Standard Drawing Guidance (do not show on plans):

To display the strand details open the reference files dialog box and activate the display option of the file with the description that best matches what is required by the design.

See EPG for actual length of B1 bars which vary by size.

The details of the coil ties are for closed diaphragms. Include additional detail at right for open diaphragms.

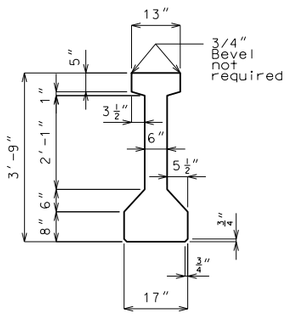
① This detail only needs to be used if the structure is over water. For all other crossings remove this detail.

② Remove if #5-B1 bars are used.

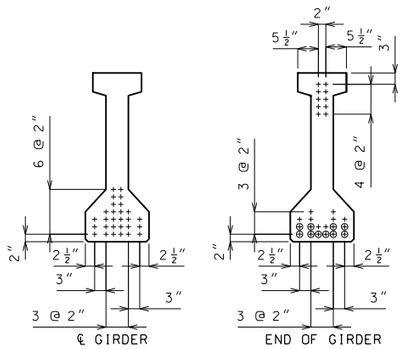
③ Use with integral end bents when the 2'-6" long tie rod is too long to maintain clearance to the outside face of the diaphragm. Remove if not required.

④ By design. Typically 30.98 kips per 1/2" strand & 43.94 kips per 0.6" strand, rounded to nearest whole kip.

PSI_03_type4_3-9 Effective: Mar. 2022 Supersedes: Jan. 2022



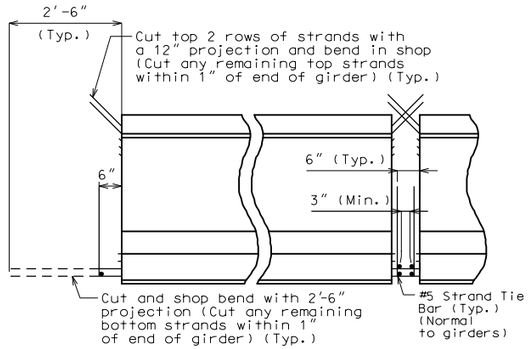
DIMENSIONS



STRAND ARRANGEMENT

+ Indicates prestressing strand.

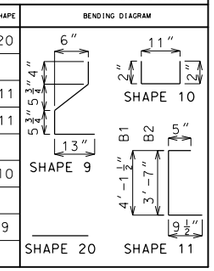
○ Indicates cut & shop bend with 2'-6" projection.



END BENT INTERMEDIATE BENT

STRANDS AT GIRDER ENDS

BILL OF REINFORCING STEEL - EACH GIRDER				
NO.	SIZE & MARK	ACTUAL LENGTH	SHAPE	BENDING DIAGRAM
XXX	X A1	X'-X"	20	
XXX	X B1	X'-X"	11	
16	6 B2	4'-6"	11	
XXX	4 C1	13"	10	
XXX	4 D1	2'-6"	9	



All dimensions are out to out.

Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for Detailing Reinforced Concrete Structures, Stirrup and Tie Dimensions.

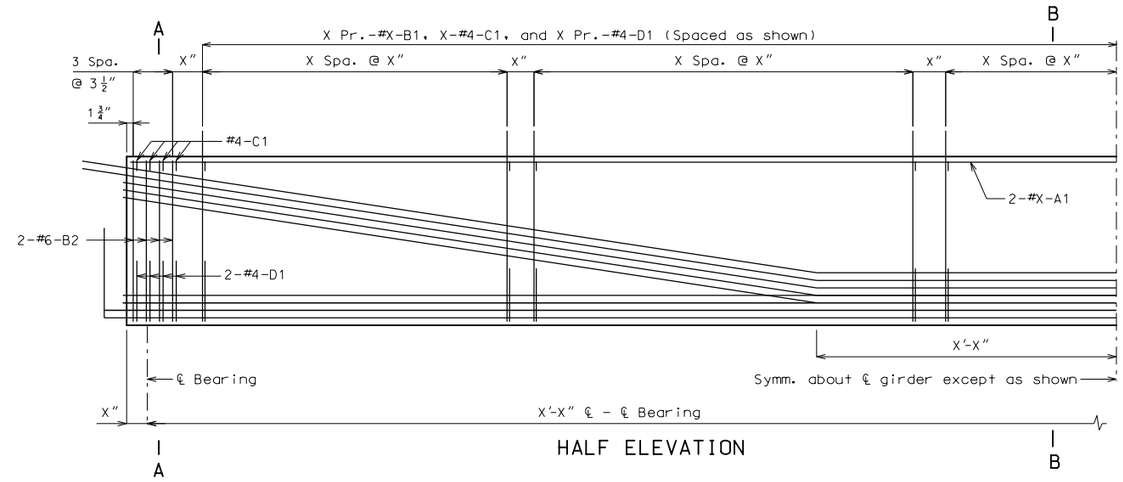
Actual lengths are measured along centerline of bar to the nearest inch.

Minimum clearance to reinforcing shall be 1".

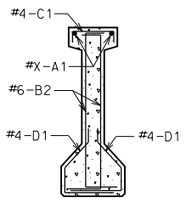
All reinforcement shall be Grade 60.

The two D1 bars may be furnished as one bar at the fabricator's option.

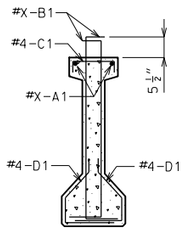
All B1 bars shall be epoxy coated.



HALF ELEVATION



SECTION A-A
Strands not shown for clarity.



SECTION B-B
Strands not shown for clarity.

General Notes:

Concrete for prestressed girders shall be Class A-1 with f'c = psi and f'ci = psi.

Use 1/2"Ø Grade 270 strands with an initial prestress force of ④ kips.

Pretensioned members shall be in accordance with Sec 1029.

Fabricator shall be responsible for location and design of lifting devices.

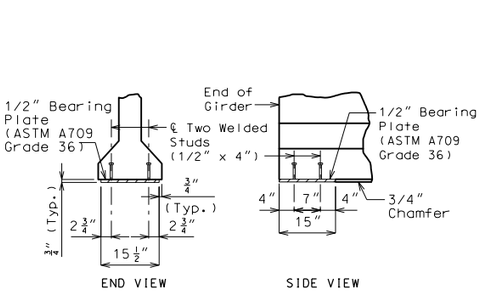
Exterior and interior girders are the same except: coil ties. coil inserts for slab drains. holes for steel intermediate diaphragms.

For Girder Camber Diagram, see Sheet No. .

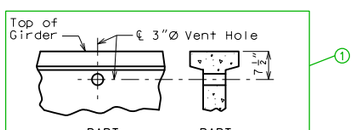
The 1 1/2"Ø holes shall be cast in the web for steel intermediate diaphragms. Drilling is not allowed. For location of holes and details of steel intermediate diaphragms, see Sheet No. .

For location of coil inserts at slab drains, see Sheet No. .

For location of coil ties at concrete bent diaphragms, see Sheets No. & .

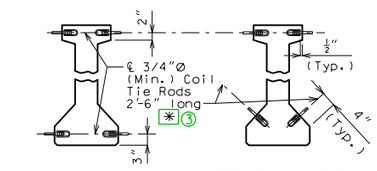


BEARING PLATE



① VENT HOLE

Place vent holes at or near upgrade 1/3 point of girders and clear reinforcing steel or strands by 1 1/2" minimum and steel intermediate diaphragm bolt connections by 6" minimum.

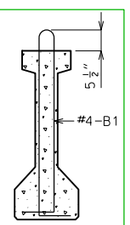


CLOSED DIAPHRAGMS AND INTEGRAL BENTS OPEN DIAPHRAGMS

COIL TIES

Exclude coil tie at exterior face of exterior girders except at integral end bents.

✱ x'-x" at exterior face of exterior girders at end bents ③



② B1 BAR PERMISSIBLE ALTERNATE SHAPE

I-GIRDERS - SPANS (X-X) AND (X-X)

Detailed
Checked

Note: This drawing is not to scale. Follow dimensions. Sheet No. of

DATE PREPARED 3/25/2022
ROUTE ✱ STATE MO
DISTRICT BR SHEET NO. ✱
COUNTY ✱
JOB NO. ✱
CONTRACT ID.
PROJECT NO.
BRIDGE NO. PSI_03

DESCRIPTION | DATE

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