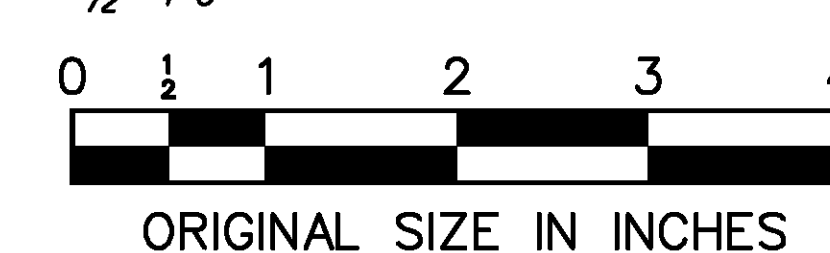


- GENERAL NOTES:**
- Specifications:
    - American Association of State Highway and Traffic Officials (AASHTO), Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 2001 4th Edition with all current Interims through 2006, and as modified herein these Standard Drawings.
    - All construction and materials shall be in accordance with the 2004 New Jersey Turnpike Authority Standard Specifications as modified by the Standard Supplementary Specifications and as modified herein these Standard Drawings.
    - VMS support structures shall conform to the VMS Support Structure Specification, as per the Standard Supplementary Specifications.
  - No field welding shall be permitted, except as noted on Sheet VM-16 for Expanded Metal Fence Tack Welded to End Column Base Plate.
  - Unless noted otherwise the following material specifications shall apply:
    - Structural Steel Tubing ASTM A847 Gr. 50 with properties of ASTM Designation A709 Gr. 50W, Formed & Welded Channels of equivalent strength may be used as an Alternative to Tube Sections at the approval of the Engineer. All members marked (T) are main carrying members subject to tensile stress and shall meet supplementary requirements for notch toughness.
    - Structural Steel Plates and Shapes shall be ASTM A709 Gr. 50W (Fy = 50,000psi)
    - Welding shall conform to the ANSI/AASHTO/AWS Structural Welding Code D1.1 for Procedures and for Permitted Welds. Welding and Nondestructive Testing Symbols shall conform to Symbols for Welding and Brazing and Nondestructive Examinations AWS A2.4-86.
    - Unless Otherwise Noted, all bolted connections specifying bolt diameter 1/2" and larger shall be:
      - Bolts - ASTM A325X Type 1 (threads excluded from shear plane).
      - Nuts - ASTM A563.
      - Washers - ASTM F436.
      - Bolts, Nuts, and Washers shall be galvanized in accordance with ASTM A153.
    - Unless Otherwise Noted, all bolted connections specifying bolt diameters less than 1/2" shall be:
      - Bolts - Stainless Steel (SS) Type 18-8 or better with Std. Head Capscrews
      - Nuts - Distorted Thread Top Lock Locknuts
      - Washers - Round Hole, 0.059" Min. Thickness
      - Thread Locker - Loctite 2760 on all bolted connections (excluding Anchor Bolts)
  - Anchor bolts shall conform to ASTM F1554 Grade 105 (8 UN). Nuts shall conform to ASTM A563 and plate washers shall conform to ASTM A709, Grade 50. Bolts, nuts, and plate washers shall be fully galvanized in accordance with ASTM A153.
  - Structural Aluminum Shapes shall be Aluminum Alloy 6061-T6.
  - S.S. denotes Stainless Steel conforming to ASTM designation A276, Type 304.
  - Approved S.S. Pads shall be placed between dissimilar metals.
  - All shop drilled holes in structural steel shall be 1/16" larger and all field drilled holes shall be 1/8" larger than the nominal diameter of the fastener, unless otherwise noted or as approved by the Engineer.
  - All contacting surfaces shall have full bearing and shall be thoroughly cleaned by hand to remove any loose or foreign material as approved by the Engineer.
  - Prior to fabrication or installation of any items shown herein these standards, the Contractor shall verify all existing dimensions and conditions using available As-Built plans and site investigation. These work items shall be paid for under Pay Item for either Erection, or the Fabrication & Erection, of the VMS Support Structure. See Contract Plans for Specific Foundation Type Details.
  - Underside of Butterfly Base Plate (Elev. "A") to be set 4'-0" above the highest point of the roadway under the bottom chord of the support structure.
  - Chords of the structure are to be used as Raising Conduits for VMS power and control wiring. The sleeve connections will require wire pull holes and hand holes to facilitate the installation of the associated wiring through the Wire Pull Holes. See Sheet VM-15 for locations and details of wire pull holes and hand holes.
  - For Drilled Shaft Foundation, see Standard Drawing SI-22B and the Drilled Shafts for Sign Structure Foundations Specification of the NJTA Standard Supplementary Specifications.
  - For Loading and Design Notes, see VM-15.



APP. NO.	DATE	REVISION
2	3/11	REVISED DECK PLATE LOCATION
1	12/09	REVISED ANCHOR BOLT ASTM STANDARD
0	6/09	ORIGINAL DRAWING

NEW JERSEY TURNPIKE AUTHORITY <b>NEW JERSEY TURNPIKE</b>	
BUTTERFLY VMS SUPPORT STRUCTURE <b>GENERAL PLAN &amp; ELEVATION</b>	
OFFICE OF THE CHIEF ENGINEER NEW JERSEY TURNPIKE AUTHORITY	2009 STANDARD DRAWING VM-14
WOODBRIIDGE	NEW JERSEY