

NOTES:

There shall be no construction joints under post-tensioning anchorages. A tendon's jacking force shall not exceed 1186 kips. Only basic bearing plate post-tensioning anchorage devices (anchorages with a ASTM A 36 bearing plate) shall be used. Metal castings or composite (a combination of a metal casting and mortar) post-tensioning anchorages shall not be allowed.

Each anchorage shall be confined within a reinforcing steel spiral (Bursting steel) and spalling reinforcement (The grillage of #4 rebar spaced at 4" horizontally and vertically) shall be placed in front of the bearing plates. Bursting and spalling reinforcement shall be Grade 60, epoxy coating is not required, and conform to the requirements of Section 602. Reinforcing steel spirals shall be one piece, no lap splices.

The anchorage bearing plates and reinforcing steel spirals shall be covered with concrete to provide a minimum of 4 inches of cover. All other reinforcing steel shall have a minimum of 2" of concrete cover.

The distance between the edge of an anchorage bearing plate/reinforcing steel spiral and the edge or corner of the concrete shall be 4 inches minimum.

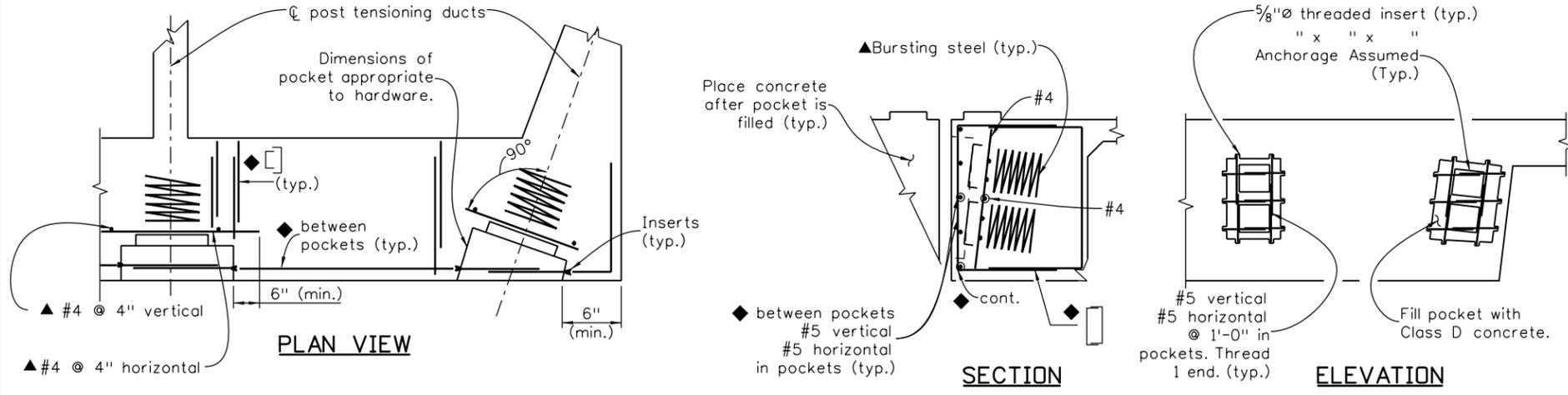
All reinforcing steel designated ▲, and additional concrete required in flares not included in explicit details will not be measured and paid for separately but shall be included in Item 618.

See abutment and superstructure details for dimensions and reinforcing steel not shown.

Shop drawings shall be prepared under the supervision (and contain the seal) of a Professional Engineer registered in the State of Colorado and in accordance with the requirements of subsection 618.04 (a) and (c). Shop drawings shall provide: (1) Bearing plate and bursting steel sizes, (2) Reinforcing steel bending diagrams for all rebar designated ▲, (3) Coordination of anchorages and anchorage reinforcing with other superstructure rebar, (4) All dimensions necessary to form concrete recesses or blisters, place anchorages, and all reinforcing steel designated ▲ in accordance with subsection 618.04(c)(6) and (7). Anchorage bearing plates and reinforcing steel spirals shall be provided in accordance with the following:

P(Jack) (Kips)	f'ci (ksi)	Anchorage Bearing Plate (ASTM A 36)		Reinforcing Steel Spiral (Grade 60)			
		Length of a Side (Inches)	Plate Thickness (Inches)	Rebar Size	Outside Diameter (Inches)	Number of Turns	Pitch (Inches)
1186 to 835	3.5 to 4.5	20	2.75	6	25	10	3
	4.5 to 5.5	18	2.75	6	23	10	3
	5.5 to 6.5	17	2.75	6	22	9	3
	6.5 or larger	16	2.75	6	21	9	3
835 to 527	3.5 to 4.5	16	2.25	6	21	9	3
	4.5 to 5.5	15	2.25	6	20	8	3
	5.5 to 6.5	14	2.25	6	19	8	3
	6.5 or larger	13	2.25	6	18	8	3
527 to 308	3.5 to 4.5	13	1.75	5	18	8	3
	4.5 to 5.5	12	1.75	5	17	7	3
	5.5 to 6.5	11	1.75	5	16	7	3
	6.5 or larger	10	1.75	5	15	7	3
308 or less	3.5 to 4.5	10	1.5	4	14	6	3
	4.5 to 5.5	9	1.5	4	13	6	3
	5.5 to 6.5	9	1.5	4	13	6	3
	6.5 or larger	8	1.5	4	12	6	3

P(Jack) = Tendon jacking force.
f'ci = Minimum concrete strength of stressing.



NOTE TO DESIGNER: Include the following Project Special Provision, from CDOT's Bridge web page, in the Contract:
Revision of Section 618 Prestressed Concrete

Revision Dates		Preliminary Stage Only	
Date	By	Date	By
8/94	XXX	3/99	XXX
8/96	XXX	4/02	XXX
11/99	XXX	5/00	XXX
3/07	XXX	10/13	XXX

Design		Detail		Quantities	
DATE	INITIAL	DATE	INITIAL	DATE	INITIAL
MM/YY	MM/YY	MM/YY	MM/YY	MM/YY	MM/YY
Designed By	Checked By	Detailed By	Checked By	Quantities By	Checked By
XXX	XXX	XXX	XXX	XXX	XXX

Print Date: \$DATE\$	Sheet Revisions			Colorado Department of Transportation 4201 East Arkansas Avenue Room 107 Denver, CO 80222 Phone: 303-757-9309 FAX: 303-757-9197	As Constructed	CAST-IN-PLACE POST-TENSIONED BOX GIRDER DETAILS				Project No./Code
File Name: Sheet_B-618-3.dgn	Date:	Comments	Init.			No Revisions:	Designer: XXXXXXXX	Structure Numbers	X-XX-XX	
Horiz. Scale: NTS				Staff Bridge Branch	Revised:	Detailer: XXXXXXXX		Code		
Staff Bridge Branch - Unit 022X Unit Leader Initials					Void:	Sheet Subset: BRIDGE	Subset Sheets: BXX of XXX	Sheet Number		