



NOTES:

All work necessary to fabricate and install the integral parts of the girder (including the intermediate diaphragms, if any, and leveling pads), as shown on the plans, shall be included in the bid price for Item No. 618, Prestressed Concrete Slab (), with a pay unit of Sq. Ft. measured by L x W. When approved by the Engineer a minimum of tack welding will be permitted on ASTM A706 uncoated reinforcing steel.

Reinforcing projecting from the top of the girder and reinforcing within eight feet of an expansion device in the bridge deck shall be epoxy coated. Damaged coating on girder reinforcing need not be repaired. The minimum cover for reinforcing steel is 1". Welded wire fabric may be used with D20 wires in lieu of the #4 bars shown. At girder ends not embedded in concrete diaphragms, cut strands off 1" below the surface of the concrete and finish with an approved epoxy grout. At girder ends embedded in concrete diaphragms, cut strands to project 3", except as shown. Do not make cosmetic repairs (damage less than 1/2" deep) to the parts of the girders embedded in concrete. Use low relaxation strands meeting the requirements of ASTM A416 Grade 270. The minimum clear distance between groups or individual strands shall be 2.3(d_s) but not less than 1/4". The minimum cover for prestressing steels 1/2".

- A_s* = minimum area of the prestressing steel.
- d_s = nominal strand diameter.
- f_s = ultimate strength of prestressing steel.
- F_j = jacking force per girder.
- F_r = final force per girder after all losses.
- f'_{ci} = required concrete strength at release of prestress force.
- f_c = required concrete strength at 28 days of age.
- L = length of girder along the grade of the girder.
- Δ = deflection at centerline of span due to cast-in-place slab, diaphragms, asphalt, curbs, rails, and walks.
- θ = bridge skew angle

Concrete shall be Class PS. Entrained air is not required for girder concrete. Use 1/2" chamfer on all corners, except as noted. Predicted camber is the camber for the girder alone at 90 days. The Contractor shall limit the camber growth to a value not to exceed the predicted camber plus 1" prior to the deck pour by weighting, scheduling fabrication, post tensioning, or other means and must report to the Engineer values of camber which exceed the predicted camber plus 1". Remedial measures, as approved by the Engineer, shall be taken if the predicted camber plus 1" is exceeded. The approved remedial measures shall be free of any adverse impact. The costs associated with all remedial measures shall be borne by the Contractor.

Side by side slabs placed over roads or pedestrian facilities shall not have cambers of adjacent girders differ by more than 1" before the deck pour. Prior to placing deck reinforcing, the Contractor shall adjust this differential to within this limit by sorting the girders to minimize differentials, or by pulling the high boxes down and low boxes up. The depth (D) tolerance shall be +1/2", -1/4". The Contractor is responsible for determining necessary bracing requirements, and for providing adequate bracing for the specific wind and weather conditions to be encountered for each specific project.

ELEVATION

TYPICAL SECTION

GIRDER SCHEDULE

Span No.	Girder No.	L (Ft)	W (In.)	D (In.)	θ (Deg.)	A _s * (Sq In)	E _E (In.)	F _j (Kips)	F _r (Kips)	Concrete Strength		Δ (In.)	Predicted Release Camber (In.)	Predicted Camber (In.)
										f' _{ci} (psi)	f _c (psi)			

Revision Dates		(Preliminary Stage Only)	
DATE	BY	DATE	BY
3/99	XXX	4/02	XXX
4/99	XXX	9/02	XXX
11/99	XXX	2/06	XXX
3/07	XXX	10/13	XXX

Design		Detail		Quantities	
DATE	BY	DATE	BY	DATE	BY
MM/YY	XXX	MM/YY	XXX	MM/YY	XXX
MM/YY	XXX	MM/YY	XXX	MM/YY	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 Staff Bridge Branch	As Constructed No Revisions: Revised: Void:	PRESTRESSED CONCRETE SLAB			Project No./Code	
File Name: Sheet_B-618-SL.dgn		Date:	Comments:						Init.	Project Number
Horiz. Scale: NTS Vert. Scale: As Noted		0000							Designer: XXXXXXXX	Structure Numbers
Staff Bridge Branch - Unit 022X Unit Leader Initials						Detailer: XXXXXXXX		X-XX-XX	Sheet Number	
						Sheet Subset: BRIDGE	Subset Sheets: BXX	of XXX		