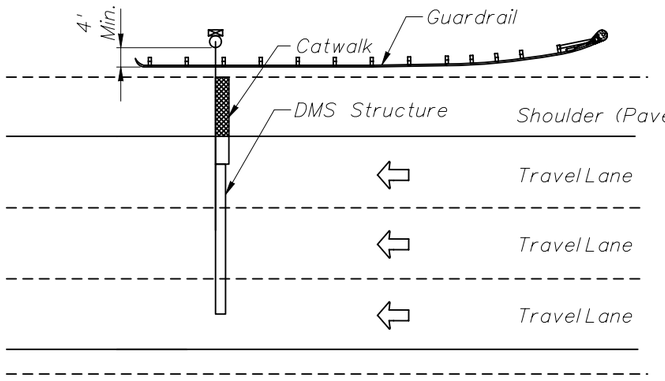
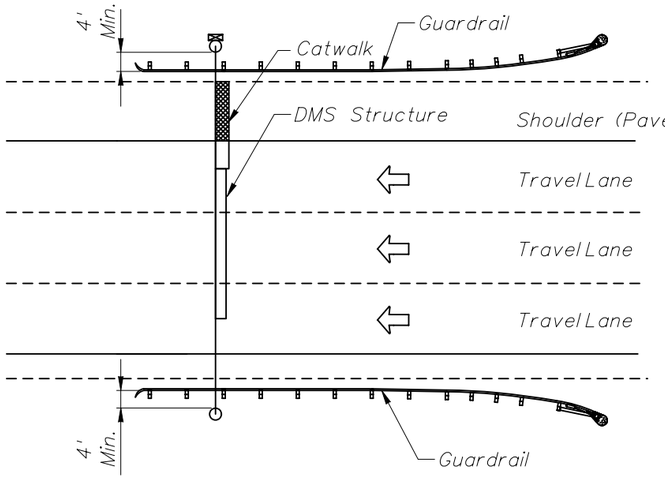
GENERAL NOTES:

1. If no guardrail or barrier wall exists, structure shall be outside the clear zone. Clear zone shall be measured to edge of the drilled shaft if drilled shaft is more than 4" above adjacent grade.
2. Extend Catwalk from DMS to outer edge of paved shoulder but not less than four feet in length.
3. Clear zone distance and setbacks from edge of travel lane shall be in accordance with Plans Preparation Manual Volume I, Chapters 2 and 4.



Note: Actual number and direction of travel lanes varies.

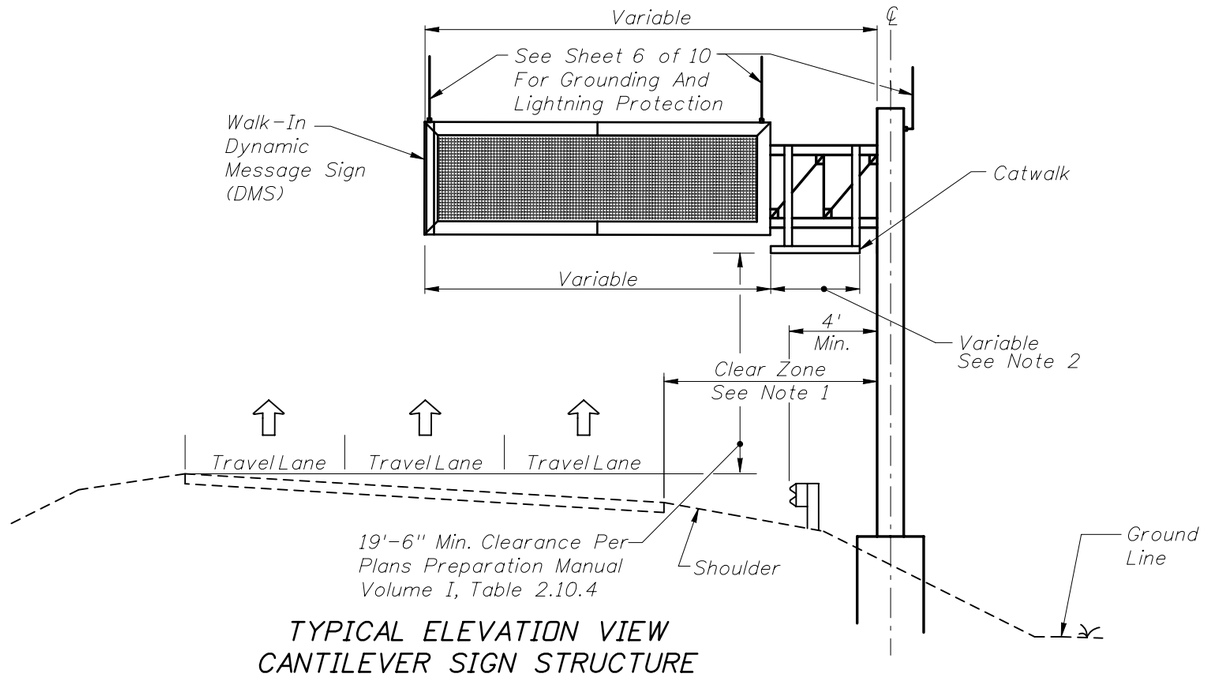
TYPICAL PLAN VIEW
DMS CANTILEVER SIGN STRUCTURE



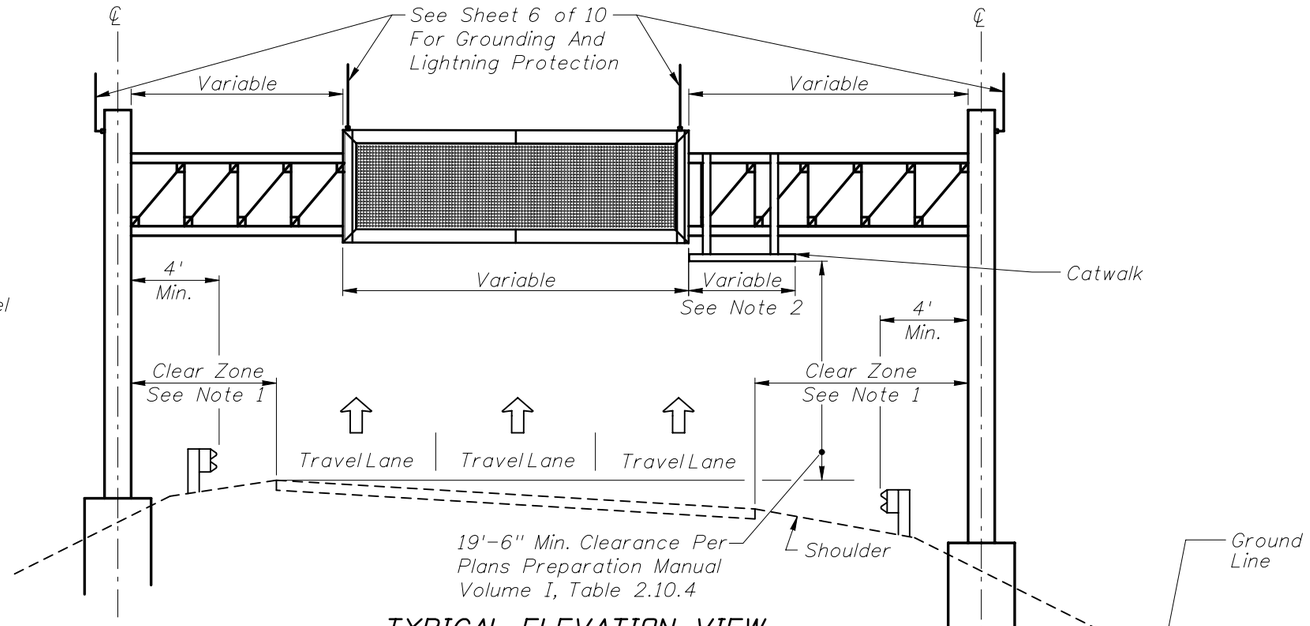
Note: Actual number and direction of travel lanes varies.

TYPICAL PLAN VIEW
SPAN SIGN STRUCTURE

Not To Scale



TYPICAL ELEVATION VIEW
CANTILEVER SIGN STRUCTURE



TYPICAL ELEVATION VIEW
SPAN SIGN STRUCTURE

GENERAL LAYOUT

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
05/14/10	HAB	Updated and Renumbered Index 18302 to 18300 Sheet 1 of 10.			

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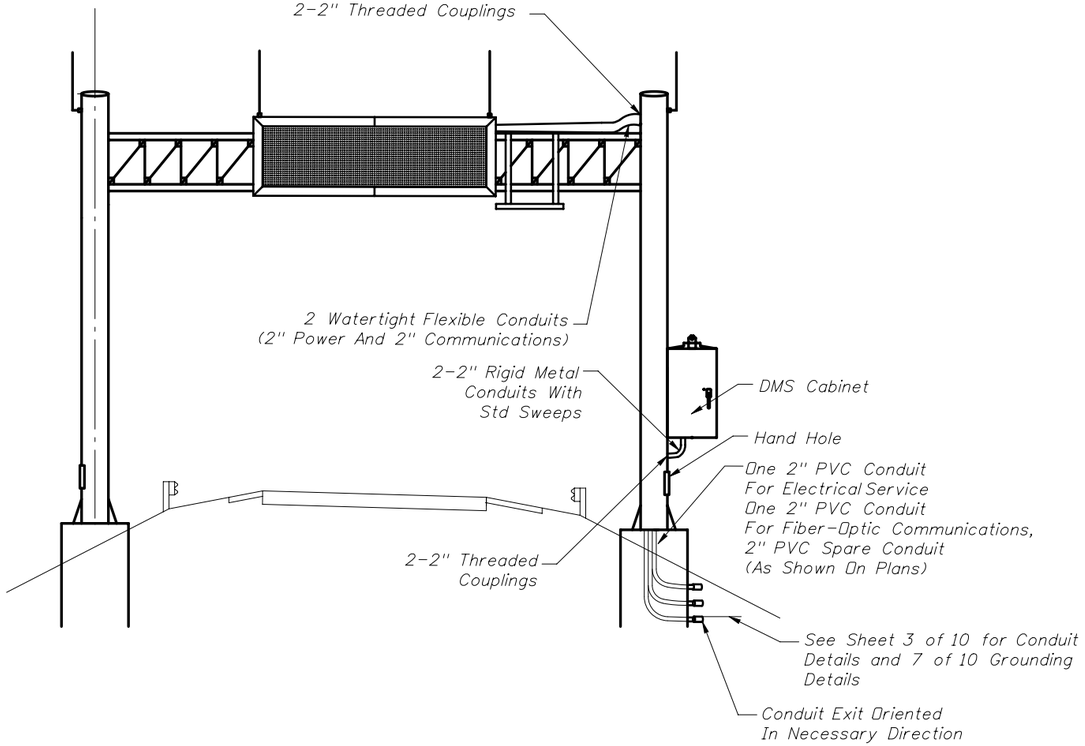
DYNAMIC MESSAGE SIGN
WALK-IN

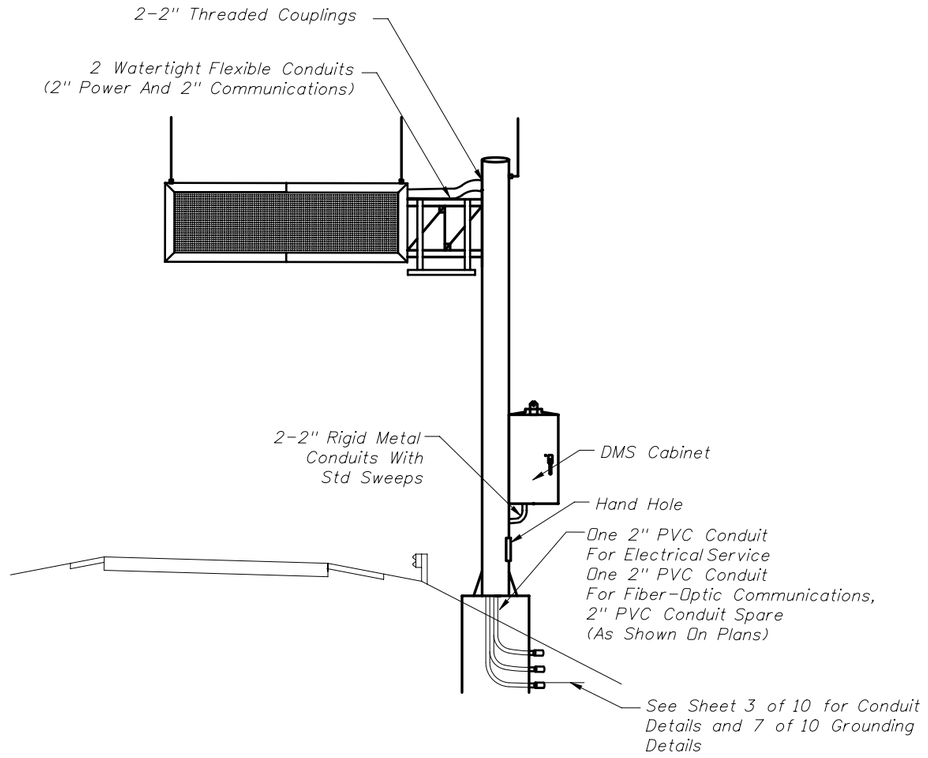
Interim Date 07/01/10

Sheet No. 1 of 10

Index No. 18300



SPAN DMS



CANTILEVER DMS

GENERAL NOTES:

1. Conductors for grounding shall be connected to steel framework that have 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 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 cable 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.

Not To Scale

GENERAL DETAILS (1 of 2)

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
05/14/10	HAB	Renumbered Index 18303, sheet 2 of 2 to Index Number 18300 2 of 10.			

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WALK-IN

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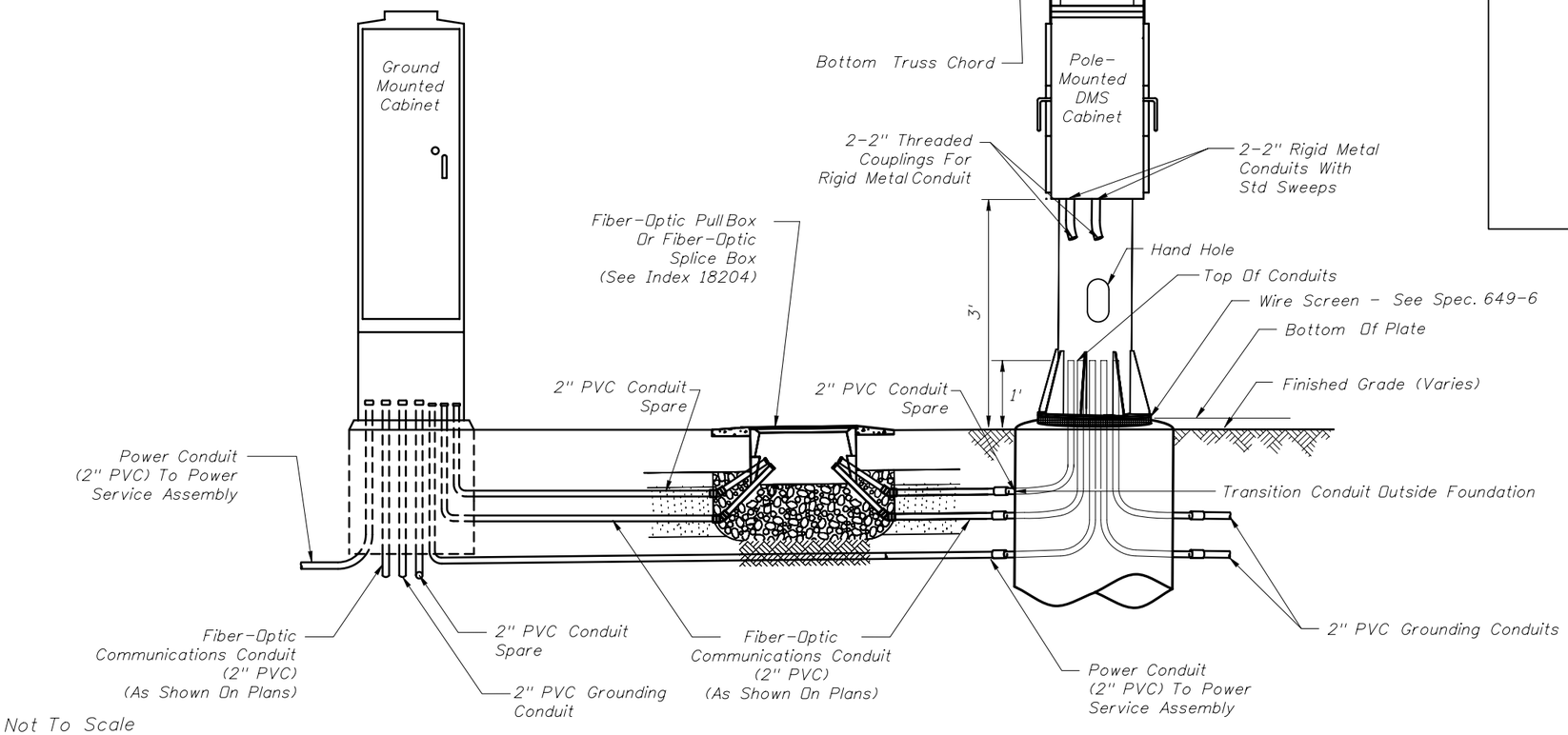
GENERAL NOTES:

1. DMS Cabinet may be pole or ground mounted depending on project requirements.
2. See sheet 7 of 10 for additional conduits for grounding. The number and placement of conduits are approximate.



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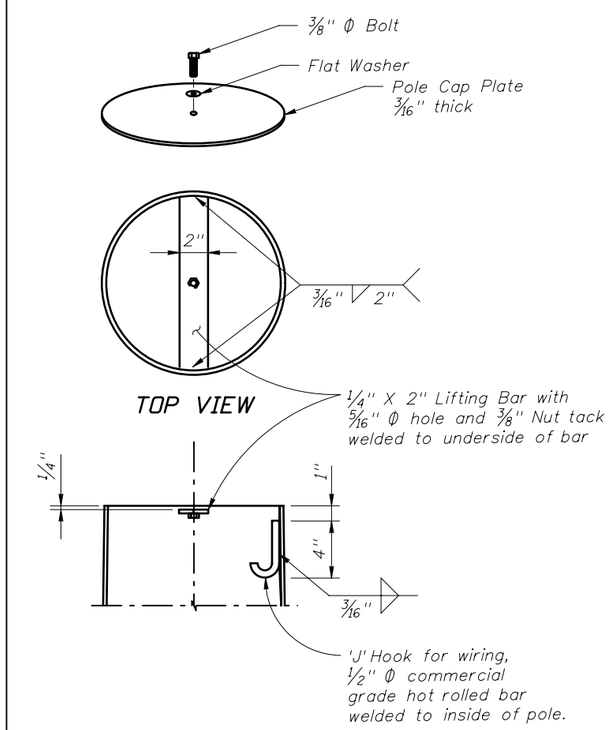

POLE TOP CUT-AWAY

GENERAL DETAILS (2 OF 2)

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
05/14/10	HAB	Renumbered Index 18303, sheet 1 of 2 to Index Number 18300 3 of 10. Revised conduit and cabling details and conduit sizes.			

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DYNAMIC MESSAGE SIGN WALK-IN

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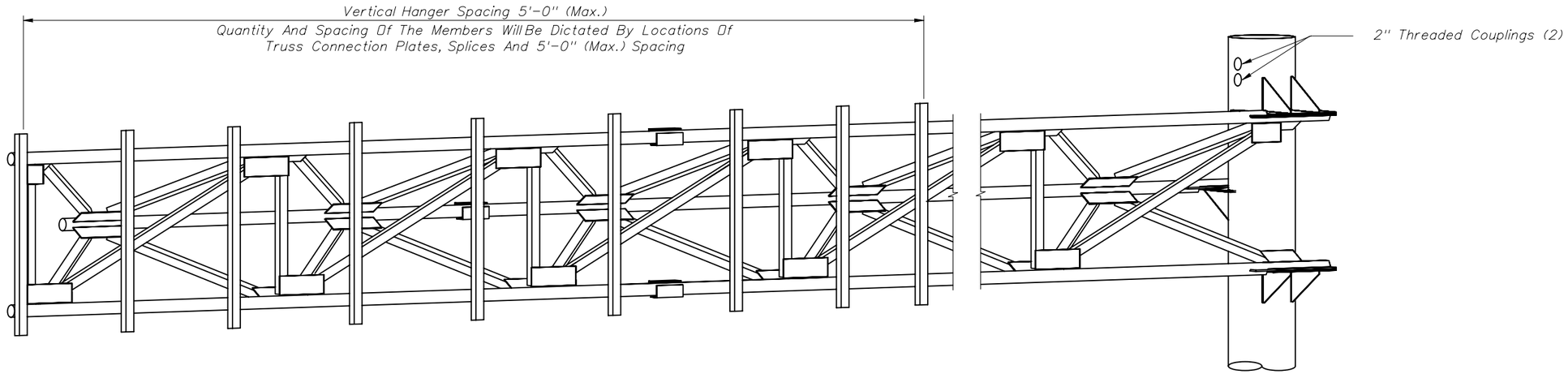

HANGER LOCATION DETAIL

(Cantilever Sign Structure Shown, Span Sign Structure Similar)

GENERAL NOTES:

1. Design Specifications: FDOT Structures Manual (current edition) and AASHTO standard specifications for structural supports for highway signs, luminaries and traffic signals.
2. Design Wind Speed: 150 miles per hour. maximum DMS box weight for design: 4500lb.
3. Shop drawings including the DMS connection are required and fabrication shall not begin until these shop drawings are approved.
4. Before erection, after both the delivery of the DMS sign enclosure 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.
5. Insure that the field located holes center justify vertically the sign enclosure with the centerline of the truss.
6. Locate the sign laterally on the structure as shown in the plans.
7. Insure that the field located holes allow the vertical hangers to be placed as shown on the plans with no conflicts with gusset or splice plates.
8. All steel items shall be galvanized as follows:
   All nuts, bolts and washers ASTM F2329
   All other steel items ASTM A123
9. All bolt hole diameters shall be equal to the bolt diameter plus 1/16", prior to galvanizing.
10. All bolts shall have single self-locking nuts or, proprietary locking nut system, installed in accordance with the manufacturer's recommendations.
11. Cost of the installation of the DMS sign enclosure on truss including the vertical hangers associated members and hardware shall be incidental in the cost of the sign structure.
12. Threaded couplings shall be located on sign side of column above the sign truss.

SIGN ATTACHMENT (1 of 2)

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
05/14/10	HAB	Added Call-out for 2-2" Threaded Couplings.			

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DYNAMIC MESSAGE SIGN
WALK-IN

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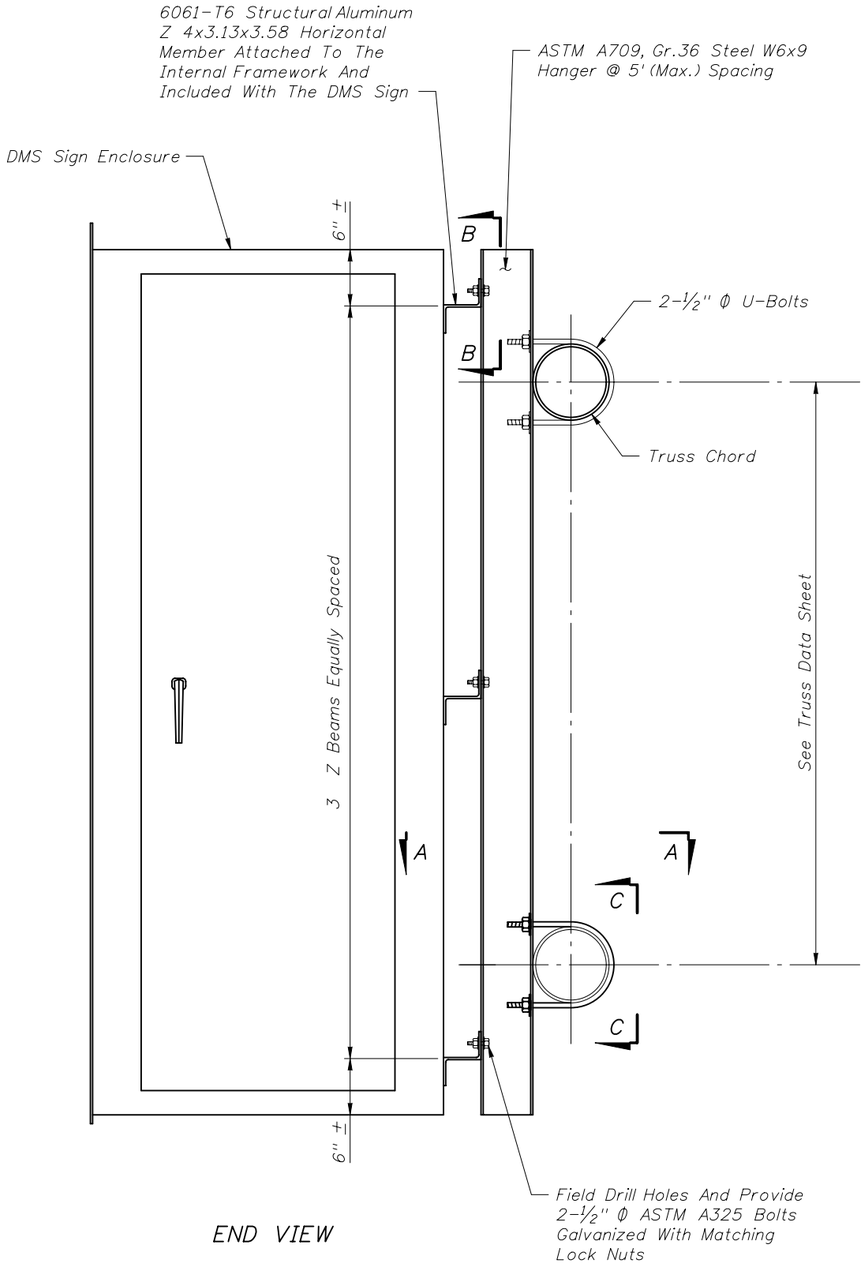
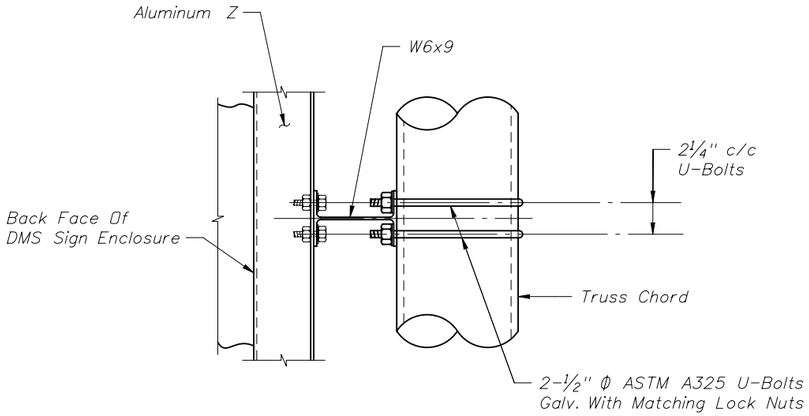
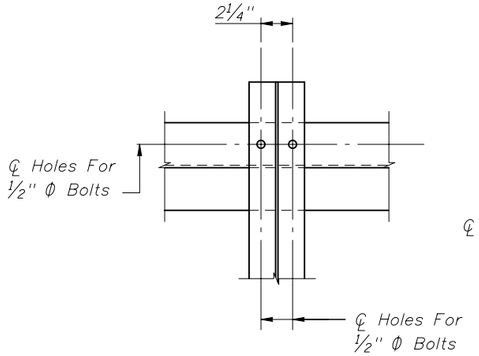


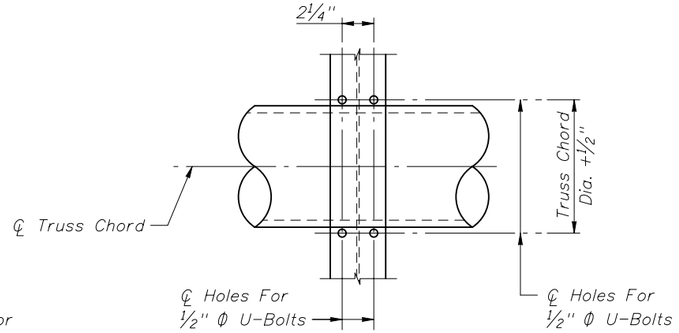
END VIEW



SECTION A-A



SECTION B-B



SECTION C-C

SIGN ATTACHMENT (2 of 2)

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
07/01/10	RM	Created new sheet			

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DYNAMIC MESSAGE SIGN WALK-IN

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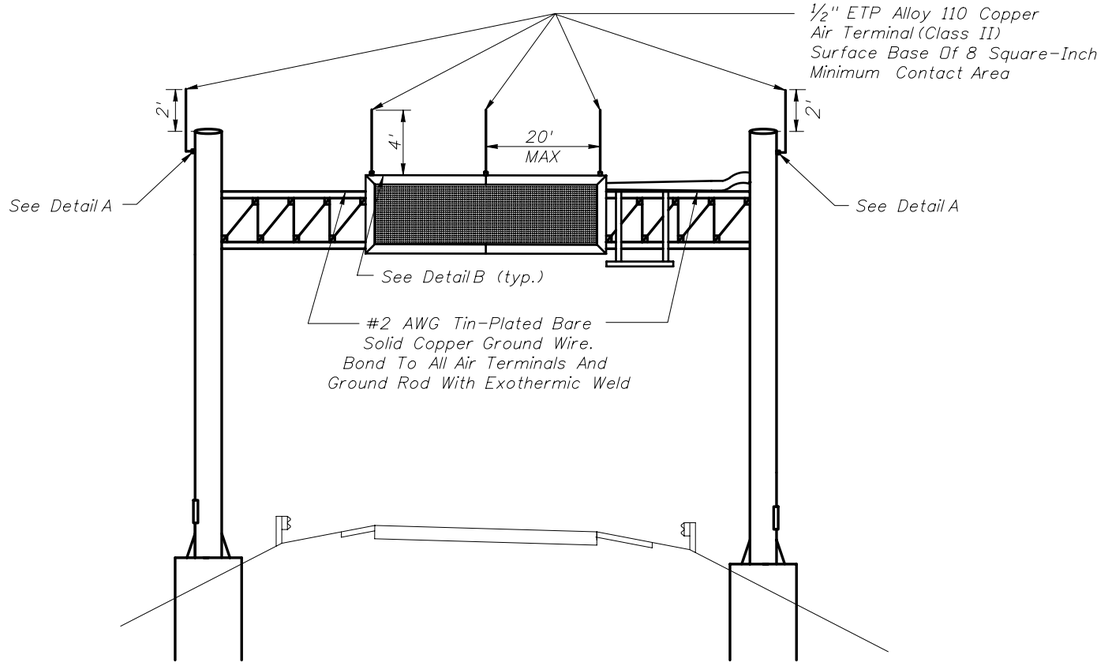
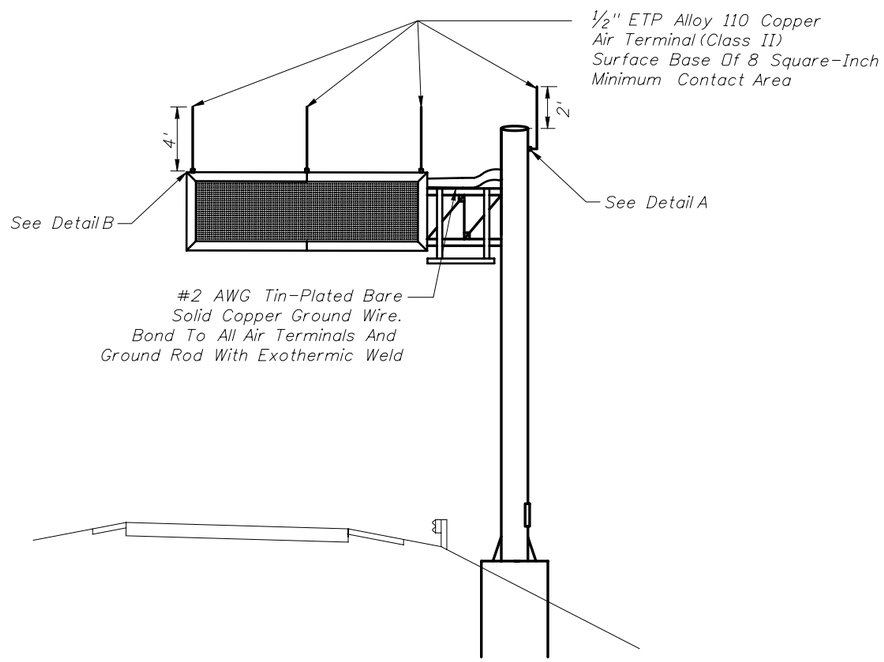
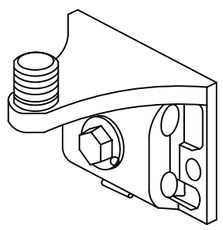


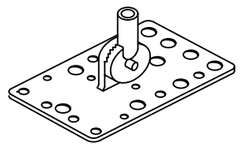
SPAN DMS



CANTILEVER DMS



DETAIL A



DETAIL B

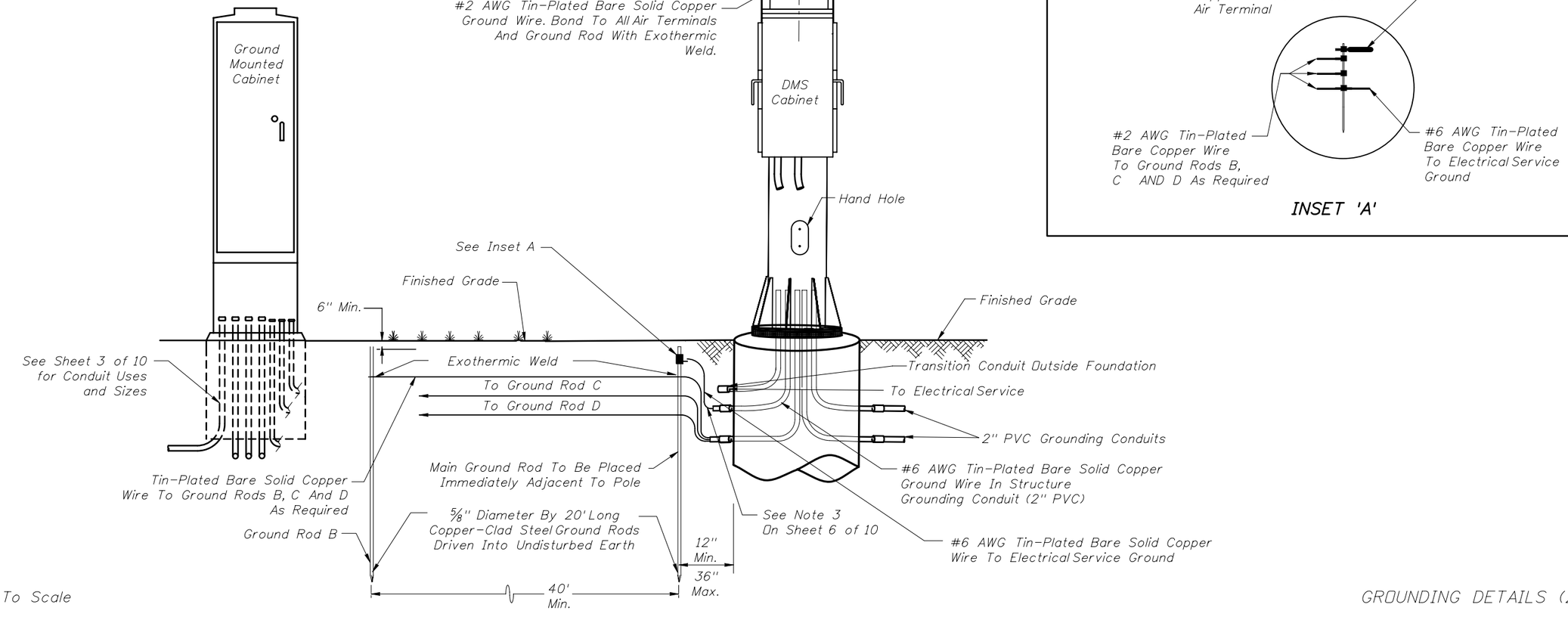
GENERAL NOTES:

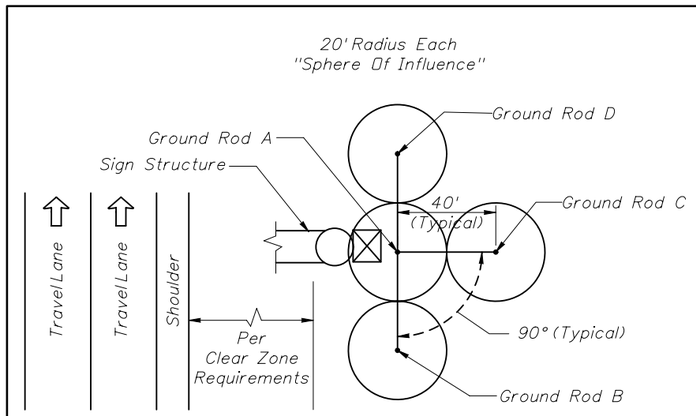
1. All grounding materials shall meet the requirements of Section A620 of the current Minimum Specifications For Traffic Control Signal Devices (MSTCSD), except as noted.
2. Exothermically weld all connections to ground rods.
3. The contractor may, upon approval of the Engineer, install a 30-foot sectional ground rod for instances when conditions will not allow for the installation of the 3 auxiliary ground rods.
4. Install marker tape directly above all grounding electrodes and conductors.
5. Copper flat surfaces shall be bolted, welded, or brazed securely to framework to maintain electrical continuity.
6. All air terminals must meet UL-96A.
7. Grounding system shall be placed within right of way.
8. See Sheet 7 of 10 for ground rod placement detail.
9. Lightning protection shall conform to NFPA 780. Spacing between air terminals shall not exceed 20 feet.

Not To Scale

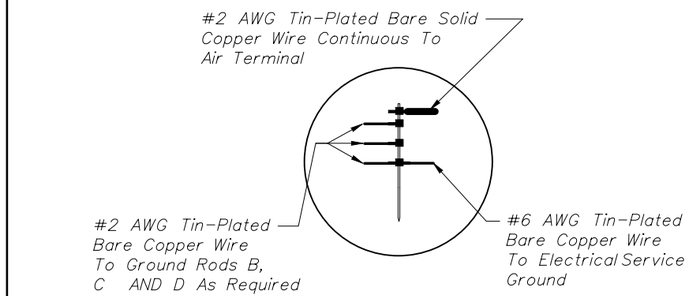
GROUNDING DETAILS (1 of 2)

REVISIONS						2010 Interim Design Standard	Interim Date	Sheet No.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DYNAMIC MESSAGE SIGN WALK-IN	07/01/10	6 of 10
05/14/10	HAB	Renumbered Index 18305, sheet 2 of 2 to Index Number 18300 6 of 10. Revised conduit and cabling details and conduit sizes.					Index No. 18300	





GROUND ROD PLACEMENT DETAIL (TYPICAL EACH POLE)



INSET 'A'

Not To Scale

GROUNDING DETAILS (2 of 2)

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
05/14/10	HAB	Renumbered Index 18305, sheet 1 of 2 to Index Number 18300 7 of 10. Revised conduit and cabling details and conduit sizes.			

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DYNAMIC MESSAGE SIGN WALK-IN

Interim Date 07/01/10

Sheet No. 7 of 10

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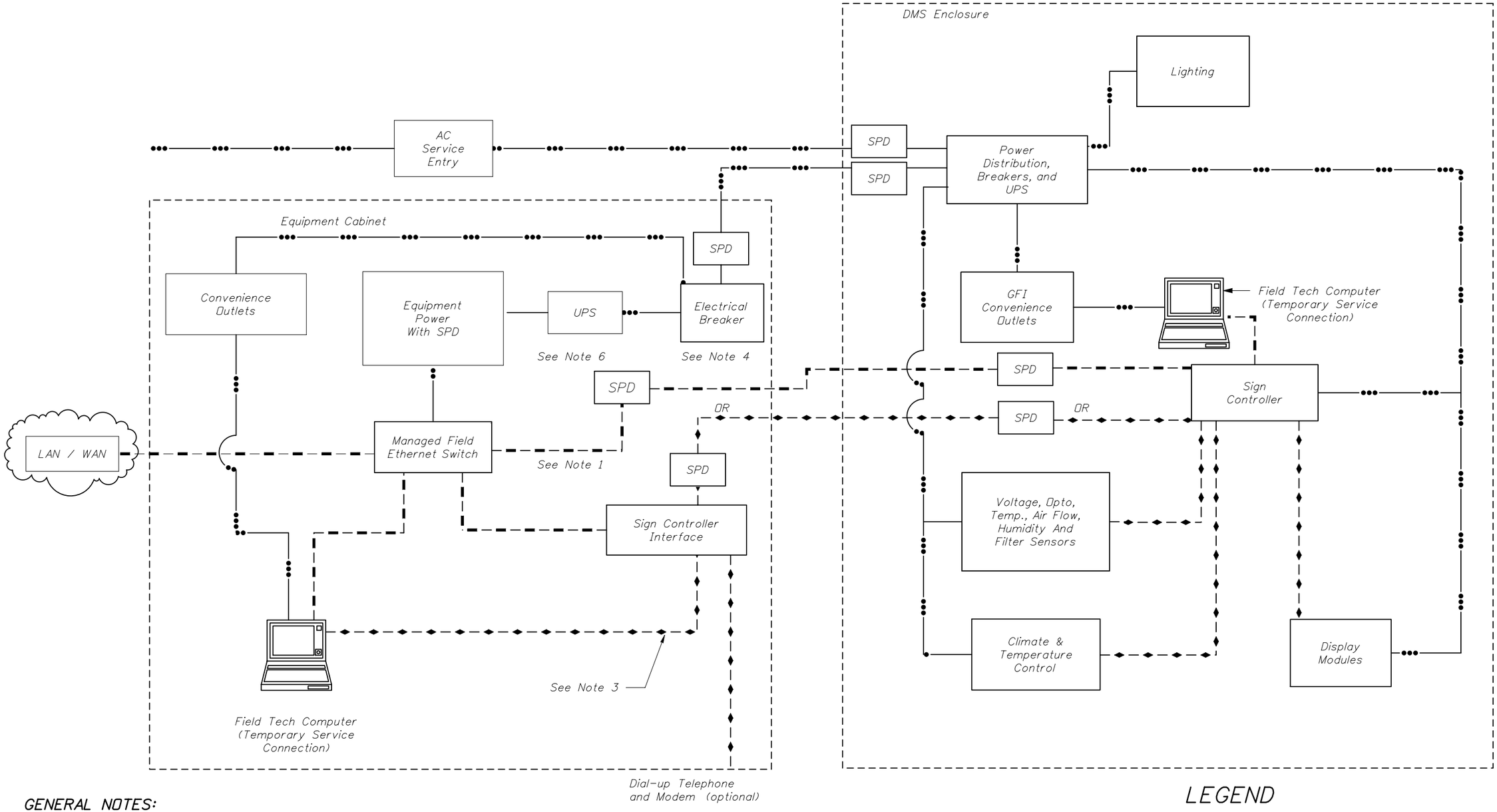

GENERAL NOTES:

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.

LEGEND

Data
Ethernet
Power
SPD — Surge Protection Device

SIGN AND CABINET WIRING DIAGRAM

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
05/14/10	HAB	Renumbered Index 18300 to Index Number 18300 8 of 10. Moved Ethernet equipment from sign to cabinet.			

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Sheet No. 8 of 10

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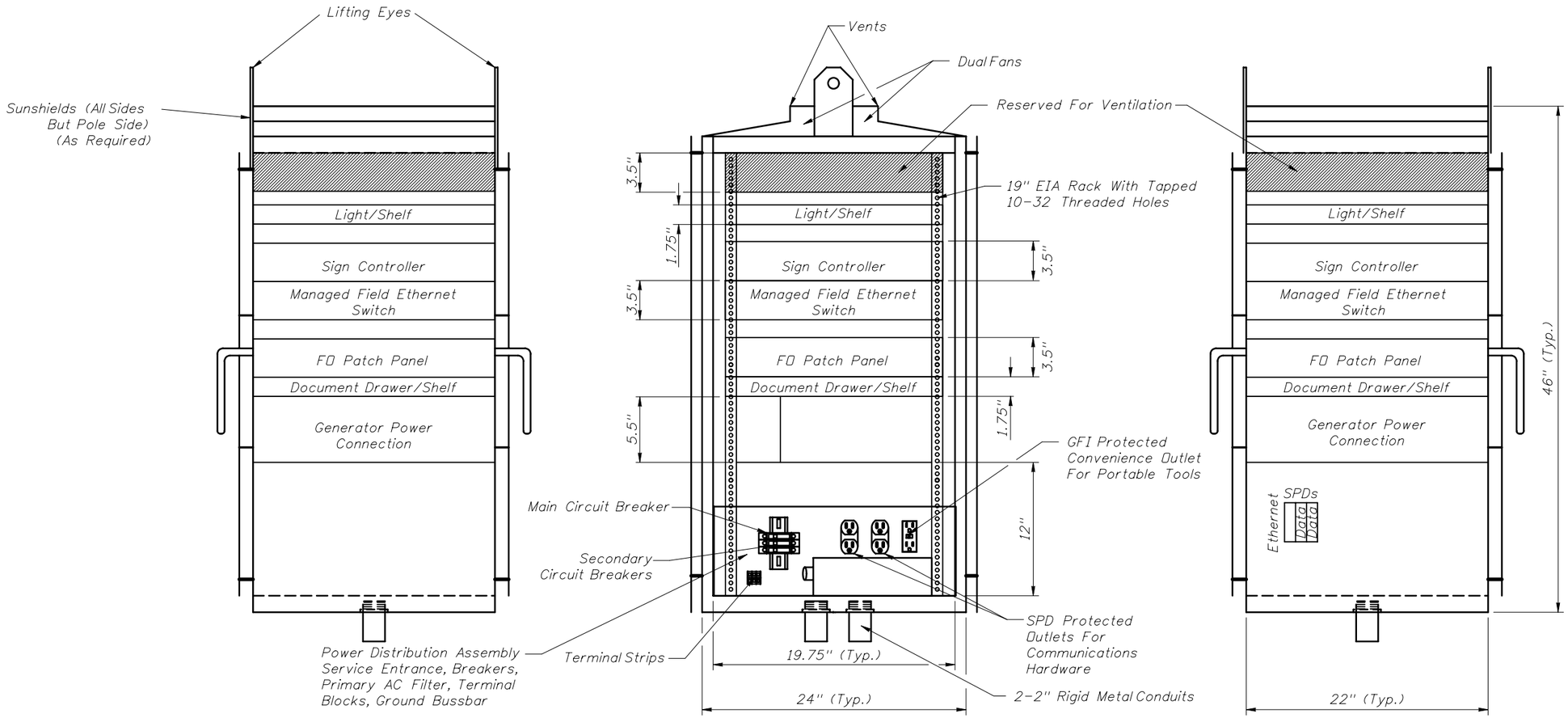

LEFT SIDE VIEW

FRONT VIEW
POLE MOUNTED DMS CABINET

RIGHT SIDE VIEW

GENERAL 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 sign 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.

Not To Scale

CABINET LAYOUT (1 of 2)

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
05/14/10	HAB	Renumbered Index 18301 to Index Number 18300 10 of 10. Added shelves, drawer, generator connection, sunshields, revised load center.			

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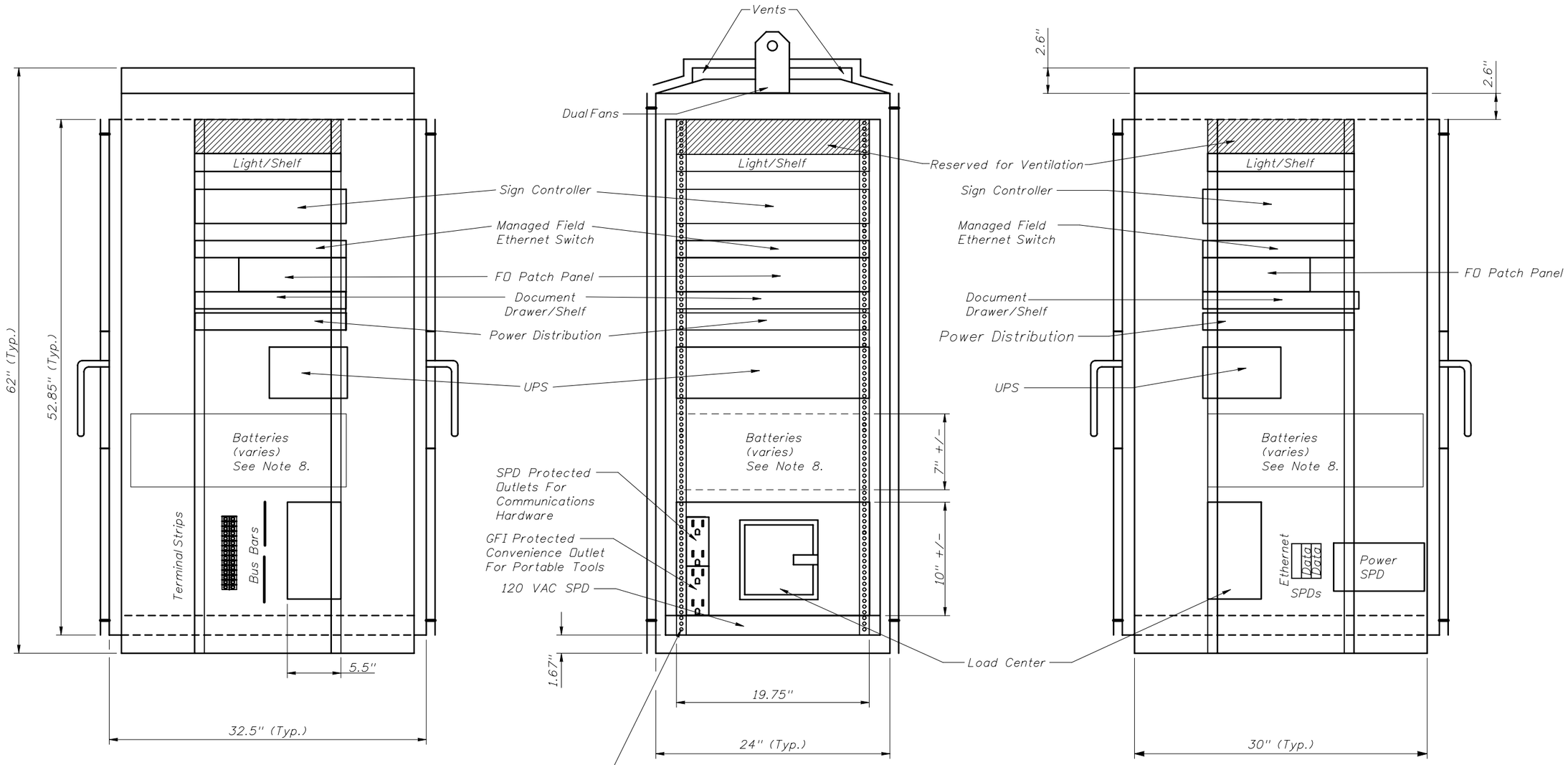

LEFT SIDE VIEW

FRONT VIEW
GROUND MOUNTED DMS CABINET

RIGHT SIDE VIEW

Not To Scale

CABINET LAYOUT (2 of 2)

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
07/01/10	HAB	Added as new sheet for base mounted cabinet.			

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WALK-IN

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