
Index 700-091 Catwalk Detail

ORIGINATION

Date: July 7, 2019

Name: Chery Hudson

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COMMENTARY

New Index

COMMENTS AND RESPONSES

BLACK = Industry Review Comments **RED** = Standard Plans Response

Name: Todd Bettger

Date: August 8, 2019

COMMENT:

1. Catwalk details should have a typical section showing the distance it should be placed behind the guardrail and shoulder. The index only includes an isometric view without any dimensions behind the guardrail.
2. Recommend adding a dimension line from the guardrail to the upright and clarify that minimum offset criteria should be met to the upright if the foundation is flushed. If the foundation is sticking out of the ground, the offset criteria would need to be met up to the foundation.
3. Detail should also provide space to park a bucket truck behind the guardrail. This shows no future allowance for maintenance access.

RESPONSE:

Date: August 28, 2019

1. Covered in General Note 5 and shown in the FRONT ELEVATION detail on Sheet 2.
2. Guardrail and Structure (including foundation) are covered in their indexes and are noted on Sheet 1. They are grayed and dashed shown as prospective.
3. This should be covered in the Plans, not in the Catwalk Detail. The goal of the index is to show how the Catwalk attaches to the Truss System and in reference to the Dynamic Message Sign and the outer edge of the Pave Shoulder.

Name: Joshua Turley

Date: September 9, 2019

COMMENT:

Sheet 1 - Updated Notes to include:

1. ½" gap between DMS and Walkway
2. Grating meet requirements of Specification 504-2.3, support load to 90 psf, and 3 ½" toe kick.
3. OSHA compliant, self-closing safety gate
4. Chain link infill panels
5. Changed handrail to guiderail and added criteria for rails and post

Sheet 2 & 3 – Update design to improve safety:

1. Add chain link infill panels between the guiderails
2. Change the W6x15 walkway support to W8x15
3. Add horizontal life line
4. Added self-closing safety gate
5. Increased guiderail size
6. Changed the Fixed Base guiderail to a Bolted Base guiderail
7. Increased U-bolt and Bolted Base bolts to ¾"
8. Removed Gusset Plate to reduce the gap between the guiderails and walkway

RESPONSE:

Date: 9-10-19

Made all changes.

Name: Mark B. Eacker

Date: September 13, 2019

COMMENT:

I have reviewed your attached Index 700-090 plan details for the catwalk. The fall prevention aspects are to OSHA standards.

RESPONSE:

Date: 9-13-19

Thank You.

Name: Turnpike

Date: September 12, 2019

1. It appears the lengthening of the catwalk towards the outside shoulder will inhibit maintenance's ability to safely access via their standard bucket truck. With the maintenance vehicle parked on the shoulder, it is apparent that a level of bucket arm articulation not typical of the fleet would be required to safely square up the bucket to the catwalk end.
2. We requested comment from Turnpike Maintenance and Operations and have gotten confirmation that they agree with our comment. M&O indicates that if the catwalk is extended, they would need to park the bucket truck on the outside slope instead of the shoulder, in order to square up the bucket to the catwalk.

RESPONSE:

Date: 9-13-19

Moved Note 5 to Note 2.A "Provide length as shown in the Plans"

Name: Anand Jujare, PE.

Date: September 16, 2019

COMMENT:

When access is NOT possible from outside the shoulder, extension of the catwalk depends on several factors including shoulder width and field constraints. A standard placement with a fixed offset may not work in all scenarios.

Therefore, we suggest leaving this up to individual EORs to design the catwalk extension (over shoulder) appropriately. Please let us know if you have any follow-up questions or comments.

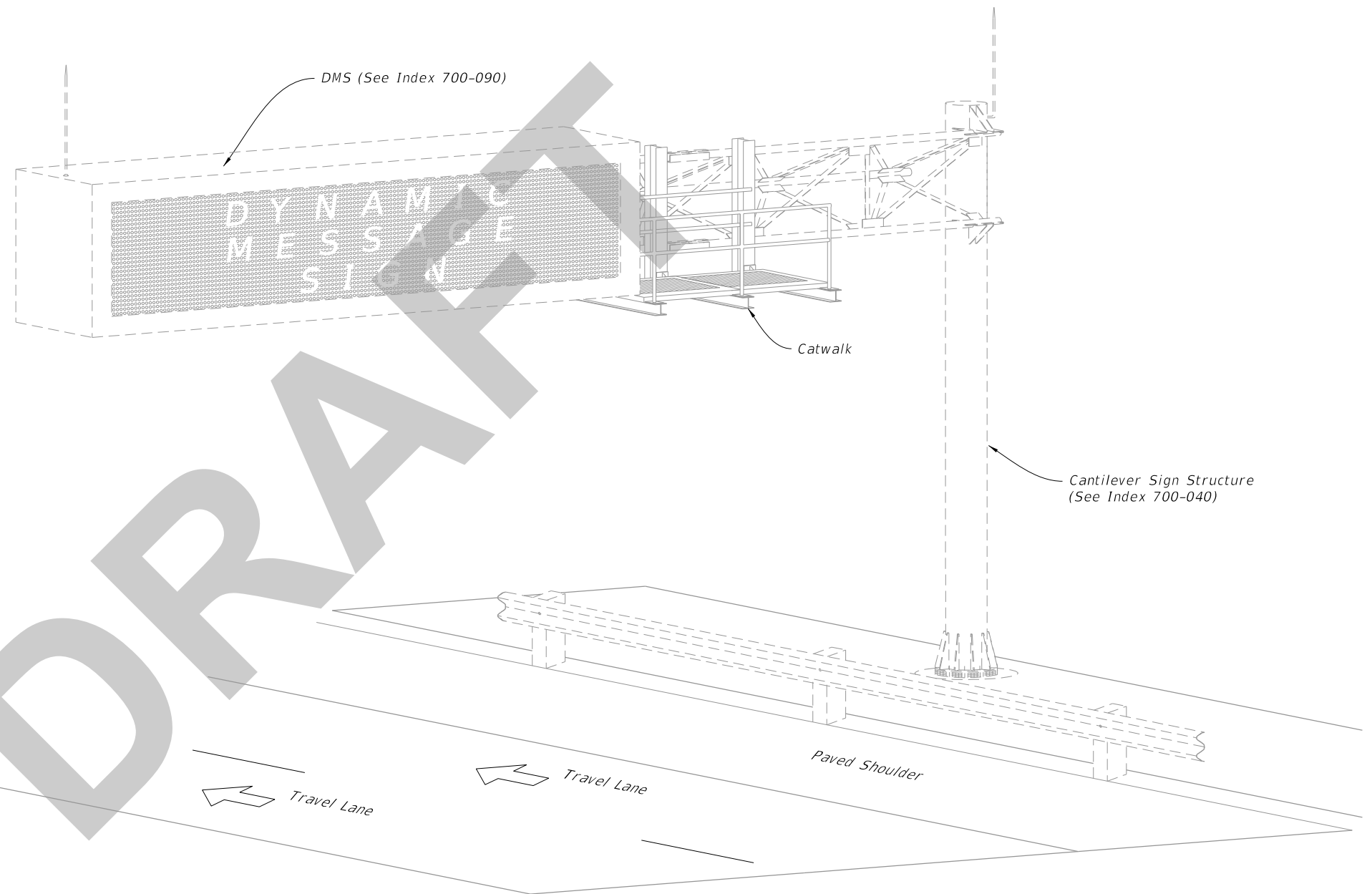
RESPONSE:

Date: 9-13-19

Moved Note 5 to Note 2.A "Provide length as shown in the Plans"

GENERAL NOTES:

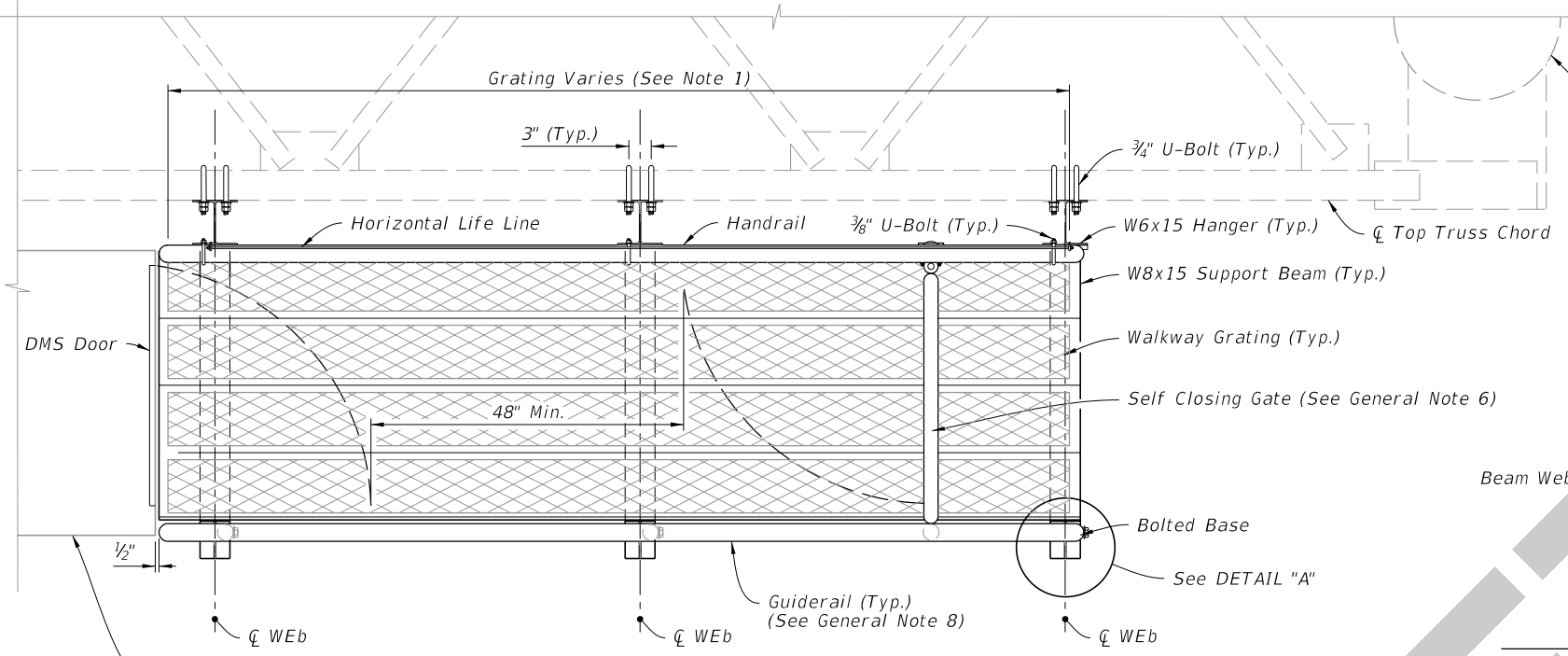
1. Work this Index with Specification 700.
2. Shop Drawings are required:
 - A. Provide Length as shown in the Plans
 - B. Design in accordance with AISC, AASHTO, and OSHA requirements
 - C. Do not start fabrication until the shop drawings are approved
3. Catwalk hangers must be positioned to avoid conflicts with the sign structure truss and gusset plates. Place walkway close to the sign with a maximum open distance from walkway grate to DMS sign of 1/2".
4. Maximum spacing of Catwalk hanger supports is 5'-0". Cantilever ends of grating is 8".
5. Galvanized steel catwalk grating meeting the requirements of Specification 504-2.3. Must Support a 90 psf load and have a 3 1/2" minimum toe kick. Attach grating in accordance with the manufacturer's instructions using stainless steel or galvanized fasteners.
6. Supply and install an OSHA 1910 compliant, self closing, corrosion resistant safety gate.
7. Chain link fabric options (2" mesh with knuckled selvage top and bottom for all options):
 - A. AASHTO M181 Type I - Zinc Coated Steel, No. 9 gage (coated wire diameter), coated at the rate of 1.8 oz./ft². (M181 Class D 2.0 oz./ft². modified to 1.8 oz./ft²).
 - B. AASHTO M181 Type II - Aluminum Coated Steel, No. 9 gage (coated wire diameter), coated at the rate of 0.40 oz./ft².
8. Install 2" NPS (Sch. 40) guiderail and posts: ASTM A53 Grade B for standard weight pipe.
9. Welding:
E70XX
10. Materials:
 - A. Steel Plates ASTM A 36 or A709 Grade 36.
 - B. W- Sections: ASTM A572 Grade 36 or 50.
 - C. Steel Pipe Railings or Structural Tubing: Specification 962
 - D. High Strength Bolts, Nuts and Washers: Specification 962
 - E. U-Bolts, nuts and washers: Specification 962
11. Coatings/Galvanizing:
Hot dip galvanize support frame after fabrication and galvanize non-stainless steel fasteners in accordance with Specification 962.



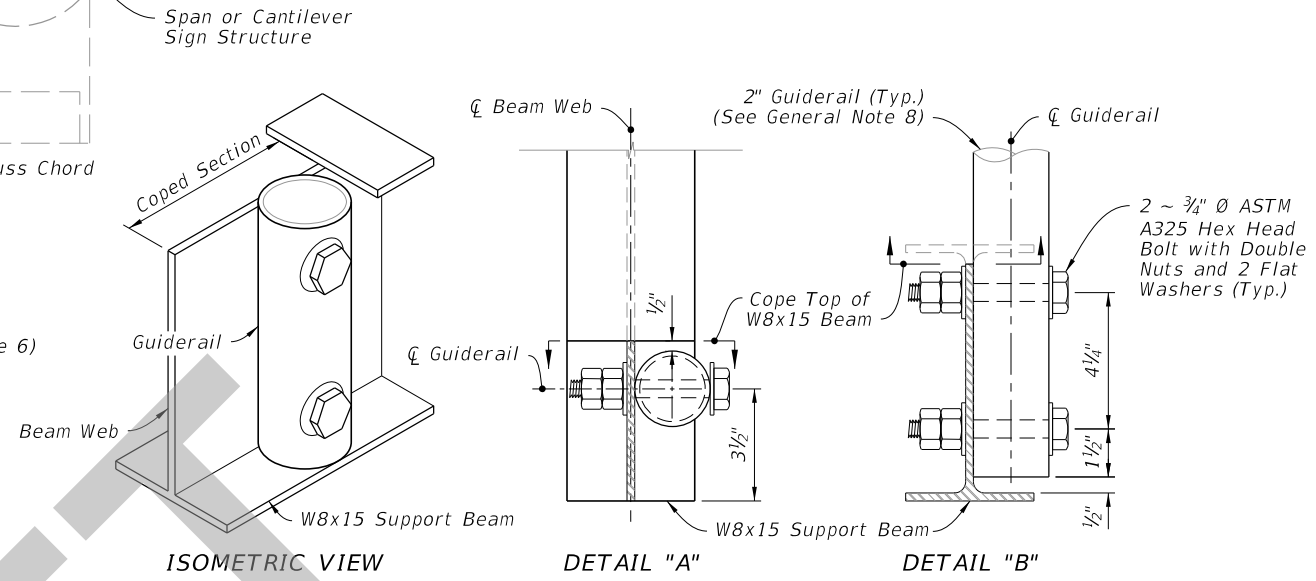
CATWALK ASSEMBLY
(Cantilever Shown, Span Similar)

TABLE OF CONTENTS:	
Sheet	Description
1	General Notes and Content
2	General Assembly and Fixed Base Details
3	Walkway Support Details

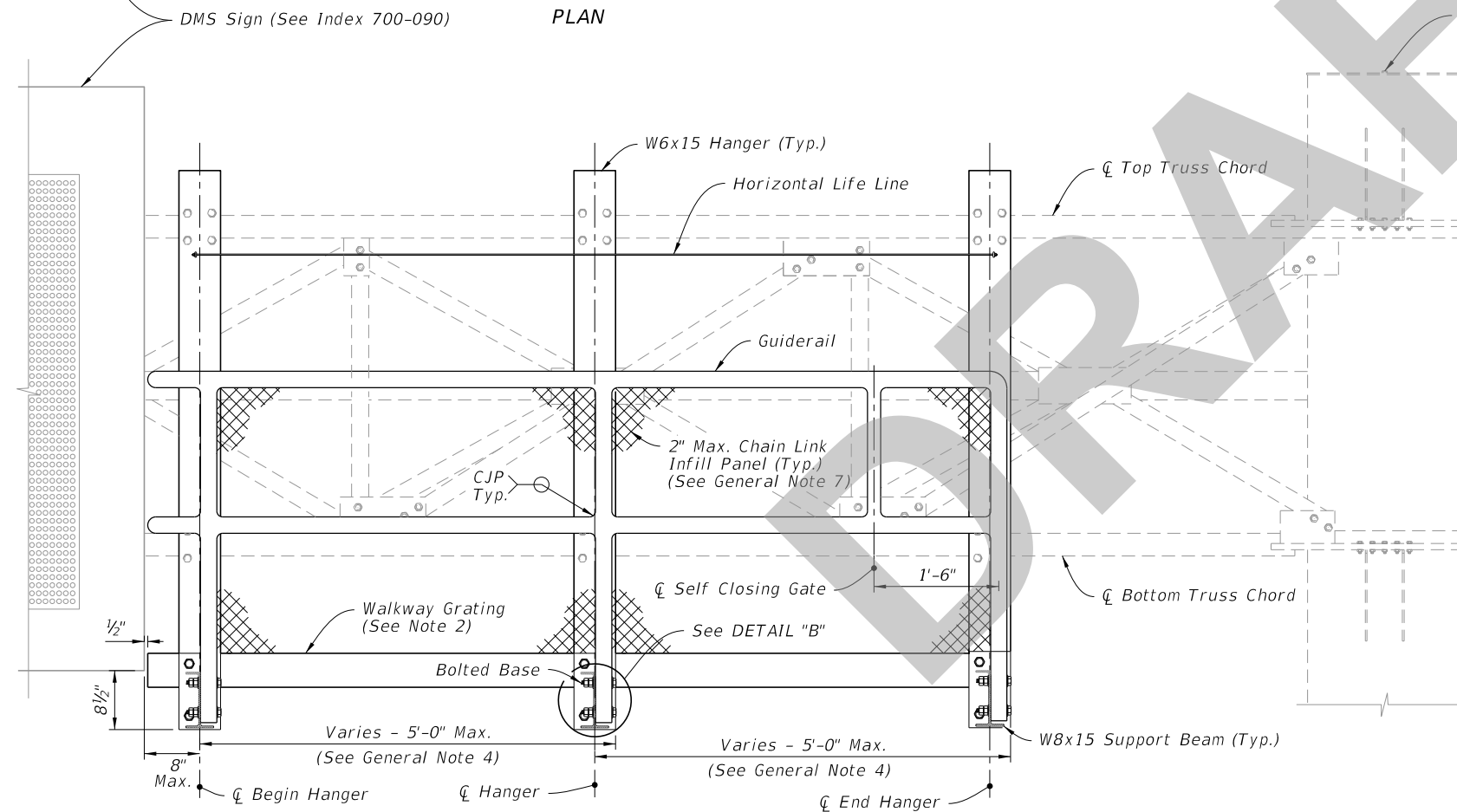
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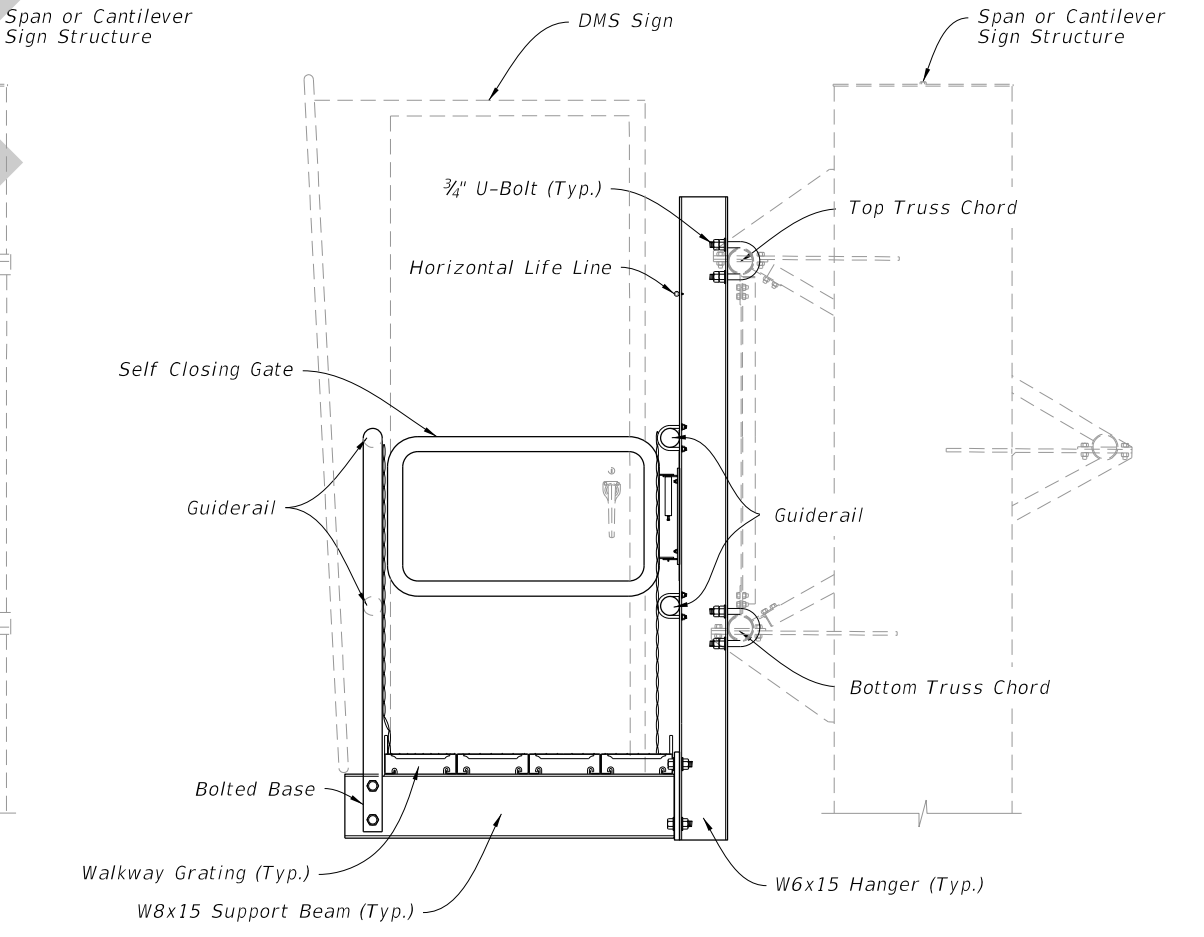
PLAN



BOLTED BASE DETAILS



FRONT ELEVATION



SIDE ELEVATION

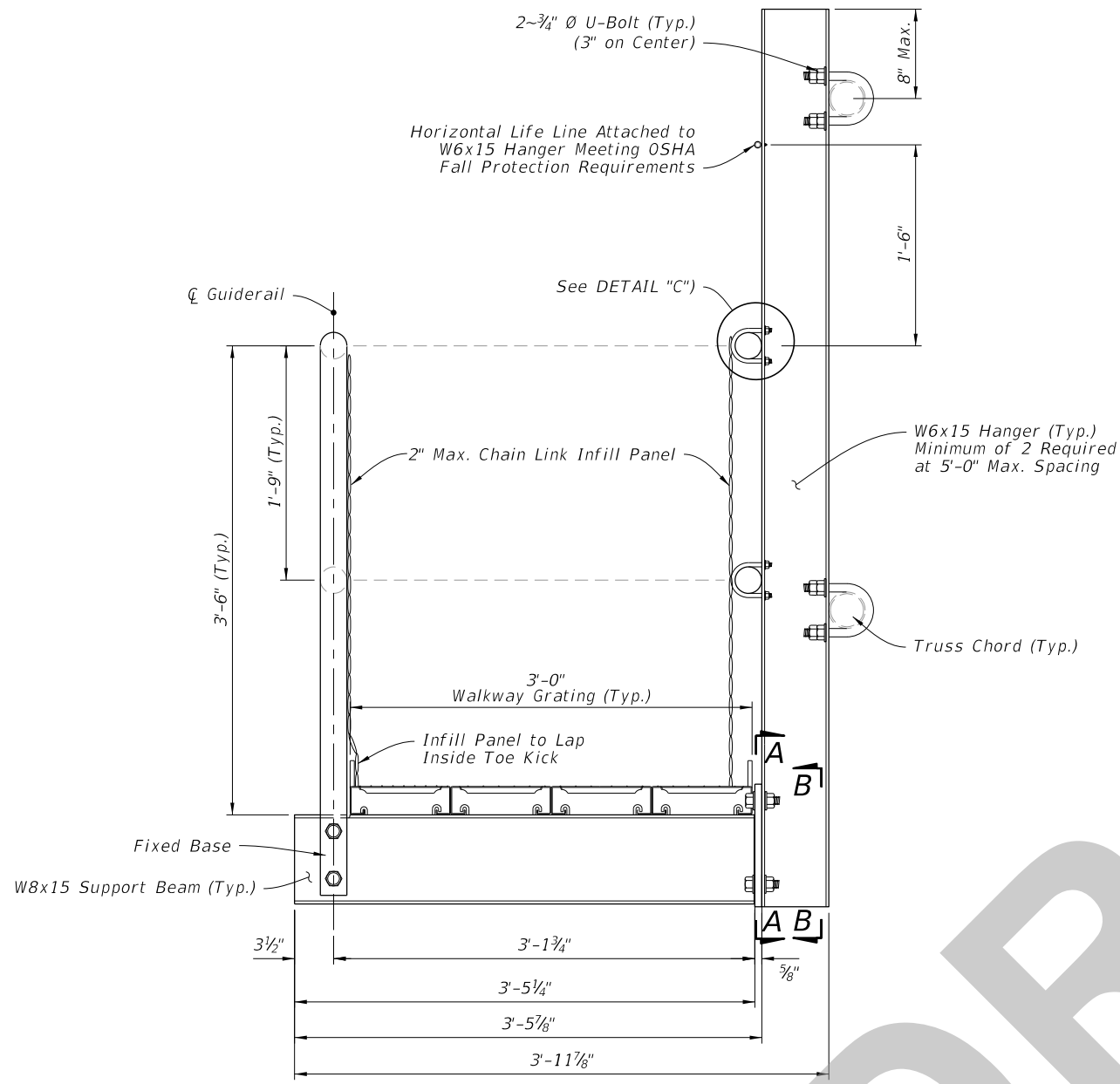
GENERAL ASSEMBLY

- NOTES:**
1. See manufacturer details for walkway planks and bolting criteria.
 2. Fasten securely. See grating manufactures details.

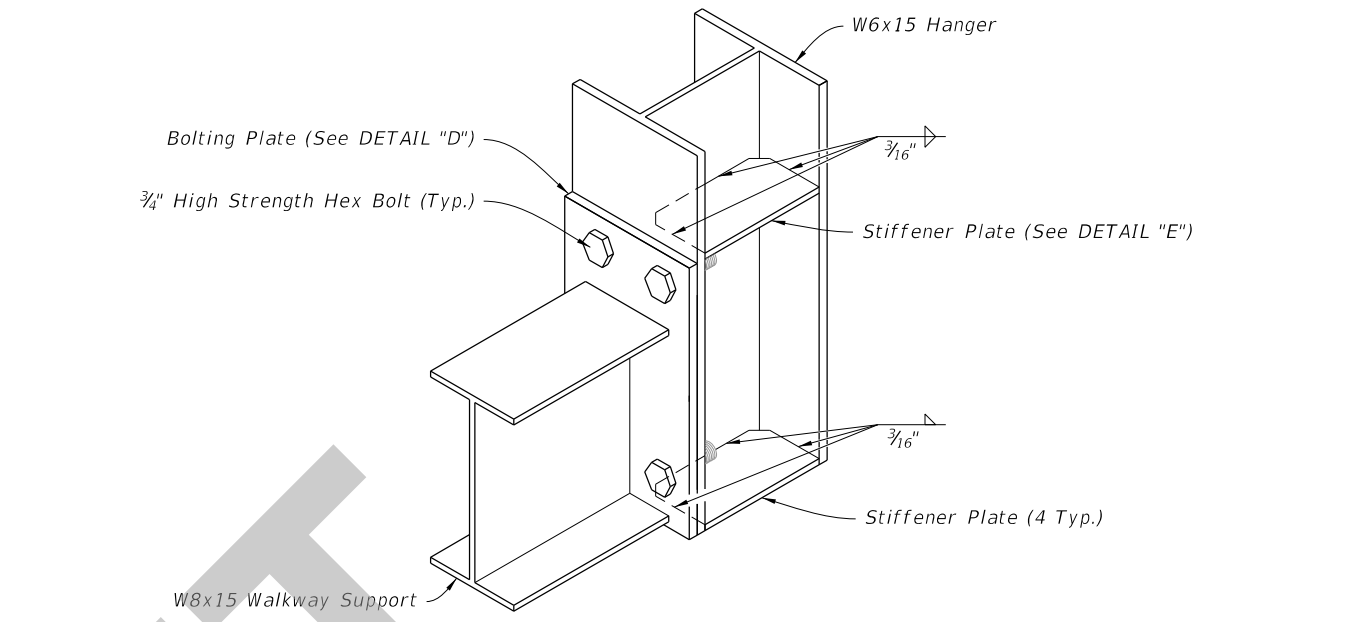
GENERAL ASSEMBLY AND FIXED BASE DETAILS

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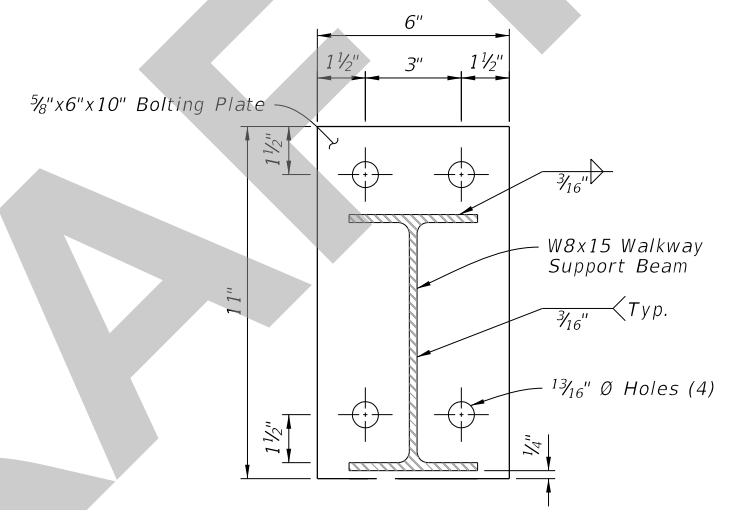
LAST REVISION 11/01/19	DESCRIPTION:	 FY 2020-21 STANDARD PLANS	CATWALK DETAILS	INDEX 700-091	SHEET 2 of 3
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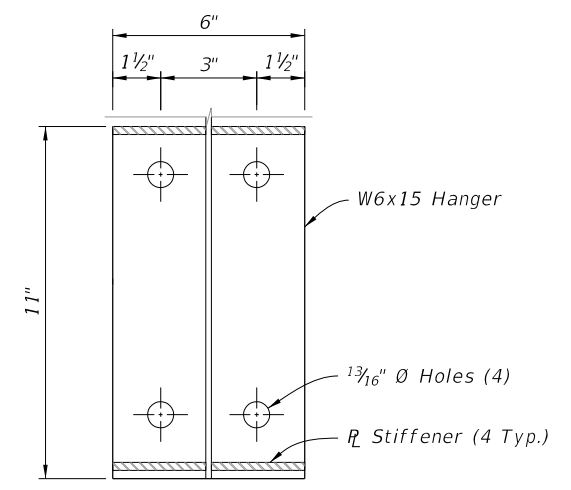
WALKWAY SUPPORT DETAILS



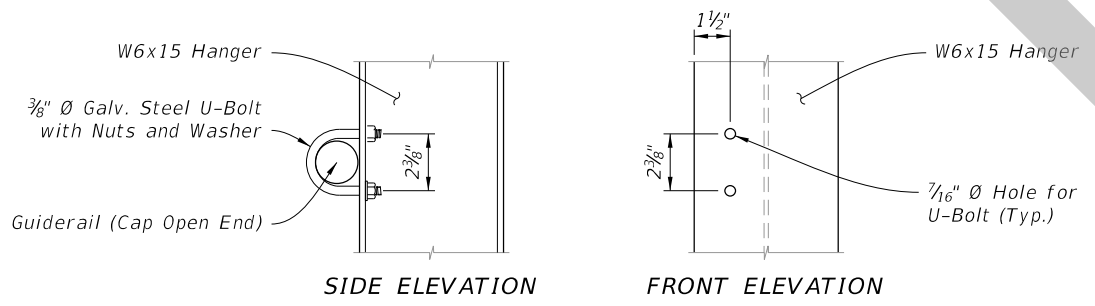
ISOMETRIC VIEW



SECTION A-A



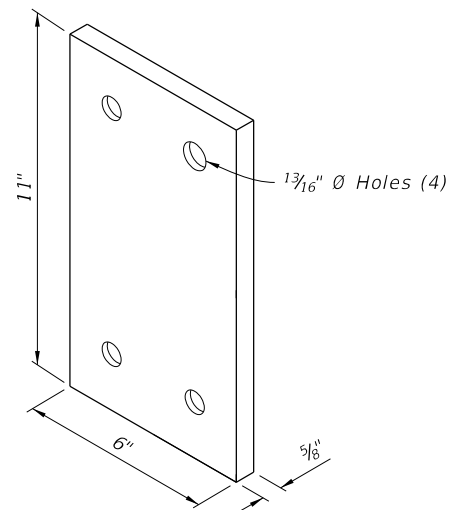
SECTION B-B



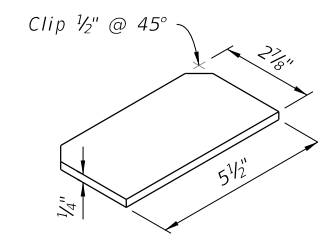
SIDE ELEVATION

FRONT ELEVATION

DETAIL "C"
(Guiderail Attachment)



DETAIL "D"
(Bolting Plate)



DETAIL "E"
(Stiffener Plate)

WALKWAY SUPPORT DETAILS

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LAST REVISION 11/01/19	DESCRIPTION:	 FY 2020-21 STANDARD PLANS	CATWALK DETAILS	INDEX 700-091	SHEET 3 of 3
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