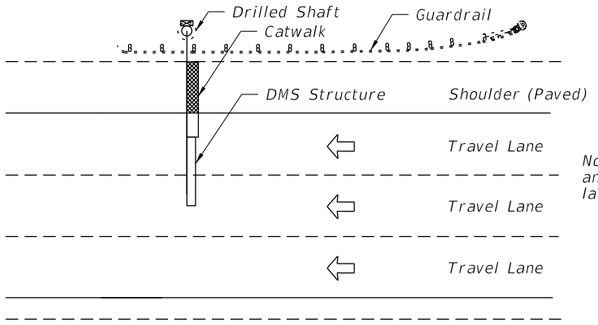
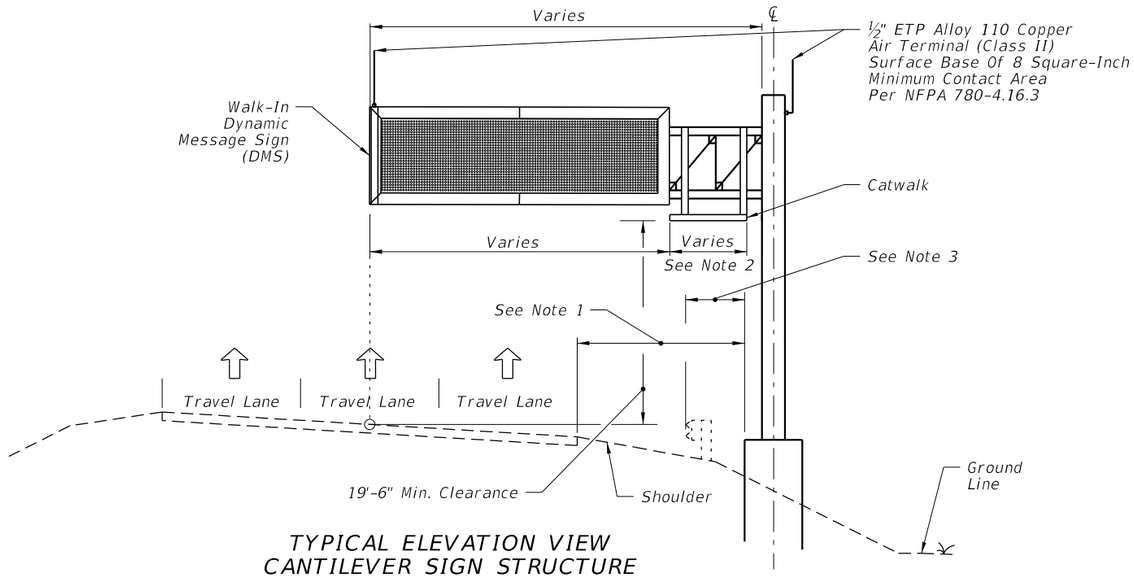
NOTES:

1. Install DMS Foundation at location shown in Plans.
2. Extend Catwalk from DMS to outer edge of paved shoulder but not less than four feet in length.
3. If included, Install guardrail at location show in Plans and in accordance with Design Standards Index 400.

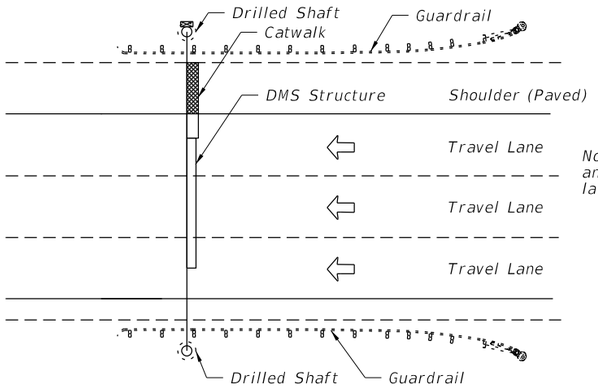


Note: Actual number and direction of travel lanes varies.

TYPICAL PLAN VIEW
DMS CANTILEVER SIGN STRUCTURE

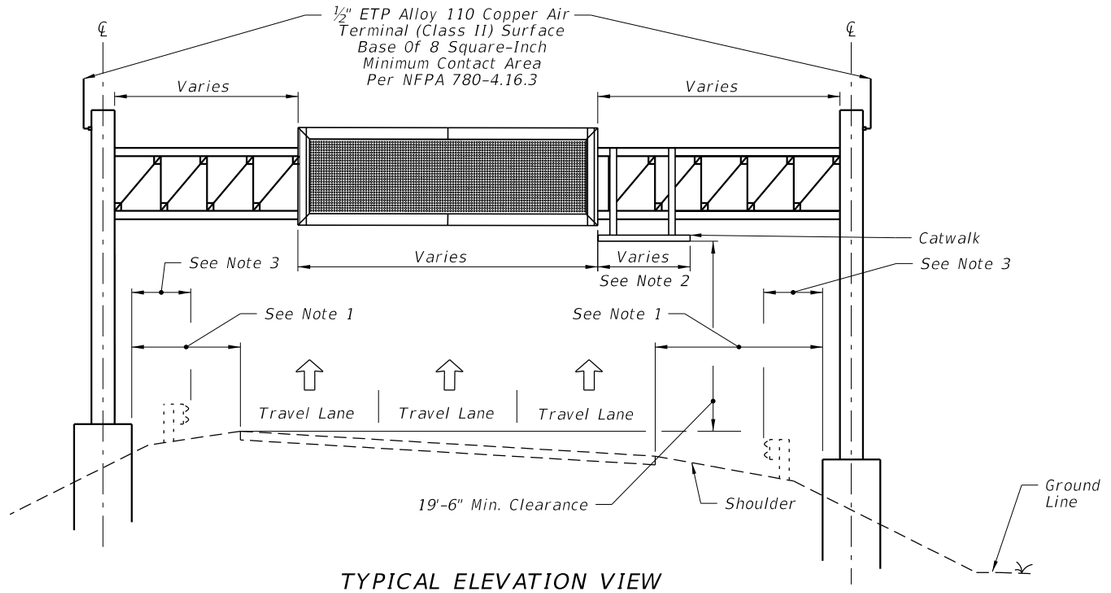


TYPICAL ELEVATION VIEW
CANTILEVER SIGN STRUCTURE



Note: Actual number and direction of travel lanes varies.

TYPICAL PLAN VIEW
DMS SPAN SIGN STRUCTURE

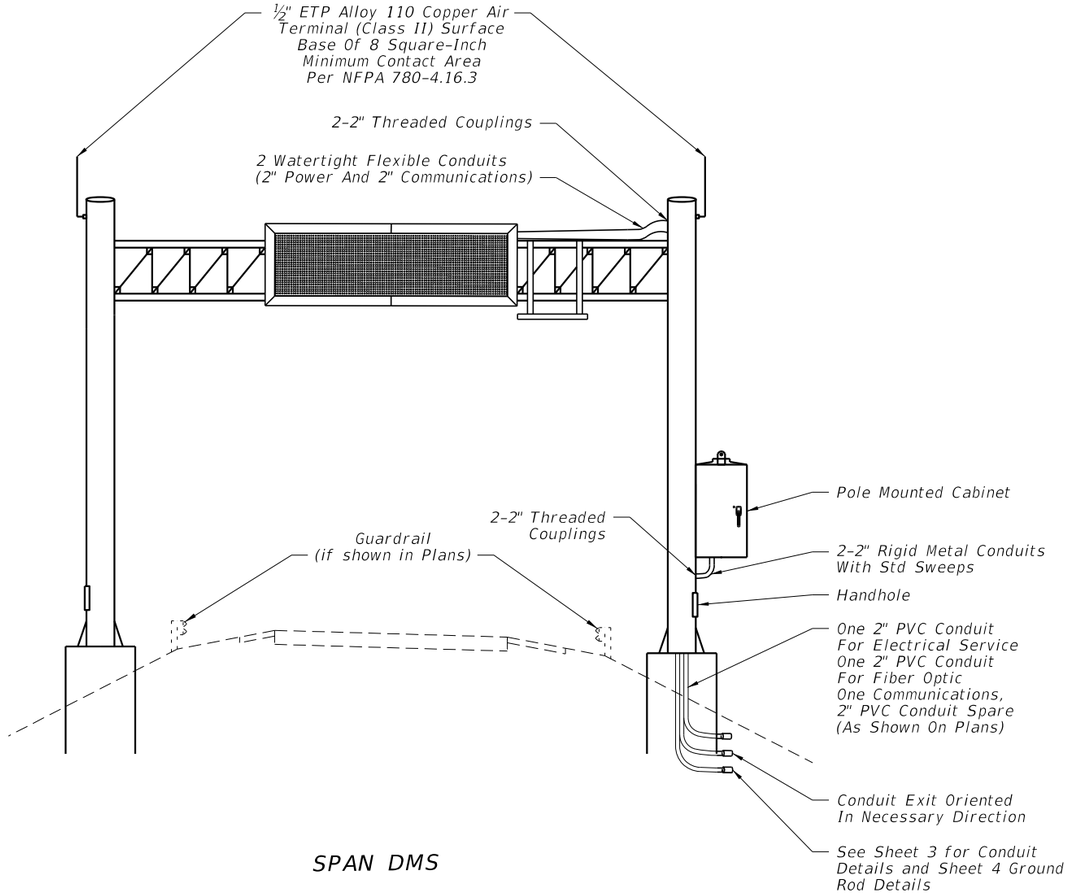


TYPICAL ELEVATION VIEW
SPAN SIGN STRUCTURE

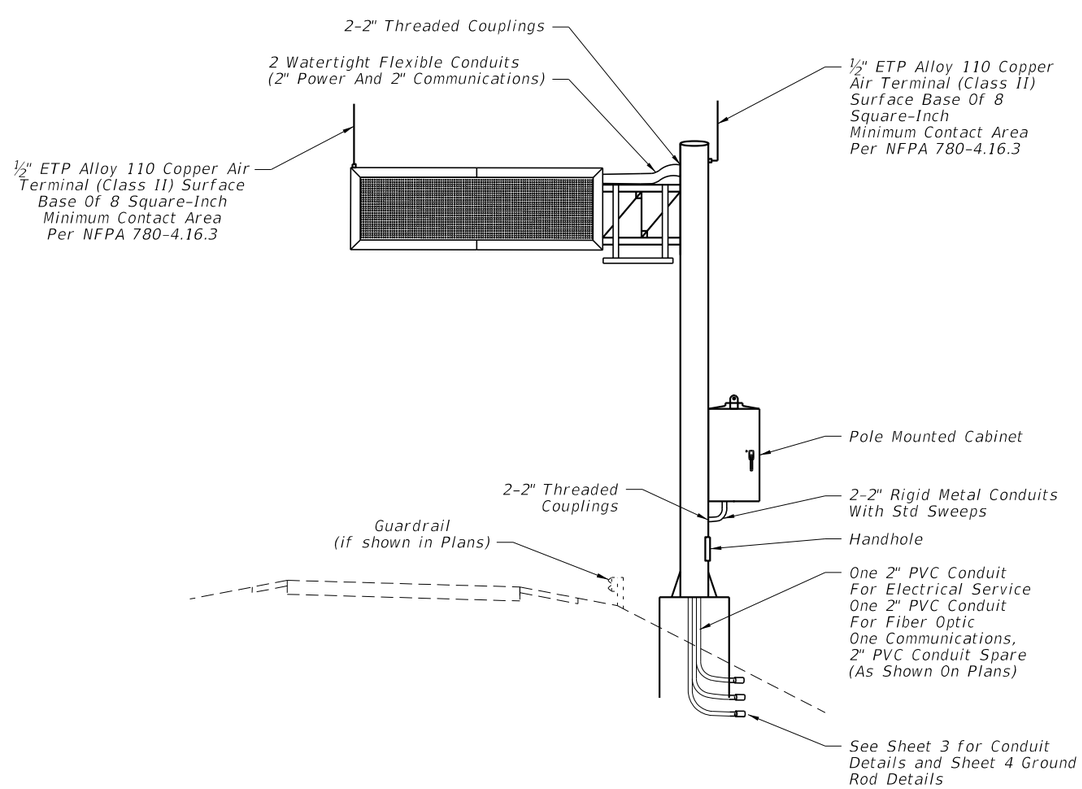
11/30/2015 11:35:50 AM

GENERAL LAYOUT

LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
07/01/15			FDOT FY 2016-17 DESIGN STANDARDS	DYNAMIC MESSAGE SIGN WALK-IN	18300	1 of 9



SPAN DMS



CANTILEVER DMS

NOTES:

1. Conductors for grounding shall be connected to steel framework that has been cleaned to base metal by use of bonding plates having contact area of not less than 8 square inches or by welding or brazing. Drilling and tapping the steel structure to accept a threaded connector is also an acceptable method.
2. If steel framework is to be drilled and tapped to accept threaded connector, the threaded connector shall be galvanized and have at least 5 threads fully engaged and secured with a jam nut to the steel framework.
3. Bends in the conduit shall not be less than the minimum bending radius for the cable contained in the conduit.
4. Catwalk and handrail design and installation shall comply with AISC, AASHTO, and OSHA requirements as applicable.
5. All data, fiber optic and power cables for the DMS shall be completely encased within the sign structure or in conduit.
6. Permanently stamp/mark foundation to conduit locations.
7. Transition conduit in foundation to underground conduit with appropriate reducer outside the limits of the foundation.

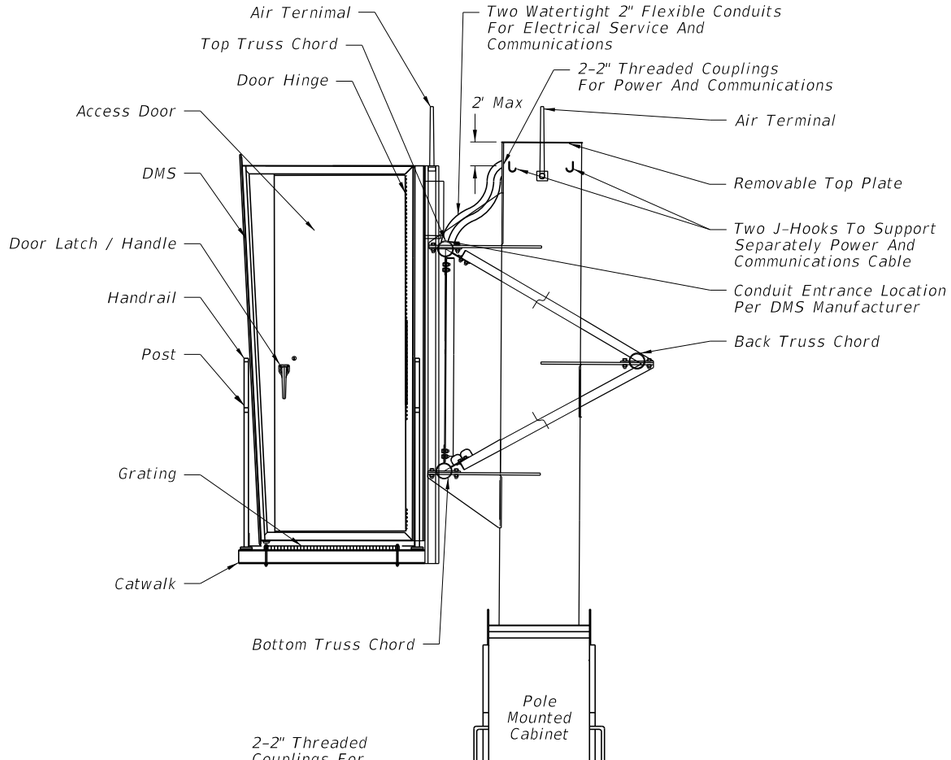
11/30/2015 11:35:51 AM

LAST REVISION	REVISION	DESCRIPTION:		INDEX NO.	SHEET NO.
07/01/15			FY 2016-17 DESIGN STANDARDS	18300	2 of 9

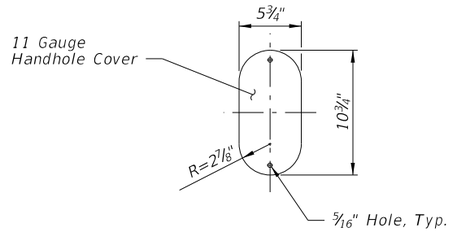
DYNAMIC MESSAGE SIGN WALK-IN

NOTES:

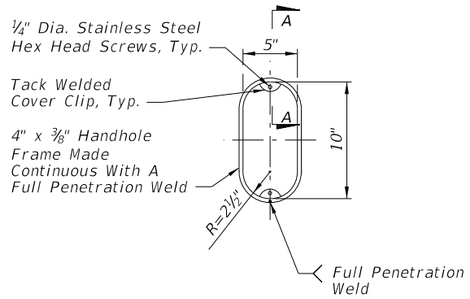
1. DMS Cabinet may be pole or ground mounted depending on project requirements.
2. See sheet 4 for additional conduits for grounding. The number and placement of conduits are approximate.
3. Field adjust pole-mounted DMS cabinet height to achieve best access for maintenance personnel given site conditions as directed by the Engineer. Avoid conflicts with stiffeners, handhole and maintenance of anchor bolts.



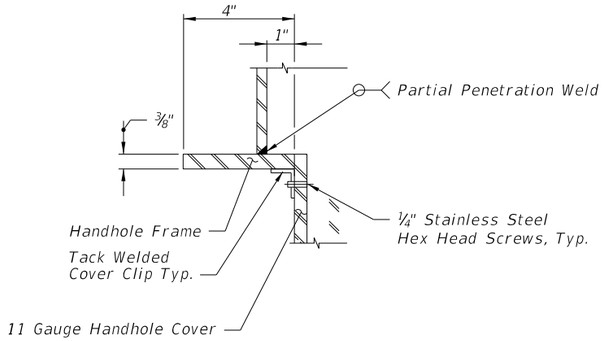
TYPICAL DMS CONDUIT DETAIL
CANTILEVER/SPAN SIGN STRUCTURE



HANDHOLE COVER



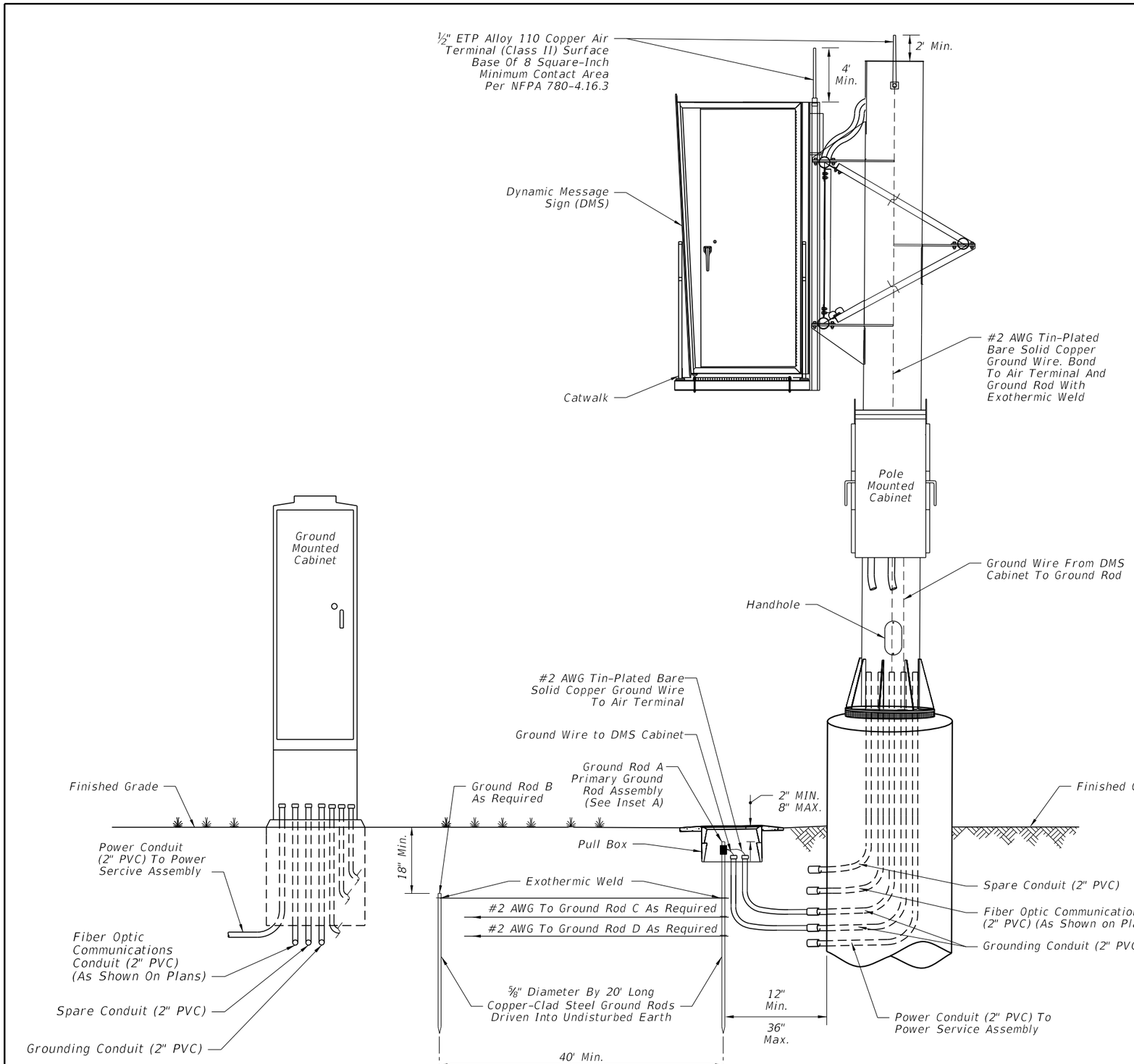
HANDHOLE FRAME



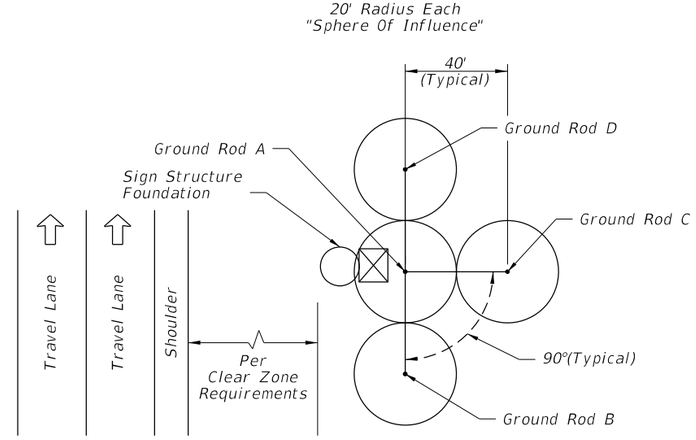
SECTION A-A
(Thru Handhole)

11/30/2015 11:35:52 AM

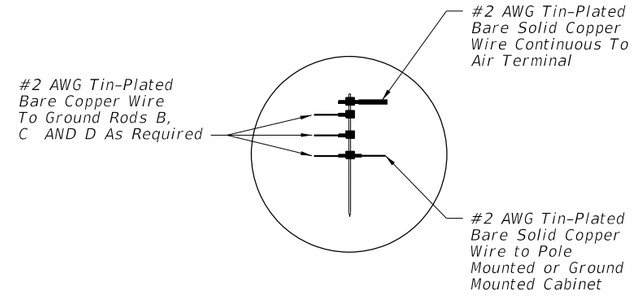
LAST REVISION	REVISION	DESCRIPTION:	FY 2016-17 DESIGN STANDARDS	DYNAMIC MESSAGE SIGN WALK-IN	INDEX NO.	SHEET NO.
07/01/14					18300	3 of 9



TYPICAL GROUND ROD DETAIL



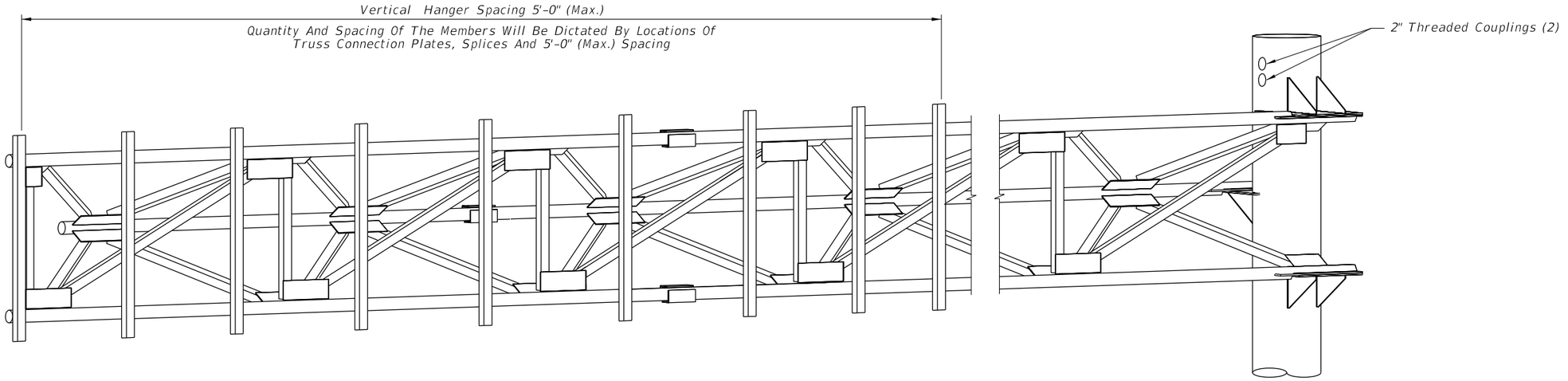
GROUND ROD PLACEMENT DETAIL (TYPICAL)



INSET 'A'

11/30/2015 11:35:53 AM

LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
07/01/14			FY 2016-17 DESIGN STANDARDS	DYNAMIC MESSAGE SIGN WALK-IN	18300	4 of 9



HANGER LOCATION DETAIL

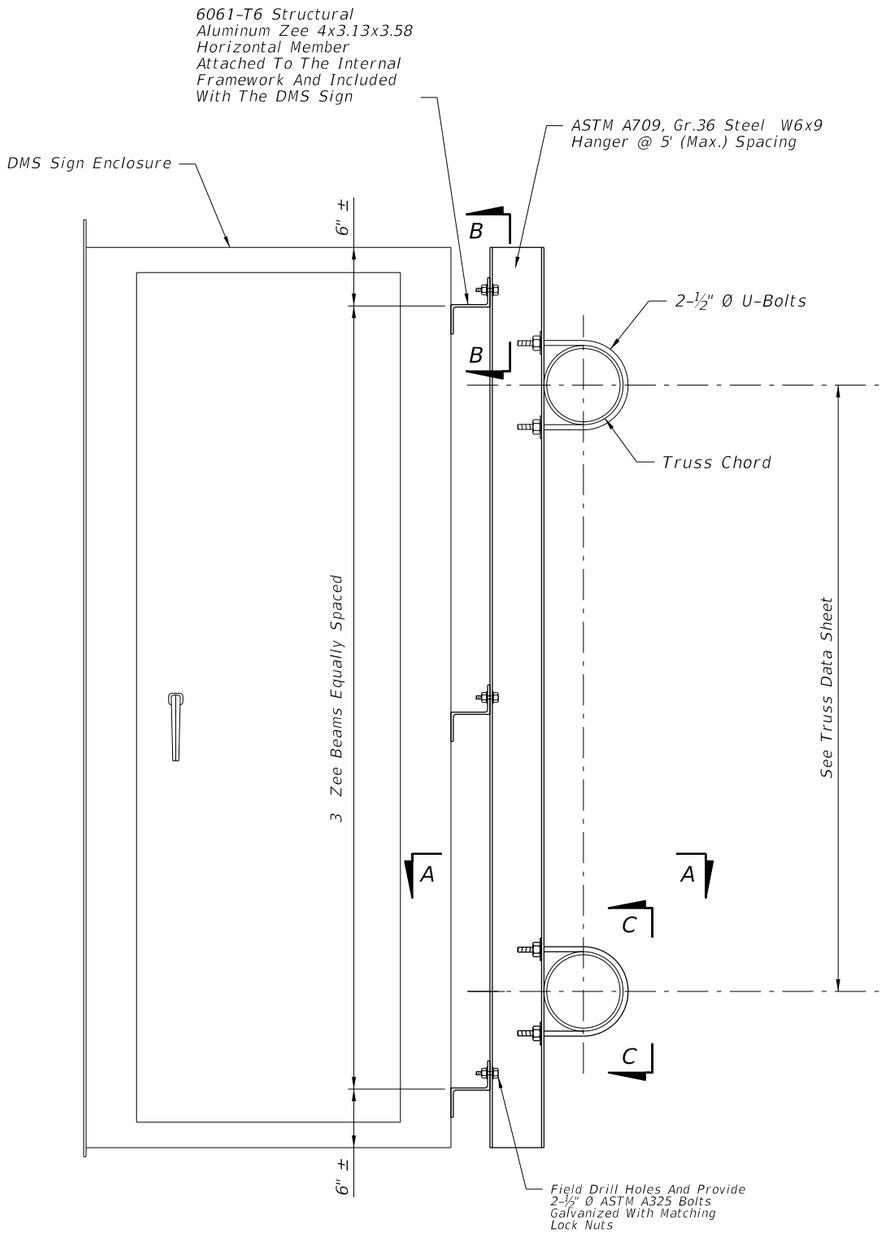
(Cantilever Sign Structure Shown, Span Sign Structure Similar)

NOTES

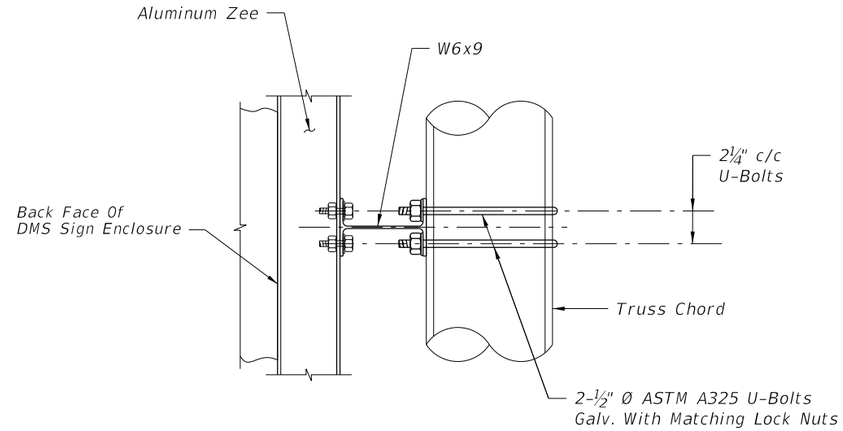
1. Design Specifications: FDOT Structures Manual (current edition) and AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals.
2. DMS and Hanger Design Wind Speed: 150 miles per hour. Maximum DMS weight for design: 4500 lb.
3. Shop drawings including the DMS connection are required and fabrication shall not begin until these shop drawings are approved.
4. Locate the sign horizontal on the structure as shown in the plans. Vertically center the sign enclosure with the centerline of the truss.
5. Before erection, after both the delivery of the DMS and the steel truss, the contractor shall carefully measure the exact locations for field drilling the ½" bolt holes in the vertical hangers and horizontal mounting member attached to the sign enclosure. Field locate holes to allow vertical hanger placement as shown on the plans with no conflicts with gusset or splice plates.
6. All steel items shall be galvanized as follows:
   All nuts, bolts and washers ASTM F2329
   All other steel items ASTM A123
7. All bolt holes shall be equal to the bolt diameter plus 1/16", prior to galvanizing.
8. All bolts shall have single self-locking nuts, or locking nut system, installed in accordance with the manufacturer's recommendations.
9. Cost of the installation of the DMS on truss including the vertical hanger, associated members, and hardware shall be incidental to the cost of the sign structure.
10. Threaded couplings shall be located on sign side of column above the sign truss.

11/30/2015 11:35:54 AM

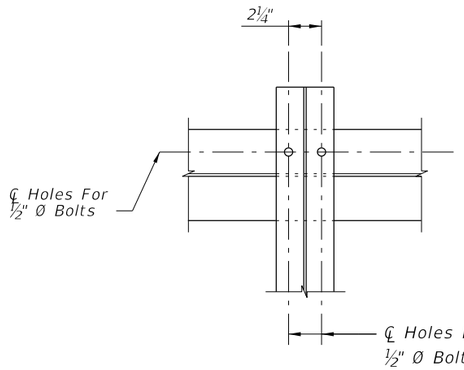
LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2016-17 DESIGN STANDARDS	DYNAMIC MESSAGE SIGN WALK-IN	INDEX NO.	SHEET NO.
07/01/14						18300	5 of 9



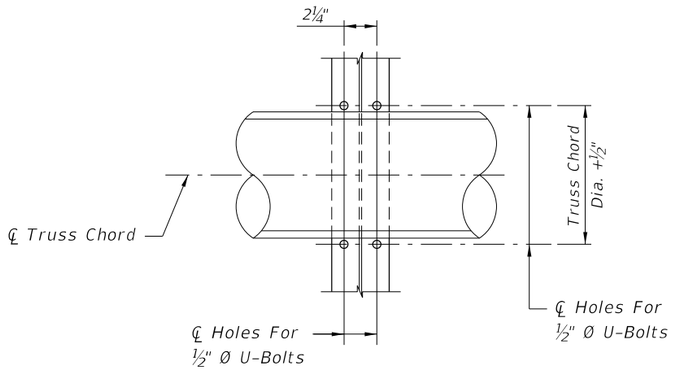
END VIEW



SECTION A-A



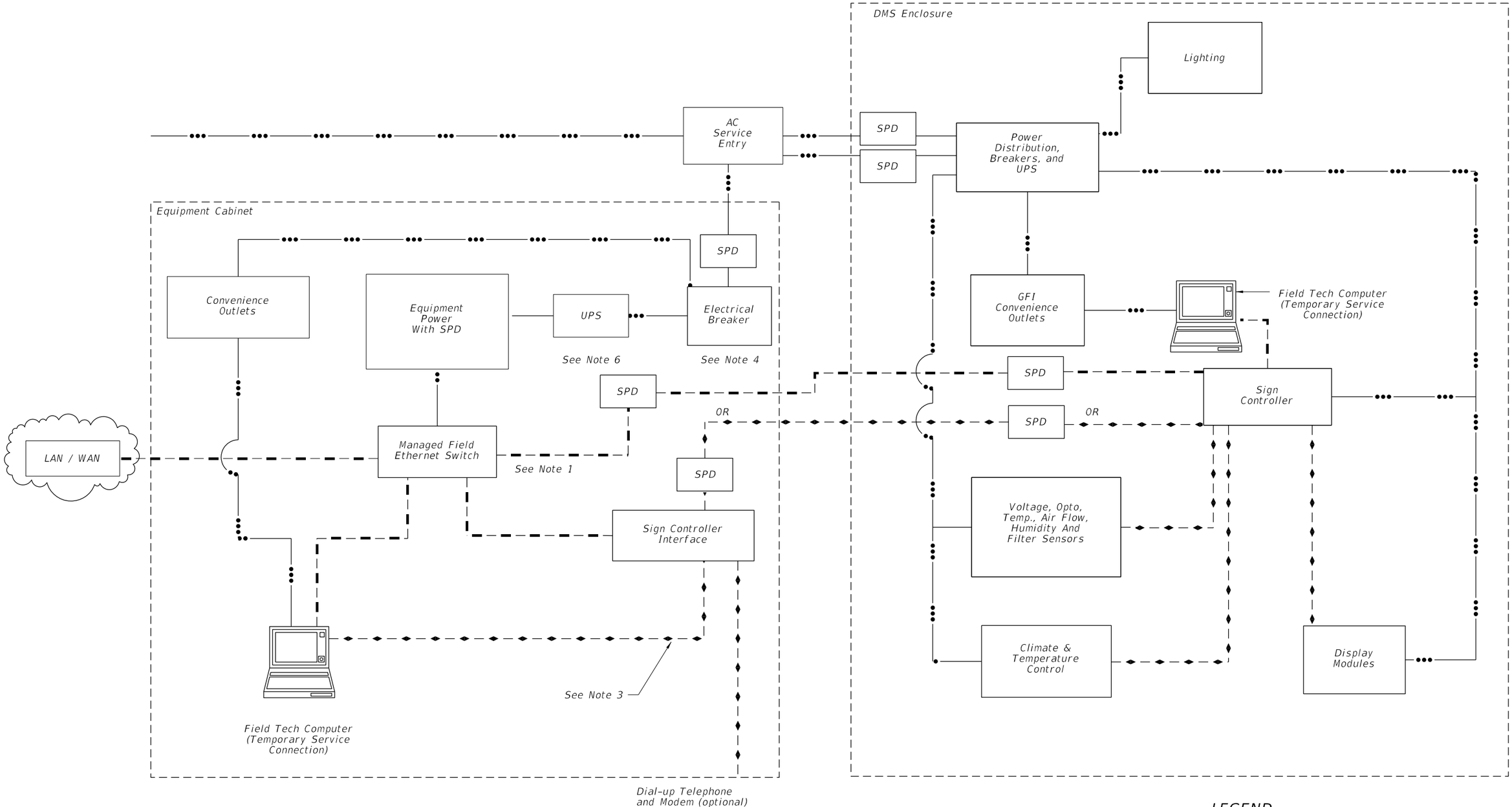
SECTION B-B



SECTION C-C

11/30/2015 11:35:55 AM

LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
07/01/14			FDOT FY 2016-17 DESIGN STANDARDS	DYNAMIC MESSAGE SIGN WALK-IN	18300	6 of 9



NOTES:

1. Provide single ethernet connection from the managed field ethernet switch to either the sign controller interface in cabinet or sign controller in sign enclosure.
2. Locate cabinet as shown in plans.
3. Serial data link is for communications directly to the DMS controller.
4. Cabinet must include at least one breaker to control all cabinet power.
5. AC service entrance may be located in cabinet or sign housing.
6. UPS equipment location may vary. Diagram indicates functional requirements that uninterrupted power must be available in cabinet and sign housing.

SIGN AND CABINET WIRING DIAGRAM

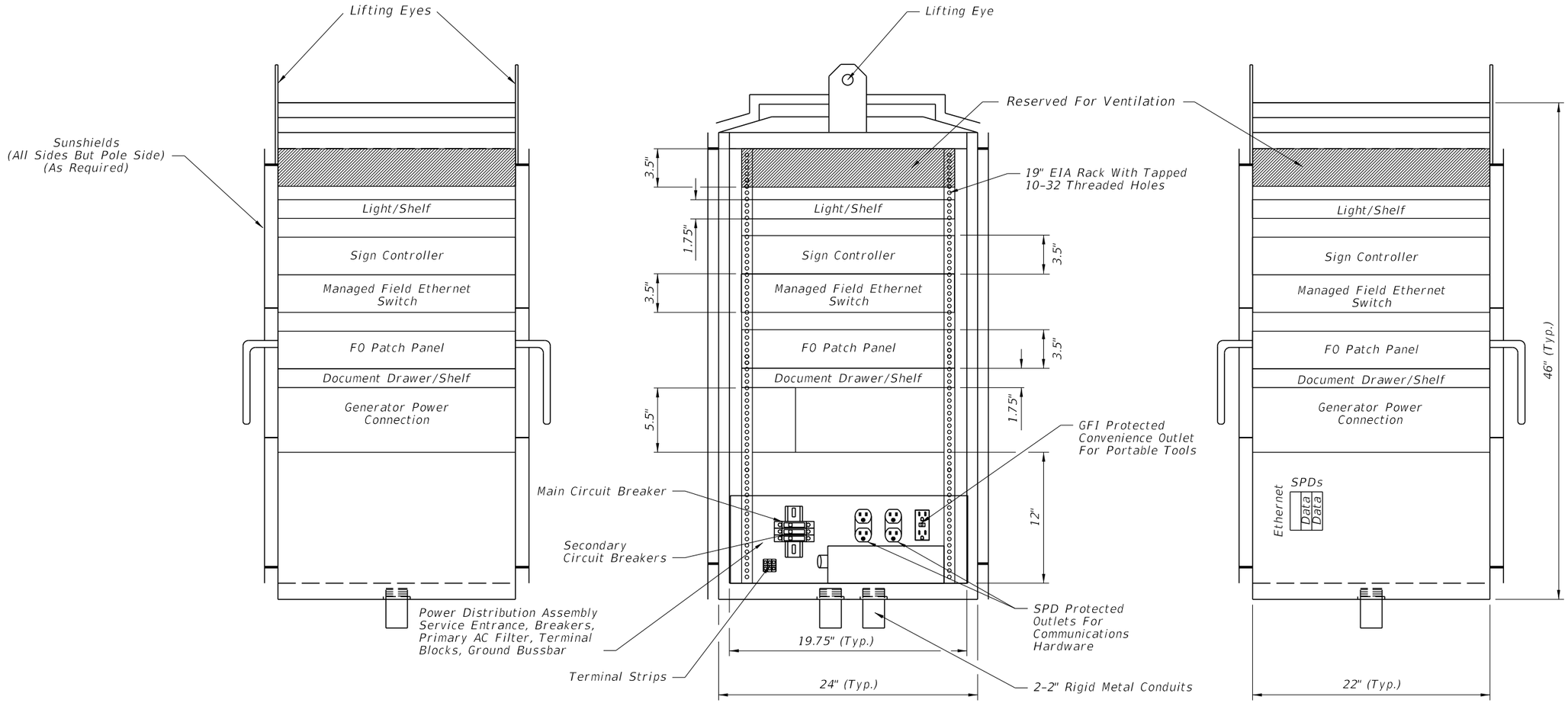
LEGEND

- Data
- Ethernet
- Power

SPD — Surge Protection Device

11/30/2015 11:35:55 AM

LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2016-17 DESIGN STANDARDS	DYNAMIC MESSAGE SIGN WALK-IN	INDEX NO.	SHEET NO.
07/01/14					18300	7 of 9



LEFT SIDE VIEW

FRONT VIEW
POLE MOUNTED CABINET

RIGHT SIDE VIEW

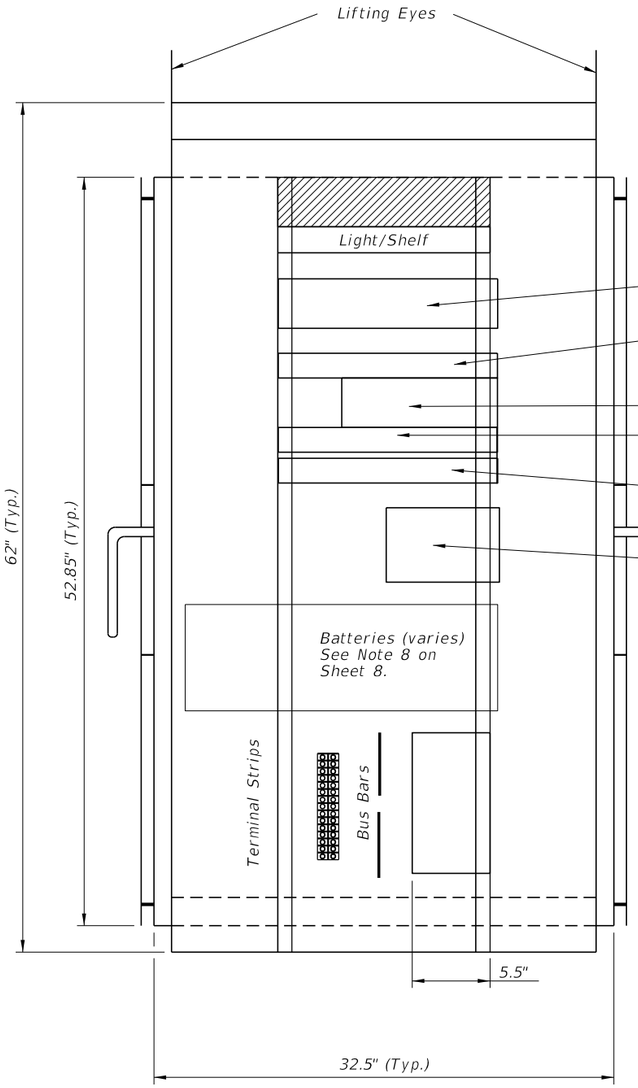
NOTES:

1. Cabinet layout is for pole or ground mounted installations.
2. All dimensions and equipment locations are approximate.
3. Conduit entrances are at bottom of cabinet.
4. Minimum number of duplex outlets is three, (2) SPD protected and (1) GFI protected.
5. Either an access controller or local access panel shall be provided to provide full access to DMS for control, programming and troubleshooting.
6. Load center shall be sized for connected equipment and convenience outlets with at least one main disconnect and three circuit breakers.
7. Batteries and UPS may be located in sign housing or cabinet.
8. Power Distribution Assembly component layout, orientation and location may vary.

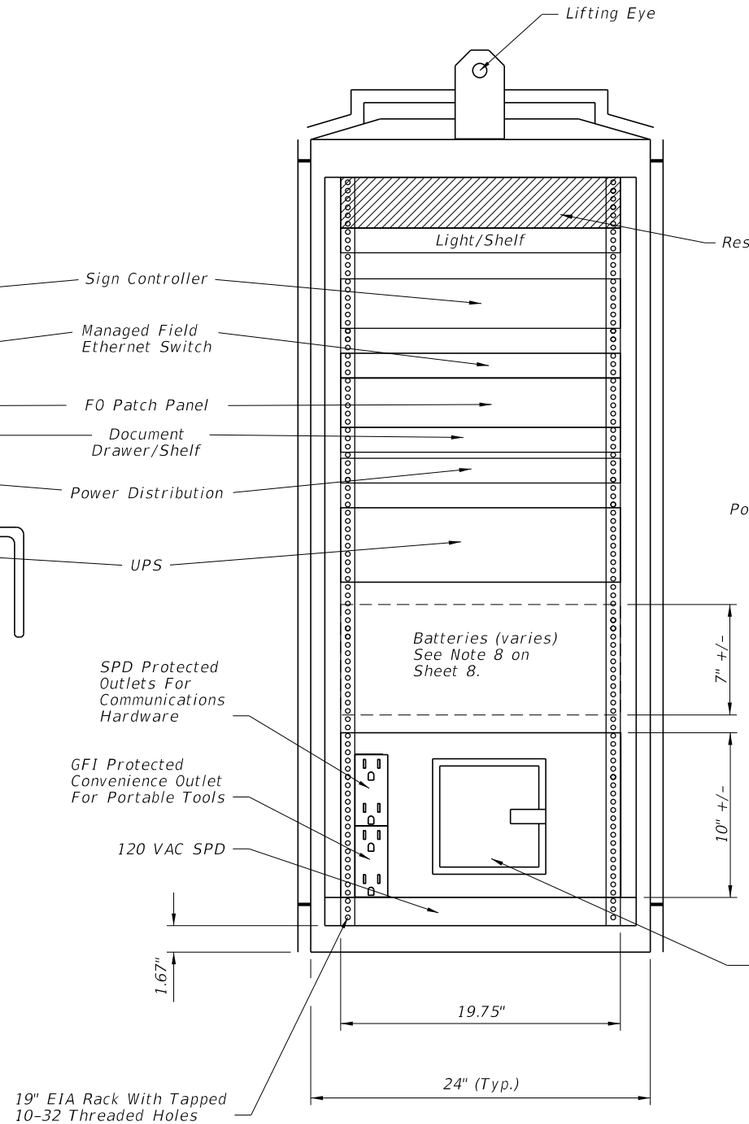
CABINET LAYOUT 1

11/30/2015 11:35:56 AM

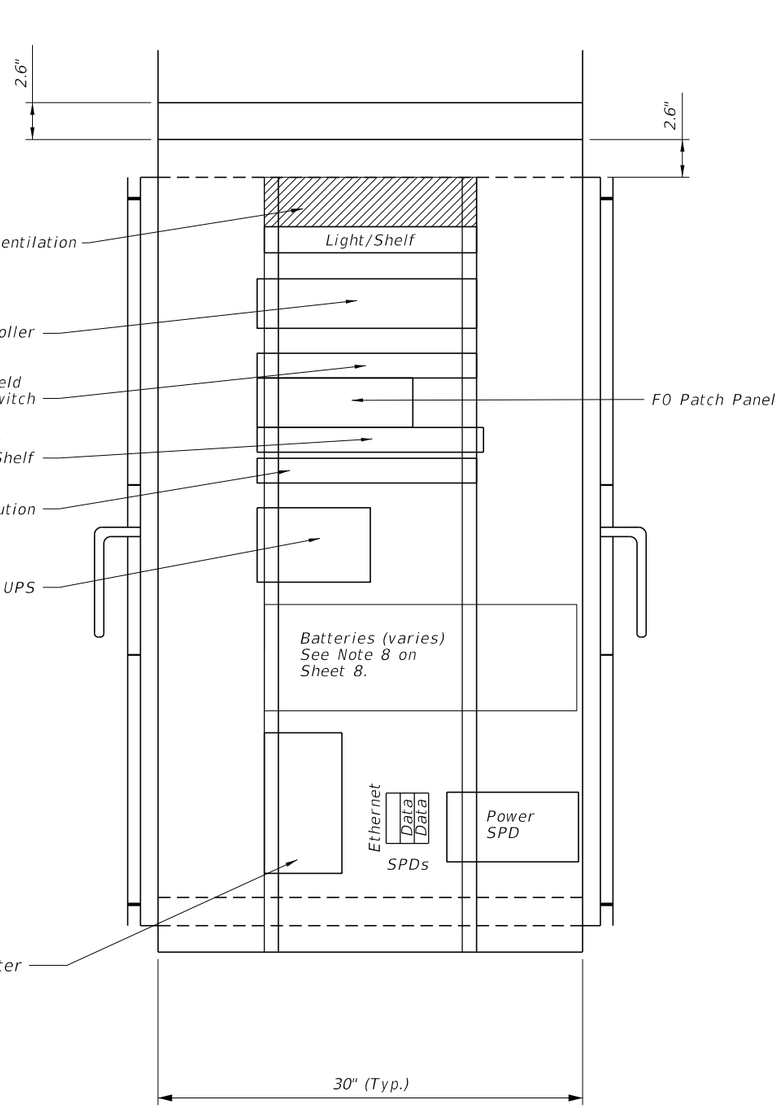
LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2016-17 DESIGN STANDARDS	DYNAMIC MESSAGE SIGN WALK-IN	INDEX NO.	SHEET NO.
07/01/14					18300	8 of 9



LEFT SIDE VIEW



FRONT VIEW
GROUND MOUNTED CABINET



RIGHT SIDE VIEW

11/30/2015 11:35:57 AM

CABINET LAYOUT 2

LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
07/01/14			FY 2016-17 DESIGN STANDARDS	DYNAMIC MESSAGE SIGN WALK-IN	18300	9 of 9