



## 9-10 GIRDER LAYOUT

### Girder Layout Sheet Checklist

#### A. Plan

1. Orient on sheet the same as the General Plan.
2. Show North arrow if several Girder Layouts are used, as in a long curved structure.
3. Scale  $1/8" = 1' - 0"$  usual maximum;  $1" = 20'$  may be used for line diagram type Girder Layouts.
4. Place intermediate diaphragms parallel to transverse deck reinforcement.
5. Vertical fillets are not required for skews under  $20^\circ$ .
6. Combine the Girder Layout and Typical Section sheets when possible.
7. Dimension length of supports from station line to centerline of exterior girders, but do not show intermediate girder spacing unless it differs from the Typical Section.
8. Do not show stations and layout given on General Plan and Foundation Plan.
9. On girder layouts for steel girders detail the length and bearing of girders.
10. Length of girders are tabulated on precast girder standard sheets, but note the bearing of the girders on the girder layout.
11. Check list:
  - Utility Opening locations and call out type
  - Girder flare lengths
  - Girder stem thickness
  - Transverse deck reinforcement layout
  - Details deck corners on skewed hinges
  - Soffit access openings
  - Deck access openings
  - Drainage location or spacing



Intermediate Diaphragm location

Weep Holes

**B. Longitudinal section**

1. Show stirrup spacing
2. Show bottom slab tapers on the cap section on the Bent sheets and longitudinal sections
3. Note control dimensions at centerline of supports and locate inflection points of cable path for prestressed bridges
4. Show cable path to scale for prestressed bridges
5. See page 9-21.1 for example

**C. Camber diagram**

1. Draw diagram to scale, but do not note scale
2. Use one diagram for all girders except unusual conditions
3. See page 9-20.1 for examples
4. Camber values are tabulated on precast girder standards
5. Camber for steel girders should be detailed on girder detail sheets

The Engineer will supply all information for “CAMBER DIAGRAM” in feet, never inches (0.03’)

**D. Center of Gravity of Prestressing Force**

1. Shown in “LONGITUDINAL SECTION”
2. Draw a diagram similar to line diagrams shown on 9-21.1.
3. Prestress center of gravity offset distances from the soffit span to be provided by the designer
4. Prestress Notes are also provided by the designer



E. End Diaphragm

1. Minimum Scale, 1/2"
2. Section taken from "PLAN" view
3. Check list:

Width of Diaphragm

Prestressing Grillage, see "STANDARD PLANS" B8-5

Joint Seal Blockout

Reinforcement

Limits of Transverse Reinforcement

For more information, see "PRESTRESSED/PRECAST" "SECTION 14" of the BRIDGE DESIGN DETAILS manual.