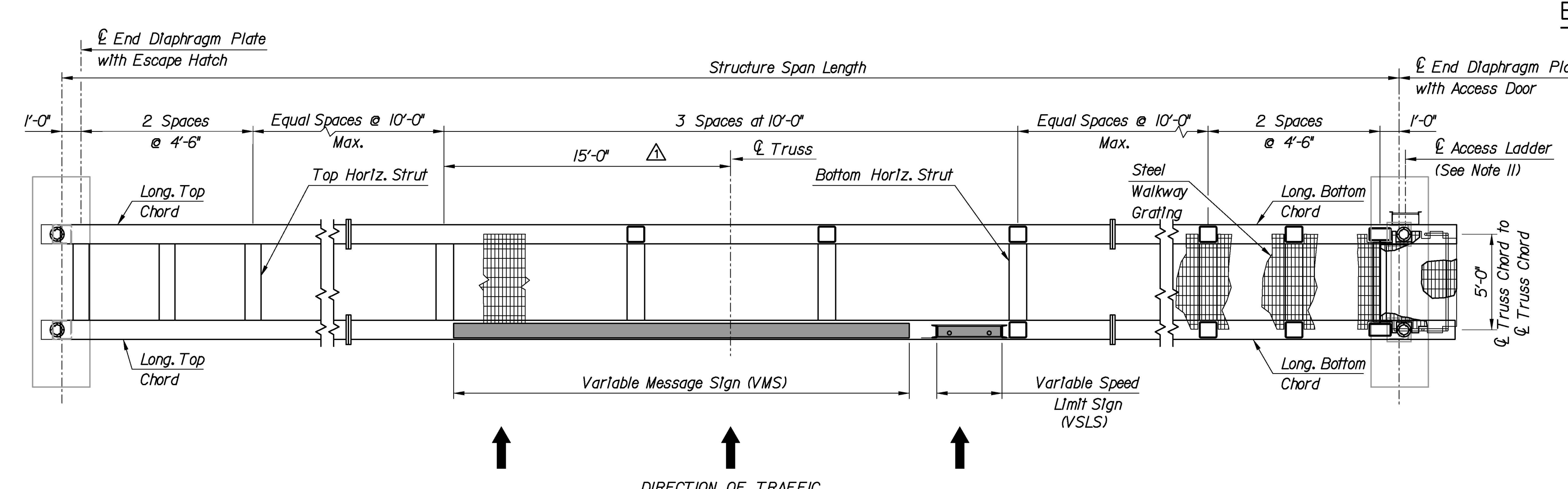
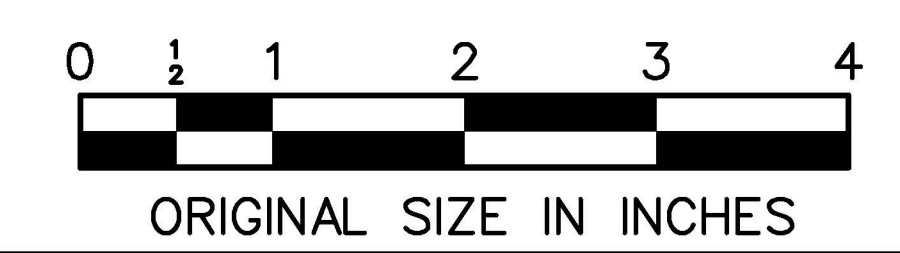


END FRAME ELEVATION
N.T.S.



- GENERAL NOTES:**
- Specifications:
 - A) 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.
 - B) 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.
 - C) VMS/VLS structures shall conform to the VMS/VLS Support Structure Specifications as per the Standard Supplementary Specifications.
 - No field welding shall be permitted, except as noted on Sheet VM-20 for Expanded Metal Fence Tack Welded to End Frame Base Plate.
 - Unless noted otherwise the following material specifications shall apply:
 - A) HSS square steel tubing and HSS round steel tubing for sign structures shall meet the requirements of ASTM A847. As an alternate, tubing produced by forming and longitudinally seam welding steel plate conforming to ASTM A709, Gr. 50W (A588) or ASTM A242 may be used. Only one longitudinal seam will be permitted per tubular member.
 - B) Structural steel plates and shapes shall be ASTM A709, Grade 50W (A588) (Fy = 50,000 psi).
 - C) 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.
 - D) 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)
 - E) 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.
 - F) Steel walkway grating, expanded metal fence, access ladder, access door and all other appurtenances specified as galvanized either within this plan set or in the Specifications, shall be hot-dipped galvanized in accordance with ASTM A-123.
 - 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/VLS Support Structure.
 - Underside of End Frame Base Plate (Elev."A") to be set 4'-0" above the high point of the roadway.
 - For loading and design notes, see Sheet VM-18.
 - For Foundation Design Loads, see Sheet VM-20.
 - For Bill of Material List, see Sheet VM-10 and as modified on Sheet VM-19.
 - Access ladder shall always be placed on Downstream side of End Frame.
 - Approved stainless steel pads shall be placed between dissimilar metals. Do not place pads between galvanized and steel materials.
 - VLS not required at all locations, for Details see Sheet VM-22.

NEW JERSEY TURNPIKE AUTHORITY	
NEW JERSEY TURNPIKE	
90'-150' OVERHEAD SPAN VMS/VLS SUPPORT STRUCTURE	
GENERAL PLAN & ELEVATION	
OFFICE OF THE CHIEF ENGINEER NEW JERSEY TURNPIKE AUTHORITY	2010 STANDARD DRAWING VM-17
WOODBRIDGE	NEW JERSEY



APP.	NO.	DATE	REVISION
2	3/14		REMOVED FALL ARREST SYSTEM
1	3/11		REVISED VMS LOCATION ON GSP STRUCTURES
0	8/10		REISSUED DRAWING

CONTRACT NO.

SHEET NO. OF