4 - Leg Towers 4' x 4'

Chain Loop and 48" Catwalk Designs

Installation Manual

PNEG-1413

DATE: 9-30-05

PNEG-1413

TABLE OF CONTENTS

OVERVIEW

Take time now and review the entire assembly manual. A few minutes now could save hours later during assembly.

Check BOM against parts shipped and report any shortages now before assembly starts.

Foundation is critical for the structural integrity of the tower. Be sure to follow foundation design. A local engineering firm should review site, soil conditions and foundation design before work is started. Local codes may require the design stamped by a licensed engineer.

Depending on your work environment, these instructions may need to be altered to best fit your needs.

Assemble tower on a level horizontal surface. Block up column sections high enough to be able to place horizontal angles under columns and attach with hardware provided. Note: Vertical “X” bracing must be placed between column and H-Brace. Internal X-Bracing is used at every 5’ of vertical height. Bracing attaches to the H-Braces.

Attach column splice plates to outside of columns using 1/2" hardware provided. Use splice on both outside surfaces.

One style of assembly is to build 2 sides laying approximately 48" apart. Rotating sides up attach horizontal bracing for proper spacing between sides. Keep sections small enough to handle easily. Slide section ends together and splice together.

Once all sections have been assembled, align and string columns for straitness. Tighten all hardware, columns must be straight!!!

Layout parts for ladder package & service platform. With tower assembly complete & hardware tightened proceed with attaching service platform & ladder sections. Refer to page 33 that shows general layout of ladder, safety cage, & platform. Use the layout that corresponds to the height of tower. Any tower over 30' must use offset platform included with ladder package. Before starting ladder assembly give some consideration on how to raise tower and attachments to provide safe setting of tower. Some floor planks may need to be left out until tower is stood in place.

Assemble service platform and attach to top of tower. Place opening of service platform on side of tower that will have ladder. This will align ladder placement. Attach ladder from service platform towards bottom of tower. Be sure and use the 10’ ladder access weldment in conjunction with the service platform. Follow the general layout using the proper ladder section as you proceed. Offset platform is used only on towers over 30’ tall. Follow details for offset platform for proper attachment.

TOOLS

Drift Punches for 3/8" to 1/2" Bolts
3/4" Wrenches & Sockets
Ratchet & Impact Gun
9/16" Wrenches and Sockets
String

SAFETY

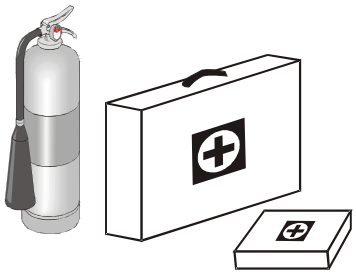
This equipment shall be installed in accordance with the current installation codes and applicable regulations which should be carefully followed in all cases. Authorities having jurisdiction should be consulted before installations are made.

PREPARE FOR EMERGENCIES

Be prepared if fire starts.

Keep a first aid kit and fire extinguisher handy.

Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.



Keep Emergency Equipment Quickly Accessible.

WEAR PROTECTIVE CLOTHING

Wear close fitting clothing and safety equipment appropriate to the job.

Safety glasses should be worn at all times to protect eyes from debris.

Wear gloves to protect your hands from sharp edges on plastic or steel parts.

A respirator may be needed to prevent breathing potentially toxic fumes and dust.

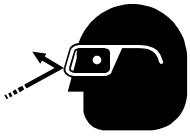
Wear hard hat and steel toe boots to help protect your head and toes from falling debris.

Remove all jewelry.

Tuck in any loose or dangling shoe strings.

Long hair should be tied up and back.

Eye Protection



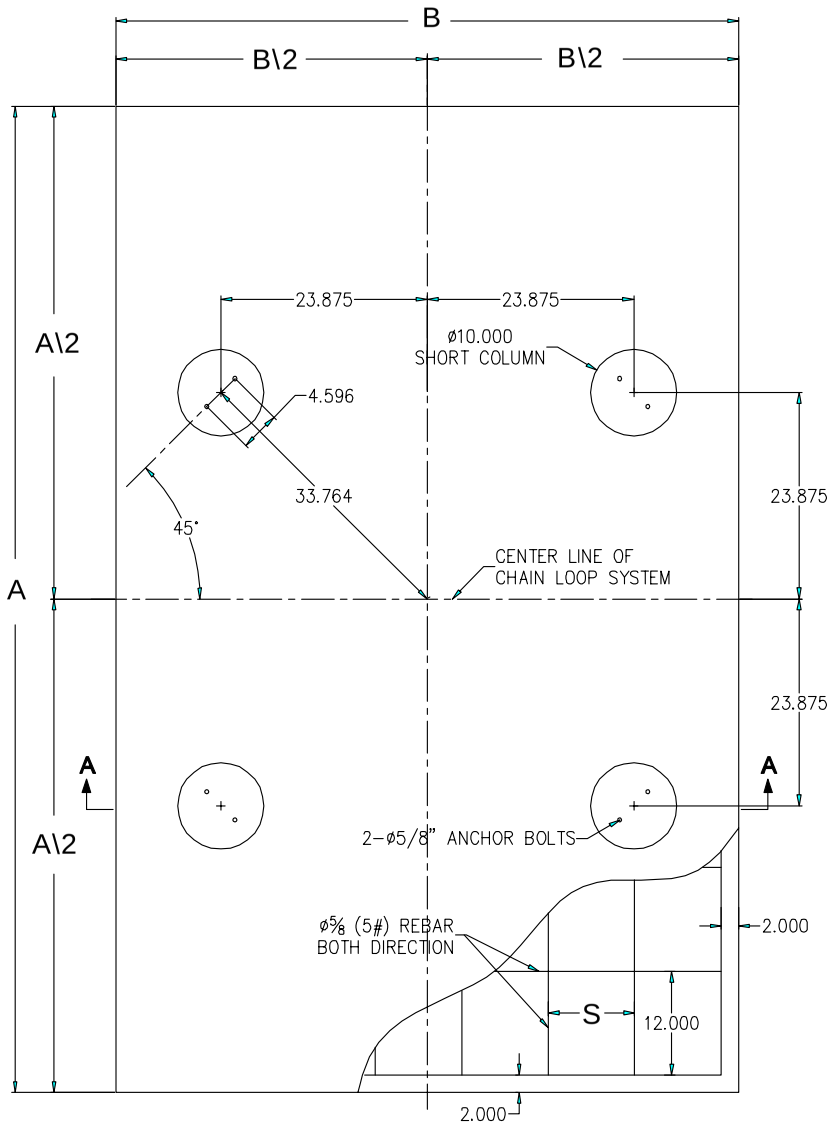
Gloves

Steel Toe Boots

Respirator

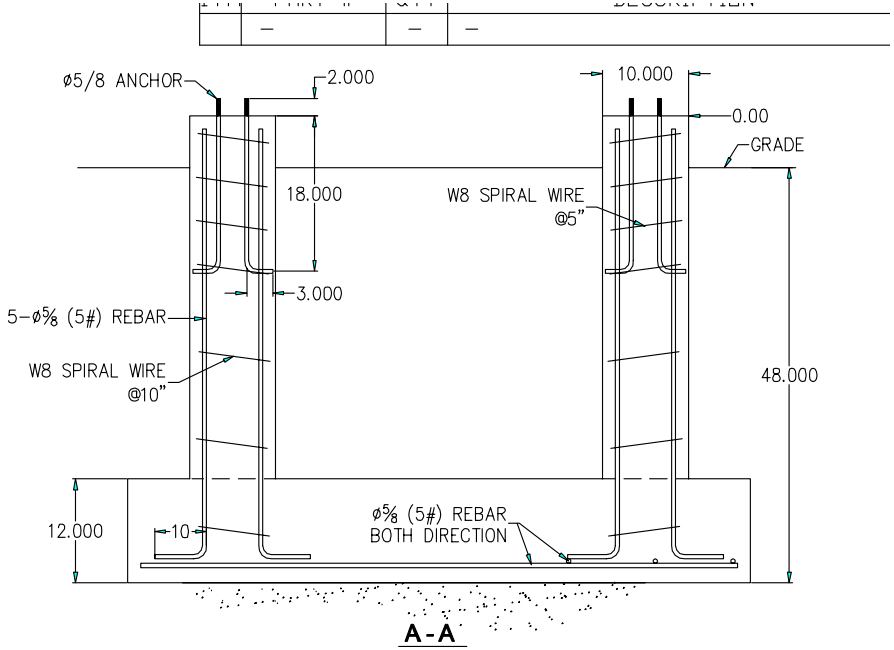
Hard Hat

4-LEG TOWER FOUNDATION



4-LEG TOWER FOUNDATION

Foundation design is based on support of tower and tower turn over. Failure to follow foundation recommendation voids tower warranty.



A-A

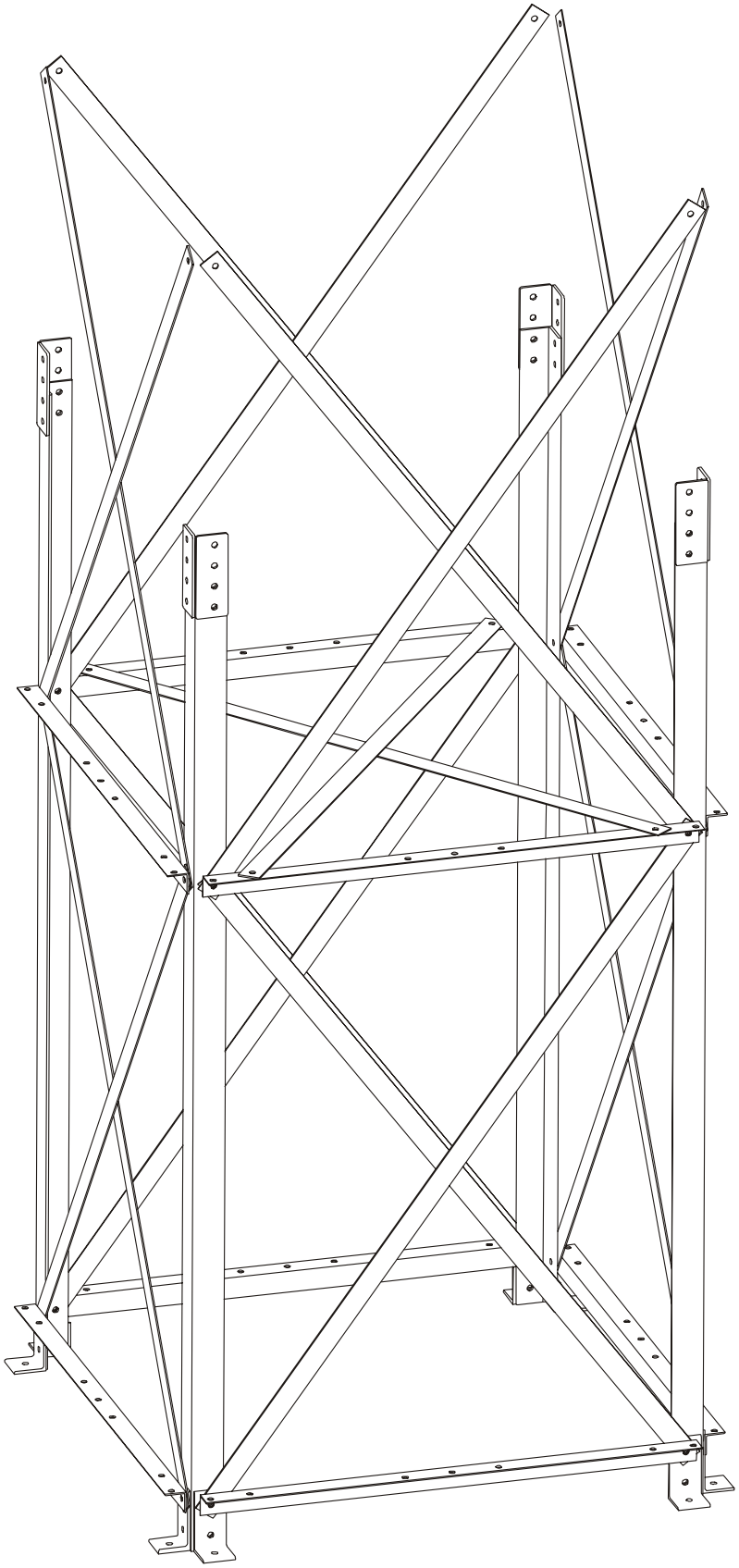
1, THE FOUNDATION DESIGN IS BASED ON A MINIMUM ALLOWABLE SOIL BEARING CAPACITY OF 3000PSF. BEARING CAPACITY OF THE SOILS SHOULD BE DETERMINED BY GEOTECHNICAL INVESTIGATION AND BE OF UNIFORM BEARING CAPACITY.
2, THE FOUNDATION SITE MUST BE FREE OF VEGETATION AND DEBRIS AND WELL DRAINED.
3, THE FOUNDATION MUST BE FOUNDED BELOW THE FROST LINE, OR PLACE ON NON EXPANSIVE, FROST FREE FILL.
4, ALL MATERIAL USED FOR BACKFILL SHOULD BE CLEAN AND IN 95% COMPACTION.
5, REBAR MUST BE ASTM A615 GRADE 420 (60) DEFORMED, SPIRAL BE ASTM A82 PLAIN WIRE.
6, CONCRETE MUST HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000PSI AT 28 DAYS.

"A", "B" & "S" VALUE

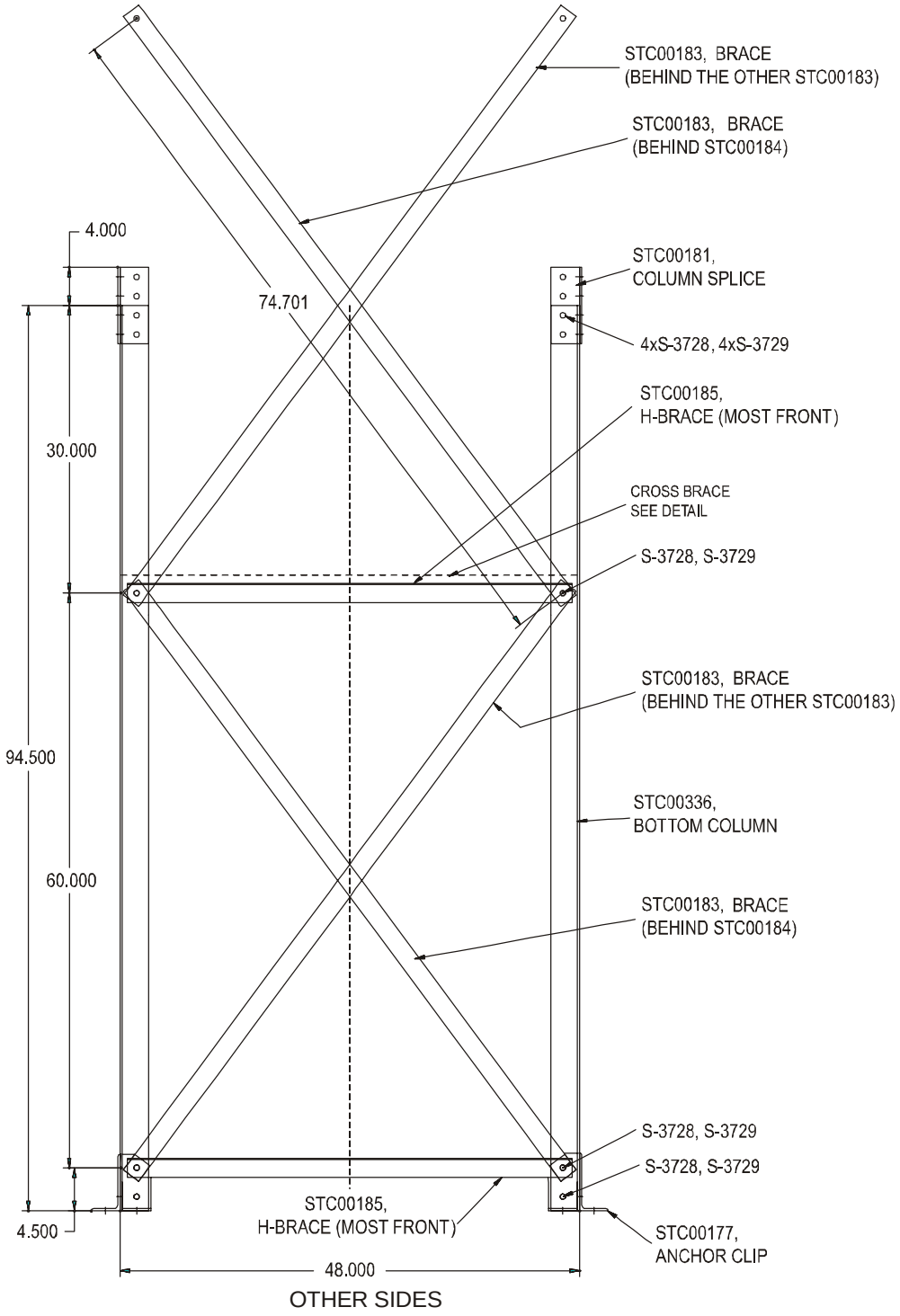
HEIGHT & (WIND SPEED)	45' (90MPH)	55' (90MPH) 45' (110MPH)	60' (90MPH) 50' (110MPH)
A (ft)	9	10	11
B (ft)	6	6	6
S (in)	12	10	9

Footing width and length chart with rebar spacing based on tower height and wind load.

4-LEG TOWER BOTTOM SECTION

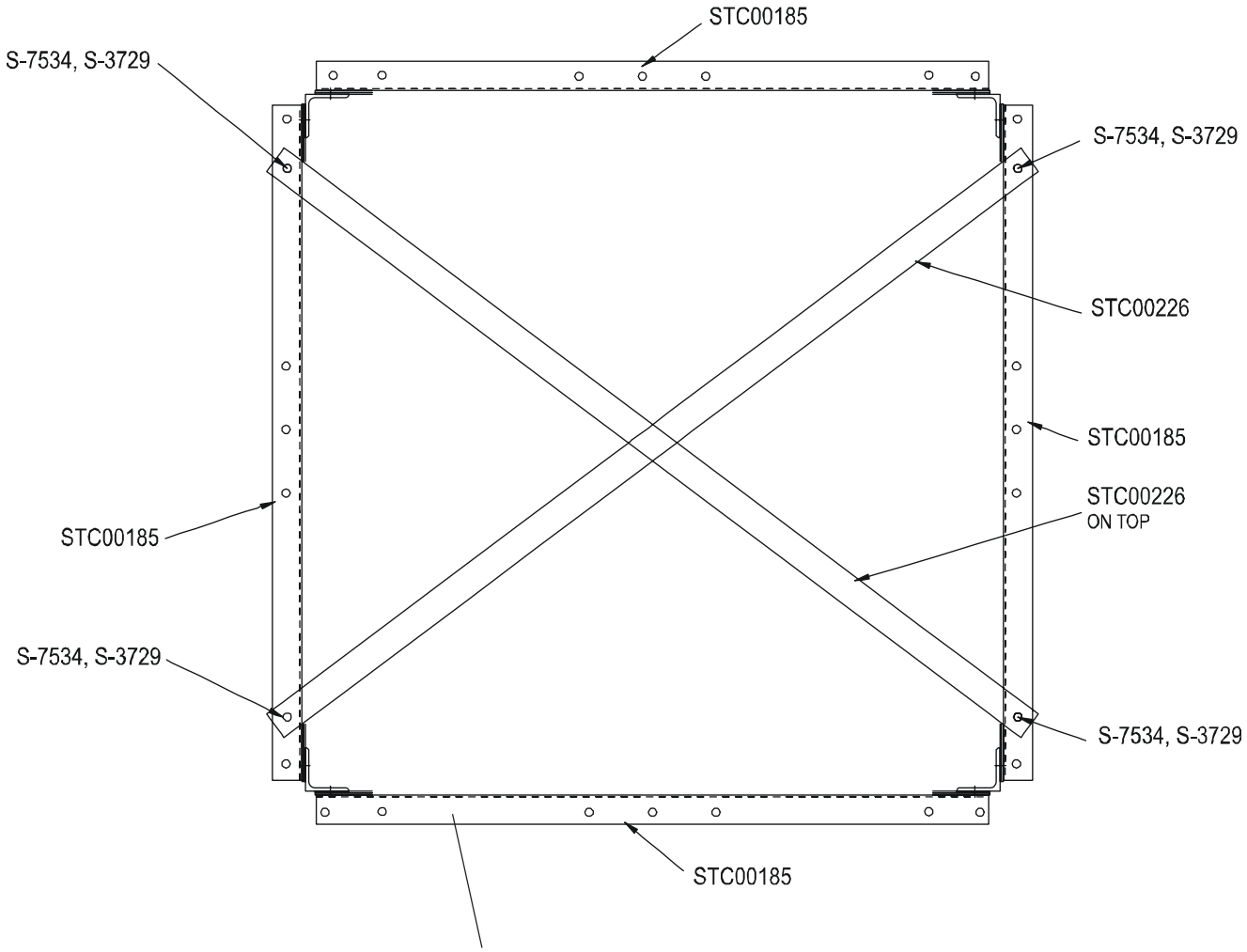


4-LEG TOWER BOTTOM SECTION DIMENSIONAL DRAWING



BOTTOM SECTION-A

INTERNAL X-BRACES



NOTE: Ladder Side of Tower.
(Internal X-Braces must NOT attach to horizontal brace on side that ladder attaches too.)

4-LEG TOWER BOTTOM SECTION ASSEMBLY

SIDE 1 & SIDE 2 ASSEMBLY

1. Attach (2) Tower Anchor Clips (**STC00177**) to bottom holes in each Bottom Column (**STC00366**) using 1/2" hardware provided (**S-3729 & S-3728**). (See Fig. 1)

2. Attach Vertical X-Braces (**STC00183**) to the bottom columns (**STC00366**) as shown in Fig. 1 using 1/2" hardware provided.

3. Attach the column splice plates (**STC00181**) to the tops of the columns (**STC00366**), using (2) 1/2" x 1-1/2" HHCS bolts (**S-3729**) and nuts (**S-3728**) for each plate. (See Fig. 1)

4. Repeat steps 1-3 for the opposite side, so you have two identical sections.

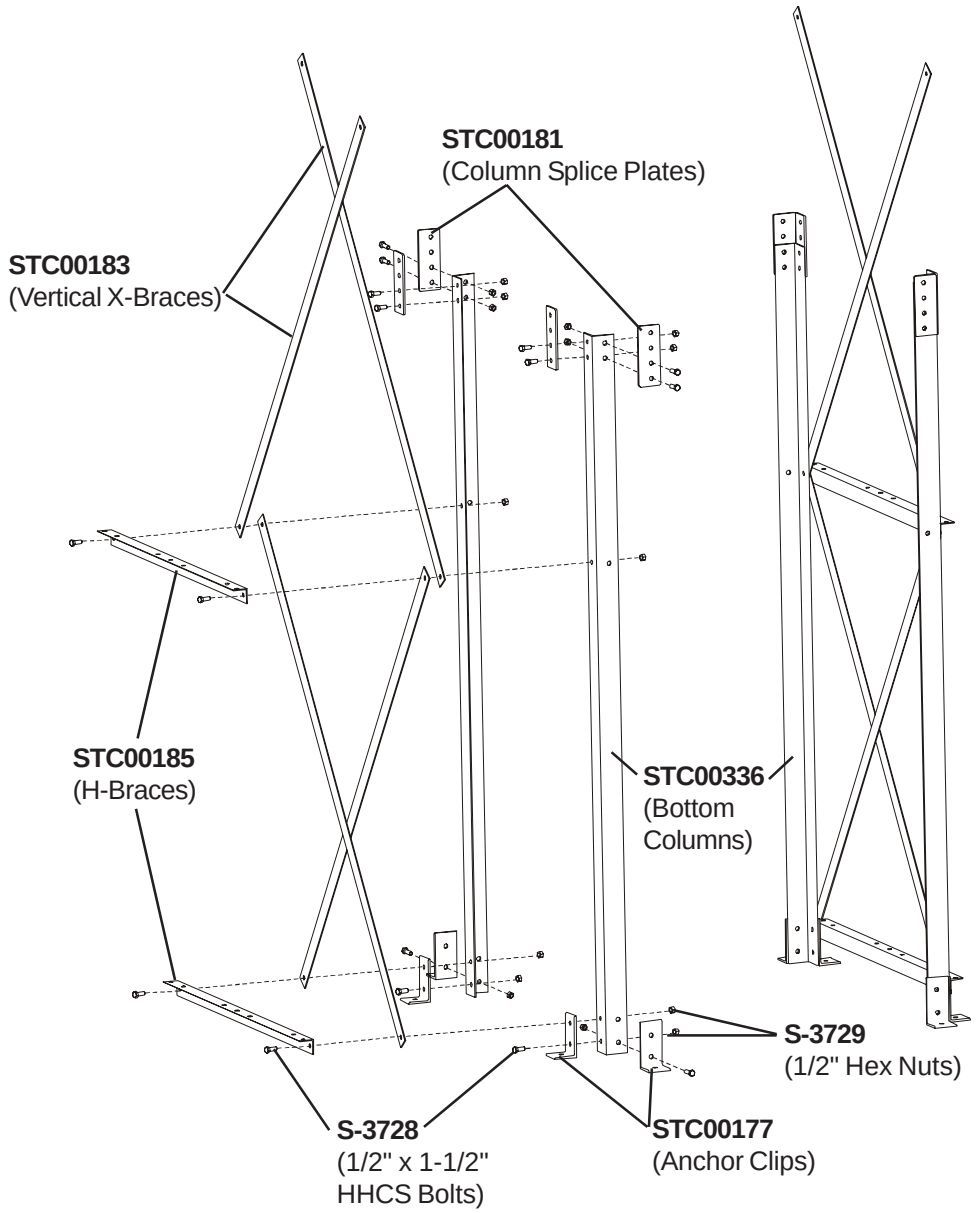


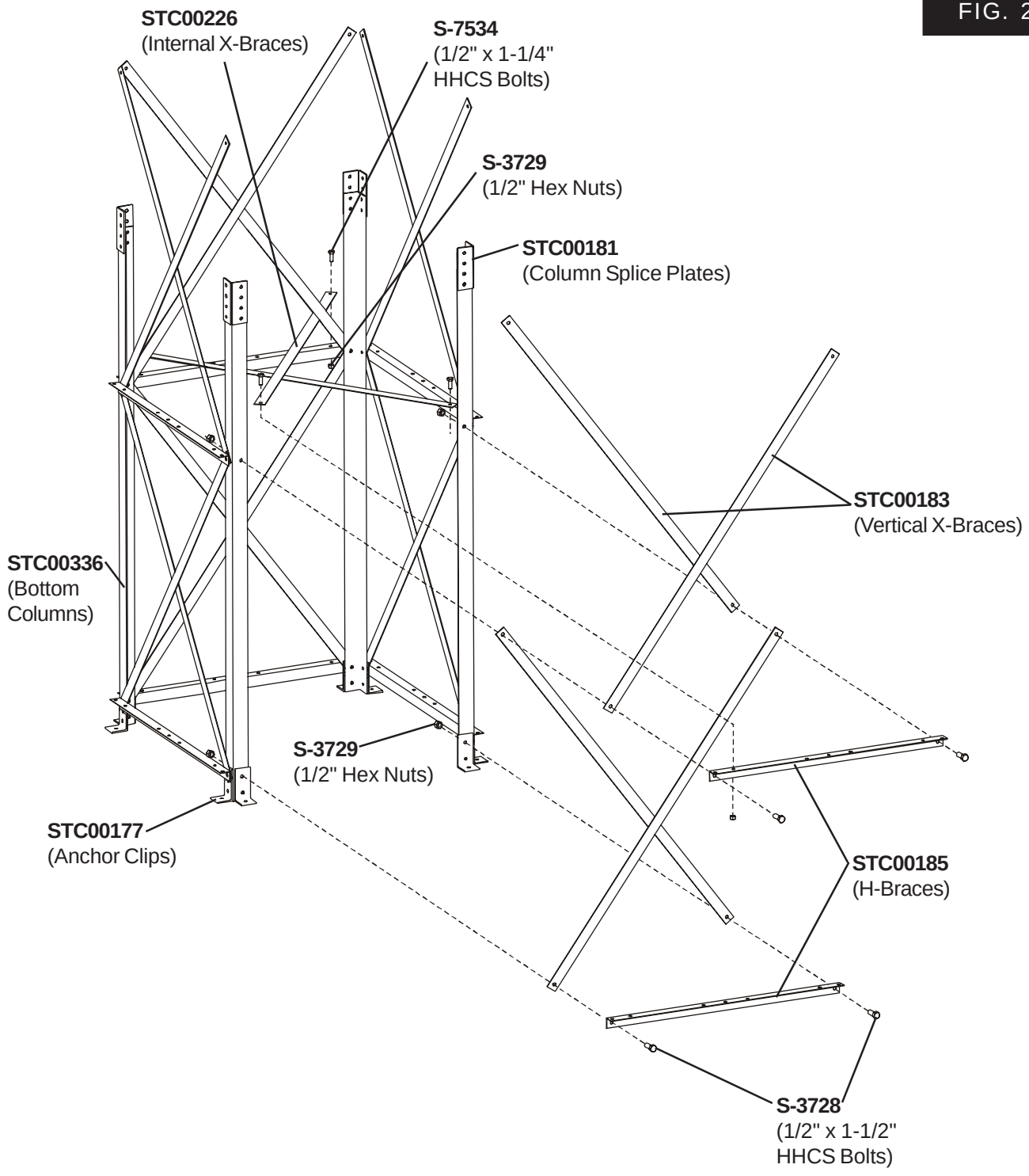
FIG. 1

4-LEG TOWER BOTTOM SECTION

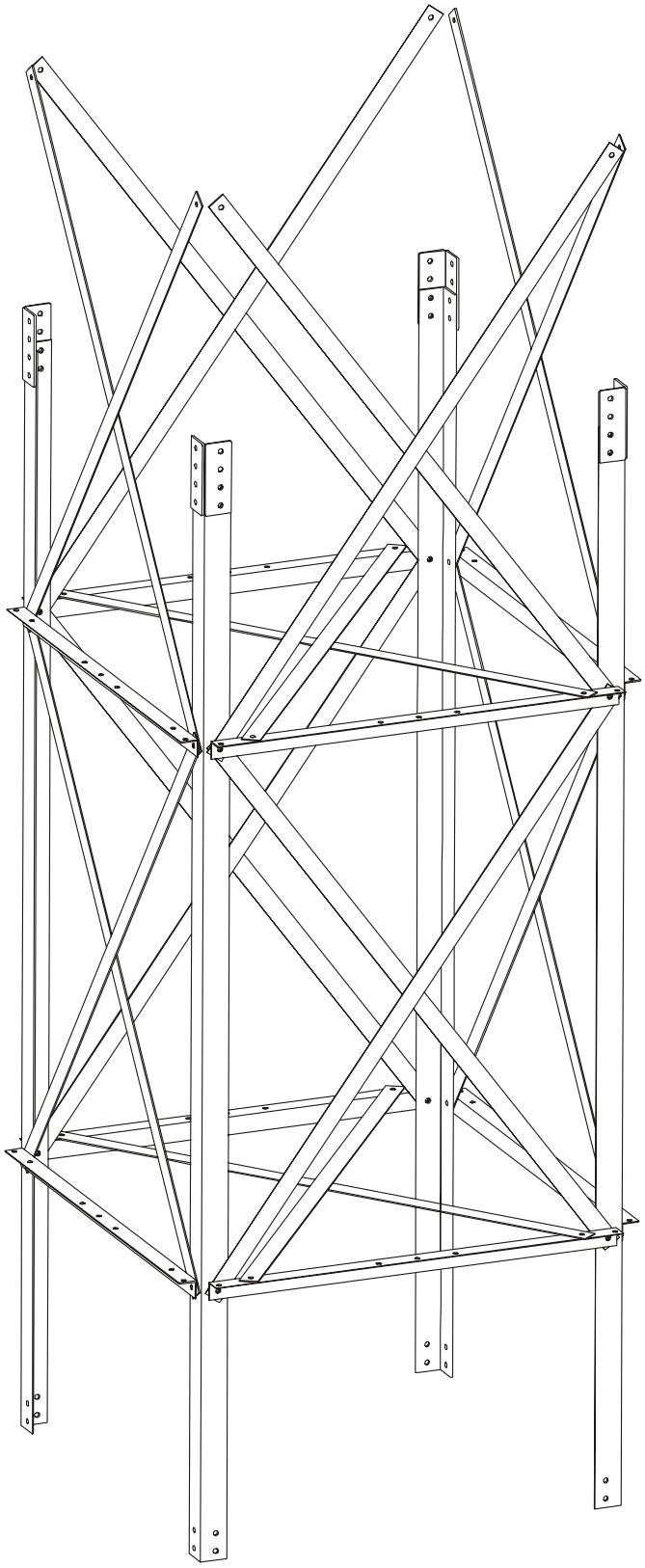
SIDE 3 & SIDE 4 ASSEMBLY

1. Connect the first two sections together by attaching the Vertical X-Braces (**STC00183**) & H-Braces (**STC00185**) as shown in Fig. 2, using the 1/2" hardware provided.
2. Attach the Internal X-Braces (**STC00226**) to the H-Braces (**STC00185**) as shown in Fig. 2, using the 1/2" hardware provided (**S-7534 & S-3729**).

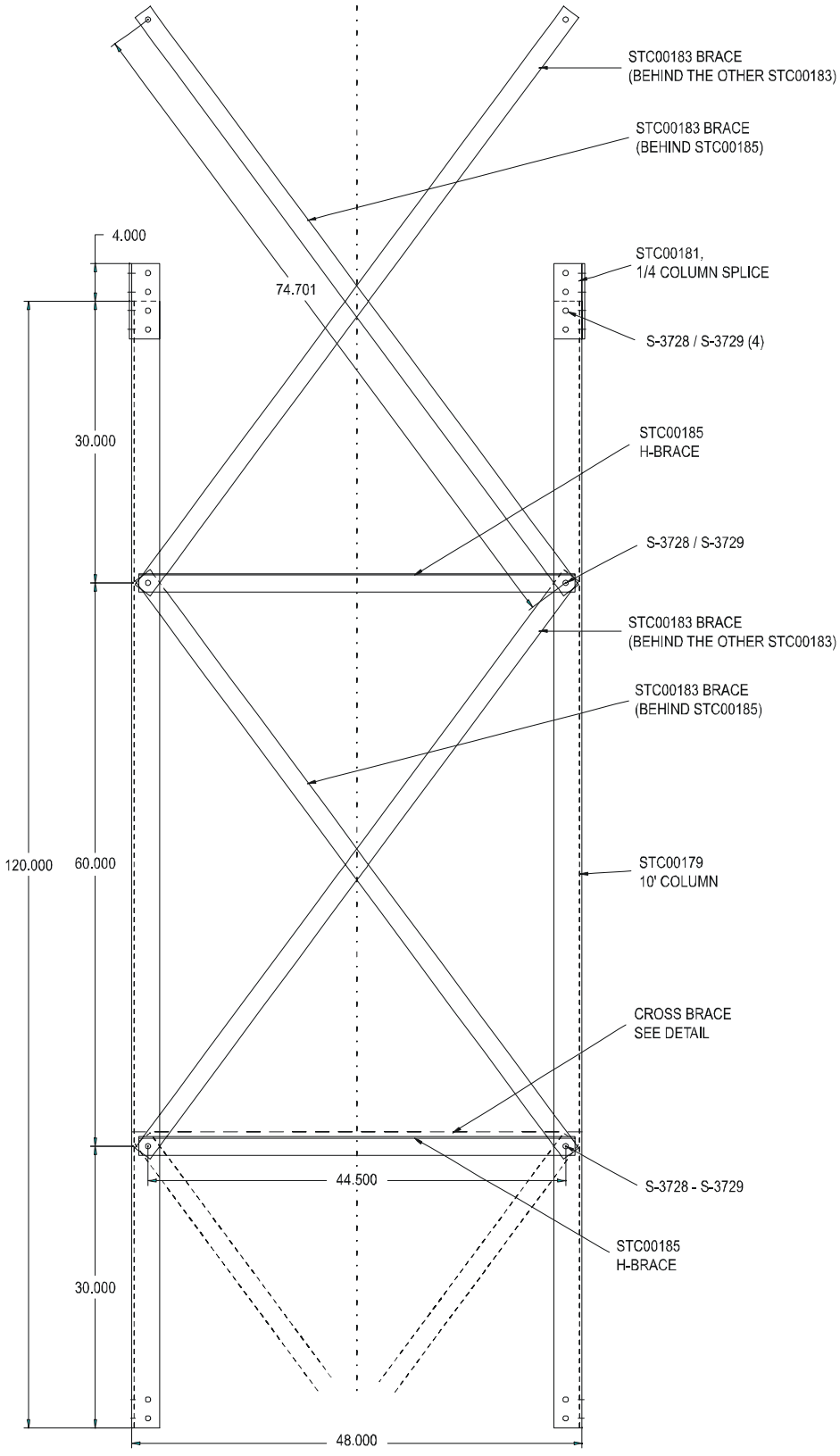
FIG. 2



4-LEG TOWER 10' MID SECTION



4-LEG TOWER 10' MID SECTION DIMENSIONAL DRAWING



10 FOOT SECTION

4-LEG TOWER 10' MID SECTION ASSEMBLE

SIDE 1 & SIDE 2 ASSEMBLY

2. Attach Vertical X-Braces (**STC00183**) and the H-Braces (**STC00185**) to the 10' Columns (**STC00179**) as shown in Fig. 3 using 1/2" hardware provided.

3. Attach the column splice plates (**STC00181**) to the tops of the 10' Columns (**STC00179**), using (2) 1/2" x 1-1/2" HHCS bolts (**S-3729**) and nuts (**S-3728**) for each plate. (See Fig. 3)

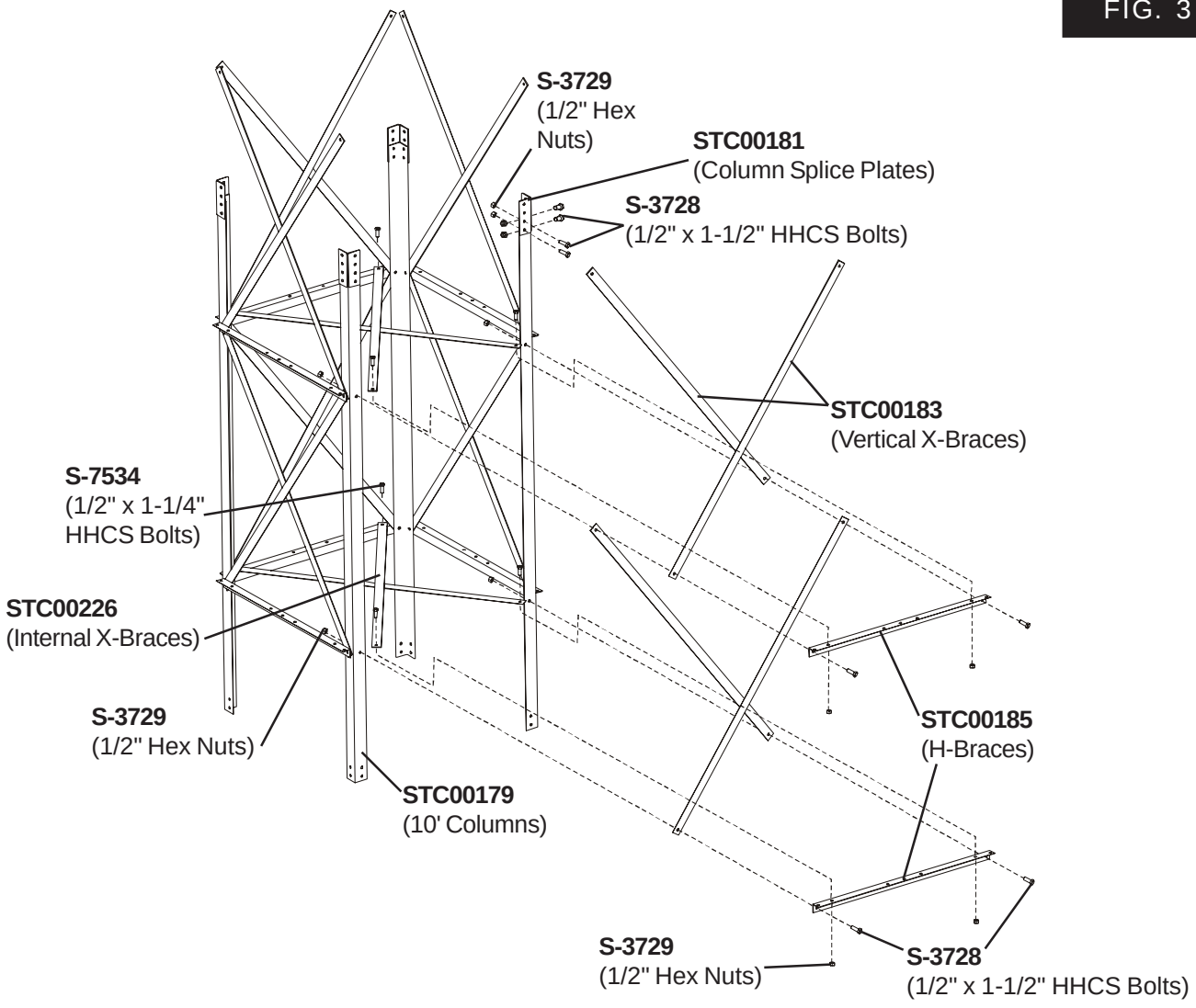
4. Repeat steps 1-3 for the opposite side, so you have two identical sections.

SIDE 3 & SIDE 4 ASSEMBLY

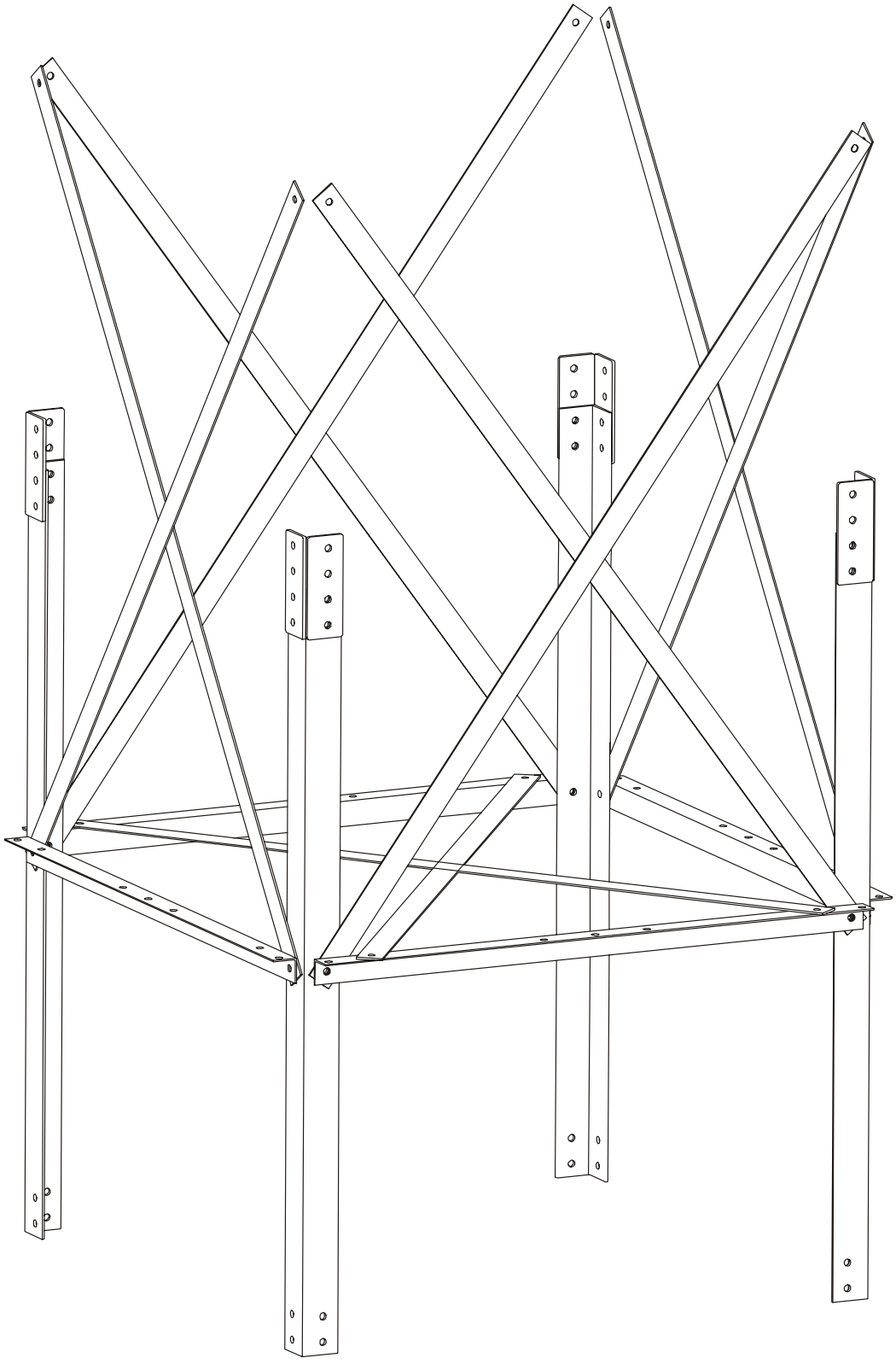
1. Connect the first two sections together by attaching the Vertical X-Braces (**STC00183**) and H-Braces (**STC00185**) as shown in Fig. 3, using the 1/2" hardware provided.

2. Attach the Internal X-Braces (**STC00226**) to the H-Braces (**STC00185**) as shown in Fig. 3, using the 1/2" hardware provided (**S-7534 & S-3729**).

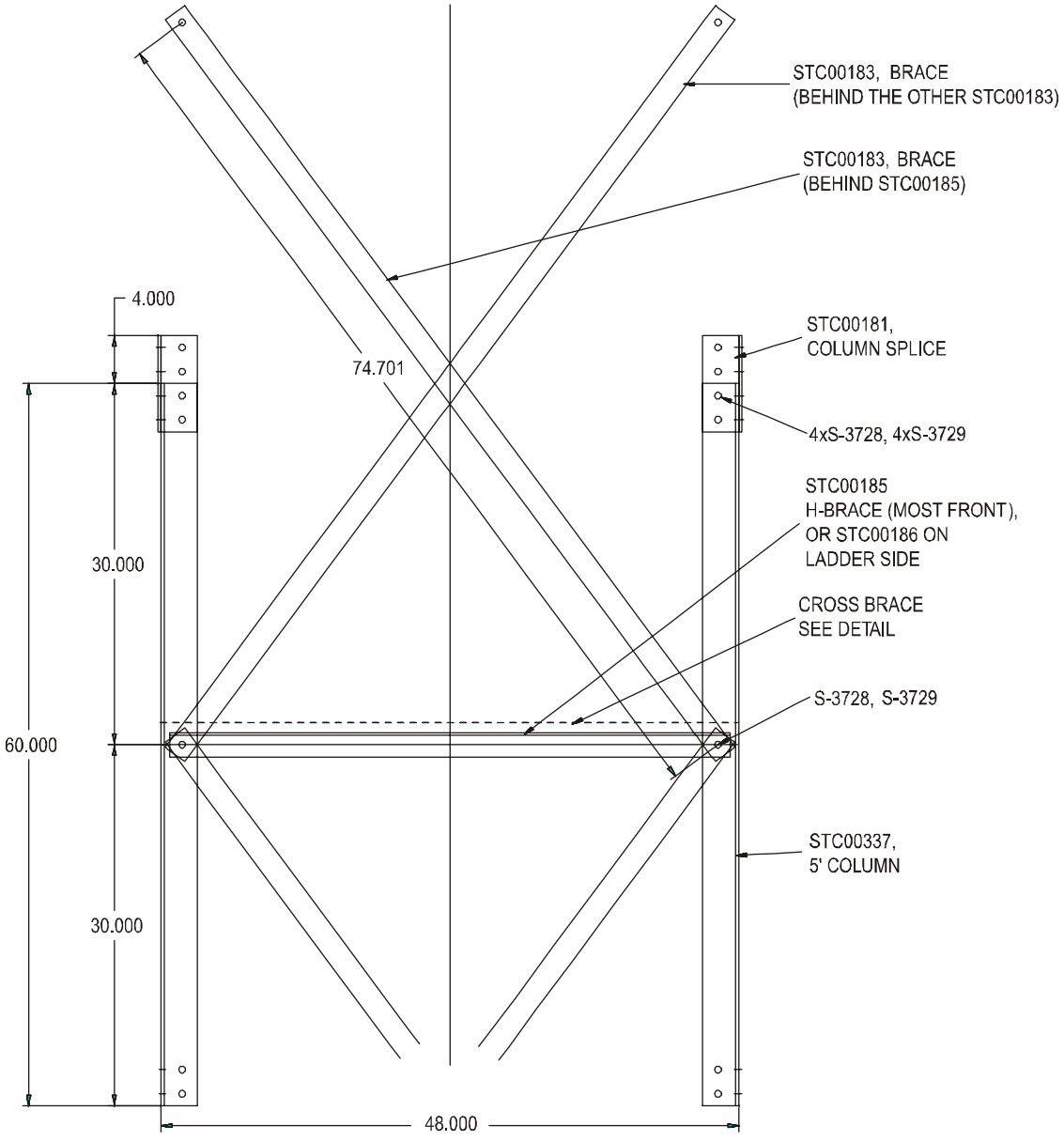
FIG. 3



4-LEG TOWER 5' MID SECTION



4-LEG TOWER 5' MID SECTION DIMENSIONAL DRAWING



5 FOOT SECTION

4-LEG TOWER 5' MID SECTION ASSEMBLY

SIDE 1 & SIDE 2 ASSEMBLY

1. Attach Vertical X-Braces (**STC00183**) to the 5' Columns (**STC00337**) as shown in Fig. 4 using 1/2" hardware provided.

2. Attach the column splice plates (**STC00181**) to the tops of the 5' Columns (**STC00337**), using (2) 1/2" x 1-1/2" HHCS bolts (**S-3729**) and nuts (**S-3728**) for each plate. (See Fig. 4)

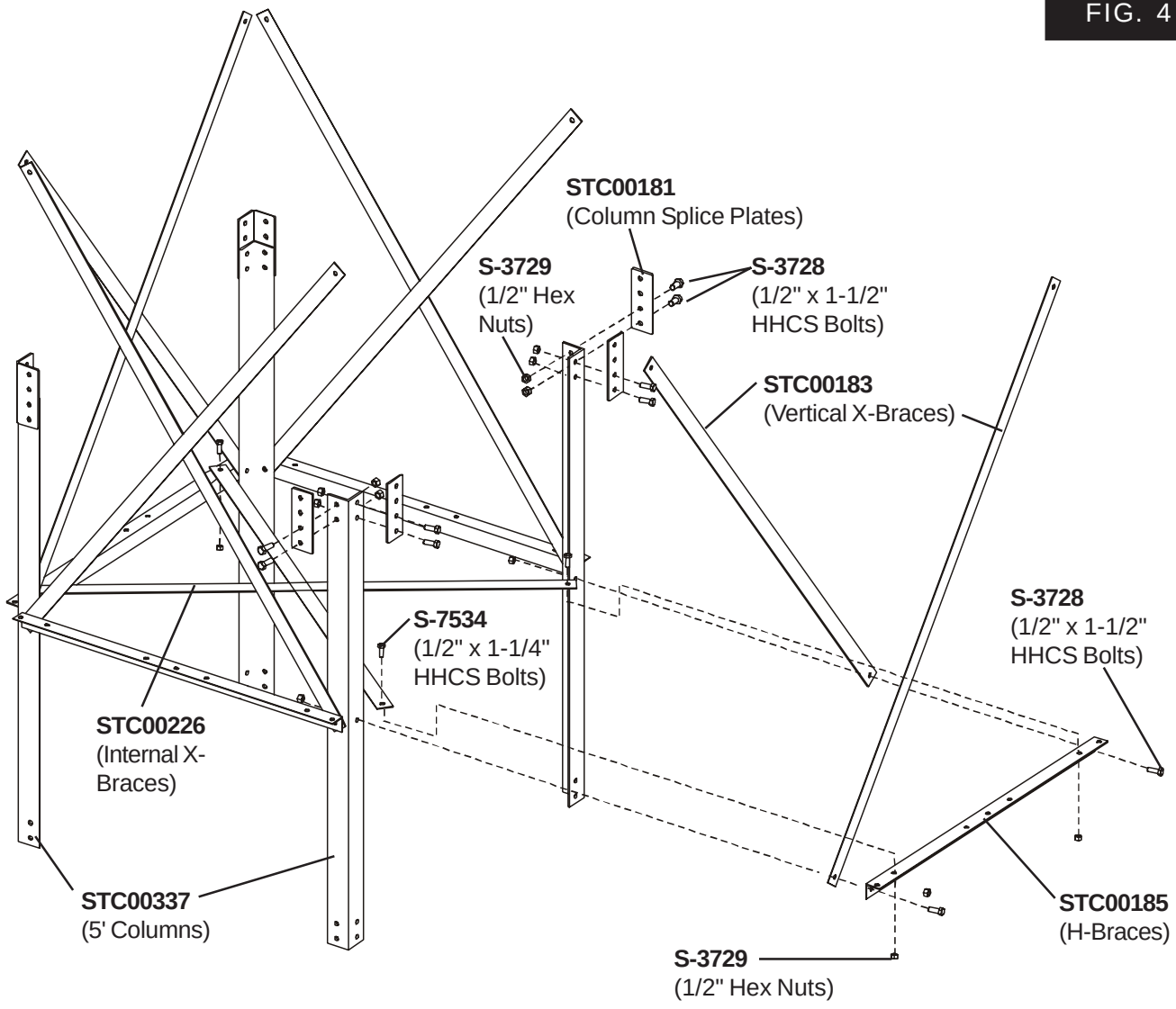
3. Repeat steps 1-2 for the opposite side, so you have two identical sections.

SIDE 3 & SIDE 4 ASSEMBLY

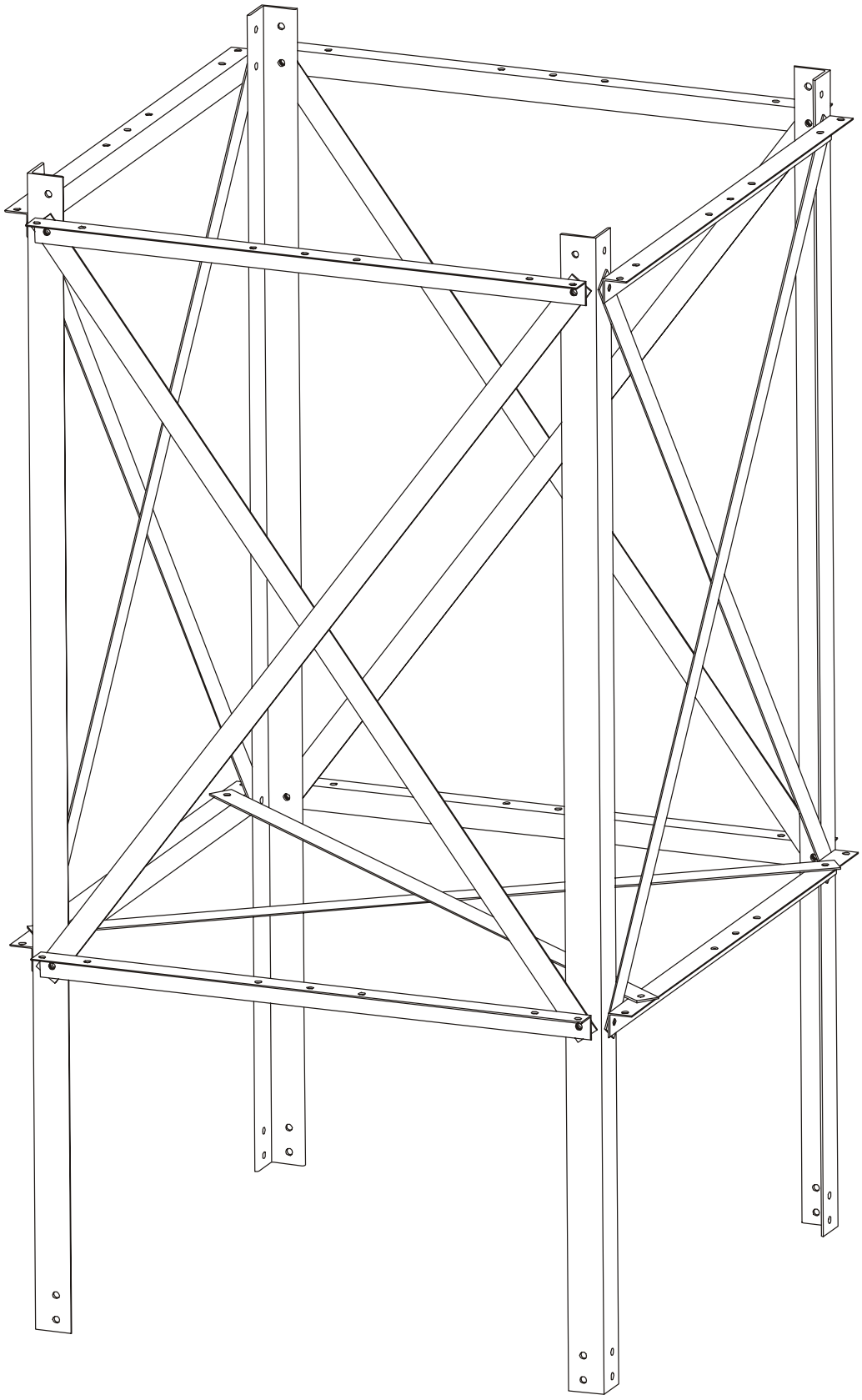
1. Connect the first two sections together by attaching the Vertical X-Braces (**STC00183**) and H-Braces (**STC00185**) as shown in Fig. 4, using the 1/2" hardware provided.

2. Attach the Internal X-Braces (**STC00226**) to the H-Braces (**STC00185**) as shown in Fig. 4, using the 1/2" hardware provided (**S-7534 & S-3729**).

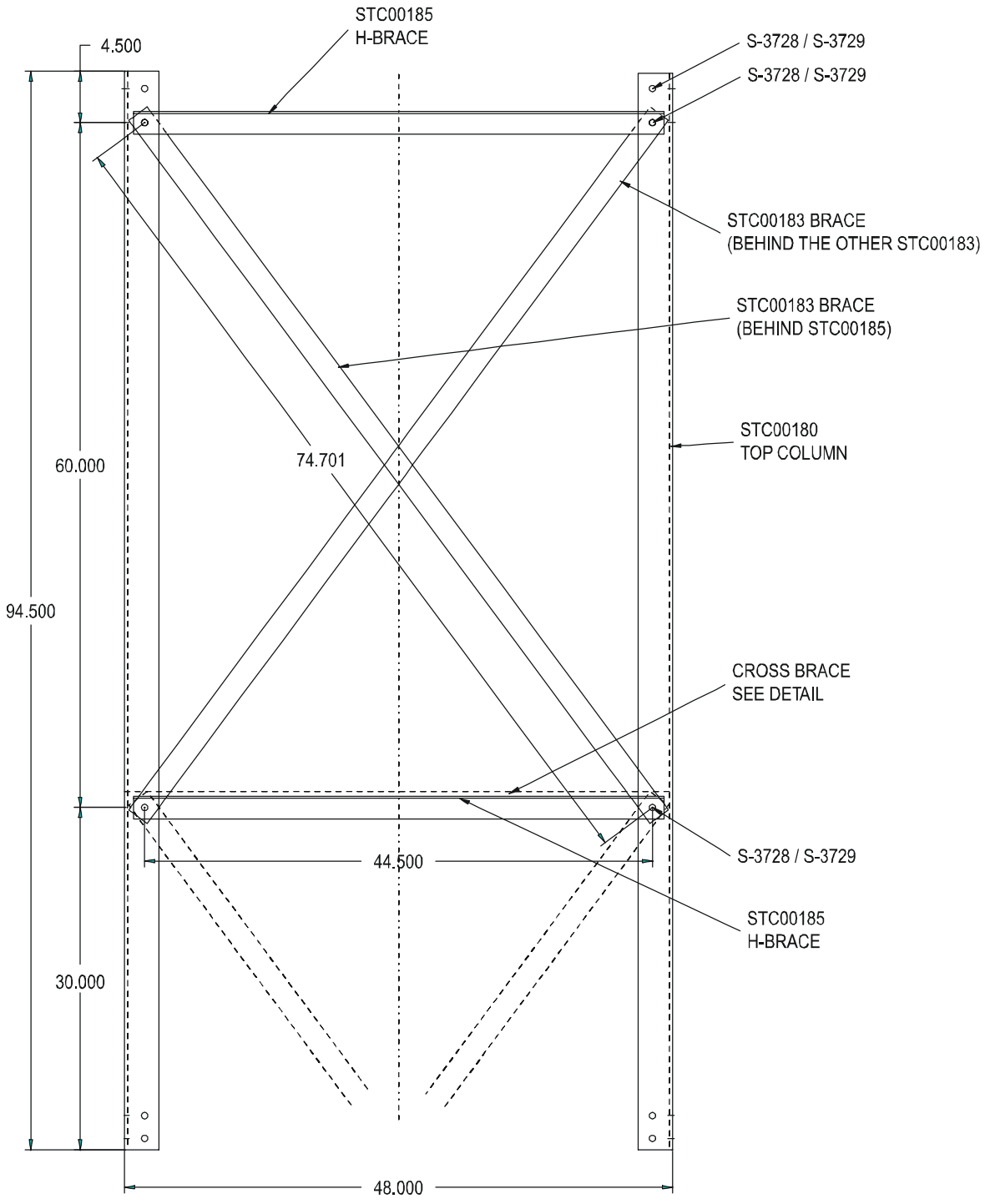
FIG. 4



4-LEG TOWER TOP SECTION



4-LEG TOWER TOP SECTION DIMENSIONAL DRAWING



TOP SECTION

4-LEG TOWER TOP SECTION ASSEMBLY

SIDE 1 & SIDE 2 ASSEMBLY

1. Attach Vertical X-Braces (**STC00183**) to the Top Columns (**STC00180**) as shown in Fig. 5 using 1/2" hardware provided.

2. Attach the column splice plates (**STC00181**) to the tops of the Top Columns (**STC00180**), using (2) 1/2" x 1-1/2" HHCS bolts (**S-3729**) and nuts (**S-3728**) for each plate. (See Fig. 5)

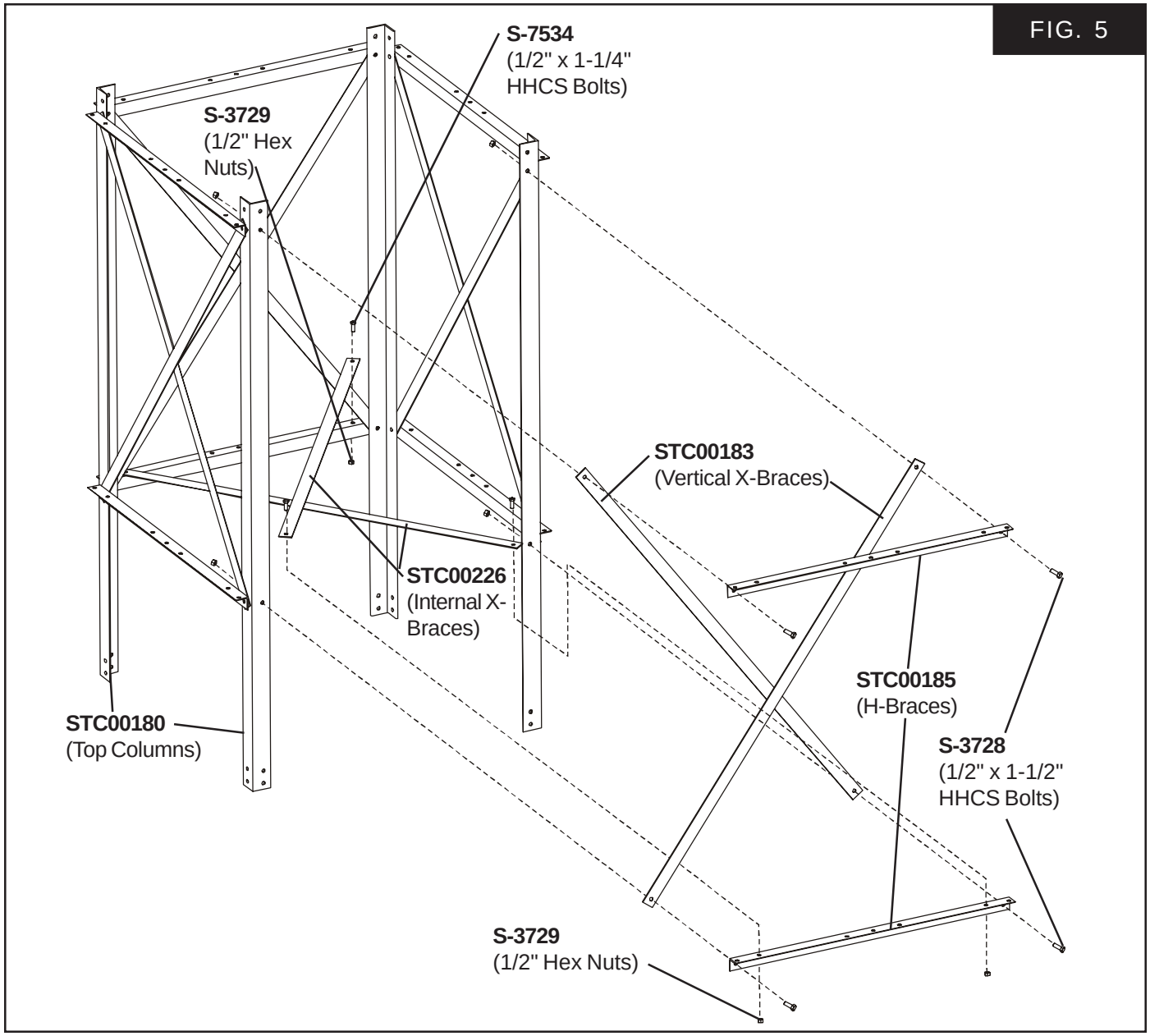
3. Repeat steps 1-2 for the opposite side, so you have two identical sections.

SIDE 3 & SIDE 4 ASSEMBLY

1. Connect the first two sections together by attaching the Vertical X-Braces (**STC00183**) and H-Braces (**STC00185**) as shown in Fig. 5, using the 1/2" hardware provided.

2. Attach the Internal X-Braces (**STC00226**) to the H-Braces (**STC00185**) as shown in Fig. 5, using the 1/2" hardware provided (**S-7534 & S-3729**).

FIG. 5



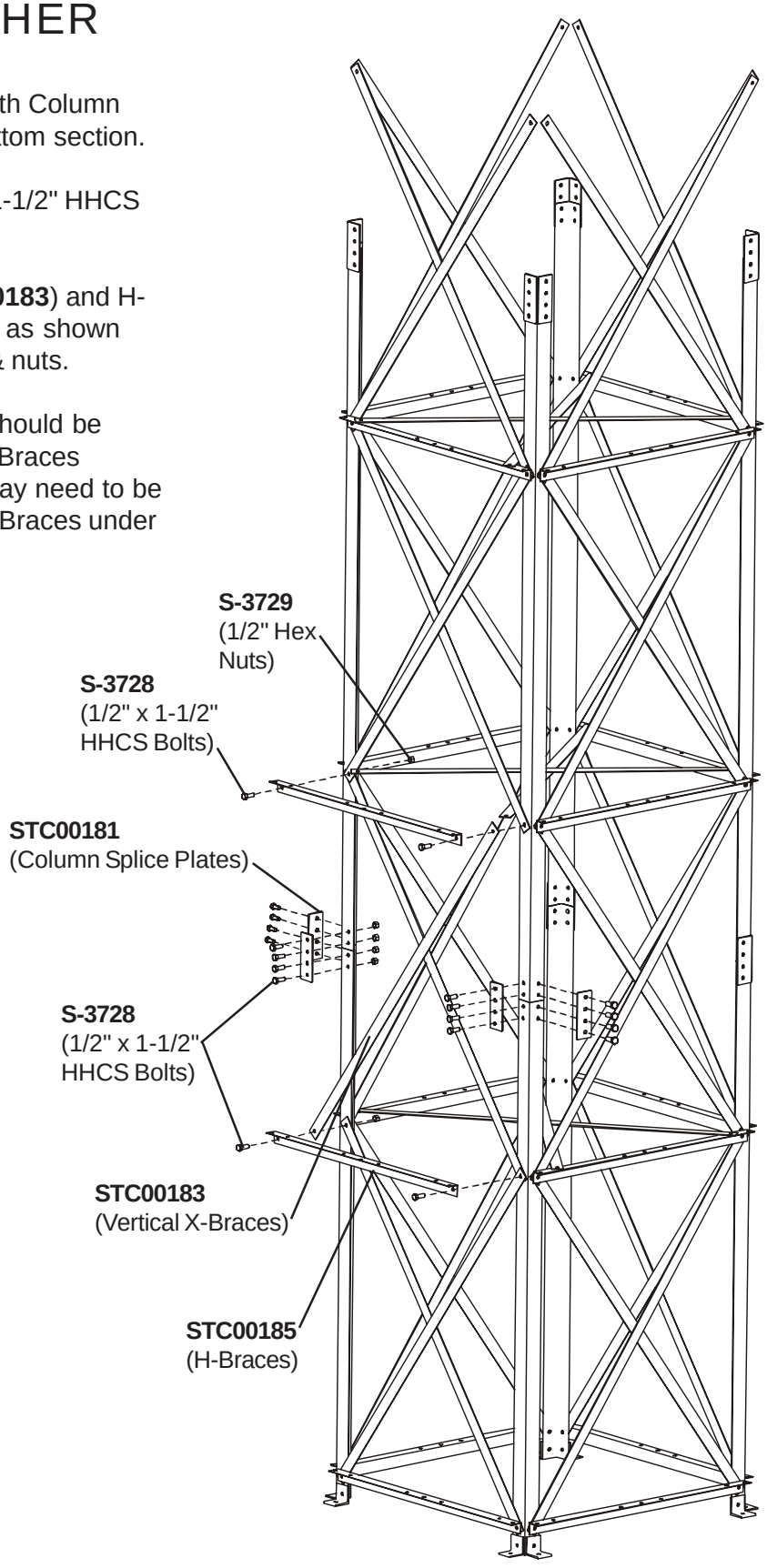
ATTACHING TOWER SECTIONS TOGETHER

1. Line up Top Section Columns with Column Splice Plates (**STC00181**) of bottom section.

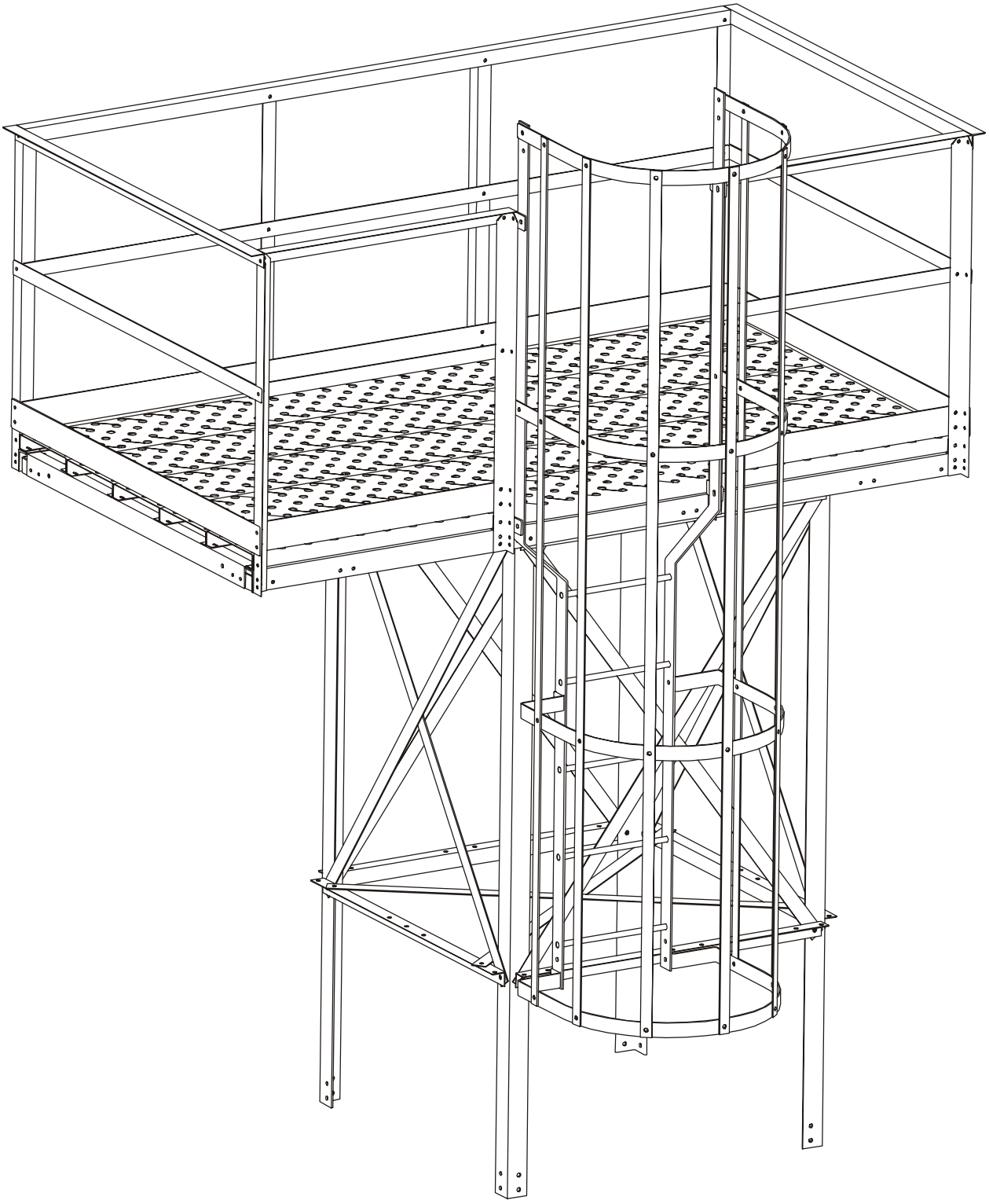
2. Attach together using (2) 1/2" x 1-1/2" HHCS bolts & nuts per splice plate.

3. Attach Vertical X-Braces (**STC00183**) and H-Braces (**STC00185**) to columns as shown using 1/2" x 1-1/2" HHCS bolts & nuts.

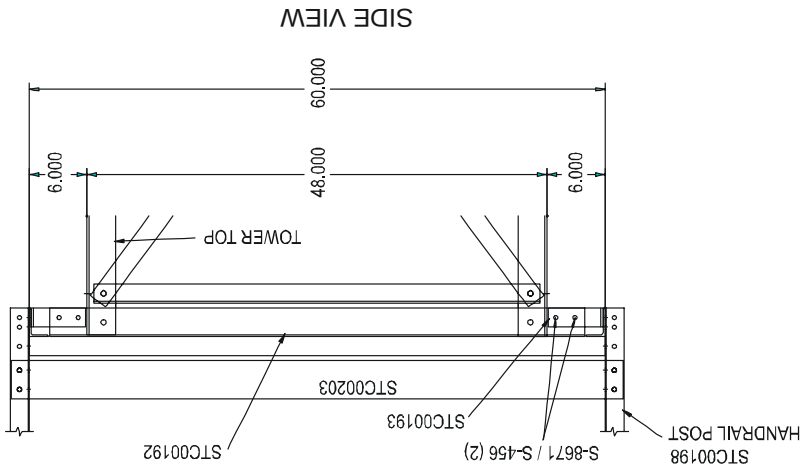
   NOTE: H-Braces (**STC00185**) should be installed on top of the Vertical X-Braces (**STC00183**). Some H-Braces may need to be removed to install the Vertical X-Braces under the H-Braces.



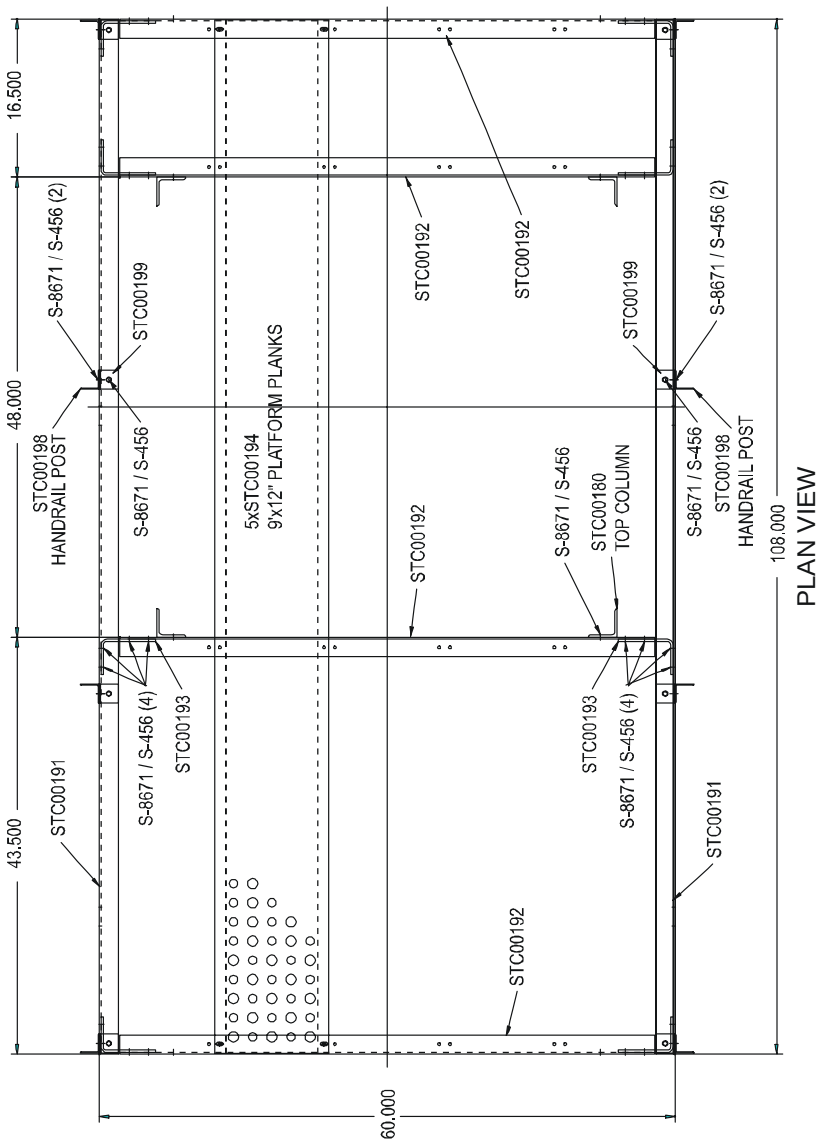
OPTIONAL SERVICE PLATFORM WITH SAFETY CAGE

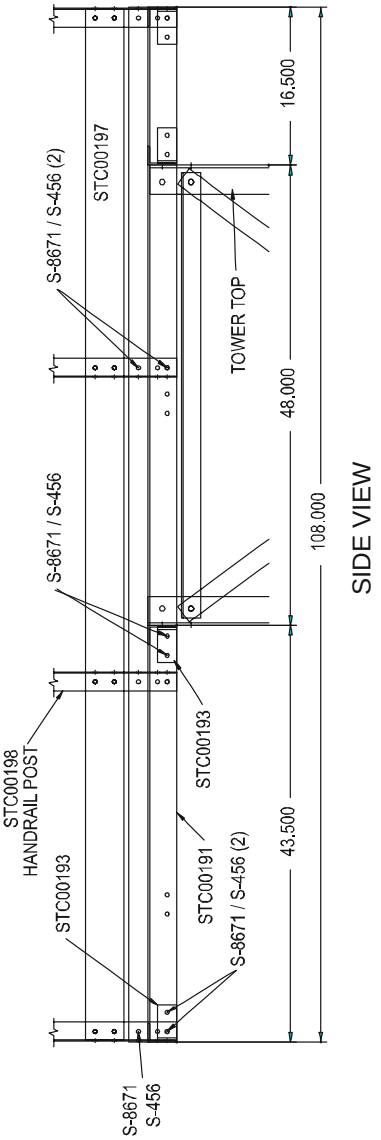


SERVICE PLATFORM DIMENSIONAL DRAWINGS

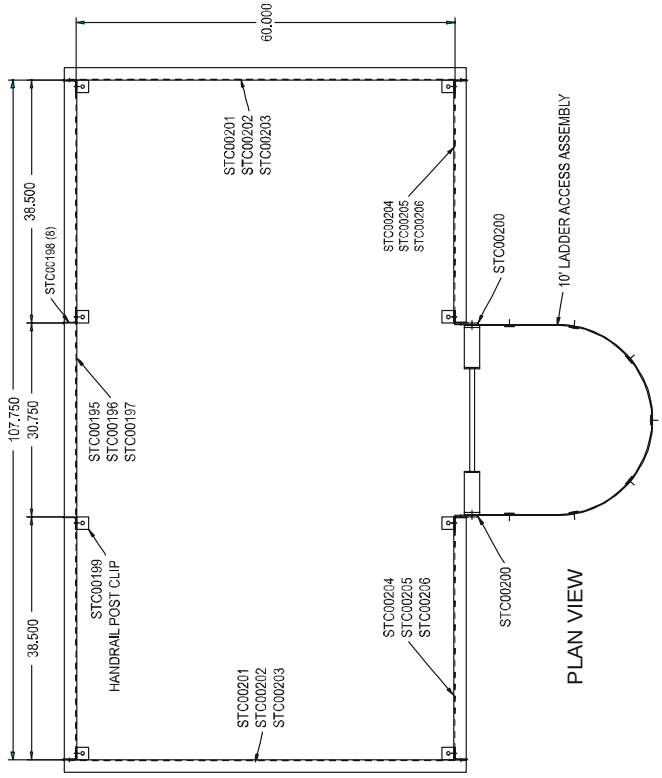


NOTE:
FIELD COPE FLANGES OF PLATFORM PLANKS NEAR STC00191, TO AVOID HANDRAIL POST CLIPS & BOLTS.

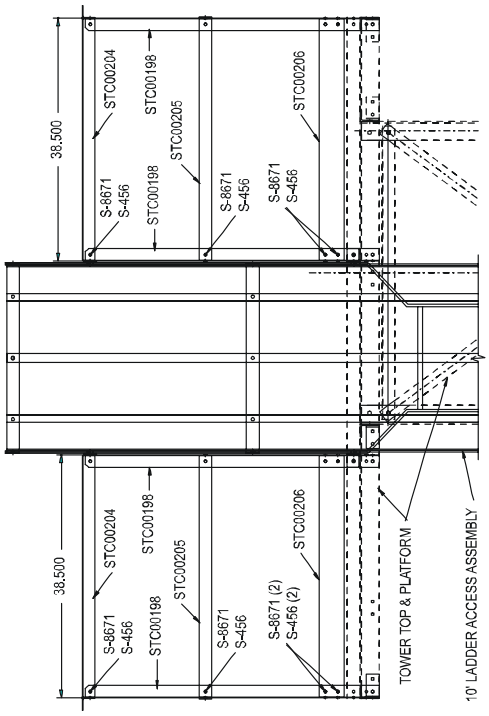




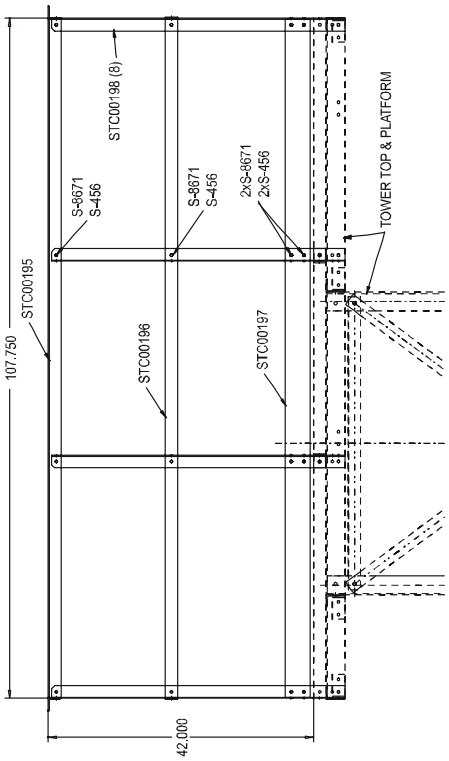
SERVICE PLATFORM DIMENSIONAL DRAWINGS



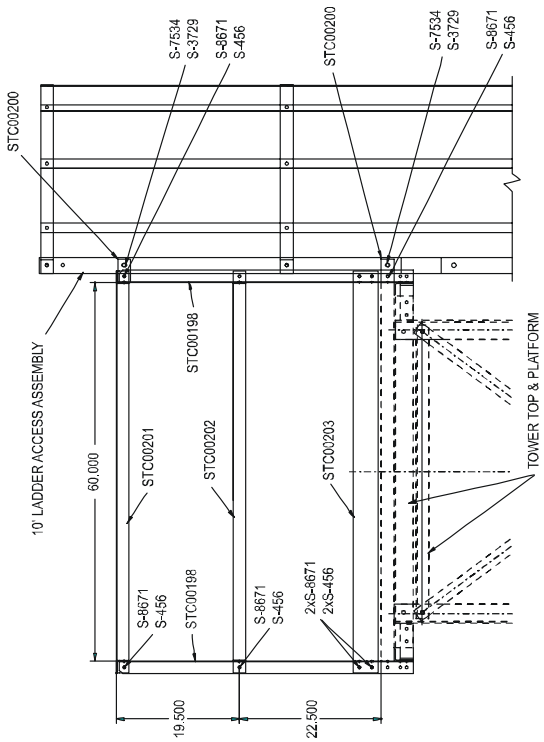
PLAN VIEW



LADDER ACCESS SIDE VIEW

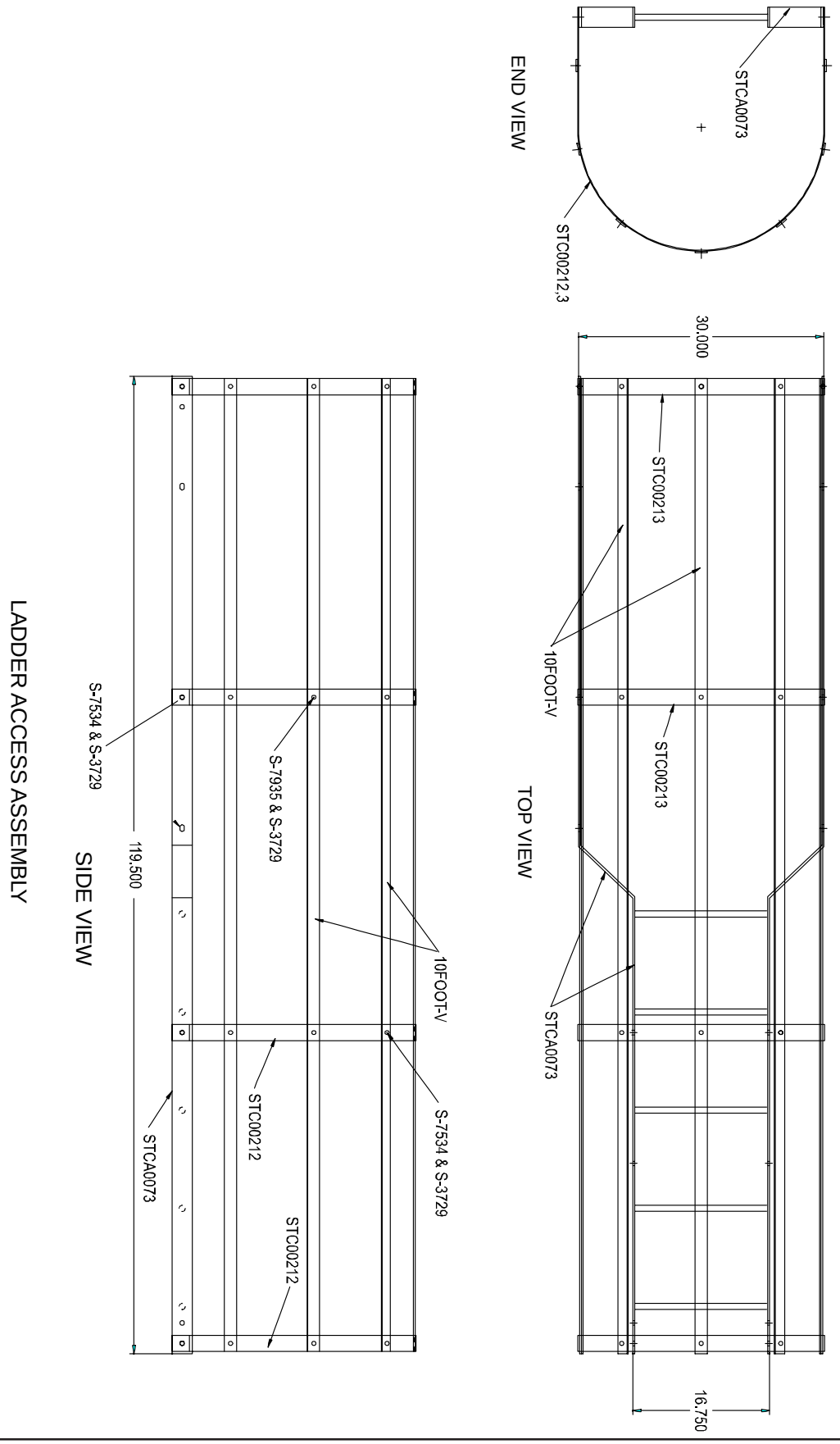


BACK SIDE VIEW



LEFT/RIGHT SIDE VIEW

LADDER ACCESS DIMENSIONAL DRAWINGS



LADDER ACCESS ASSEMBLY

OPTIONAL SERVICE PLATFORM WITH SAFETY CAGE ASSEMBLY

Assembling the service platform first and placing the opening on the side of the tower that will have ladder, will align ladder placement. Attach ladder to service platform and install ladders starting from the top and working down towards bottom of tower. Be sure and use the 10' ladder access weldment in conjunction with the service platform. Follow the general layout from page 33 using the proper ladder section as you proceed.

1. Attach Service Platform Short Frames (**STC00192**) to the 94-1/2" Top Columns (**STC00180**) of the top tower section using (4) 3/8" x 1" HHCS bolts & nuts as shown in Fig SP1.

2. Attach (4) Service Platform Clips (**STC00193**) to the Service Platform Short Frames (**STC00192**) using (2) 3/8" x 1" HHCS bolts & nuts for each clip as shown in Fig SP2.

3. Attach (2) Service Platform Long Frames (**STC00191**) to the Service Platform Clips (**STC00193**) using (2) 3/8" x 1" HHCS bolts & nuts for each clip as shown in Fig. SP3.

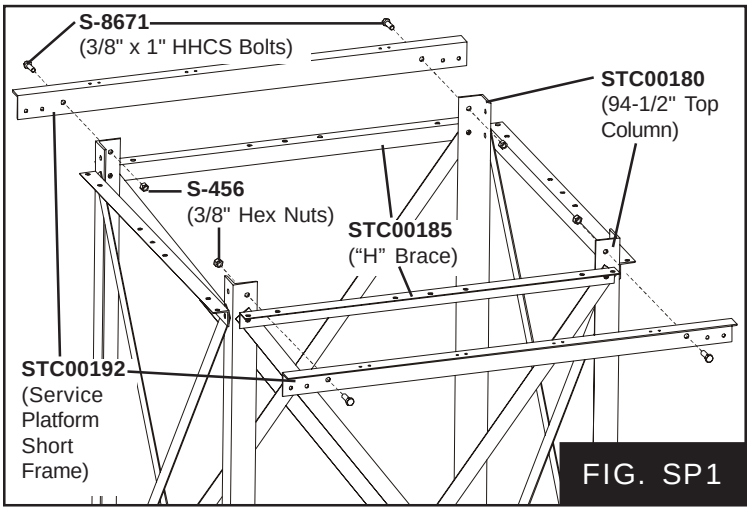


FIG. SP1

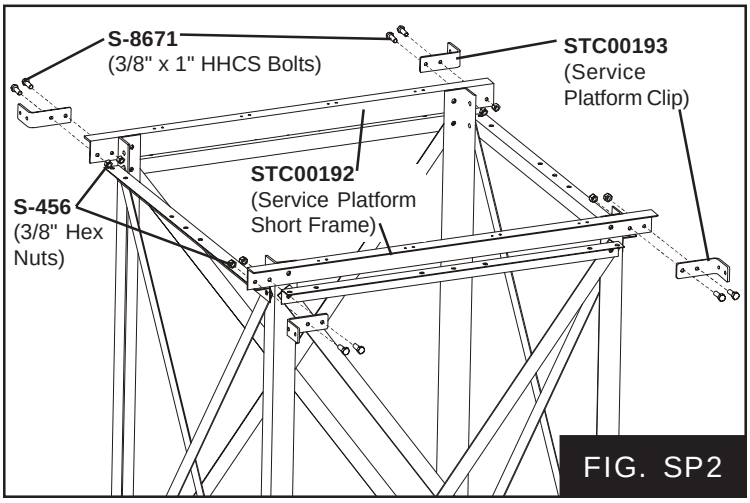


FIG. SP2

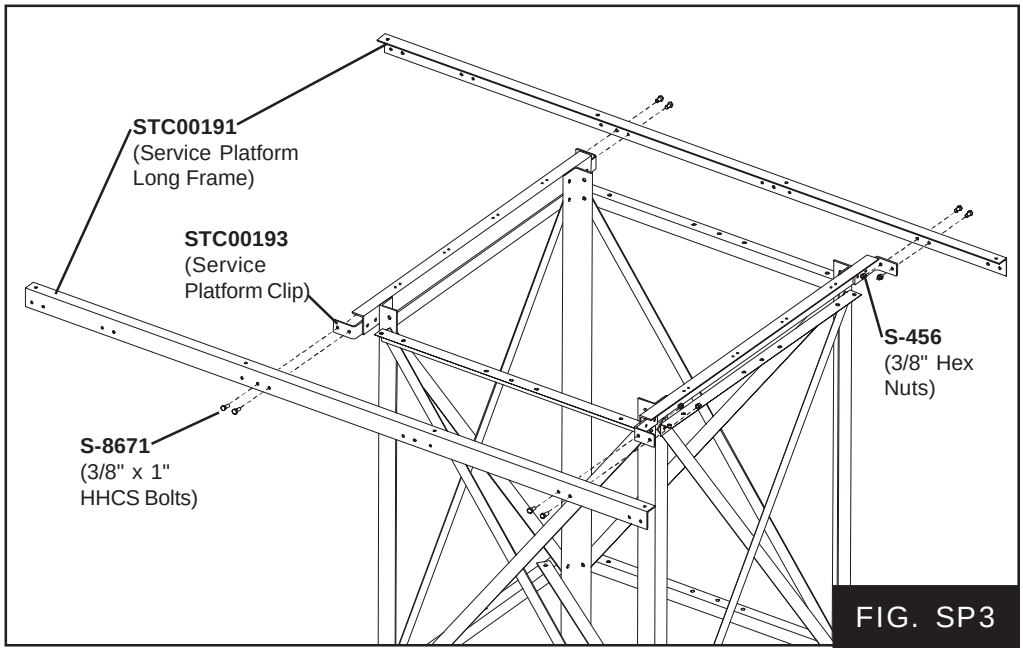


FIG. SP3

OPTIONAL SERVICE PLATFORM WITH SAFETY CAGE ASSEMBLY (CONT.)

4. Attach (4) Service Platform Clips (**STC00193**) to the ends of the Service Platform Long Frames (**STC00191**) using (2) 3/8" x 1" HHCS bolts & nuts for each clip as shown in Fig. SP4.

5. Attach Service Platform Short Frame (**STC00192**) to the Service Platform Clips (**STC00193**) on the ends of the Service Platform Long Frames (**STC00191**) using (2) 3/8" x 1" HHCS bolts & nuts for each clip as shown in Fig. SP5.

   NOTE: Field cope flanges of platform planks near **STC00191** (Service Platform Long Frame), to avoid handrail post clips & bolts.

6. Attach (8) Service Platform Clips (**STC00193**) to the Service Platform Long Frame (**STC00191**) using (8) 3/8" x 1" HHCS bolts & nuts as shown in Fig. SP6.

7. Attach 9' x 12' Platform Planks (**STC00194**) to the Service Platform Short Frames (**STC00192**) using (4) 3/8" x 1" HHCS bolts for each plank as shown in Fig. SP6.

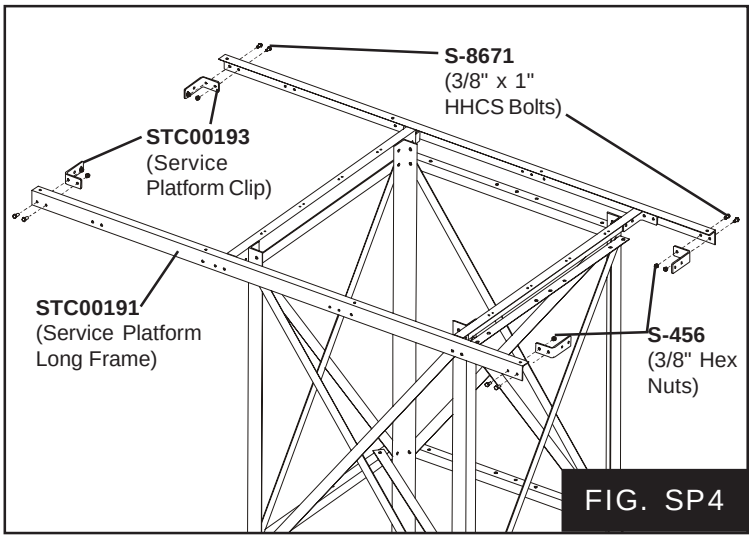


FIG. SP4

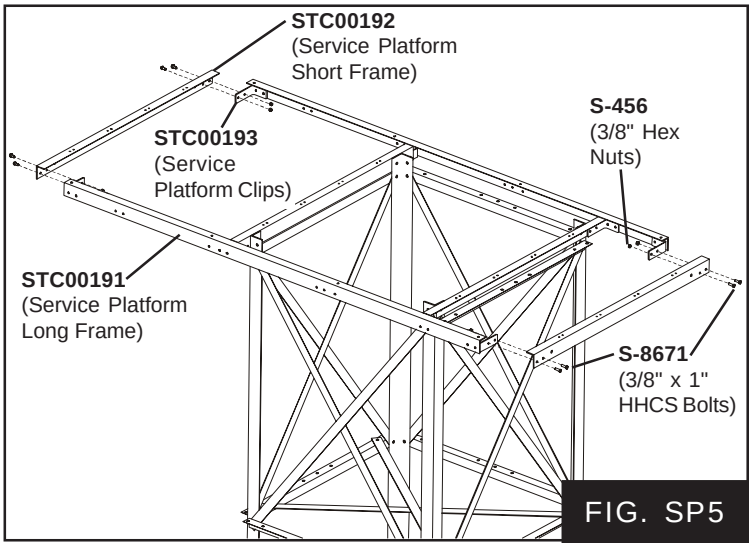
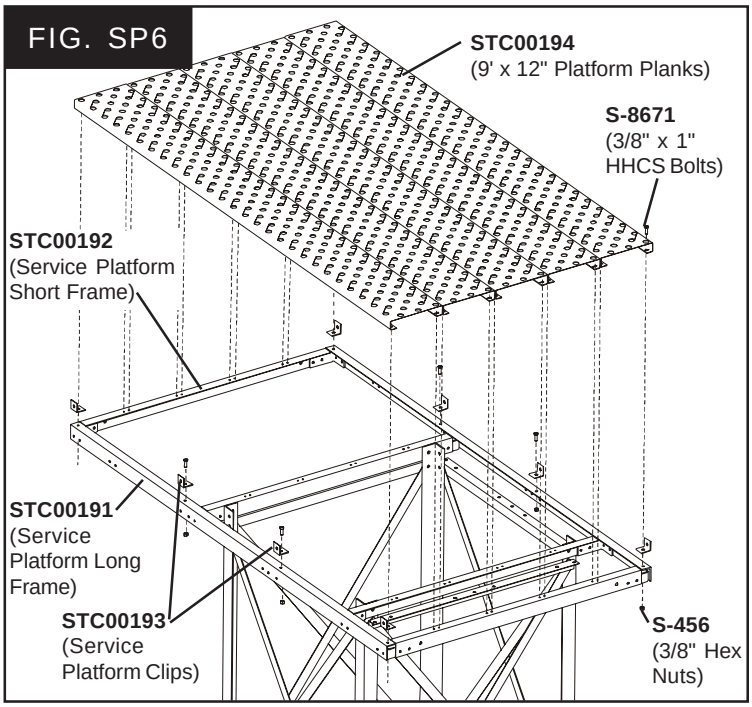


FIG. SP5

FIG. SP6



OPTIONAL SERVICE PLATFORM WITH SAFETY CAGE ASSEMBLY (CONT.)

8. Attach (8) Handrail Posts (**STC00198**) to the Service Platform Long Frames (**STC0019**1) using (8) 3/8" x 1" HHCS bolts & nuts as shown in Fig. SP7.

9. Attach (2) 5' Top Handrails (**STC00201**), (2) 5' Mid Bars (**STC00202**), and (2) 5' Kicker Plates (**STC00203**) to the Handrail Posts (**STC00198**) using (16) 3/8" x 1" HHCS bolts & nuts as shown in Fig. SP8.

FIG. SP7

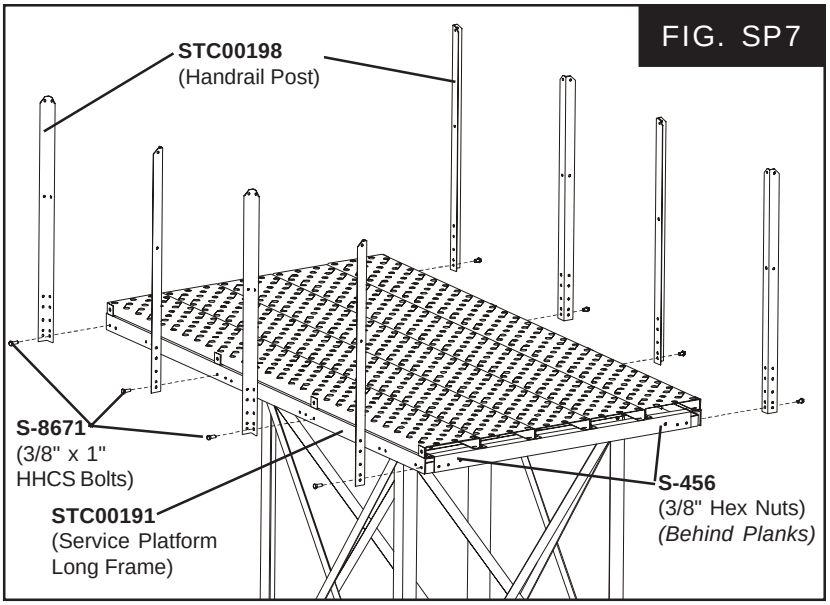
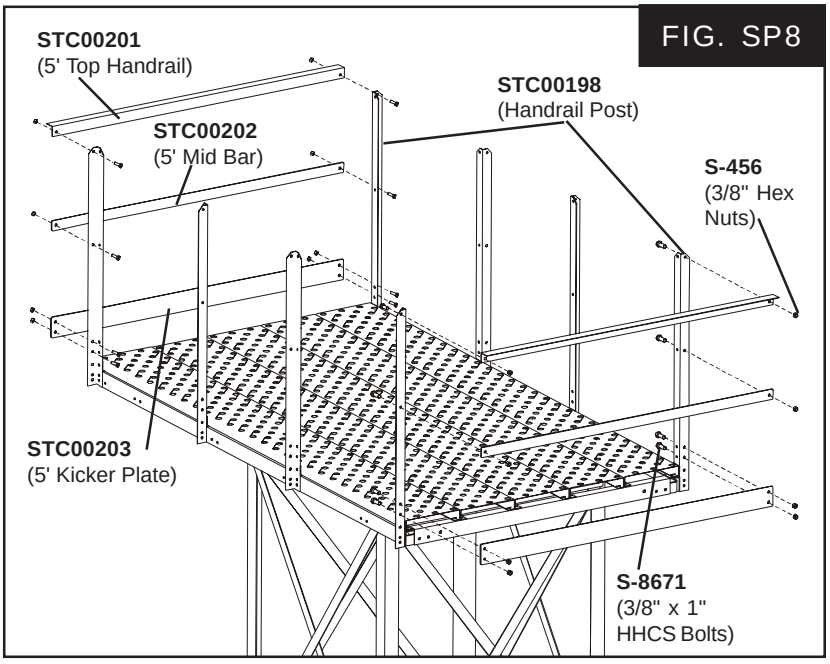


FIG. SP8



OPTIONAL SERVICE PLATFORM WITH SAFETY CAGE ASSEMBLY (CONT.)

10. Attach 9' Top Handrail (**STC00195**), 9' Mid Bar (**STC00196**), and 9' Kicker Plate (**STC00197**) to the Handrail Posts (**STC00198**) using (16) 3/8" x 1" HHCS bolts & nuts as shown in Fig. SP9.

11. Attach 38-1/4" Top Handrail (**STC00204**), 38-1/4" Mid Bar (**STC00205**), and 38-1/4" Kicker Plate (**STC00206**) to the Handrail Posts (**STC00198**) using (16) 3/8" x 1" HHCS bolts & nuts as shown in Fig. SP10.

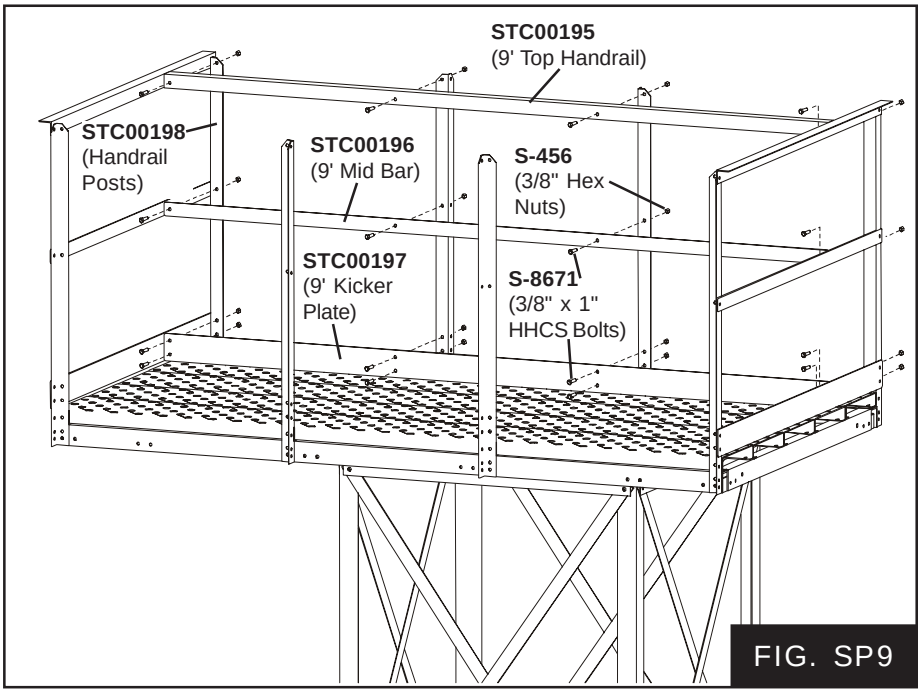


FIG. SP9

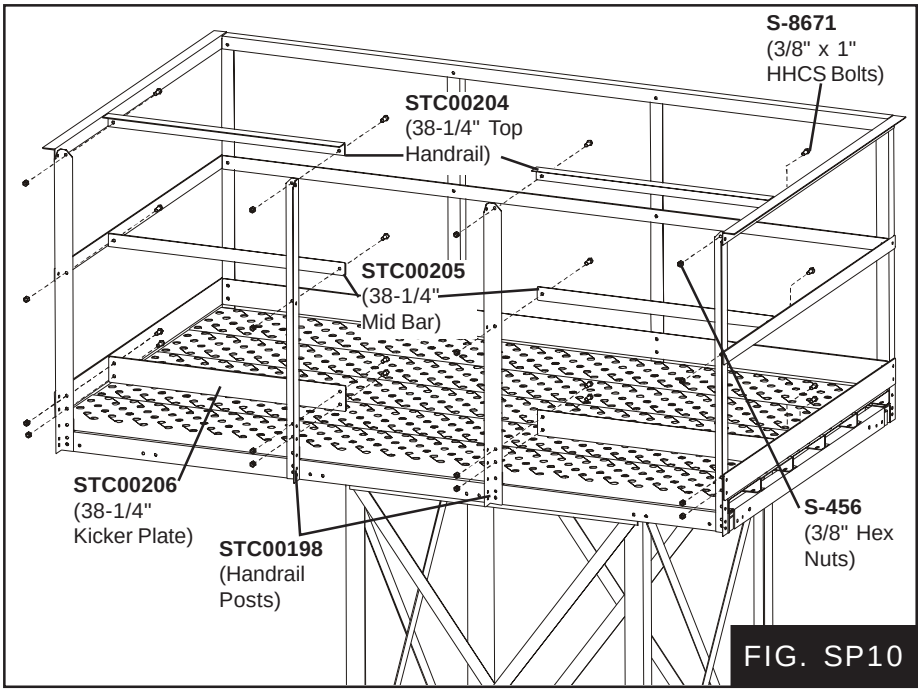


FIG. SP10

OPTIONAL SERVICE PLATFORM WITH SAFETY CAGE ASSEMBLY (CONT.)

12. Attach (4) Ladder Handrail Ties (**STC00200**) to the Handrail Posts (**STC00198**) using (4) 3/8" x 1" HHCS bolts & nuts as shown in Fig SP11.

13. Attach 10' Ladder Access Assembly (**STCA0073**) to the Ladder Handrail Ties (**STC00200**) using (4) 1/2" x 1-1/4" HHCS bolts & nuts as shown in Fig SP12.

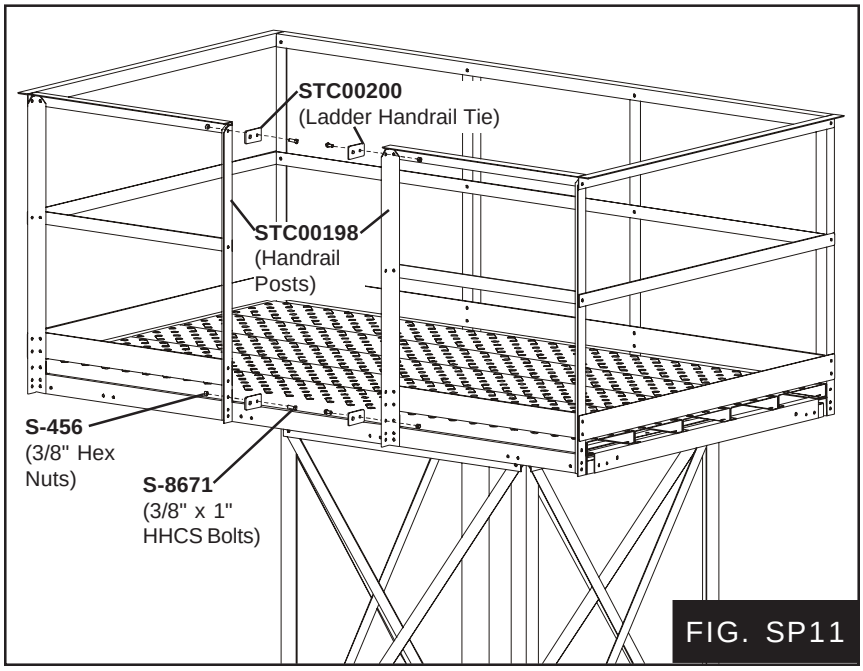


FIG. SP11

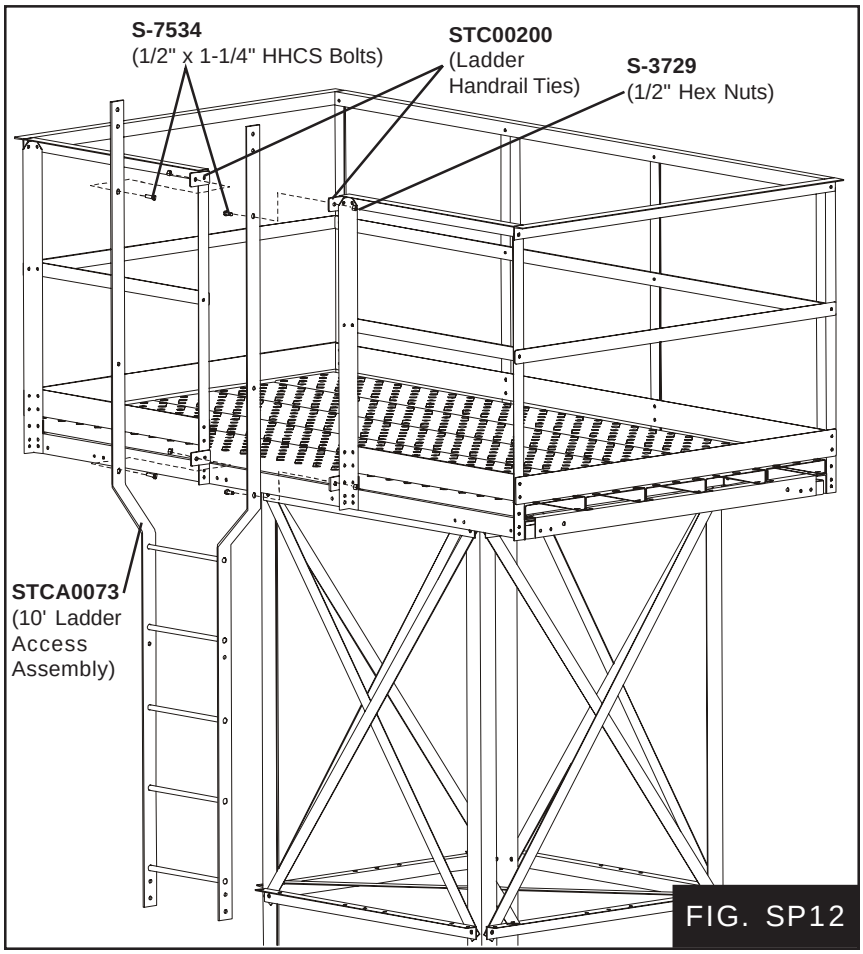


FIG. SP12

OPTIONAL SERVICE PLATFORM WITH SAFETY CAGE ASSEMBLY (CONT.)

14. Attach (2) Safety Cage Hoops (**STC00213**) and (2) 10' Ladder Cage Hoops (**STC00212**) to the 10' Ladder Access Assembly (**STCA0073**) using (2) 1/2" x 1-1/4" HHCS bolts & nuts for each hoop as shown in Fig SP13.

15. Attach 10' Vertical Bar (**10FOOT-V**) to the Cage Hoops (**STC00213 & STC00212**) using (4) 1/2" x 1-1/4" HHCS bolts & nuts for each vertical bar as shown in Fig. SP14.

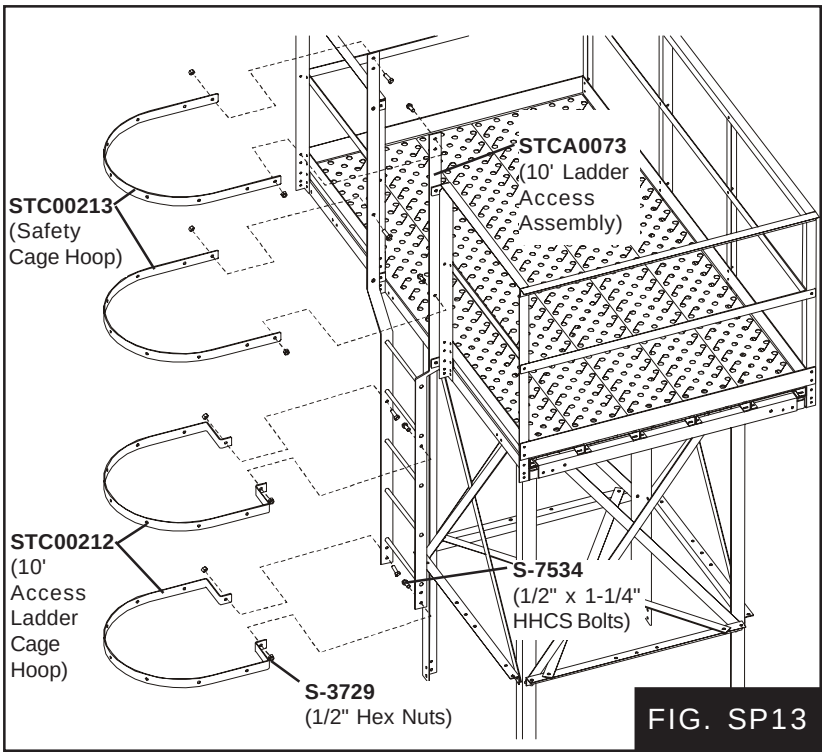


FIG. SP13

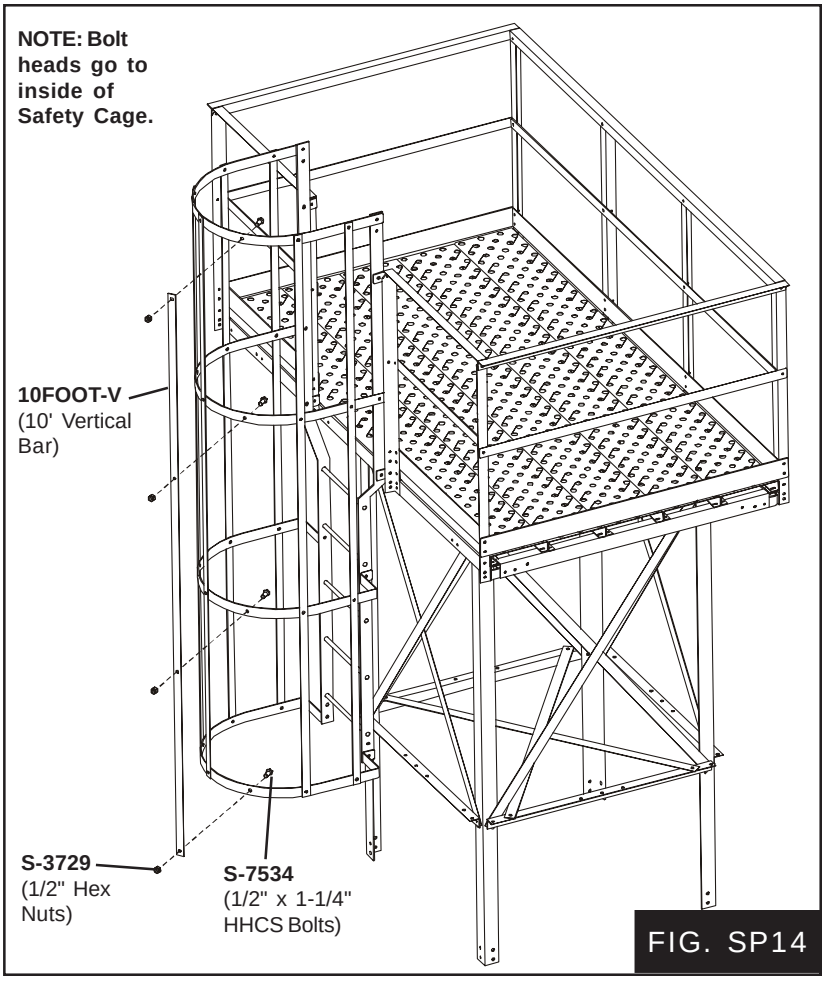


FIG. SP14

4-LEG TOWER LADDER LAYOUTS

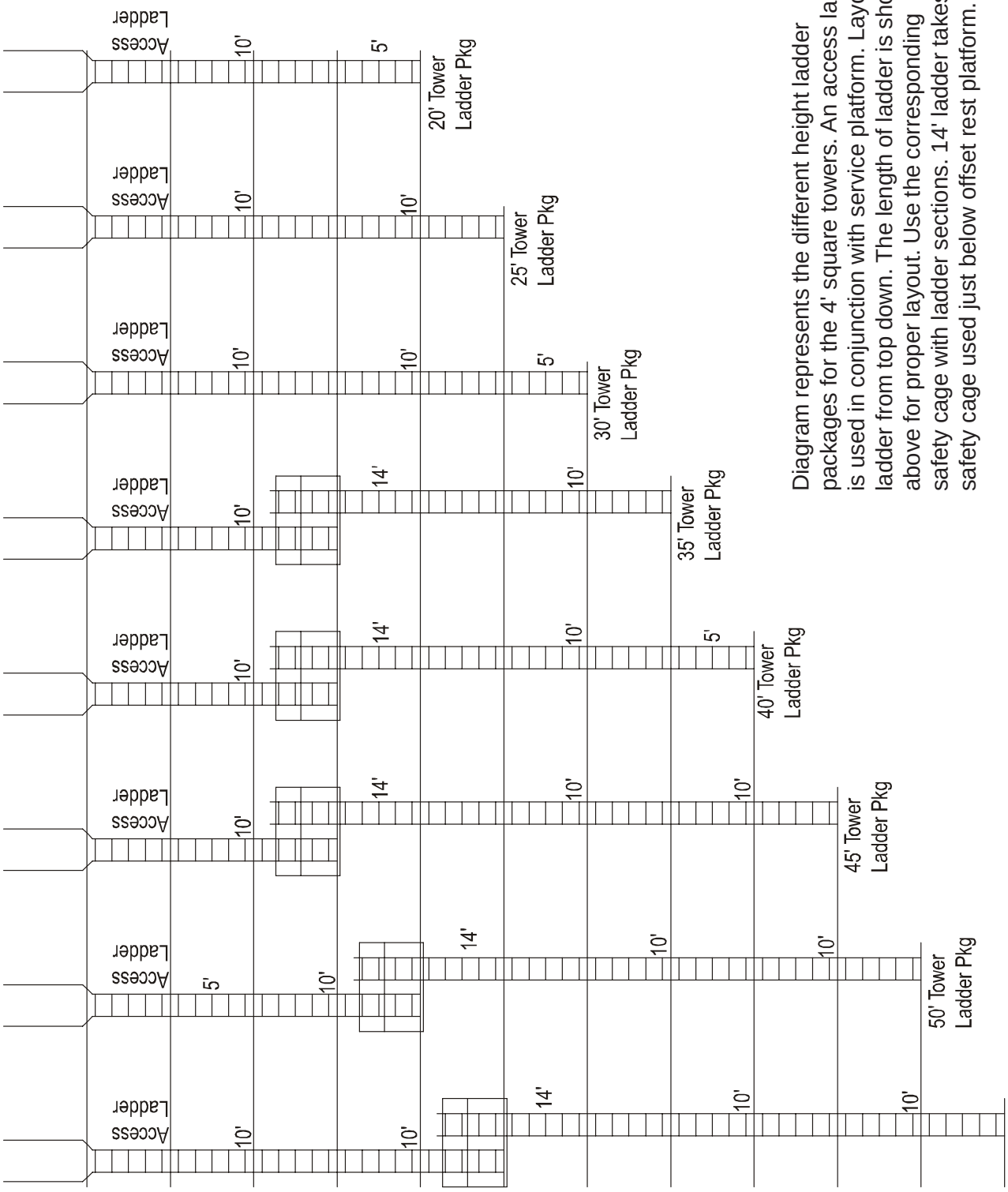
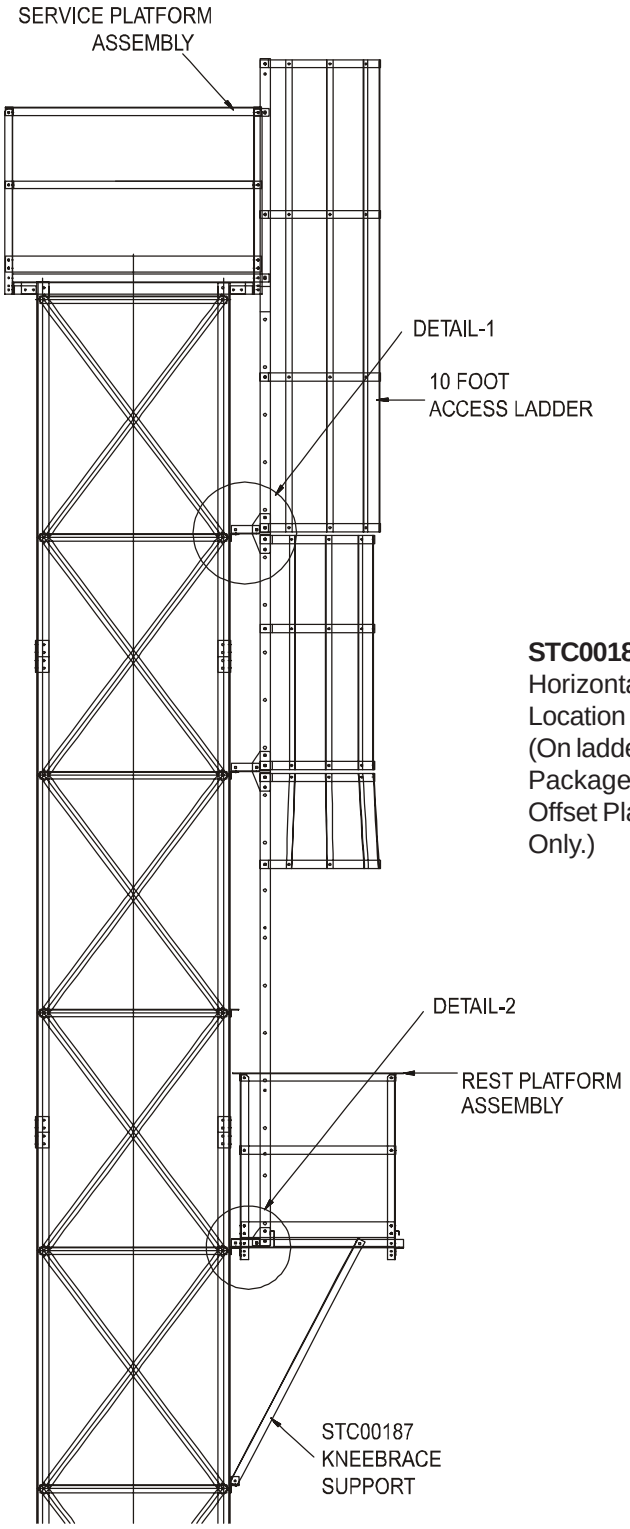


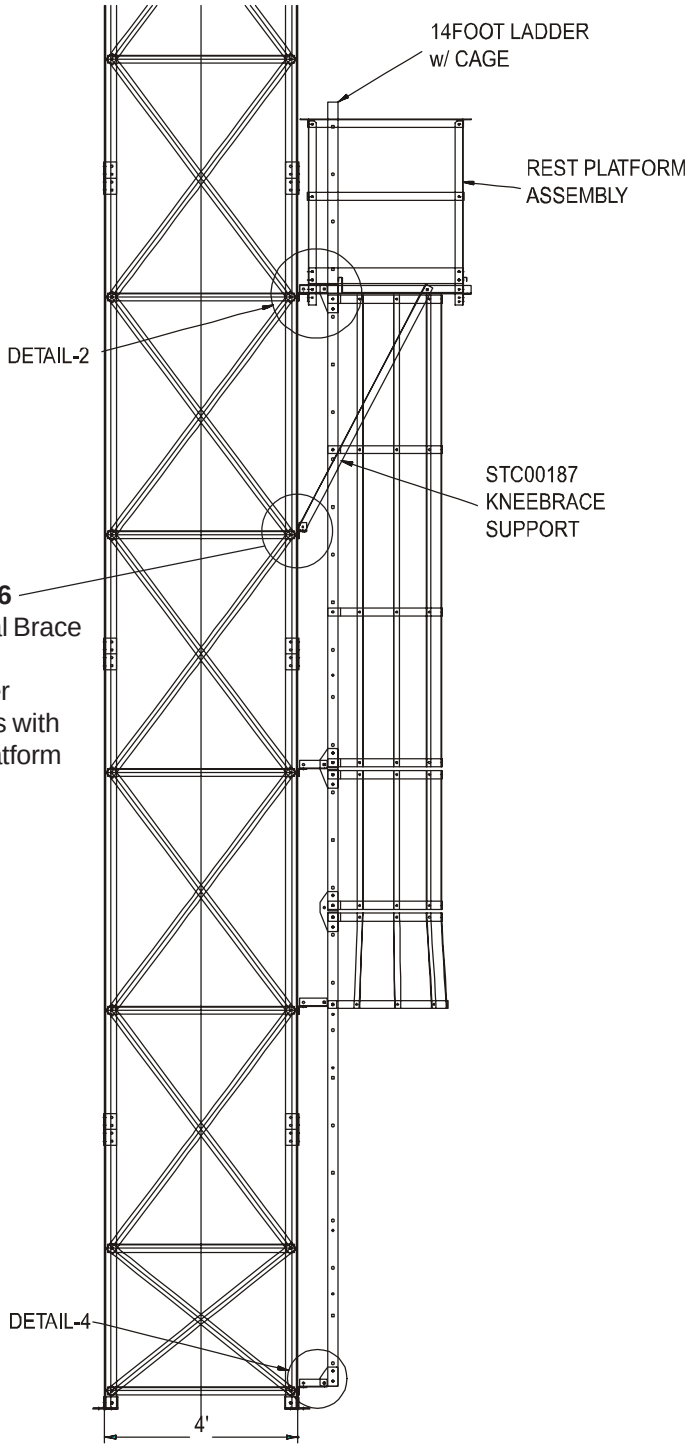
Diagram represents the different height ladder packages for the 4' square towers. An access ladder is used in conjunction with service platform. Layout ladder from top down. The length of ladder is shown above for proper layout. Use the corresponding safety cage with ladder sections. 14' ladder takes 10' safety cage used just below offset rest platform.

LADDER ATTACHMENT DETAIL LOCATIONS



SIDE VIEW OF
UPPER LADDER SECTION

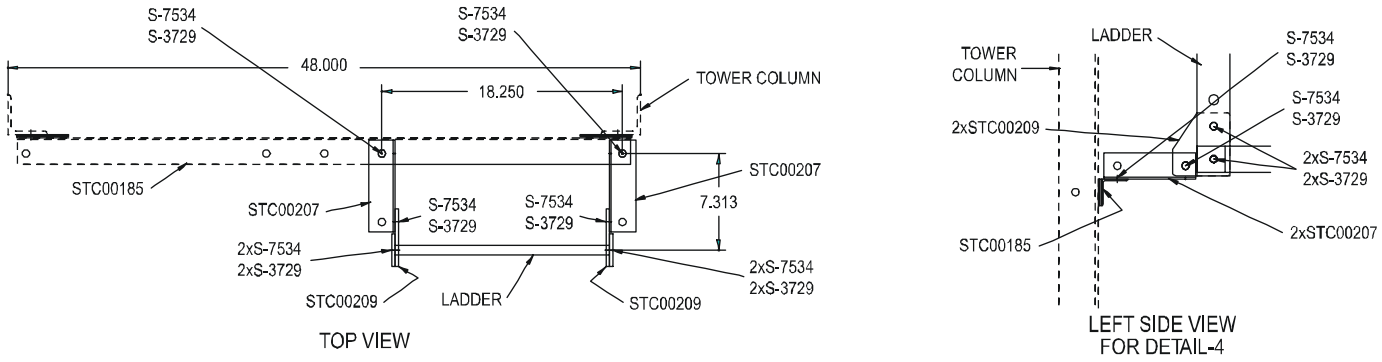
STC00186
Horizontal Brace
Location
(On ladder
Packages with
Offset Platform
Only.)



SIDE VIEW OF
LOWER LADDER SECTION

LADDER ATTACHMENT TO BOTTOM TOWER SECTION

1. Attach ladder stands (**STC00207**) to the bottom H-Brace (**STC00185**) using 1/2" x 1-1/4" HHCS bolts & nuts.
2. Attach the Ladder Splice Plates #2 (**STC00209**) to the Ladder and Ladder Stands (**STC00207**) using (3) 1/2" x 1-1/4" HHCS bolts & nuts for each splice plate. (See Fig. 7)



VIEW OF DETAIL #4 FROM PAGE 34.

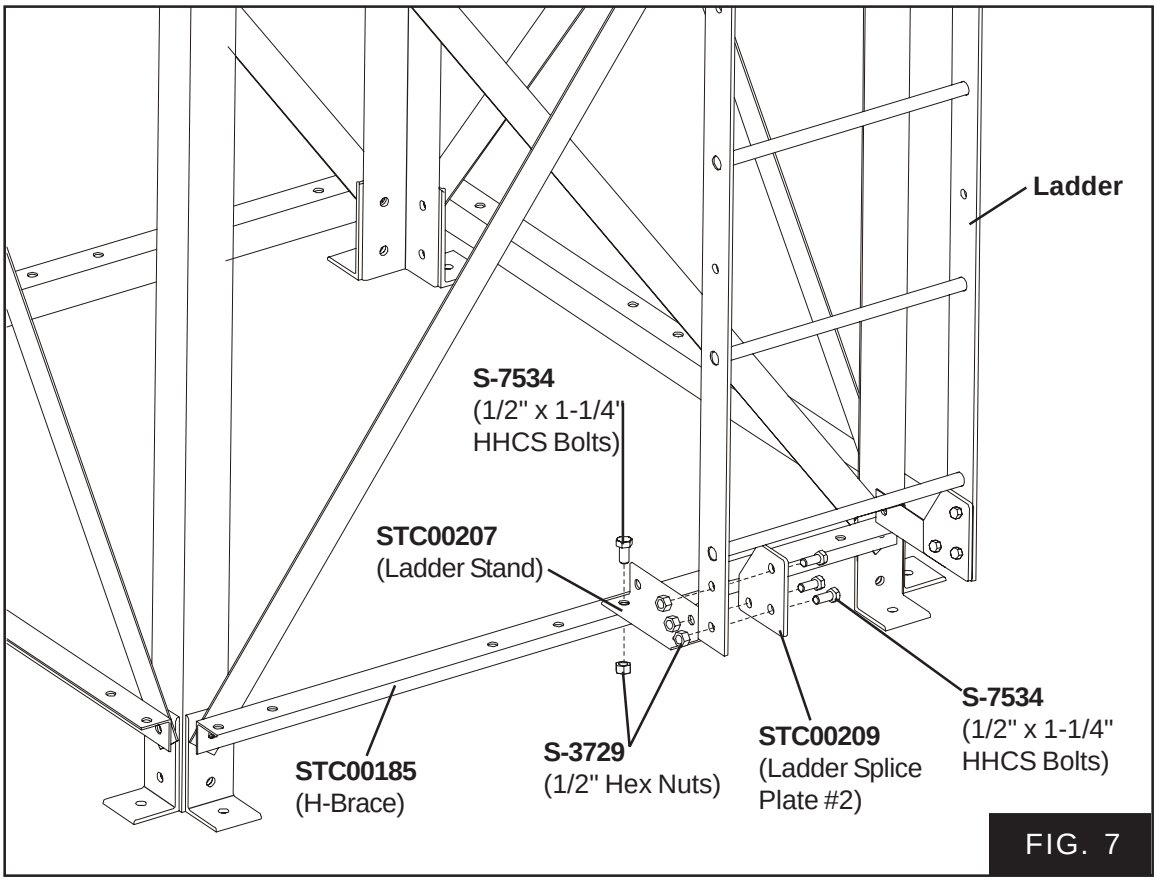
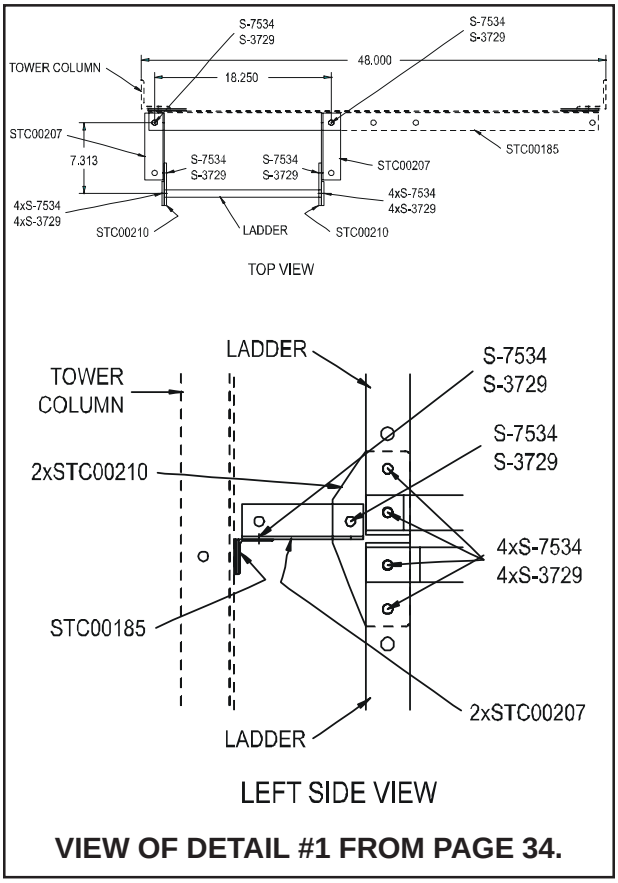


FIG. 7

LADDER ATTACHMENT BETWEEN TWO SAFETY CAGE SECTIONS



VIEW OF DETAIL #1 FROM PAGE 34.

1. Ladder Stands (**STC00207**) to H-Brace (**STC00185**) using 1/2" x 1-1/4" HHCS bolts & nuts. (See Fig. 8)

2. Attach Ladder Splice Plates #1 (**STC00210**) to Ladders and Ladder Stands (**STC00207**) using (3) 1/2" x 1-1/4" HHCS bolts & nuts for each splice plate. (See Fig. 8)

3. Attach the Safety Cage Hoop (**STC00213**) and the 2'-27" Hoop (**27HOOP**) to the splice plate using (2) 1/2" x 1-1/4" HHCS bolts & nuts for each hoop. (See Fig. 9)

4. Attach the vertical bars to the hoops using the 1/2" hardware provided as shown in Fig. 10.

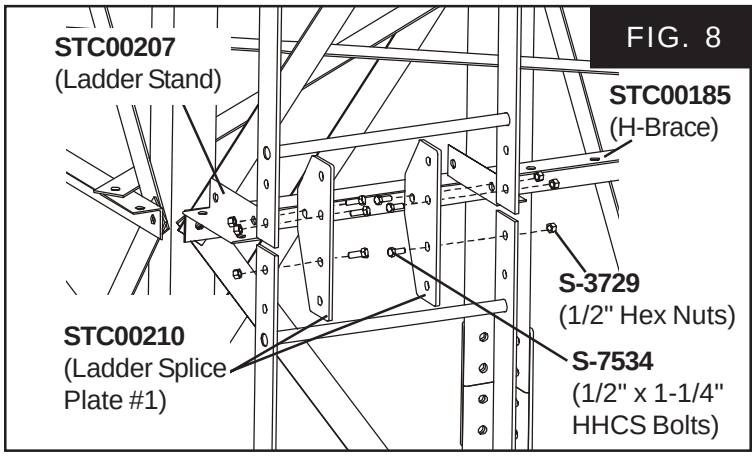


FIG. 8

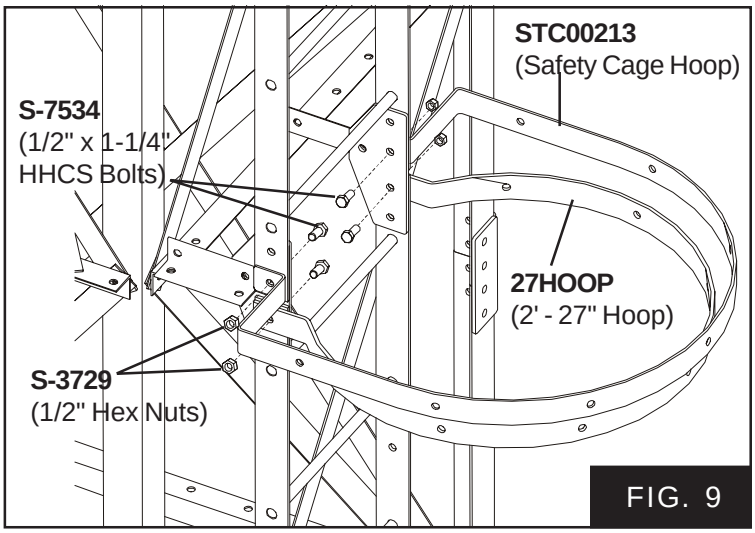


FIG. 9

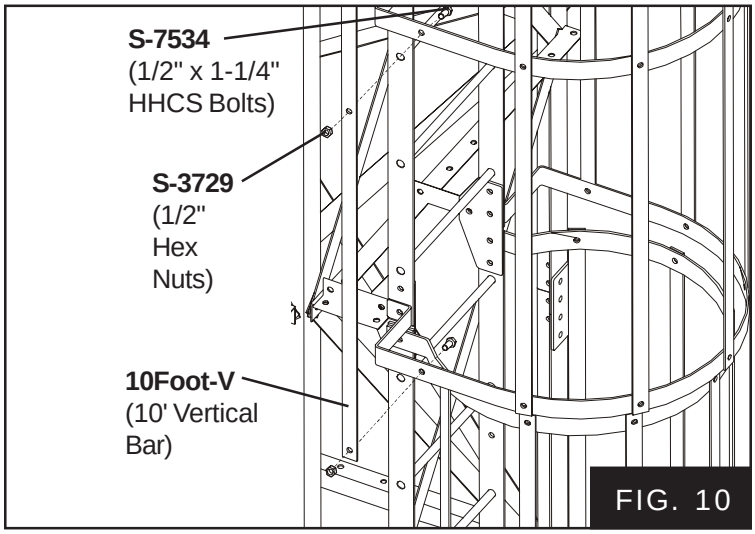


FIG. 10

LADDER ATTACHMENT TO OFFSET PLATFORM

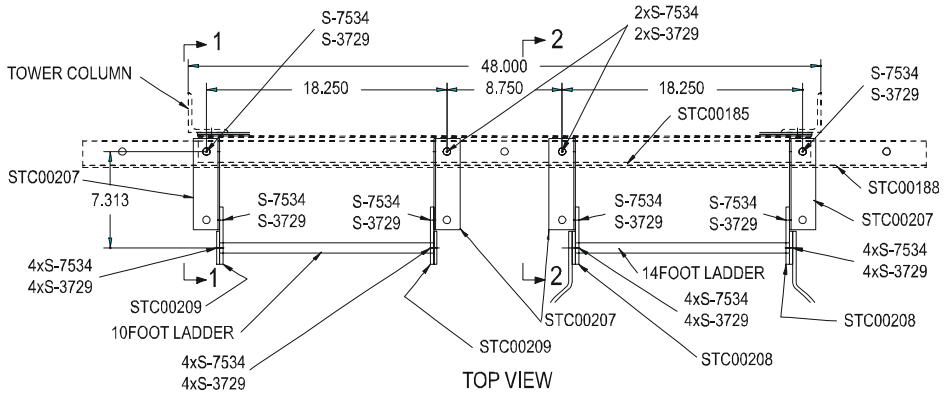
NOTE: ALL connections on this page use 1/2" x 1-1/4" HHCS bolts (**S-7534**) and 1/2" hex nuts (**S-3729**).

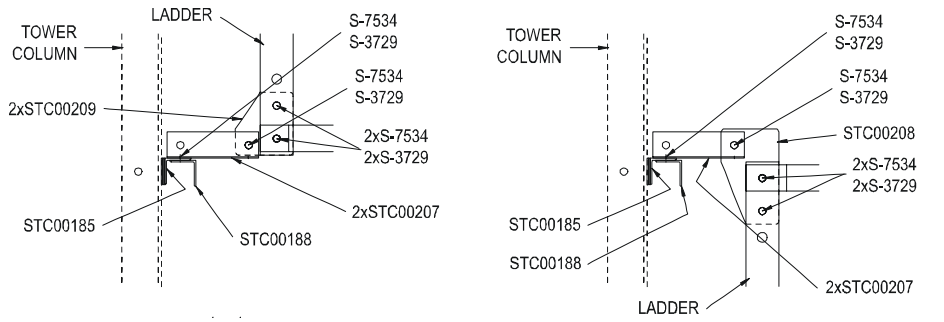
ALL bolt heads go to inside of the ladders.

1. Attach (4) Ladder Stands (**STC00207**) to the H-Braces (**STC00185**) using (4) bolts & nuts.

2. Attach Ladder Splice Plate #1 (**STC00208**) to the Ladder Stands (**STC00207**) and the 14' Ladder using (6) bolts & nuts. (See Fig. 11)

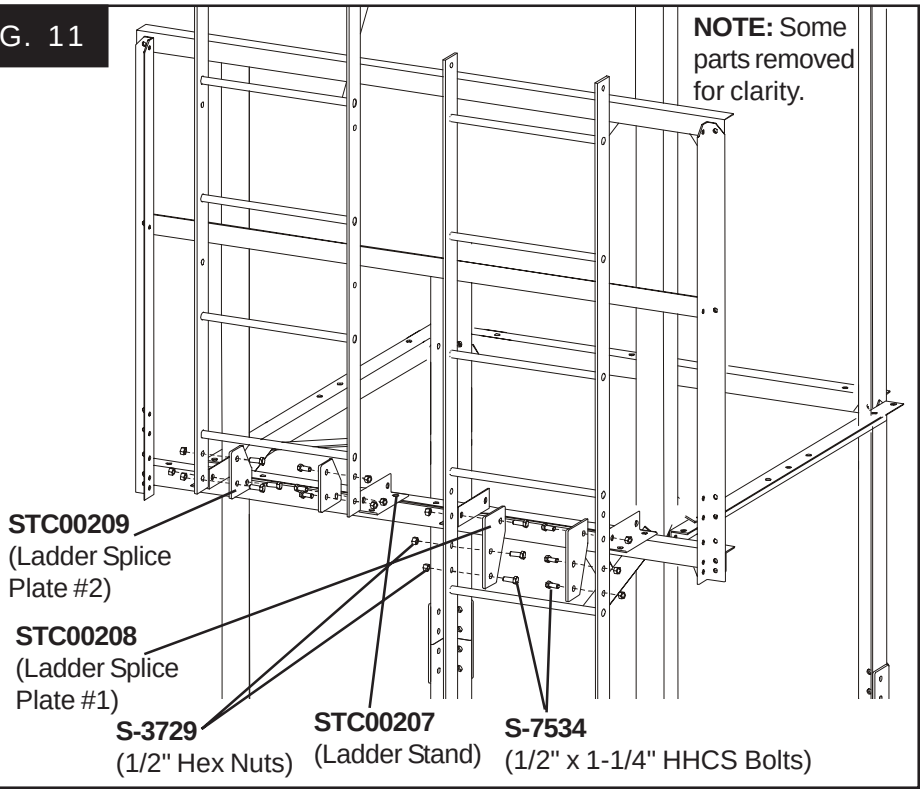
3. Attach Ladder Splice Plates #2 (**STC00209**) to the Ladder Stands (**STC00207**) and the 10' Ladder using (6) bolts & nuts. (See Fig. 11)



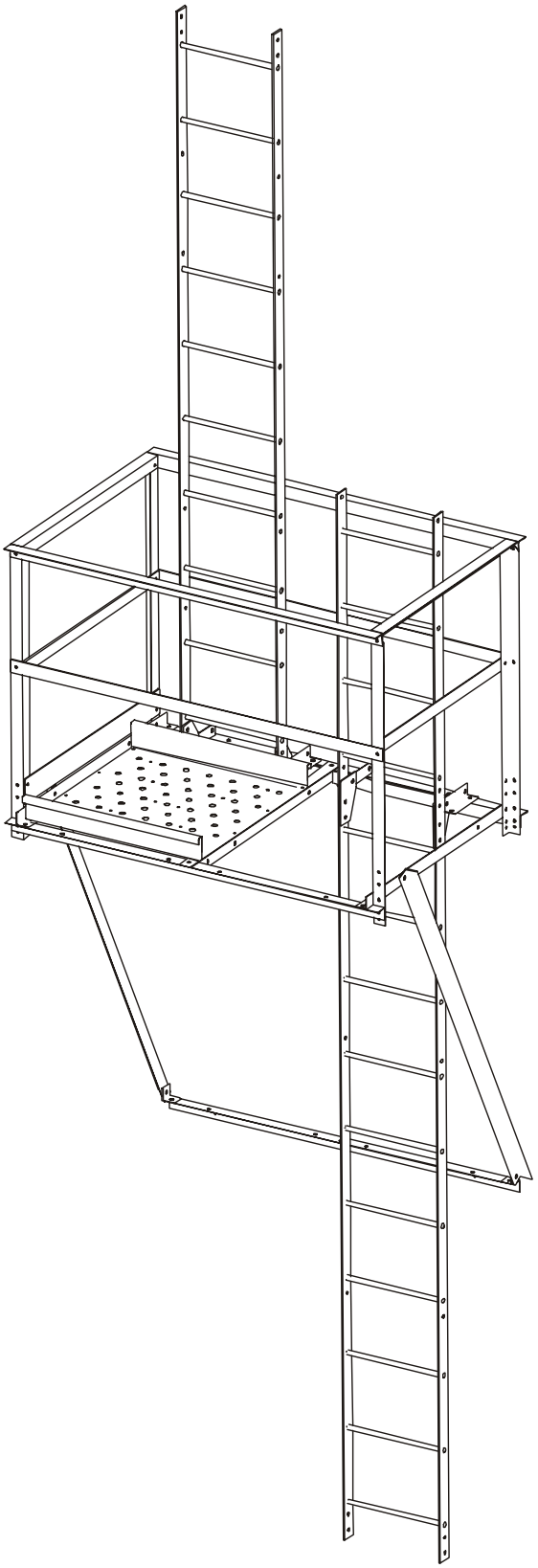


VIEW OF DETAIL #2 FROM PAGE 34.

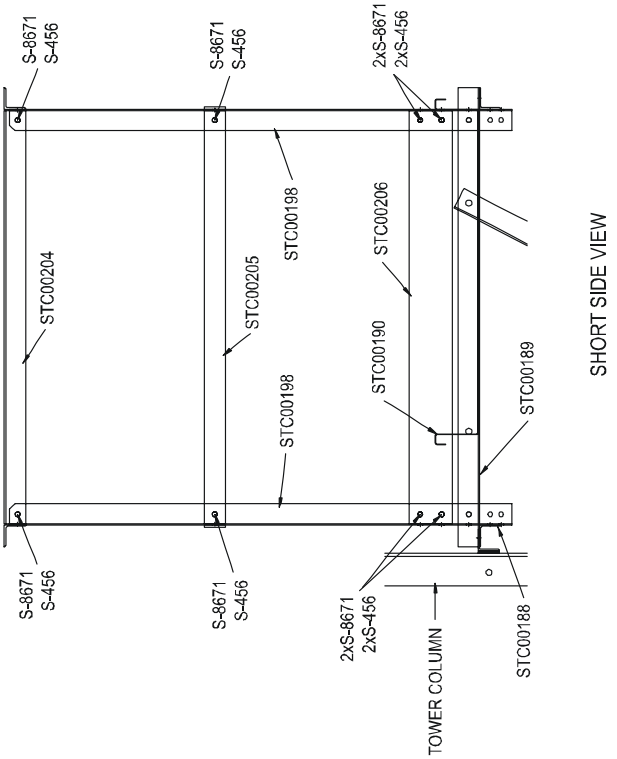
FIG. 11

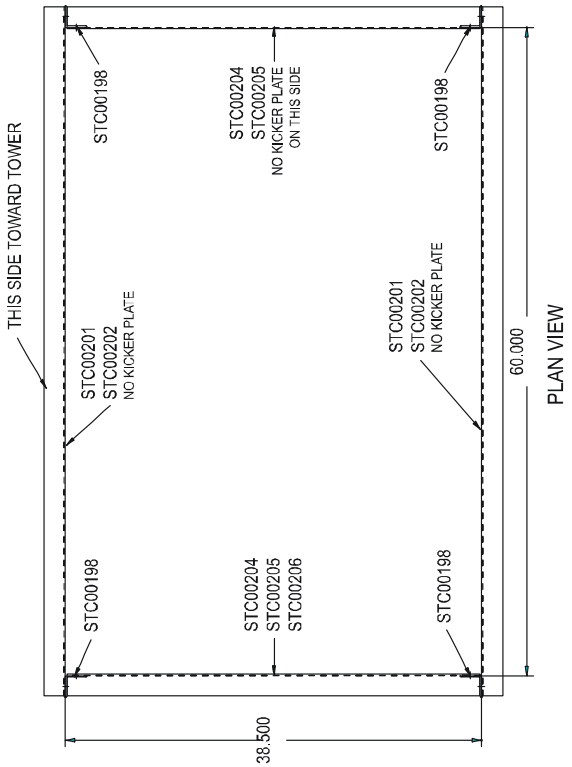


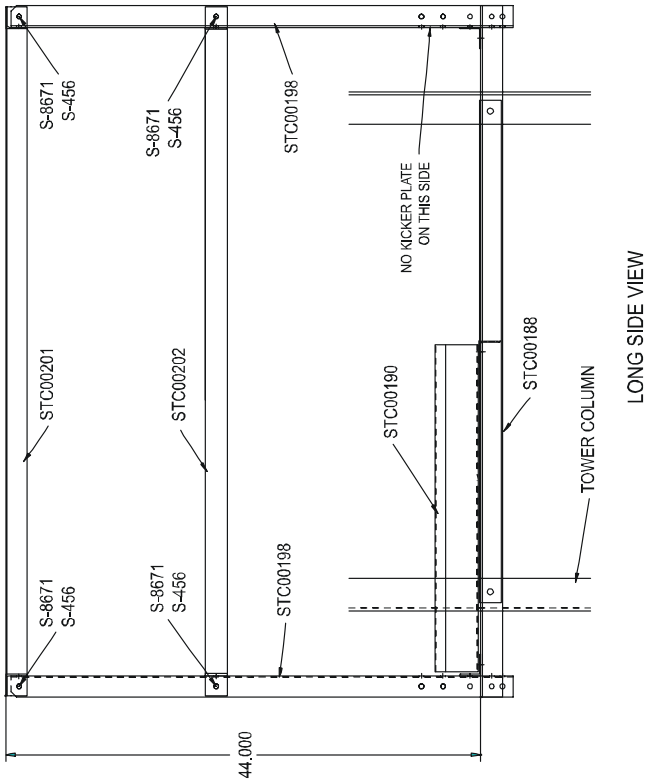
OFFSET PLATFORM



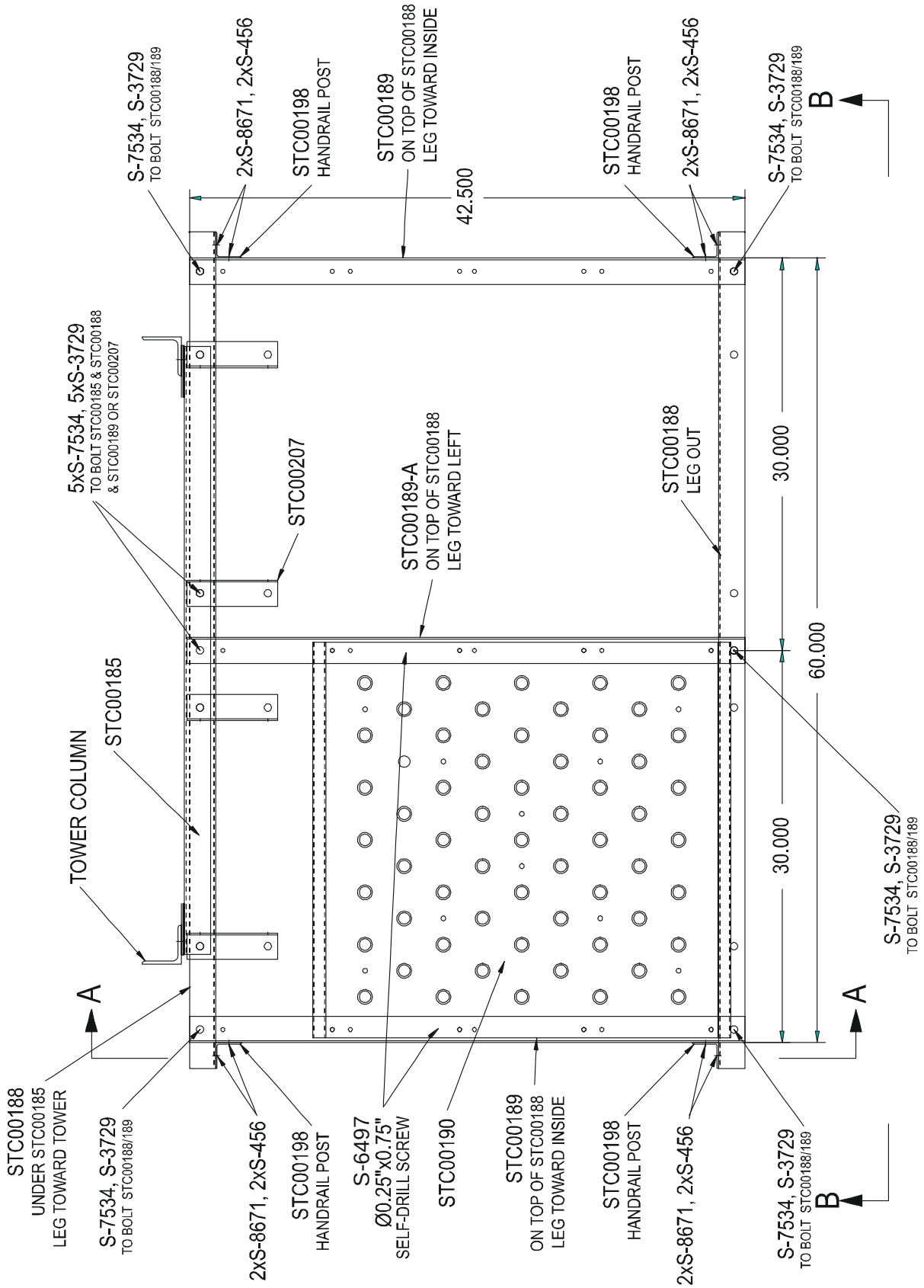
OFFSET PLATFORM DIMENSIONAL DRAWINGS



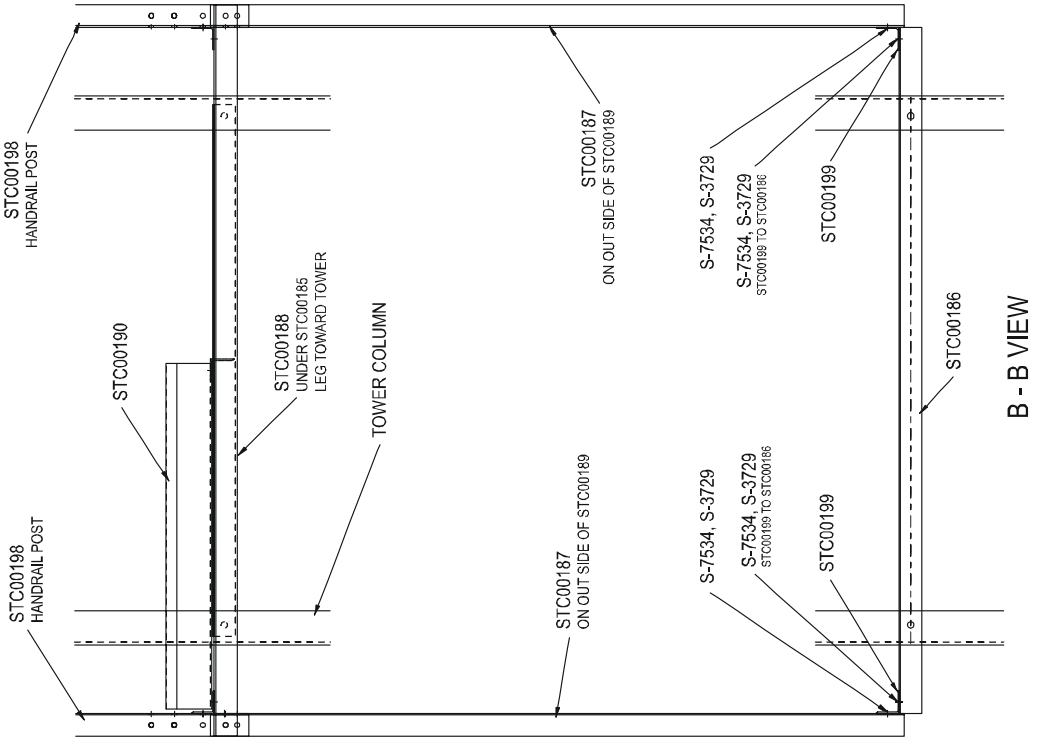




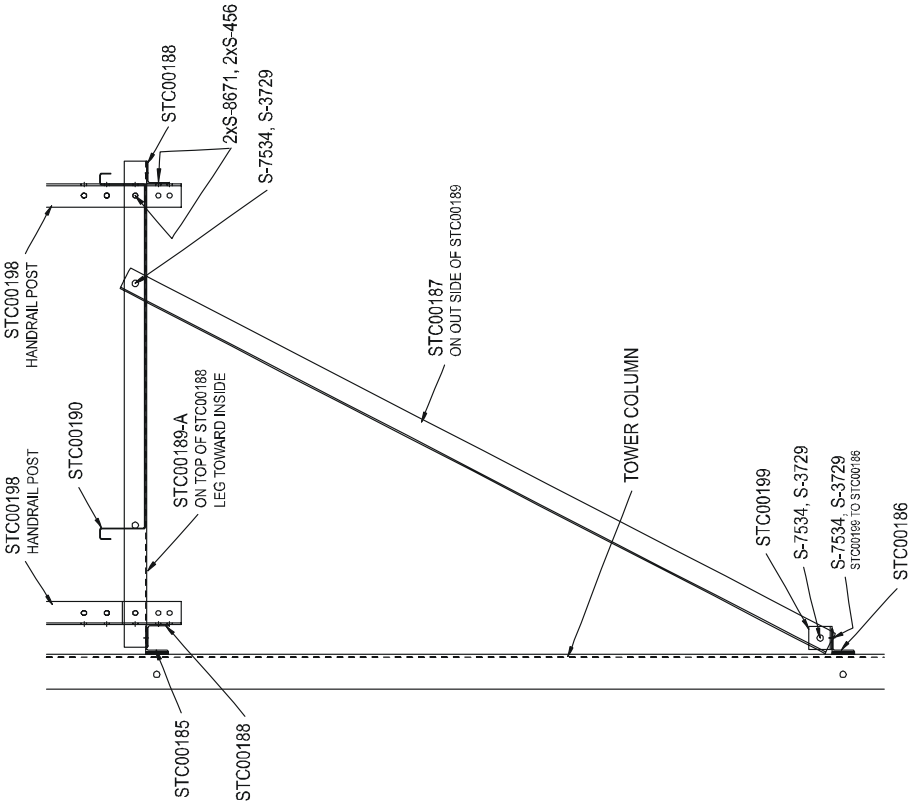
OFFSET PLATFORM DIMENSIONAL DRAWINGS



OFFSET PLATFORM DIMENSIONAL DRAWINGS



B - B VIEW



A - A VIEW

OFFSET PLATFORM ASSEMBLY

1. Follow the ladder layouts on page 22 for your ladder package. Starting from the top of tower and working down, should give you the proper location for the Rest Platform Long Frame (**STC00188**) and the Rest Platform "H" Brace (**STC00186**).

2. Attach the Rest Platform Long Frame (**STC00188**) to the H-Brace (**STC00185**). Then replace the H-Brace (**STC00185**) that is below the offset platform with the Rest Platform “H”-Brace (**STC00186**). Use (4) 1/2" x 1-1/4" bolts & nuts (See Fig. OP1)

3. Attach Handrail Posts (**STC00198**) to the Rest Platform Long Frame (**STC00188**) using (2) 3/8" x 1" bolts & nuts. (See Fig OP2)

4. Attach the 5' Top Handrail (**STC00201**) and the 5' Mid Bar (**STC00202**) to the Handrail Posts (**STC00198**) using (4) 3/8" x 1" HHCS bolts & nuts. (See Fig. OP3)

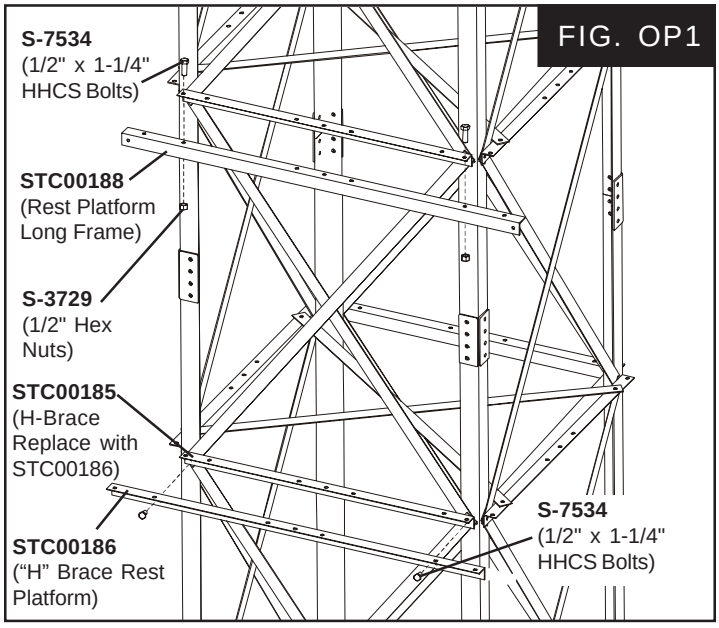


FIG. OP1

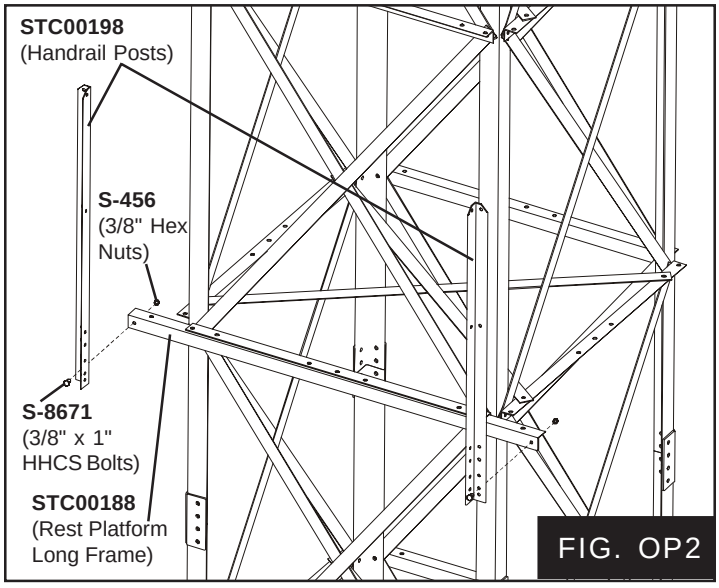


FIG. OP2

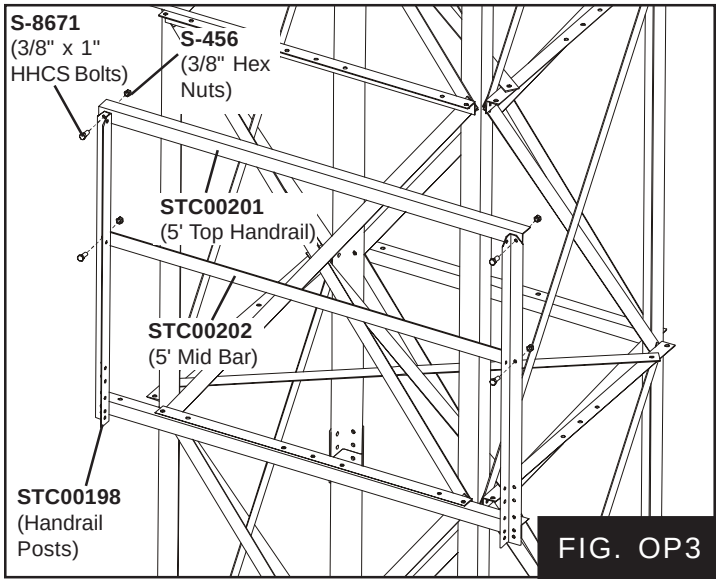


FIG. OP3

OFFSET PLATFORM ASSEMBLY (CONT.)

5. Attach (4) Ladder Stand (**STC00207**) to the H-Brace (**STC00185**) and Rest Platform Long Frame (**STC00188**) using (4) 1/2" x 1-1/4" HHCS bolts & nuts. (See Fig. OP4)

6. Attach (2) Ladder Splice Plate #1 (**STC00208**) to the Ladder Stands (**STC00207**) and the 14' Ladder using (6) 1/2" x 1-1/4" bolts & nuts. (See Fig. OP5)

3. Attach (2) Ladder Splice Plates #2 (**STC00209**) to the Ladder Stands (**STC00207**) and the 10' Ladder using (6) 1/2" x 1-1/4" bolts & nuts. (See Fig. OP5)

FIG. OP4

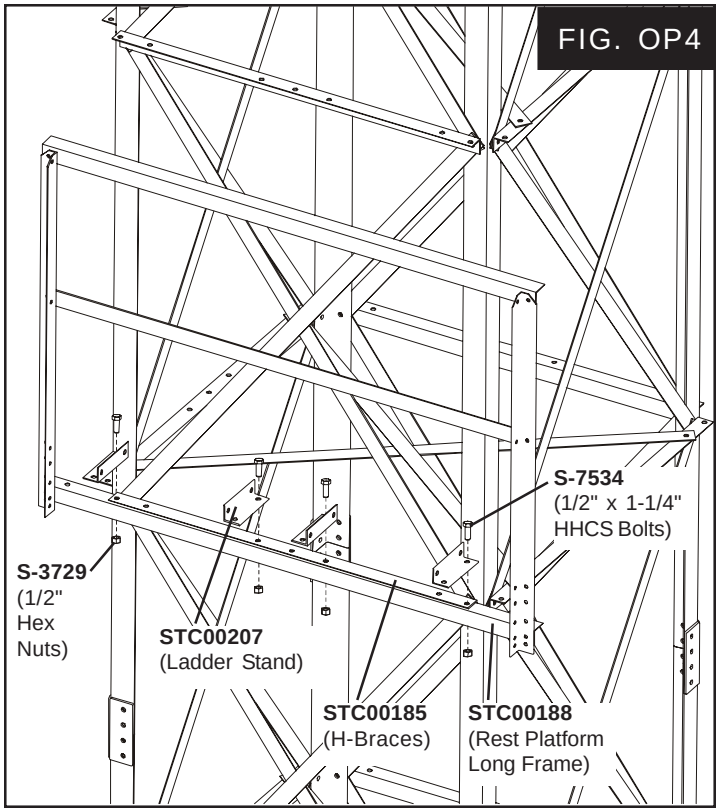
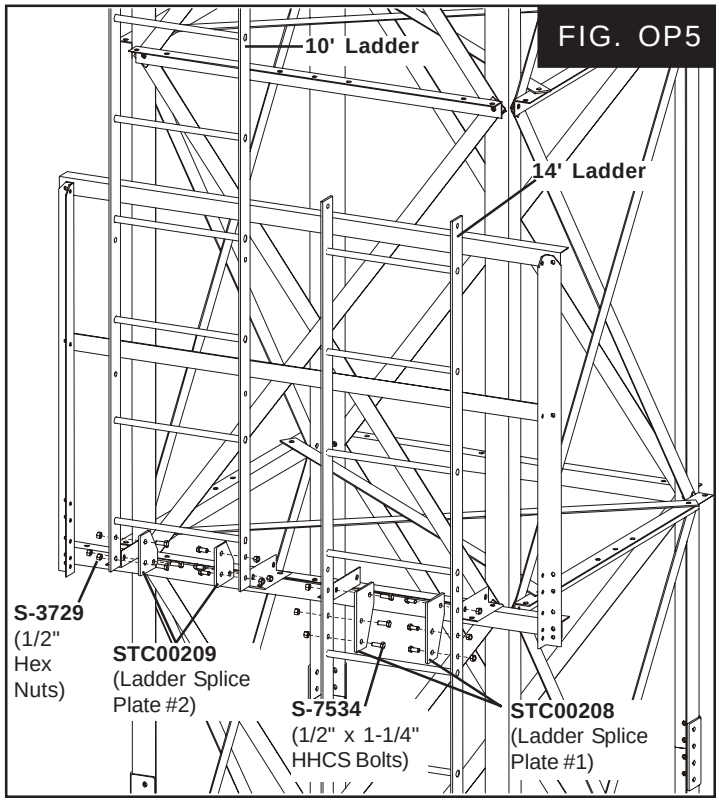


FIG. OP5



OFFSET PLATFORM ASSEMBLY (CONT.)

7. Attach the (3) Rest Platform Short Frames (**STC00189 & STC00189-A**) to the Rest Platform Long Frame (**STC00188**) and the Handrail Post (**STC00198**) as shown in Fig. OP6. Use 1/2" x 1-1/4" HHCS Bolts and nuts.

8. Attach the Handrail Post Clips (**STC00199**) to the Rest Platform H-Brace (**STC00186**) using (2) 1/2" x 1-1/4" HHCS bolts & nuts.

9. Attach the Rest Platform Kneebraces (**STC00187**) to the Rest Platform Short Frames (**STC00189**) using (2) 1/2" x 1-1/4" HHCS bolts & nuts as shown in Fig. OP7

10. Attach the Rest Platform Kneebraces (**STC00187**) to the Handrail Post Clips (**STC00199**) using (2) 1/2" x 1-1/4" HHCS bolts & nuts. (See Fig. OP7)

FIG. OP6

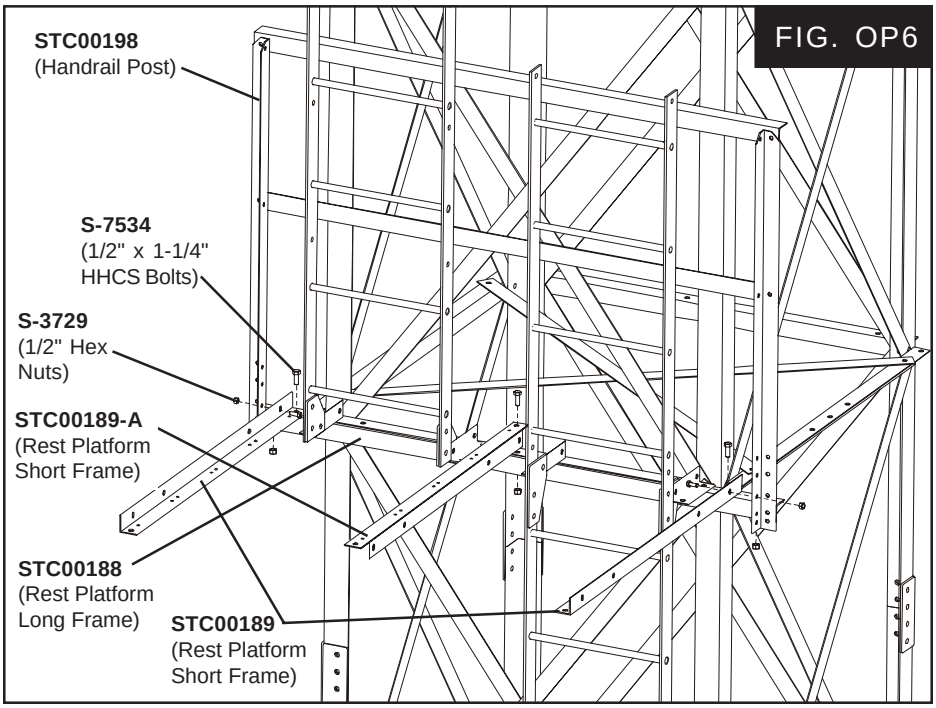
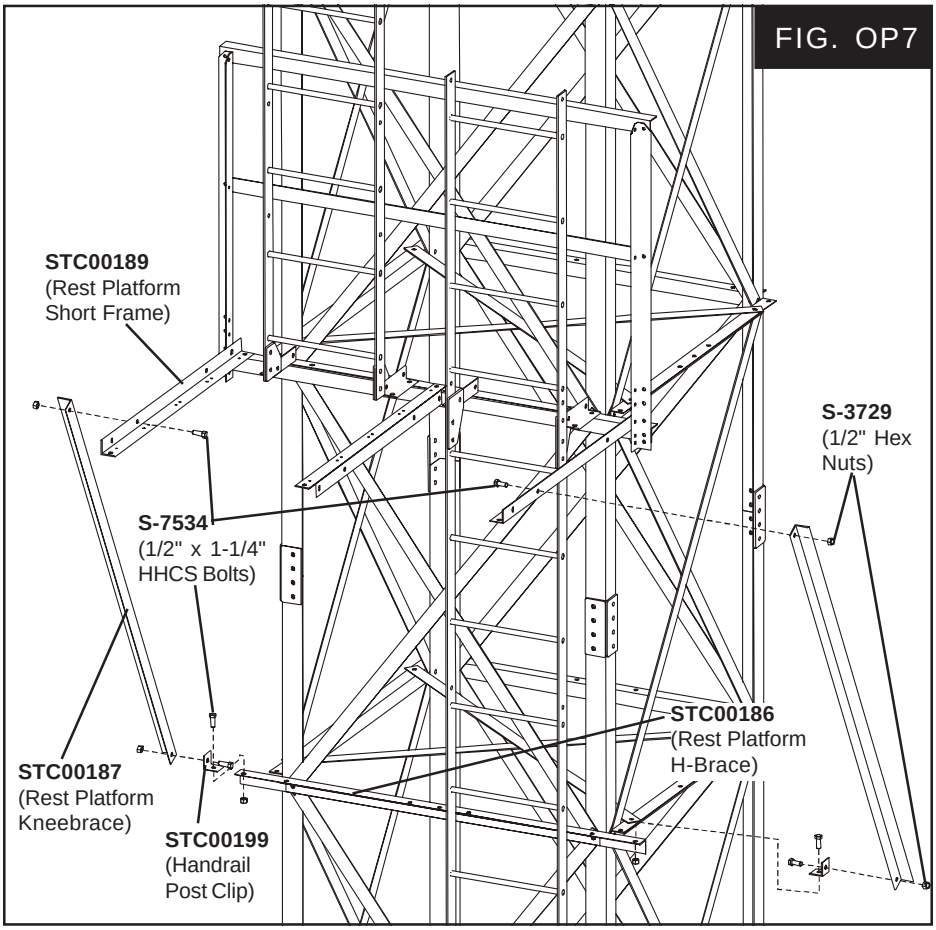


FIG. OP7



OFFSET PLATFORM ASSEMBLY (CONT.)

11. Attach the Rest Platform Long Frame (**STC00188**) to the (3) Rest Platform Short Frames (**STC00189 & STC00189-A**) using (3) 1/2" x 1-1/4" HHCS bolts & nuts as shown in Fig OP8.

12. Attach (2) Handrail Posts (**STC00198**) to Rest Platform Short Frame (**STC00189**) and Rest Platform Long Frame (**STC00188**) using 3/8" x 1" HHCS bolts & nuts as shown in Fig. OP9.

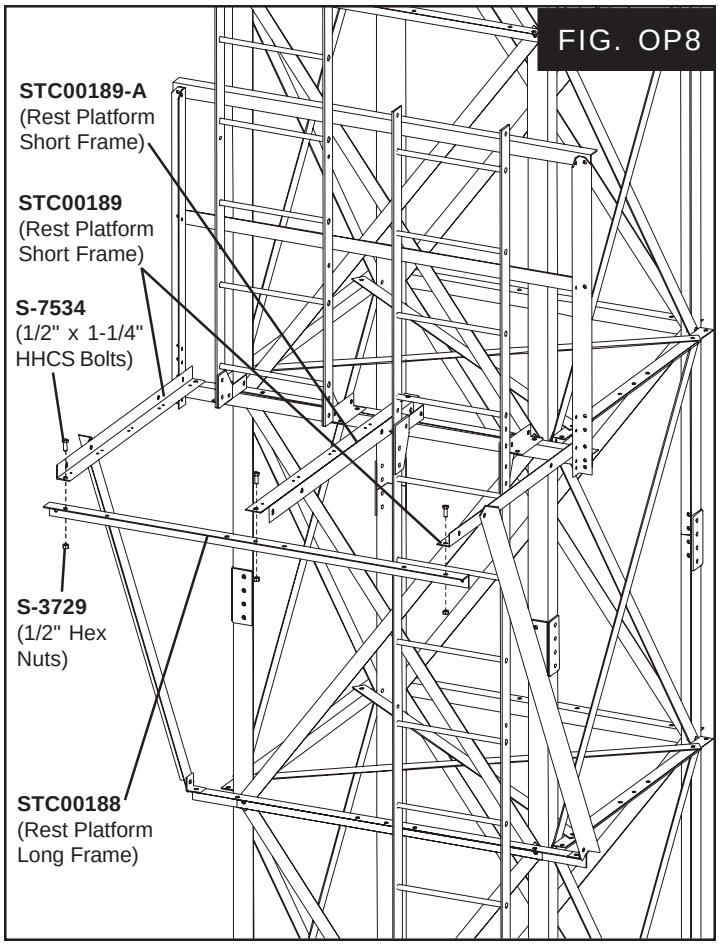


FIG. OP8

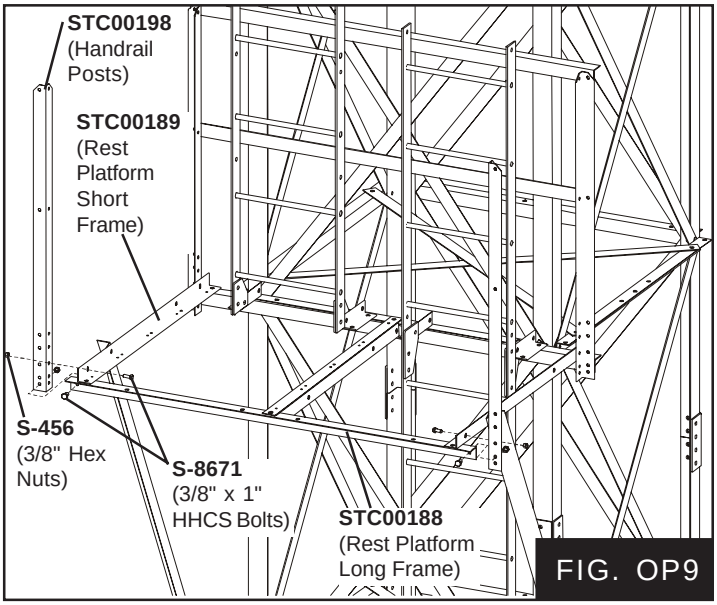


FIG. OP9

OFFSET PLATFORM ASSEMBLY (CONT.)

13. Attach (2) 38-1/2" Top Handrails (**STC00204**), (2) 38-1/2" Mid Bars (**STC00205**), and (1) 38-1/2" Kicker Plate (**STC00206**) to the Handrail Posts (**STC00198**) using (12) 3/8" x 1" HHCS bolts and nuts as shown in Fig. OP10.

14. Attach the 5' Top Handrail (**STC00201**) and 5' Mid Bar (**STC00202**) to the Handrail Posts (**STC00198**) using (4) 3/8" x 1" HHCS bolts and nuts as shown in Fig. OP11.

15. Attach the Rest Platform Plank (**STC00190**) to the Rest Platform Short Frames (**STC00189 & STC00189-A**) using (8) 1/4" x 3/4" self drilling screws (**S-6497**). Make sure to offset screws from any existing holes. (See Fig. OP12)

FIG. OP10

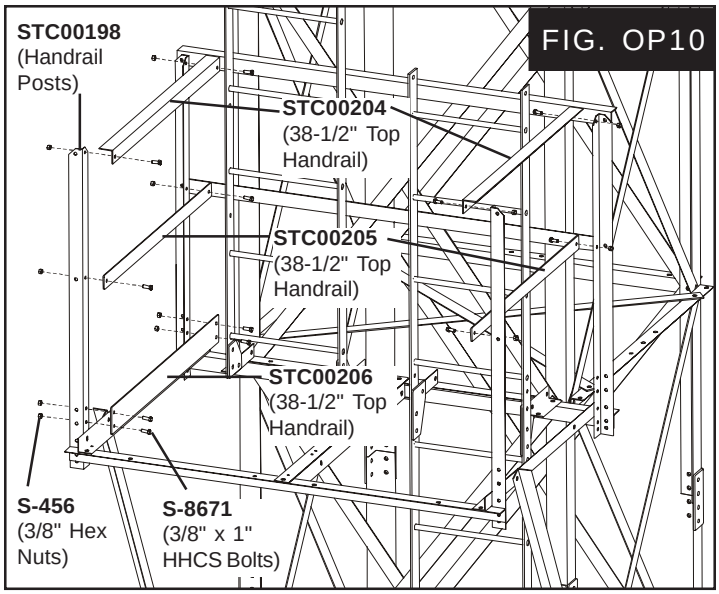


FIG. OP11

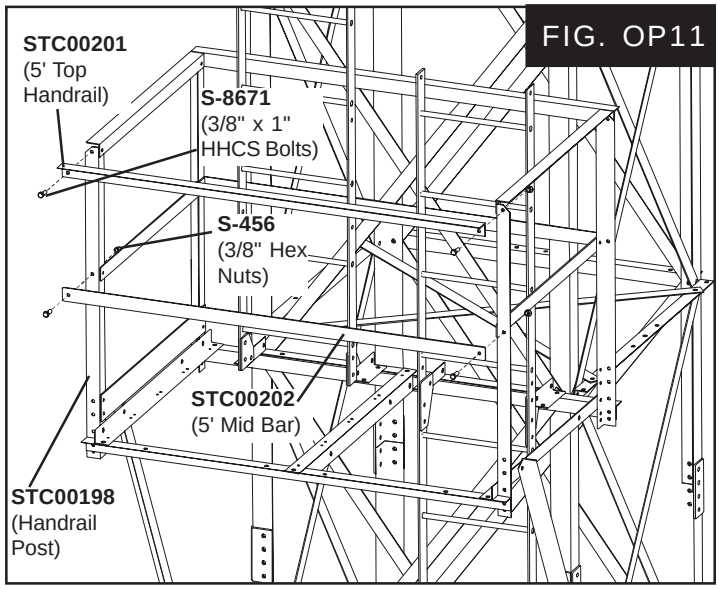
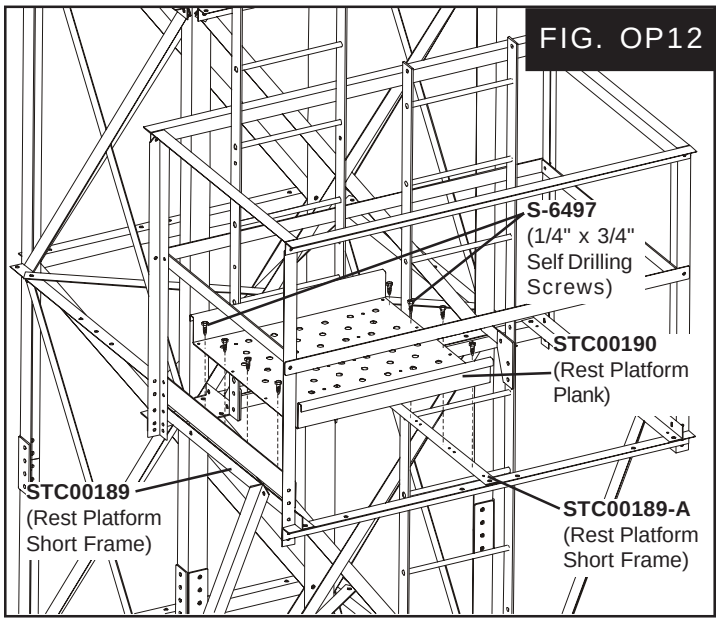
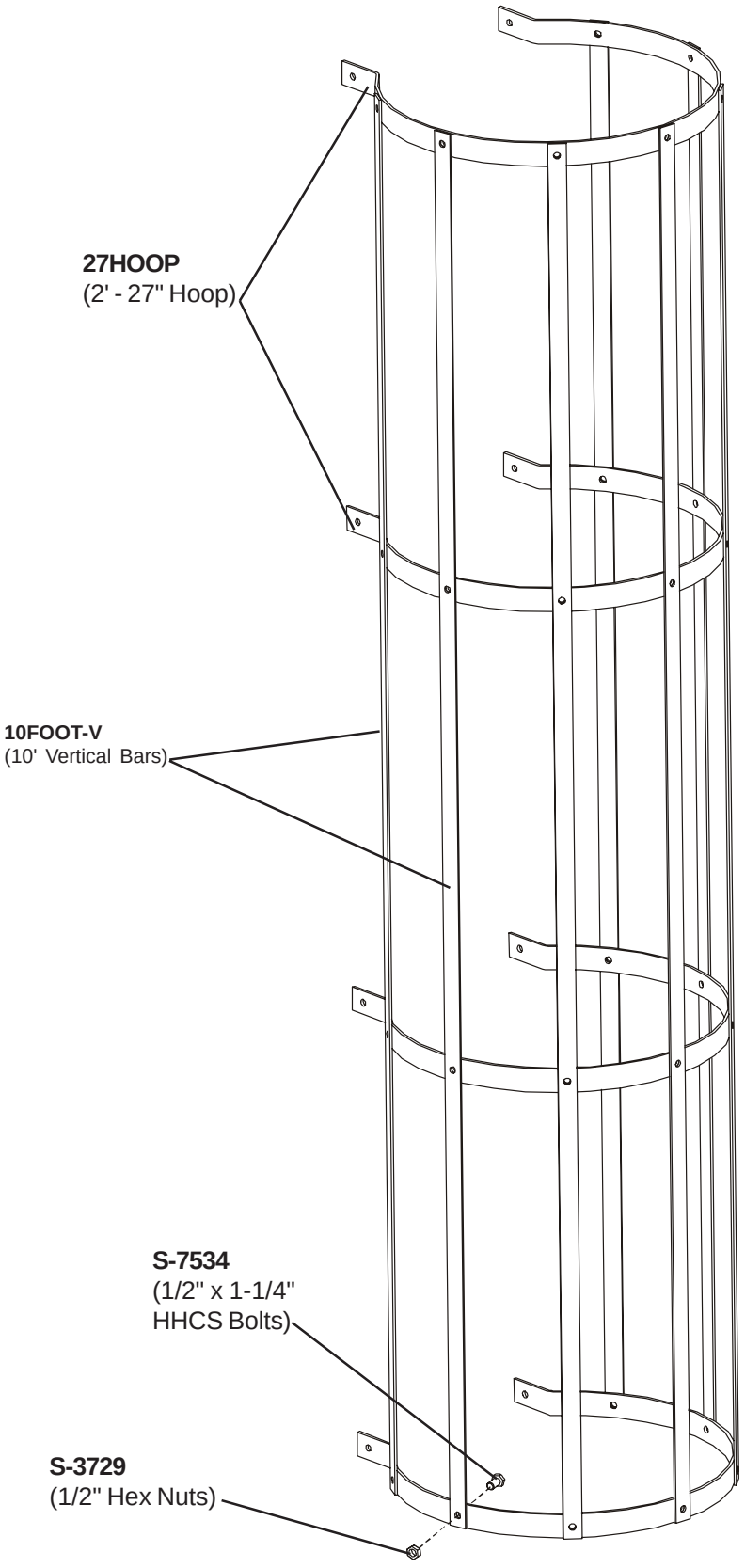


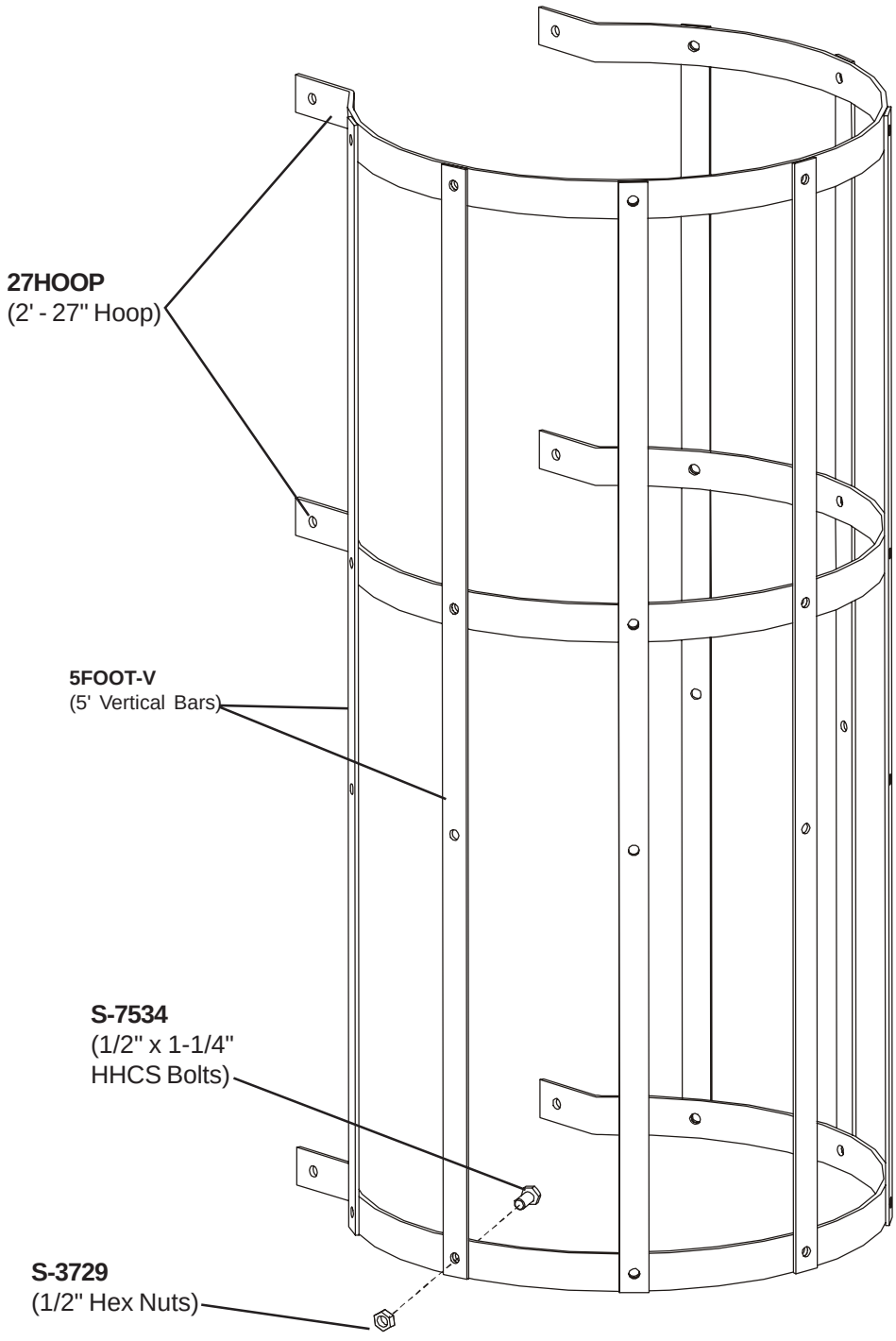
FIG. OP12



10' SAFETY CAGE SECTION



5' SAFETY CAGE SECTION



NOTES

The GSI Group, Inc. Warranty

THE GSI GROUP, INC. (“GSI”) WARRANTS ALL PRODUCTS WHICH IT MANUFACTURES TO BE FREE OF DEFECTS IN MATERIAL AND WORKMANSHIP UNDER NORMAL USAGE AND CONDITIONS FOR A PERIOD OF 12 MONTHS AFTER RETAIL SALE TO THE ORIGINAL END USER. THE PURCHASER’S SOLE REMEDY AND GSI’S ONLY OBLIGATION SHALL BE TO REPAIR OR REPLACE, AT GSI’S OPTION AND EXPENSE, PRODUCTS THAT, IN GSI’S SOLE JUDGMENT, CONTAIN A MATERIAL DEFECT DUE TO MATERIALS OR WORKMANSHIP. ALL DELIVERY AND SHIPMENT CHARGES TO AND FROM GSI’S FACTORY WILL BE PURCHASER’S RESPONSIBILITY. EXPENSES INCURRED BY OR ON BEHALF OF THE PURCHASER WITHOUT PRIOR WRITTEN AUTHORIZATION FROM AN AUTHORIZED EMPLOYEE OF GSI SHALL BE THE SOLE RESPONSIBILITY OF THE PURCHASER.

EXCEPT FOR THE LIMITED WARRANTY EXPRESSED ABOVE, GSI MAKES NO FURTHER WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE IN CONNECTION WITH (I) PRODUCT MANUFACTURED OR SOLD BY GSI OR (ii) ANY ADVICE, INSTRUCTION, RECOMMENDATION OR SUGGESTION PROVIDED BY AN AGENT, REPRESENTATIVE OR EMPLOYEE OF GSI REGARDING OR RELATED TO THE CONFIGURATION, INSTALLATION, LAYOUT, SUITABILITY FOR A PARTICULAR PURPOSE, OR DESIGN OF SUCH PRODUCTS.

GSI SHALL NOT BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOSS OF ANTICIPATED PROFITS OR BENEFITS. PURCHASER’S SOLE AND EXCLUSIVE REMEDY IS AS SET FORTH IN THE LIMITED WARRANTY EXPRESSED ABOVE, WHICH SHALL NOT EXCEED THE AMOUNT PAID FOR THE PRODUCT PURCHASED. THIS WARRANTY IS NOT TRANSFERABLE AND APPLIES ONLY TO THE ORIGINAL PURCHASER. GSI SHALL HAVE NO OBLIGATION OR RESPONSIBILITY FOR ANY REPRESENTATIONS OR WARRANTIES MADE BY OR ON BEHALF OF ANY DEALER, AGENT OR DISTRIBUTOR OF GSI.

GSI ASSUMES NO RESPONSIBILITY FOR CLAIMS RESULTING FROM ERECTION DEFECTS OR UNAUTHORIZED MODIFICATIONS TO PRODUCTS WHICH IT MANUFACTURED. MODIFICATIONS TO PRODUCTS NOT SPECIFICALLY DELINEATED IN THE MANUAL ACCOMPANYING THE EQUIPMENT AT INITIAL SALE WILL NULLIFY THE PRODUCT WARRANTY THAT MIGHT HAVE BEEN OTHERWISE AVAILABLE.

THE FOREGOING WARRANTY SHALL NOT EXTEND TO PRODUCTS OR PARTS WHICH HAVE BEEN DAMAGED BY NEGLIGENT USE, MISUSE, ALTERATION OR ACCIDENT. THIS WARRANTY EXTENDS SOLELY TO ONLY PRODUCTS MANUFACTURED BY GSI. THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED. GSI RESERVES THE RIGHT TO MAKE DESIGN OR SPECIFICATION CHANGES AT ANY TIME.

PRIOR TO INSTALLATION, PURCHASER HAS THE RESPONSIBILITY TO COMPLY WITH ALL FEDERAL, STATE AND LOCAL CODES WHICH MAY APPLY TO THE LOCATION AND INSTALLATION OF PRODUCTS MANUFACTURED OR SOLD BY GSI.

This Equipment shall be installed in accordance with the current installation codes and applicable regulations which should be carefully followed in all cases. Authorities having jurisdiction should be consulted before installation occurs.

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