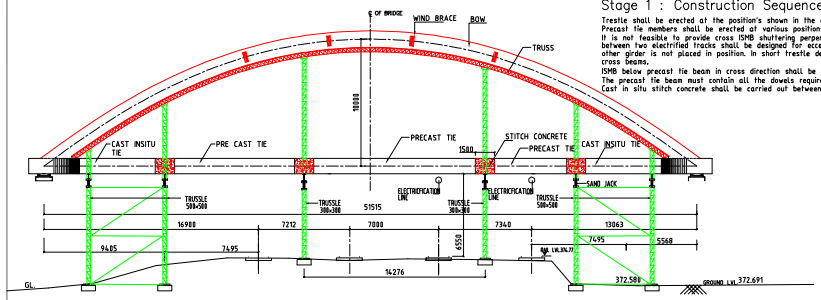
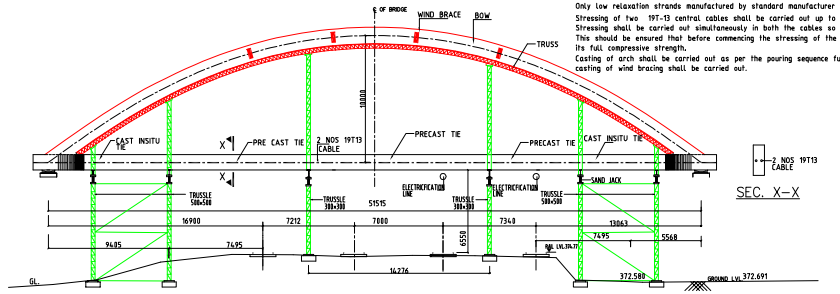


STAGE – I CONSTRUCTION

Stage 1 : Construction Sequence

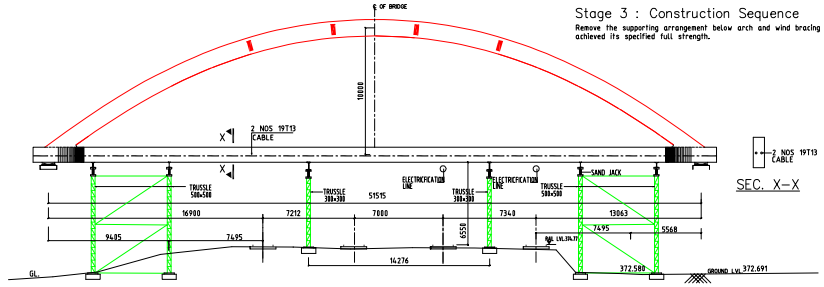
Trestle shall be erected at the position's shown in the drawings and adequacy of trestle shall be checked.
Precast tie members shall be erected at various positions by suitable method.
It is not feasible to provide cross ISMB shuttering perpendicular to electrified track. Therefore trestle between two electrified tracks shall be designed for eccentric loading of one girder in position while other girder is not placed in position. In short trestle design shall be carried out as one span disladged condition.
cross beams,
ISMB below precast tie beam in cross direction shall be provided below non electrified track for temporary support of precast tie beam.
The precast tie beam must contain all the dowels required for cross beams.
Cast in situ stitch concrete shall be carried out between each precast tie members.



STAGE – II CONSTRUCTION

Stage 2 : Construction Sequence

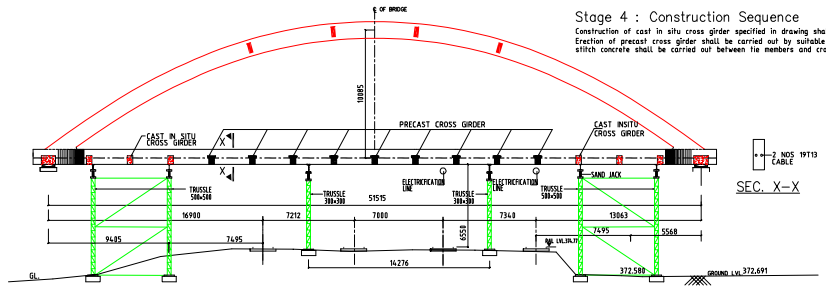
Erect the trestle for temporary support for cast in situ arch members and provide appropriate cross bracings.
Only low relaxation strands manufactured by standard manufacturer shall be used.
Stressing of two 19T-13 central cables shall be carried out up to 0.7 UTS i.e. (244.3 tonne in each cable) force.
Stressing shall be carried out simultaneously in both the cables so that side sway of tie beam can be avoided.
This should be ensured that before commencing the stressing of the cables, the stitch concrete should have obtained its full compressive strength.
Casting of arch shall be carried out as per the pouring sequence furnished in the drawing.
casting of wind bracing shall be carried out.



STAGE – III CONSTRUCTION

Stage 3 : Construction Sequence

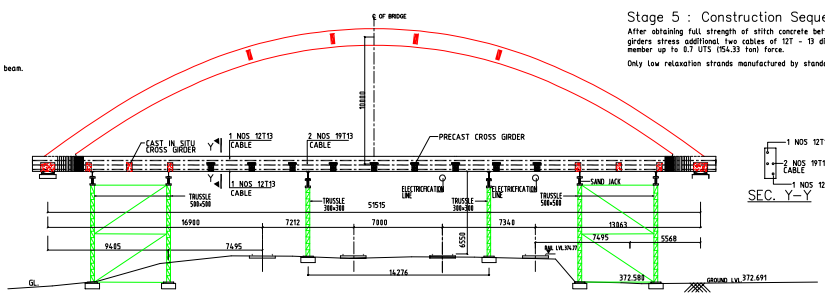
Remove the supporting arrangement below arch and wind bracing after the concrete has achieved its specified full strength.



STAGE – IV CONSTRUCTION

Stage 4 : Construction Sequence

Construction of cast in situ cross girder specified in drawing shall be carried out.
Erection of precast cross girder shall be carried out by suitable methods and cast in situ stitch concrete shall be carried out between tie members and cross girders.

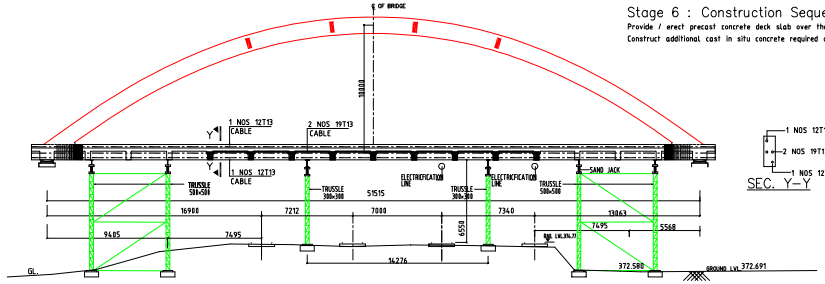


STAGE – V CONSTRUCTION

Stage 5 : Construction Sequence

After obtaining full strength of stitch concrete between tie members and precast cross girders stress additional two cables of 12T - 13 diagonally opposite to each other of tie member up to 0.7 UTS (154.33 ton) force.

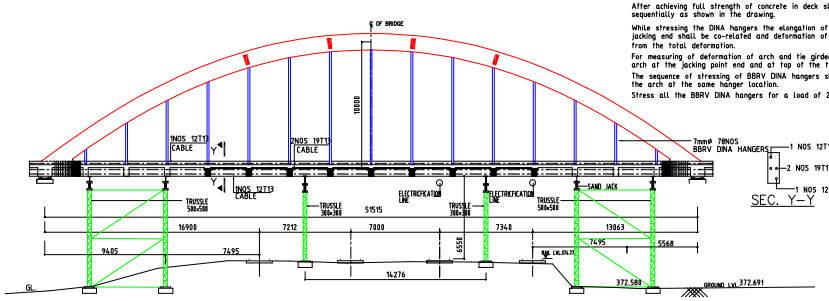
Only low relaxation strands manufactured by standard manufacturer shall be used.



STAGE – VI CONSTRUCTION

Stage 6 : Construction Sequence

Provide / erect precast concrete deck slab over the cross girders by suitable method.
Construct additional cast in situ concrete required over the deck slab as specified in the drawing.



STAGE – VII CONSTRUCTION

Stage 7 : Construction Sequence

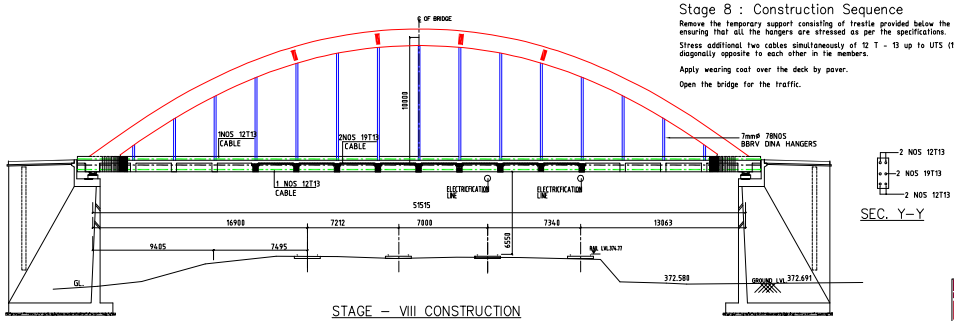
After achieving full strength of concrete in deck slab stress the BBRV DINA hangers sequentially as shown in the drawing.

While stressing the DINA hangers the elongation of the hangers and stresses at the jacking end shall be co-related and deformation of arch and tie beam shall be deducted from the total deformation.

For measuring deformation of arch and tie girder dial gauge shall be provided below arch at the jacking point end and at top of the tie beam at the fixed head end.

The sequence of stressing of BBRV DINA hangers shall be carried out sequentially in both the arch at the same hanger location.

Stress all the BBRV DINA hangers for a load of 25.2 ton.



STAGE – VIII CONSTRUCTION

Stage 8 : Construction Sequence

Remove the temporary support consisting of trestle provided below the tie members after ensuring that all the hangers are stressed as per the specifications.

Stress additional two cables simultaneously of 12 T - 13 up to UTS (154.33 ton) force diagonally opposite to each other in tie members.

Apply wearing coat over the deck by paver.

Open the bridge for the traffic.

SAMPLE