

CABLE RACKS - ASSEMBLY
 TUBULAR CHANNEL OR SOLID STRINGER CONSTRUCTION
 BSP 800-614-157 - FIGURES 2 THROUGH 30

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1. GENERAL

1.1 Scope

1.11 This section covers methods and requirements for the fabrication of cable rack and BSP 800-614-157, Figures 2 through 30.

1.12 The requirements covered in this section shall be followed except as modified by specifications and drawings furnished the job.

1.13 Refer to Section 13A, Figure 1A to identify the cable rack type.

1.2 Associated Information

1.21 General information pertaining to workmanship, definition of terms, general requirements for the assembly, and location of equipment and other information of a general nature will be found in the "General" sections of this Handbook.

1.22 Reference should also be made to specifications and cabling, cable rack, and auxiliary framing drawings furnished the job.

2. ASSEMBLY OF CABLE RACK CLAMPING DETAILS

2.1 Clamping details commonly used on bar - and ladder - type cable rack are shown in Figures 2 through 12 inclusive.

3. USE OF TUBULAR EXTENSIONS

3.1 Flat tubular extensions P-30A018 arranged to fit over the vertical ends

of the cross straps as shown in Figure 16A are available for increasing the capacity of the channel-, bar-, and angle-type over-aisle cable racks only. 840372304 Finishing Caps shall be placed on the extensions and secured with 401682380 Adhesive Cement at "T" intersections.

3.2 Extension sleeves shall be installed at all T-intersections of bar-type over-aisle cable racks on the ends of the cross straps on both sides of the intersections as shown in Figures 17C, 17G, 18A and 19A.

3.3 When a loose fit between the extension sleeve and the horn is encountered, the installer shall slightly crimp the sleeve using gas pliers.

4. CABLE RACK JUNCTIONS ARE FORMED AS FOLLOWS:

4.1 Splices (See Notes 1 and 2)

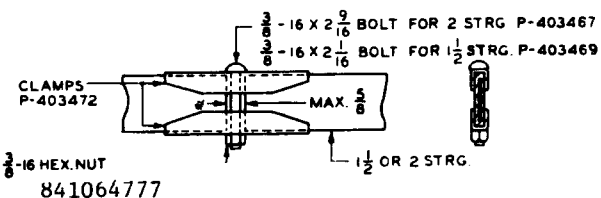


FIG. 2 STRAIGHT CLAMP FOR STRINGERS OF SAME WIDTH (PARS. 2.1, 4.1, 4.4)
 (BSP 800-614-157 FIG. 2)

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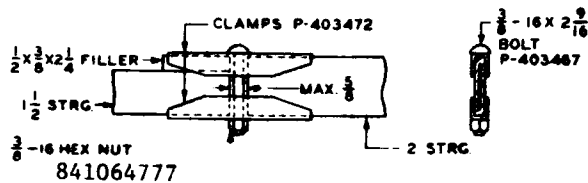


FIG. 3 STRAIGHT CLAMP FOR STRINGERS OF DIFFERENT WIDTHS (PARS. 2.1, 4.1, 4.4) (BSP 800-614-157 FIG. 3)

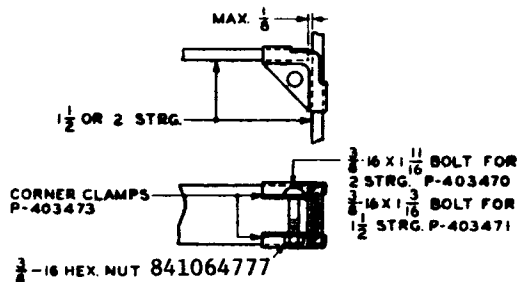


FIG. 4 CORNER CLAMP FOR STRINGERS OF SAME WIDTH (PAR. 2.1) (BSP 800-614-157 FIG. 4)

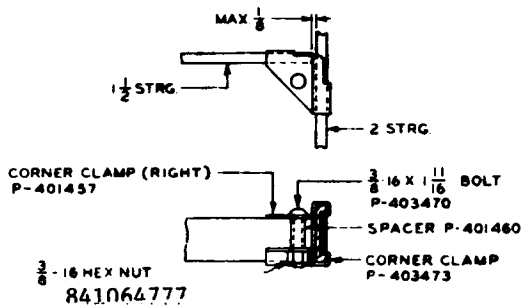


FIG. 5 CORNER CLAMP FOR STRINGERS OF DIFFERENT WIDTHS (LEFT) (PAR. 2.1) (BSP 800-614-157 FIG. 5)

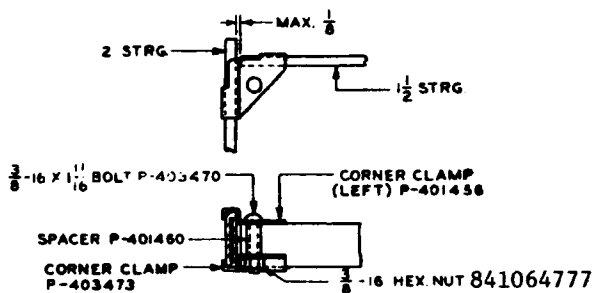


FIG. 6 CORNER CLAMP FOR STRINGERS OF DIFFERENT WIDTHS (RIGHT) (PAR. 2.1) (BSP 800-614-157 FIG. 6)

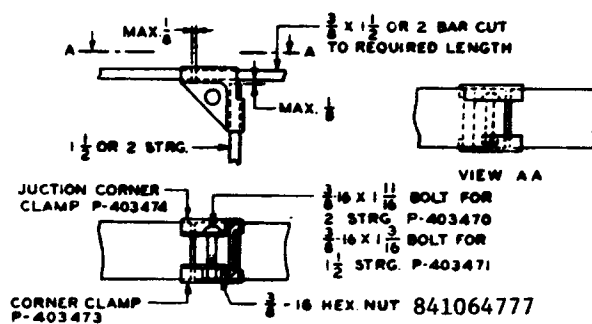


FIG. 7 JUNCTION CORNER CLAMP FOR STRINGERS OF SAME WIDTH (LEFT) (PAR. 2.1) (BSP 800-614-257 FIG. 7)

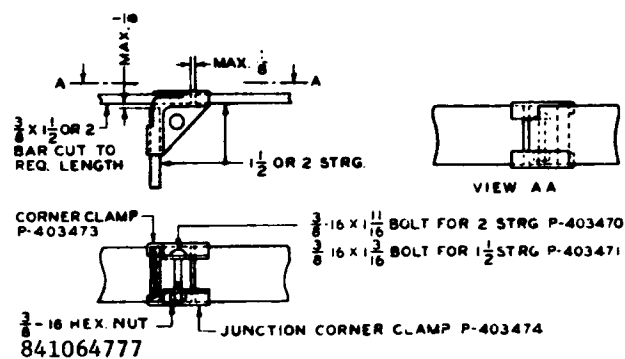


FIG. 8 JUNCTION CORNER CLAMP FOR STRINGERS OF SAME WIDTH (RIGHT) (PAR. 2.1) (BSP 800-614-157 FIG. 8)

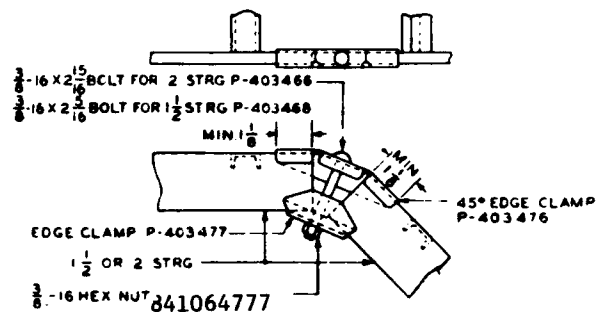


FIG. 9 45-DEGREE EDGE CLAMP FOR OUTSIDE TURN (PAR. 2.1) (BSP 800-614-157 FIG. 9)

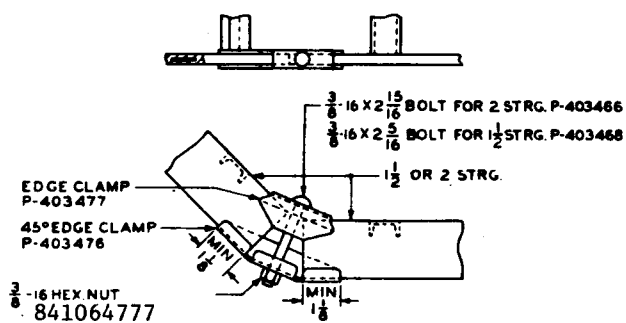


FIG. 10 45-DEGREE EDGE CLAMP FOR INSIDE TURN (PAR. 2.1)
(BSP 800-614-157 FIG. 10)

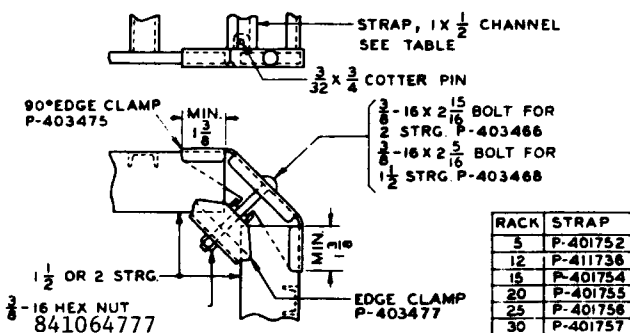


FIG. 11 90-DEGREE EDGE CLAMP FOR OUTSIDE TURN (PAR. 2.1)
(BSP 800-614-157 FIG. 11)

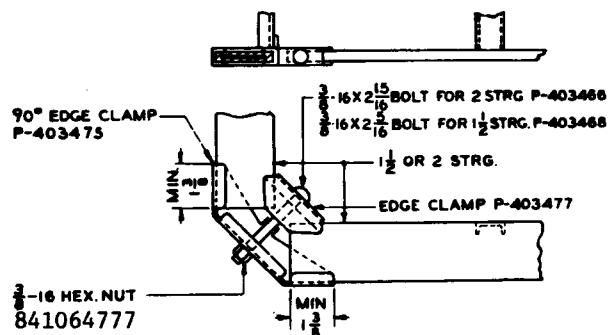


FIG. 12 90-DEGREE CLAMP FOR INSIDE TURN (PAR. 2.1)
(BSP 800-614-157 FIG. 12)

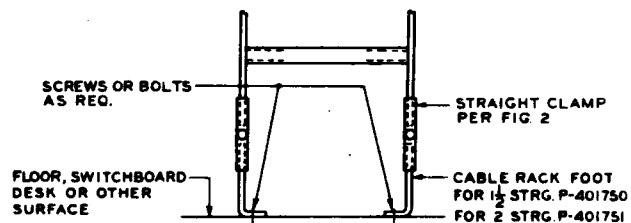


FIG. 13 SECURING END OF VERTICAL RACK (PAR. 4.5)
(BSP 800-614-157 FIG. 13)

Figure	Type of Junction
16D	Bar-type to channel-type over aisle cable rack
20A	Bar-type to ladder-type cable rack of the same width
21A	Bar-type to wider ladder-type cable rack
22A	Bar-type to narrower ladder-type cable rack
23	Bar-type or ladder-type cross-aisle to ladder-type cable rack-smaller rack in center
24	Bar-type or ladder-type cross-aisle to ladder-type cable rack-smaller rack at one side

NOTE 1: In general, use the longest length of sections and the fewest parts practicable in assembling cable racks. Not more than one splice should be placed between any two adjacent points of support on horizontal runs. A splice shall not be used beyond the last point of support when the end of a rack extends beyond the last point of support in cantilever fashion.

NOTE 2: Joining two or more sections of rack on the floor and then hoisting them into position, either manually or by means of rope hoists, may be found advantageous.

4.2 T-Intersections

Figure	Note	Type of Junction (*A&M Only)
17C	2,3,5,6,7,8,9,10,11	Bar-type over-aisle to bar-type cross-aisle cable rack
17D*	3,5,6,7,8	Bar-type over-aisle to angle-type cross-aisle cable rack
17E*	3,5,6,7,8	Channel-type over-aisle to bar-type and ladder type cross-aisle cable rack
17F*	2,4,5,7,8	Bar-type over-aisle to bar-type cross-aisle cable rack
17G	2,4,5,7,8,9,10,11	Bar-type over-aisle to bar-type cross-aisle cable rack-full length plates
17H	4,5,9	Bar-type over frame to bar-type cross-aisle cable rack-full length plates
18A	2,3,6,7,8,9,10,11	Bar-type over-aisle to ladder-type cable rack
19A	2,5,7,8,9,10,11	Ladder-type to bar-type over-aisle or cross cable rack
27		Ladder-type to ladder-type cable rack

NOTE 2: Corner clamps as used in Figures 17C, 17F, 17G, 18A and 19A may be assembled on the inside corners of the junctions instead of on the outside as shown, where necessary to avoid interference with other clamps or with cable rack stringers or straps.

NOTE 3: Ceiling Supported Lighting: Figures 17C, 17D, 17E and 18A bar-type cross-aisle racks run at same level as frame aisle rack.

NOTE 4: Frame Supported and Track Integrated Lighting: Figures 17F, 17G and 17H bar-type cross-aisle racks run at a level 2" above the auxiliary framing.

NOTE 5: If required, a portion of the metal plates covering the bottom of bar-type cross-aisle cable rack may be cut away across its entire width as covered in Handbook 8 under "Bulk and Shop Formed Wire and Cable".

NOTE 6: On No. 5 Crossbar jobs, where ceiling supported lighting is furnished, the cross-aisle cable rack should be located by the dimensions shown on the cabling, cable rack and auxiliary framing plan drawing. This should result in the cross-aisle rack being located under the blank sections of the fluorescent lighting runs. Where following the dimensions on the drawing does not result in the cross-aisle racks being centered under the blank sections, the racks should be shifted until they are centered under the blank sections.

NOTE 7: On a No. 5 Crossbar job, where bar-type cable rack is fastened to low-type auxiliary framing, care should be taken to avoid having the cable rack straps cover the space between the pairs of bars or channels at points where ladder track supports are to be installed. This will eliminate interference between the cable rack straps and ladder track support bolts.

NOTE 8: In No. 5 Crossbar and similar installations the cable racks adjacent to conduit runs at the main cross-aisle shall have the horns of the cable racks located no closer than 3" to the side of the auxiliary framing which runs between the cable rack and conduit.

NOTE 9: To protect cabling at T-intersections of bar-type cable racks and cross-aisle racks, finishing cap, P-30H094 and 401682380 Adhesive Cement shall be installed on the ends of all cross straps which project within the T-intersection area as shown in Figures 17C, 17D, 17E, 17F, 17G, 17H and 18A.

NOTE 10: Flat tubular extensions P-30A01B and Finishing Cap 840372304 shall be arranged to fit over the vertical ends of the across strap as shown in Figure 16A for increasing the capacity to the channel-, bar- and angle-type over-aisle cable racks only. To permanently secure finishing cap to sleeve, Adhesive Cement 401682380 shall be added to finishing cap prior to placing it over sleeve.

NOTE 11: Extension sleeve shall be installed at all T-intersections of bar-type over-aisle cable rack on the ends of the cross straps on both sides of the intersections as shown in Fig. 17C, 17G, 18A and 19A.

4.3 Offsets - Ladder-Type Cable Rack

Figure	Note	Type of Junction
28	1	Small offset in same plane (See Note)
28A	2	Small horizontal offset with 2" vertical offset between racks
29	1	Offset in same plane, same as width of rack (See Note)
30	1	Large offset in same plane (See Note)

NOTE 1: Figures 28, 29 and 30 may be used vertically in shafts where appearance is not a factor.

NOTE 2: Ladder-type cable racks over the rear of channel-type step-by-step frames supported by 11'-6" auxiliary framing should be junctioned to ladder type cable racks over the front of bulb-angle or channel-type step-by-step frames supported by 11'-8" auxiliary framing as shown in Figure 28A.

4.4 Turns, Ladder-type Cable Rack

Figure	Type of Junction
26	90 degrees, in same plane

4.5 Terminations

Figure	Note	Type of Junction
13	1	Vertical ladder-type cable rack terminated at floors, tops of switchboards, etc.
25		Closing end of bar-type or ladder cable rack at junctions and offsets only.
25C	2	Closing end of bar-type or ladder-type cable rack with rubber bumpers.

NOTE 1: The cable rack feet in Figure 13 may be turned out if the foot of the rack is enclosed and space permits.

NOTE 2: Where bar-type cable rack is terminated with rubber bumpers the sheet metal plate should be moved back so that it terminates at the last cross strap.

4.6 Cable Racks at Cable Holes (See Note 1) and in Cable Shafts (See Note 2)

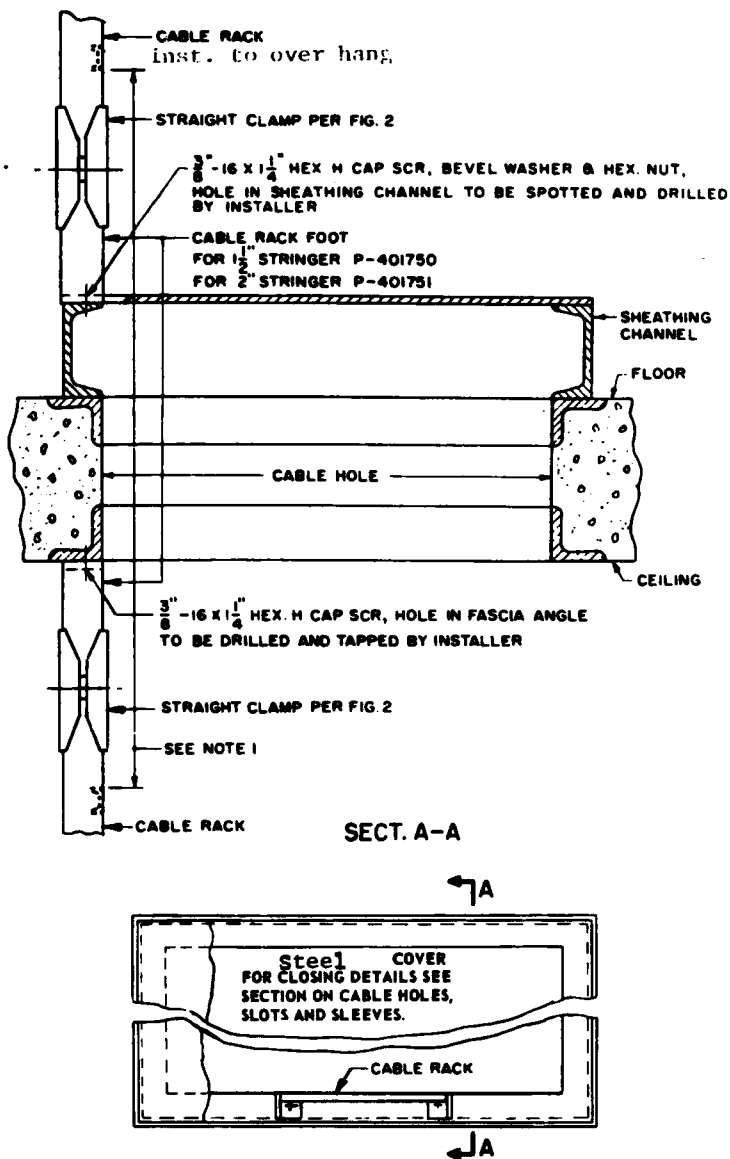
Figure	Type of Junction *(A & M Only)
13A	Vertical Cable Rack Terminated at Cable Hole-Channel-Type Sheathing
13B	Vertical Cable Rack Terminated at Cable Hole-Angle-Type Sheathing
13C*	Cable Rack Passing Through Floor at Switchboard or Desk Cable Turning Section
13D	Typical Support of Cable Rack in Cable Shaft

NOTE 1: Where the cable run passes through the floor under a switchboard or desk cable turning section and then turns horizontal, the vertical portion of the cable rack shall be supported as shown in the typical illustration in Figure 13C. Where the cable run does not turn horizontal after passing through the floor under the cable turning section, but continues through one or more floors, the cable rack shall be supported in the cable hole under the section as shown typically in Figure 13C and at the floor below and all subsequent floors as shown in Figures 13A or 13B.

NOTE 2: Vertical cable racks used to support cables in shafts shall be supported in the shaft at each floor and ceiling level at the cable rack supporting framework as shown in Fig. 13D which illustrates a typical application.

5. VERIFICATION ITEMS

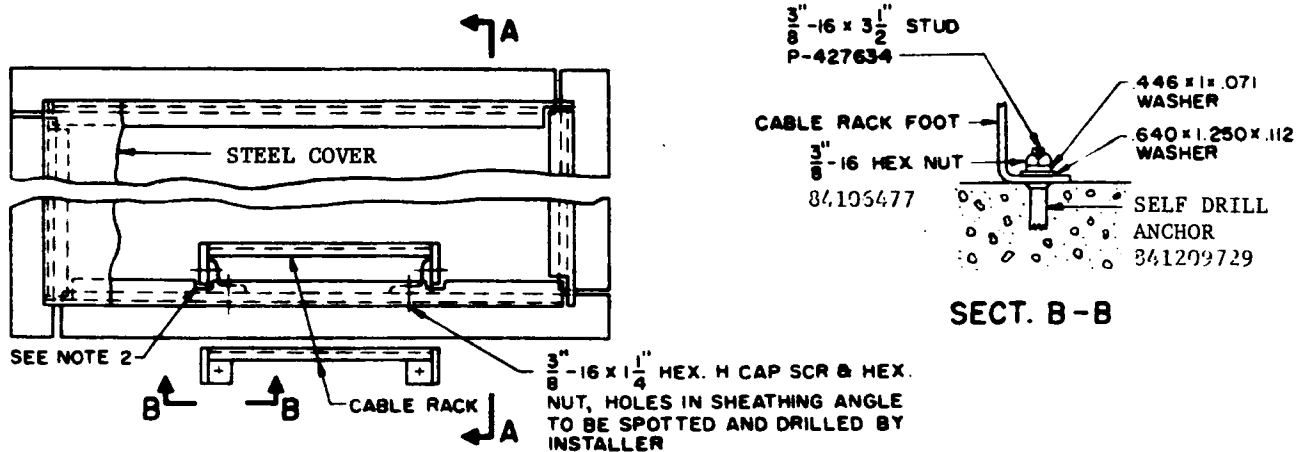
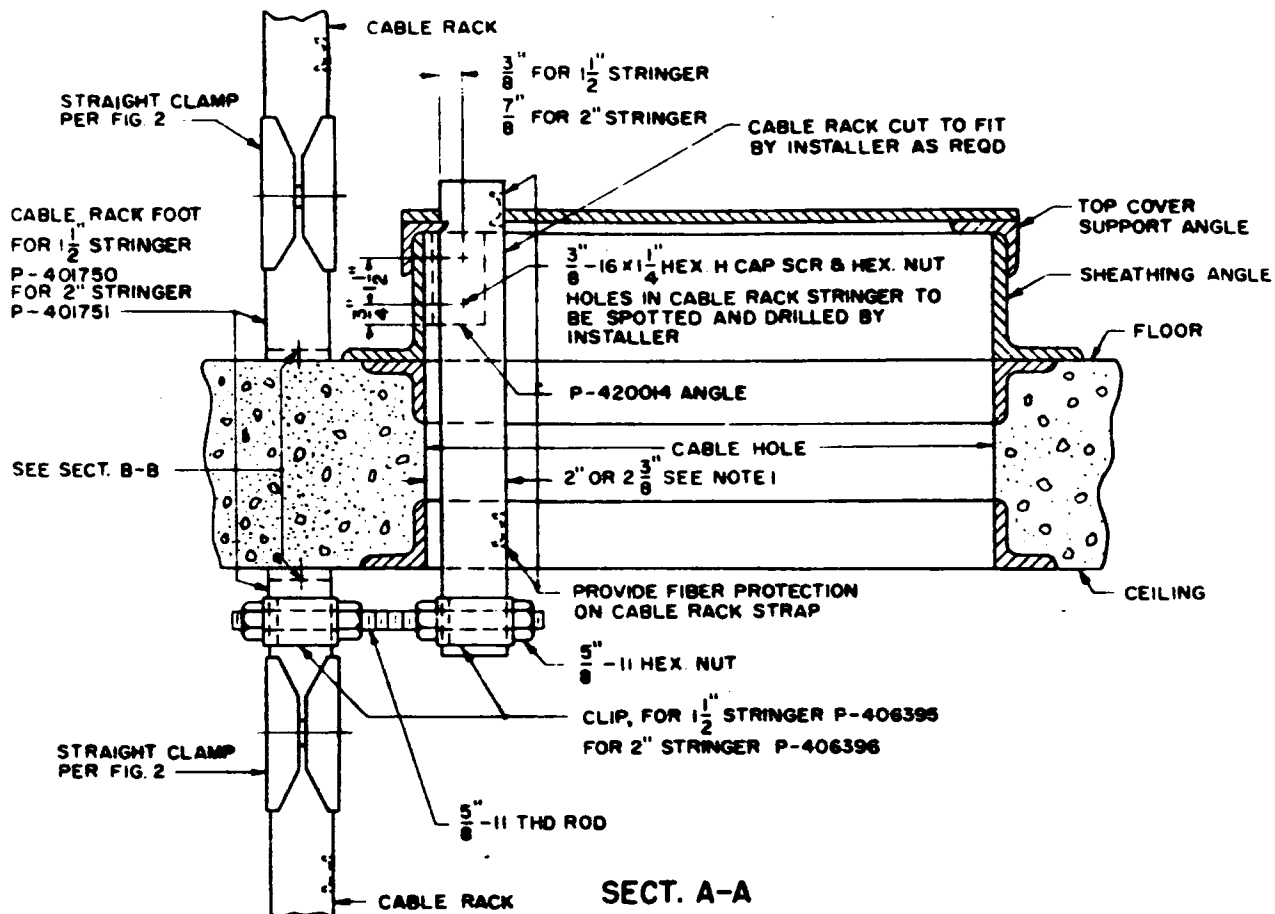
VERIFICATION ITEMS AND BRIEF STATEMENT OF REQUIREMENTS		REFERENCE		
		Sec.No.	Par.No.	Fig.No.
5.1	<u>ASSEMBLY OF LADDER TYPE CABLE RACK</u>			
5.11	Long sections of Cable Rack where possible	13B	4.1	
5.12	Splices properly fabricated	13B	4.1	20A to 24
5.121	Not more than one splice between any two adjacent points of support	13B	4.1	
5.13	T-Intersections properly fabricated	13B	4.2	18A,19A, 27
5.131	Turns, vertical and horizontal	13B	4.4	26
5.132	Offsets, vertical and horizontal	13B	4.3	28,29,30
5.1321	In Step-by-Step Offices with 11'-6" and 11'-8" framing	13B	4.3	28A
5.133	Terminations properly fabricated	13B	4.5	25,25C
5.1331	Vertical cable rack terminated at floors, etc.	13B	4.5	13
5.134	Cable Holes and Cable Shafts			
5.1341	Cable rack at cable holes, including cable rack passing through holes under switchboards and desks, properly fabricated. Cable racks in shafts shall be supported at each floor and ceiling level	13B	4.6	13A,13B, 13C,13D
5.2	<u>ASSEMBLY OF HORN-TYPE CABLE RACK</u>			
5.21	Long sections of Cable Rack used where possible	13B	4.1	
5.22	Splices properly fabricated	13B	4.1	16D,20A to 24
5.221	Not more than one splice between any two adjacent points of support	13B	4.1	
5.23	Junctions properly fabricated			
5.231	T-Intersections	13B	4.2	17C to 19A
5.2311	To protect cabling at T-Intersection on bar-type and cross-aisle racks, install finishing cap P-30H094 and secure with 401682380 Adhesive Cement on ends of all cross straps which project within T-Intersection and Fiber in accordance with figure information	13B	4.2	17C to 19A
5.232	Terminations properly fabricated	13B	4.5	25,25C
5.2321	Plate moved back to last cross strap on bar-type cable rack terminated per Figure 25C	13B	4.5	25C
5.24	Cross Aisle Racks located under the blank sections of lighting runs on No. 5 Crossbar jobs	13B	4.2	
5.241	Cable rack horns located on closer than 3" to the side of auxiliary frame which runs between cable rack and conduit	13B	4.2	
5.25	Install extension sleeves P30A018 at all T-Intersections of Bar-Type, over-aisle cable racks on both sides of intersection. Place 840372304 Finishing Cap on sleeves ends and secure with 401682380 Adhesive Cement.	13B	3.1, 3.2	16A,17C, 17G,18A, 19A



- NOTE:**
1. WHEN THE DISTANCE BETWEEN THE FIRST AND LAST SUPPORTS FOR THE CABLES EXCEEDS THE ALLOWABLE 4'-0" MAXIMUM, THE INSTALLER SHALL CUT OFF PART OF THE CABLE RACK FEET OR THE ENDS OF THE CABLE RACK AS REQUIRED.
 2. CABLE RACK FOOT SHALL BE FLUSH WITH THE INNER EDGE OF THE SHEATHING CHANNEL AT THE FLOOR AND THE FACIA ANGLE AT THE CEILING.

FIG. **13A**

TERMINATING VERTICAL CABLE RACK -
CHANNEL-TYPE SHEATHING (PAR. 5.6) (BSP 800-614-157
FIG. 13A)



NOTES:

1. WHEN CABLE RACK IS LOCATED 2 $\frac{3}{8}$ " FROM SHEATHING ANGLE, THE P-420014 ANGLE USED FOR FASTENING SHALL BE PLACED WITH THE LONGER FLANGE AGAINST THE CABLE RACK.
2. THE TOP COVER SUPPORT ANGLES SHALL BE SLOTTED OUT WHERE THEY INTERFERE WITH CABLE RACK STRINGERS.

FIG. 13B TERMINATING VERTICAL CABLE RACK AT CABLE HOLE - ANGLE-TYPE SHEATHING - MD
(PAR. 4.6)
(BSP 800-614-157 FIG. 13B)

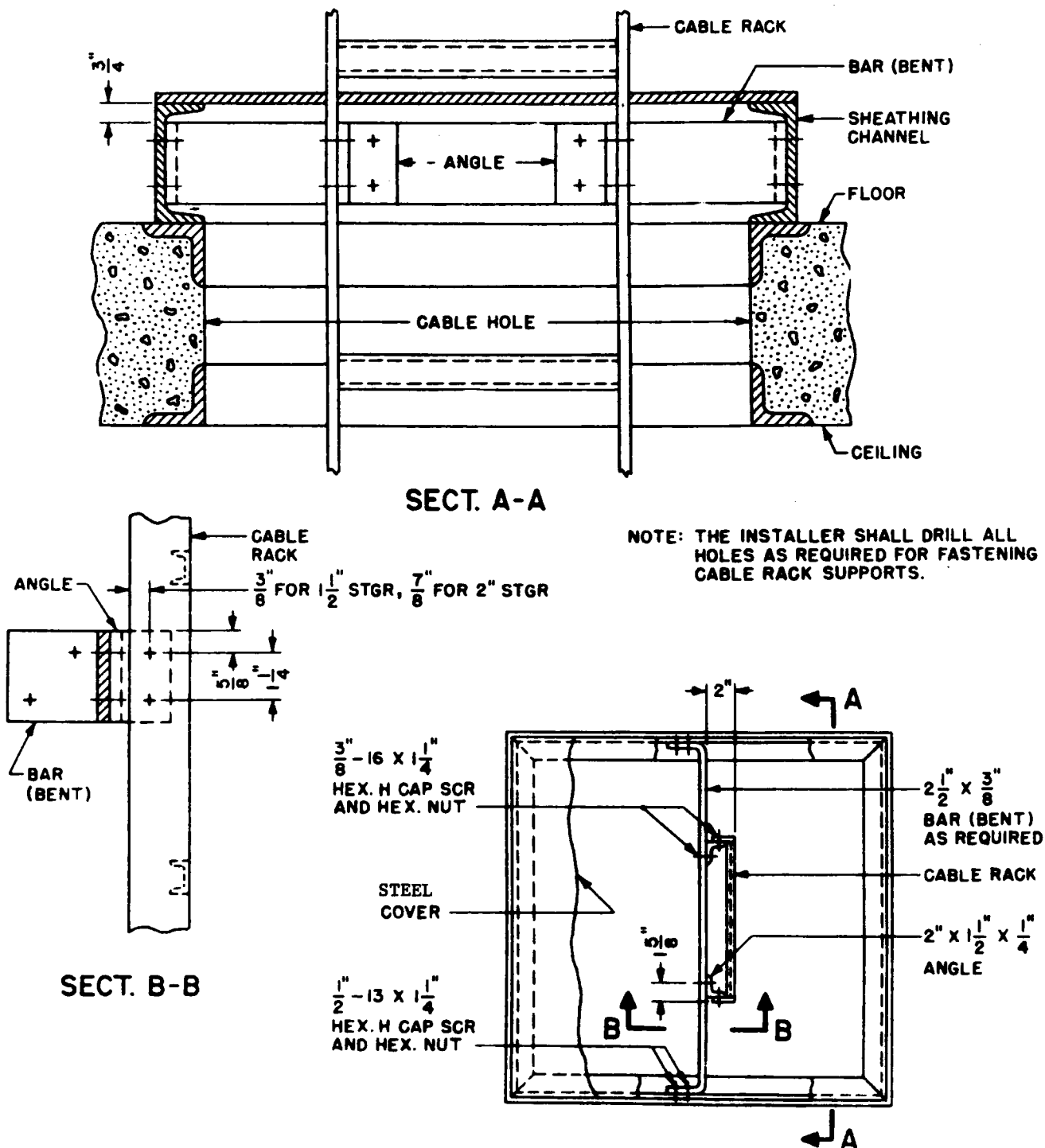
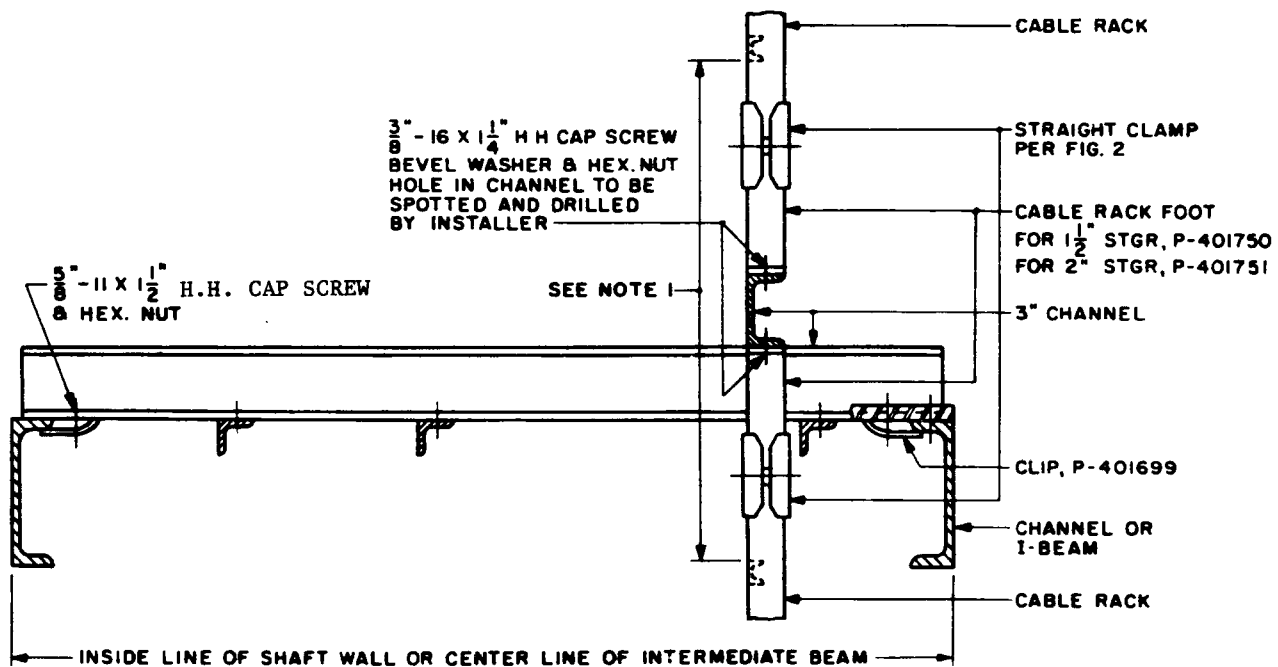
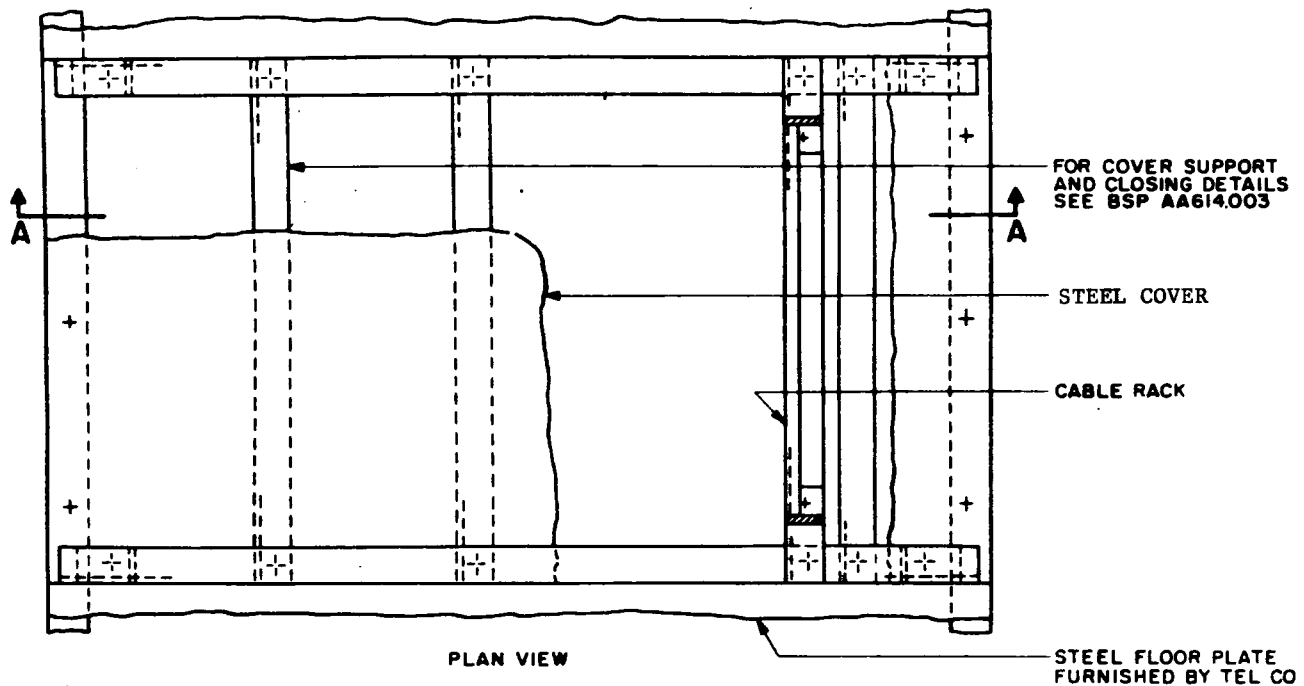


FIG. 13C TYPICAL SUPPORT OF CABLE RACK UNDER SWITCHBOARD OR DESK
CABLE TURNING SECTION
(PAR. 4.6)
(BSP 800-614-157 FIG. 13C)



SECT. A-A

NOTES :

1. WHEN THE DISTANCE BETWEEN THE FIRST AND LAST SUPPORTS FOR THE CABLES EXCEEDS THE ALLOWABLE 4'-0" MAX, THE INSTALLER SHALL CUT OFF PART OF THE CABLE RACK FEET OR THE ENDS OF THE CABLE RACK AS REQUIRED.
2. FOR CABLE RACK SUPPORT DETAILS FOR SPECIFIC CABLE SHAFT ARRANGEMENTS SEE ED-30679-30.

2. FOR CABLE RACK SUPPORT DETAILS FOR SPECIFIC CABLE SHAFT ARRANGEMENTS SEE ED-30679-30.

FIG. 13D TYPICAL SUPPORT OF CABLE RACK IN CABLE SHAFT
(PAR. 4.6)
(BSP 800-614-157 FIG. 13D)

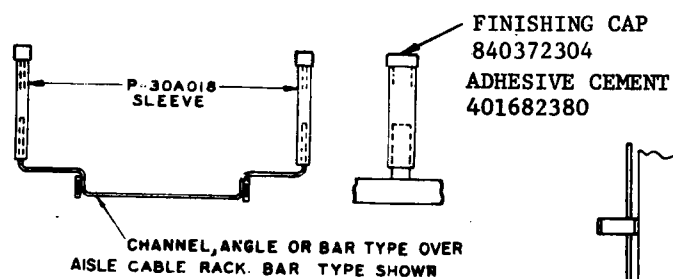


FIG. 16A EXTENSION FOR CABLE RACK
(PAR. 3.1)
(BSP 800-614-157 FIG. 16A)

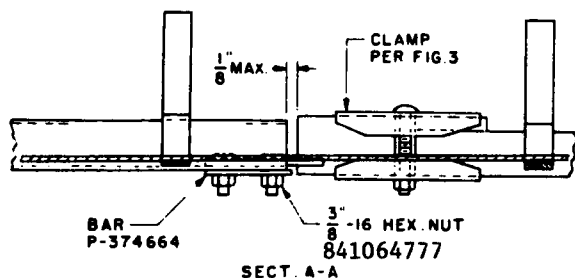
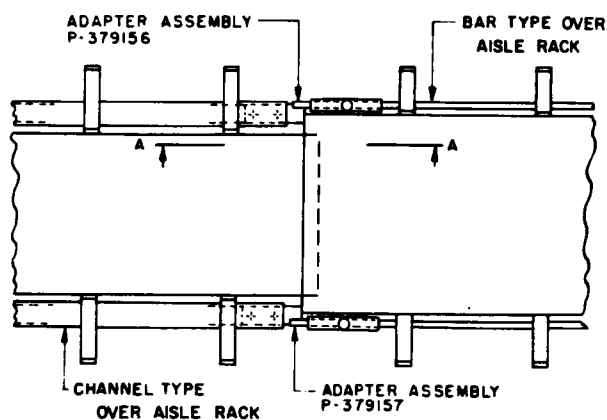


FIG. 16D SPlicing BAR-TYPE TO CHANNEL-
TYPE OVER-AISLE CABLE RACKS
(PAR. 4.1)
A & M ONLY

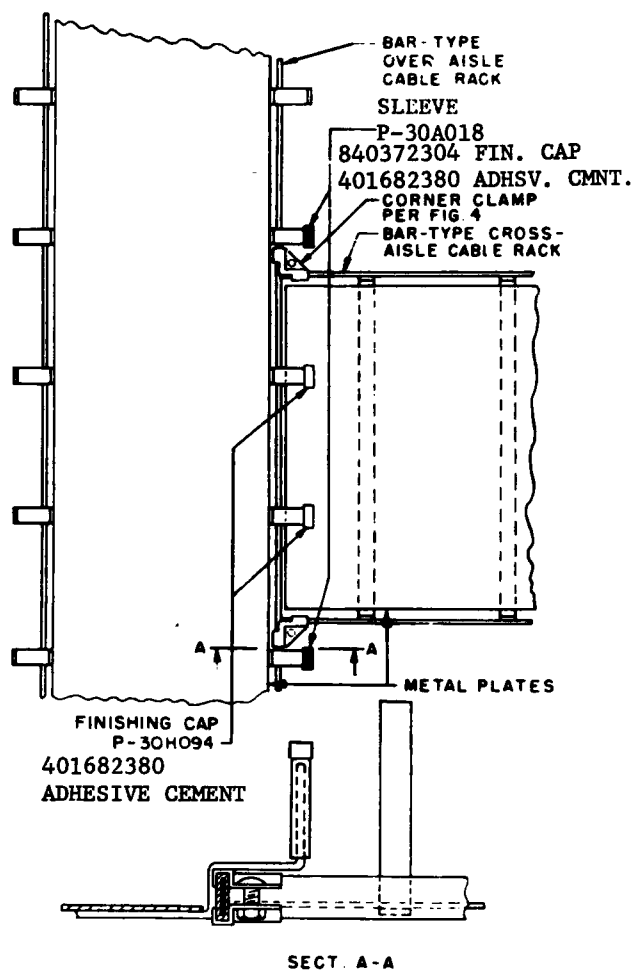
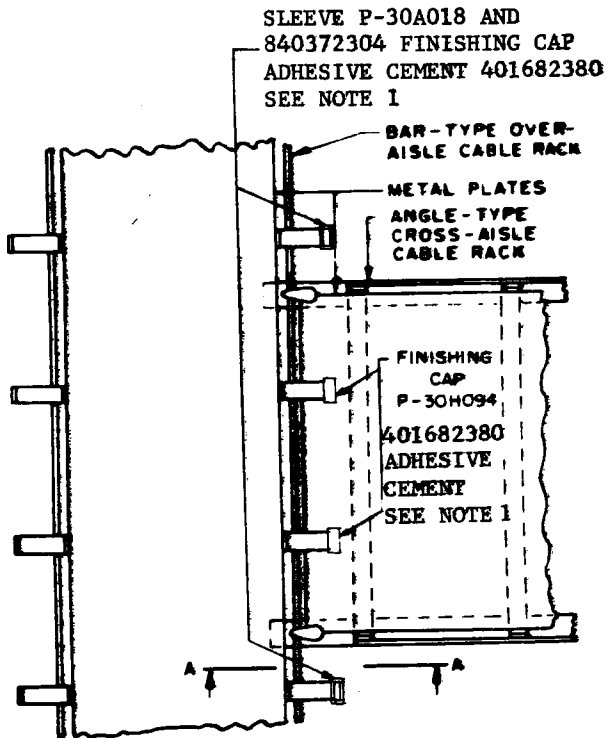


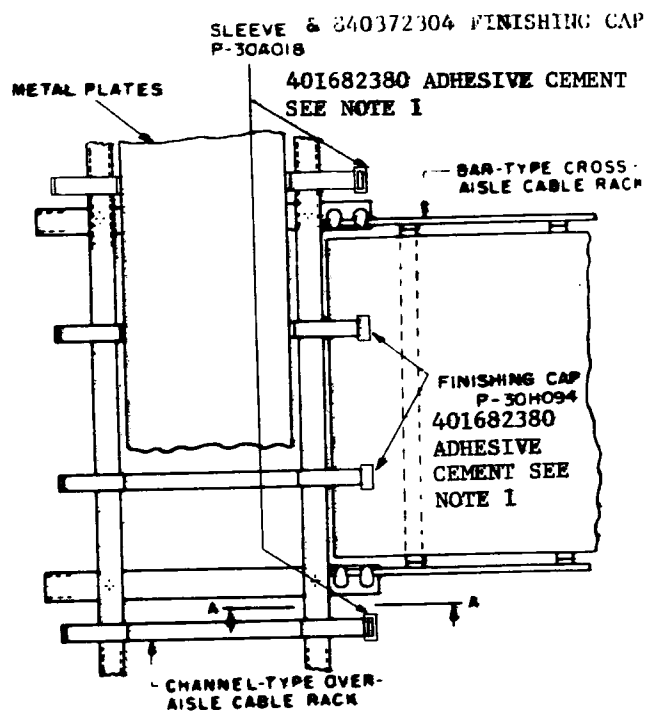
FIG. 17C T-INTERSECTION, BAR-TYPE OVER-
AISLE TO BAR-TYPE CROSS-AISLE
CABLE RACK
(PAR. 4.2)
(BSP 800-614-157 FIG 17C)



SECT. A-A

NOTE 1: FINISHING CAPS, P-30H094 AND 840372340 SHALL BE SECURED TO THE CABLE RACK HORNS (WITHIN THE T-INTERSECTION) AND THE P-30A018 SLEEVES, RESPECTIVELY, BY COATING THE INSIDE OF THE CAPS WITH 401682380, LIST 1 ADHESIVE, PRIOR TO PLACING ON THE HORNS AND SLEEVES.

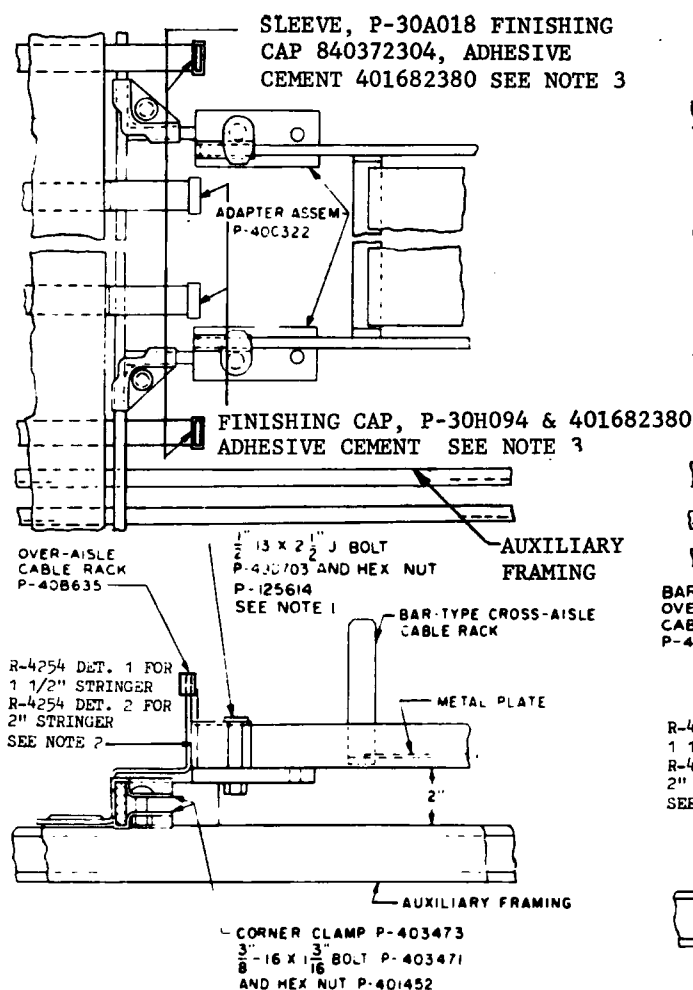
FIG. 17D T-INTERSECTION - BAR-TYPE OVER-AISLE TO ANGLE-TYPE CROSS-AISLE CABLE RACK - SAME LEVEL - A & M ONLY (PAR. 4.2)



SECT. A-A

NOTE 1: FINISHING CAPS, P-30H094 AND 840372340 SHALL BE SECURED TO THE CABLE RACK HORNS (WITHIN THE T-INTERSECTION) AND THE P-30A018 SLEEVES, RESPECTIVELY, BY COATING THE INSIDE OF THE CAPS WITH 401682340, LIST 1 ADHESIVE, PRIOR TO PLACING ON THE HORNS AND SLEEVES.

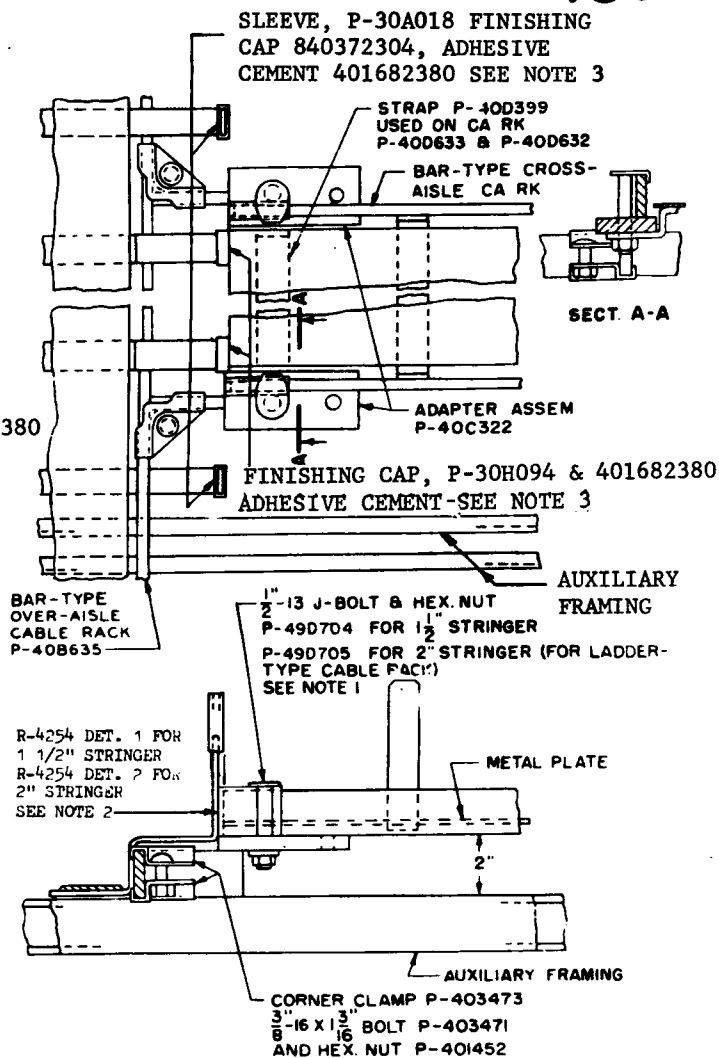
FIG. 17E T-INTERSECTION, CHANNEL-TYPE OVER-AISLE TO BAR-TYPE AND LADDER-TYPE CROSS-AISLE CABLE RACK - A & M ONLY (PAR. 4.2)



NOTES:

1. ONLY ONE J-BOLT PER ADAPTER IS REQUIRED. WHEN A CROSS-STRAP PREVENTS J-BOLT BEING USED IN THE HOLE SHOWN, USE THE OTHER HOLE OF THE ADAPTER.
2. THE ENDS OF THE CABLE RACK STRINGERS SHALL BE COVERED WITH A PREFORMED PVC END COVER R-4254. DET. 1 FOR 1-1/2" STRINGERS AND DET. 2 FOR 2" STRINGERS. INSTALL PRIOR TO ASSEMBLY OF RACK.
3. FINISHING CAPS, P-30H094 AND 840372340 SHALL BE SECURED TO THE CABLE RACK HORNS (WITHIN THE T-INTERSECTION) AND THE P-30A018 SLEEVES, RESPECTIVELY, BY COATING THE INSIDE OF THE CAPS WITH 401682380, LIST 1 ADHESIVE, PRIOR TO PLACING ON THE HORNS AND SLEEVES.

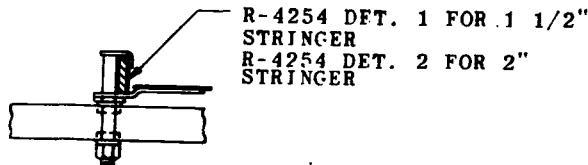
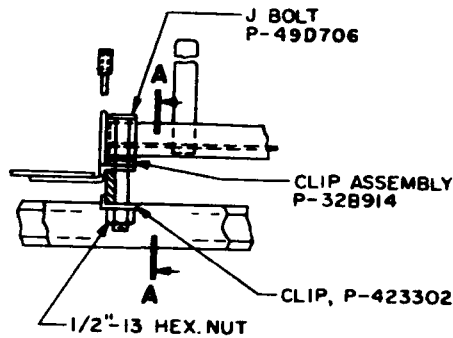
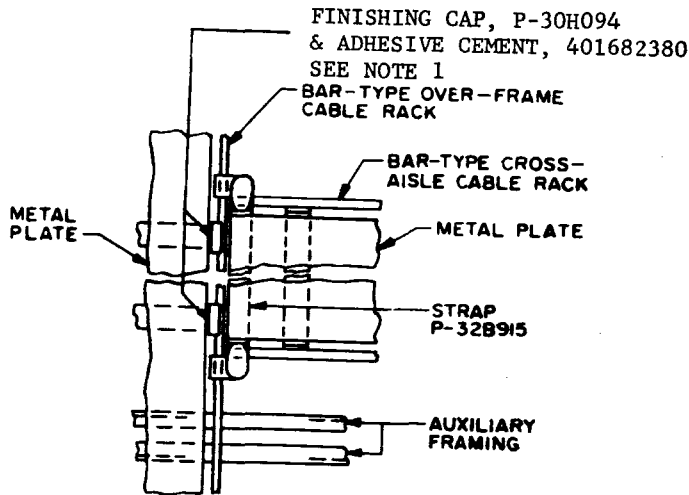
FIG. 17F T-INTERSECTION - BAR-TYPE OVER-AISLE TO BAR-TYPE CROSS-AISLE CABLE RACK RAISED 2" TO CLEAR CONDUITS AND LIGHTING FIXTURES - A & M ONLY (PAR. 4.2)



NOTES:

1. ONLY ONE J-BOLT PER ADAPTER IS REQUIRED. WHEN A CROSS-STRAP PREVENTS J-BOLT BEING USED IN THE HOLE SHOWN, USE THE OTHER HOLE OF THE ADAPTER. WHEN CROSS-AISLE CABLE RACK P-40D634 IS USED OMIT THE STRAP P-40D399 AND USE J-BOLT P-49D703 AND HEX. NUT 841064793 IN THE OTHER HOLE OF THE ADAPTER.
2. THE ENDS OF THE CABLE RACK STRINGERS SHALL BE COVERED WITH A PREFORMED PVC END COVER R-4254. DET. 1 FOR 1-1/2" STRINGERS AND DET. 2 FOR 2" STRINGERS. INSTALL PRIOR TO ASSEMBLY OF RACK.
3. FINISHING CAPS, P-30H094 AND 840372340 SHALL BE SECURED TO THE CABLE RACK HORNS (WITHIN THE T-INTERSECTION) AND THE P-30A018 SLEEVES, RESPECTIVELY, BY COATING THE INSIDE OF THE CAPS WITH 401682380, LIST 1 ADHESIVE, PRIOR TO PLACING ON THE HORNS AND SLEEVES.

FIG. 17G T-INTERSECTION - BAR-TYPE OVER-AISLE TO BAR-TYPE CROSS-AISLE CABLE RACK RAISED 2" TO CLEAR CONDUIT AND LIGHTING FIXTURES - FULL-LENGTH PLATES - A & M ONLY (PAR. 4.2) REPLACED BY 17J

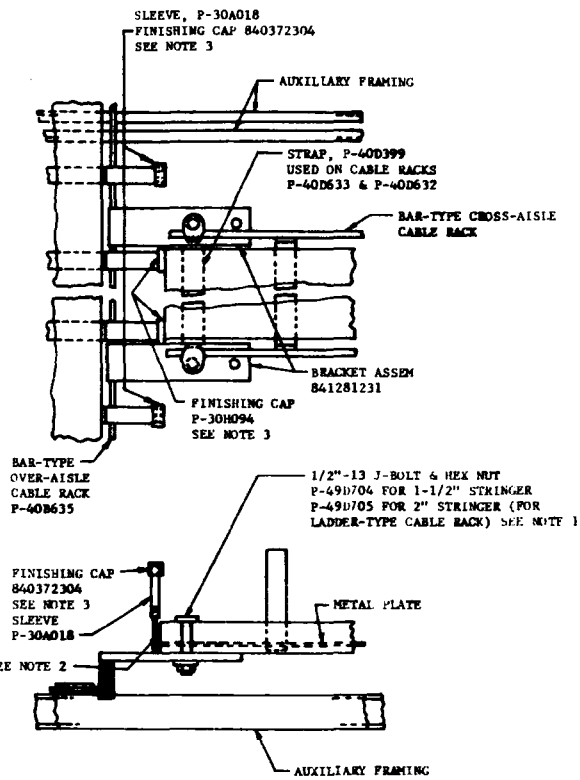


SECT. A-A

NOTE 1: FINISHING CAP, P-30H094 SHALL BE SECURED TO THE CABLE RACK HORNS (WITHIN THE T-INTERSECTION) BY COATING THE INSIDE OF THE CAPS WITH 401682380, LIST 1 ADHESIVE, PRIOR TO PLACING ON THE HORNS.

17H

T-INTERSECTION - BAR-TYPE OVER-FRAME TO BAR-TYPE CROSS-AISLE CABLE RACK - CROSS-AISLE CABLE RACK RAISED 2" TO CLEAR CONDUIT AND LIGHTING FIXTURES (PAR. 4.2) (BSP 800-614-157 Fig. 17H)



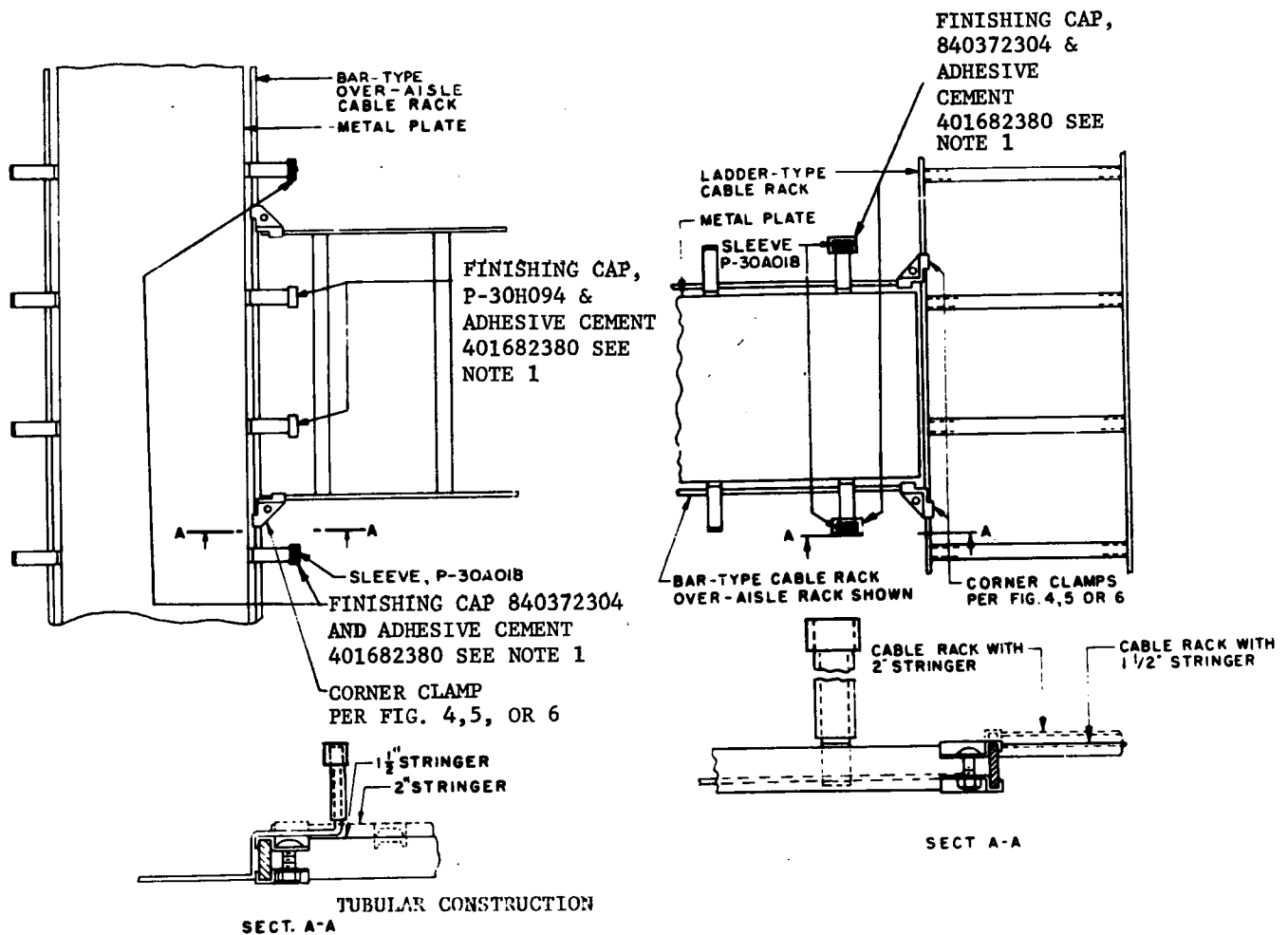
RP-0890

NOTES:

1. ONLY ONE J-BOLT PER ADAPTER IS REQUIRED. WHEN A CROSS STRAP PREVENTS J-BOLT BEING USED IN THE HOLE SHOWN, USE THE OTHER HOLE OF THE ADAPTER. WHEN CROSS-AISLE CABLE RACK, P-40D634 IS USED, OMIT THE STRAP, P-40D399 AND USE J-BOLT, P-49D703 AND HEX. NUT, P-125614 IN THE OTHER HOLE OF THE ADAPTER.
2. PVC PROTECTION SHALL BE PROVIDED ON THE ENDS OF CROSS-AISLE CABLE RACK STRINGERS.
3. FINISHING CAPS, P-30H094 AND 840372340 SHALL BE SECURED TO THE CABLE RACK HORNS (WITHIN THE T-INTERSECTION) AND THE P-30A018 SLEEVES, RESPECTIVELY, BY COATING THE INSIDE OF THE CAPS WITH 401682380, LIST 1 ADHESIVE, PRIOR TO PLACING ON THE HORNS AND SLEEVES.

FIG. 17J

T-INTERSECTION - BAR TYPE OVER-AISLE TO BAR-OR LADDER-TYPE CROSS-AISLE CABLE RACK - CROSS-AISLE CABLE RACK RAISED 2 INCHES TO CLEAR CONDUIT AND LIGHTING FIXTURES - FULL LENGTH PLATES - BAR-TYPE CABLE RACK SHOWN. (BSP 800-614-157, Fig. 17J)



NOTE 1: FINISHING CAPS, P-30H094 AND 840372340 SHALL BE SECURED TO THE CABLE RACK HORNS (WITHIN THE T-INTERSECTION) AND THE P-30A018 SLEEVES, RESPECTIVELY, BY COATING THE INSIDE OF THE CAPS WITH 401682380, LIST 1 ADHESIVE, PRIOR TO PLACING ON THE HORNS AND SLEEVES.

NOTE 1: FINISHING CAP 840372340 SHALL BE SECURED TO THE P-30A018 SLEEVES, BY COATING THE INSIDE OF THE CAPS WITH 401682380, LIST 1 ADHESIVE, PRIOR TO PLACING ON THE SLEEVES.

FIG. 19A T-INTERSECTION - LADDER-TYPE TO BAR-TYPE OVER-AISLE OR CROSS-AISLE CABLE RACK (PAR. 4.2) (BSP 800-614-157 Fig. 19A)

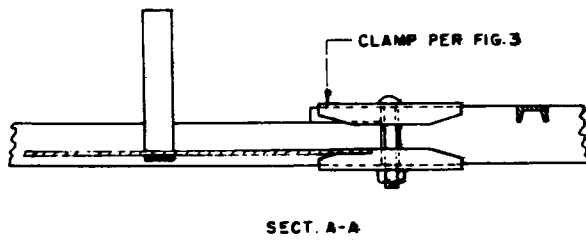
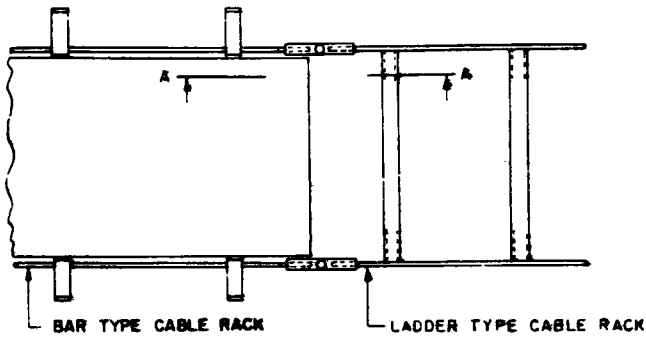


FIG. 20A JOINING BAR-TYPE TO LADDER-TYPE CABLE RACK OF THE SAME WIDTH (PAR. 4.1) (BSP 800-614-157 Fig. 20A)

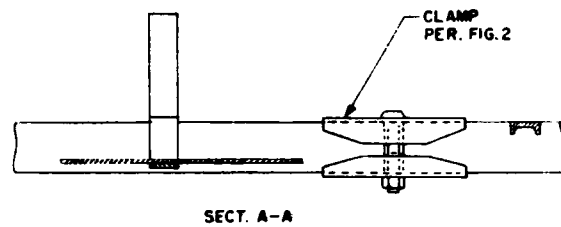
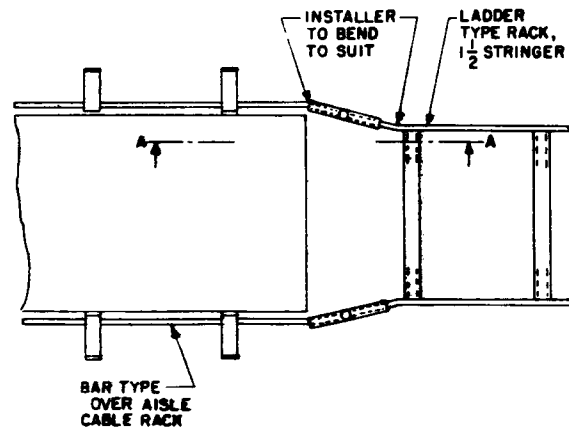
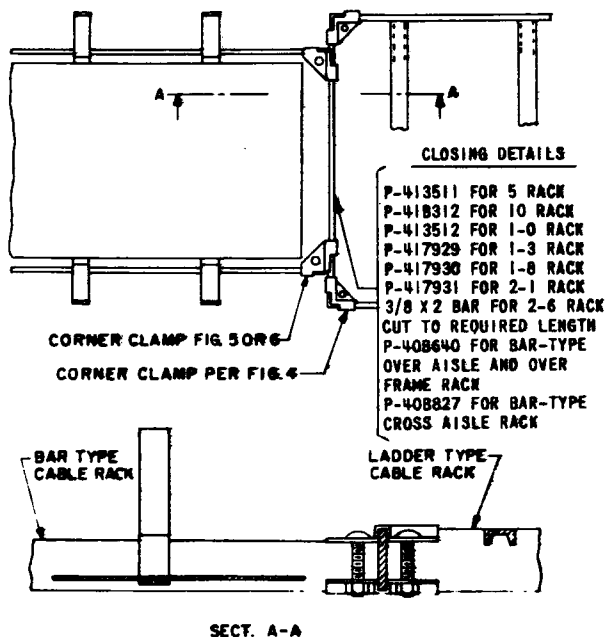


FIG. 22A JOINING BAR-TYPE TO NARROWER LADDER-TYPE CABLE RACK (PAR. 4.1) (BSP 800-614-157 Fig. 22A)



-FIG. 21A JOINING BAR-TYPE TO WIDER LADDER-TYPE CABLE RACK (PAR. 4.1) (BSP 800-614-157 Fig. 21A)

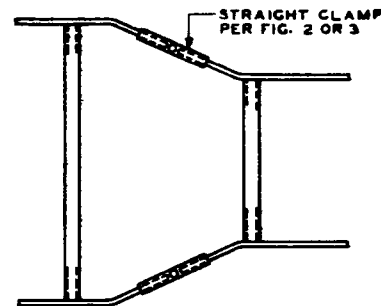


FIG. 23 JOINING 10" TO 1'-0" OR 1'-3" TO 1'-3" CABLE RACKS IN SAME PLANE USING STRAIGHT CLAMPS - SMALLER RACK APPROXIMATELY IN CENTER (PAR. 4.1) (BSP 800-614-157 Fig. 23)

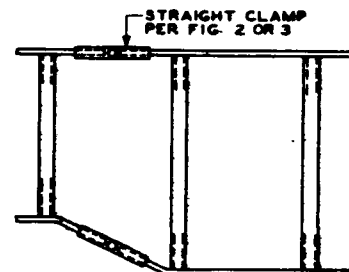


FIG. 24 JOINING 10" TO 1'-0" OR 1'-3" TO 1'-3" CABLE RACKS IN SAME PLANE USING STRAIGHT CLAMPS - SMALLER RACK AT ONE SIDE (PAR. 4.1) (BSP 800-614-157 Fig. 24)

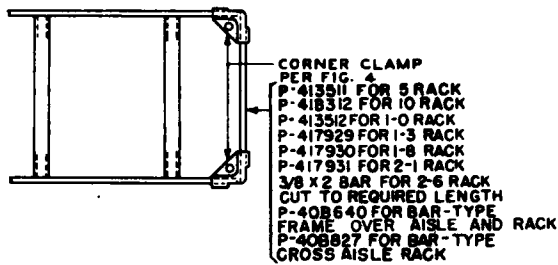


FIG. 25 CLOSING END OF LADDER-TYPE OR BAR-TYPE RACK AT HORIZONTAL JUNCTIONS AND OFFSETS ONLY (PAR. 4.5)
(BSP 800-614-157 Fig. 25)

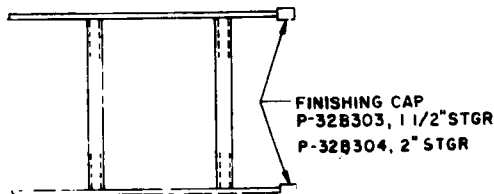


FIG. 25C MOUNTING RUBBER BUMPERS ON EXPOSED ENDS OF CABLE RACK STRINGERS (PAR. 4.5)
(BSP 800-614-157 Fig. 25C)

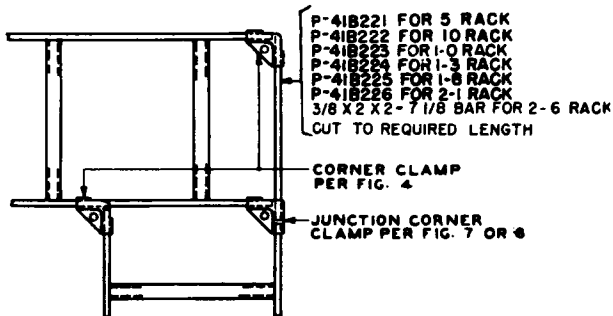


FIG. 26 90-DEGREE TURN IN SAME PLANE
(PAR. 4.4)
(BSP 800-614-157 Fig. 26)

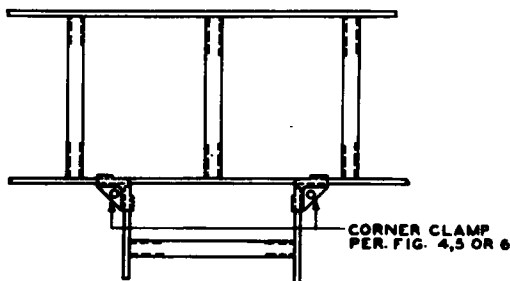


FIG. 27 T-INTERSECTION (PAR. 4.2)
(BSP 800-614-157 Fig. 27)

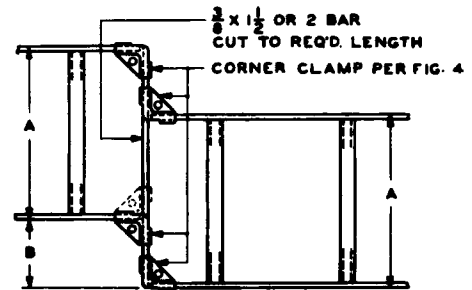
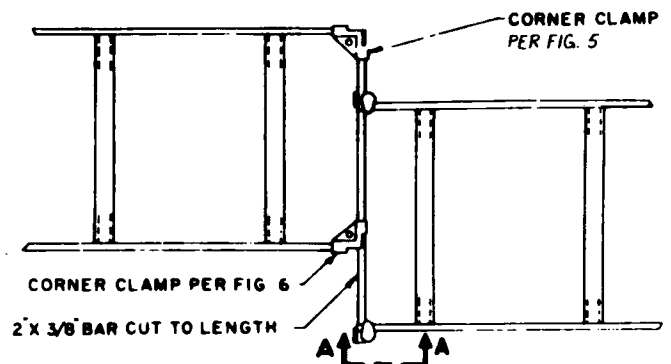


FIG. 28 SMALL OFFSET LESS THAN WIDTH OF RACK AND IN SAME PLANE (PAR. 4.3)
(BSP 800-614-157 Fig. 28)



1/2-13 X 4 1/4 J-BOLT-
P-490706 & HEX NUT
CLIP P423302

VIEW A-A

FIG. 28A SMALL HORIZONTAL OFFSET LESS THAN WIDTH OF RACK WITH 2" VERTICAL OFFSET BETWEEN RACKS (PAR. 4.3)

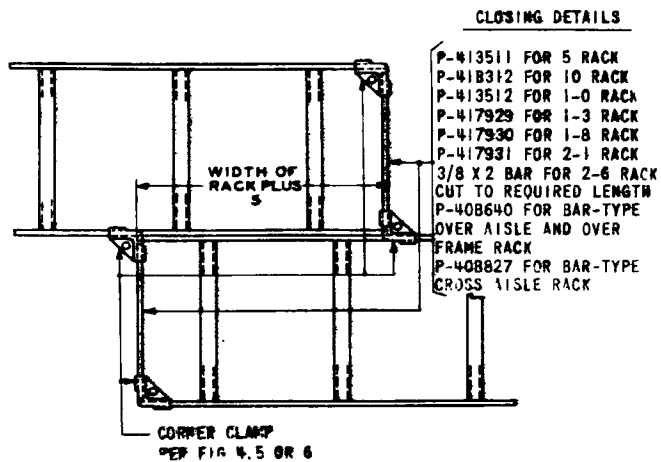


FIG. 29 OFFSET SAME AS WIDTH OF RACK AND IN SAME PLANE (PAR. 4.3)
(BSP 800-614-157 Fig. 29)

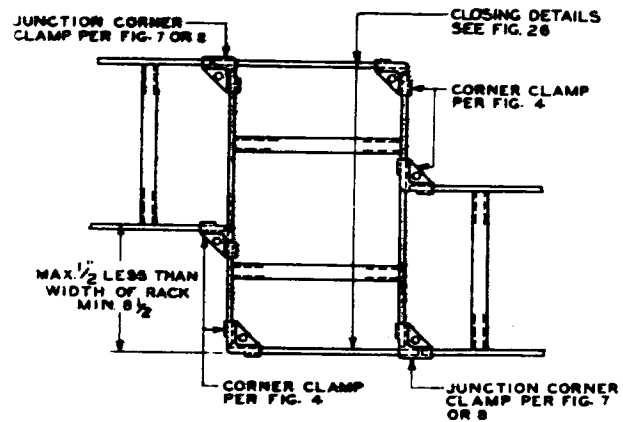


FIG. 30 LARGE OFFSET LESS THAN WIDTH OF RACK AND IN SAME PLANE (PAR. 4.3)
(BSP 800-614-157 Fig. 30)

→ Indicates new or changed information.

[Vertical line at side of paragraphs indicates requirements.

Engineering Planning Manager
(Installation)

REASON FOR REISSUE:
Add Note 2 to Figure 13A.