SPREAD BOX BEAMS - SPANS (X-X) AND (X-X)

DIMENSIONS

Fabricator shall apply a bond breaker to this area. All anchorages will be debonded.

SHAPE BENDING DIAGRAM

Fabricator shall apply a bond breaker to this area. All anchorages will be debonded.

ELEVATION A-A

All dimensions are cut to cut. Use symmetry for dimensions not shown.

HALF ELEVATION

Strands not shown for clarity.

INTERIOR BEAMS AT ALL BENTS

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 balk of concrete bent diaphragms, see document.

For location of coil ties at slab drains.

All S2 bars shall be epoxy coated.

All reinforcement shall be Grade 60.

Concrete for prestressed beams shall be Class A-1 with f'c = 4500 psi.

Steel for prestressed members shall be ASTM A709 Grade 36.

Precast concrete members shall be in accordance with Sec 1029.

Exterior and interior beams are the same except for splice, exterior beams will be welded.

For Beam Center Diagram, see Sheet No. 5.

For location of stirrup and tie dimensions, see Sheet No. 6.

Bearing and tie dimensions.

Reinforced Concrete Structures, Standard Practice for Detailing, Hooks and bends shall be in accordance with Sec 1029.

Pretensioned members shall be in accordance with Sec 1029.

Use strands, "Ø Grade 270, psi and f'c = 4500 psi.

Concrete for prestressed beams shall be Class A-1 with f'c = 4500 psi.

All S2 bars shall be epoxy coated.

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Concrete for prestressed beams shall be Class A-1 with f'c = 4500 psi.

All S2 bars shall be epoxy coated.

All reinforcement shall be Grade 60.
STANDARD DRAWING GUIDANCE (do not show on plans):
(Off level Bridge-Guidance to hide guidance)

1. Actual strand arrangement, bent up strands, and debonding (if any) is by design (top two strands are required). Add or remove symbols and instructions as required. Strands may be placed continuously across beam (eliminating 4” space), but dimension to drain hole in Part Plan shall be revised to 10”.

2. Revise if #3 is required. Use 5'-7” for #3-3S actual length and 6'-1” for #3-5S actual length.

3. Splices shown only when necessary (girder length > 60'-2”). Use 2'-1” lap for #4 & 2'-7” lap for #5.
   - When lap is unnecessary: Extend A bars to & Beam.
   - Revise 10 to 3 A1 bars & 6 to 4 A2 bars.

4. Interior diaphragm, void holes & vent pipe shall be shown only when necessary (when structure may be submerged).
   - When not necessary: Delete the two grouped elements.
   - In Part Plan revise remaining dimension to full length of void.

5. Revise minimum dimension if required by design.

6. By design. Typically 30.98 kips per 0.5” strand & 43.94 kips per 0.6” strand, rounded to nearest whole kip.

7. Strand location not available when vent pipe is required.