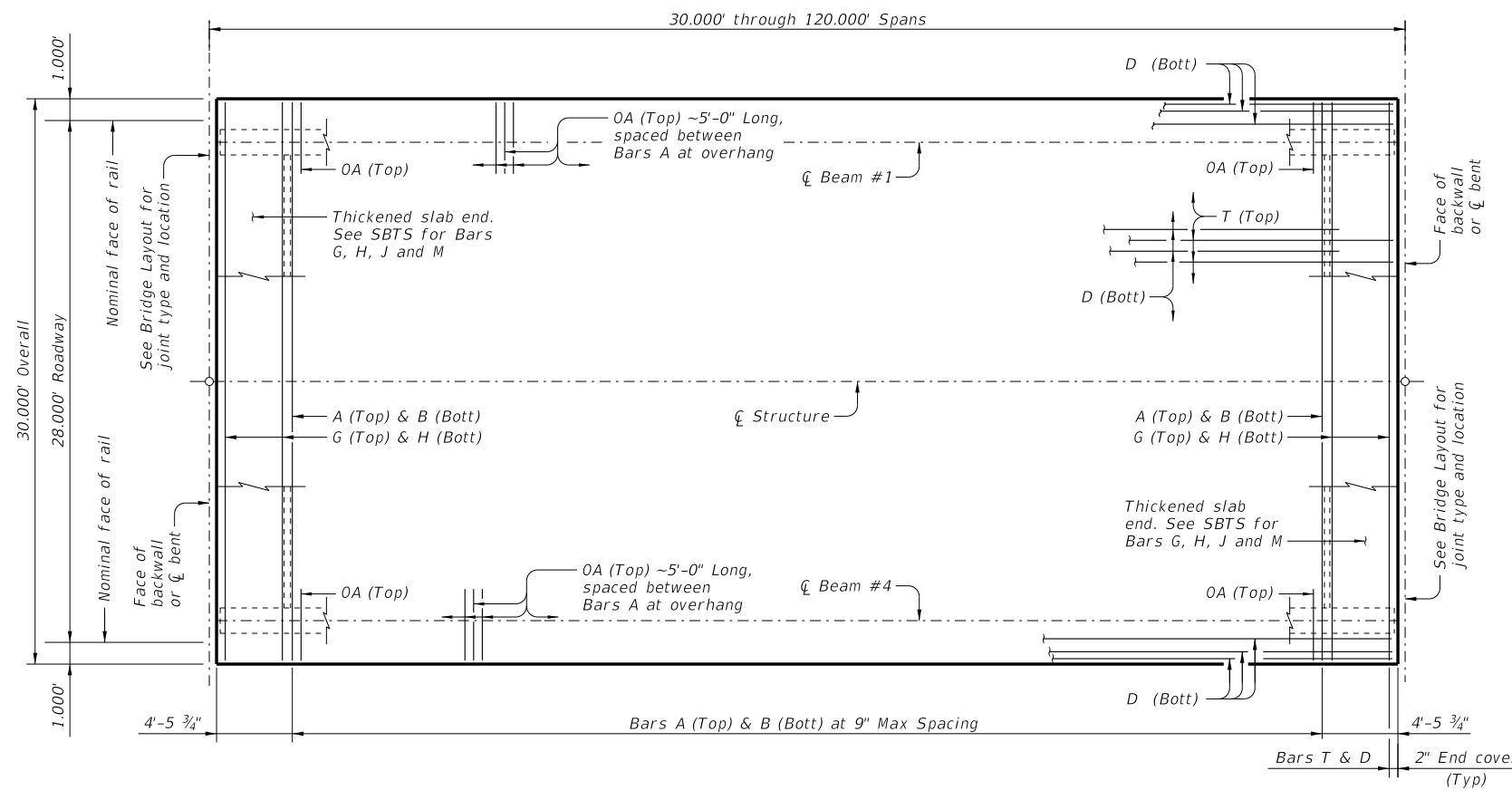
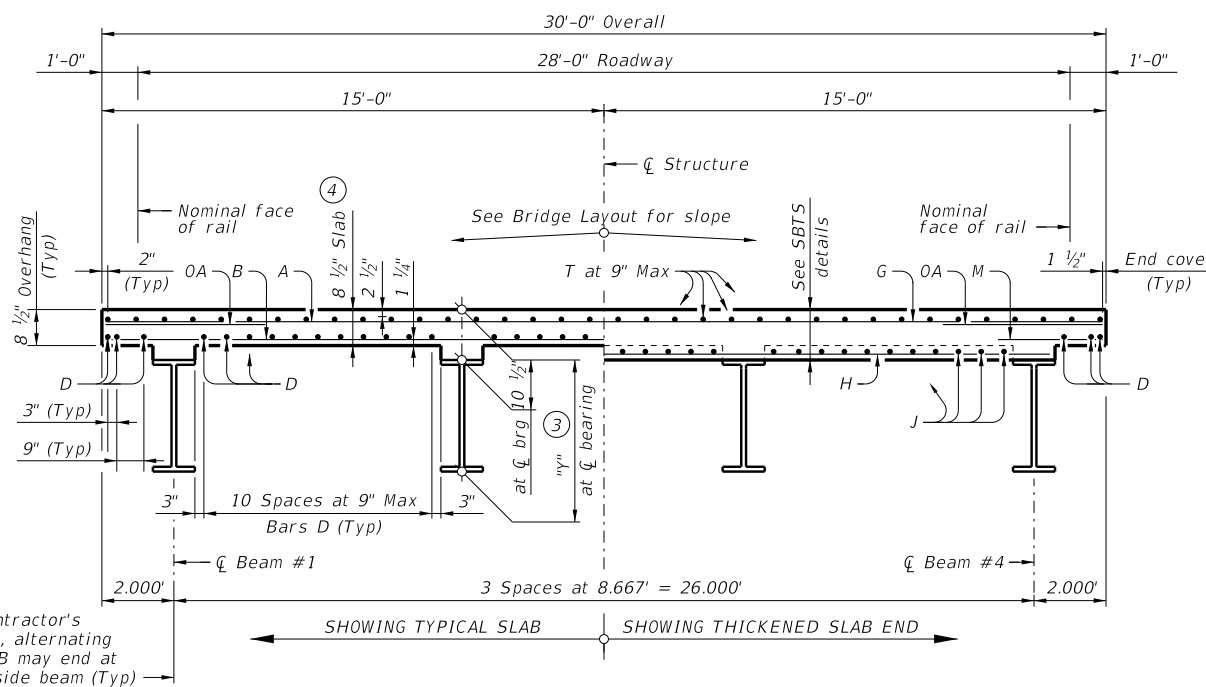


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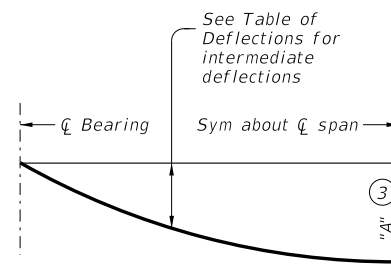
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PLAN 1



TYPICAL TRANSVERSE SECTION



DEAD LOAD DEFLECTION DIAGRAM

Location	Deflection
CL Brg	0.0
0.1 Span	0.31 x "A"
0.2 Span	0.59 x "A"
0.3 Span	0.81 x "A"
0.4 Span	0.95 x "A"
CL Span	"A"

Bar	Size
A	#4
B	#4
D	#4
G	#4
H	#4
J	#4
M	#4
OA	#5
T	#4

SPAN LENGTH	REINF CONCRETE SLAB	TOTAL REINF STEEL ②
		Lb
Ft	SF	Lb
30	900	5,850
35	1,050	6,825
40	1,200	7,800
45	1,350	8,775
50	1,500	9,750
55	1,650	10,725
60	1,800	11,700
65	1,950	12,675
70	2,100	13,650
75	2,250	14,625
80	2,400	15,600
85	2,550	16,575
90	2,700	17,550
95	2,850	18,525
100	3,000	19,500
105	3,150	20,475
110	3,300	21,450
115	3,450	22,425
120	3,600	23,400

- ① If multi-span units (with slab continuous over interior bents) are indicated on the Bridge Layout, see SBCS standard for adjustment to slab reinforcement and quantities.
- ② Reinforcing steel weight is calculated using an approximate factor of 4.4 Lbs/SF.
- ③ See SBSD-28 standard for "A" and "Y" values. Increase "Y" value as necessary for sag roadway vertical curves.
- ④ Tolerance on slab thickness is +1", -0" regardless of forming system used or any other tolerances shown elsewhere.
- ⑤ See SBSD-28 standard for Structural Steel (Rolled Beam) estimated quantities.

**MATERIAL NOTES:**  
 Provide Class S concrete (f'c = 4,000 psi).  
 Provide Class S (HPC) concrete if shown elsewhere in the plans.  
 Provide Grade 60 reinforcing steel.  
 Provide bar laps, where required, as follows:  
 Uncoated~ #4 = 1'-7"  
 Epoxy coated~ #4 = 2'-5"  
 Deformed Welded Wire Reinforcement (WWR) (ASTM A1064) of equal size and spacing may be substituted for Bars A, AA, B, D, OA, or T unless noted otherwise.

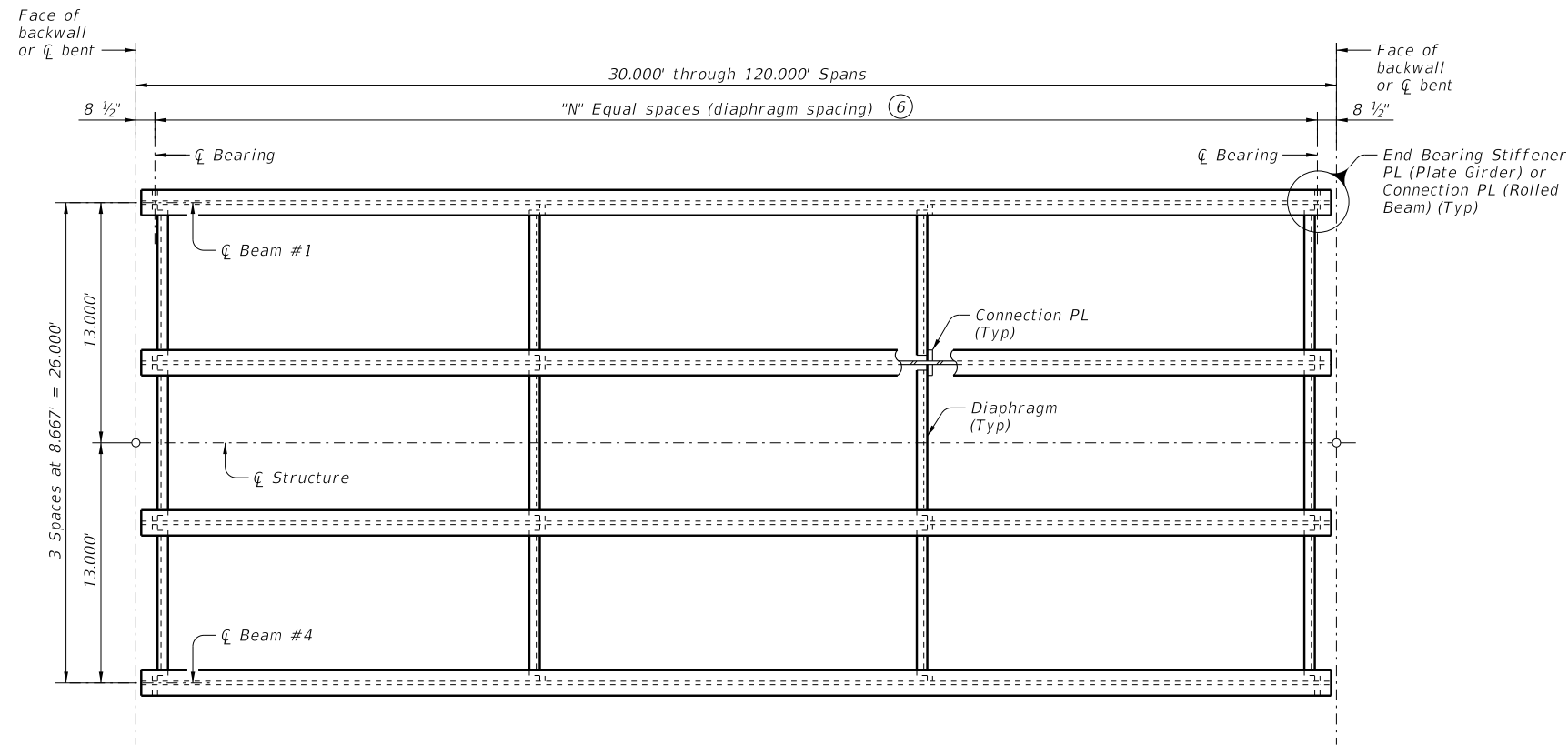
**GENERAL NOTES:**  
 Designed according to AASHTO LRFD Bridge Design Specifications.  
 Multi-span units, with slab continuous over interior bents, may be formed with the details shown on this sheet and Steel Beam Continuous Slab Details (SBCS) standard sheet.  
 See Steel Beam Thickened Slab End (SBTS) standard sheet for thickened slab end details and quantity adjustments.  
 See Prestressed Concrete Panels (PCP) standard sheet or Permanent Metal Deck Forms (PMDF) standard sheet for details and quantity adjustments if either of these options are used.  
 See Steel Beam Miscellaneous Slab Details (SBMS) standard sheet for miscellaneous details.  
 See applicable rail details for rail anchorage in slab.  
 This standard does not support the use of transition bents.

Cover dimensions are clear dimensions, unless noted otherwise.

		<b>Bridge Division Standard</b>	
<h2>STEEL BEAM SPANS</h2> <h3>28' ROADWAY</h3>			
<h1>SSB-28</h1>			
FILE: SB-SSB2800-21.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT
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**FRAMING PLAN**

**FABRICATION NOTES**

**GENERAL:**

See Bridge Layout for beam type. See Steel Beam Standard Designs, 28' Roadway (SBS-28) standard for beam size.  
 For unpainted structures, use A709 Grade 50W for all steel. For painted structures, use any of the following steels: A709 Grades 50, 50S, or 50W.  
 All dimensions in Framing Plan and Beam Elevation are measured horizontally.  
 See standard Steel Beam Miscellaneous Details (SBMD) for details not shown.

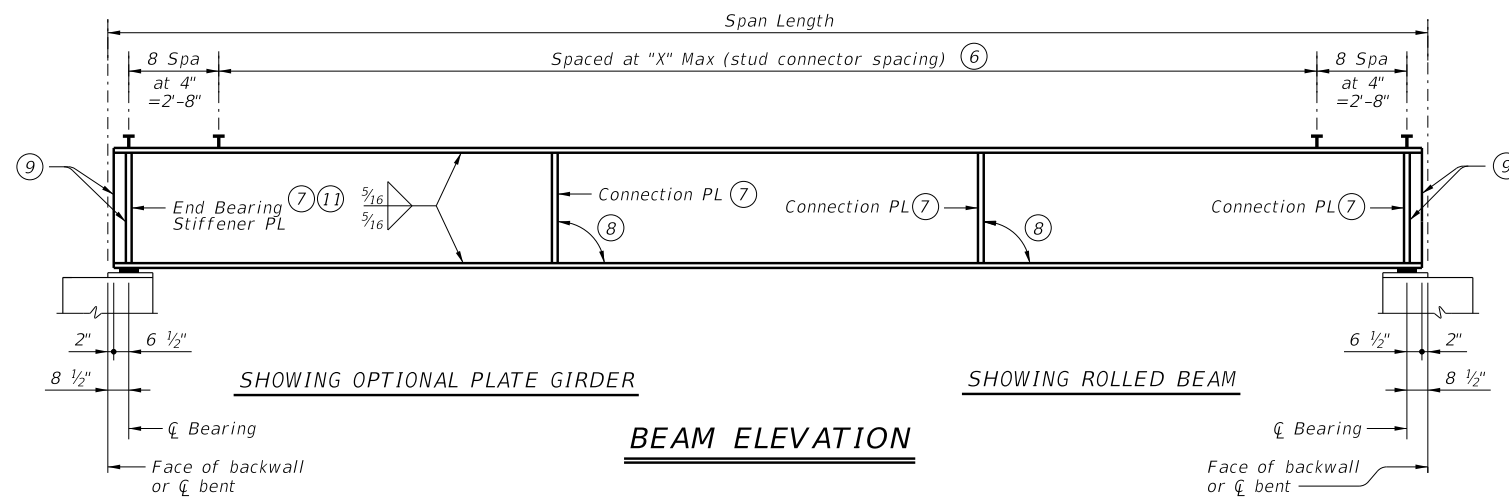
**ROLLED BEAMS:**

Beam bottom flanges and webs are classified as tension components and are subject to the impact testing requirements of Item 442, "Metal for Structures".  
 One optional beam splice is permissible for beam lengths in excess of 60'. Make optional beam splices by full penetration groove welds.  
 Camber beams for total dead load deflection. Camber tolerance for beams is shown in CAMBER TOLERANCE TABLE.  
 Produce camber using heat, pressure, or a combination of heat and pressure.

**OPTIONAL PLATE GIRDERS:**

Girder bottom flanges and webs are classified as tension components and must conform to Item 442.2.1.2.2.  
 Camber girders for total dead load deflection and any crest roadway vertical curves. Camber tolerance is shown in CAMBER TOLERANCE TABLE.

- ⑥ See standard SBS-28 for "N" and "X" values.
- ⑦ See standard SBMD for connection plate and bearing stiffener sizes and connection details.
- ⑧ Connection plates at intermediate locations may be plumb or square to the beam.
- ⑨ Beam ends, bearing stiffeners, and connection plates at end bearings must be plumb after all dead loads are applied (Tolerance = +/- 1/8" per foot of beam depth).
- ⑩ Use one-half the values shown when a sag roadway vertical curve is on the span.
- ⑪ Use End Bearing Stiffener on both sides of exterior girder. See SBMD for additional information.



**BEAM ELEVATION**

CAMBER TOLERANCE TABLE ⑩	
Point	Tolerance
0.1	+ 3/16", -0"
0.2	+ 1", -0"
0.3	+ 1 1/4", -0"
0.4	+ 1 7/16", -0"
0.5	+ 1 1/2", -0"

HL93 LOADING

SHEET 2 OF 2



**STEEL BEAM SPANS  
28' ROADWAY**

**SSB-28**

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