

**Cultrans** User Guide to Bridge Standard Detail Sheets

# Section 1 - Bridge Superstructure PC/Pretensioned I Girder (Misc Details)

#### **XS Sheet Numbers:**

XS 1-120-3

### **Description of Component:**

Precast Pretensioned I-Girder (Misc Details). Use this sheet with XS 1-120-1 or XS 1-120-2

## Standard Drawing Features:

- 1) Optional Notched End Detail:
  - This detail shows a notched end block. When inverted T bent caps are used, notched end blocks are required. The designer is responsible to design this detail for the plans.
  - If notched ends or end blocks are required, use four feet minimum for the length so that it gives precasters some flexibility to adjust the standard section form
  - Consider using only one end block for the girder if necessary.
- 2) Detail B:
  - The designer is responsible for the analysis and designing notched ends.
  - 4-#7 reinforcement (minimum 4) shapes are recommended.
- 3) Section C-C and D-D:
  - If notched ends are used, both Section C-C and D-D need to be shown.
  - If end blocks are used without a notch, only Section C-C needs to be shown.
- 4) Intermediate Diaphragm and Section E-E:
  - Standard intermediate diaphragm details are provided.
  - End diaphragms are project specific.
- 5) Detail C:
  - This detail is typically only used for exterior girders at intermediate and end diaphragm locations.
- 6) Welded Wire Reinforcement (WWR) Alternative and Detail A:
  - Standard shear reinforcement may be replaced by WWR. The contractor needs to show this on the shop drawings.
  - AASHTO LRFD Bridge Design Specifications, MTD 11-8, and the Standard Specifications list the requirements for using WWR.
  - WWR size can vary based on the design. Requirements for size and locations are shown on the Detail A.

## Design/General Notes:

N/A

## Additional Drawings Needed to Complete PS&E:

This sheet works with XS 1-120-1 or XS 1-120-2

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### **Contract Specifications:**

Standard Specifications 2018

## Restrictions on Use of Standard Drawings:

The project designer and project engineer are responsible for designing this sheet and stamping this sheet.

## **Special Considerations:**

The project designer and project engineer may modify this sheet based on project needs. Caltrans designers are urged to consult with the Concrete Design Committee on any design change to the girder cross-section. Consultant designers may check with the precast industry (PCI West).

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