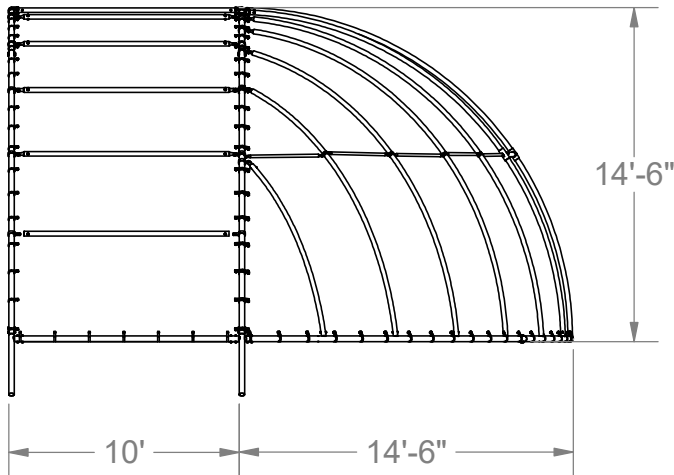
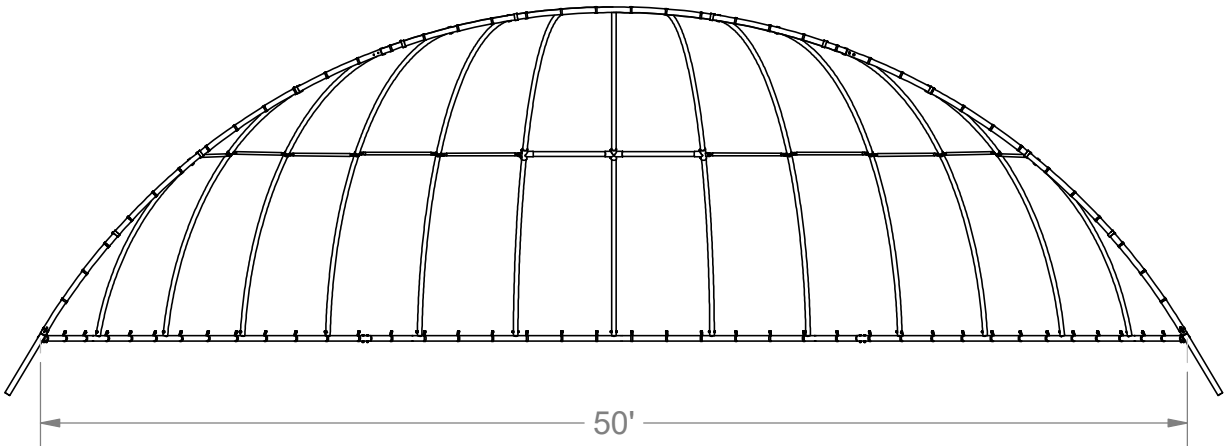


50' PERPENDICULAR ARCH BACKSTOP



SIDE VIEW



Date: 7/26/2017
Rev: A
Drawn: BDYE
Sheet: 1 of 21

PRODUCT NAME
ARCH BACKSTOP
MODEL NO.
1218-10

50' PERPENDICULAR ARCH BACKSTOP

MODEL #1218-00 - ARCH BACKSTOP 14'-6"H x 14'-6"D x 50'W (4,000 LBS)

OVERHEAD and BASE Arches: 2-7/8" O.D. galvanized steel.

SPECIFICATIONS:

Vertical Ribs: 2-3/8" O.D. galvanized steel. Ribs shall be formed to a smooth continuous radius throughout the entire length of each rib.

Flattened Sleeves: 1-7/8" O.D. galvanized steel, factory flattened and punched. Secured between PW Heavy Duty Rib Collars and vertical ribs with zinc plated 3/8" x 1-1/4" hex head bolts, flat washers and lock nuts. To ribs with 5/8" set screw and 1/4" drive pin.

Horizontal Stiffeners: 1-3/8" O.D. galvanized steel, secured between vertical ribs with 3/4" wide galvanized steel brace band clamps with 5/16" x 1" carriage bolts, flat washers and lock nuts. Use for vertical ribs #1 and #2 PW Heavy Duty Fittings, Secured 5/8" set screw and 1/4" drive pin. Any exposed threads to be destroyed by Installer.

Main Footing Anchors: 2-7/8" O.D. galvanized steel, welded sleeves that fit into BASE and OVERHEAD arch ends (2-3/8" O.D. galvanized steel). Footing anchors shall extend 3 feet into footings and shall be welded at the bottom with one piece of 6" long angle (2" x 2" x 3/16") steel, to form an anchor in the concrete footing.

Anchor Bolts: 5/8" x 12" foundation bolts, extending throughout BASE arch and shall be evenly spaced between vertical ribs. Any exposed threads to be destroyed by Installer.

Tension Bars: 3/4" galvanized and shall be secured with galvanized tension bands spaced 18 inches on center and bolted with 5/16" x 1" zinc-plated carriage bolts lock washers and hex nuts. Tension bars shall be installed along inside overhead arch.

Chain Link Fabric: Fabric shall be 9-gauge on all models except top (third) course shall be 11-gauge. It shall be installed horizontally in single lengths to outside of backstop using 12-gauge galvanized wire ties every 18 inches along vertical ribs. Edges shall be over-lapped a minimum of 1" to 2" and tied together with 9-gauge, #3 galvanized hog rings every 6 inches along seams. Fabric shall be pulled tight around curvature of backstop and shall be cut and trimmed in a neat and professional manner. Where wire is cut, exposed barbs shall be bent double to leave a knuckled edge, and should be cut along the rib.

PW Heavy Duty Rib Collars: Custom made 2-7/8" P.W. Heavy Duty Rib Adapter Collars.

Concrete Footing: Footings for OVERHEAD arch shall be 4' deep x 3' in wide. This is to allow the anchors to retain the proper angle going into the footing. this is an important step in insuring that your backstop will be easy to erect, and retain the proper rolled radii. Footings for BASE arch anchor bolts shall be 18" deep x 18" wide. Concrete not included.

Finish: All pipe and hardware is galvanized steel. All fasteners are zinc-plated except anchor bolts.



Date: 7/26/2017

Rev: A

Drawn: BDYE

Sheet: 2 of 21

PRODUCT NAME

ARCH BACKSTOP

MODEL NO.

1218-10

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	ASA-0500-1218-R-G	MAIN ANCHOR 1200 ASSEMBLY	1
2	ASA-0501-1200-G	HEAVY DUTY ADJUSTABLE COLLAR	30
3	ASA-0501-1218-L-G	MAIN ANCHOR 1200 ASSEMBLY	1
4	ASA-0502-1218-F-G	MAIN ANCHOR 1200 ASSEMBLY	2
5	ASA-0503-1218-G	CENTER REAR TEE FITTING	1
6	ASA-0504-1218-L-G	LEFT TEE FLANGE FITTING	1
7	ASA-0505-1218-R-G	RIGHT TEE FLANGE FITTING	1
8	ASA-0506-1218-#3-G	#3 SUPPORT RIB ϕ 2 3/8 ASSEMBLY	2
9	ASA-0507-1218-#4-G	#4 SUPPORT RIB ϕ 2 3/8 ASSEMBLY	2
10	ASA-0508-1218-#5-G	#5 SUPPORT RIB ϕ 2 3/8 ASSEMBLY	2
11	ASA-0509-1218-#6-G	#6 SUPPORT RIB ϕ 2 3/8 ASSEMBLY	2
12	ASA-0510-1218-#7-G	#7 SUPPORT RIB ϕ 2 3/8 ASSEMBLY	2
13	ASA-0512-1218-G	STIFFENER FRONT ϕ 2 3/8"x 106.75" ASSEMBLY	10
14	ASA-0513-1218-FCR-G	FRONT CENTER REAR ARCH ASSEMBLY	1
15	ASA-0514-1218-BR-G	BOTTOM RIGHT ARCH ASSBLY	1
16	ASA-0515-1218-BC-G	BOTTOM CENTER ARCH ASSEMBLY	1
17	ASA-0516-1218-BL-G	BOTTOM LEFT ARCH ASSEMBLY	1
18	ASA-0517-1218-FCF-G	FRONT CENTER FRONT ARCH ASSEMBLY	1
19	RT-0004-1218-FR-G	FRONT RIGHT ARCH	2
20	RT-0006-1218-FL-G	FRONT LEFT ARCH	2
21	RT-0007-1218-R#1-G	#1 SUPPORT RIB CENTER ϕ 2 3/8"	1
22	RT-0008-1218-R#2-G	#2 SUPPORT RIB ϕ 2 3/8"	2
23	RT-019-1200-1000-G	FLATTENED SLEEVE - 1-7/8"	30
24	RT-0019-1218-116.375-G	STIFFENER BOTTOM FRONT ϕ 2 7/8"x 116.375"	2
25	RT-0022-1218-116.375-G	STIFFENER TOP FRONT ϕ 2 3/8"x 116.375"	1
26	RT-0026-1218-43.75-G	HORIZONTAL STIFFENER- 43.75"	2
27	RT-0027-1218-42.4375-G	HORIZONTAL STIFFENER- 42.4375"	2
28	RT-0028-1218-43.1875-G	HORIZONTAL STIFFENER- 43.1875"	2
29	RT-0029-1218-43.3125-G	HORIZONTAL STIFFENER- 43.3125"	2
30	RT-0030-1218-43-G	HORIZONTAL STIFFENER- 43"	2
31	RT-0031-1218-43.25-G	HORIZONTAL STIFFENER ϕ 2 3/8"x 43.25"	2
32	VCIBB278	2 7/8" BRACE BAND	2
33	VCIBB238	2 3/8" BRACE BAND	16
34	VCITEN278	2 7/8" TENSION BAND	194
35	HWCB5161	5/16-18 X 1 CARRIAGE BOLT GRADE 2 ZINC	214
36	HWFLWA516	5/16 FLAT WASH	214
37	HWLN516	5/16 NYLOK NUT ZINC	214
38	HWHB38114	3/8-16 X 1 1/4 GR5 C/S ZINC HEX BOLT (1000)	30
39	HWFLWASS38	3/8" FLAT WASHER STAINLESS STEEL 304	60
40	HWLN38	3/8-16 INSERT NYLOK ZINC (2500)	30
41	HWSC3858	3/8 X 5/8 SET SCREW ZINC	72
42	HWHB12312	1/2-13 X 3 1/2 GR 5 C/S ZINC HEX CAP SCREW - BOLT	32
43	HWHB123	1/2-13 X 3 GR5 C/S ZINC HEX BOLT (1535)	14
44	HWLN12	1/2-13 NYLOK INSERT LOCKNUT ZINC (1500)	46
45	HWSC581	5/8-11 X 1 SET SCREW CUP PT ZINC (BACKSTOP)	40
46	HWDS141	1/4 X 1 ROUND HD U-DRIVE SCREWS ZINC 4000	35
47	VCITIEWIRE	TIE DOWN WIRE 10 1/2" X 12GA WITH HOOK (2000 per box)	16 lbs.
48	VCIHOGRINGS	HOG RINGS - HOG STL 9X 1-9/16 GAL (89 pcs = 1 lb.)	4 lbs.
49	RMMESHGA295	2" X 9 GA X 5' GAL MESH KK	60 FT.
50	RMMESHGA2912	2" X 9 GA X 12' (144") KK GAL MESH	100 FT.
51	5' TENSION BAR	5' x 3/4" TENSION BAR (60")	2
52	8' TENSION BAR	8' x 3/4" TENSION BAR (96")	13
53	12' TENSION BAR	12' x 3/4" TENSION BAR (142")	2
54	HWANCH5812	5/8-11 X 12" ANCHOR BOLT W/NUT PLAIN	7
55	HWHN58Z	5/8-11 FIN HEX NUT ZINC	7



Date: 7/26/2017

Rev: A

Drawn: BDYE

Sheet: 3 of 21

PRODUCT NAME

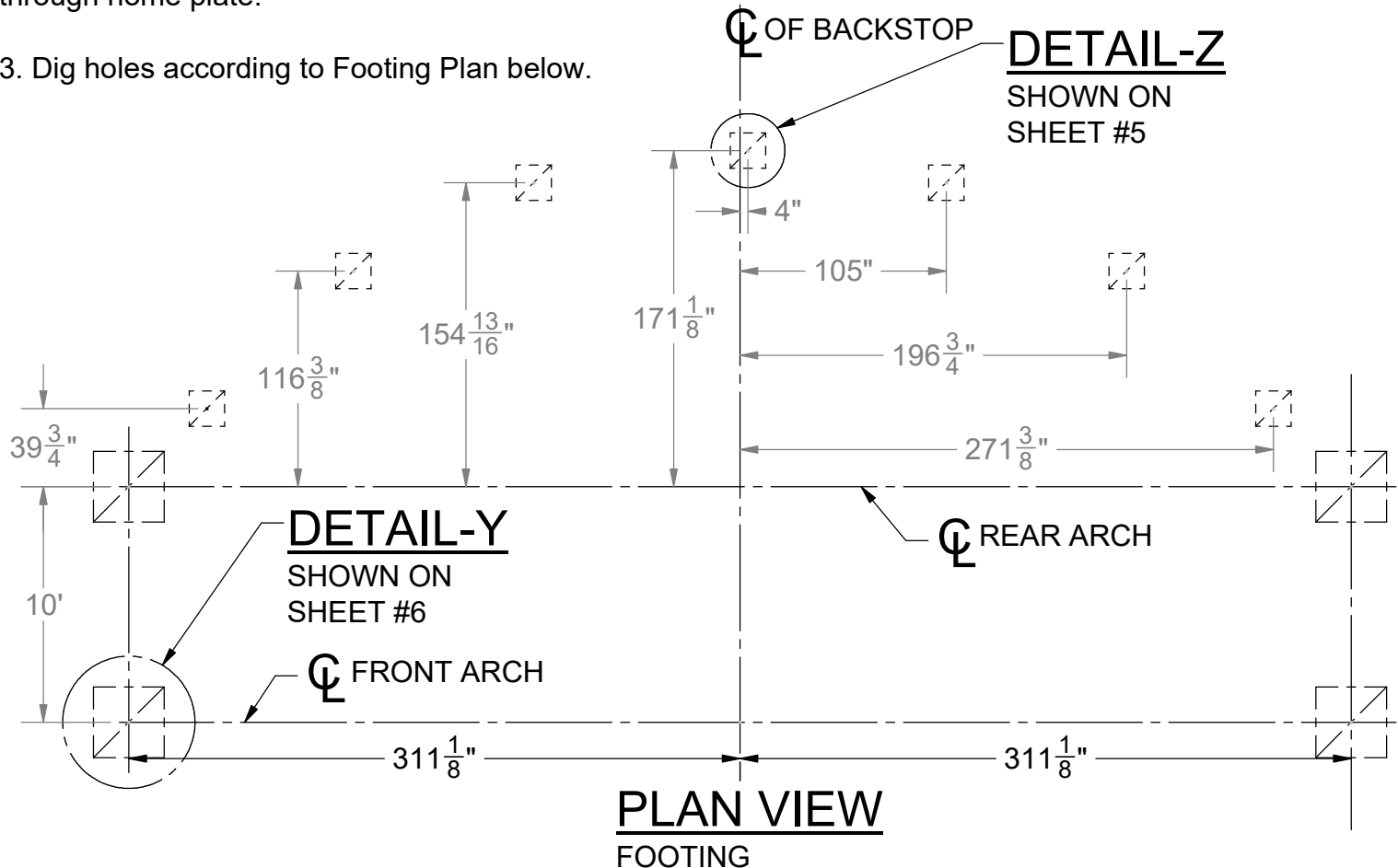
ARCH BACKSTOP

MODEL NO.

1218-10

INSTALLATION INSTRUCTIONS:

- 1) Check materials received with the BOM to make sure that all components are included and to assure that the unit is complete.
- 2) Determine location of backstop so the front arch is perpendicular to a line running from 2nd base through home plate.
3. Dig holes according to Footing Plan below.



DO NOT POUR CONCRETE UNTIL ENTIRE FRAME IS ASSEMBLED

PW has noted the size of the main anchor footings as a guide line, and asks that you check with your local permit authorizing personnel, or your architect before proceeding, as your area of the country might require larger footings.

Footing must be wide enough to allow anchor to be placed at the approx. angle shown. The angle must be adjusted to form arch and maintain width of backstop. Anchor **MUST NOT** touch sides of footing.

PW has also noted this particular size, so the main anchors may swivel on the base arch to properly align with the overhead arch, the anchor must freely hang in footing and not touch sides of footing. When installing, place the anchors in the base arch, and leave them **FINGER TIGHT ONLY**, at this time. Place the overhead arch onto the main anchors and finger tighten at this time. This allows the overhead arch to settle in the proper angle and sphere to insure trouble free alignment with the ribs.

ONLY after assembling the entire arch, go back and tighten all set screws with proper sized allen wrenches at this time.



Date: 7/26/2017

Rev: A

Drawn: BDYE

Sheet: 4 of 21

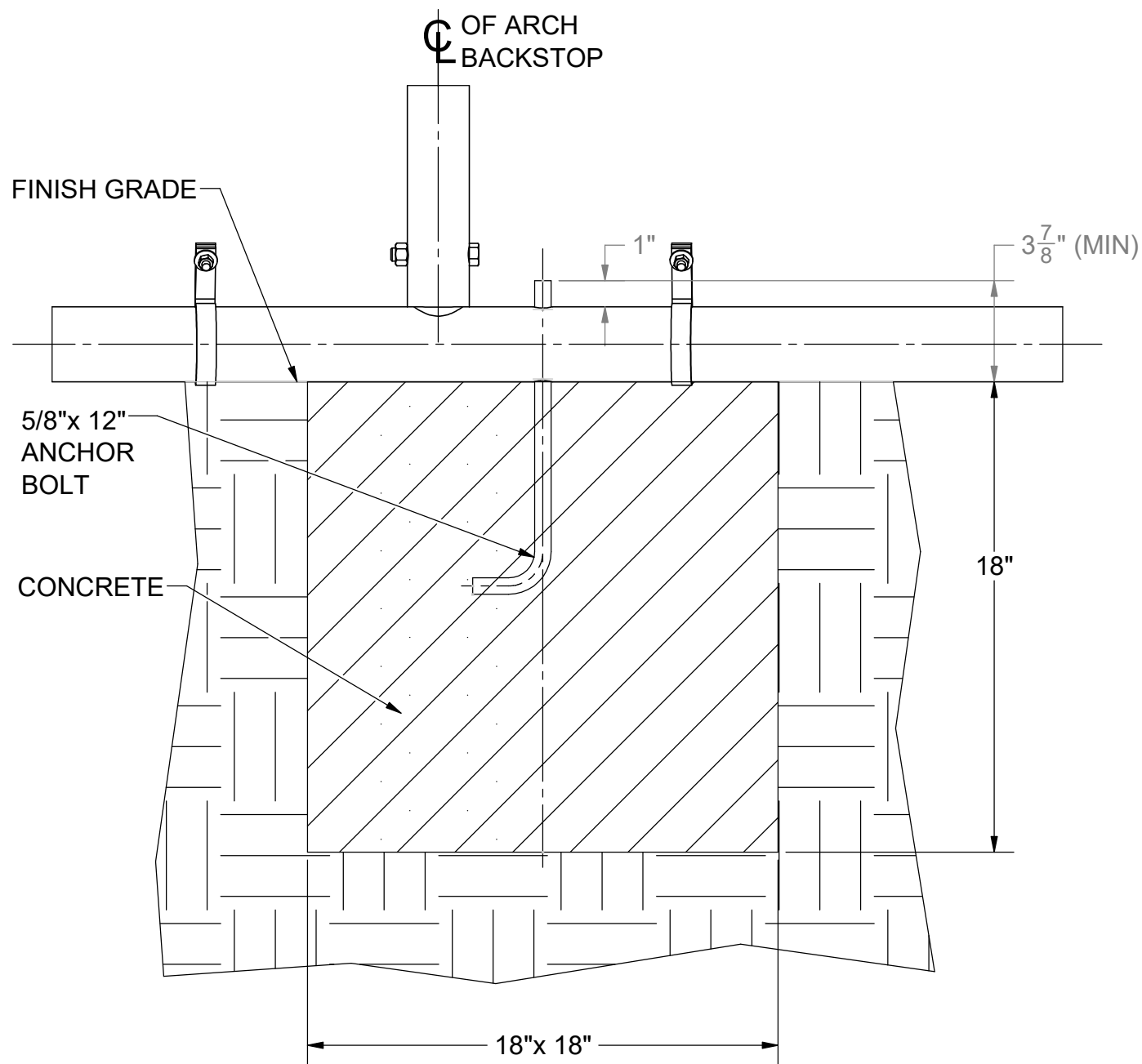
PRODUCT NAME

ARCH BACKSTOP

MODEL NO.

1218-10

FOOTING DETAIL Z



DETAIL-Z

FROM SHEET #4
(TYP 7)



Date: 7/26/2017

Rev: A

Drawn: BDYE

Sheet: 5 of 21

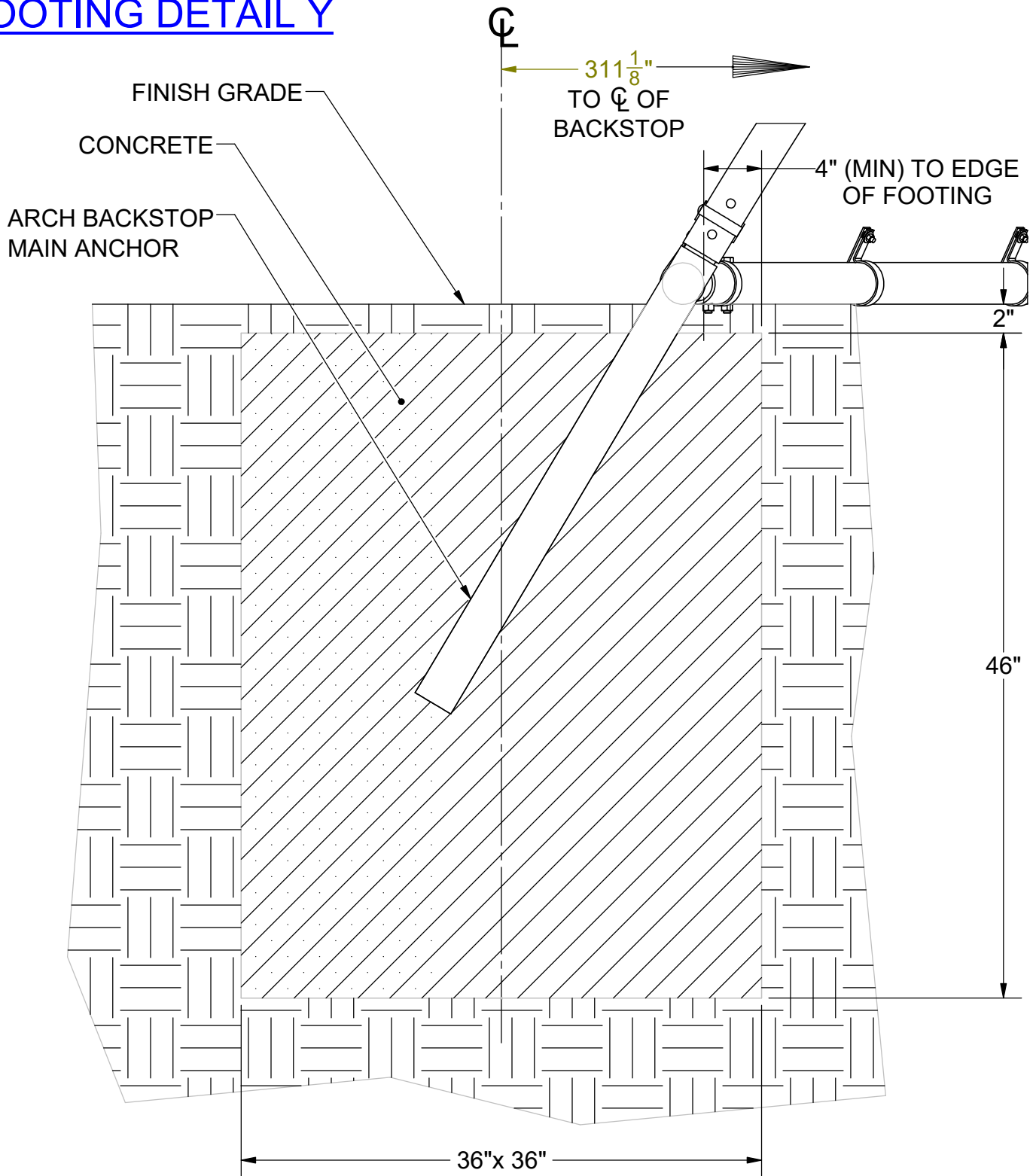
PRODUCT NAME

ARCH BACKSTOP

MODEL NO.

1218-10

FOOTING DETAIL Y



DETAIL-Y

FROM SHEET #4
(TYP 2)



Date: 7/26/2017

Rev: A

Drawn: BDYE

Sheet: 6 of 21

PRODUCT NAME

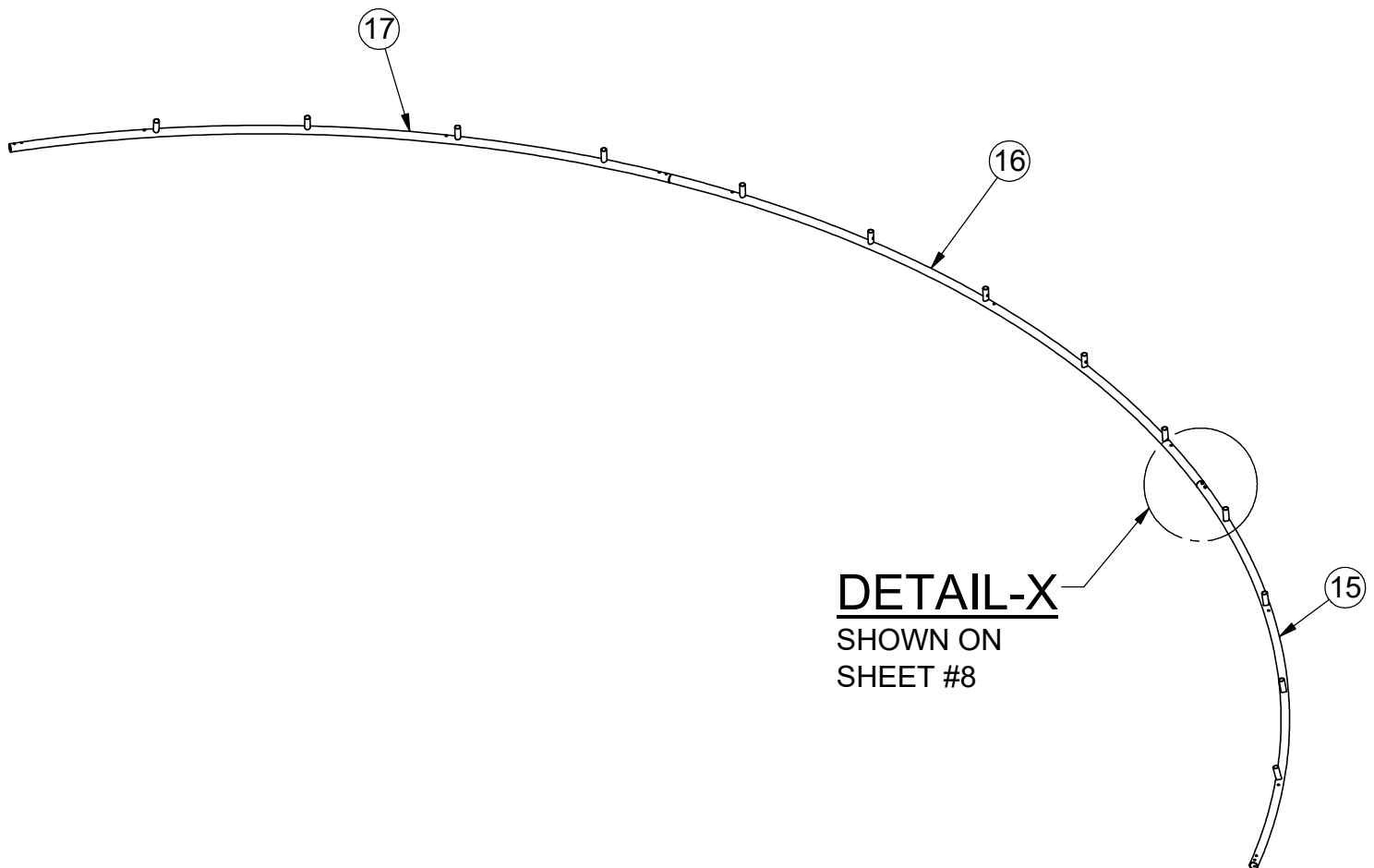
ARCH BACKSTOP

MODEL NO.

1218-10

INSTALLATION INSTRUCTIONS:

4) Take Center Bottom Arch Item (16) , Bottom Right Arch Item (15) and Bottom Left Arch Item (17) . Lay on the ground over the footing holes and assemble. Take Center Arch Item (16) and slide sleeve end into Bottom Right Arch Item (15) then use 1/2"x 3 1/2" Bolts Item (42) and 1/2" Nylock Nut Item (44) to bolt the joint together. Take Bottom Left Arch Item (17) and slide sleeve end into Bottom Center Arch Item (16) then use 1/2"x 3 1/2" Bolts Item (42) and 1/2" Nylock Nut Item (44) to bolt the joint together.



ISOMETRIC



Date: 7/26/2017

Rev: A

Drawn: BDYE

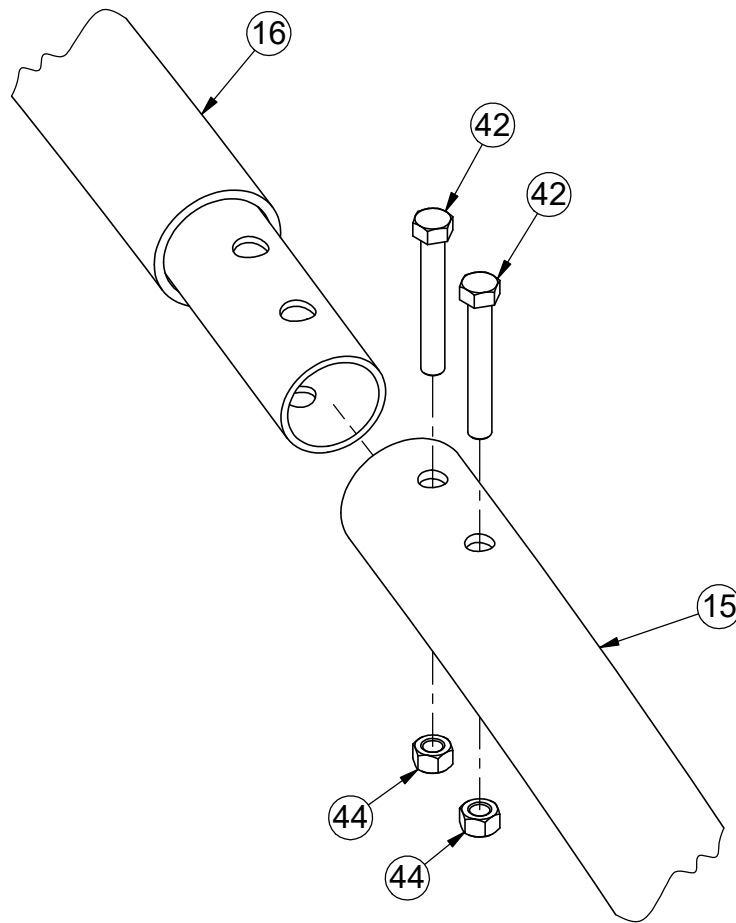
Sheet: 7 of 21

PRODUCT NAME

ARCH BACKSTOP

MODEL NO.

1218-10



DETAIL-X
FROM SHEET #7



Date: 7/26/2017

Rev: A

Drawn: BDYE

Sheet: 8 of 21

PRODUCT NAME

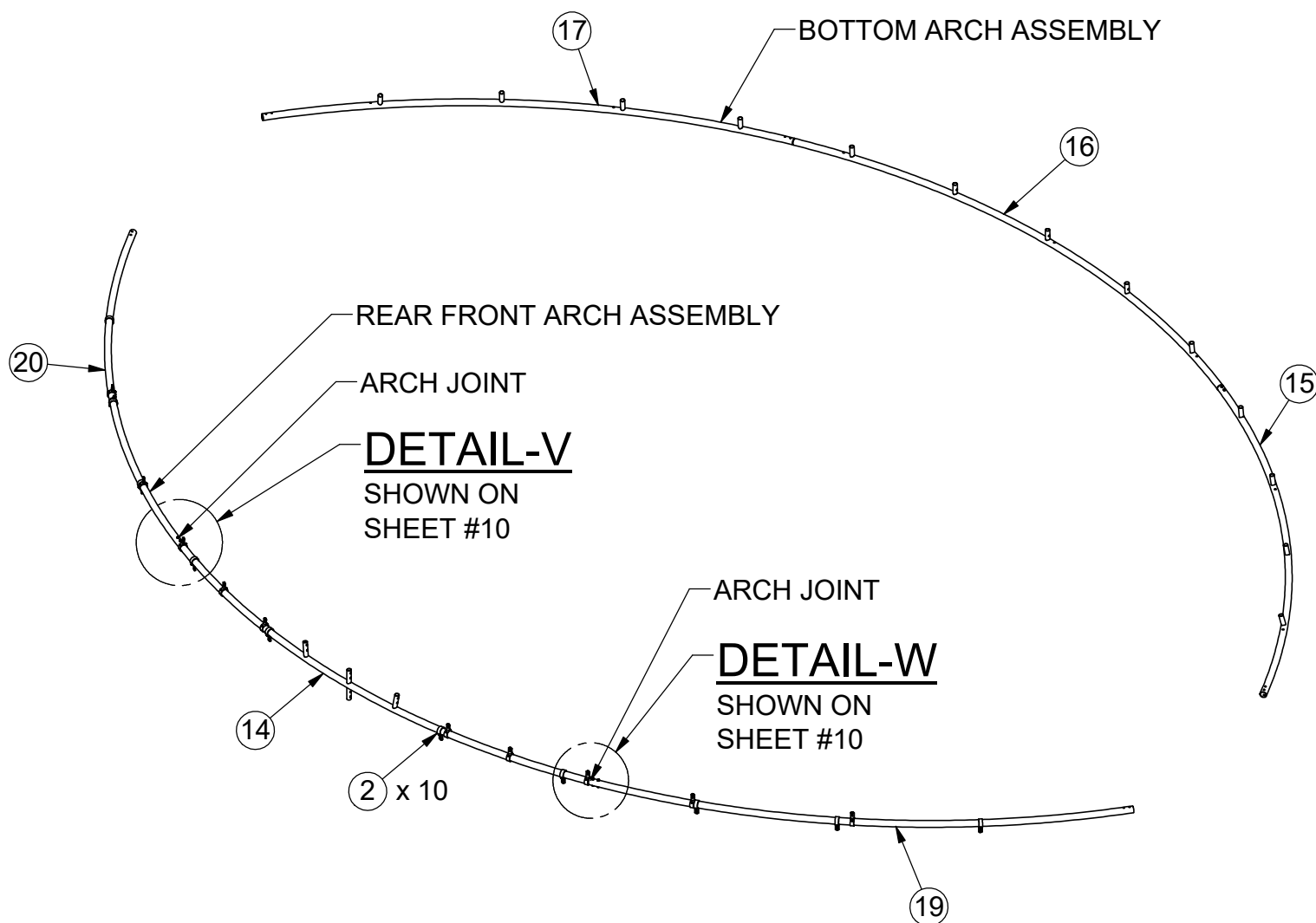
ARCH BACKSTOP

MODEL NO.

1218-10

INSTALLATION INSTRUCTIONS:

5) Take Center Rear Front Arch Item(14) , Front Right Arch Item(19) and Front Left Arch Item(20) . Lay on the ground in front of the Bottom Arch assembly. Take Center Rear Front Arch Item(14) and slide five (5) Heavy Duty Adjustable Collars Item(2) on each end held in place by 3/8"x 5/8" Set Screws Item(41) . Only finger tighten Set Screws. (You have to do this operation now because the joint bolts will prevent you from sliding them on later) Take Center Rear Front Arch Item(14) and slide sleeve end into Front Right Arch Item(19) then use 1/2"x 3 1/2" Bolts Item(42) and 1/2" Nylock Nut Item(44) to bolt the joint together. Take Front Left Arch Item(20) and slide over sleeve end of Front Center Rear Front Arch Item(14) then use 1/2"x 3 1/2" Bolts Item(42) and 1/2" Nylock Nut Item(44) to bolt the joint together.



Date: 7/26/2017

Rev: A

Drawn: BDYE

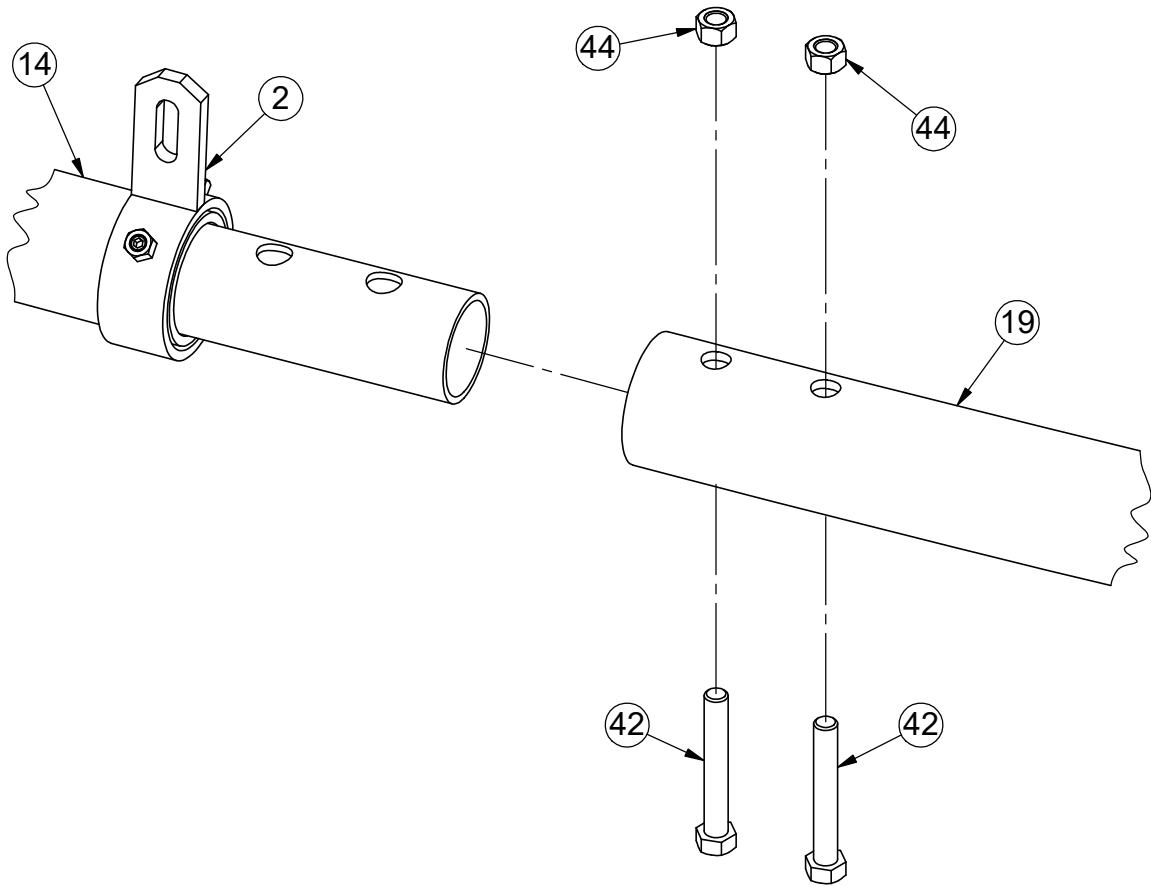
Sheet: 9 of 21

PRODUCT NAME

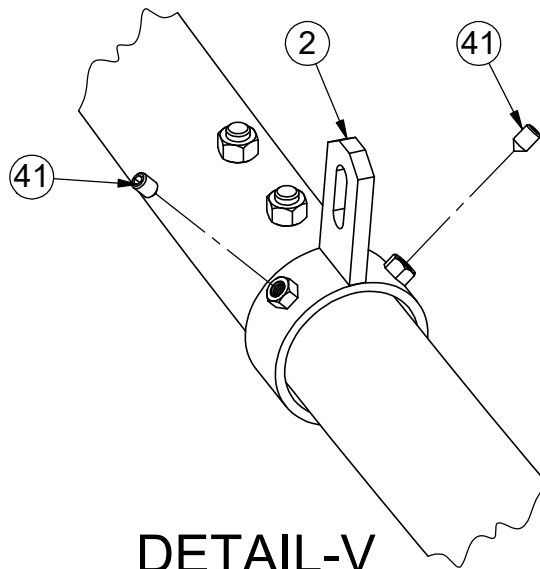
ARCH BACKSTOP

MODEL NO.

1218-10



DETAIL-W
FROM SHEET #9



DETAIL-V
FROM SHEET #9



Date: 7/26/2017

Rev: A

Drawn: BDYE

Sheet: 10 of 21

PRODUCT NAME

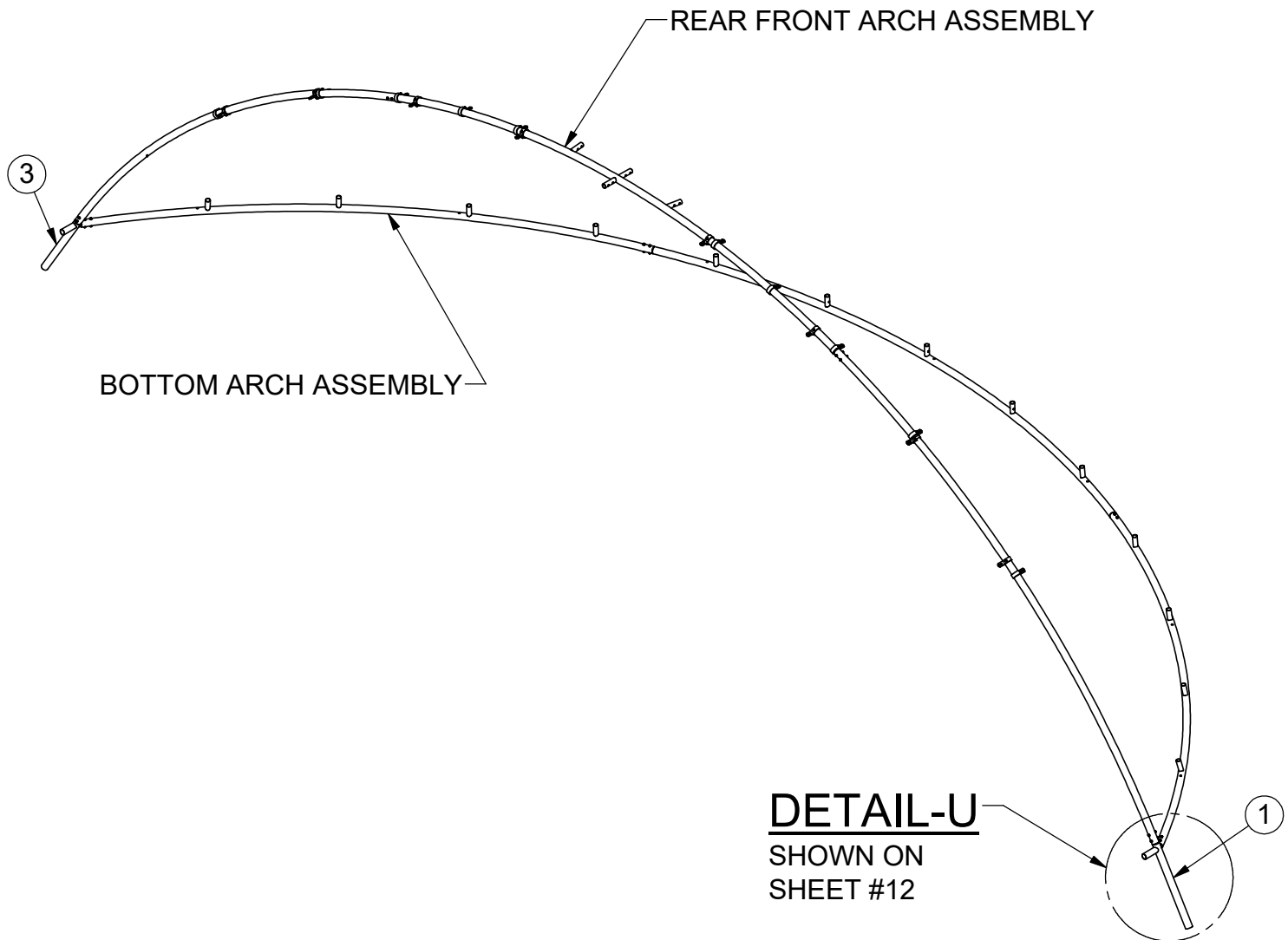
ARCH BACKSTOP

MODEL NO.

1218-10

INSTALLATION INSTRUCTIONS:

6) Lift Front Arch Assembly into position and brace in place and slide five (5) Heavy Duty Adjustable Collars Item (2) on each end held in place by 3/8"x 5/8" Set Screws Item (41) . Only finger tighten Set Screws. (You have to do this operation now because the Main Anchor will prevent you from sliding them on later). Take Main Anchor Assemblies Right Item (1) ,Main Anchor Assemblies Left Item (3) and slide Sleeves into Front Arch Assembly and Bottom Arch Assembly for both sides of Backstop and brace in place. Field drill holes into Sleeves of Main Anchor Assemblies Item (1) (3) using a 5/8" drill bit. Use 1/2"x 3 1/2" Bolt Item (42) and 1/2" Nylock Nut Item (44) Shown below and on sheet #12



Date: 7/26/2017

Rev: A

Drawn: BDYE

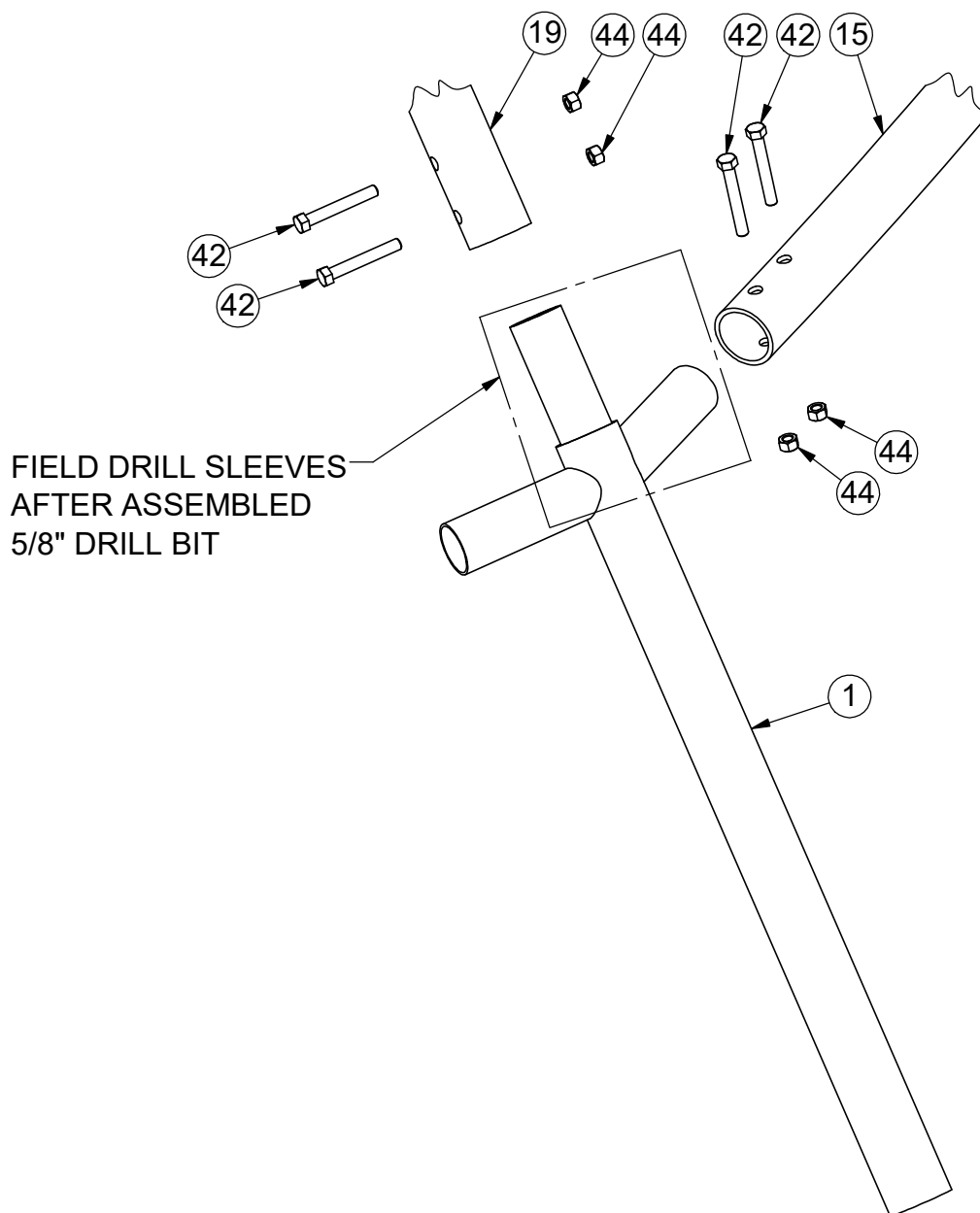
Sheet: 11 of 21

PRODUCT NAME

ARCH BACKSTOP

MODEL NO.

1218-10



DETAIL-U
FROM SHEET #11



Date: 7/26/2017
Rev: A
Drawn: BDYE
Sheet: 12 of 21

PRODUCT NAME

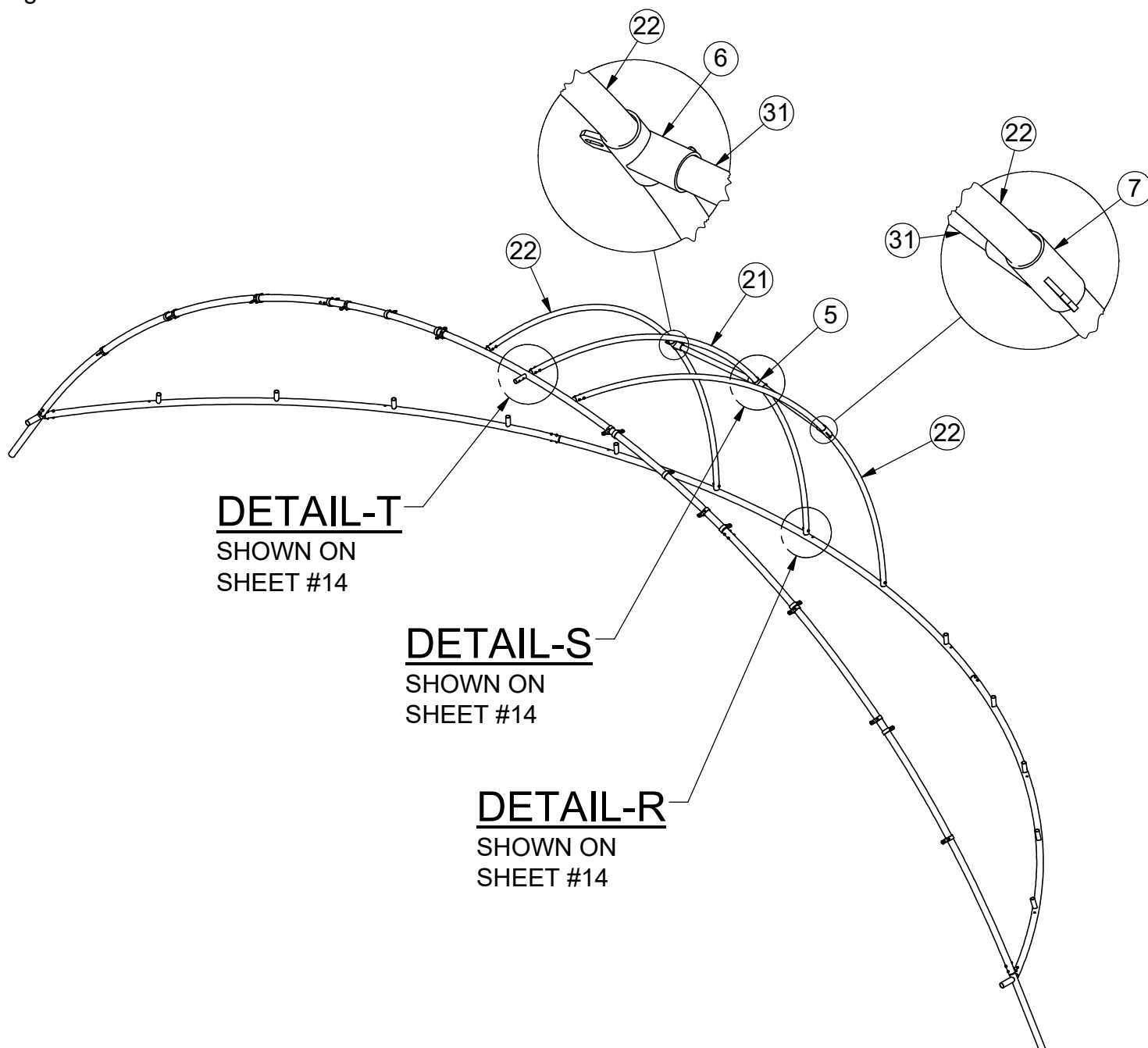
ARCH BACKSTOP

MODEL NO.

1218-10

INSTALLATION INSTRUCTIONS:

7) Take #1 Support Rib Item(21) and slide the Center Rear Tee Fitting Item(5) on to the Support Rib as shown below. Next take two (2) #2 Support Ribs Item(22) and slide on Right Tee Flange Fitting Item(7) on one and slide Left Tee Flange Fitting Item(6) on the other as shown below. Next bolt on #1 Support Rib Item(21) by sliding it on the mounting stubs located on the Bottom Arch Assembly and the Rear Front Arch Assembly Item(14) using 1/2"x 3" Bolts Item(42) and 1/2" Nylock Nuts Item(44) . Follow the same directions for bolting on both #2 Support Ribs Item(22) Except for placing the Center Horizontal Stiffer Item(31) between Ribs as shown. Secure with 3/8"x 5/8" Set Screw Item(41) and 1/4"Drive Pin Item(46) by drilling 7/32 holes where shown on sheets 14 and 18.



Date: 7/26/2017

Rev: A

Drawn: BDYE

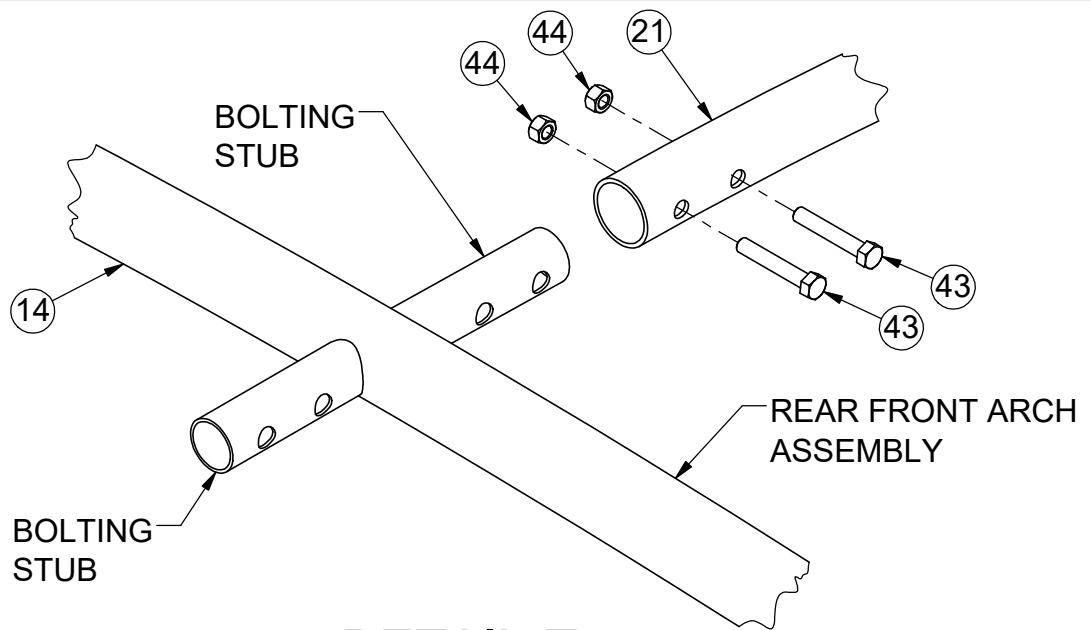
Sheet: 13 of 21

PRODUCT NAME

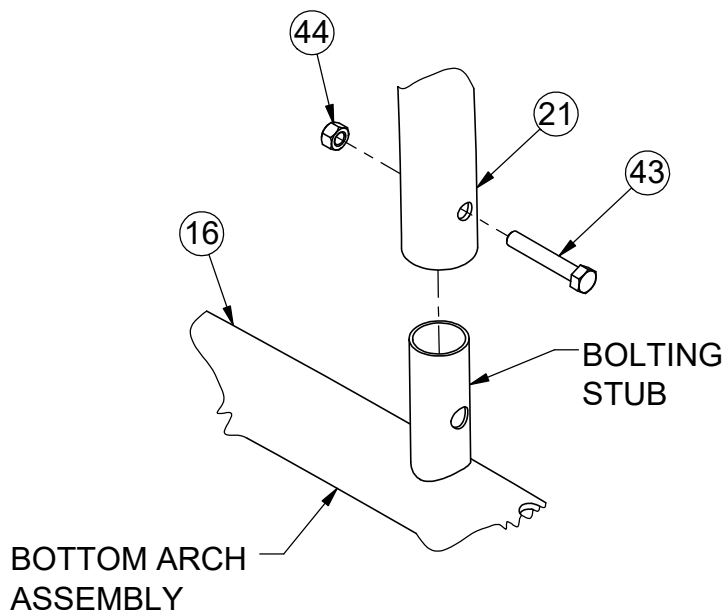
ARCH BACKSTOP

MODEL NO.

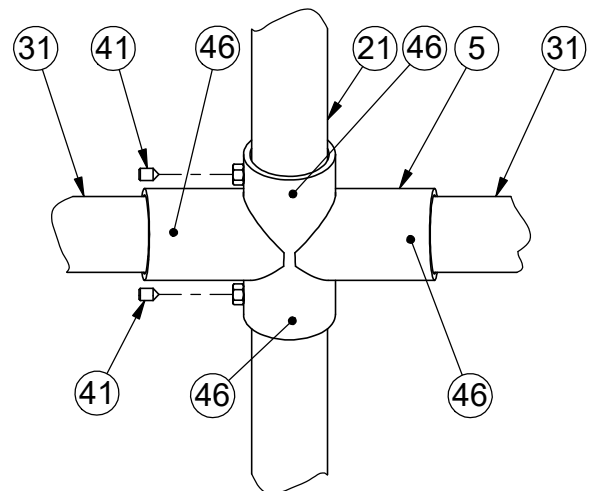
1218-10



DETAIL-T
FROM SHEET #13



DETAIL-R
FROM SHEET #13



DETAIL-S
FROM SHEET #13



Date: 7/26/2017
Rev: A
Drawn: BDYE
Sheet: 14 of 21

PRODUCT NAME

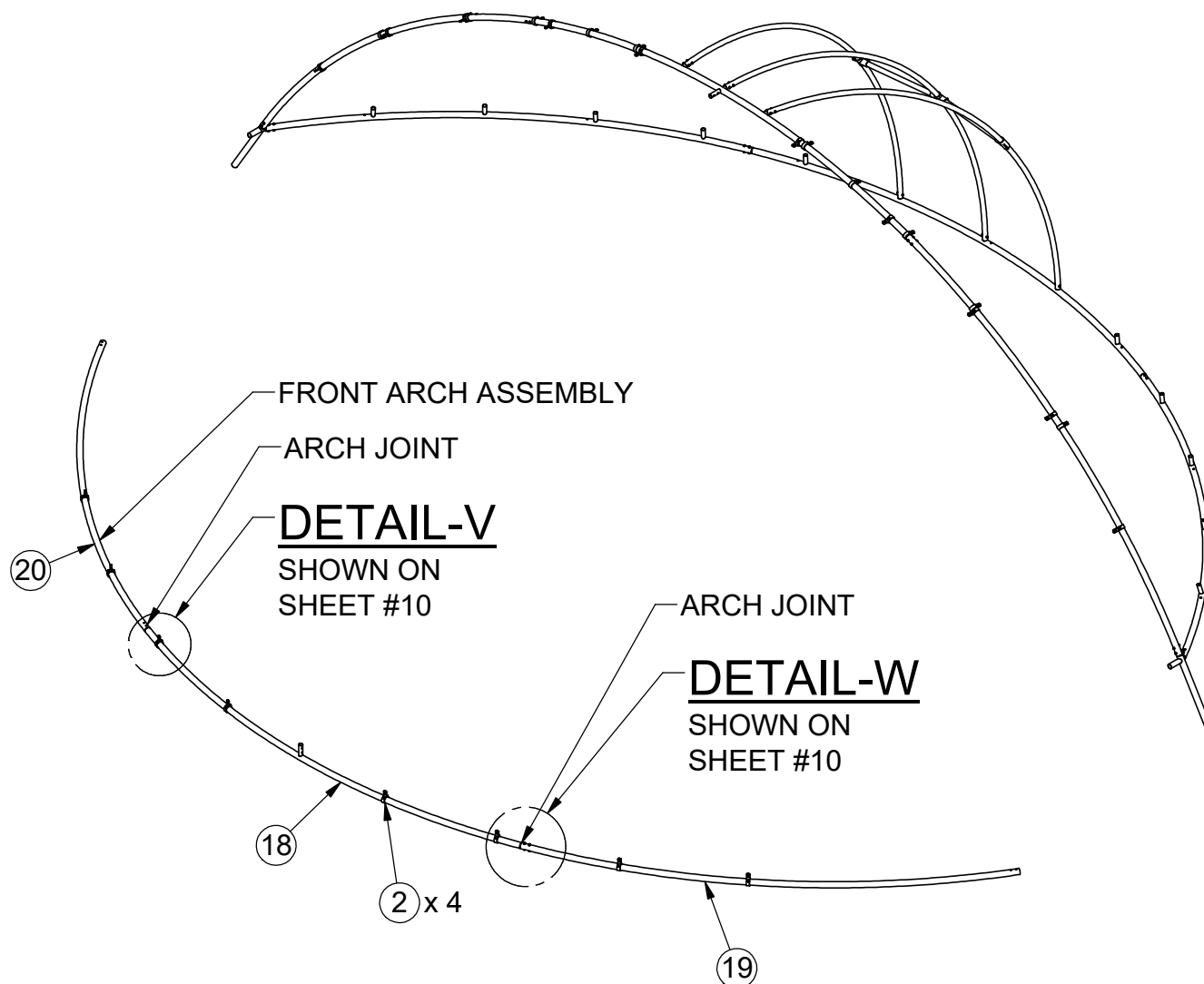
ARCH BACKSTOP

MODEL NO.

1218-10

INSTALLATION INSTRUCTIONS:

8) Take Center Front Arch Item(18) , Front Right Arch Item(19) and Front Left Arch Item(20) . Lay on the ground in front of the Bottom Arch assembly. Take Center Arch Item(18) and slide two (2) Heavy Duty Adjustable Collars Item(2) on each end held in place by 3/8"x 5/8" Set Screws Item(41) . Only finger tighten Set Screws. (You have to do this operation now because the joint bolts will prevent you from sliding them on later) Take Center Arch Item(18) and slide sleeve end into Front Right Arch Item(19) then use 1/2"x 3 1/2" Bolts Item(42) and 1/2" Nylock Nut Item(44) to bolt the joint together. Take Front Left Arch Item(20) and slide over sleeve end of Front Center Arch Item(14) then use 1/2"x 3 1/2" Bolts Item(42) and 1/2" Nylock Nut Item(44) to bolt the joint together. (Shown on sheet #10)



Date: 7/26/2017

Rev: A

Drawn: BDYE

Sheet: 15 of 21

PRODUCT NAME

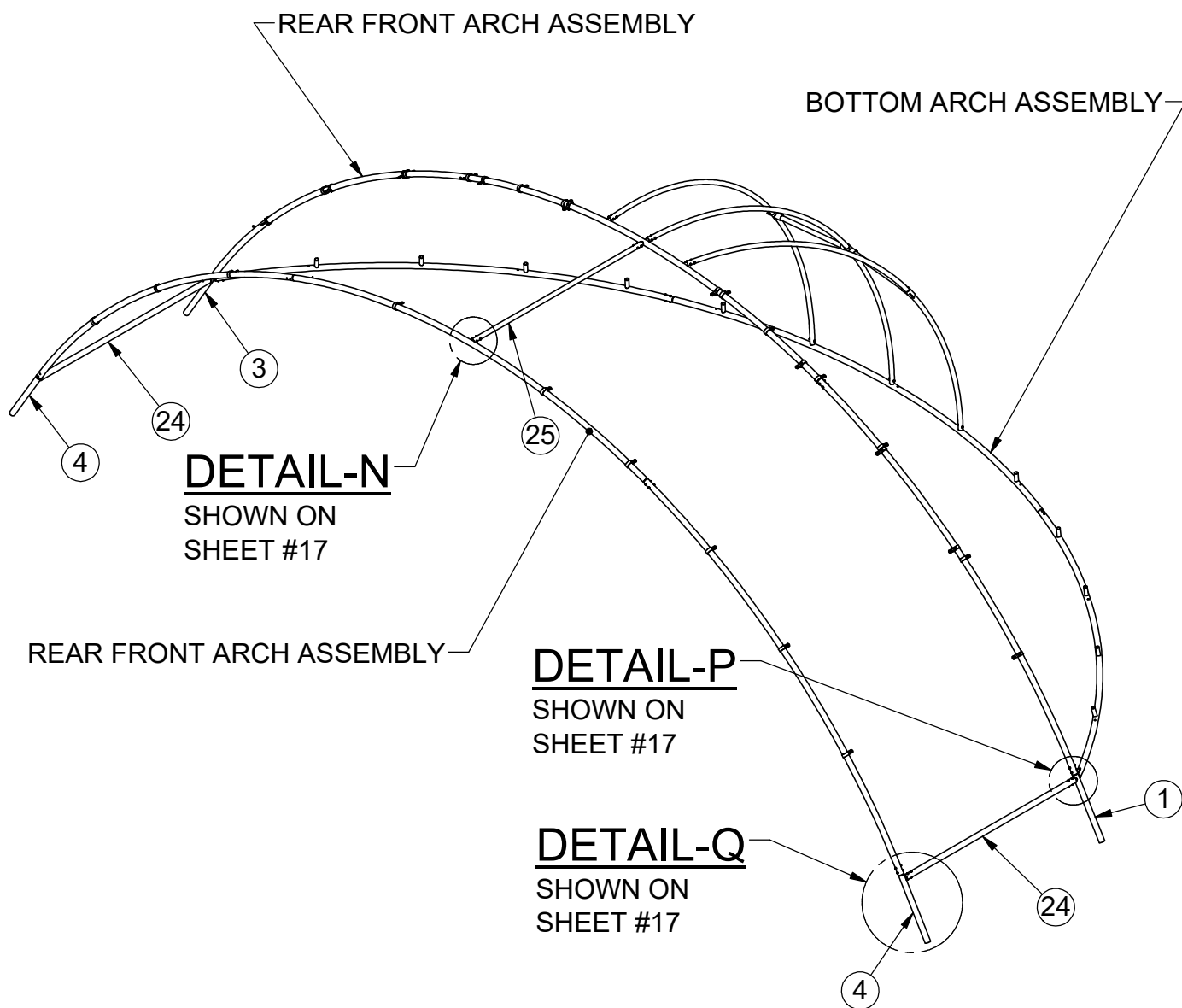
ARCH BACKSTOP

MODEL NO.

1218-10

INSTALLATION INSTRUCTIONS:

9) Lift Front Arch Assembly into position and brace in place and slide three (3) Heavy Duty Adjustable Collars Item (2) on each end held in place by 3/8"x 5/8" Set Screws Item (41) . Only finger tighten Set Screws. (You have to do this operation now because the Main Anchor will prevent you from sliding them on later). Take Stiffener Bottom Front Item (24) slide it on Main Anchor Assemblies Right Item (1) ,Main Anchor Assembly Item (3) . Then slide sleeve of Main Anchor Assemblies Right and left Item (4) into Stiffener Bottom Front Item (24) Then lift Front Arch Assembly into place sliding it over the sleeve's of Main Anchor Assemblies Right and left Item (4) . Attach Front Arch Assembly to Rear Front Assembly with Stiffener Top Front Item (25) and bolt in place using 1/2"x 3 1/2" Bolt Item (42) and 1/2" Nylock Nut Item (44) .Brace in place and frield drill holes into Sleeves of Main Anchor Assemblies Item (1) (3) (4) using a 5/8"drill bit. Use 1/2"x 3 1/2" Bolt Item (42) and 1/2" Nylock Nut Item (44) Shown below and on sheet #17



Date: 7/26/2017

Rev: A

Drawn: BDYE

Sheet: 16 of 21

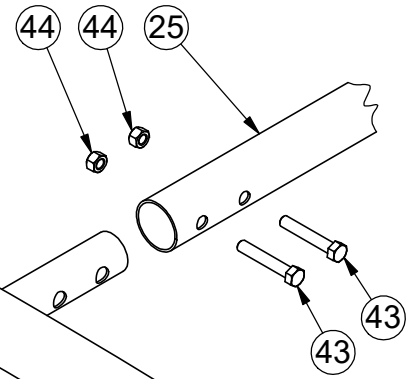
PRODUCT NAME

ARCH BACKSTOP

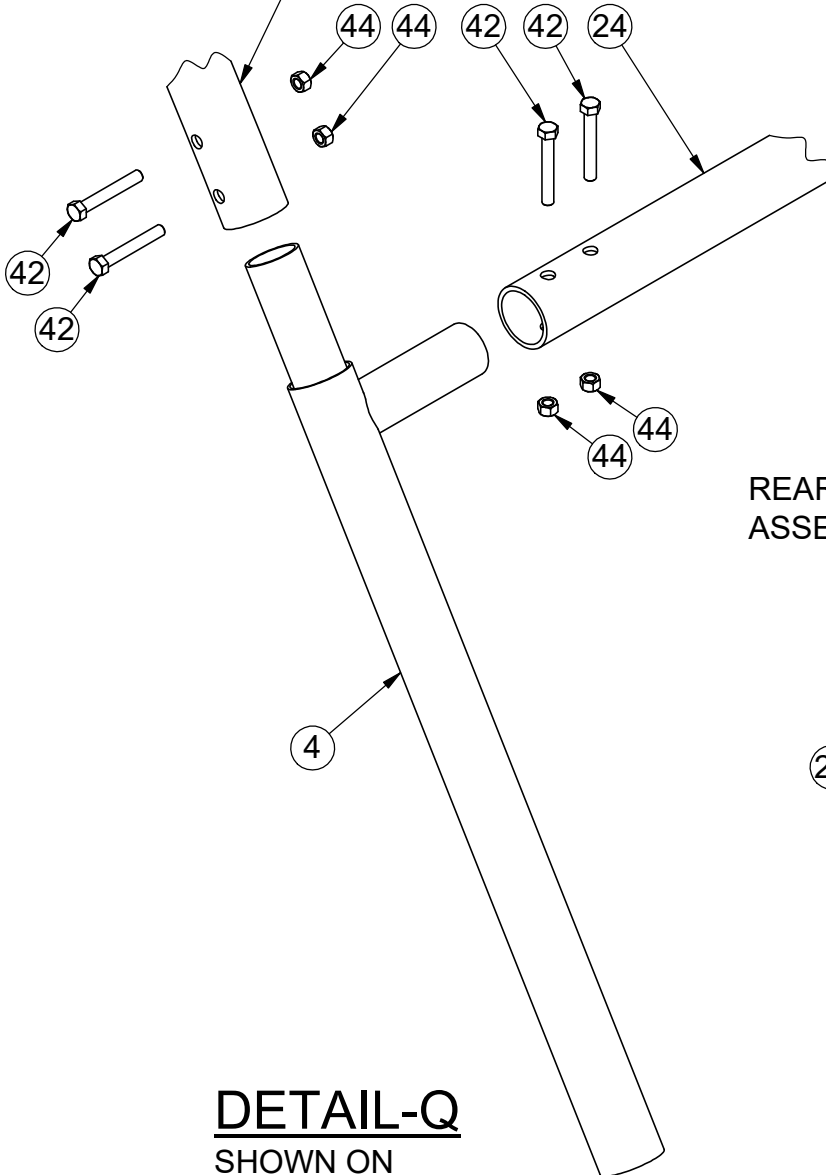
MODEL NO.

1218-10

FRONT ARCH
ASSEMBLY



REAR FRONT ARCH
ASSEMBLY

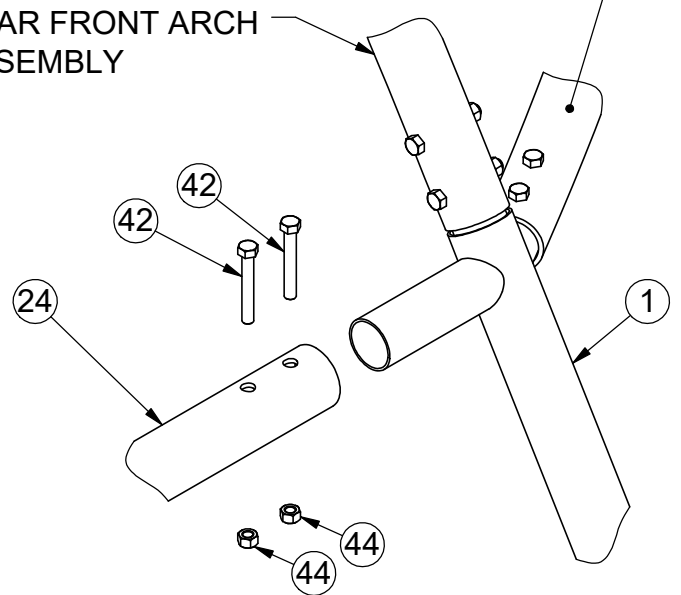


DETAIL-N

SHOWN ON
SHEET #17

BOTTOM ARCH
ASSEMBLY

REAR FRONT ARCH
ASSEMBLY



DETAIL-Q

SHOWN ON
SHEET #17

DETAIL-P

SHOWN ON
SHEET #17



Date: 7/26/2017

Rev: A

Drawn: BDYE

Sheet: 17 of 21

PRODUCT NAME

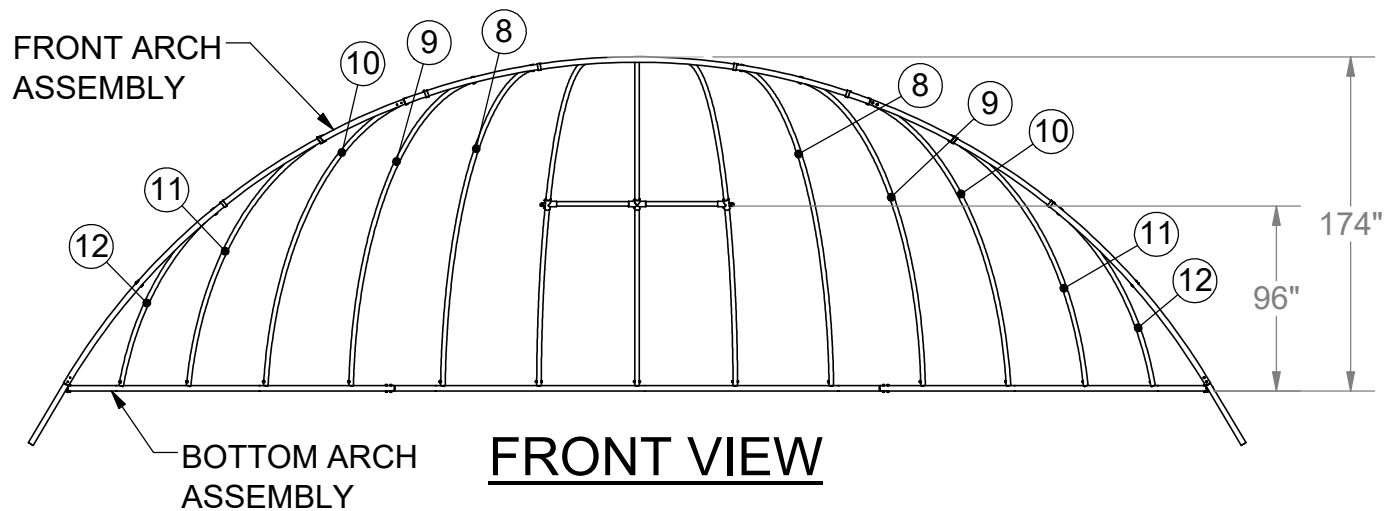
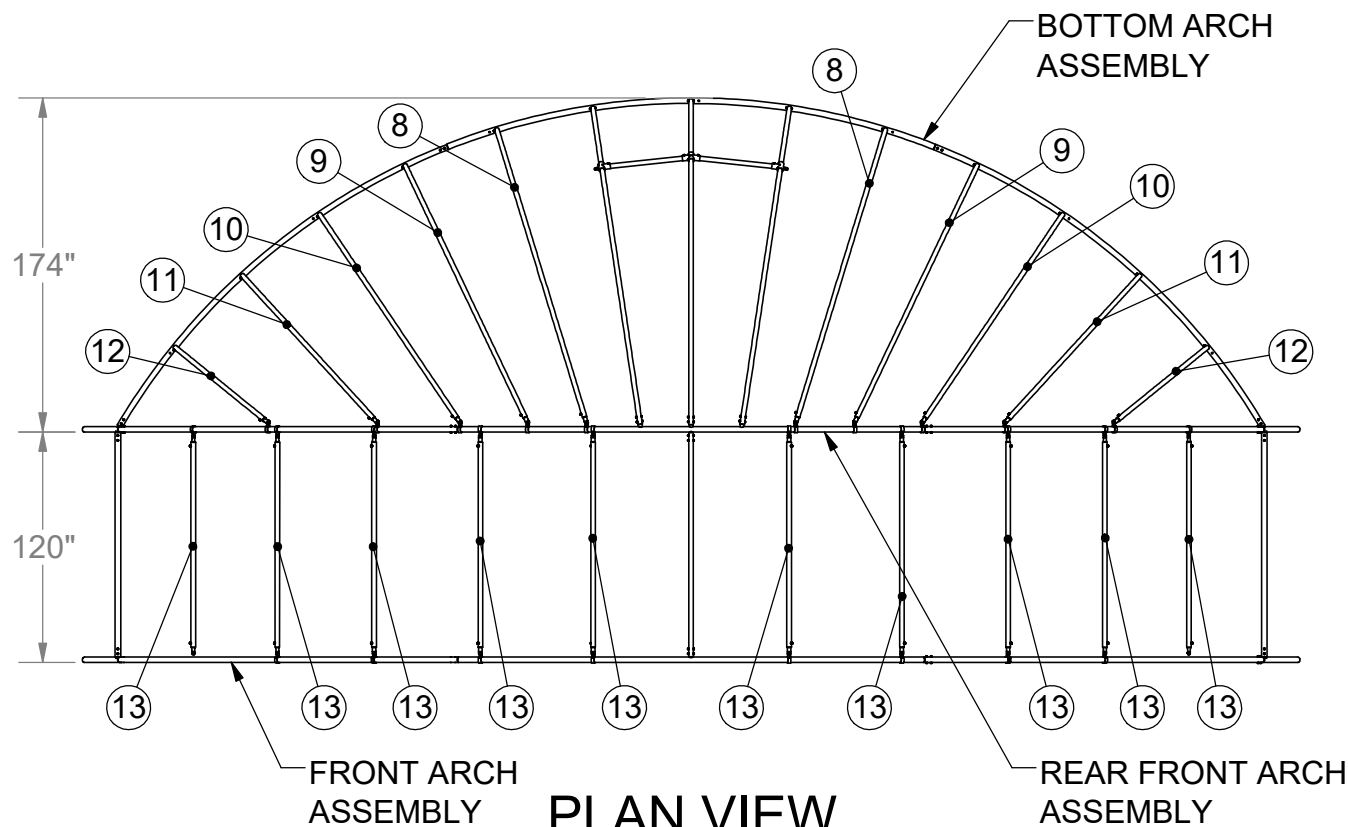
ARCH BACKSTOP

MODEL NO.

1218-10

INSTALLATION INSTRUCTIONS:

8) Take #3 thru #7 Support Rib Items (8) (9) (10) (11) (12) and Stiffener Front Item (13), bolt on by sliding them on the mounting stubs located on the Bottom Arch secured by using 5/8"x 1" Set Screw Item (45) and 1/4" Drive Pin Item (46). Attach the top of the Ribs to the Front Arch Assembly with the Flattened Sleeve Item (23) secure with 5/8"x 1" Set Screw Item (45) and 1/4" Drive Pin Item (46), Heavy Duty Adjustable Collar Item (2), 3/8"x 1 1/4" Hex Bolts Item (38), 3/8" Washer Item (39) and 3/8" Nylock Nut Item (40). Follow the directions to install the remaining Ribs listed above. The views below, sheet #15 and #16 will show you the steps.



Date: 7/26/2017

Rev: A

Drawn: BDYE

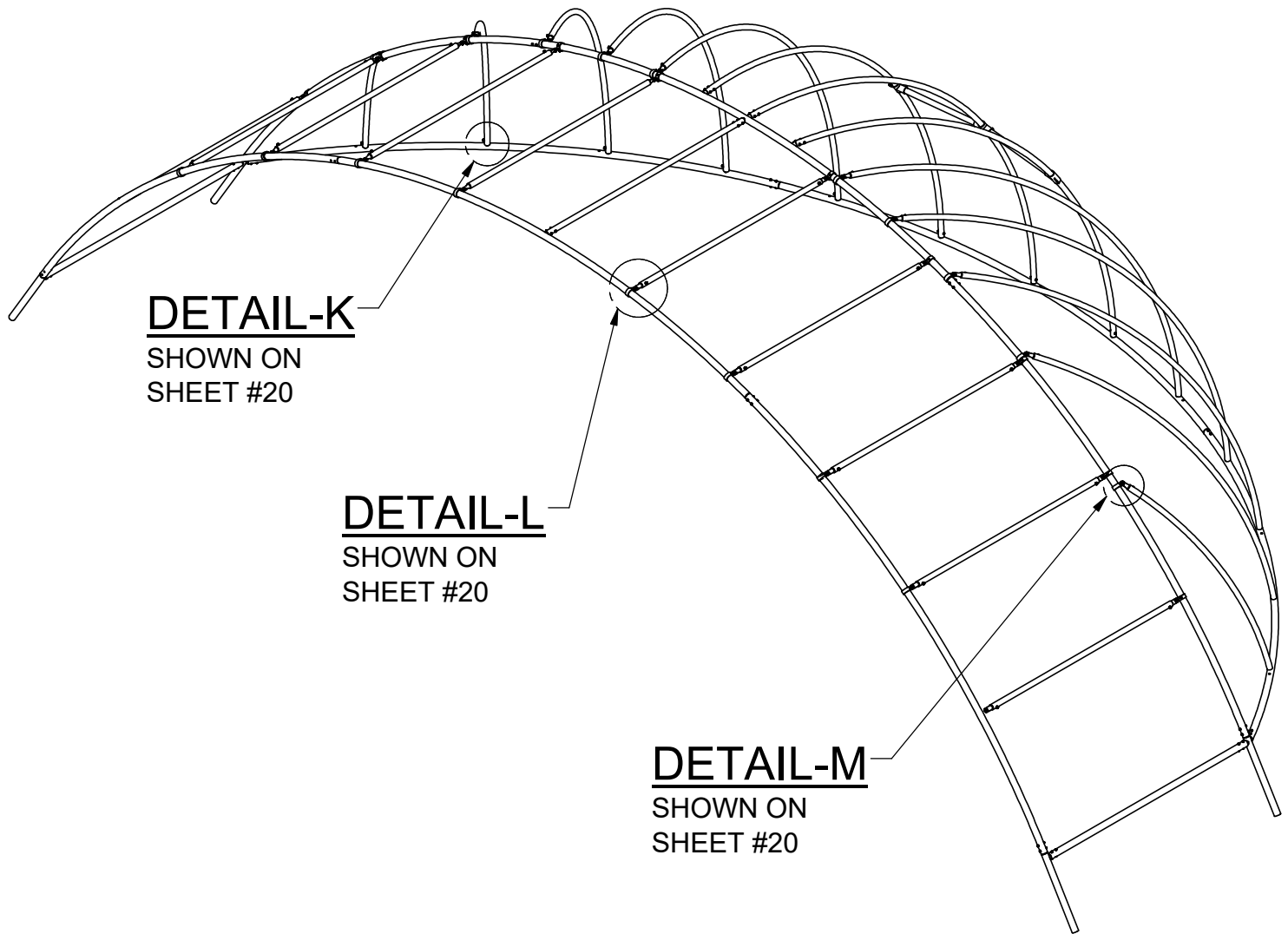
Sheet: 18 of 21

PRODUCT NAME

ARCH BACKSTOP

MODEL NO.

1218-10



ISOMETRIC



Date: 7/26/2017

Rev: A

Drawn: BDYE

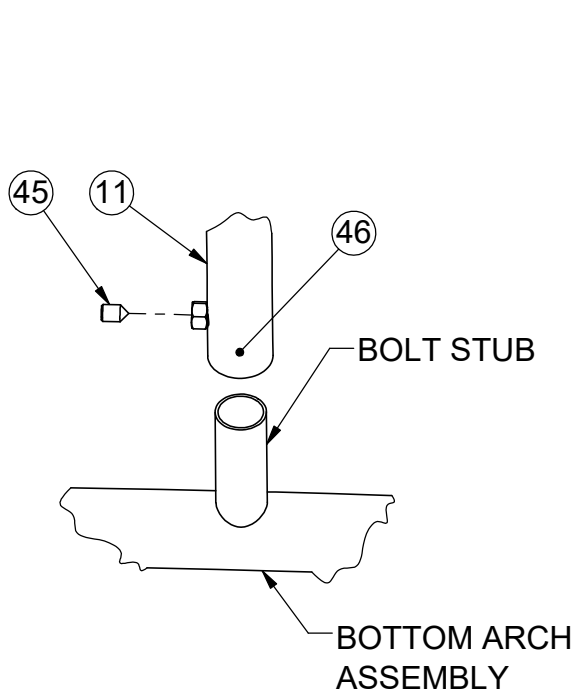
Sheet: 19 of 21

PRODUCT NAME

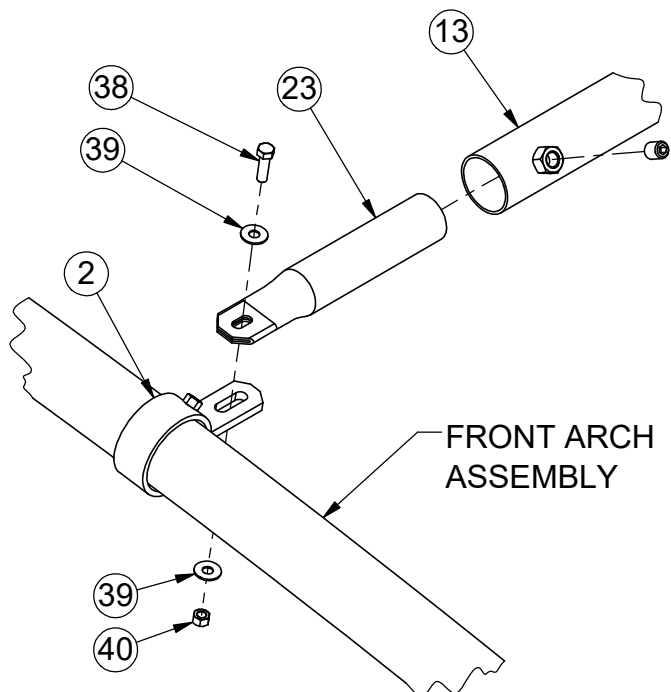
ARCH BACKSTOP

MODEL NO.

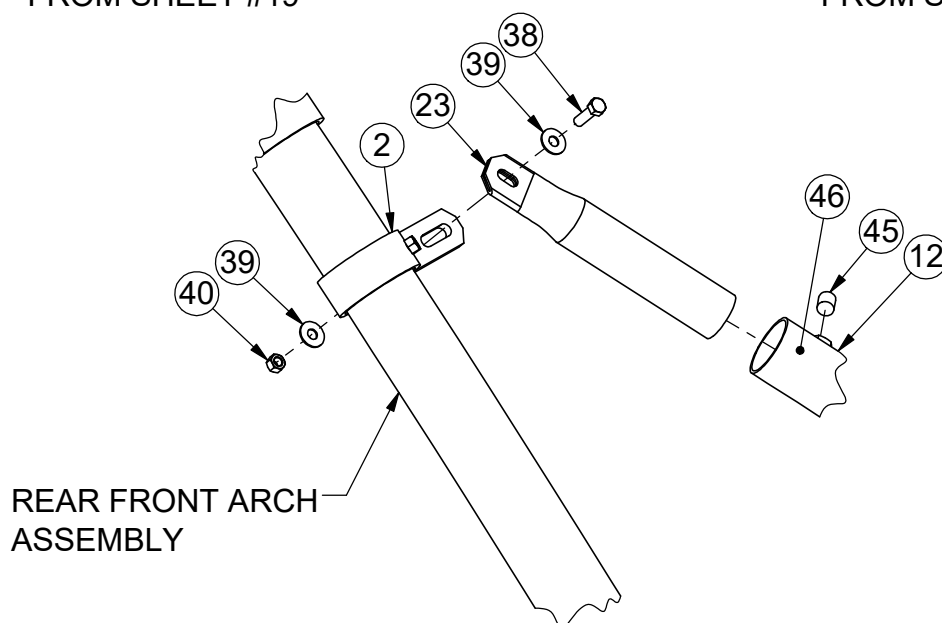
1218-10



DETAIL-K
FROM SHEET #19



DETAIL-L
FROM SHEET #19



DETAIL-M
FROM SHEET #19



Date: 7/26/2017

Rev: A

Drawn: BDYE

Sheet: 20 of 21

PRODUCT NAME

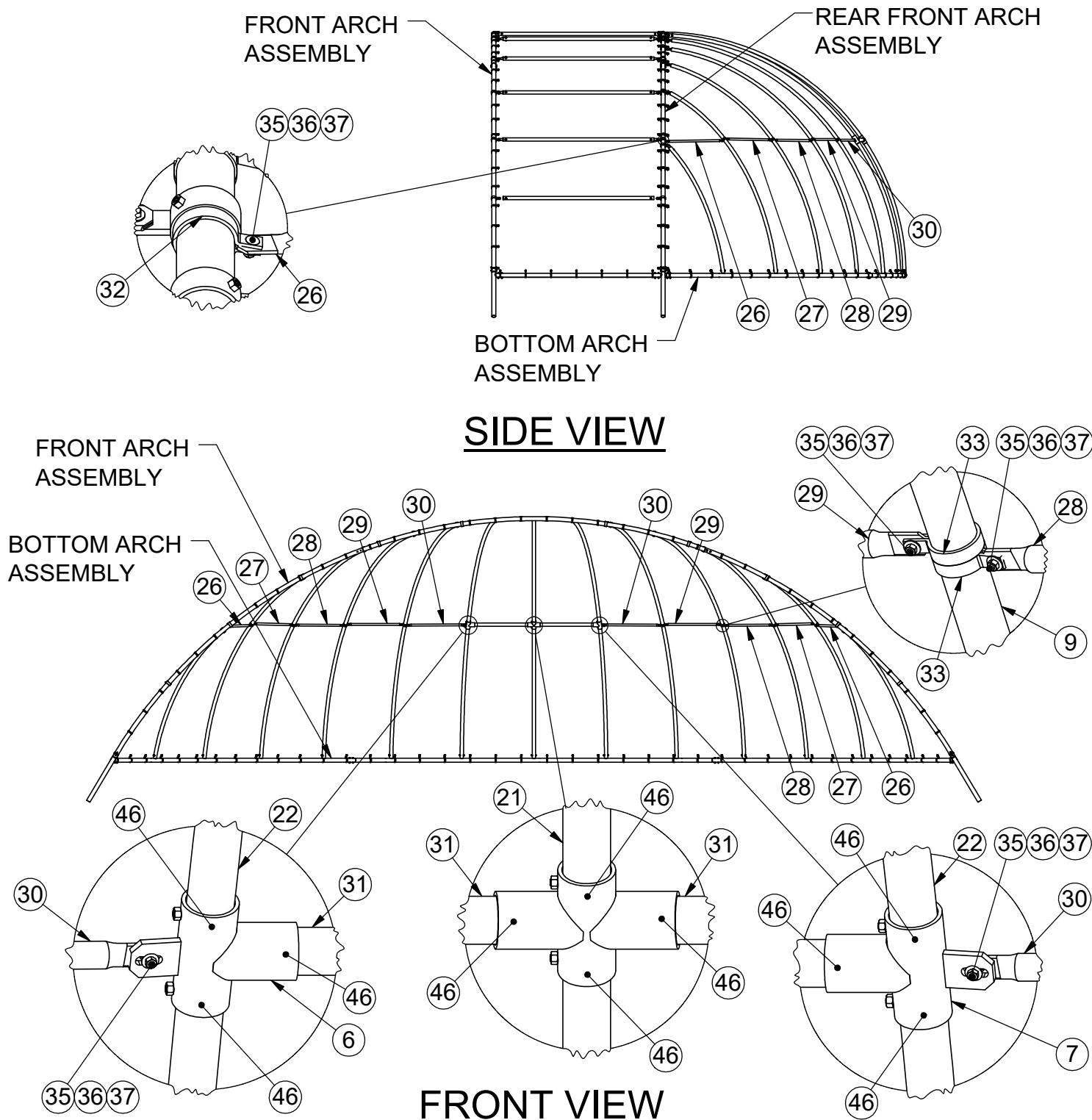
ARCH BACKSTOP

MODEL NO.

1218-10

INSTALLATION INSTRUCTIONS:

9) To install Horizontal Stiffeners (26) thru (30) with Brace Bands (32) and (33) by following the views below. Make sure to alternate Horizontal Stiffeners as shown to make sure the bottom of every other one is 96" to Finish Grade.



Date: 7/26/2017

Rev: A

Drawn: BDYE

Sheet: 21 of 21

PRODUCT NAME

ARCH BACKSTOP

MODEL NO.

1218-10