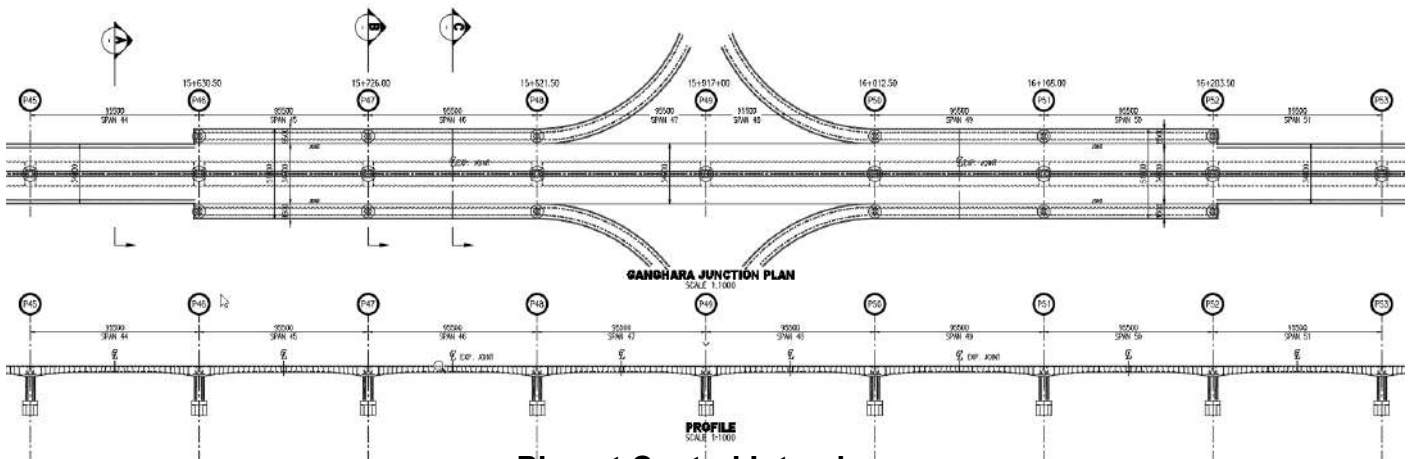


**Section at Central Interchange**  
Total Deck Width: 51m. (8.5m+34m+8.5m)



**Typical Pier Section**  
Deck Width : 34m

**Project Duration:** 2023-2025



**Plan at Central Interchange**

### Ghatkopar Cable Stay Bridges, State of Maharashtra.



**Client:**

MRIDC Maharashtra Rail Infrastructure Development Corporation Limited.  
EPC Contract

**Services:**

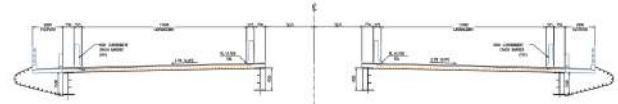
- Construction Engineering
- Detail Design
- Contractors Engineer
- Major Temporary Works Design

**Specifications:**

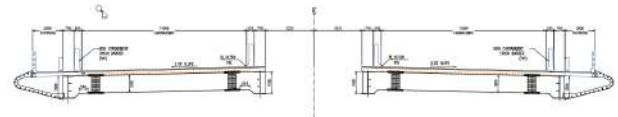
- Two Parallel Cable Stay Bridges
- Total Bridge Length: 216m
- Span Configuration: 54m+108m+54m
- Deck Width: 13.55m (Each Bridge)
- Pylon Height: 21.22m (From Deck Level)

**Project Duration:**

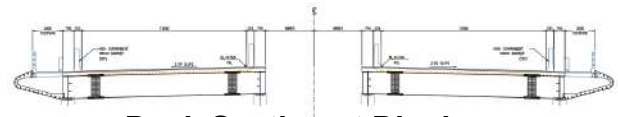
2023-2026



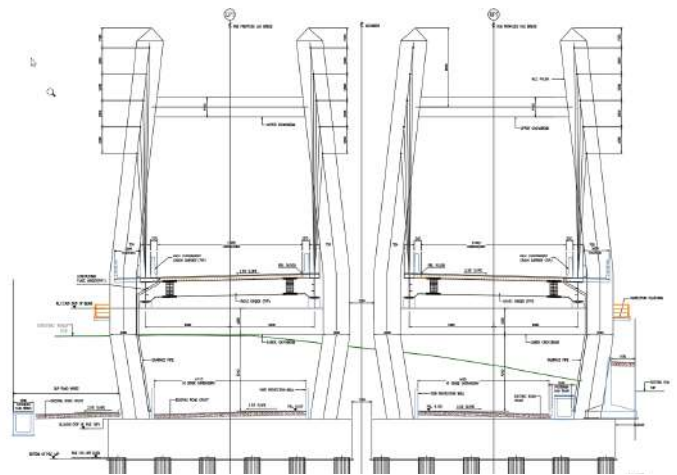
Typical Deck Section



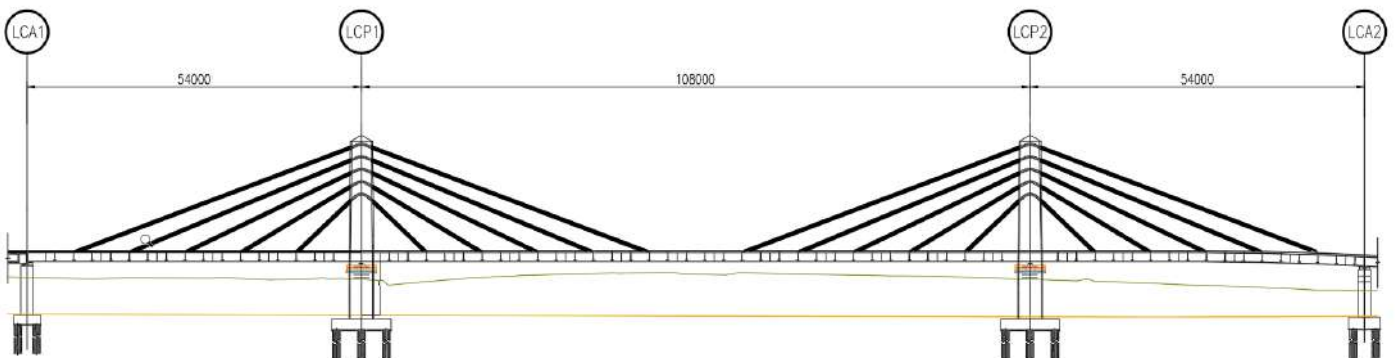
Deck Section at Cross Beams



Deck Section at Diaphragm



Section At Pylons



Cable Stay Bridge Elevation

### Ajni ROB Cable Stay Bridge, State of Maharashtra.



**Client:**

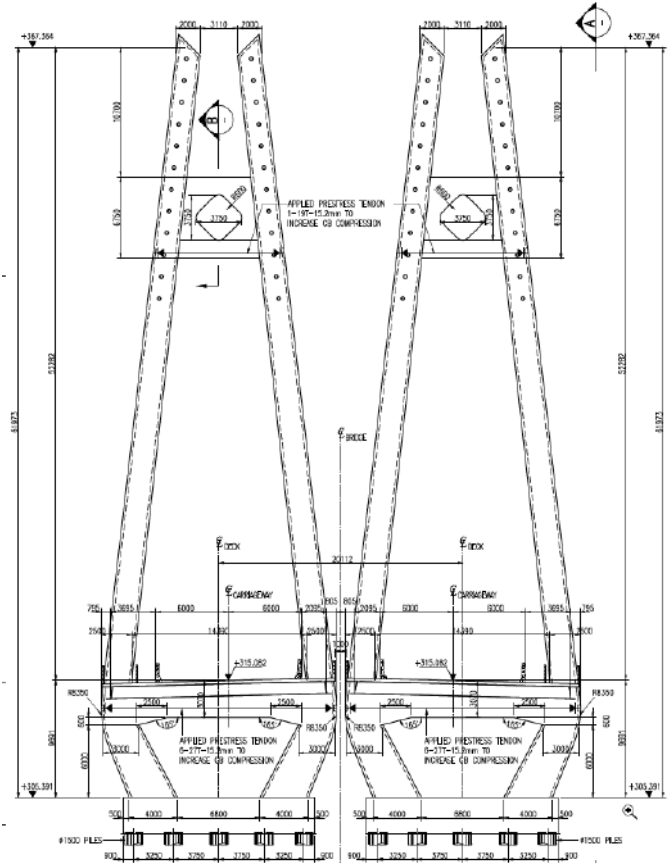
MRIDC Maharashtra Rail Infrastructure Development Corporation Limited.  
EPC Contract

**Services:**

- Construction Engineering
- Contractors Engineer
- Detail Design
- (IPC) Major Temporary Works Check Engineering

**Specifications:**

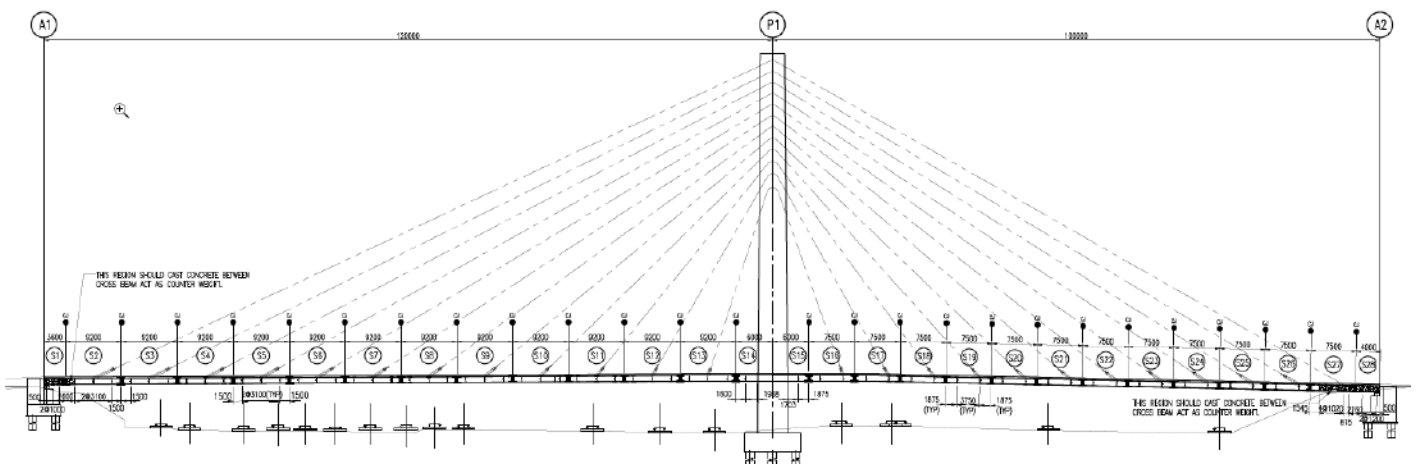
- Two Parallel Cable Stay Bridges
- Total Bridge Length: 220m
- Span Configuration: 120m+100m
- Deck Width: 19.2m (Each Bridge)
- Pylon Height: 52m (From Deck Level)



**Section At Pylons**

**Project Duration:**

2023-2025



**Cable Stay Bridge Elevation**

### Samrudhi FCC Bridge, State of Maharashtra.



**Client:**

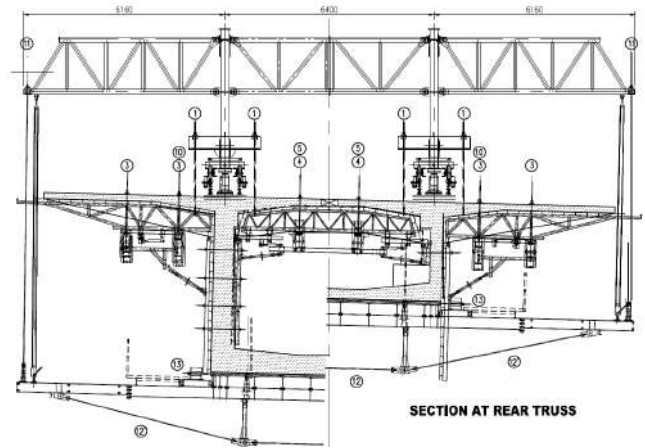
BBE India

**Services:**

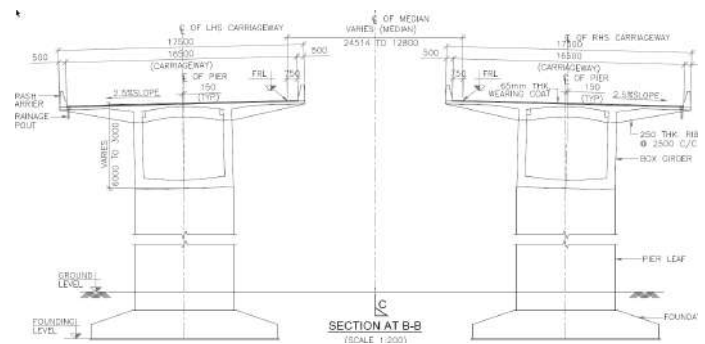
- Construction Engineering
- Form Traveler Equipment Design
- Contractors Engineer

**Specifications:**

- Balanced Cantilever (FCC) Bridges
- Two Bridges Running Parallel
- Total Bridge Length: 1.195km (Each Bridge)
- Span Configuration:  
53.75m+98m\*5+53.75m+53.75m+98m\*5+53.75m
- Deck Width: 17.5m
- Max Pier Height: 70m (Approx)

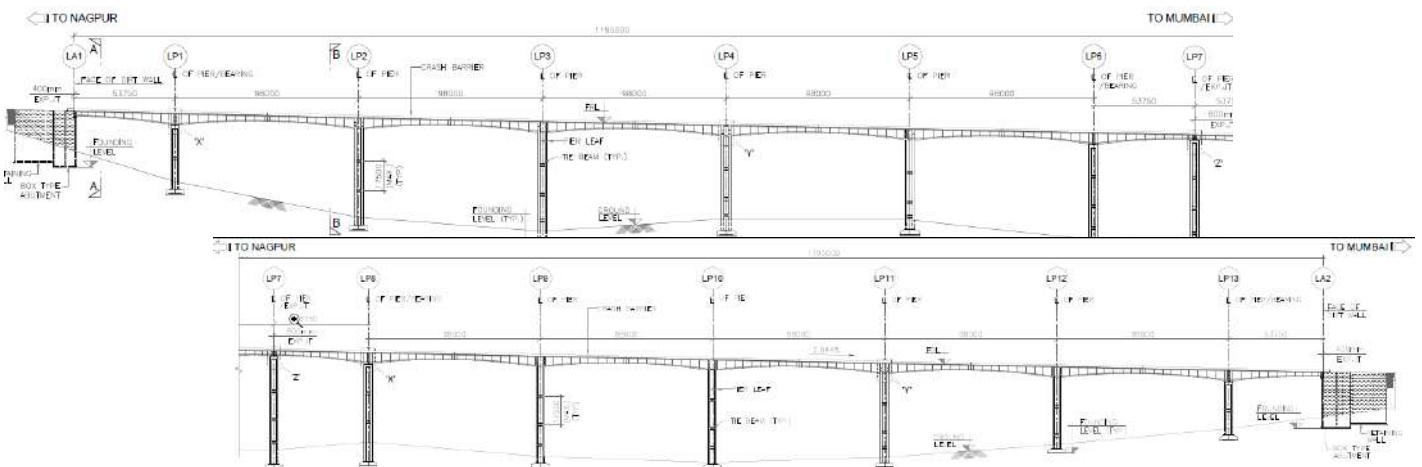


**Section of Form Traveler**



**Section At Piers**

**Project Duration: 2020-2021**



**Bridge Elevation**

### Kapurthala Cable Stay Bridge, State of Punjab.



#### Client:

SP Singla Construction

#### Services:

- Construction Engineering.
- Detail Design
- Contractors Consultant
- Major Temporary Works Design

#### Specifications:

- Total Bridge Length: 1300m
- **Largest Bridge in India**
- Span Configuration:  
6\*50m+700m+6\*50m
- Deck Width: 36.3m
- Pylon Height: 162m (From Deck Level)

#### Project Duration:

2023-2028



### I Beam Segment Lifter for 4 Bridges, State of Kerala.



**Client:**

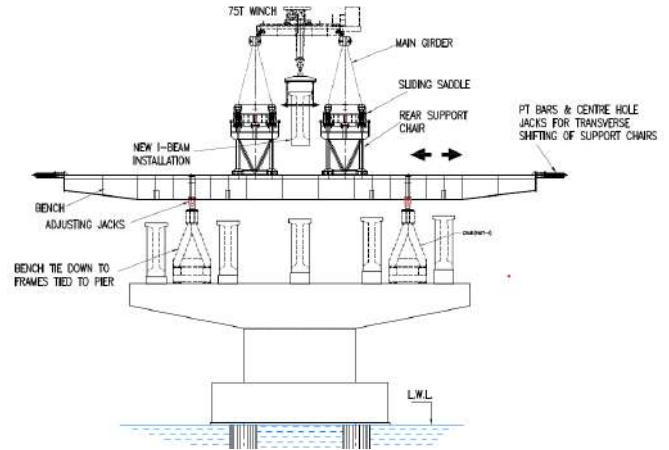
Tech 9 Engineering Solutions

**Services:**

- Launching Gantry Detail Design
- Launching Gantry Shop Drawings
- Contractors Engineer

**Specifications:**

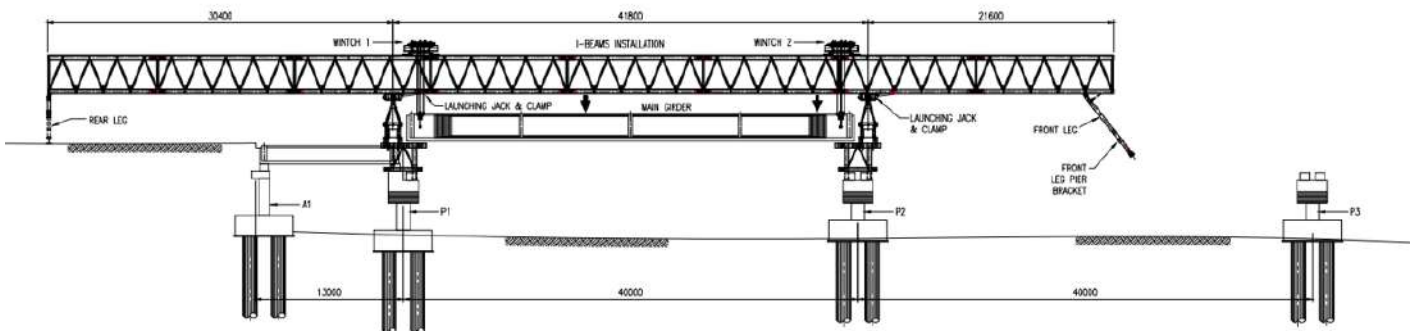
- **Precast I Beam Girders**
- **Mogral Bridge:**
- Total Bridge Length: 215m
- Span: 3\*40 m + 2\*27.5 m +40 m
- **Shriya Bridge:**
- Total Bridge Length: 329.6m
- Spans: 8\*41.2 m = 329.6m
- **Upla Bridge:**
- Total Bridge Length: 146m
- Spans: 13 m + 3\*40 m + 13 m
- **Kumpala Bridge:**
- Total Bridge Length: 266m
- Spans: 7\* 38m
- Total Project Length: 957m
- Launching Gantry Length: 93.8m
- Maximum Lifting Capacity: 120t



**Section of Launching Gantry**



**Project Duration: 2022-2023**



**Elevation of Launching Gantry**

### Vijayawada Bypass Bridge, State of Andhra Pradesh.



#### Client:

Navayuga Group Company LTD  
(NEC)

#### Services:

- Launching Gantry Detail Design
- Launching Gantry Shop Drawings
- Contractors Engineer
- Major Temporary Works Design

#### Specifications:

- **Precast Segmental Bridge Construction**
- Total Bridge Length: 3.5km
- Max Span: 60m
- Launching Gantry Weight: 1600 tons
- Deck Width: 17m

#### Project Duration:

2019-2023



### Ahmedabad Metro Rail Project Phase II, State of Gujarat.



**Client:**

Afcons Infrastructure LTD

**Services:**

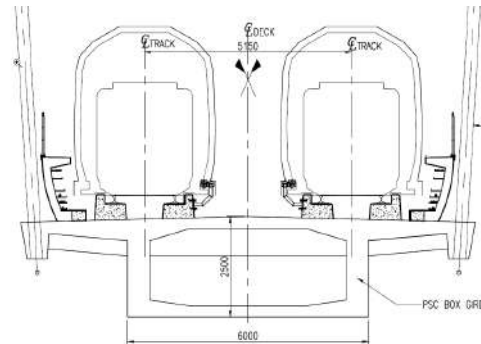
- Construction Engineering
- Contractors Engineer
- Detail Design

**Specifications:**

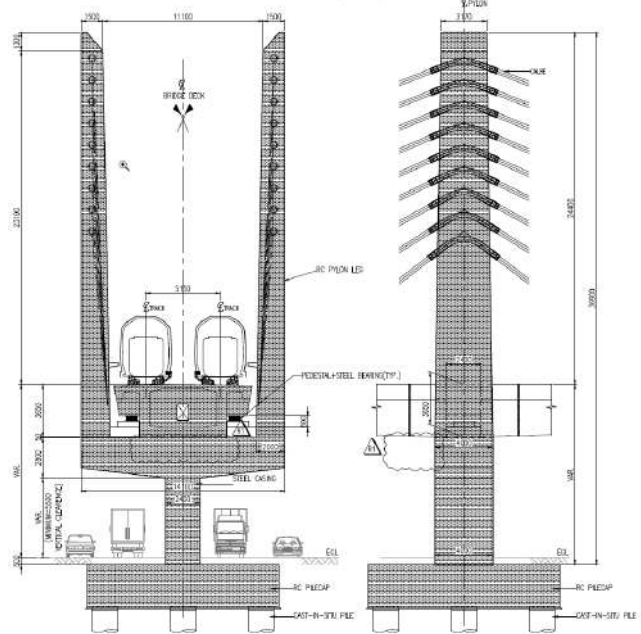
- Total Bridge Length: 303m
- Span configuration:  
26.65m+54.35m+145m+54.35m+26.65m
- Deck Width: 11.3m
- Pylon Height: 24.4m (From Deck Level)

**Project Duration:**

2022-2023



**Typical Deck Section**



**Section Through Pylons**



### Missing Link Cable Stay Bridges, State of Maharashtra.

**Client:**

Maharashtra State Road Development Corporation

**Services:**

- Construction Engineering
- Deck Form Traveler Design
- Detail Design
- Shop Drawings
- Contractors Engineer
- Major Temporary Works Design

**Specifications:**

- Two Parallel Cable Stay Bridges
- Total Bridge Length: 650m
- Span configuration:  
40m+132.5m+305m+132.5m+40m
- Deck Width: 25.863m
- Pylon Height: 75.2m (From Deck Level)

**Project Duration:**

2021-2024



### MG Setu Extradosed Bridge, State of Bihar.



**Client:**

SP Singla Construction

**Services:**

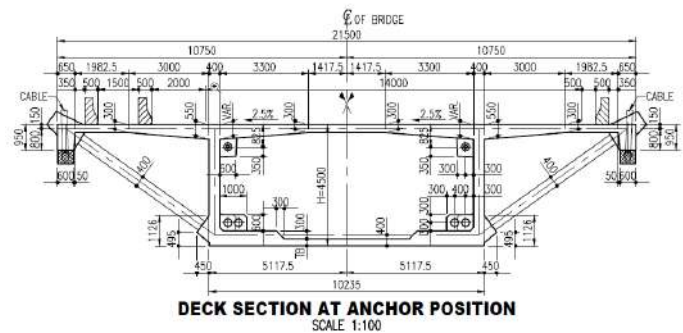
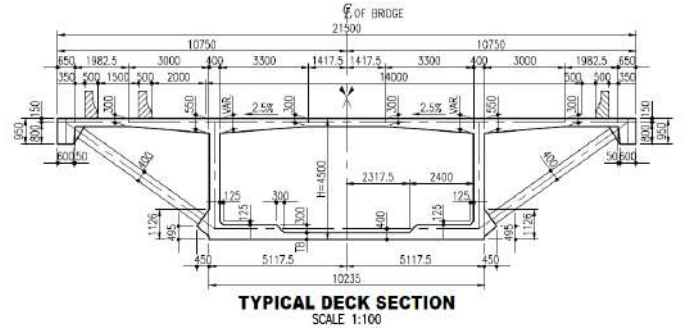
- Construction Engineering
- Detail Design
- Shop Drawings
- Contractors Engineer

**Specifications:**

- **Precast Deck Segmental Construction**
- Total Bridge Length: 5.634m
- Span configuration:  
70.010m+116.065m+22\*242.130m+121.065m
- Deck Width: 21.5m
- Pylon Height: 42m (From Deck Level)

**Project Duration:**

2021-2024





**Client:**

Navayuga Group Company LTD

**Services:**

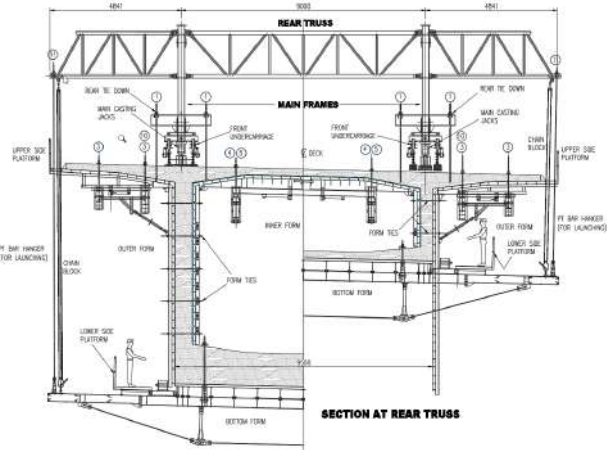
- Construction Engineering
- FCC Form Traveler Design
- Detail Design
- Contractors Engineer

**Specifications:**

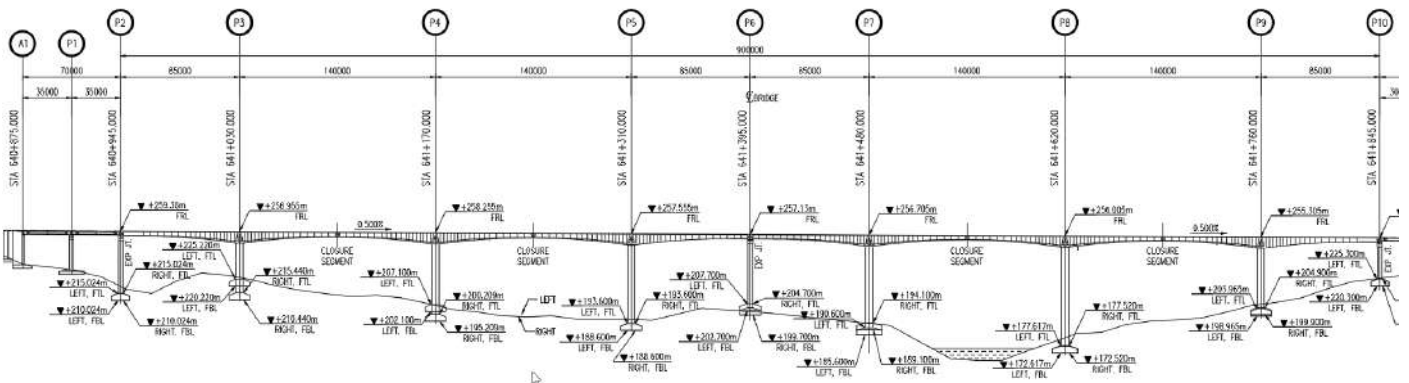
- Two Balanced Cantilever FCC Bridges
- Total Bridge Length: 900m
- Span configuration:  
85m+140m+140m+85m+85m+140m+140m+85m
- Deck Width: 17.5m (Each Bridge)
- Max Pier Height: 75m (Approx)

**Project Duration:**

2021-2023



Typical Deck / FT Section



Elevation of the Balanced Cantilever Bridges

### Byculla Cable Stay Bridge, State of Maharashtra.

**Client:**

MRIDC Maharashtra Rail Infrastructure Development Corporation Ltd

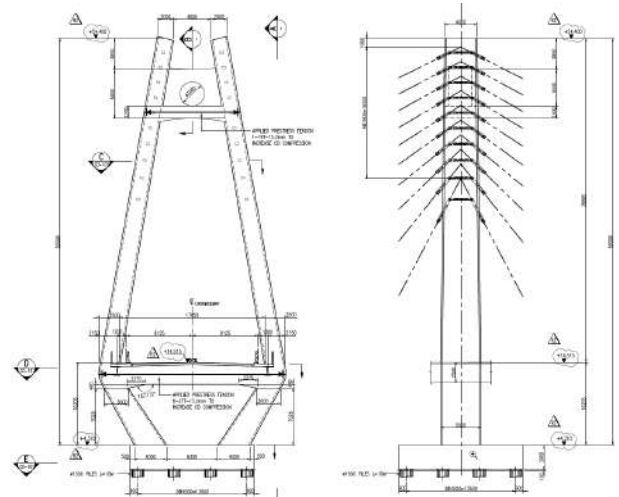
**Services:**

- Detail Design
- (IPC) Major Temporary Works Check Engineering

**Specifications:**

- **Total Project Length: 682m**
- **Main Cable Stay Bridge**
- Total Bridge Length: 173m
- Span Configuration: 86.5m+86.5m
- **Approach Viaducts**
- Total Bridge Length: 274m LA1-LP6
- Total Bridge Length: 235m LP8-LA2
- Approach Viaducts Span Configuration:
- 50m +50m +60m +23.97m+ 48.65m +41.5m from LA1 to LP6
- 41m +39.3m +15m +46m+ 46.71m +46.5m from LP8 to LA2.
- Pylon Height: 40m (From Deck Level)
- Deck Width: 20.65m

**Project Duration:** 2023-2025



**Pylon Sections**



### Tilak Cable Stay Bridge, State of Maharashtra.



#### Client:

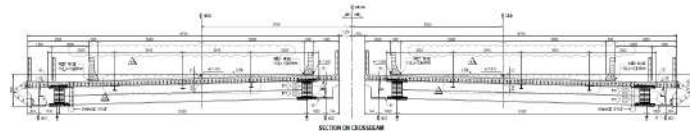
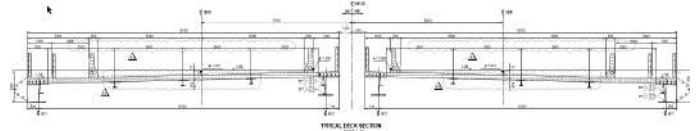
MRIDC Maharashtra Rail Infrastructure Development Corporation Limited.

#### Services:

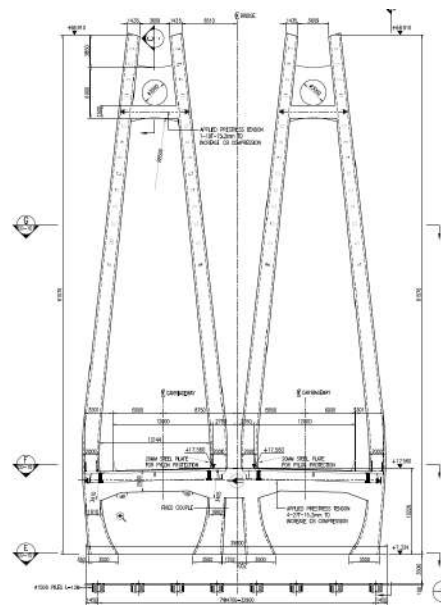
- Detail Design
- (IPC) Major Temporary Works Check Engineering

#### Specifications:

- Total Project Length: 293m
- **Two Main Cable Stay Bridges**
- Total Bridge Length: 190.094m
- Span Configuration: 85m+105.94m
- Pylon Height: 24.5m (From Deck Level)
- Deck Width: 16.7m (Each Bridge)
- **Approach Bridges**
- Left Approach Bridge Length: 52m
- Right Approach Bridge Length: 50.906m
- Left Span Configuration: 24m+28m
- Right Span Configuration: 29.934m+20.972m
- **Project Duration: 2023-2025**



**Typical Deck Sections**



**Pylon Sections**



### Reay Cable Stay Bridge, State of Maharashtra.



**Client:**

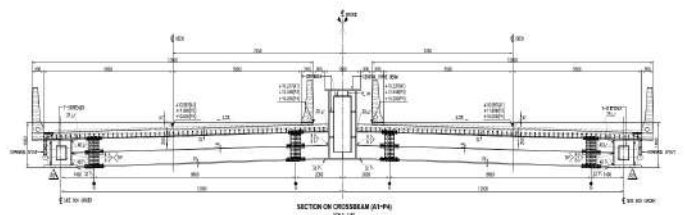
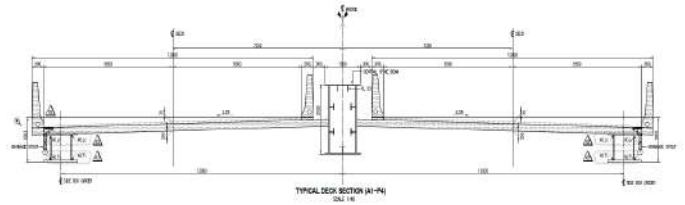
MRIDC Maharashtra Rail Infra-structure Development Corporation Limited.

**Services:**

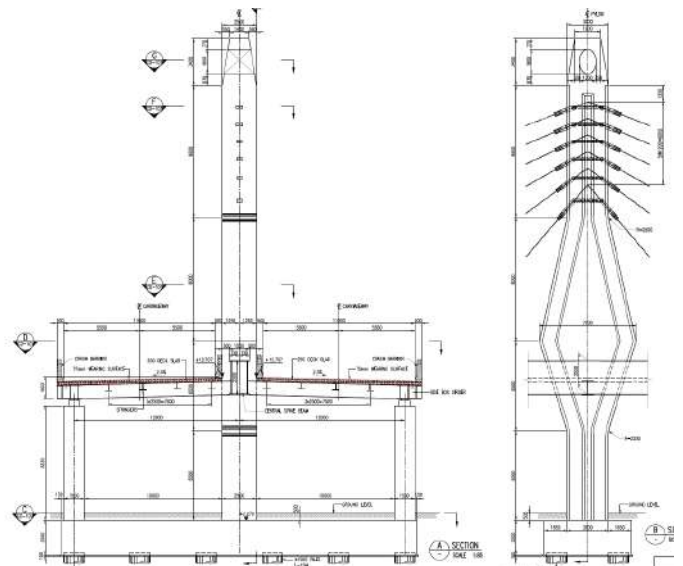
- Detail Design
- (IPC) Major Temporary Works Check Engineering

**Specifications:**

- **Total Project Length: 195.4m**
- **Main Cable Stay Bridge**
- Total Bridge Length: 140m
- Span Configuration: 4@35m for outer girder, 2@70m for center girder from A1 to P4
- Pylon Height: 24.5m (From Deck Level)
- Deck Width: 26.4m
- **Approach Bridges**
- Total Bridge Length: 55.4m
- Span Configuration: 10m+10m+23.8m+11.6m from P4 to A2.

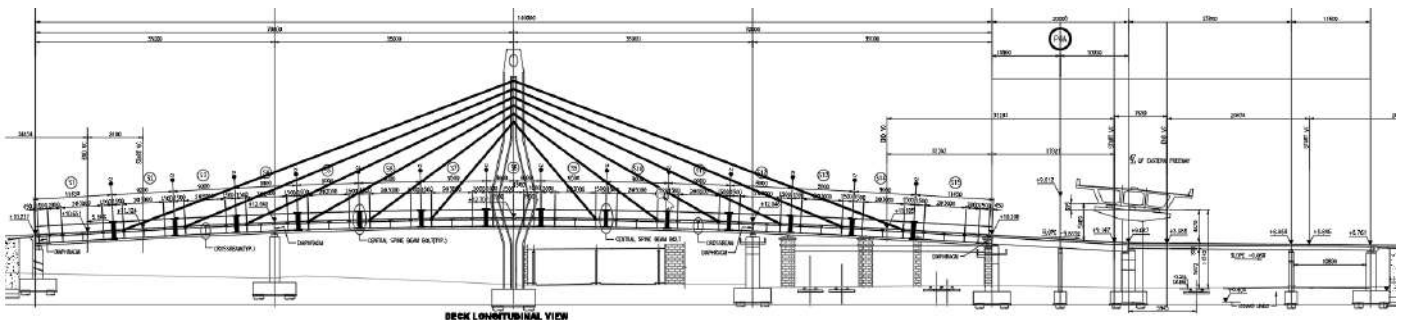


**Typical Deck Sections**



**Pylon Sections**

**Project Duration: 2023-2025**



**Cable Stay Bridge**

**Approach Bridges**



### Majerhat Cable Stay Bridge, State of West Bengal.



**Client:**

SP Singla Construction Pvt Ltd

**Services:**

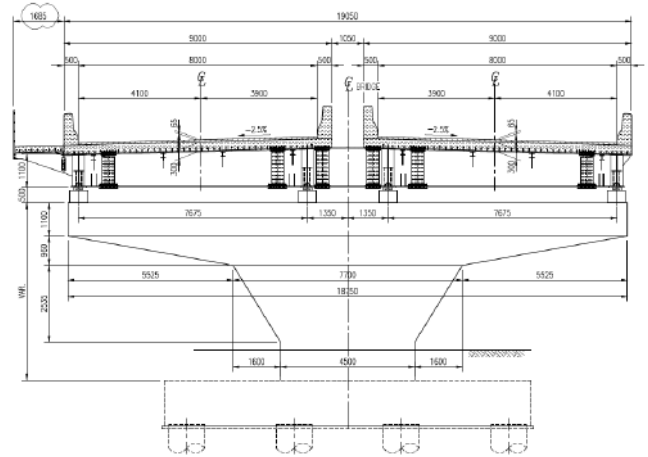
- Construction Engineering
- Detail Design
- Shop Drawings
- Contractors Engineer

**Specifications:**

- Total Bridge Length: 227.5m
- Span Configuration:  
20m+60m+100m+47.5m
- Deck Width: 20.7m
- Pylon Height: 22.5m (From Deck Level)

**Project Duration:**

2018-2020



**Typical Deck Section**



### Amravati Cable Stay Bridge, State of Maharashtra.



**Client:**

L & T Construction

**Services:**

- Construction Engineering
- Detail Design

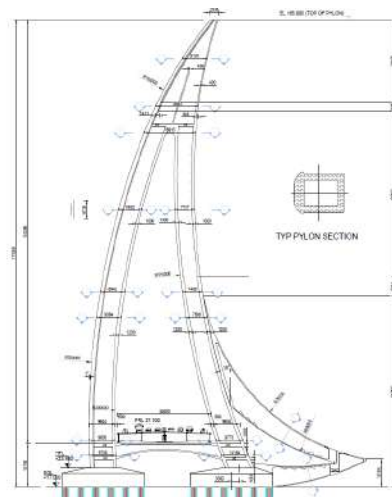
**Specifications:**

- Total Bridge Length: 480m
- Span Configuration: 60m+180m+60m
- Deck Width: 34.6m
- Pylon Height: 153m (From Deck Level)

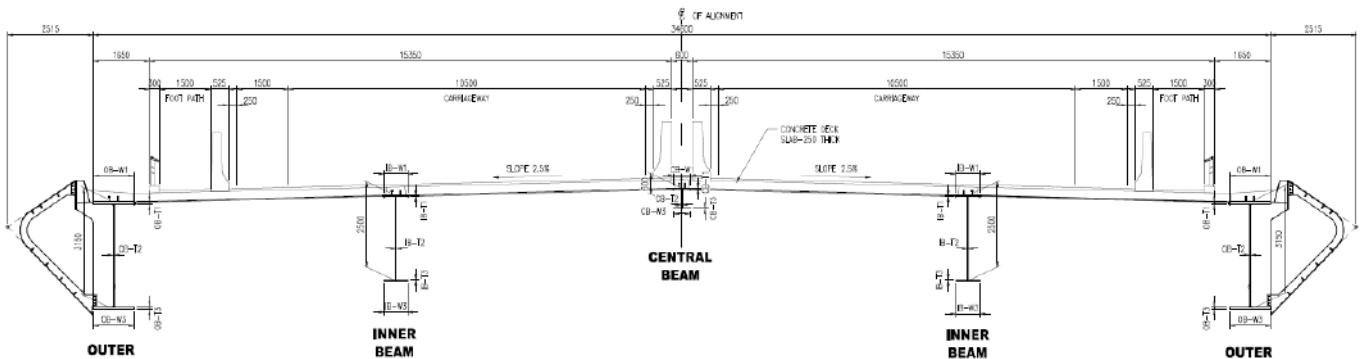


**Project Duration:**

2018-HOLD



**Elevation on Pylon**



**Typical Deck Section**

### Guwahati / Brahmaputra Cable Stay Bridge, State of Assam.



#### Client:

SP Singla Construction Pvt Ltd.

#### Services:

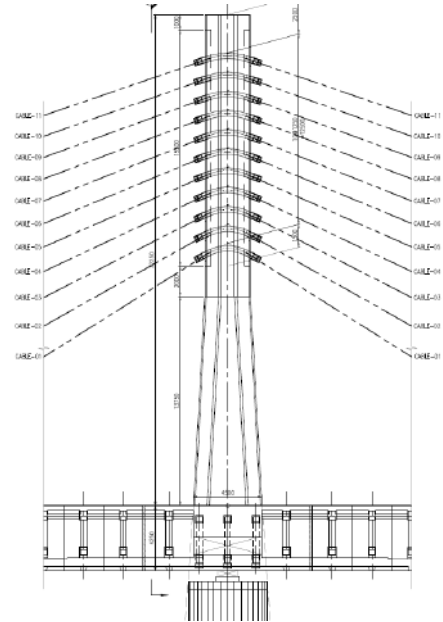
- Construction Engineering
- Detail Design
- Contractors Engineer

#### Specifications:

- **Precast Deck Segmental Construction**
- Total Bridge Length: 1.240km
- Span Configuration:  
120m+200m\*5+120m
- Deck Width: 33m
- Pylon Heights: 32.250 (From Deck Level)

#### Project Duration:

2019-2024



Elevation on Pylon



### Dwarka Cable Stay Bridge, State of Gujrat



#### Client:

SP Singla Construction Pvt Ltd.

#### Services:

- Construction Engineering
- Detail Design
- Shop Drawings
- Contractors Engineer
- Major Temporary Works Design

#### Specifications:

- Total Bridge Length: 900m
- **Second Longest Bridge In India**
- Span Configuration:  
50m+50m+100m+500m+100m+50m+  
50m
- Deck Width: 29.6m
- Pylon Heights: 128m (From Deck Level)

#### Project Duration:

2019-2023



### Howrah Cable Stay Bridge, State of West Bengal.

**Client:**

SP Singla Construction Pvt Ltd.

**Services:**

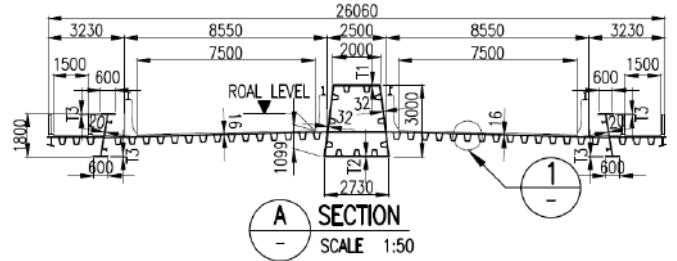
- Construction Engineering
- Deck Erection Equipment Design
- Detail Design
- Shop Drawings
- Contractors Engineer

**Specifications:**

- Total Bridge Length: 200m
- Span Configuration: 66m+134m
- Deck Width: 26.06m
- Pylon Height: 73.25m (Above Deck Level)

**Project Duration:**

2019-2023



**Typical Deck Section**



**Deck Launching Gantry**



### Sultanganj Cable Stay Bridge, State of Bihar.



**Client:**

SP Singla Construction Pvt Ltd.

**Services:**

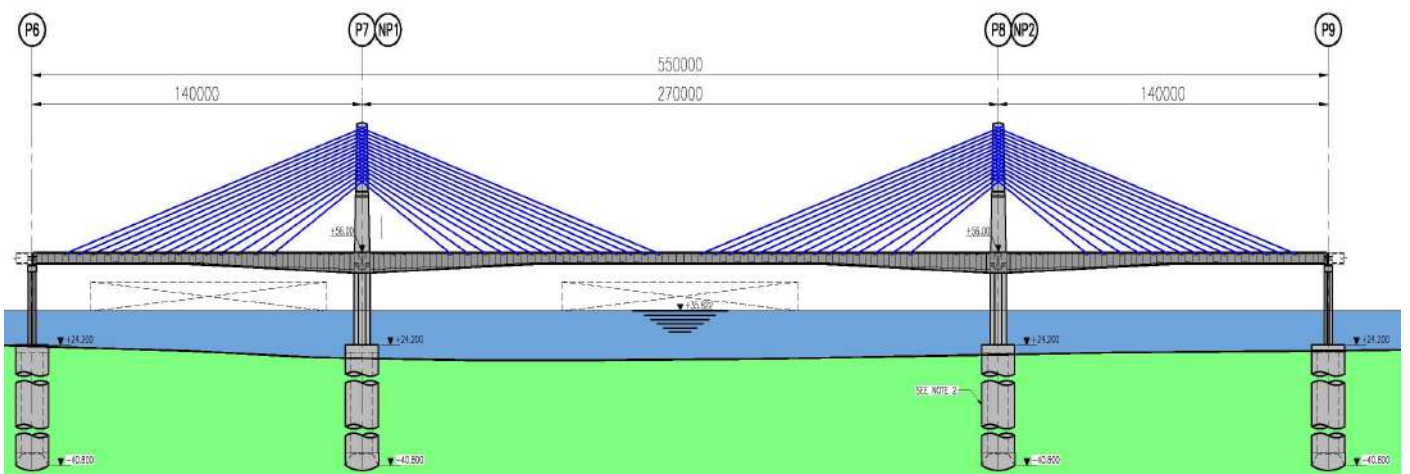
- Detail Design
- Construction Engineering
- Contractors Engineer
- Shop Drawings

**Specifications:**

- Total Bridge Length: 550m
- Span Configuration: 140m+270m+140m
- Pylon Height: 44.5m (From Deck Level)
- Deck Width: 25.5m

**Project Duration:**

2016-2017



Cable Stay Bridge Elevation

### Khagaria Cable Stay Bridge, State of Bihar.

**Client:**

SP Singla Construction Pvt Ltd.

**Services:**

- Detail Design
- Construction Engineering
- Deck Form Traveler Design
- Shop Drawings
- Contractors Engineer



**Deck Form Traveler**

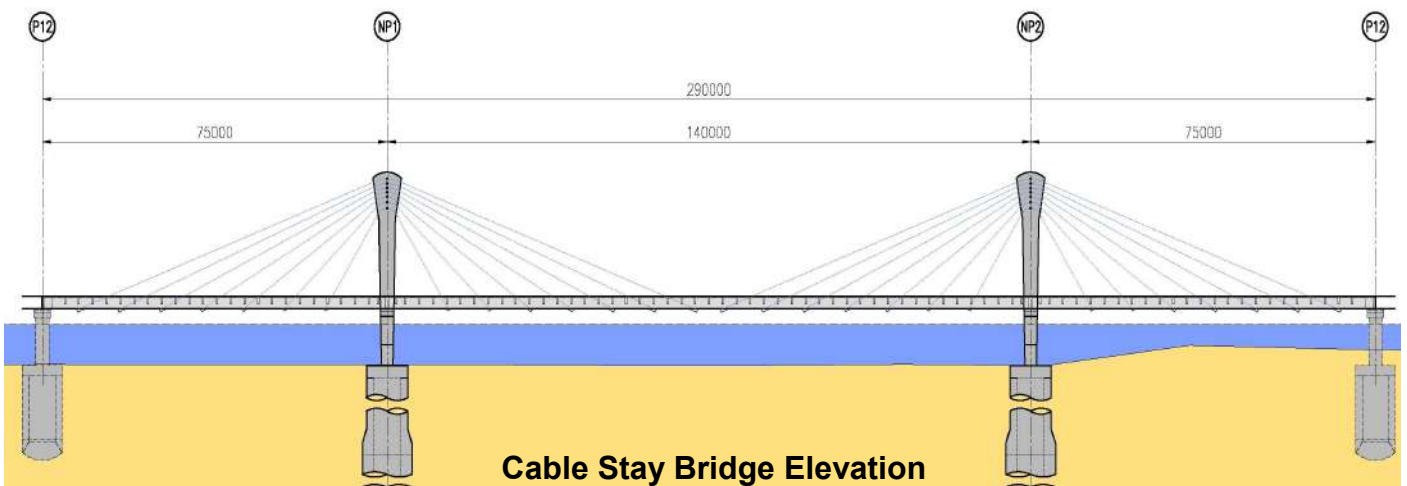
**Specifications:**

- Total Bridge Length: 290m
- Span Configuration: 75m+140m+75m
- Pylon Height: 24m (From Deck Level)
- Deck Width: 12.68m



**Project Duration:**

2016-2017



### Bangkot River Crossing Approach Bridge, Republic of India.

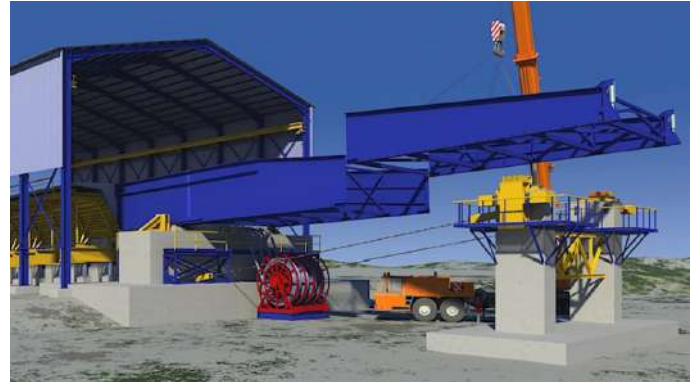


**Client:**

Supreme Infrastructure India, Ltd

**Services:**

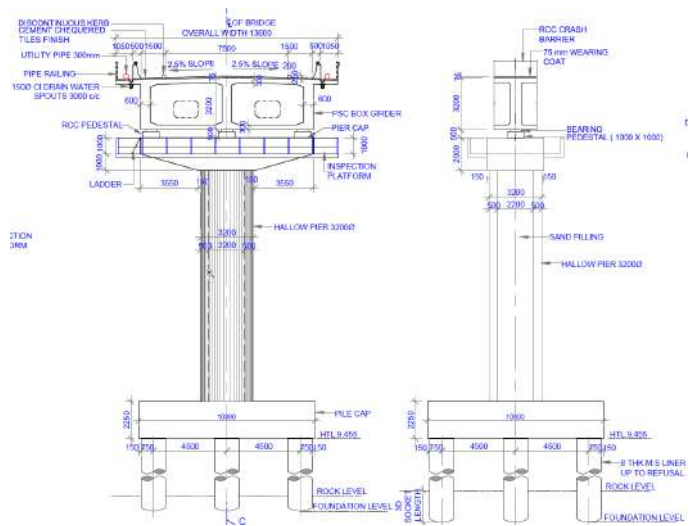
- Construction Engineering
- Deck ILM Launching Equipment Design
- Deck Formwork System Design
- Contractors Engineer
- Casting Yard Design



Installation of Deck ILM Launching Nose

**Specifications:**

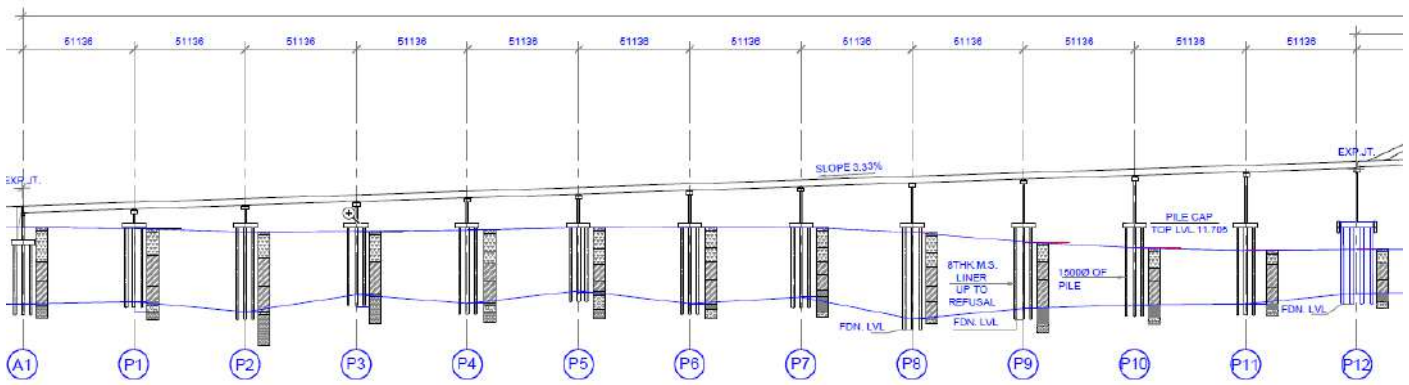
- ILM Approach Bridge to Main Cable Stay Bridge
- Total Bridge Length: 614m
- Span Configuration: 51.136m\*12
- Deck Width: 13.6m
- Upward Slope of 3.33%



Typical Pier & Deck Section

**Project Duration:**

2015-2016



Bridge Elevation

### Phaphamau Prayagraj Extradosed Bridge, State of U.P.



**Client:**

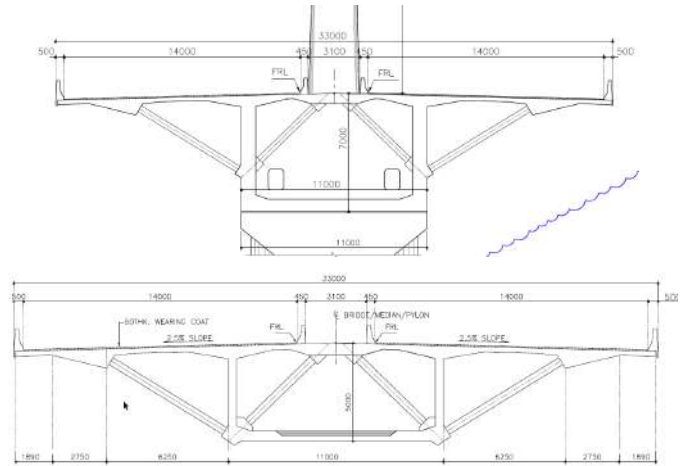
SP Singla Construction

**Services:**

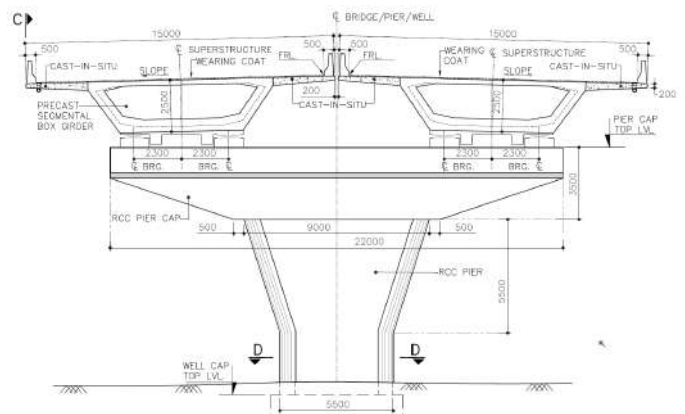
- (IPC) Independent Check Engineering

**Specifications:**

- **Total Project Length: 3.9km**
- **Extradosed Bridge:**
- Total Length: 860m
- Span Configuration: 130m+200m+200m+200m+130m
- **Approach Viaducts:**
- Pratapgarh side Total Length: 1.565km
- Span Configuration: 32.2m+32.2m+50m (30)
- Prayagraj side Total Length 1.465km:
- Span configuration: 50m(28 +32.2m+32.m
- Extradosed Bridge Deck Width: 33m
- Approach Viaducts Deck Width: 15+15m



**Deck Sections of the Extradosed Bridge**



**Typical Approach Viaduct Section**

**Project Duration: 2021-2022**



### Dobra-Chanti Suspension Bridge, State of Uttarakhand.



**Client:**

P&R Infra Projects

**Services:**

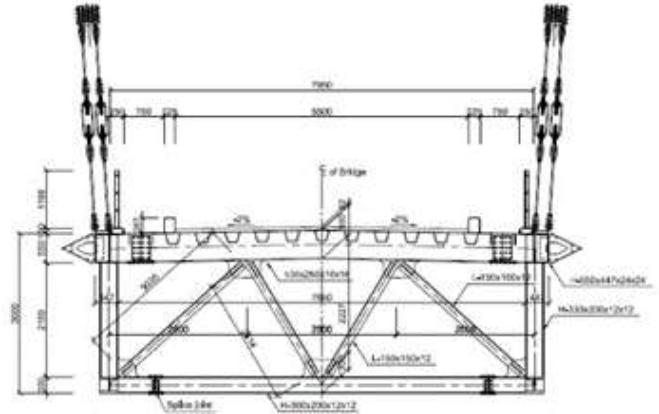
- (IPC) Independent Check Engineering

**Specifications:**

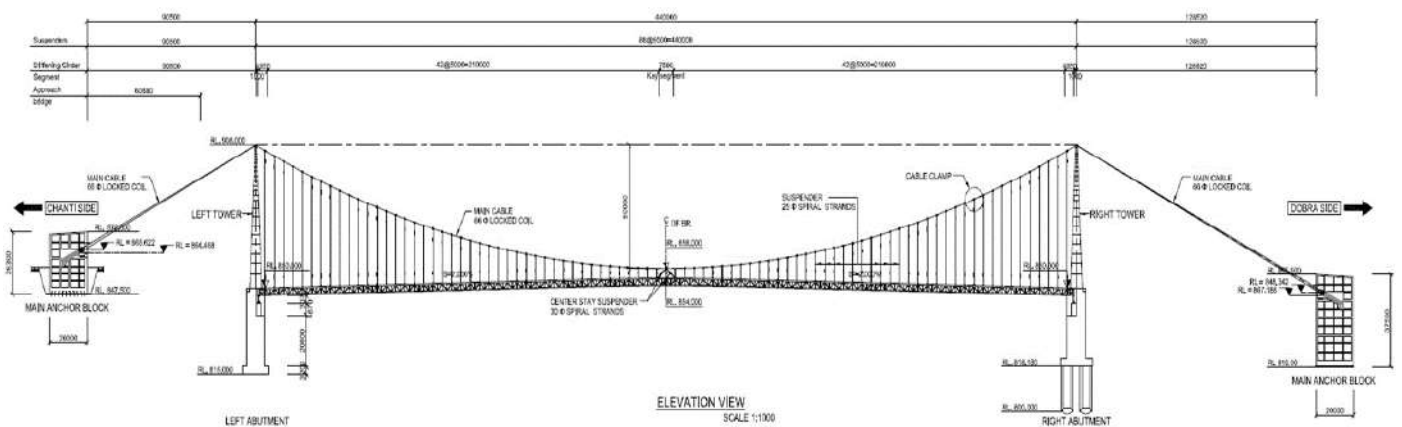
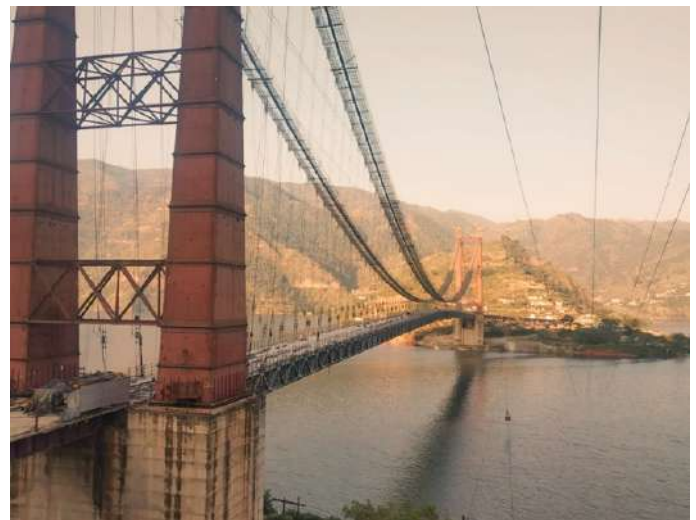
- Total Bridge Length: 576.02m
- Main Span: 440m
- Left Tower Anchor: 90.5m
- Right Tower Anchor: 126.520m
- Deck Width: 8.35m
- Pylon Height: 58m (From Deck Level)

**Project Duration:**

2019-2020



**Typical Deck Section**



**Bridge Elevation**

### Dwarka Cable Stay Bridge, Approach Viaducts, State of Gujrat



**Client:**

SP Singla Construction Pvt Ltd.

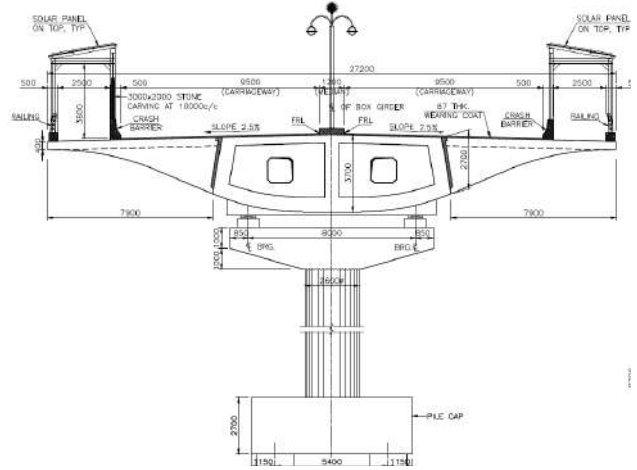
**Services:**

- (IPC) Independent Check Engineering - Approach Bridges

**Specifications:**

- **Okha Approach Bridge**
- Total Length: 770m
- Span Configuration: 23.5m\*3+50m\*14
- Deck Width: 27.2m
- **Dwarka Approach Bridge**
- Total Length: 600m
- Span configuration: 50m\*12
- Deck Width: 27.2m
- **Total Length of Approach Bridges: 1.371km**

**Project Duration:** 2019-2021



**Typical Deck Section**



### NH-31 Extradosed Bridge, Balia District, State of West Bengal.



**Client:**

UP State Bridge Co. Ltd.  
Bridgecon.

**Services:**

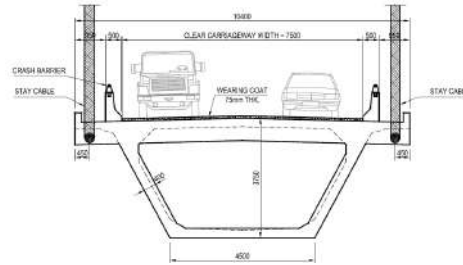
- (IPC) Independent Check Engineering

**Specifications:**

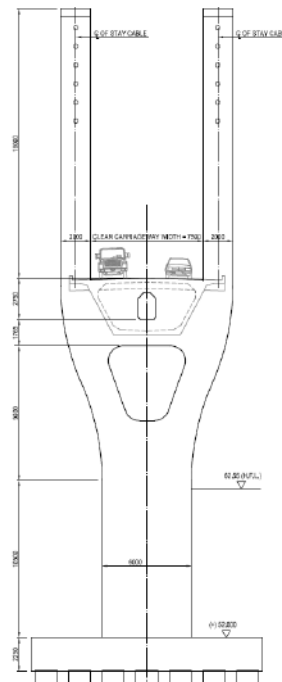
- Total Bridge Length: 2.5km
- Max Span: 144m
- Min Span: 87m
- Pylon Height: 18m (From Deck Level)
- Deck Width: 10.4m
- Pier Height: 19.7m

**Project Duration:**

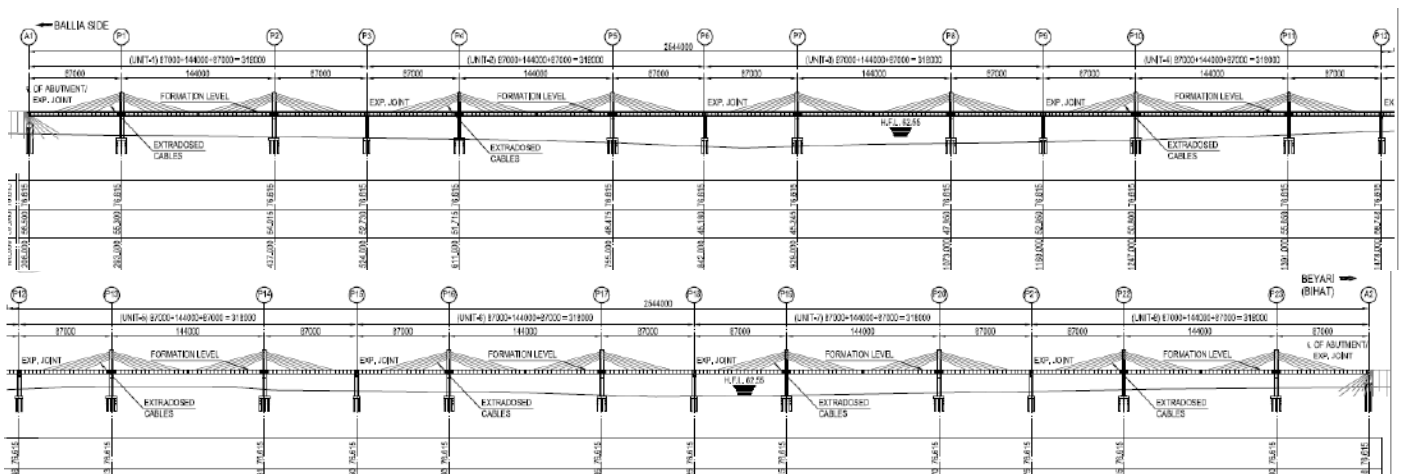
2019



**Typical Deck Section**



**Typical Pylon Section**



**Extradosed Bridge Elevation**

### Samaria Cable Stay Bridge, State of Bihar.



**Client:**  
Bridgecon

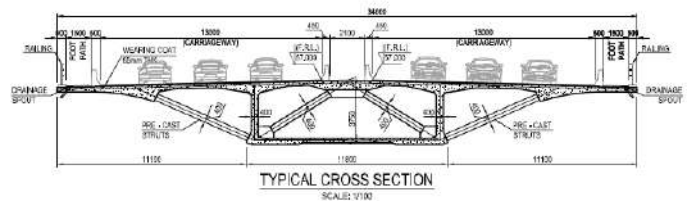
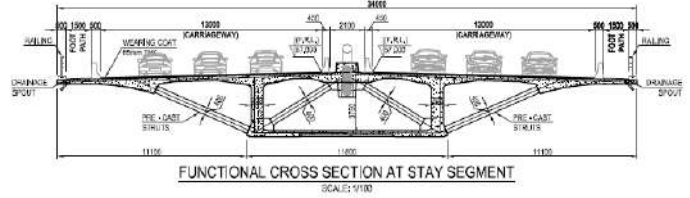
**Services:**

- (IPC) Independent Checking Engineering

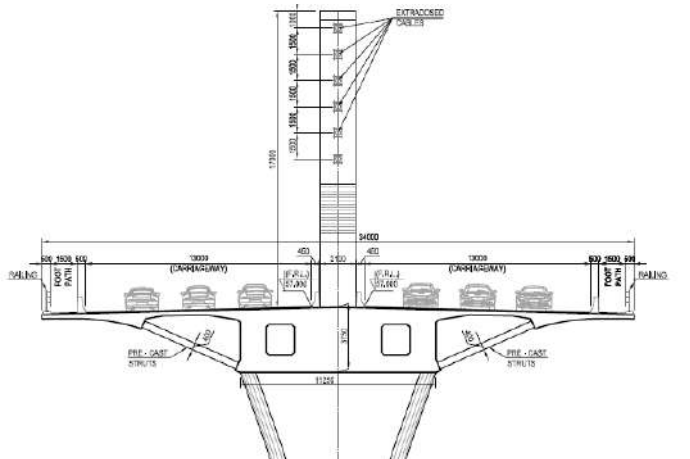
**Specifications:**

- Total Bridge Length: 1.865km
- Span Configuration: 70m+1150\*15+70m
- Pylon Height: 17m (From Deck Level)
- Deck Width: 34m

**Project Duration:**  
2018



**Typical Deck Sections**



**Typical Pylon Section**





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Bridge Design & Engineering Services

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