

**INDEX OF DRAWINGS**

B01 GENERAL INFORMATION & SUMMARY OF QUANTITIES  
B02 ---

Designer/detailer:  
This sheet lists the various general notes and design data which are commonly used. They shall be modified as necessary for specific projects.  
All bridges shall be designed to carry 36 psf total for both new and future overlay, as applicable. The overlay may be either concrete or asphalt.  
Also, place the utility notification graphic on the foundation layout drawing.

**GENERAL NOTES**

Except as shown in the plans, structure excavation and backfill shall be in accordance with M-206-1 for cast-in-place retaining walls.

Structure excavation and backfill shall be as shown on the plans, except shoring may be required for excavation adjacent to the existing roadway. Temporary excavation support shall be paid for by Item 206 Shoring.

Expansion joint material shall meet AASHTO Specification M213.

A colored Structural Concrete Coating finish will be required, as shown on the plans, on exposed concrete surfaces. The color shall be xxxx, equivalent to AMS Standard 595 Color No. xxxx, and is to be selected from test panels provided by the Contractor.

The final finish for the surfaces of the Type 9 bridge rail and Type 10 curbs shall be Class 2. All other exposed concrete surfaces shall receive a Class 1 final finish to one foot below the ground line.

All structural steel not otherwise noted shall be painted in accordance with Section 509 of the Standard Specifications. The color shall be xxxx, equivalent to AMS Standard 595 Color No. xxxx.

Except as noted below, all AASHTO M270 Grade 50 (ASTM A-588) steel shall not be painted. The unpainted steel shall be cleaned in accordance with Section 509 of the Standard Specifications. Under expansion devices, the end 5 feet of the girders (inside and outside of box girders), along with all girder attachments (including diaphragms) in the 5 foot area, shall be painted in accordance with Section 509 of the Standard Specifications. The color shall be xxxx, equivalent to AMS Standard 595 Color No. xxxx.

The following structural steel shall be AASHTO M270 Grade 36 (ASTM A-36): diaphragms, lateral bracing, splice plates, expansion devices, bearing plates, bearing devices, bridge railing post anchor, and stiffeners.

The following structural steel shall be AASHTO M270 Grade 50 (ASTM A-572): girders, splice plates, piling, and bridge railing posts, plates & splices.

AASHTO M-222 (ASTM A-588) may be substituted for M270 Grade 50 (ASTM A-572) at no additional cost to the project.

All bolts shall be 7/8" diameter, high strength, unless otherwise noted.

Field welding of any kind shall not be permitted on the steel girders unless specifically called for in the plans.

Leveling pads are unlaminated bearings. They shall be cut or molded from AASHTO elastomer grade 3, 4, or 5 as described in tables 705-1 and 705-2 with a durometer (shore "A") hardness of 60.

Grade 60 reinforcing steel is required.

All reinforcing steel shall be epoxy coated unless otherwise noted.

All the provisions for bridge deck concrete shall also apply to approach slab concrete.

An emergency deck construction joint may be located at the one quarter span point back from a pier or abutment with respect to the direction of the deck placement.

The Contractor shall be responsible for the stability of the structure during construction.

Permanent Deck Forms are required.

Permanent Deck Forms are optional.

Permanent Steel Deck Forms are not allowed.

For structure number installation, see Standard S-614-12.

Stations, Elevations, and Dimensions contained in these plans are calculated from the "As Constructed Plans". These Stations, Elevations, and Dimensions may be adjusted to meet the existing structure. The Contractor shall verify all dependent dimensions in the field before ordering or fabricating any material.

Stations, Elevations, and Dimensions contained in these plans are calculated from a recent field survey. The Contractor shall verify all dependent dimensions in the field before ordering or fabricating any material.

The Bituminous Pavement shall be removed from the existing structure as indicated on the plans and replaced to the Grade and Cross Slope of the existing concrete deck. If additional deck preparation is required it shall be included as extra work.

All longitudinal and transverse dimensions are measured horizontally and include no correction for grade.

The information shown on these plans concerning the type and location of underground utilities is not guaranteed to be accurate or all inclusive. The Contractor is responsible for making their own determination as to the type and location of underground utilities as may be necessary to avoid damage thereto. The Contractor shall contact the Utility Notification Center of Colorado at 811 (1-800-922-1987) at least 3 days (2 days not including the day of notification) prior to any excavation or other earthwork.

**DESIGN DATA**

AASHTO, 9th Edition LRFD with current interims

Design Method: Load and Resistance Factor Design

Live Load: HL-93 (design truck or tandem, and design lane load)  
Assumes 36 lbs per sq ft for bridge deck overlay  
Dead Load: Assumes 5 lbs per sq ft for permanent steel deck forms

Reinforced Concrete:  
Class D Concrete: f'c = 4,500 psi  
Class G Concrete: f'c = 4,500 psi  
Reinforcing Steel: fy = 60,000 psi

Caisson Concrete:  
Class BZ Concrete: f'c = 4,000 psi  
Reinforcing Steel: fy = 60,000 psi

Structural Steel:  
AASHTO M270 (ASTM A709) Grade 36 fy = 36,000 psi  
AASHTO M270 (ASTM A709) Grade 50 fy = 50,000 psi  
AASHTO M270 (ASTM A709) Grade 70 fy = 70,000 psi  
Assumed Single-Lane Design-Life ADTT for fatigue =  
Bolted Surface Conditions = Class A (slip coefficient 0.33)

Post-Tensioned concrete:  
Class S concrete f'c = (see details)  
f's = 270,000 psi

Precast prestressed concrete:  
Class PS concrete f'c = (see details)  
f's = 270,000 psi

**SEISMIC DESIGN CRITERIA**

Earthquake Design method: Force Based or Displacement Based?  
Latitude = XX.0000  
Longitude = XX.0000

AASHTO Spectrum for 7% PE in 75 years (1000yr Return Period)  
Period Sa  
(sec) (g)  
0.0 X.000 PGA - Site Class B  
0.2 X.000 Ss - Site Class B  
1.0 X.000 S1 - Site Class B

Spectral Response Accelerations:  
As = Fpga\*PGA, SDs = Fa\*Ss, and SD1 = Fv\*S1  
Fpga = X.00, Fa = X.00, Fv = X.00  
Period Sa  
(sec) (g)  
0.0 X.000 As - Site Class X  
0.2 X.000 SDs - Site Class X  
1.0 X.000 SD1 - Site Class X

Operational Class:

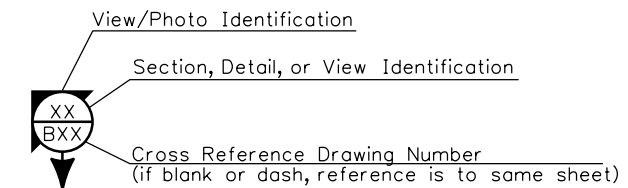
Seismic Zone or Seismic Design Category: Zone= x or Category= x

Response Modification Factors:  
R-Factor: ..... (Substructure type), R-Factor: ..... (Connections)

Soil friction angle, φ = XX° (MSE Backfill)  
Seismic active horizontal pressure coefficient Kae= X.XX  
Seismic horizontal acceleration coefficient, kh = X.XX \*As



**Know what's below.  
Call before you dig.**



**ABBREVIATIONS**

(Per M-100-2 or as shown below)

- EA = Each
- BF = Back Face
- FF = Front Face
- WSEL = Water Surface Elevation

**BRIDGE DESCRIPTION**

Revision Dates	5/00	4/02	6/04	2/06	3/07	10/13	12/21

INITIALS	DESIGN	DATE	DETAIL	DATE	QUANTITY	DATE
By						
Checked By						

All seals for this set of drawings are applied to the cover page(s)	Print Date: 12/1/2021	<b>Sheet Revisions</b>			<p>Colorado Department of Transportation</p> <p>Street Address XXXXXXXXXXXXXXXXXX City, State Zip Code Phone: XXX-XXX-XXXX FAX: XXX-XXX-XXXX</p> <p>Region Number or Staff</p>	<p>As Constructed</p> <p>No Revisions:</p> <p>Revised:</p> <p>Void:</p>	<b>GENERAL INFORMATION &amp; SUMMARY OF QUANTITIES</b>				Project No./Code		
	File Name: Sheet_B-100-1.dgn	Date:	Comments	Init.							Project Number		
	Horiz. Scale: 1:1 Vert. Scale: As Noted								Designer: XXXXXXXX	Structure Numbers	X-XX-XX	Code	
	Unit Information Unit Leader Initials								Detailer: XXXXXXXX	Sheet Subset: XXXXXXXX	Subset Sheets: XXX of XXX	Sheet Number 000	