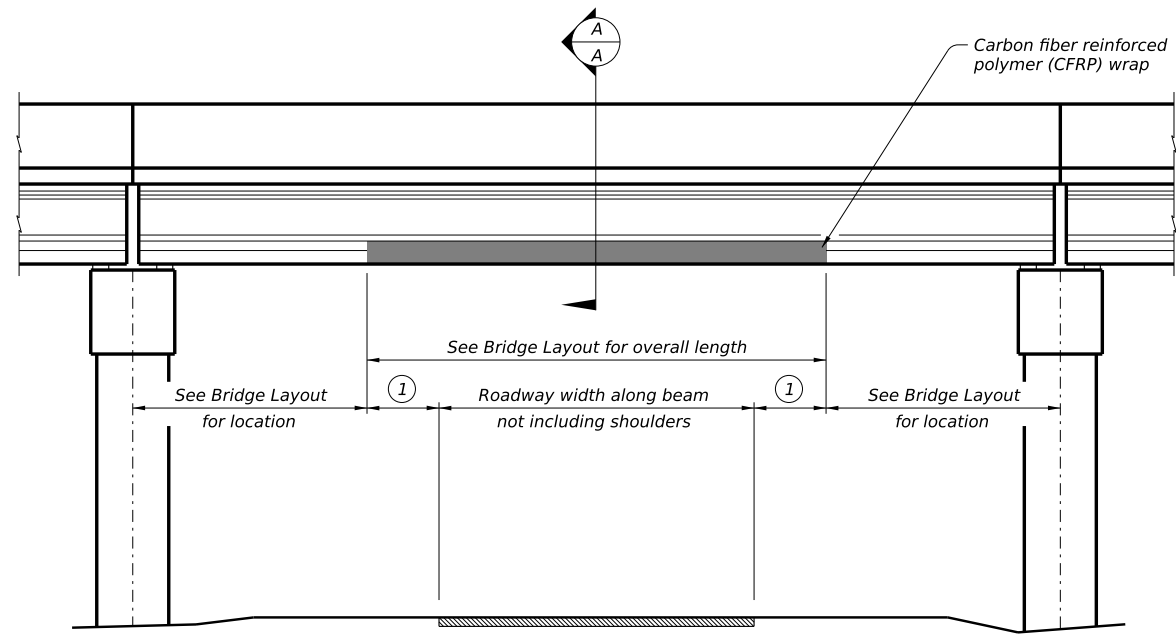
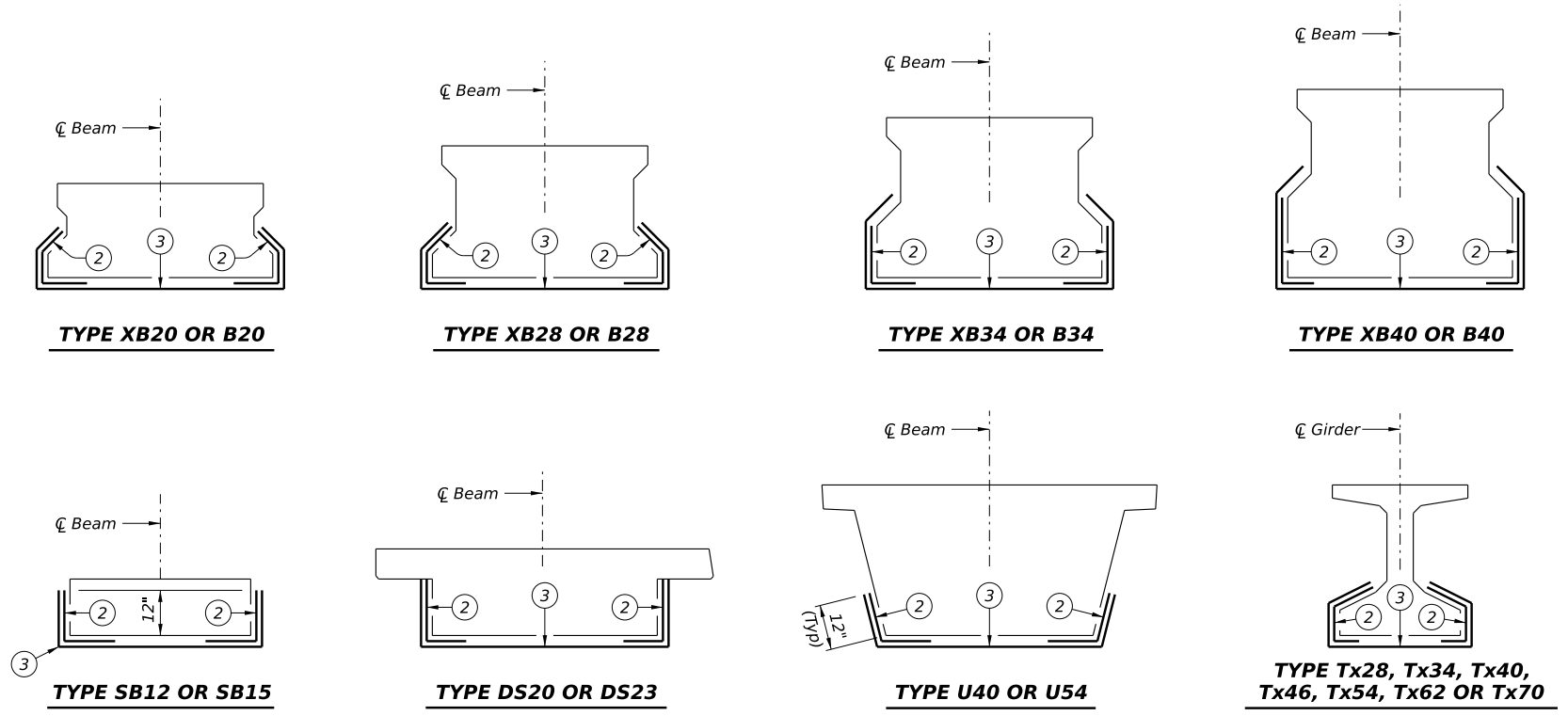


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TYPICAL BRIDGE ELEVATION



SECTION A-A
(Showing typical beam sections.)

- ① 1'-0" Min, 3'-0" Max
- ② First layer - place 24" wide carbon fiber fabric sheets longitudinally on beams/girders, with fiber orientation parallel to beam/girder centerline. Locate sheets on bottom corners of beam/girder as shown. Overlap fabric sheets a minimum of 6" in the longitudinal direction to achieve full installation length.
- ③ Second layer - place carbon fiber fabric sheets transversely on beam/girder, with fiber orientation perpendicular to beam/girder centerline. Wrap sheets on bottom and sides of beam/girder to limits shown. Wrap butt joints in the longitudinal direction to achieve full installation length.


CFRP TABLE	
BEAM / GIRDER TYPE	(SQ FT) AREA PER LF
4XB20 OR 4B20	5.8
5XB20 OR 5B20	6.8
4XB28 OR 4B28	6.0
5XB28 OR 5B28	7.0
4XB34 OR 4B34	7.0
5XB34 OR 5B34	8.0
4XB40 OR 4B40	8.0
5XB40 OR 5B40	9.0
4SB12 OR 4SB15	6.0
5SB12 OR 5SB15	7.0
6DS20, 7DS20 OR 8DS20	7.0
6DS23, 7DS23 OR 8DS23	7.5
U40 OR U54	6.6
Tx28, Tx34 OR Tx40	5.6
Tx46, Tx54, Tx62 OR Tx70	5.9

NOTE TO DESIGNER:
This sheet is to be used as a guide for installing Carbon Reinforced Polymer (CFRP) on prestressed concrete girders with a higher risk of overheight impacts. These details are intended for use on new construction but may be applied to existing structures in retrofit/rehabilitation or preventative maintenance situations.
Note that only current TxDOT standard prestressed girder shapes are shown. These details require modification for use on other beam types.
This sheet cannot be used without modification. The details shown may need to be amended if the exact existing conditions are not covered. In all cases details and notes not required must be deleted. This note and the phrase "Not to be used as a standard" must be removed and the sheet must be signed and sealed by a Professional Engineer.

CONSTRUCTION NOTES:
If beams or girders are spaced closely together, install CFRP wrap prior to beam erection. For unpainted beams/girders, install approved CFRP system and apply the protective top coating with color and texture to match adjacent concrete. Mask adjacent concrete prior to coating.
For painted beams/girders, install approved CFRP system and apply the protective top coating prior to painting. Paint concrete and CFRP to produce uniform finish, as specified elsewhere.

GENERAL NOTES:
Provide and apply CFRP system, including protective top coating, in accordance with Item 786, "Carbon Fiber Reinforced Polymer (CFRP)."
Install CFRP wrap to beams/girders shown on the layout, in the location and to the limits given.
Payment for the Bridge Protective Beam Wrap is in accordance with Item 786, "Carbon Fiber Reinforced Polymer (CFRP)." Quantity is measured by the square foot of beam/girder surface area covered.

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Bridge Division

BRIDGE PROTECTIVE BEAM WRAP

(Not to be used as a standard)
NBI: XX-XXX-XXXX-XX-XXX

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