

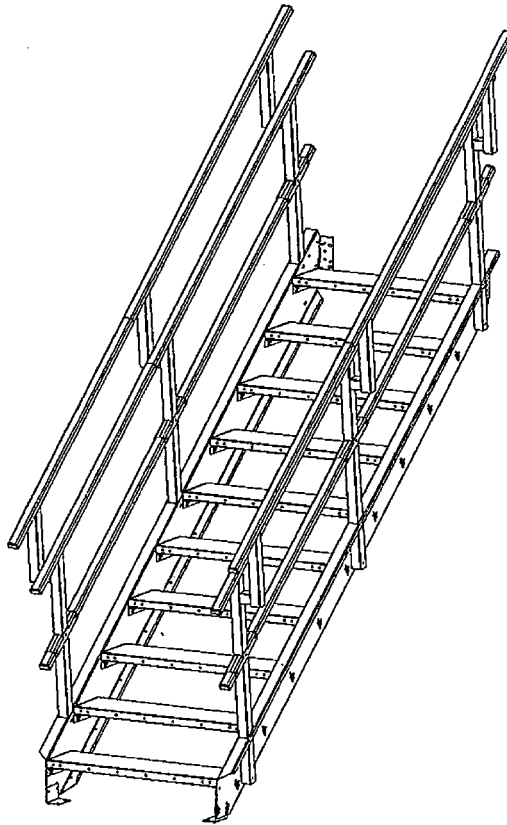
# 220ASY

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# EQUIPTO

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## 'S' – SERIES STAIRWAY ASSEMBLY INSTRUCTIONS



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## STAIR RAILING ASSEMBLY

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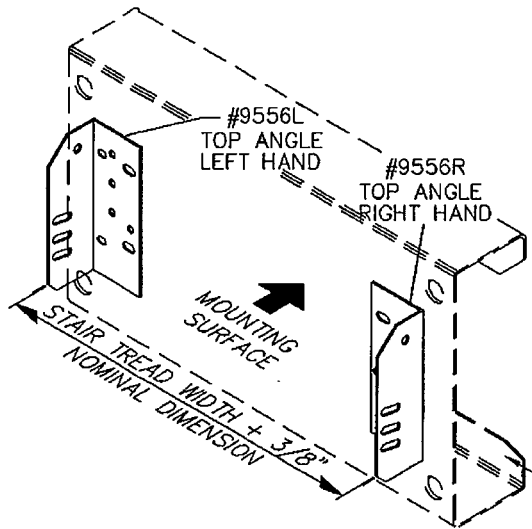
## STAIR RAILING CHART

1. S04 THROUGH S09	PAGE 18
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# STAIRWAY ASSEMBLY

## 1 TOP ANGLE ASSEMBLY

### 1a) MOUNTING TOP ANGLE TO BUILDING STRUCTURE

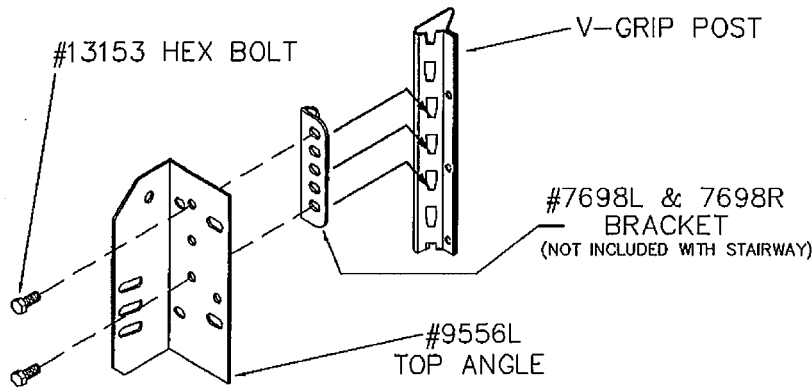


#### NOTE

IF MOUNTING TO BUILDING STRUCTURE, REAR SURFACE OF ANGLE MUST BE IN A PERPENDICULAR LINE, FLUSH WITH THE OUTER EDGE OF MEZZANINE PLATFORM TO GAIN FULL ADVANTAGE OF THE TOP STAIR TREAD DEPTH. A MINIMUM OF (2) FASTENERS MUST BE INSTALLED IN EACH ANGLE. IF ANGLE IS TO BE FASTENED TO THE WALL, ANCHORS MUST BE FURNISHED BY OTHERS. DO NOT TIGHTEN FASTENERS UNTIL STAIRWAY IS COMPLETELY ASSEMBLED.

TO MOUNT STAIRWAY TO EQUIPTO MEZZANINE SEE MEZZANINE INSTRUCTIONS.

### 1b) MOUNTING TOP ANGLE TO V-GRIP UPRIGHT

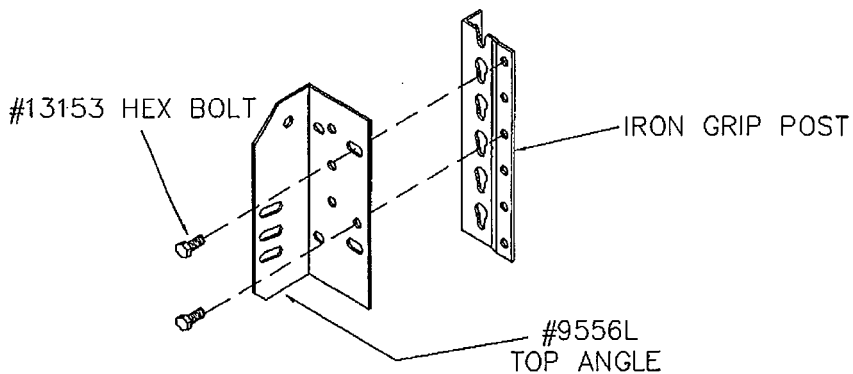


- #13153 HEX BOLT 5/16-18 x 3/4"
  - #13051 LOCK NUT 5/16-18
  - #13182 SPRING LOCKWASHER 3/8"
- (2 PER ANGLE)



FULL SCALE

### 1c) MOUNTING TOP ANGLE TO IRON GRIP UPRIGHT

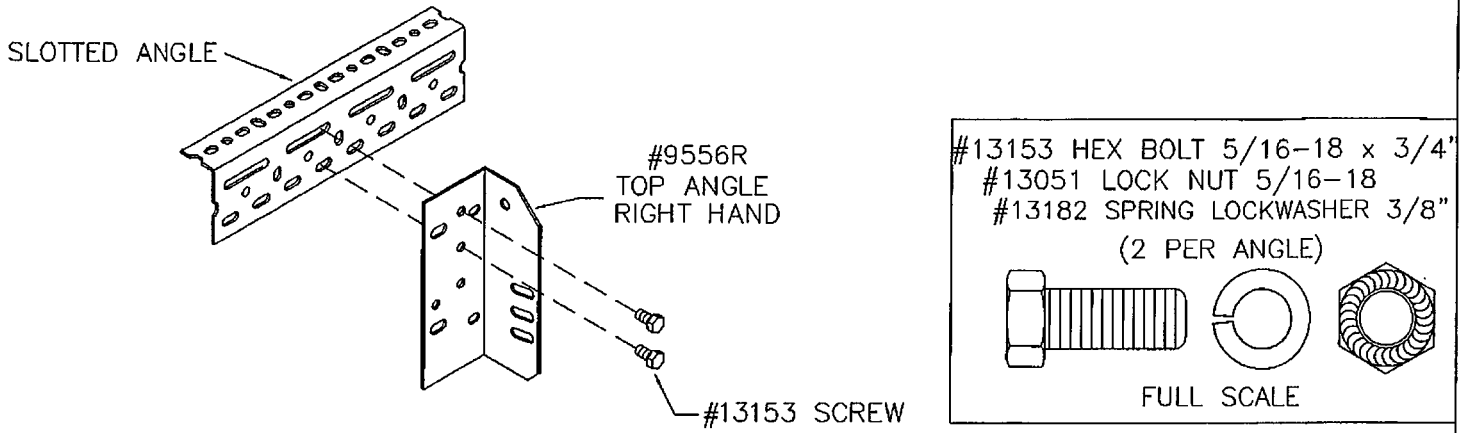


- #13153 HEX BOLT 5/16-18 x 3/4"
  - #13051 LOCK NUT 5/16-18
  - #13182 SPRING LOCKWASHER 3/8"
- (2 PER ANGLE)



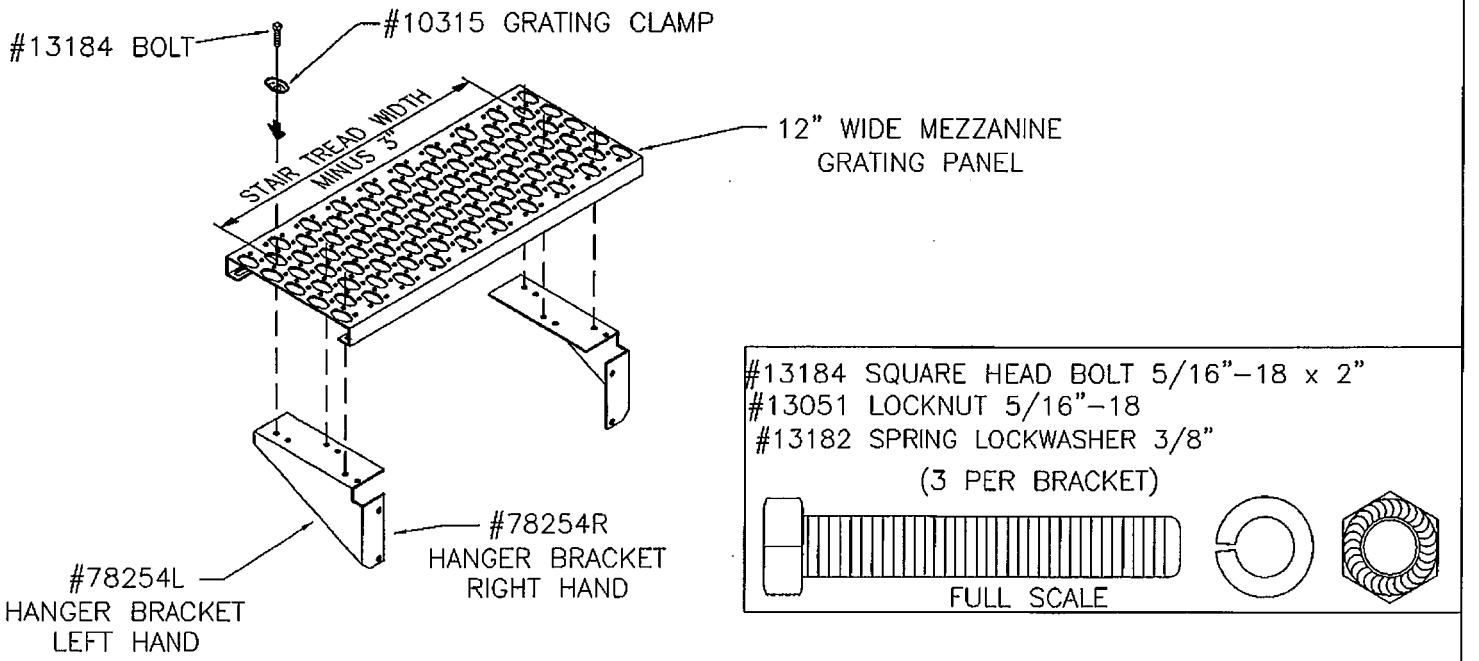
FULL SCALE

1d) MOUNTING TOP ANGLE TO SLOTTED ANGLE

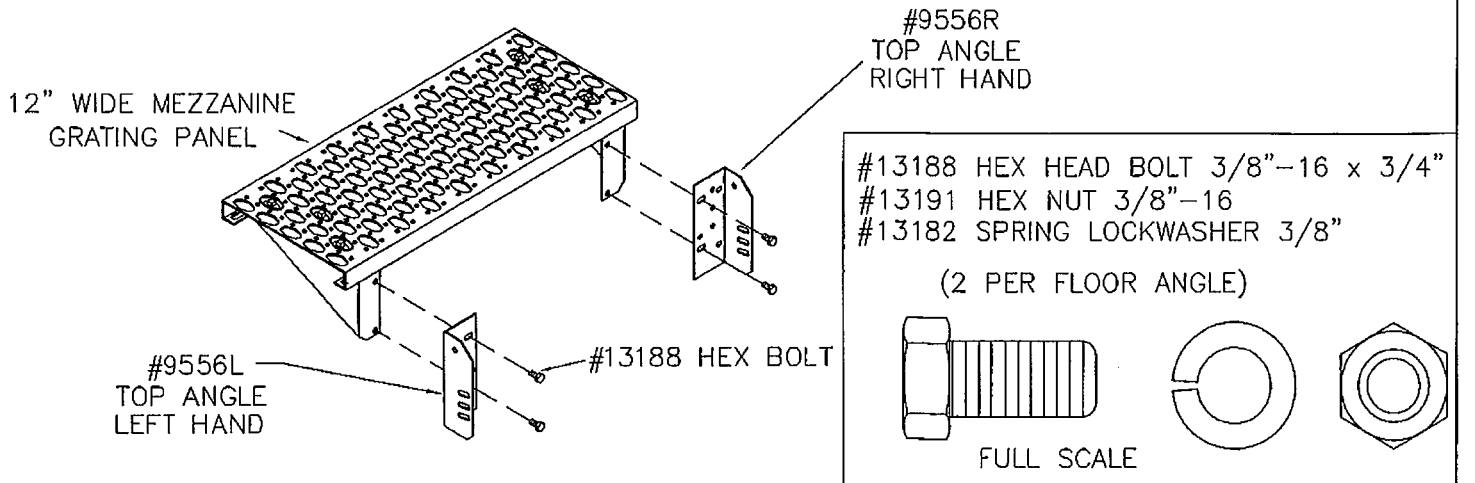


1e) MOUNTING TOP ANGLE TO GRATING

ASSEMBLE HANGER BRACKET TO GRATING PANEL  
(HARDWARE AND HANGER BRACKETS NOT INCLUDED WITH STAIRWAY)



ASSEMBLE TOP ANGLE TO HANGER BRACKET

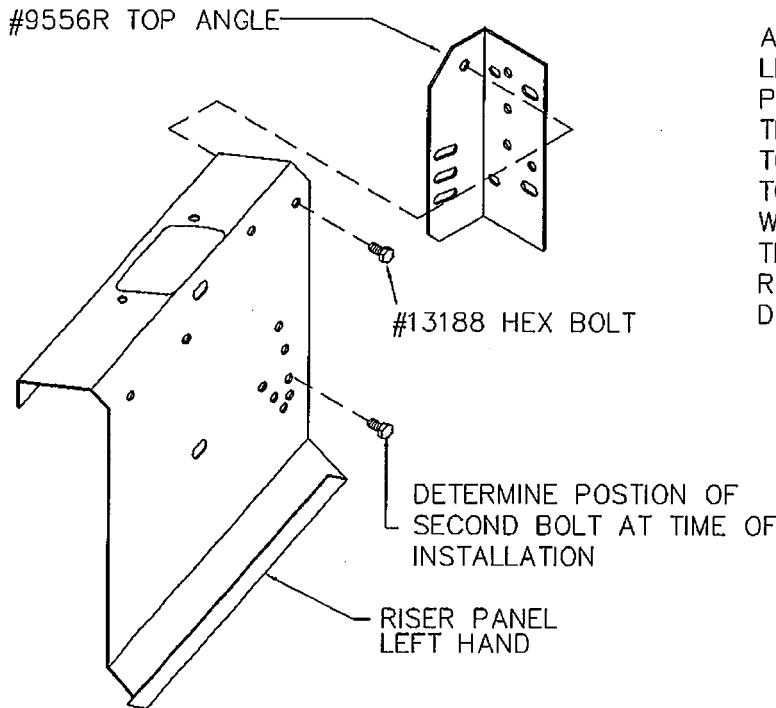


# 2 RISER PANEL ASSEMBLY

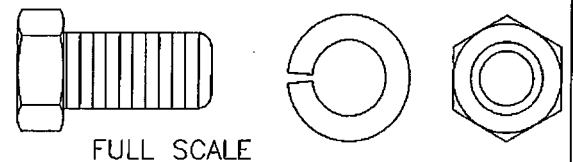
## 2a) ASSEMBLE RISER PANEL TO TOP ANGLE

### NOTE

AFTER THE TOP ANGLES ARE IN PLACE, LIFT TOP END OF THE RISER PANEL INTO POSITION WITH THE VERTICAL SURFACE OF THE RISER PANEL TO THE INSIDE OF THE TOP ANGLE AND THE SLOTTED TOP FLANGE TO THE OUTSIDE. REPEAT THIS PROCEDURE WITH THE OPPOSITE RISER PANEL. DURING THIS ASSEMBLY THE BOTTOM ENDS OF THE RISERS ARE TO REST ON THE FLOOR. DO NOT TIGHTEN BOLTS AT THIS POINT.



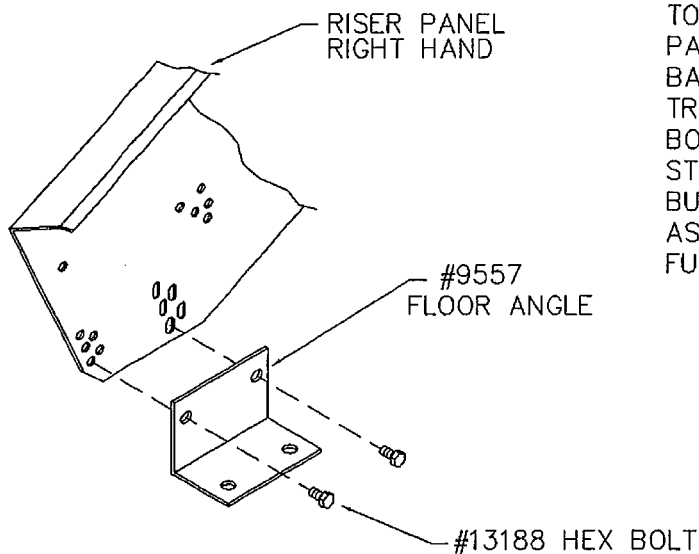
- #13188 HEX HEAD BOLT 3/8"-16 x 3/4"
  - #13191 HEX NUT 3/8"-16
  - #13182 SPRING LOCKWASHER 3/8"
- (2 PER TOP ANGLE)



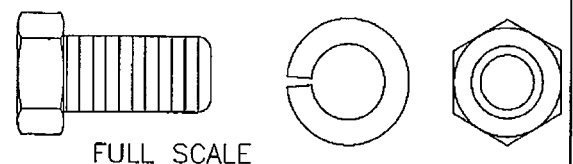
## 2b) MOUNTING RISER PANEL TO FLOOR ANGLE

### NOTE

WITH THE RISER PANEL FASTENED TO THE TOP ANGLE, RAISE LOWER END OF THE RISER PANEL FROM THE FLOOR AND FASTEN THE BASE ANGLE IN PLACE. AFTER INSTALLING STAIR TREADS MOVE BOLTS IN RISER PANEL TO MAKE BOTTOM STEP EQUAL TO OTHER STEPS. STAIRWAY IS TO BE ANCHORED TO THE FLOOR BUT NOT UNTIL STAIRWAY IS COMPLETELY ASSEMBLED. FLOOR ANCHORS ARE TO BE FURNISHED BY OTHERS.

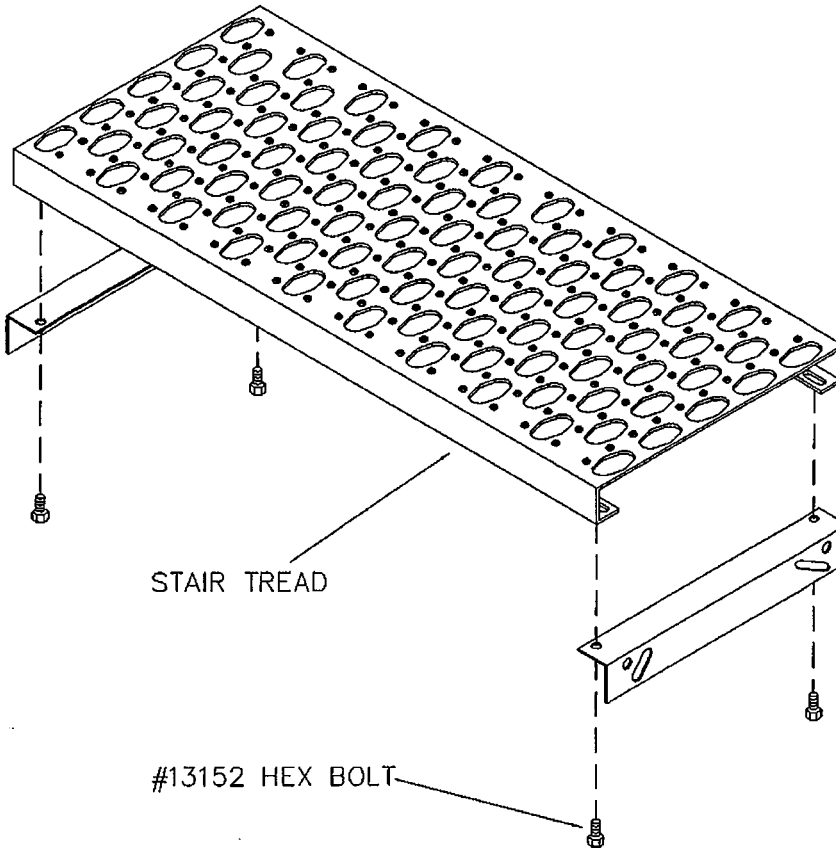


- #13188 HEX HEAD BOLT 3/8"-16 x 3/4"
  - #13191 HEX NUT 3/8"-16
  - #13182 SPRING LOCKWASHER 3/8"
- (2 PER FLOOR ANGLE)



# 3 STAIR TREAD ASSEMBLY

## 3a) STAIR TREAD AND SUPPORT ANGLE ASSEMBLY



#13152 HEX BOLT  
 5/16" -18 X 5/8"  
 #13051 LOCKNUT 5/16  
 (2 PER ANGLE)



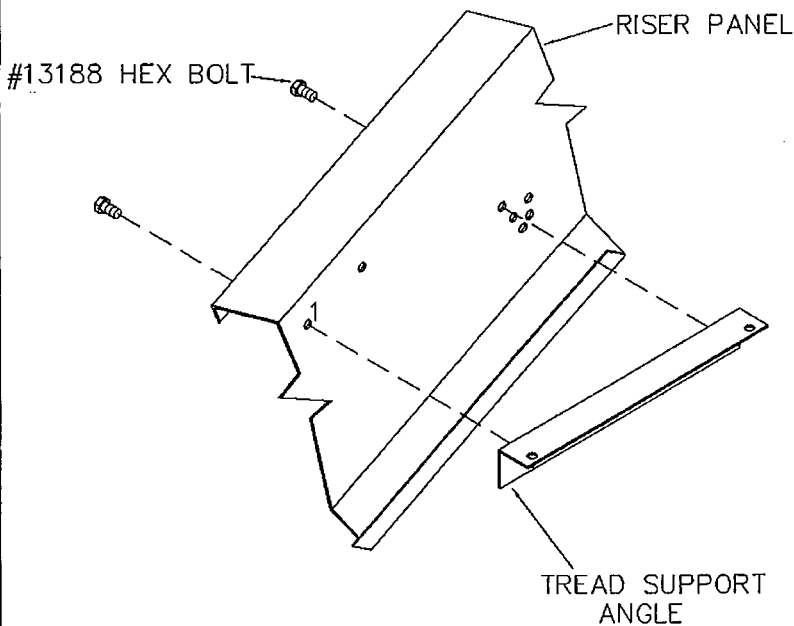
FULL SCALE

TREAD SUPPORT ANGLE  
 #17555 - 9-1/2" TREAD

### NOTE

TIGHTEN BOLTS SECURELY.

## 3b) FASTENING STAIR TREAD ASSEMBLY TO RISER



### NOTE

STAIR TREAD NOT SHOWN FOR CLARITY.  
 BOLT TREAD SUPPORT ANGLE TO HOLE  
 1 IN THE RISER PANEL. LEVEL TREAD  
 SUPPORT ANGLE AND BOLT THE OTHER  
 END OF ANGLE IN THIS POSITION.  
 DO NOT TIGHTEN TREADS UNTIL ALL  
 STAIR TREADS ARE IN PLACE.

#13188 HEX HEAD BOLT 3/8"-16 x 3/4"  
 #13191 HEX NUT 3/8"-16  
 #13182 SPRING LOCKWASHER 3/8"

(2 PER SUPPORT ANGLE)



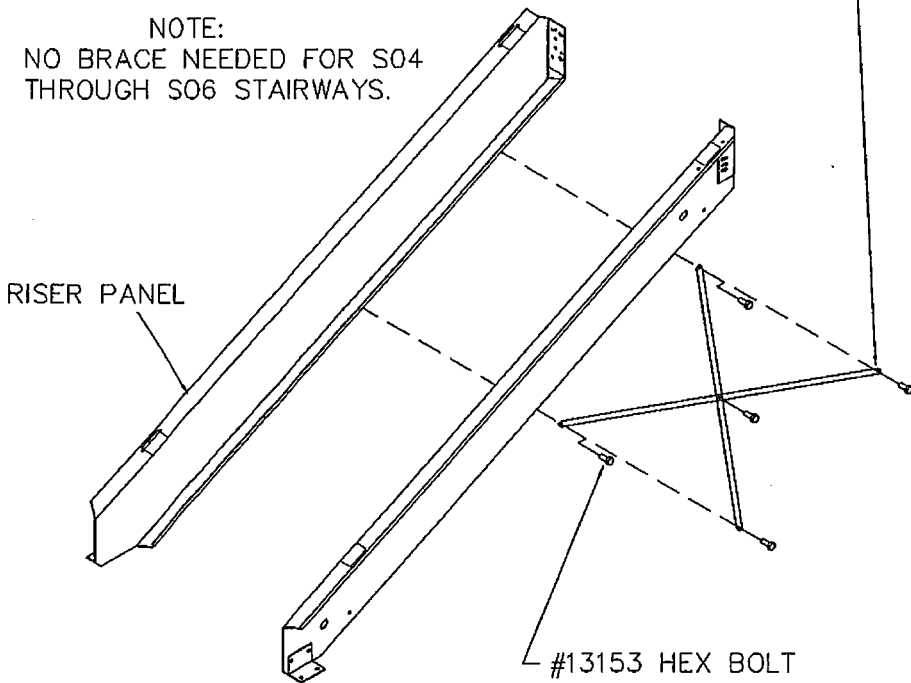
FULL SCALE

4

# SWAY BRACE ASSEMBLY

FOR S07 THROUGH S09 STAIRWAYS

NOTE:  
NO BRACE NEEDED FOR S04  
THROUGH S06 STAIRWAYS.



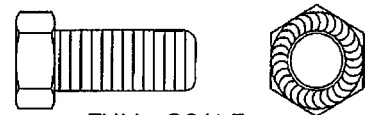
BRACE

- #6492 - 24" WIDE STAIRWAY
- #6493 - 30" WIDE STAIRWAY
- #6494 - 36" WIDE STAIRWAY
- #6459 - 48" WIDE STAIRWAY

NOTE

BOLT ONE PAIR OF BRACES IN THE  
SECOND AND FOURTH HOLE FROM  
THE TOP.  
TIGHTEN BOLTS SECURELY.

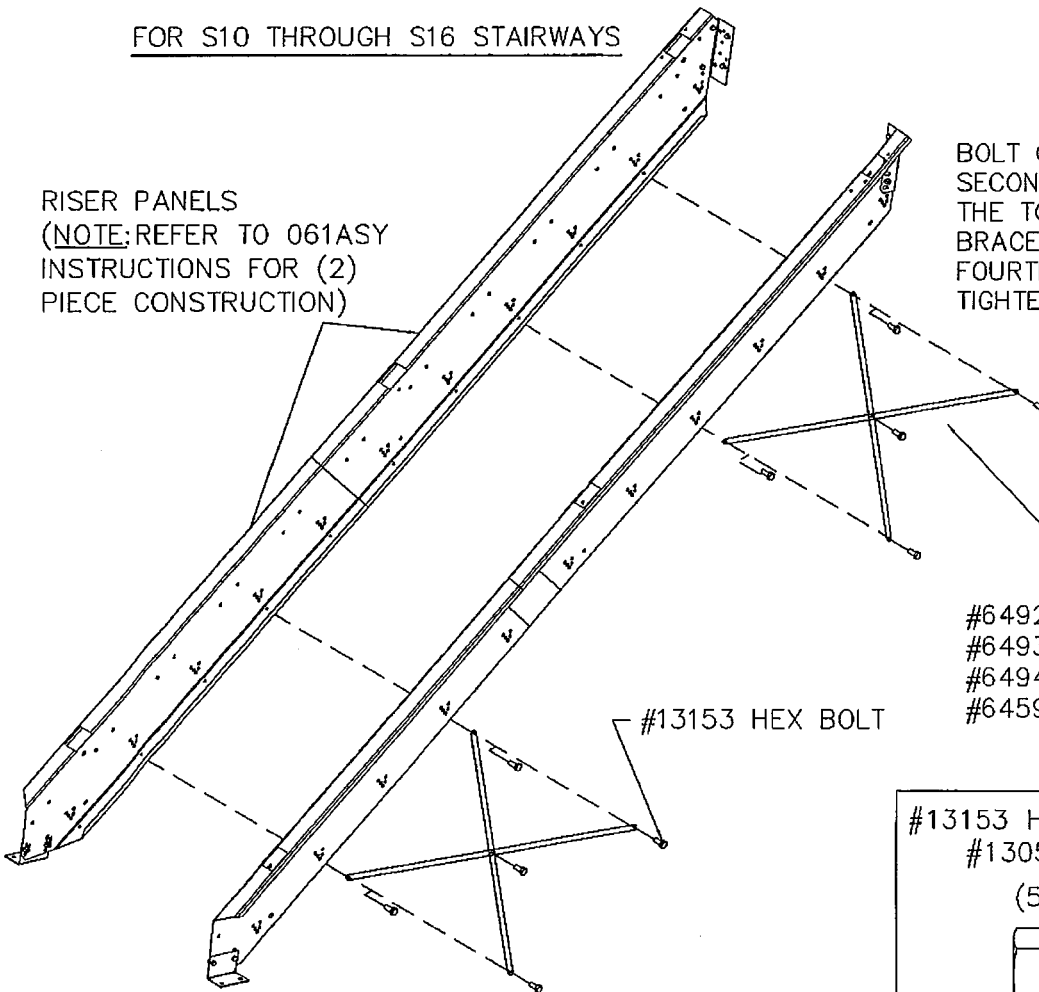
- #13153 HEX BOLT 5/16"-18 x 3/4"
- #13051 LOCK NUT 5/16-18
- (5 PER PAIR OF BRACES)



FULL SCALE

FOR S10 THROUGH S16 STAIRWAYS

RISER PANELS  
(NOTE: REFER TO 061ASY  
INSTRUCTIONS FOR (2)  
PIECE CONSTRUCTION)



NOTE

BOLT ONE PAIR OF BRACES IN THE  
SECOND AND FOURTH HOLE FROM  
THE TOP AND A SECOND PAIR OF  
BRACES IN THE SECOND AND  
FOURTH HOLE FROM THE BOTTOM.  
TIGHTEN BOLTS SECURELY.

BRACE

- #6492 - 24" WIDE STAIRWAY
- #6493 - 30" WIDE STAIRWAY
- #6494 - 36" WIDE STAIRWAY
- #6459 - 48" WIDE STAIRWAY

- #13153 HEX BOLT 5/16"-18 x 3/4"
- #13051 LOCK NUT 5/16-18
- (5 PER PAIR OF BRACES)



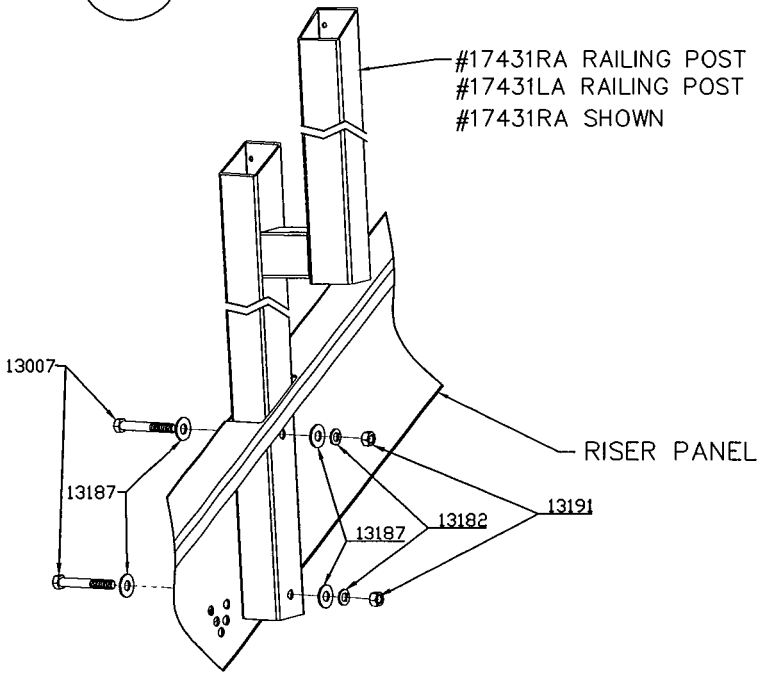
FULL SCALE

# STAIR RAILING ASSEMBLY

## 1 RAILING POST ASSEMBLY

### NOTE

INSERT POST THRU SLOT IN RISER PANEL SO THAT THE HOLES IN THE TOP OF THE POST ARE FACING TOWARD TOP OF THE STAIRWAY AND THE EXTENSIONS ARE TO THE OUTSIDE OF THE STAIRWAY.  
 BOLT POSTS TO RISER PANEL AS SHOWN.  
 DO NOT TIGHTEN THESE BOLTS UNTIL COMPLETE RAIL IS ASSEMBLED.

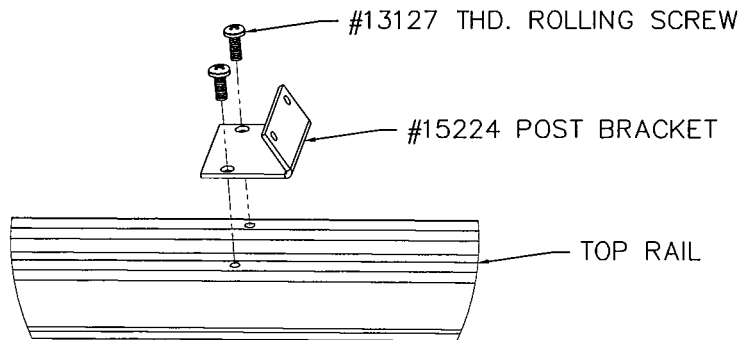


#13007 HEX HEAD BOLT 3/8"-16 x 2 3/4"  
 #13191 HEX NUT 3/8"-16  
 #13182 SPRING LOCKWASHER 3/8"  
 #13187 FLAT WASHER 3/8" (2 PER BOLT)

FULL SCALE

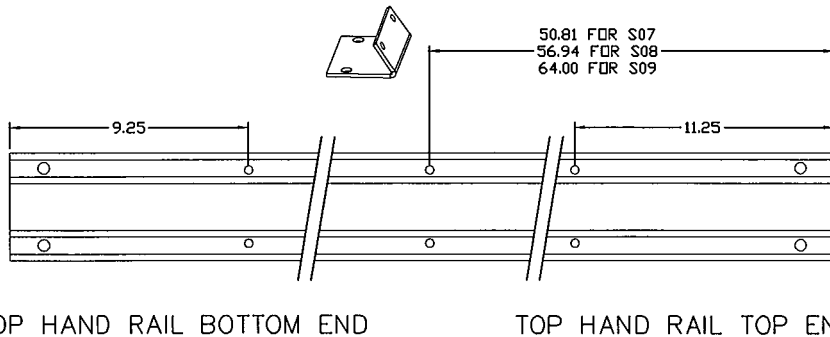
## 2 TOP HAND RAIL ASSEMBLY

2a) FOR S04 THROUGH S09 STAIRWAYS  
POST BRACKET ASSEMBLY TO TOP HAND RAILS

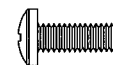


### NOTE

INSTALL BRACKET SO IT POINTS TOWARD TOP END OF RAIL.  
 TIGHTEN BOLTS SECURELY.



#13127 #8-32 X 7/16 PH. PAN HEAD THRD ROLLING SCREW (2 PER ASSEMBLY)



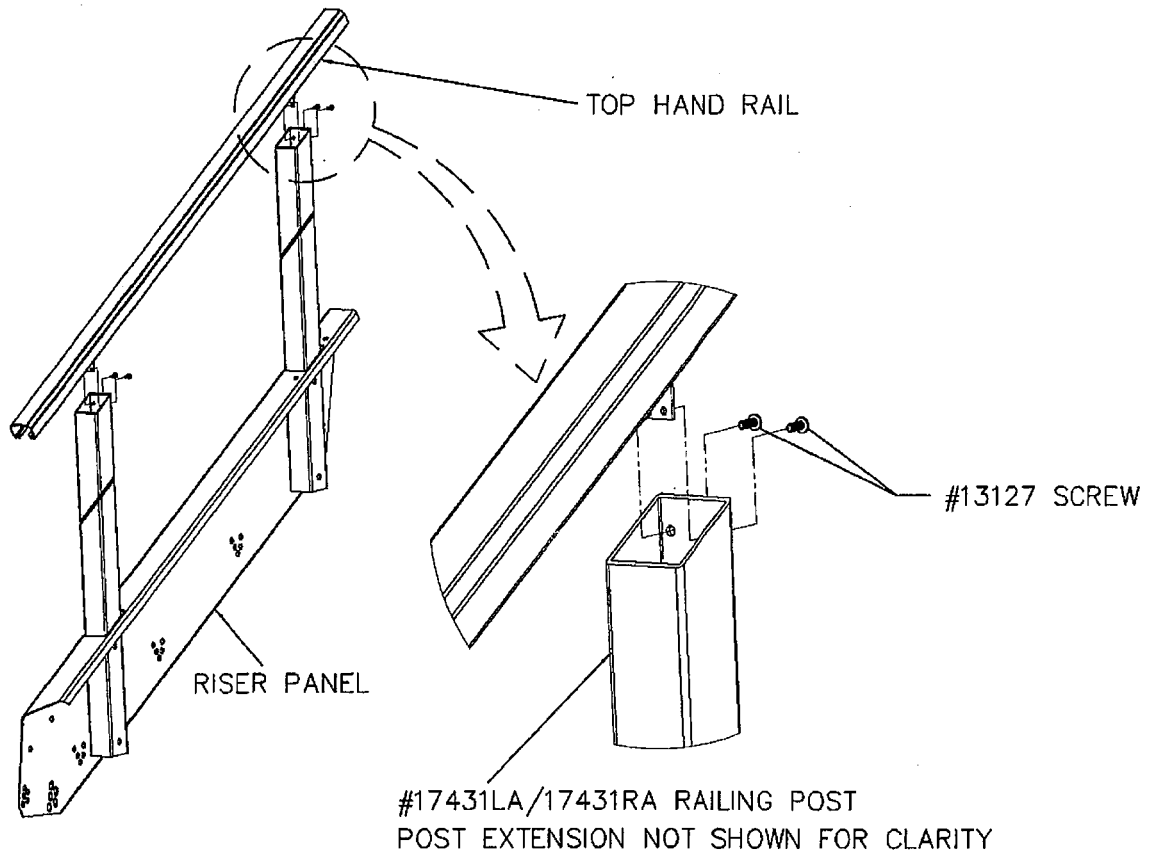
FULL SCALE



TOP HAND RAILING ASSEMBLY TO VERTICAL POSTS

NOTE

BE SURE ALL POST BRACKETS ARE FASTENED  
SECURELY TO TOP RAIL. LOWER TOP RAIL  
OVER TOPS OF POSTS WITH BRACKETS  
INSIDE. FASTEN IN PLACE SECURELY.



#13127 #8-32 X 7/16 PH. PAN  
HEAD THRD ROLLING SCREW  
(2 PER ASSEMBLY)



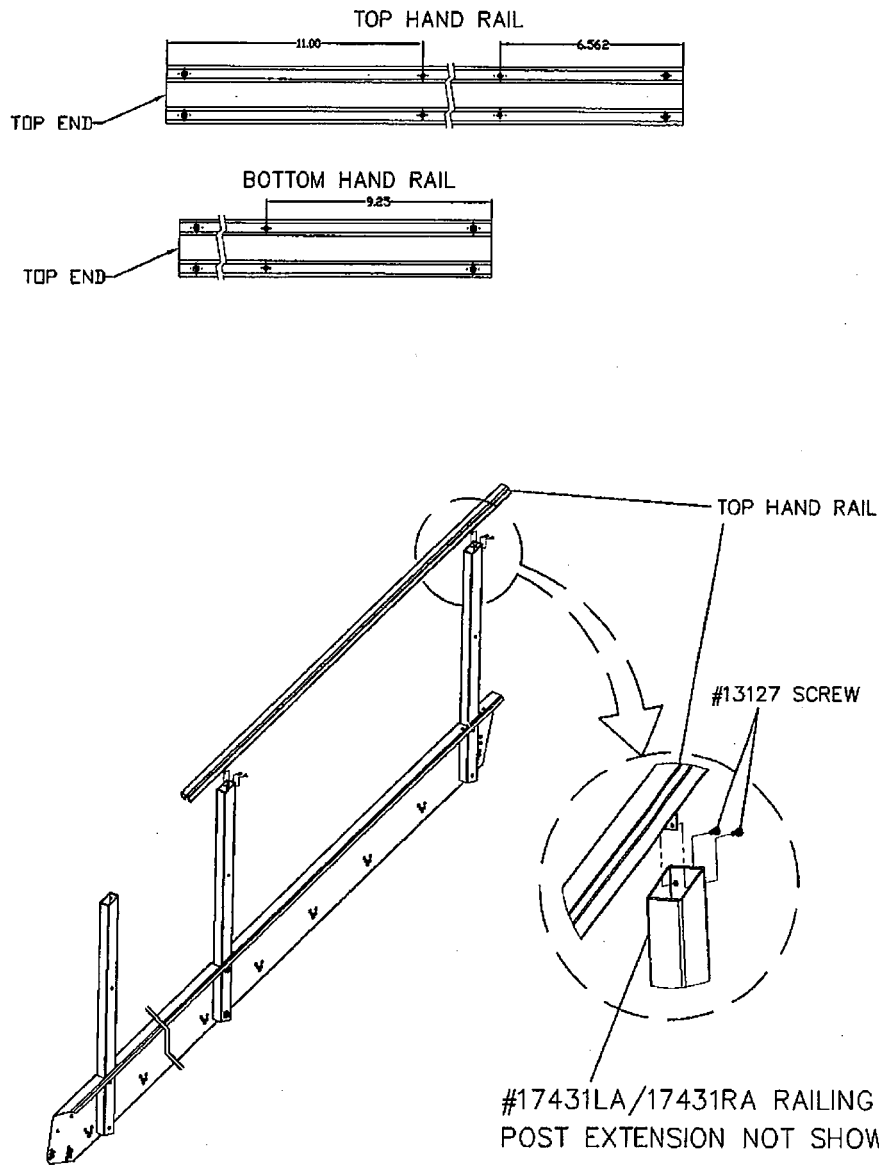
FULL SCALE

## 2b) FOR S10 THROUGH S11 STAIRWAYS

### TOP HAND RAIL ASSEMBLY TO VERTICAL POST

#### NOTE

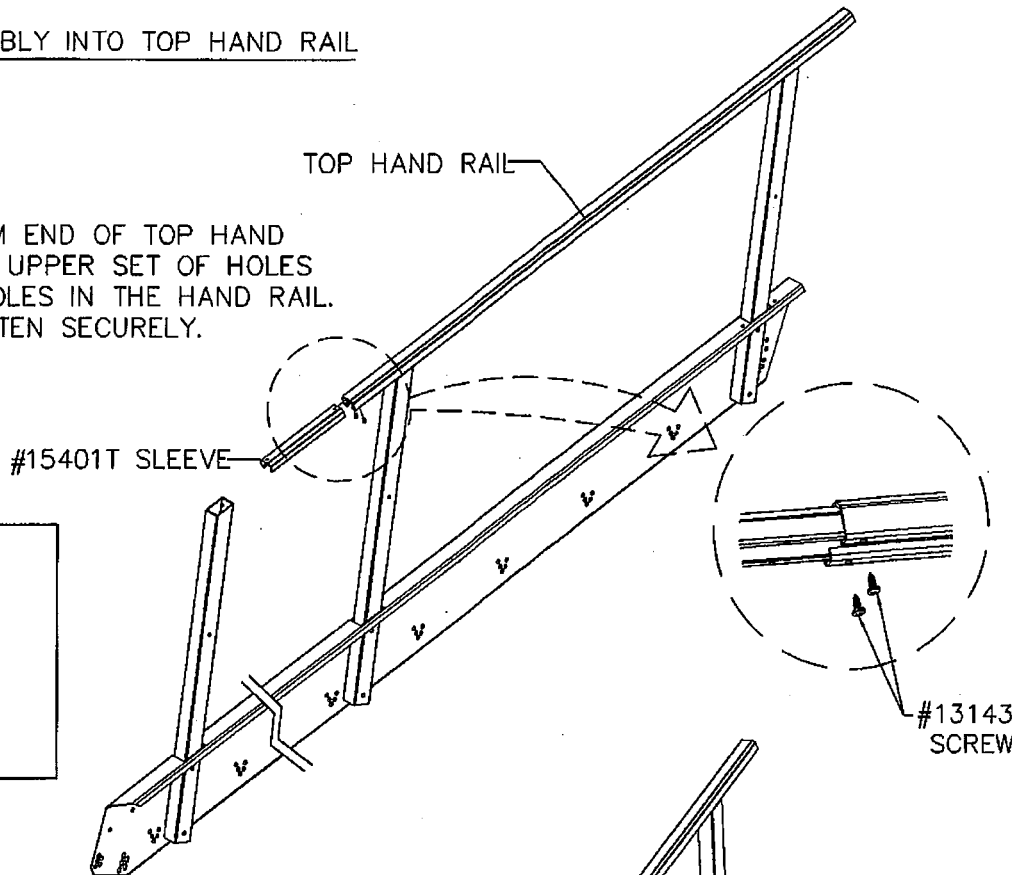
ASSEMBLE POST BRACKET TO TOP HAND RAIL  
IN THE SAME WAY AS SHOWN AT STEP 2a.  
MAKE SURE ALL BRACKETS ARE TIGHTENED  
SECURELY TO TOP HAND RAIL AND FASTEN  
THE RAIL TO POSTS AS SHOWN.



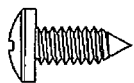
SLEEVE ASSEMBLY INTO TOP HAND RAIL

NOTE

INSERT SLEEVE INTO BOTTOM END OF TOP HAND RAIL AS SHOWN. ALIGN THE UPPER SET OF HOLES IN THE SLEEVE WITH THE HOLES IN THE HAND RAIL. FASTEN IN PLACE AND TIGHTEN SECURELY.



#13143 PH. PAN HD SHEET METAL SCREW #10-24 X 1/2" (4 PER SLEEVE)

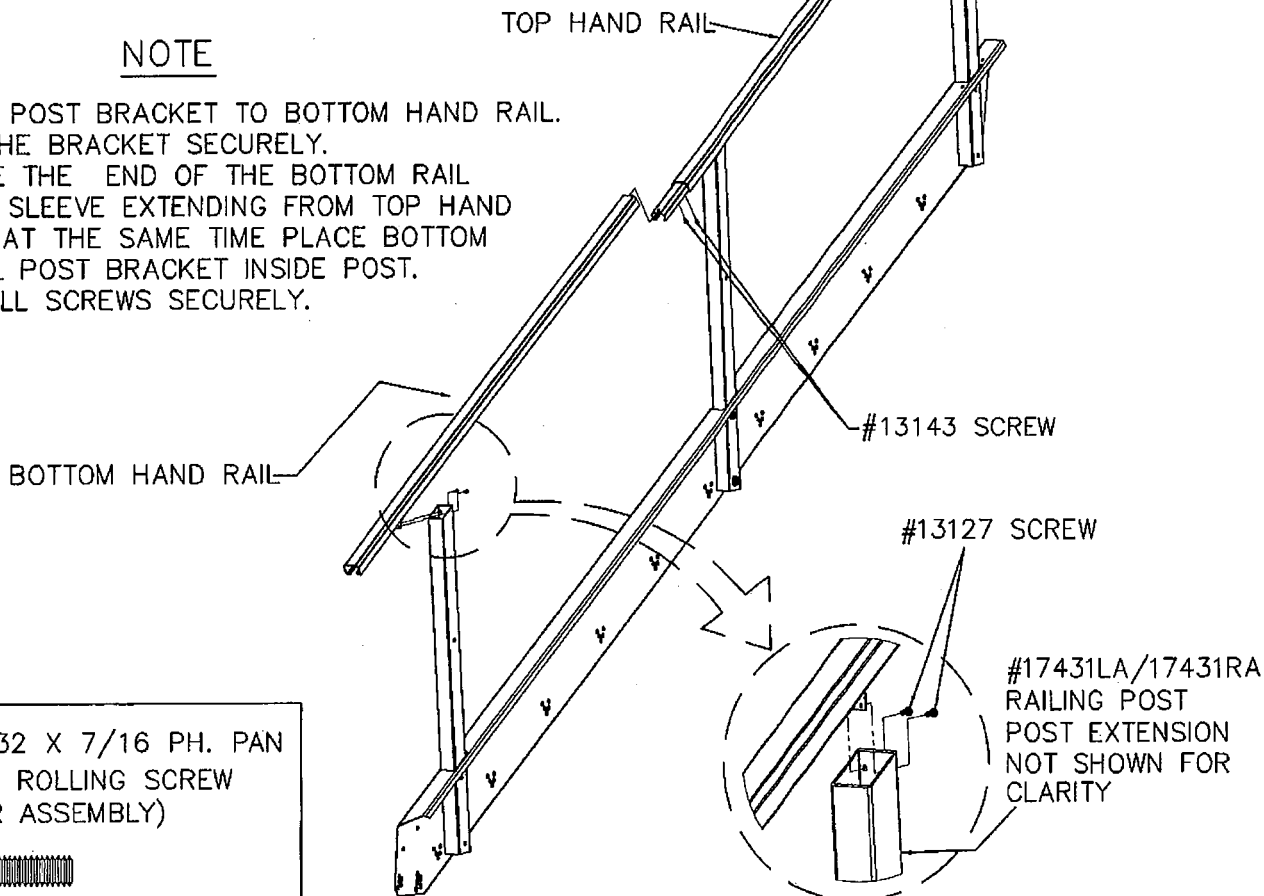


FULL SCALE

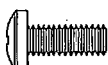
BOTTOM HAND RAIL ASSEMBLY TO VERTICAL POST

NOTE

ASSEMBLE POST BRACKET TO BOTTOM HAND RAIL. TIGHTEN THE BRACKET SECURELY. TELESCOPE THE END OF THE BOTTOM RAIL OVER THE SLEEVE EXTENDING FROM TOP HAND RAIL AND AT THE SAME TIME PLACE BOTTOM HAND RAIL POST BRACKET INSIDE POST. TIGHTEN ALL SCREWS SECURELY.



#13127 #8-32 X 7/16 PH. PAN HEAD THRD ROLLING SCREW (2 PER ASSEMBLY)



FULL SCALE

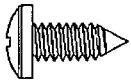
# 2c) FOR S12 THROUGH S16 STAIRWAYS

## HAND RAIL ASSEMBLY TO VERTICAL POST

### NOTE

ASSEMBLE POST BRACKETS TO TOP HAND RAIL AND ASSEMBLE TOP HAND RAIL TO POSTS AS SHOWN AT STEP 2b. ASSEMBLE SLEEVE INTO BOTTOM END OF TOP HAND RAIL AS SHOWN AT STEP 2b. ASSEMBLE POST BRACKET TO MIDDLE RAIL AS SHOWN AT STEP 2b. TELESCOPE THE END OF THE MIDDLE RAIL OVER THE SLEEVE EXTENDING FROM TOP HAND RAIL AND AT THE SAME TIME PLACE MIDDLE RAIL POST BRACKET INSIDE THE POST. TIGHTEN ALL SCREWS SECURELY.

#13143 PH. PAN HD SHEET METAL SCREW  
#10-24 X 1/2"  
(4 PER SLEEVE)



FULL SCALE

#13127 #8-32 X 7/16 PH. PAN HEAD THRD ROLLING SCREW  
(2 PER ASSEMBLY)



FULL SCALE

#15401T SLEEVE  
10" LONG

MIDDLE HAND RAIL

TOP HAND RAIL

#13143 SCREW

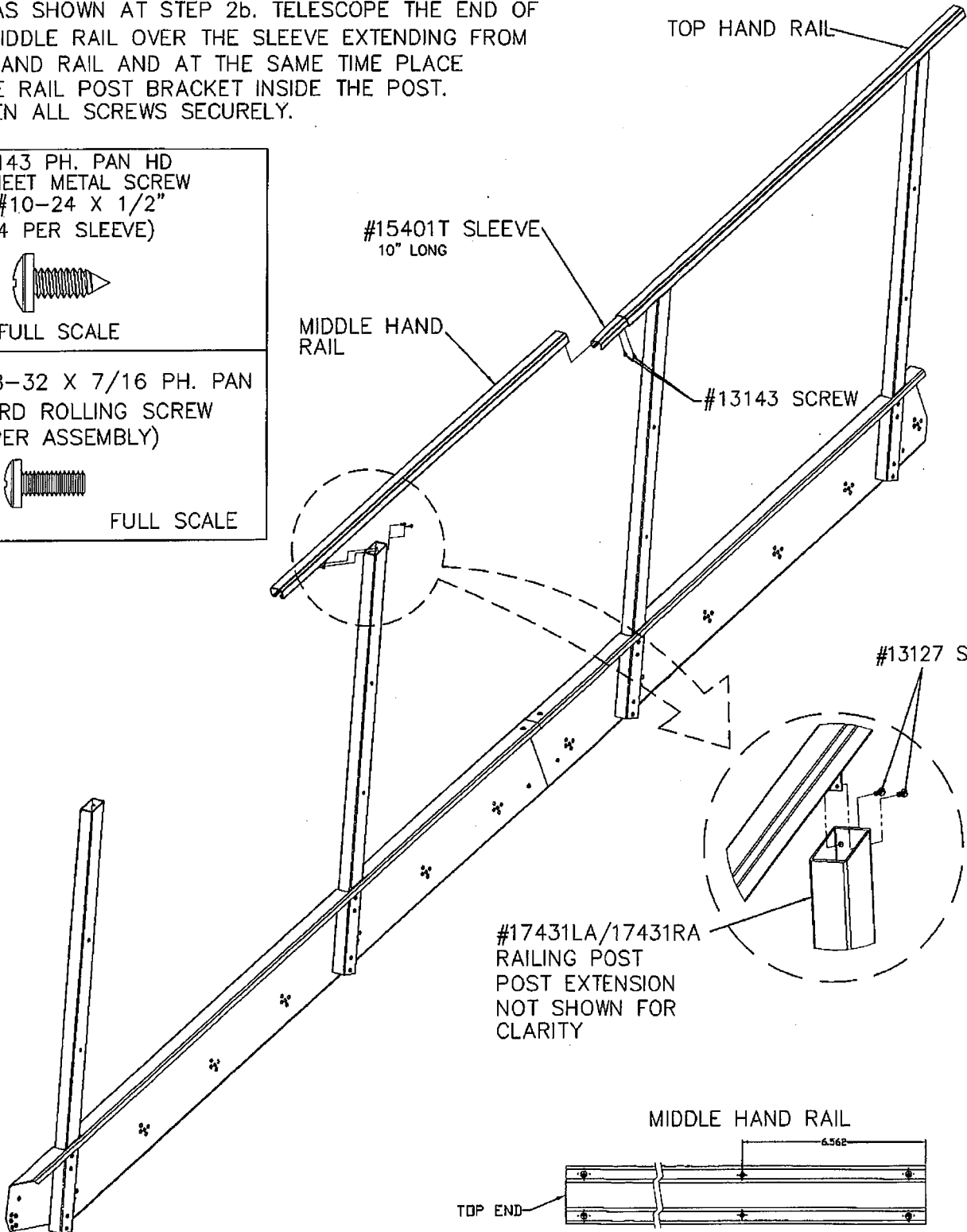
#13127 SCREW

#17431LA/17431RA RAILING POST  
POST EXTENSION  
NOT SHOWN FOR CLARITY

MIDDLE HAND RAIL



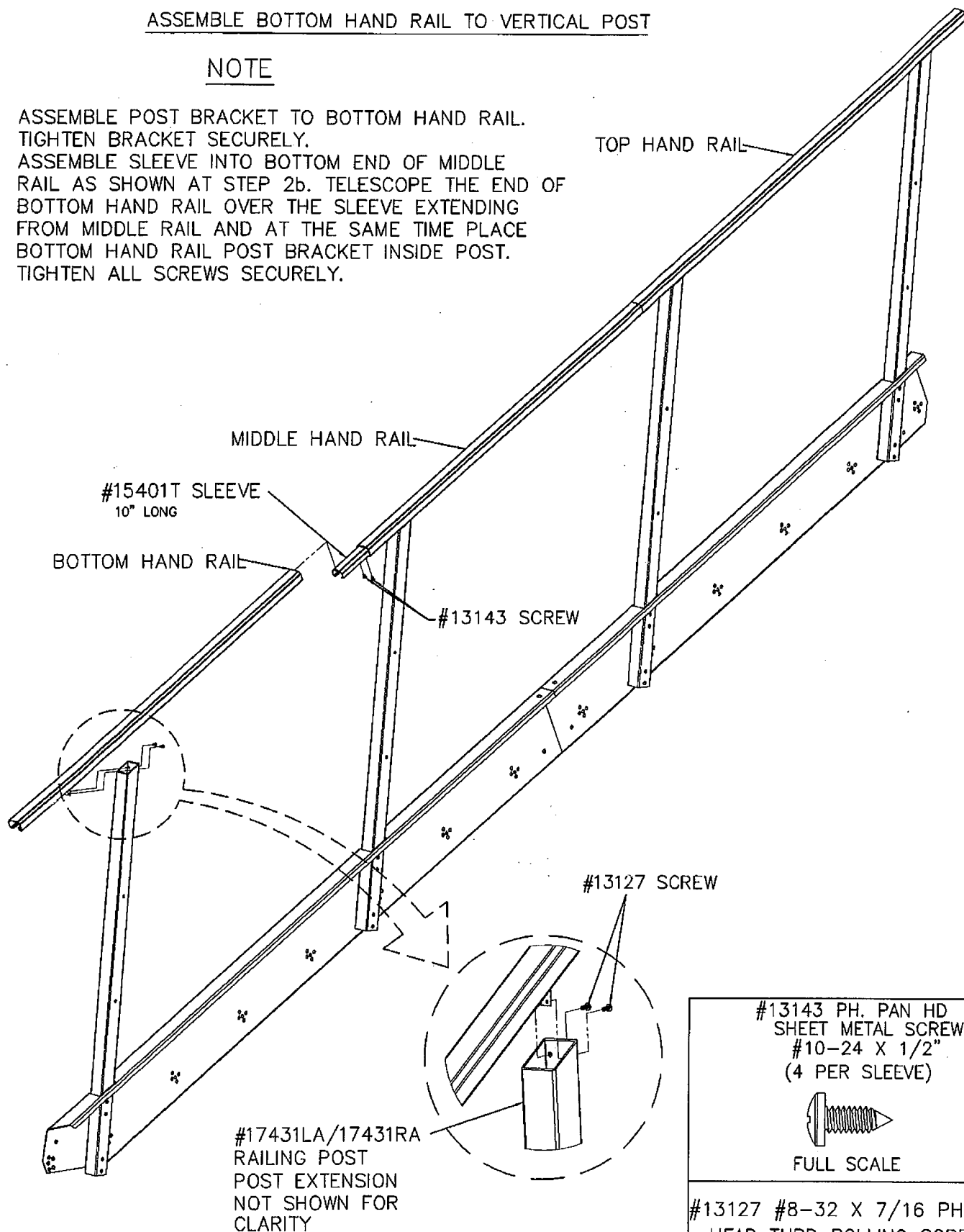
SEE STEP 2b FOR TOP AND BOTTOM RAIL DIMENSIONS

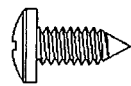



ASSEMBLE BOTTOM HAND RAIL TO VERTICAL POST

NOTE

ASSEMBLE POST BRACKET TO BOTTOM HAND RAIL.  
 TIGHTEN BRACKET SECURELY.  
 ASSEMBLE SLEEVE INTO BOTTOM END OF MIDDLE  
 RAIL AS SHOWN AT STEP 2b. TELESCOPE THE END OF  
 BOTTOM HAND RAIL OVER THE SLEEVE EXTENDING  
 FROM MIDDLE RAIL AND AT THE SAME TIME PLACE  
 BOTTOM HAND RAIL POST BRACKET INSIDE POST.  
 TIGHTEN ALL SCREWS SECURELY.



<p>#13143 PH. PAN HD                  SHEET METAL SCREW                  #10-24 X 1/2"                  (4 PER SLEEVE)</p>  <p>FULL SCALE</p>
<p>#13127 #8-32 X 7/16 PH. PAN                  HEAD THRD ROLLING SCREW                  (2 PER ASSEMBLY)</p>  <p>FULL SCALE</p>

# 3 INTERMEDIATE AND END RAIL ASSEMBLY

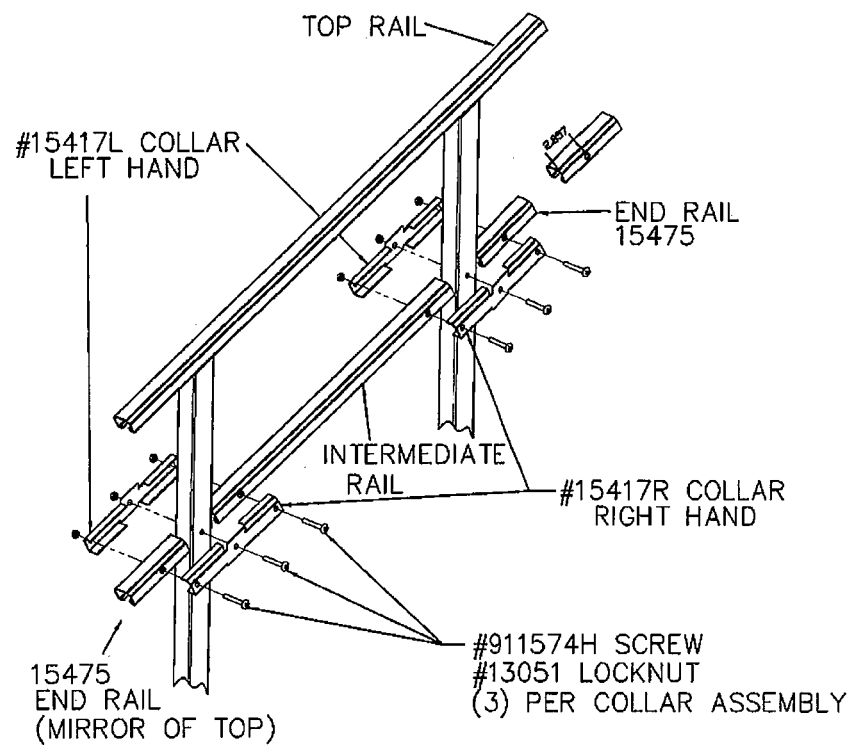
3a) FOR S04 THROUGH S06 STAIRWAYS

### NOTE

RISER NOT SHOWN FOR CLARITY.  
INSERT ALL BOLTS WITH THE HEAD  
TOWARD THE INSIDE OF THE STAIRWAY.  
DO NOT TIGHTEN FASTENERS UNTIL  
ALL BOTTOM AND END RAILS HAVE  
BEEN INSTALLED.

### NOTE

SEE CHARTS ON PAGE 18-20  
FOR TOP AND BOTTOM RAILING LENGTHS  
AND SEQUENCE OF ASSEMBLY

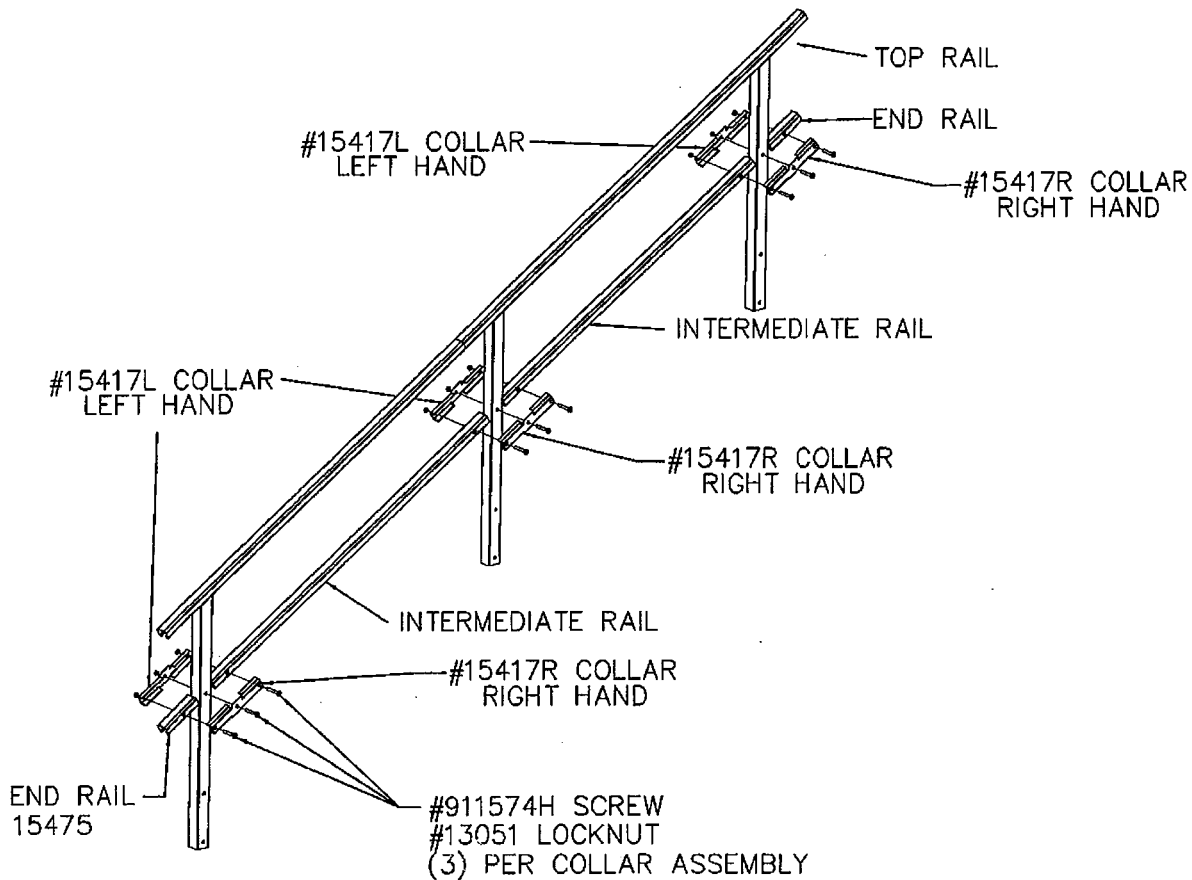


#911574H TRUSS HD MACH SCREW  
5/16" - 18 X 2 1/2"  
#13051 LOCKNUT  
5/16" - 18  
(3 PER PAIR OF COLLARS)

FULL SCALE

# 3 INTERMEDIATE AND END RAIL ASSEMBLY

3b) FOR S07 THROUGH S11 STAIRWAYS  
 S12 THRU S16 STAIRWAYS WILL  
 HAVE (4) POST LOCATIONS



## NOTE

RISER AND POST EXTENSIONS NOT SHOWN FOR CLARITY.  
 INSERT ALL BOLTS WITH THE HEAD TOWARD THE INSIDE OF THE STAIRWAY.  
 DO NOT TIGHTEN FASTENERS UNTIL ALL BOTTOM AND END RAILS HAVE BEEN INSTALLED.

#911574H TRUSS HD MACH SCREW  
 5/16" - 18 X 2 1/2"  
 #13051 LOCKNUT  
 5/16" - 18  
 (3 PER PAIR OF COLLARS)



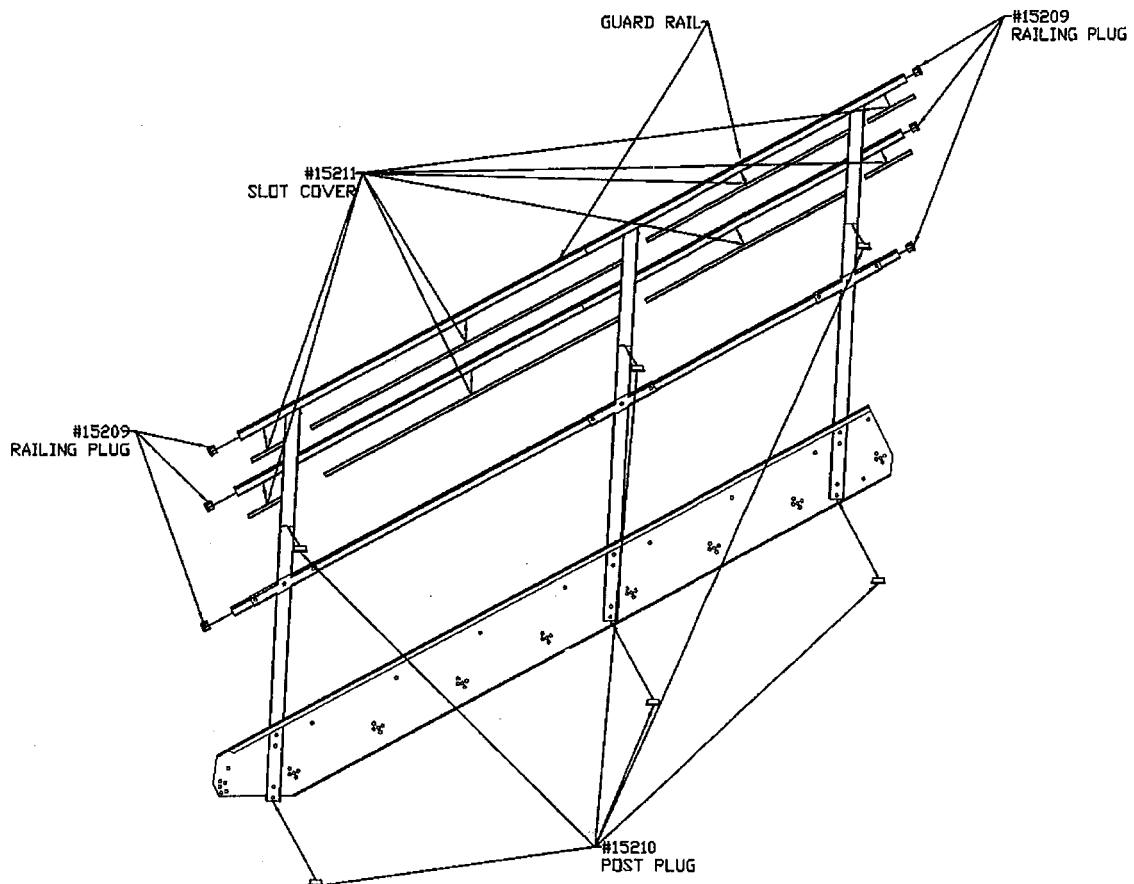
FULL SCALE

# GUARD RAIL, RAILING PLUG, POST PLUG AND SLOT COVER ASSEMBLY

4

## 1) GUARD RAIL ASSEMBLY

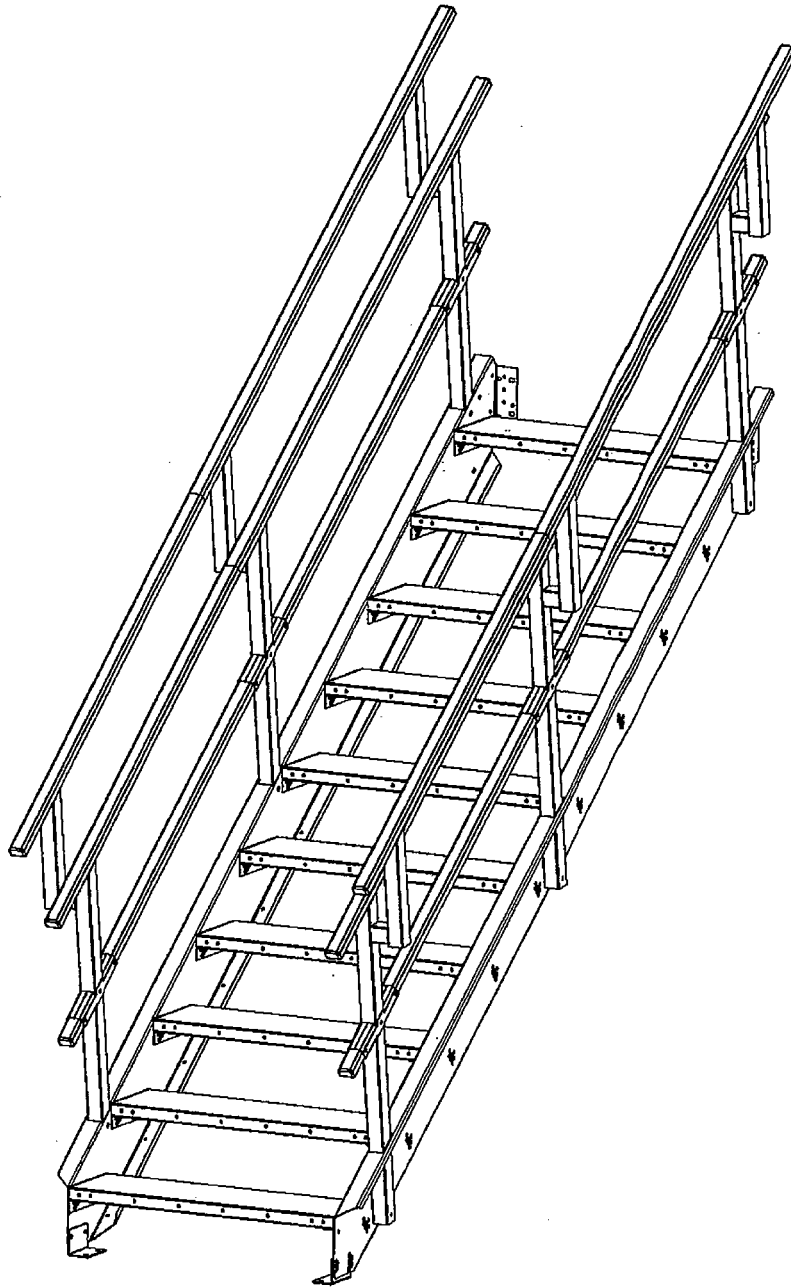
INSTALL THE GUARD RAIL TO THE POST EXTENSIONS IN THE SAME MANNER  
AS THE HANDRAIL ASSEMBLY FOR THE RESPECTIVE STAIRWAY (PAGES 8 THRU 13)



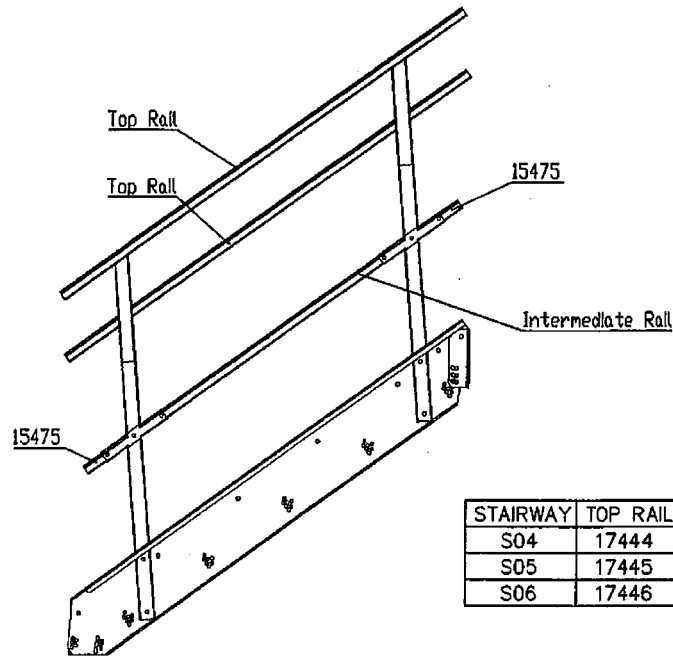
## 2) RAIL PLUG, POST PLUG AND SLOT COVER ASSEMBLY

INSTALL RAILING PLUGS AT THE TOP AND BOTTOM OF THE GUARD RAIL, HAND RAIL AND  
MIDRAIL EXTENSIONS.  
INSTALL POST PLUGS IN BOTTOM OF POST EXTENSIONS AND IN VISIBLE BOTTOM ENDS OF THE  
RAILING POSTS.  
FIELD CUT SLOT COVER AND INSTALL IN THE TOP HAND RAIL AND GUARD RAILS ONLY.



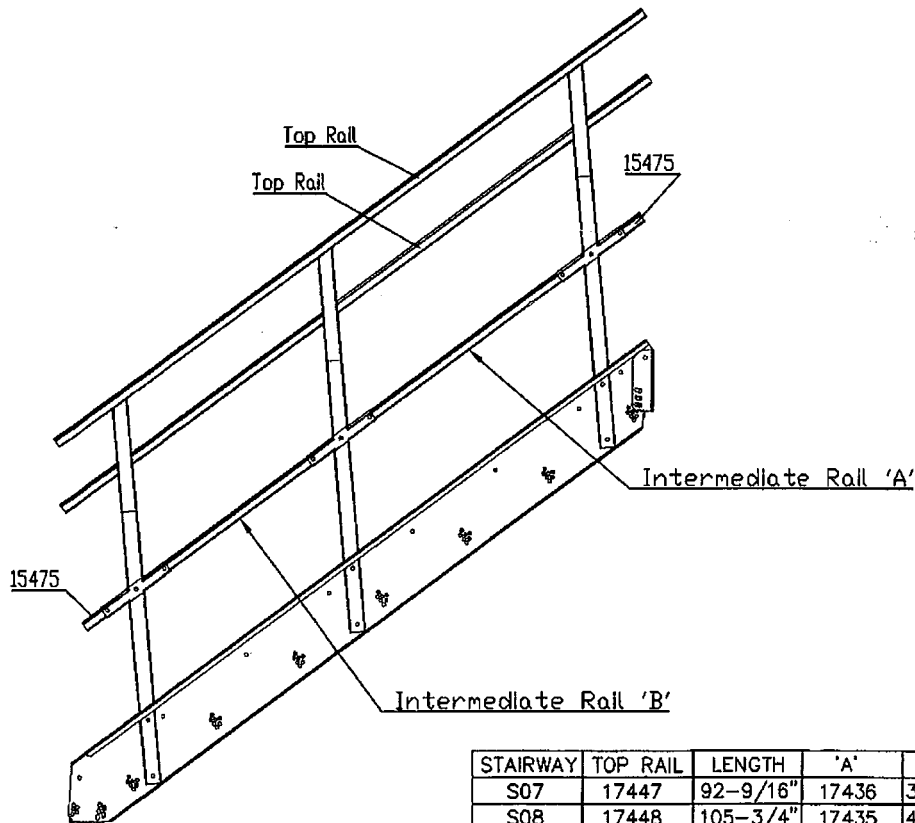


## S04-S06 RAILING CHART



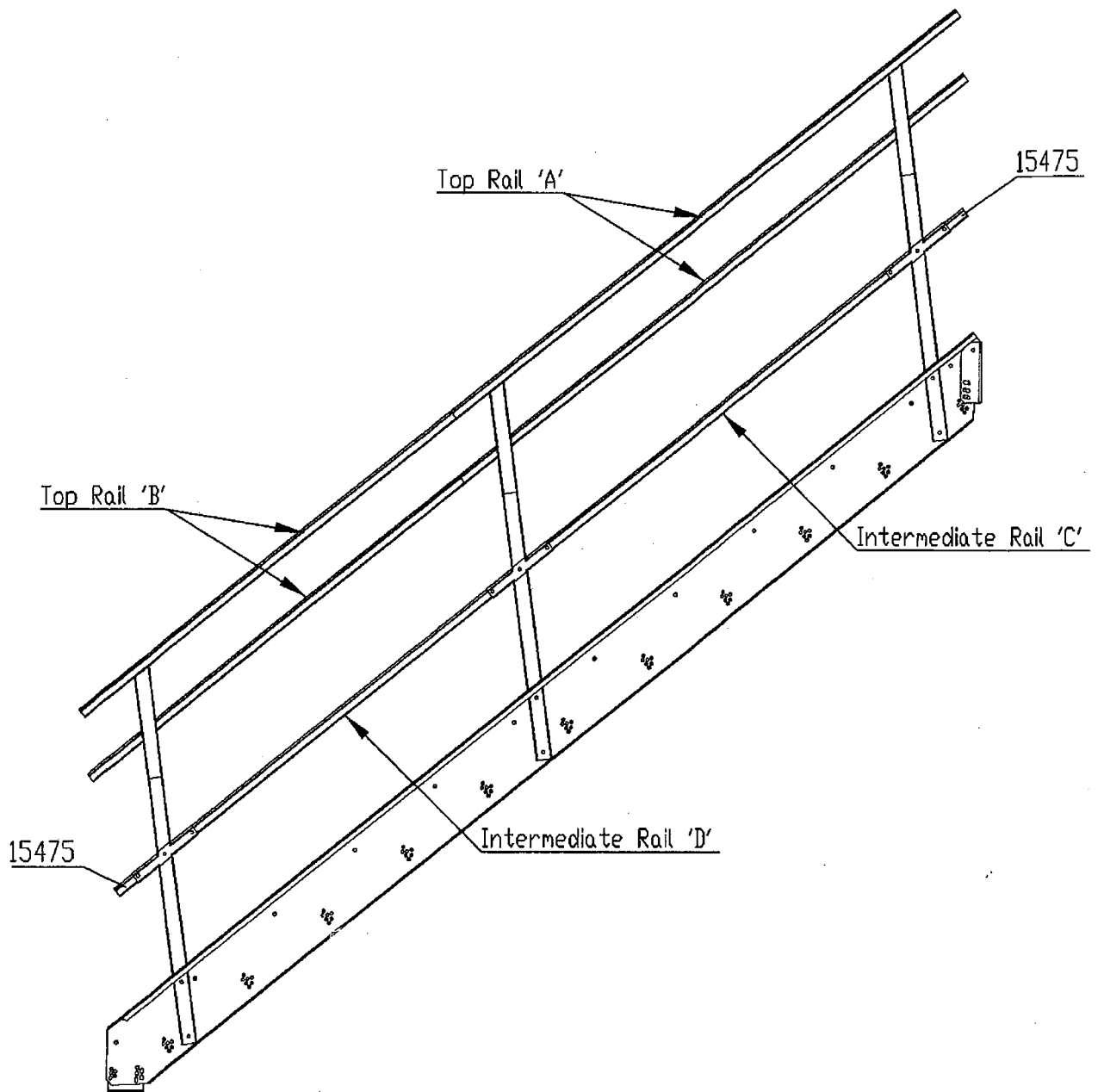
STAIRWAY	TOP RAIL	LENGTH	INTER. RAIL	LENGTH
S04	17444	53"	17434	29-3/32"
S05	17445	66-3/16"	17435	42-9/32"
S06	17446	79-1/4"	17441UR	55-5/16"

## S07-S09 RAILING CHART



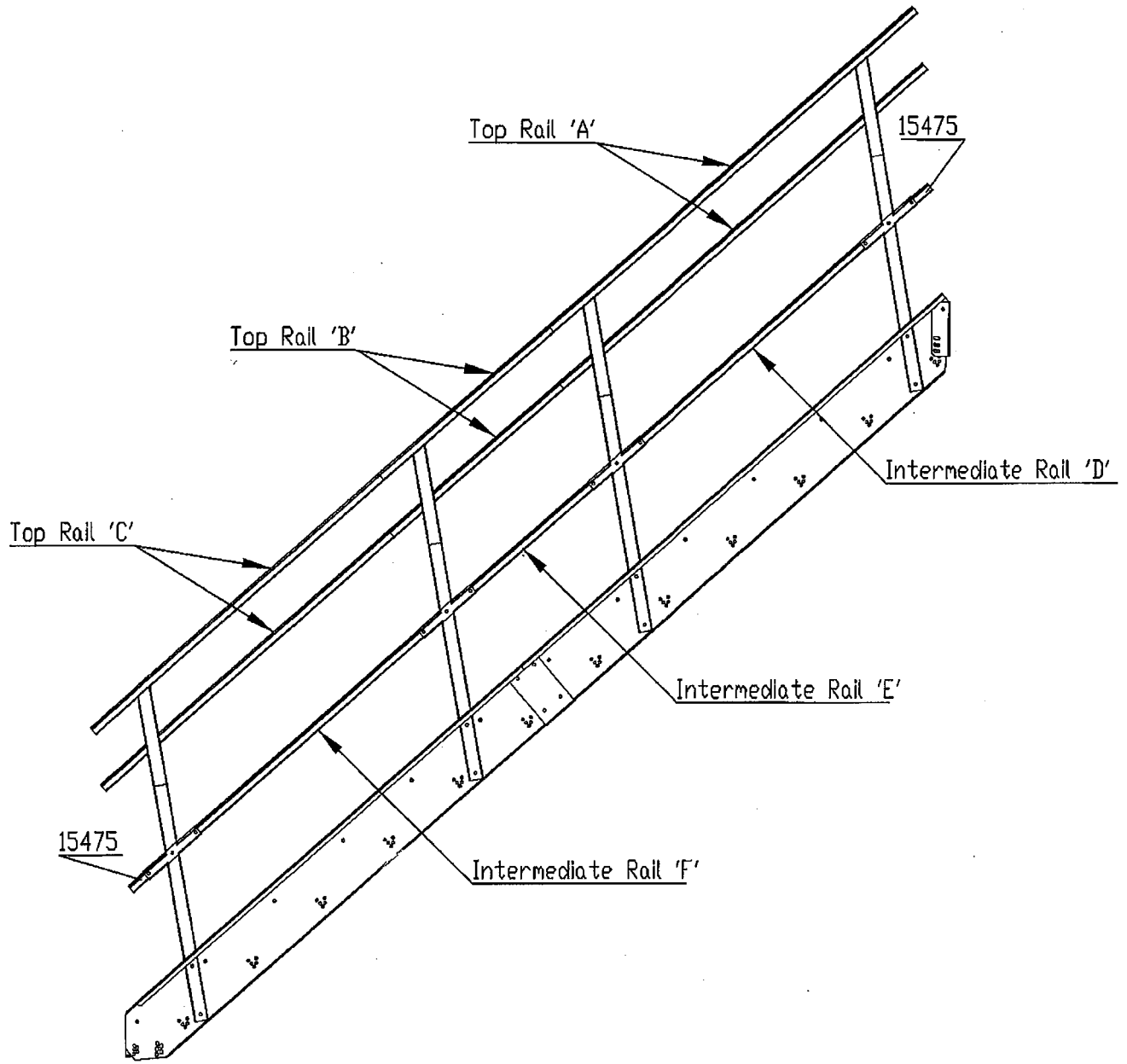
STAIRWAY	TOP RAIL	LENGTH	'A'	LENGTH	'B'	LENGTH
S07	17447	92-9/16"	17436	36-5/32"	17434	29-3/32"
S08	17448	105-3/4"	17435	42-9/32"	17436	36-5/32"
S09	17449	118-15/16"	174BOLR	49-11/32"	17435	42-9/32"

# S10-S11 RAILING CHART



Stairway	'A'	Length	'B'	Length	'C'	Length	'D'	Length
S10	17451UR	76-19/32'	17451LR	55-7/16'	17441UR	55-5/16'	17480LR	49-11/32'
S11	17453UR	83-1/2'	17452LR	61-13/32'	17437UR	62-17/32'	17441UR	55-5/16'

# S12-S16 RAILING CHART



Stairway	'A'	Length	'B'	Length	'C'	Length	'D'	Length	'E'	Length	'F'	Length
S12	17452UR	70-5/16'	17483MR	32-31/64'	17451LR	55-7/16'	17480LR	49-11/32'	17434	29-3/32'	17480LR	49-11/32'
S14	17451UR	76-19/32'	17484MR	52-3/4'	17451LR	55-7/16'	17441UR	55-5/16'	17480LR	49-11/32'	17480LR	49-11/32'
S16	17453UR	83-1/2'	17485MR	58-3/4'	17485LR	68-5/8'	17437UR	62-17/32'	17441UR	55-5/16'	17437UR	62-17/32'