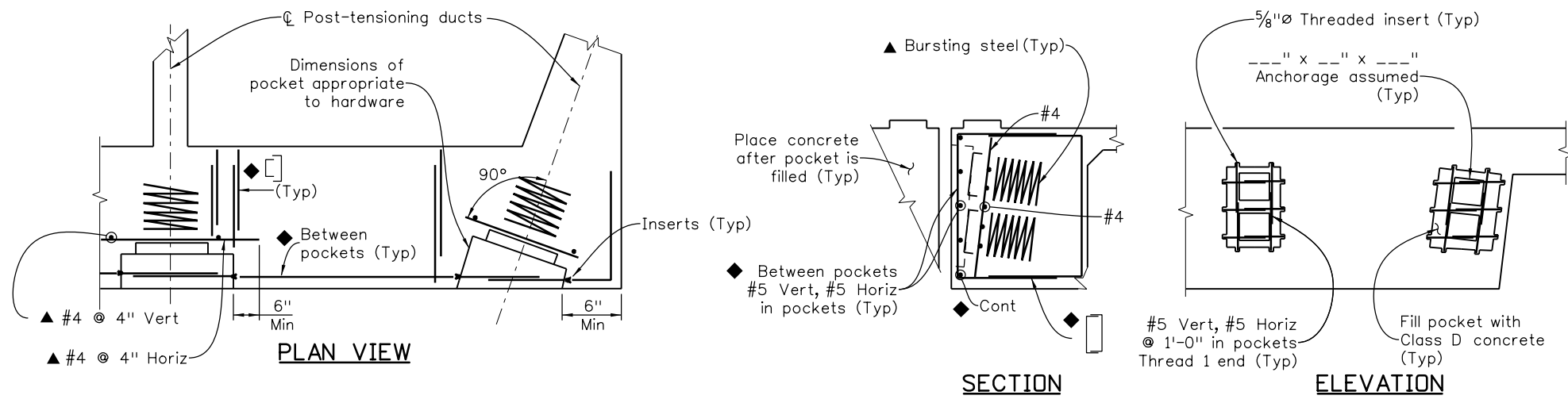


SEAT FOR PRESTRESSED ANCHORAGE AT ABUTMENTS - PLAN

TYPICAL ANCHORAGE ILLUSTRATIONS

NOTES:

- There shall be no construction joints under post-tensioning anchorages. A tendon's jacking force shall not exceed 1186 Kip. Only basic bearing plate post-tensioning anchorage devices (anchorages with a ASTM A36 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" 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" 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:
 - Bearing plate and bursting steel sizes
 - Reinforcing steel bending diagrams for all rebar designated ▲
 - Coordination of anchorages and anchorage reinforcing with other superstructure rebar
 - 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 table:



RECESSED SEAT FOR PRESTRESSED ANCHORAGE

| P(Jack) (Kip) | f'ci (KSI) | Anchorage Bearing Plate (ASTM A36) | | Reinforcing Steel Spiral (Grade 60) | | | |
|------------------|---------------|---------------------------------------|-------------------------|--|--------------------------|-----------------|---------------|
| | | Length of a Side (In) | Plate Thickness (In) | Rebar Size | Outside Diameter (In) | Number of Turns | Pitch (In) |
| 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

| INITIALS | DESIGN | DATE | DETAIL | DATE | QUANTITY | DATE |
|------------|--------|------|--------|------|----------|------|
| By | | | | | | |
| Checked By | | | | | | |

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

| | | | | | | | | | | | | |
|---|--|-----------------|----------|-------|---|----------------|---|----------|--------------------|---------------------------|------------------|----------------|
| All seals for this set of drawings are applied to the cover page(s) | Print Date: \$DATE\$ | Sheet Revisions | | | Colorado Department of Transportation 2829 West Howard Place, 3rd Floor Denver, CO 80204 Phone: 303-512-4079 FAX: 303-757-9197 Staff Bridge Branch | As Constructed | CAST-IN-PLACE POST-TENSIONED T-GIRDER DETAILS | | | | Project No./Code | |
| | File Name: Sheet_B-618-3.dgn | Date: | Comments | Init. | | | No Revisions: | | | | | Project Number |
| | Horiz. Scale: Not to Scale Vert. Scale: As Noted | | | | | | | Revised: | Designer: XXXXXXXX | Structure Numbers | X-XX-XX | Code |
| | Unit Information Unit Leader Initials | | | | | | | Void: | Detailer: XXXXXXXX | Subset Sheets: BXX of XXX | X-XX-XX | Sheet Number |