

DynaRound™ Hatch Guard System Installation Instructions

Estimated Installation Time: 2 Man Crew, 60 - 90 Minutes

The DynaRound Hatch Guard System is designed to protect all rooftop hatch entry and exit points. This non-penetrating system is easily installed and can be used both temporarily and preeminently depending on need. The FRP railings and galvanized fittings ensure a long service life.

INSTALLATION INSTRUCTIONS ARE FOR:

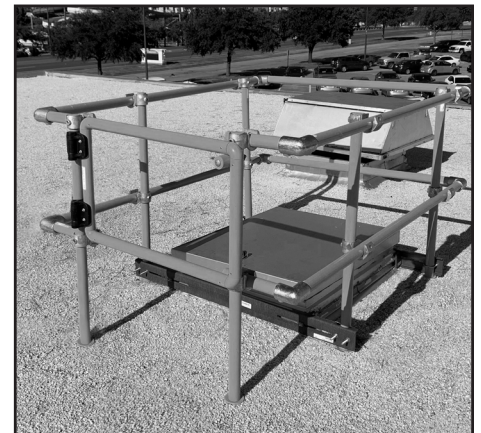
- PN 5041210 DynaRound RG Hatch Guard Yellow – Fits Hatches 30-36 inches x 30-54 inches**
- PN 5041310 DynaRound RG Hatch Guard Yellow – Fits Hatches 30-36 inches x 96-114 inches**
- PN 5041410 DynaRound RG Hatch Guard Yellow – Fits Hatches 42-48 inches x 42-60 inches**
- PN 5041212 DynaRound RG Hatch Guard Lt. Gray – Fits Hatches 30-36 inches x 30-54 inches**
- PN 5041312 DynaRound RG Hatch Guard Lt. Gray – Fits Hatches 30-36 inches x 96-114 inches**
- PN 5041412 DynaRound RG Hatch Guard Lt. Gray – Fits Hatches 42-48 inches x 42-60 inches**

Drawings for each part number of yellow Hatch Guard are included at the end of these installation instructions. The drawings for the Lt. Gray Hatch Guards are identical except for color.

TOOLS REQUIRED

- 5/16-inch Hex (Allen) Wrench**
- 5/16-inch Hex Drive Socket (to fit torque wrench)**
- Torque wrench 5 – 50 lb-ft range (6.8 –67.6 N-m)**
- Socket Set with extensions – SAE (inches)**
- Open End Wrench Set – SAE (inches)**
- Marker or Pencil**
- 25-foot tape measure**
- Blue (removable) thread locking compound**

NOTE: Cuts and drilled holes must be sealed to maintain corrosion protection.



IMPORTANT

Read these instructions completely before attempting to install the DynaRound Hatch Guard. It is important to understand the installation procedure thoroughly prior to beginning work. It is the installer's responsibility to carefully follow fabrication and installation plans and instructions to ensure design performance characteristics of the DynaRound Hatch Guard. The installer could be liable for claims that result from improper installation.

ASSEMBLY INSTRUCTIONS:

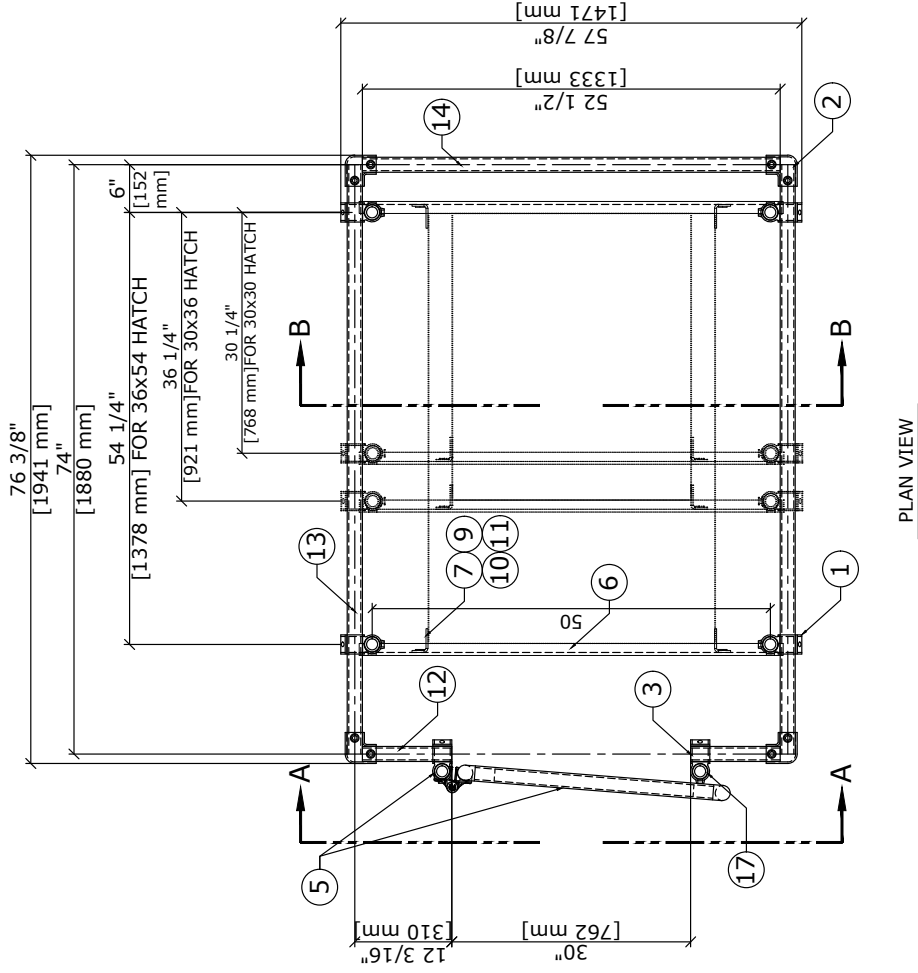
1. Inspect and inventory all components of the Dynaround RG Hatch Guard and compare to the bill of materials listed on the first page of the drawings to verify that all materials are available for installation. Contact Fibergrate at 1-800-427-4043 to report missing material and obtain replacements.
2. Read these instructions and study the drawings thoroughly before attempting to install the DynaRound RG Hatch Guard. Be sure you are referring to the correct drawings for the Hatch Guard being installed.
3. Inspect the hatch and surrounding roof area where the DynaRound RG Hatch Guard is to be installed. Remove any debris or obstructions in the installation area and verify all field dimensions and conditions prior to assembling and installing the Hatch Guard.
4. It is recommended to assemble the Hatch Guard adjacent to the hatch, then lift it over the hatch and clamp the Hatch Guard in place. Prepare a suitable assembly area adjacent to the hatch and protect the roof in that area following the roofing manufacturer's recommendations
5. While the components of the DynaRound RG Hatch Guard which contact the roof are designed not to damage roofing materials, it is recommended that the roof manufacturers recommendations be followed for protecting the roofing material from abrasion damage at any location where the Hatch Guard contacts the roof.

Installation Instructions

6. Attach two Item (7) Hatch Guard 3.25" (82 mm) Angle into the long slots in each Hatch Guard 55" (1397 mm) Channel or Hatch Guard 67" (1702 mm) Channel (depending on Hatch Guard being installed) using 3/8" diameter nuts, bolts, and washer, Items (9) – (11). The washer is only required on the channel side of the connection. Install item (7) on the flange side of the channels as shown in the plan view. Build two sub-assemblies. Do not torque the bolts at this time, allowing the Angle Bracket to slide freely in the slot in the Hatch Channel.
7. Assemble two Item (15) Posts to each Item (6) Hatch Channel. Attach the Posts in the semi-circular cut-outs in the ends of the Hatch Channels using one each Item (8) 3/8" x 4" U-Bolts with 3/8" nuts and washers. Install each U-bolt using two flat washers and the 3/8" nuts supplied with each U-bolt. Torque the bolts to 40 lb-ft (54.1 N-m), then install a second nut on each side of the U-bolt to act as a lock nut. Then Install Item (15) Post with the plug end up and the open, bottom end flush with the bottom of Item (6) Hatch Channel. Cap the bottom of each post with one each Item (4) Caplugs Flanged Plug.
8. Install two Item (1) Open Cross Over to each post as shown in the section on the right side of page 3 of 4 of the drawings. The upper Open Cross Over should be flush with the top of the post. The lower Open Cross Over should be installed 20-1/16" (510 mm) below the top of the post. Torque the set screws only as needed to hold the Open Cross Overs in place. They may require adjusting later in the assembly process.
9. Mark each of the four longest sections of 1.9" (48 mm) Diameter Round Tube (Item (13) for PN 5041210, Item (16) for PN 5041310, and Item (19) for PN 5041410) at 6" (152 mm) from one end.
10. Stand up the two post/channel assemblies oriented as they will be in the final assembly (flanges of the Item (6) or (21) Channel facing toward each other). Locate them approximately the maximum distance apart as shown in the drawings. Place the four long sections of 1.9" (48 mm) Diameter Round Tube into the Open Cross Overs and align the rails so that the center of the post opposite the gate is aligned with the marks made in Step 9. After checking that the post channel assemblies are plumb and properly aligned, torque the set screws in the Open Cross Overs only as needed to hold the 1.9" (48 mm) Diameter Round Tube in place.
11. Install the two 1.9" (48 mm) Diameter Round Tube Rails (Item (14) for PN 5041210, Item (14) for PN 5041310, and Item (20) for PN 5041410) on the side of the Hatch Guard opposite the gate using four each of Item (2) Two Way Elbow. Torque the set screws in the Two-Way Elbows only as needed to hold the 1.9" (48 mm) Diameter Round Tube in place.
12. Assemble Item (17) Post w/Gate Support by adding two each Item (1) Open Cross Over as shown in the section on the left of page 3 of the drawings and the isometric on page 2. The upper Open Cross Over should be flush with the top of the post. The lower Open Cross Over should be installed 20-1/16" (510 mm) below the top of the post. Cap the bottom of the post with one each Item (4) Yellow Flanged Plug.
13. Assemble item (5) Hatch Post w/Gate by adding two each Item (1) Open Cross Over following the same directions as in Step 12. Cap the bottom of the post with one each Item (4) Yellow Flanged Plug.
14. Following the layout shown in the section on the left side of page 3 of the drawings, connect the assembled Item (5) Hatch Post w/Gate and Item (17) Post w/Gate Support to the ends of the rails installed in Step (9) using Items (2) Two Way Elbows and the four short sections of 1.9" (48 mm) Diameter Round Tube (Item (12) for PNs 5041210 and 5041310, Item (18) for PN 5041410). When viewed from the outside of the Hatch Guard, Item (5) is installed on the left side and Item (17) is installed on the right side. The Gate Support on Item (17) will point outward from the hatch guard as shown in the isometric view on page 2 of the drawings. Torque all set screws only as needed to hold the assembly in place. Be sure that the posts are located on the outside of the roof guard as shown in the plan on page 1 of the drawings. Item (5) should be installed such that the end of the gate is resting against Item (17) Post w/Gate Support.
15. Using a minimum of two people with one on each long side of the Hatch Guard, lift the assembled Hatch Guard over the hatch and position the hatch so that it falls between the post/channel assemblies. Orient the Hatch Guard so that the self-closing gate faces the open side of the hatch.
16. Push the assembled Hatch Guard so that the post/channel assembly that is opposite the self-closing gate bears against the hatch body. Insure that the Hatch Guard is centered on the hatch body. Slide the two Item (7) 3.25" (82 mm) Angle Brackets until they just contact the hatch body. Apply blue thread locking compound to the bolt threads and torque the bolts to 40 lb-ft (54.1 N-m).
17. Loosen the set screws in the Open Cross Overs on the post/channel assembly adjacent to the self-closing gate and slide the post channel assembly until it bears against the hatch body. Re-torque the set screws in the Open Cross Overs to hold the post/channel assembly in place. Slide the two Item (7) 3.25" (82 mm) Angle Brackets until they just contact the hatch body. Apply blue thread locking compound to the bolt threads and torque the bolts to 40 lb-ft (54.1 N-m).
18. Verify that the tops of all rails, including the self-closing gate, are at least 42" (1067 mm) above the roof surface and adjust if needed. After this is verified, all set screws in the (1) Open Cross Overs and (2) Two Way Elbows should have thread locking compound applied to them and be torqued to 7.5 lb-ft (10.1 N-m)
19. Check the swing of the self-closing gate to verify that it swings freely without binding. Adjust the tension on the hinges following the instructions provided by Tru-Close and included with the Hatch Guard. Apply equal tension to each hinge. Dial in only enough tension so that the gate reliably returns to the closed position when opened. Excessive tension may cause damage to the hinges or gate. Verify that Item (1) Open Cross Over installed upside down in Step (12) to Item (15) has no more than 1/2" (13 mm) clearance to the lower surface of the top rail of the self-closing gate.
20. The installed system should be inspected annually by a qualified inspector. The inspection should include checking the set screws for correct torque, checking for corrosion of the metallic fittings, inspecting the 1.9" (48 mm) diameter FRP tubes for signs of damage, and checking the self-closing gate for correct operation. Any corrective actions required by this inspector must be implemented immediately or the Hatch Guard should be clearly tagged as unsafe for use. Written logs should be kept of every inspection and any corrective actions documented.

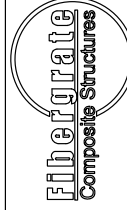
DynaRound RG Hatch Guard 30-36 x 30-54

PN 5041210 (ASSEMBLY)-YL



PLAN VIEW

WEIGHT = 152 lb
(69 kg)



REV	DESCRIPTION
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1	ECN 184
2	ECN 191

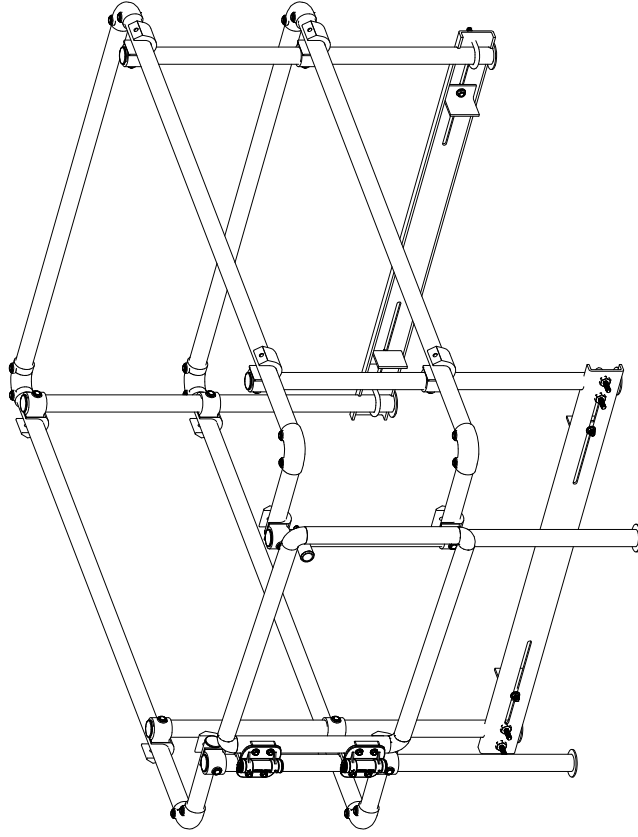
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1	09/10/18	CA	N.T.S.
2	06/27/19	MFA	DRAWING NUMBER

5041210

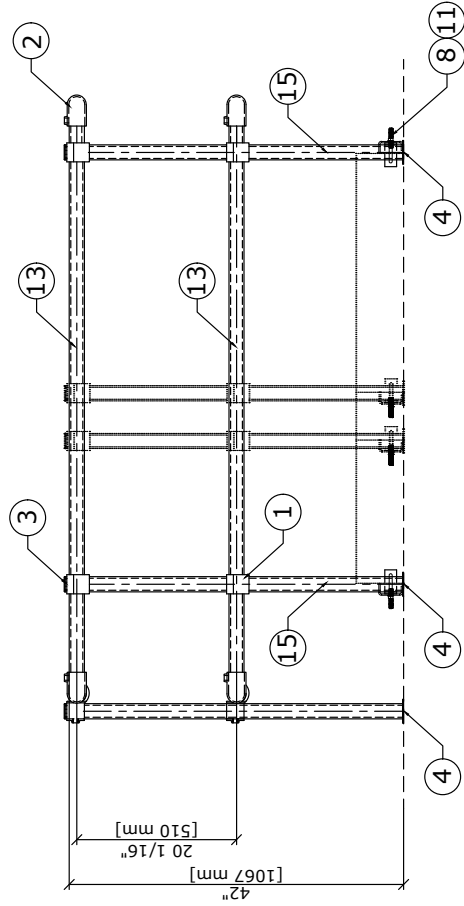
DRAWN: MFA
SHEET 1 OF 4

Material Requirements for 5041210 Yellow

ITEM NO.	QTY REQ'D	PART NUMBER	DESCRIPTION
17	1	5041150.2	Hatch Post 42-3/8" w/Gate Support YL
16	1	883304	Dynarail-Hatch Guard Installation Instructions
15	4	5041150	Hatch Post 42-3/8" YL
14	2	5041140	Hatch End Rail 52-1/2" YL
13	4	5041130	Hatch Side Rail 74" YL
12	4	5041120	Hatch Gate Rail 11-1/4" YL
11	12	785200	3/8" Ø Washer
10	4	784200	3/8" Ø Nut
9	4	754530	3/8" Ø x 1 1/4" Lg. Bolt
8	4	793114	McMaster 3/8"Ø x 4" U-Bolt W/ Nuts Zinc Plated PN 8875T858
7	4	5041115	Hatch Guard 3.25" Angle
6	2	5041113	Hatch Guard 55" Channel
5	1	5041150.1	Hatch Post 42-3/8" w/Gate YL
4	6	793113	Caplug Yellow Flanged Plug WWX-17
3	8	7926150	End Cap - UV Coated
2	8	793125	Two Way Elbow
1	12	793201	Open Cross Over



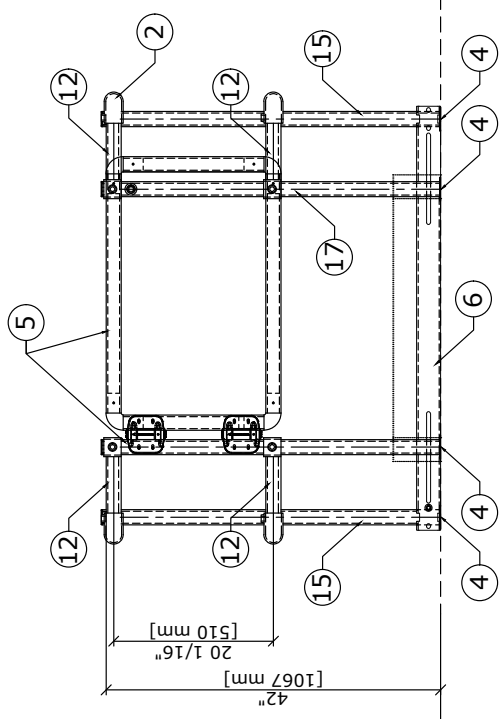
ISOMETRIC VIEW



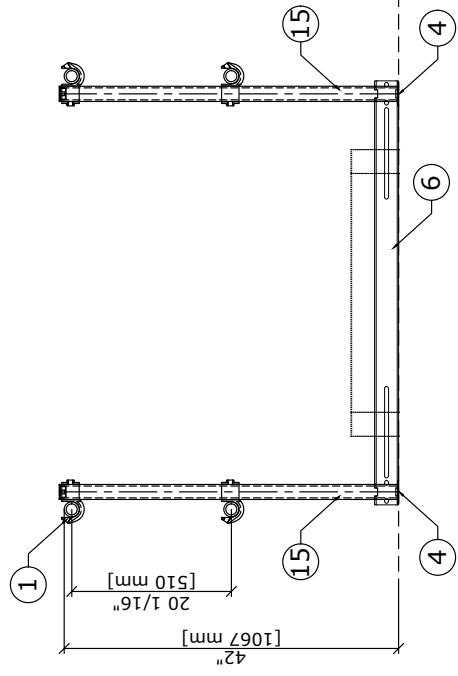
ELEVATION



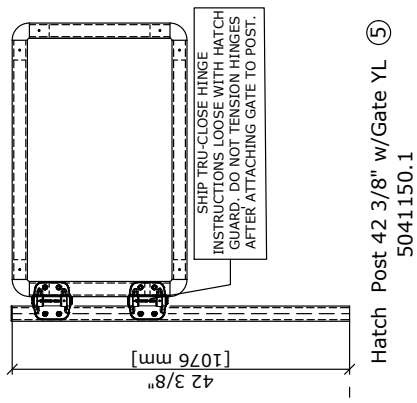
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2	ECN 191	06/27/19	MFA	DRAWING NUMBER	SHEET
				5041210	2 OF 4



SECTION A-A



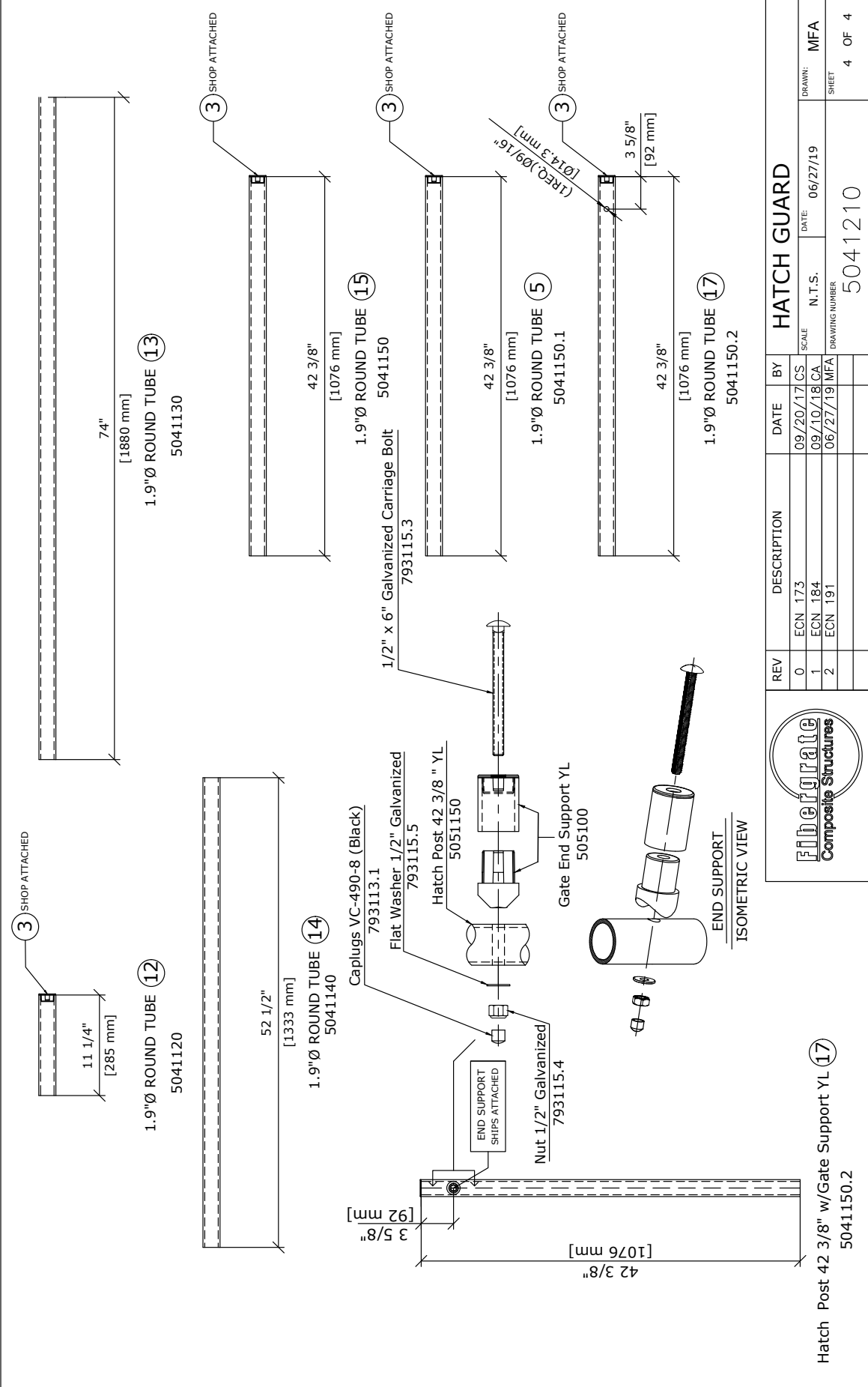
SECTION B-B



Hatch Post 42 3/8" w/Gate YL ⑤
5041150.1



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1	ECN 184	09/10/18	CA	N.T.S.	06/27/19	MFA
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						3 OF 4

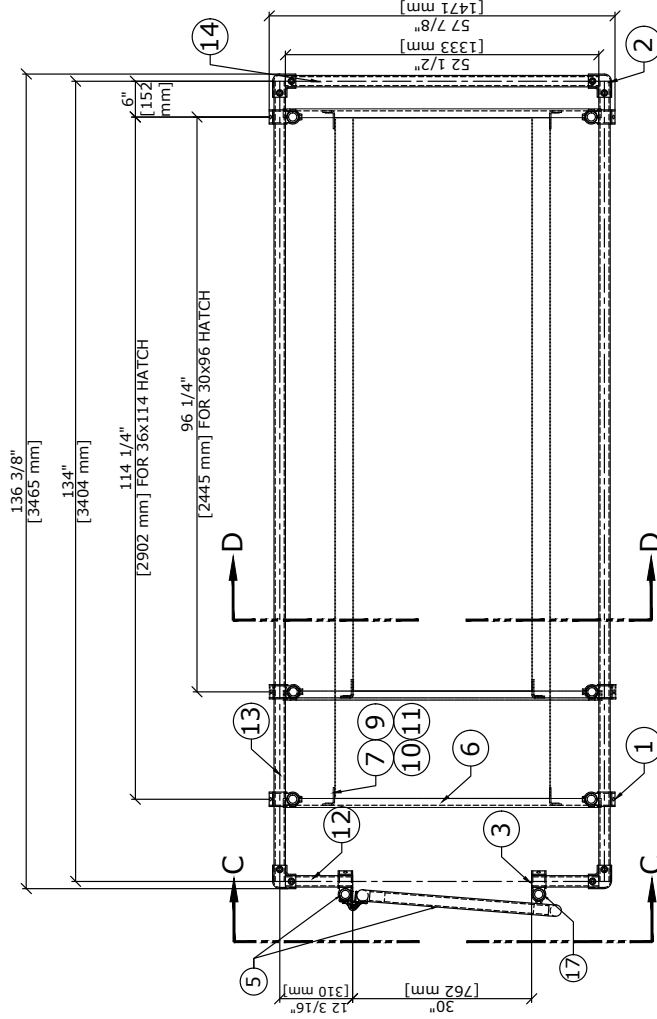


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1	ECN 184	09/10/18	CA	N.T.S.	
2	ECN 191	06/27/19	MFA		

Fibergrate Composite Structures		HATCH GUARD	
Hatch Post 42 3/8" w/Gate Support YL (17)		5041150.2	
5041150.2		5041210	
DRAWN: MFA		DATE: 06/27/19	
SHEET		4 OF 4	

DynaRound RG Hatch Guard - 30-36 x 96-114

PN 5041310 (ASSEMBLY)-YL



PLAN VIEW

WEIGHT = 176 LBS
(80 Kg)



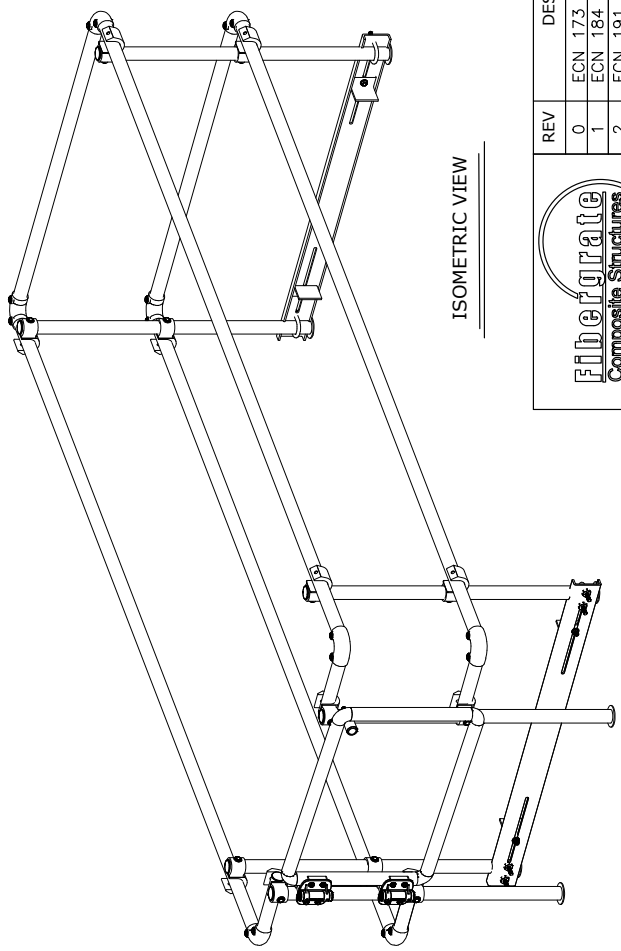
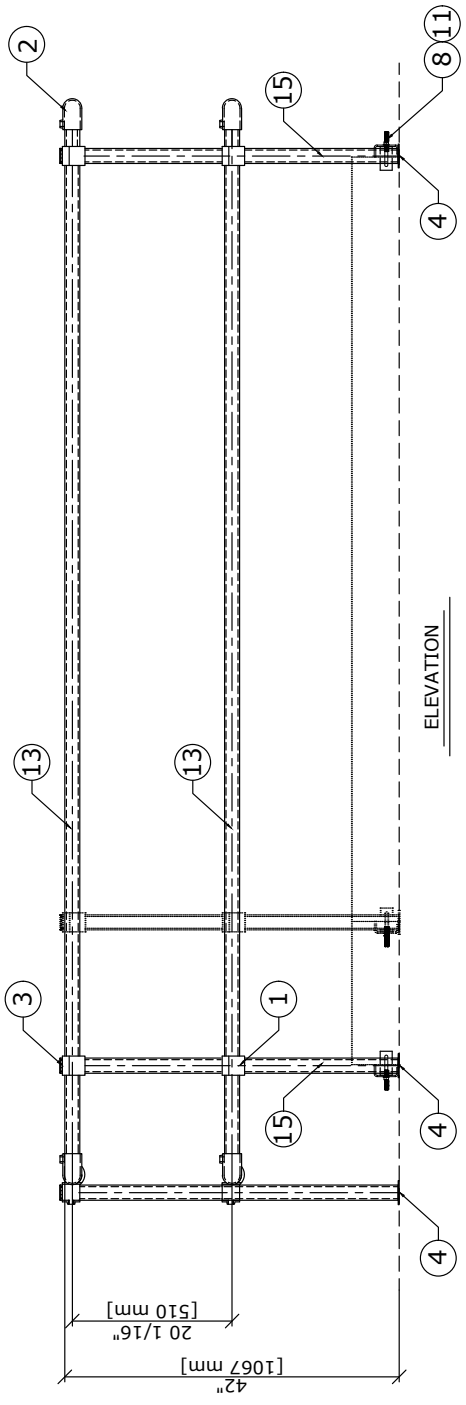
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1	ECN 184
2	ECN 191

DATE	BY	DESCRIPTION
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09/10/18	CA	
06/27/19	MFA	

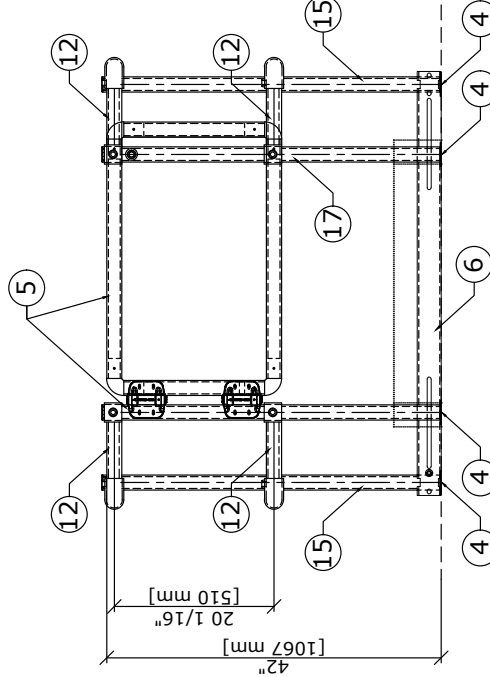
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DRAWING NUMBER	5041310		SHEET	1 OF 4	

Material Requirements for 5041310 Yellow

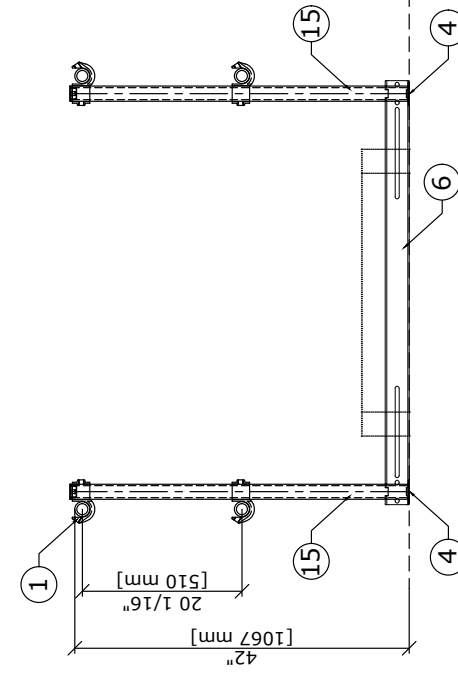
ITEM NO.	QTY REQ'D	PART NUMBER	DESCRIPTION
17	1	5041150.2	Hatch Post 42-3/8" w/Gate Support YL
16	1	883304	Dynarall-Hatch Guard Installation Instructions
15	4	5041150	Hatch Post 42-3/8" YL
14	2	5041140	Hatch End Rail 52-1/2" YL
13	4	5041160	Hatch Side Rail 134" YL
12	4	5041120	Hatch Gate Rail 11-1/4" YL
11	12	785200	3/8" Ø Washer
10	4	784200	3/8" Ø Nut
9	4	754530	3/8" Ø x 1 1/4" Lg. Bolt
8	4	793114	McMaster 3/8"Ø x 4" U-Bolt W/ Nuts Zinc Plated PN 8875T858
7	4	5041115	Hatch Guard 3.25" Angle
6	2	5041113	Hatch Guard 55" Channel
5	1	5041150.1	Hatch Post 42-3/8" w/ Gate YL
4	6	793113	Caplugs Yellow Flanged Plug WWX-17
3	8	7926150	End Cap - UV Coated
2	8	793125	Two Way Elbow
1	12	793201	Open Cross Over



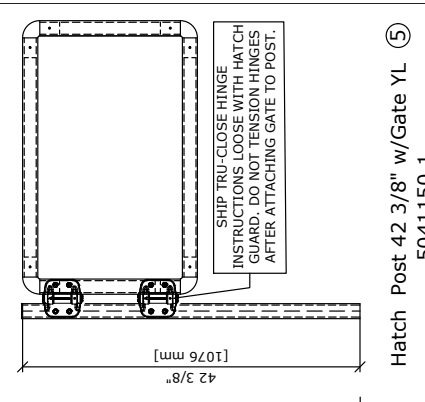
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2	ECN 191	06/27/19	MFA	DRAWN:	MFA		
				SHEET	2 OF 4		



SECTION C-C

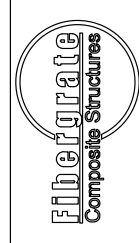


SECTION D-D

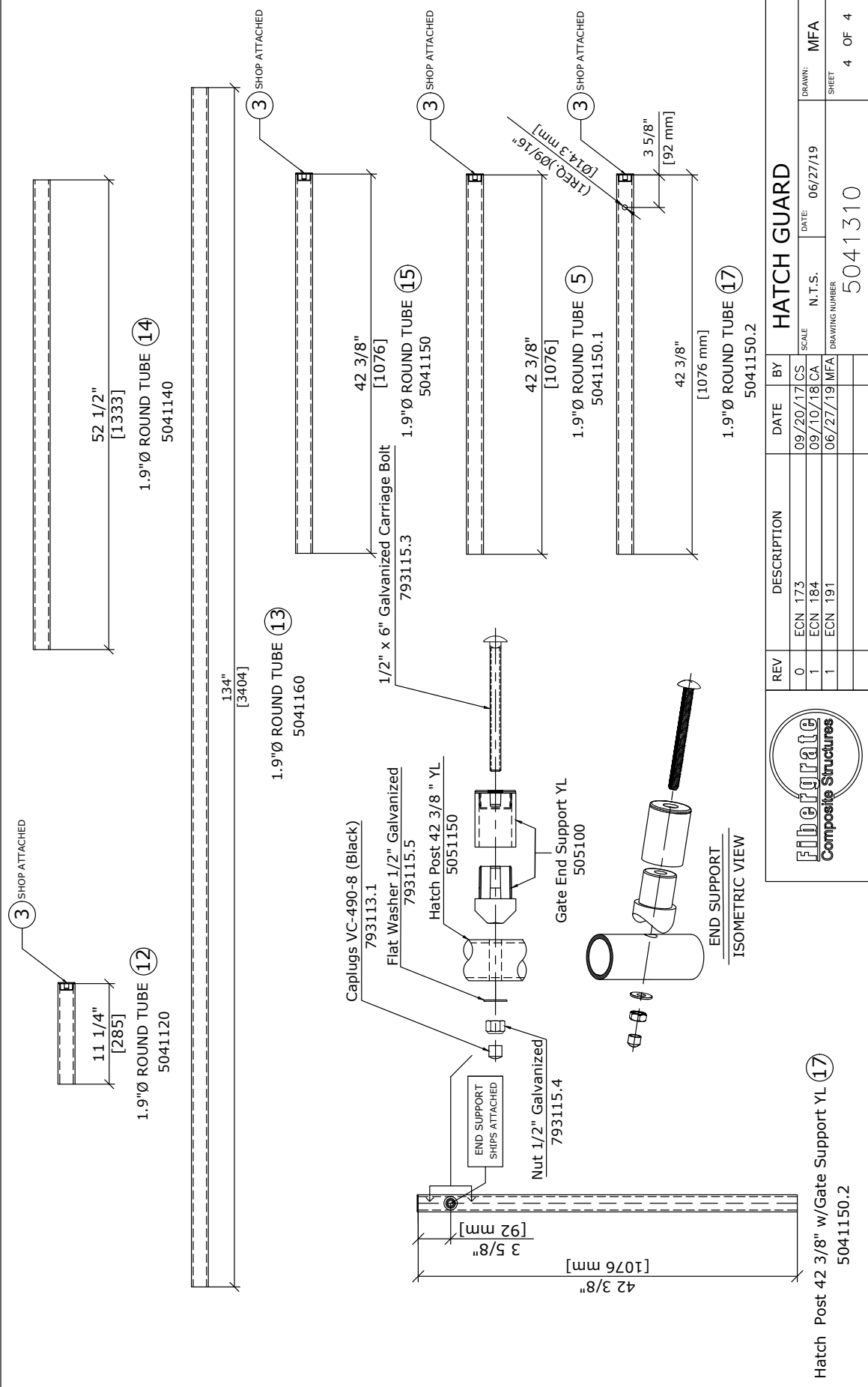


SHIP TRU-CLOSE HINGE
INSTRUCTIONS LOOSE WITH HATCH
GUARD. DO NOT TENSION HINGES
AFTER ATTACHING GATE TO POST.

Hatch Post 42 3/8" w/Gate YL ⑤
5041150.1



REV	DESCRIPTION	DATE	BY	HATCH GUARD		
0	ECN 173	09/20/17	CS	SCALE	DATE	DRAWN:
1	ECN 184	09/10/18	CA	N.T.S.	06/27/19	MFA
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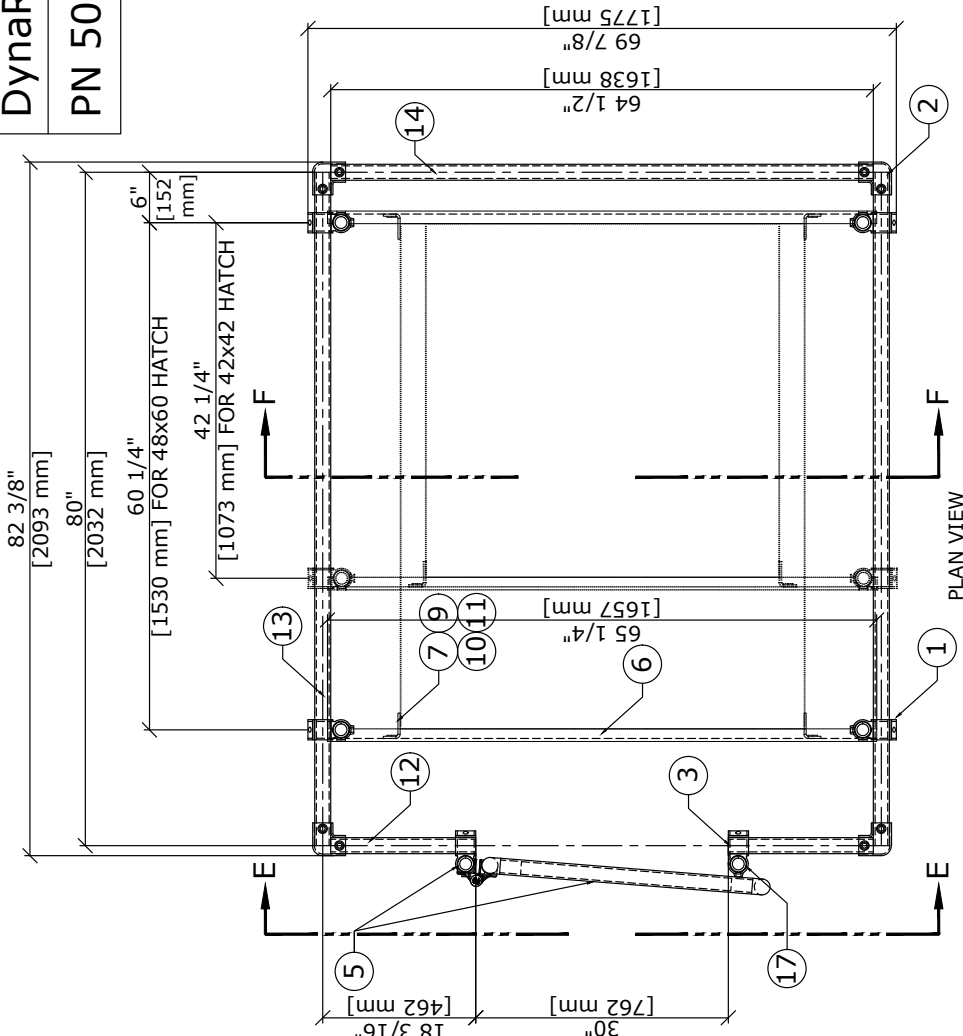
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1	ECN 191	06/27/19	MFA		DRAWING NUMBER: 5041310

Hatch Post 42 3/8" w/Gate Support YL (17) 5041150.2

DRAWN: MFA
SHEET 4 OF 4

DynaRound RG Hatch Guard - 42-48 x 42-60

PN 5041410 (ASSEMBLY)-YL



Material Requirements for 5041410 Yellow

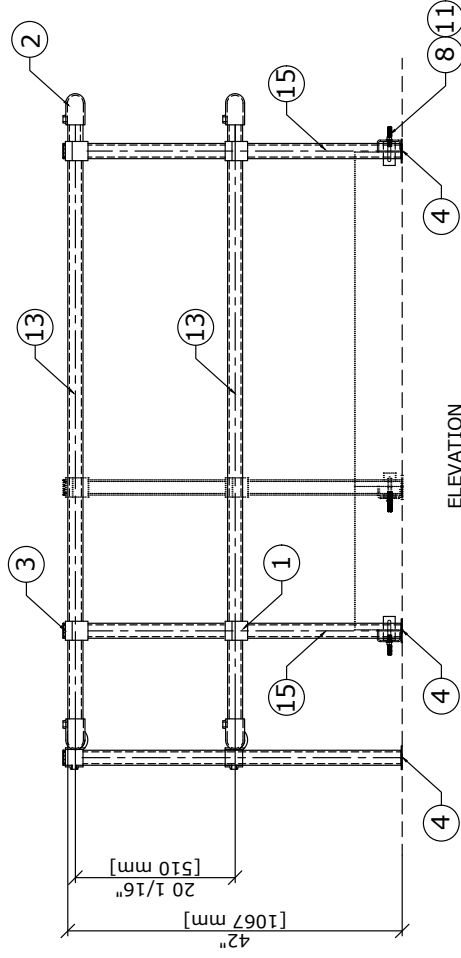
ITEM NO.	QTY REQ'D	DESCRIPTION	DATE	BY	DESCRIPTION
17	1	5041150.2	Hatch Post 42-3/8" w/Gate Support YL		
16	1	883304	Dynarail-Hatch Guard Installation Instructions		
15	4	5041150	Hatch Post 42-3/8" YL		
14	2	5041170	Hatch End Rail 64-1/2" YL		
13	4	5041190	Hatch Side Rail 80" YL		
12	4	5041180	Hatch Gate Rail 17-1/4" YL		
11	12	785200	3/8" Ø Washer		
10	4	784200	3/8" Ø Nut		
9	4	754530	3/8" Ø x 1 1/4" Lg. Bolt		
8	4	793114	McMaster 3/8"Ø x 4" U-Bolt W/ Nuts Zinc Plated PN 8875T858		
7	4	5041115	Hatch Guard 3.25" Angle		
6	2	5041114	Hatch Guard 67" Channel		
5	1	5041150.1	Hatch Post 42-3/8" w/Gate YL		
4	6	793113	Caplugs Yellow Flanged Plug WWX-17		
3	8	7926150	End Cap - UV Coated		
2	8	793125	Two Way Elbow		
1	12	793201	Open Cross Over		

REV	DESCRIPTION	DATE	BY	DESCRIPTION
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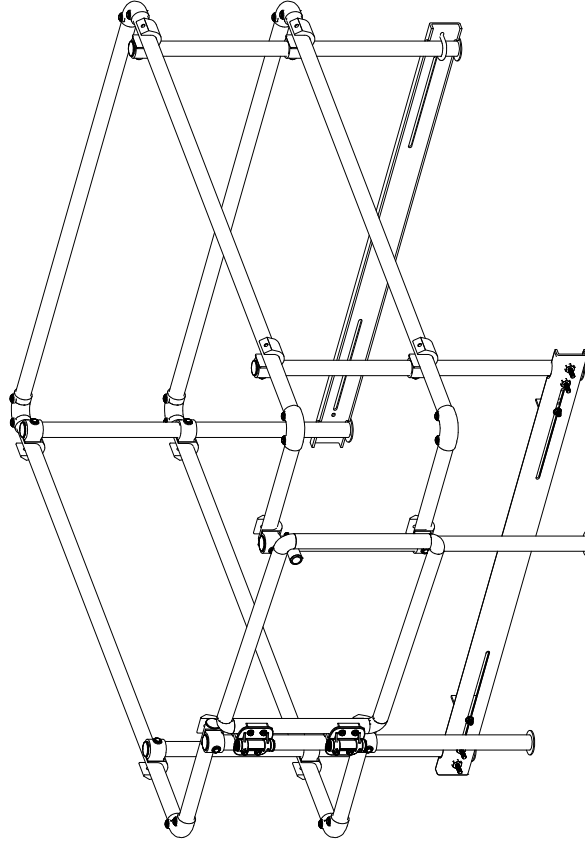
HATCH GUARD	
SCALE	N.T.S.
DATE:	06/27/19
DRAWING NUMBER	5041410

**WEIGHT = 163 LBS
(74 Kg)**

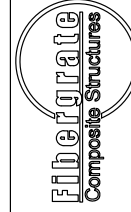




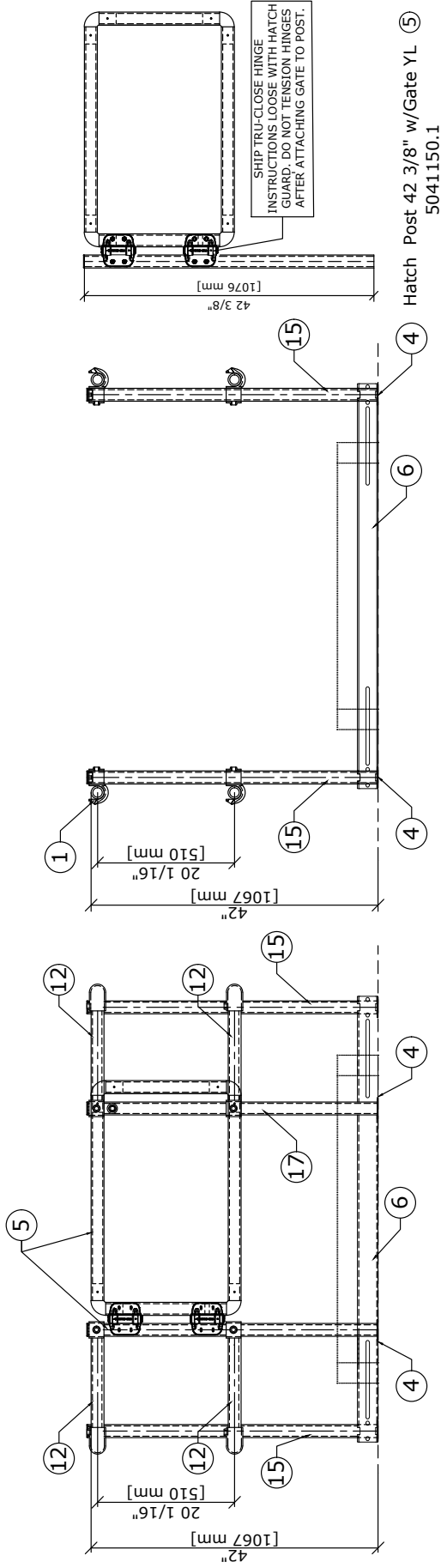
ELEVATION



ISOMETRIC VIEW



REV	DESCRIPTION	DATE	BY	HATCH GUARD	
0	ECN 173	09/20/17	CS	SCALE	DATE: 06/27/19
1	ECN 184	09/10/18	CA	N.T.S.	DRAWN: MFA
2	ECN 191	06/27/19	MFA	DRAWING NUMBER	SHEET
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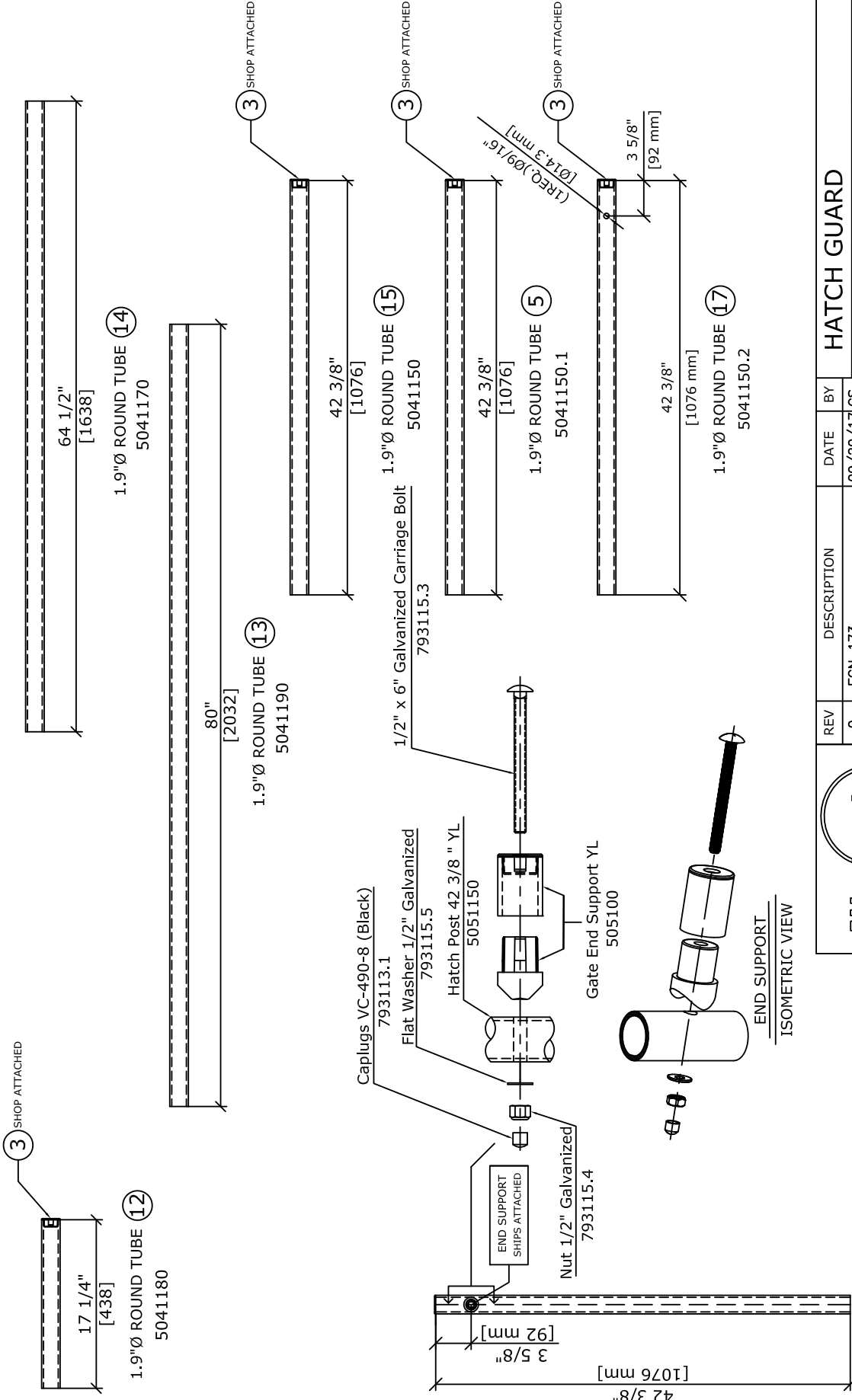


SECTION E-E

SECTION F-F



REV	DESCRIPTION	DATE	BY	HATCH GUARD	
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1	ECN 184	09/10/18	CA	N.T.S.	DRAWN: MFA
2	ECN 191	06/27/19	MFA	DRAWING NUMBER	SHEET
				5041410	3 OF 4



Hatch Post 42 3/8" w/Gate Support YL (17) 5041150.2

REV	DESCRIPTION	DATE	BY	HATCH GUARD	
0	ECN 173	09/20/17	CS	SCALE	N.T.S.
1	ECN 184	09/10/18	CA	DATE	06/27/19
1	ECN 191	06/27/19	MFA	DRAWING NUMBER	5041410
				DRAWN:	MFA
				SHEET	4 OF 4