

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications")

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

LOADING: 90 M.P.H. WIND VELOCITY

WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.

DESIGN STRESSES
FIELD UNITS
F_c = 3,500 p.s.i.
f_y = 60,000 p.s.i. (reinforcement)

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 and D1.2 Structural Welding Codes (Steel and Aluminum) and the Standard Specifications.

MATERIALS: All Structural Steel Pipe shall be ASTM A53 Grade B or A500 Grade B. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53. All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 or Gr. 50W* (M183, M223 Gr. 50, or M222). Stainless steel for shims, sleeves and handhole covers shall be ASTM A240, Type 302 or 304, or another alloy suitable for exterior exposure and acceptable to the Engineer. The steel pipe shall have a minimum longitudinal Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. (Zone 2) before galvanizing.

FASTENERS: All bolts noted as "high strength" must satisfy the requirements of AASHTO M164 (ASTM A325), or approved alternate, and must have matching lock nuts. Threaded studs for splices (if Members interfere) must satisfy the requirements of ASTM A449, ASTM A193, Grade B7, or approved alternate, and must have matching lock nuts. Bolts and lock nuts not required to be high strength must satisfy the requirements of ASTM A307. All bolts and lock nuts must be hot dip galvanized per AASHTO M232. The lock nuts must have nylon or steel inserts. A stainless steel flat washer conforming to ASTM A240 Type 302 or 304, is required under both head and nut or under both nuts where threaded studs are used. High strength bolt installation shall conform to Article 505.04 (f) (2)d of the IDOT Standard Specifications for Road and Bridge Construction. Rotational capacity ("ROCAP") testing of bolts will not be required.

U-BOLTS AND EYEBOLTS: U-Bolts and Eyebolts must be produced from ASTM A276 Type 304, 304L, 316 or 316L, Condition A, cold finished stainless steel, or an equivalent material acceptable to the Engineer. All nuts for U-Bolts and Eyebolts must be lock nuts equivalent to ASTM A307 with nylon or steel inserts and hot dip galvanized per AASHTO M232. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under each U-Bolt and Eyebolt lock nut.

GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted. Provide vent holes for galvanizing.

ANCHOR RODS: Shall conform to AASHTO M314 Gr. 105 with a minimum Charpy V-Notch (CVN) energy of 15 lb.-ft. at 10° F.

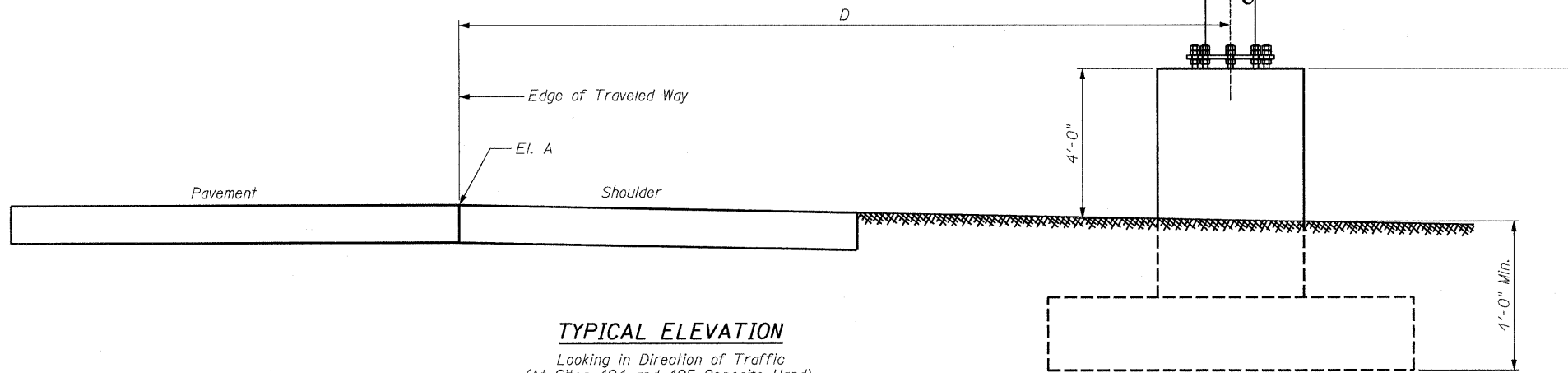
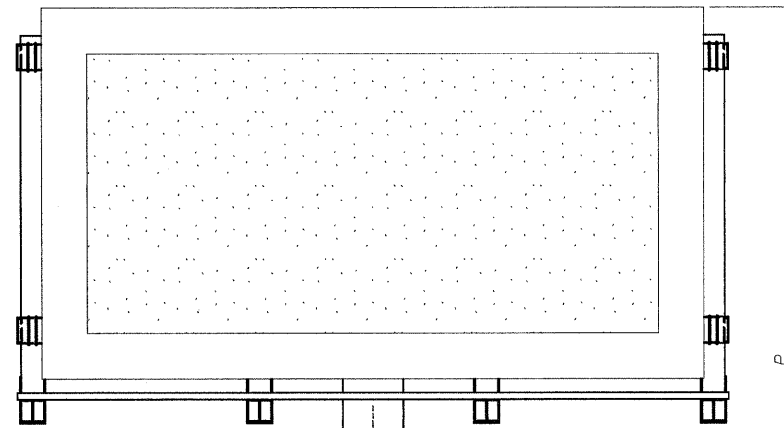
CONCRETE SURFACES: All concrete surfaces above an elevation 6" below the lowest final ground line at each foundation shall be cleaned and coated with Bridge Seal Sealer in accordance with the Standard Specifications.

REINFORCEMENT BARS: Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.

FOUNDATIONS: The contract unit price for Concrete Foundations or Drilled Shaft Concrete Foundations shall include reinforcement bars complete in place.



Mehmet B. Civelek
4-6-2010



TYPICAL ELEVATION

Looking in Direction of Traffic
(At Sites 404 and 405 Opposite Hand)

Site Number	Structure Type	Dim. D	Elev. A	Depth of Sign	Width of Sign	Total Sign Area (ft ²)	Post Length P (ft)
404	DMS Butterfly	25'-0"	100	8'-1 ⁵ / ₈ "	14'-7"	119	26.5
405	DMS Butterfly	21'-0"	100	8'-1 ⁵ / ₈ "	14'-7"	119	24.5
406	DMS Butterfly	41'-9"	100	8'-1 ⁵ / ₈ "	14'-7"	119	18.5
407	DMS Butterfly	32'-1 ¹ / ₄ "	100	8'-1 ⁵ / ₈ "	14'-7"	119	28.5

(FOR SITE 404 FOUNDATION SEE SHEET S-05)

* If M270 Gr. 50W (M222) steel is proposed, chemistry for plate to be used shall first be approved by the Engineer as suitable for galvanizing and welding.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE-BUTTERFLY	Foot	63
OVERHEAD SIGN STRUCTURE-WALKWAY	Foot	63
CONCRETE FOUNDATIONS	Cu. Yds.	35
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	7
ROCK EXCAVATION FOR STRUCTURES	Cu. Yds.	71

REVISED
5-26-10
SHEET

DESIGNED	MBC
CHECKED	KLK
DRAWN	FJD
CHECKED	KLK

EXAMINED	200
PASSED	ENGINEER OF BRIDGE DESIGN
	ENGINEER OF BRIDGES AND STRUCTURES

NUMBER	REVISION	DATE

ROADSIDE D.M.S. STRUCTURES
GENERAL PLAN & ELEVATION
STEEL SIGN SUPPORTS

SHEET NO. 16 SHEETS 23	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	74+280	D2.IT MESSAGE SIGN	ROCK ISLAND	-	16
CONTRACT NO. 64F86			ILLINOIS FED. AID PROJECT C-92-061-10		