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DATE: 10/4/73

ADVISORY CIRCULAR

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

SUBJECT: FAA SPECIFICATION L-857, AIRPORT LIGHT BASES, TRANSFORMER HOUSINGS, AND JUNCTION BOXES

1. PURPOSE. This circular describes specification requirements for airport light bases, transformer housings, and junction boxes for the guidance of the public.

2. DESCRIPTION OF SPECIFICATION. This equipment specification establishes the performance requirements and pertinent construction details for airport light bases and transformer housings designed for installation in traffic and nontraffic areas on an airport. Details are included for junction boxes suitable for use in airport pavements.

3. CANCELLATION. Advisory Circular 150/5345-42 (FAA/DOD L-857), FAA Specification L-857, Airport Light Bases, Transformer Housings, and Junction Boxes, dated October 26, 1970, is cancelled.

4. EXPLANATION OF REVISION. This revision updates technical details for construction of standard and alternate bases utilized by the Federal Aviation Administration (FAA) and the Department of Defense (DOD) for in-traffic and off-traffic applications. The in-pavement lights (except L-838) have now been designed to eliminate damage to them from surface water. The problem of water entering the bases from the conduit system can be eliminated by the proper design of the drainage system.

5. HOW TO OBTAIN THIS CIRCULAR. Obtain additional copies of this circular AC 150/5345-42A, FAA Specification L-857, Airport Light Bases, Transformer Housings, and Junction Boxes, from the Department of Transportation, Distribution Unit, TAD-484.3, Washington, D.C. 20590.

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DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION SPECIFICATION
LIGHT BASES, TRANSFORMER HOUSINGS, AND JUNCTION BOXES

1. SCOPE AND CLASSIFICATION.

1.1 Scope. This specification covers the requirements for watertight metal containers fabricated to serve as light bases and underground housings for associated transformers and power suppliers, or as junction boxes for power and control cables and for suitable covers when required.

1.2 Classification. Two types of light bases and transformer housings are covered by this specification.

1.2.1 Type. Light bases and transformer housings with the following distinctive features are covered by this specification.

1.2.1.1 Type I. For use in places not usually subjected to aircraft or surface vehicle loads and employing a flat gasket between the cover or light base plate and the base flange for sealing.

1.2.1.1.1 12-inch nominal inside diameter base conforming to Figure 1 of this specification.

1.2.1.1.2 16-inch nominal inside diameter base conforming to Figure 1 of this specification.

1.2.1.1.3 Extension to 12-inch nominal inside diameter base conforming to Figure 2 of this specification.

1.2.1.1.4 Extension to 16-inch nominal inside diameter base conforming to Figure 2 of this specification.

1.2.1.1.5 Steel cover for Type I bases conforming to Figure 3 of this specification.

1.2.1.2 Type II. For use in places that are or may be subjected to aircraft or surface vehicle loads, and employing metal-to-metal contact between the cover or light and the base flange.

1.2.1.2.1 10-inch nominal outside diameter base conforming to Figure 4 of this specification.

1.2.1.2.2 12-inch nominal outside diameter base conforming to Figure 4 of this specification.

1.2.1.2.3 15-inch nominal outside diameter base conforming to Figure 4 of this specification.

1.2.1.2.4 Extension to 10-inch nominal outside diameter base conforming to Figure 5 of this specification.

1.2.1.2.5 Extension to 12-inch nominal outside diameter base conforming to Figure 5 of this specification.

1.2.1.2.6 Extension to 15-inch nominal outside diameter base conforming to Figure 5 of this specification.

1.2.1.2.7 5-inch nominal outside diameter junction box conforming to Figure 6 of this specification.

1.2.1.2.8 Extension to 5-inch nominal outside diameter junction box conforming to Figure 7 of this specification.

1.2.1.2.9 Steel cover for Type II bases conforming to Figure 3 of this specification.

2. APPLICABLE DOCUMENTS.

2.1 Military, Federal, ASTM, and FAA Publications. The following documents of the issues in effect on the date of application for qualification, paragraph 5, form a part of this specification and are applicable to the extent specified herein.

2.1.1 Military Specifications.

2.1.1.1 MIL-P-26915 (USAF). Primer Coating, Zinc Dust Pigmented for Steel Surfaces.

2.1.2 Military Standards.

2.1.2.1 MIL-STD-105. Sampling Procedures and Tables for Inspection by Attributes.

2.1.3 Federal Specifications.

2.1.3.1 QQ-P-416. Plating, Cadmium (Electrodeposited).

2.1.3.2 QQ-Z-325. Zinc Coating, Electrodeposited, Requirements for.

2.1.3.3 ZZ-R-765. Rubber, Silicone, Low and High Temperature and Tear Resistant.

2.1.4 American Society for Testing and Material (ASTM) Specifications.

2.1.4.1 ASTM A-153. Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.

2.1.4.2 ASTM A-385. Recommended Practice for Providing High Quality Zinc Coatings (Hot-Dip) on Assembled Products.

2.1.4.3 ASTM A-386. Standard Specification for Zinc Coating (Hot-Dip) on Assembled Steel Products.

2.1.4.4 ASTM E 380-72. Standard Practice Guide (A Guide to the Use of SI - The International System of Units).

2.1.5 American Standard.

2.1.5.1 ASA B46.1-1962. Surface Texture.

2.1.6 FAA Drawings.

2.1.6.1 Drawing D5225. Adapter Plate for Light Bases.

2.1.6.2 Drawing C5552. Type "C" Cover Plate.

2.2 Source of Publications.

2.2.1 Copies of Military specifications and standards may be obtained from the Commanding Officer, Naval Supply Depot, 5801 Tabor Avenue, Philadelphia, Pennsylvania 19120.

2.2.2 Information on obtaining copies of Federal specifications may be obtained from General Services Administration offices in Washington, D.C., Seattle, San Francisco, Denver, Kansas City, Chicago, Atlanta, New York, Boston, Dallas, and Los Angeles.

2.2.3 Copies of ASTM specifications may be obtained from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103, at published price.

2.2.4 Copies of American Standards may be obtained from the American National Standards Institute, 1430 Broadway, New York, New York 10018.

2.2.5 Copies of FAA drawings may be obtained from the Federal Aviation Administration, Configuration Control Branch, AAF-110, Washington, D.C. 20591.

3. PERFORMANCE REQUIREMENTS. The light bases and transformer housings and junction boxes shall be suitable for continuous underground service when embedded in rigid or flexible pavement or buried in the base course or subgrade without encasement. Standard bases and transformer housings

are to be used where a limited amount of surface water CAN be tolerated and the alternate bases and transformer housings are to be used where a limited amount of surface water CANNOT be tolerated.

4. DETAIL REQUIREMENTS.

4.1 Design of Type I Bases and Extensions and Cover Plates. Where required to convert the dimensions specified herein to the International System of Units (SI) (Metric System), use the ASTM E 380-72, Standard Practice Guide (A guide to the use of SI - the International System of Units).

4.1.1 Flange. The flange shall be fabricated from a suitable ferrous material necessary to meet the test requirements of paragraph 5. The dimensions of the flange and its bolt circle shall be as shown on Figure 1 or 2. The flat surface of the flange shall lie between two parallel planes perpendicular to the axis of the cylindrical body and separated by not more than 0.030 inch. The flange shall be continuously welded to the body to provide a watertight seal.

4.1.2 Body. The entire body, including sides and bottom, shall be fabricated from commercial quality sheet steel necessary to meet the test requirements of paragraph 5. The body may be formed from one or more pieces. The dimensions of the housing shall be as shown on Figure 1 or 2 of this specification. Two, two-inch conduit couplings shall be provided near the bottom of the housing by continuous welding to the body. The location and size of hubs as shown on Figure 1 shall be considered standard, but the location, number, and size of the hubs can be specified to meet special conditions. Sharp edges on the inside of the body, where entrance hubs meet the inside surface of the housing, shall be broken or ground down before galvanizing to eliminate cutting of cable insulation at these points. The length of the body section as shown on Figure 1 of this specification shall be considered standard, but the height may vary to meet special conditions. Extensions may vary in height as required.

4.1.3 Protective Coating. After fabrication, burrs and sharp edges shall be removed. Prior to tapping operations, the entire base, cover plates, flange rings, spacer rings, and conversion rings shall be treated for corrosion protection by hot-dipped galvanizing as specified in ASTM A-386, Class A, and applied in accordance with ASTM A-385. The cover flange or cover shall be wiped smooth to a flatness of $\pm$.010 inch. Tapped holes shall be protected with a polyurethane varnish or equal. A zinc dust primer meeting MIL-P-26915 (USAF) shall be permitted for touch-up. The use of zinc dust primer, in accordance with MIL-P-26915 (USAF), shall not exceed 10 percent of the total area.

4.1.4 Protective Shipping Cover. A protective shipping cover, bolted to all six tapped bolt holes, shall be furnished to provide protection during shipment and installation. The cover shall be made of material equal to 1/2-inch thick exterior grade plywood in strength and weather resistance. A polyethylene gasket of three mils thickness shall be used between cover and flange.

4.1.5 Grounding Lug. If specified, a steel lug shall be welded to the interior or exterior wall of each light base, before galvanizing, approximately eight inches above the bottom of the base. The details of the grounding lug as shown in Figures 1 and 4 are standard, but the location may vary to meet specific conditions. A bronze or copper ground connector shall be fastened to the steel lug after galvanizing.

4.1.6 Drain Hole. If specified, a drain hole shall be provided in the bottom of the base. The drain hole shall be 1/2-inch minimum diameter for drainage purpose only. A coupling, 3/4-inch minimum diameter, shall be welded flush to the inside bottom surface and shall not extend into the base if a drain pipe or threaded plug is specified.

4.1.7 Cover Plates. Cover plates shall be fabricated from a suitable ferrous material necessary to meet the test requirements of paragraph 5. Cover plates shall conform to Figure 3 and dimensions of Figure 5 of this specification.

4.1.8 Bolts. Bolts, suitable for use in threaded holes as shown in Figures 1 and 2 of this specification, shall be supplied with each base and extension assembly. The bolts shall conform to dimensions specified in notes on Figures 1 and 2 and shall be fabricated from 18-8 stainless steel and shall be treated to lock against loosening from stresses caused by vibration or other steady state loading. These bolts shall have provision for sealing the threaded area.

4.2 Design of Type II Bases, Junction Boxes, Extensions and Cover Plates. For "O" ring gasket applications, the bases, junction boxes, and extensions shall conform to Figures 4, 5, 6, and 7. The design of cover plates shall conform to Figure 3 of this specification.

4.2.1 Top Flange of Bases and Extensions. The top flange shall be fabricated from suitable ferrous materials necessary to meet the test requirements in paragraph 5. The dimensions of the flange, bolt circle, "O" ring groove, and "O" ring shall be as shown in Figures 4 and 5. The top face, outside and inside diameter, and "O" ring groove shall be machine-finished as shown in Figures 4 and 5. The flat surface of the flange shall lie between two parallel planes perpendicular to the axis of the cylindrical body and separated by not more than 0.01 inch. Surface

finishes shall be determined as roughness height ratings in micro-inches in accordance with American Standard ASA B46.1-1962, Surface Texture.

4.2.2 Middle Flange of One Piece Bases. The middle flange shall be fabricated from commercial quality steel plate necessary to meet the test requirements in paragraph 5. The dimensions of the middle flange shall be as shown in Figure 4.

4.2.3 Top and Bottom Flanges of Sectional Bases. When bases are specified in two or more sections, the top and bottom flanges shall be fabricated from commercial quality steel plate necessary to meet test requirements in paragraph 5. The dimensions of the top and bottom flanges of sectional bases shall be as shown in Figure 4.

4.2.4 Body Sections. All body sections and the bottom of the bottom section shall be fabricated from commercial quality steel sheet. The body may be formed from one or more pieces. The dimensions of the body section shall be as shown in Figure 4. The length of the body section as shown in Figure 4 shall be considered standard, but the overall length may vary to meet special conditions. Two, two-inch conduit couplings shall be provided near the bottom of the housing by continuous welding. The location and size of hubs as shown in Figure 4 shall be considered standard, but optional size, location, and number of hubs can be specified to meet special conditions. When one piece bases are specified, the lower body section shall be continuously welded to the middle flange. When sectional bases of two or more sections are specified, the sections shall be bolted together with stainless steel bolts as shown in Figure 4 of this specification. The bolts shall be treated to prevent loosening while in service. Provide a RTV silicone seal material for insertion to provide a watertight seal. The RTV silicone material shall meet the test requirements of paragraph 5. Sharp edges on the inside of the body, where entrance hubs meet the inside surface of the body, shall be broken or ground down prior to galvanizing to eliminate cutting cable insulation at these points.

4.2.5 "O" Ring Gaskets for Alternate Bases and Extensions. The "O" ring gasket for bases and their extensions shall meet dimensions and requirements as shown in Figure 4. The "O" ring shall be one piece silicone rubber in accordance with Federal Specification ZZ-R-765 and be of a cross-section to insure a seal. The "O" ring gasket for junction boxes and extensions shall meet dimensions and requirements as shown in Figures 6 and 7. The "O" ring for the junction box shall be molded in one piece from neoprene rubber.

4.2.6 Bolts. Bolts, suitable for use in the threaded holes as shown in Figures 4, 5, 6, and 7 of this specification, shall be supplied with each base or junction box assembly. The bolts shall conform to the dimensions specified in notes in Figures 4, 5, 6, and 7 and shall be fabricated from 18-8 stainless steel and shall be treated to lock against loosening from stresses caused by vibration or other steady state loading. These bolts shall have provision to seal the threaded area on the alternate bases.

4.2.7 Junction Box and Extensions. The junction box, extension, and cover shall be fabricated as shown in Figures 6 and 7 of this specification. The junction box and extension shall be fabricated of suitable ferrous materials necessary to meet the test requirements of paragraph 5. The dimensions of the junction box and junction box extension shall be as shown in Figures 6 and 7. Openings in the junction box, along with the rubber grommets in these openings, shall be as shown in Figures 6 and 7; or if required, threaded hubs may be supplied. Sharp edges on the inside of the body, where the entrance hubs meet the inside surface of the body or bottom, shall be broken or ground down prior to galvanizing to eliminate cutting of cable insulation at these points.

4.2.8 Shipping and Installation Cover. A protective shipping cover for bases and extensions, bolted to all six tapped bolt holes of the top flange, shall be supplied to provide protection during shipment and installation. The cover shall be made of material equal to 3/4-inch thick exterior grade plywood in strength and weather resistance. The shipping cover shall be 3/4-inch thick and 3/8-inch larger than the flange diameter (maximum). The edges of the shipping cover and part of the top and bottom surface shall be coated with a uniform thickness of paraffin wax. A polyethylene gasket of three mils thickness shall be used for shipping and installation. The junction box and junction box extension will be suitably packaged for protection in shipping.

4.2.9 Cover Plates. Cover plates shall be fabricated from a suitable ferrous material necessary to meet the test requirements in paragraph 5. The dimensions of cover plates shall conform to Figure 3 of this specification.

4.2.10 Protective Coating. The top flange and top section of the bases and extensions and the junction box and the junction box extension after assembly, machining and drilling shall be plated for corrosion protection. This plating shall be zinc or cadmium complying with Class 2, Type I, of Federal Specification QQ-Z-325 or Federal Specification QQ-P-416. The lower body sections and cover plates, before performing tapping operations, shall be treated after fabrication for corrosion protection by hot-dip galvanizing. The minimum weight of coating shall be in accordance with ASTM A-386, Class A (1.862 ounces per square foot), and shall be applied in accordance with ASTM A-385. Burrs and sharp edges shall be removed prior to galvanizing. All tapped holes after galvanizing shall be protected by polyurethane varnish. The use of any material other than a zinc dust primer meeting MIL-P-26915 (USAF) shall not be permitted for touch-up. The use of zinc dust primer in accordance with MIL-P-26915 (USAF) shall not exceed 10 percent of the total area.

4.2.11 Protective Painting. After protective plating to the top section of the bases and extensions, any welding to lower sections or flanges shall be given one coat of zinc dust primer complying to MIL-P-26915 (USAF). All

inside surfaces of the top section of the bases and extensions, and junction boxes and junction box extensions shall be given one coat of zinc dust primer complying to MIL-P-26915 (USAF). This includes the underside of the top flanges.

4.2.12 Grounding Lug. If specified, a steel lug shall be welded to the interior or exterior wall of each light base, light base extension, junction box, or junction box extension before protective coating is applied as shown in Figure 4. The location may vary to meet specific conditions. A bronze or copper ground connector shall be fastened to the steel lug after coating.

4.2.13 Drain Hole. If specified, a drain hole shall be provided in the bottom of the base. The drain hole shall be 1/2-inch minimum diameter for drainage purpose only. A coupling, 3/4-inch minimum diameter, shall be welded flush to the bottom surface and shall not extend into the base if a drain pipe or threaded plug is specified.

4.2.14 Construction Rings. Construction rings shall be fabricated from a suitable ferrous material necessary to meet the test requirements in paragraph 5. The dimensions of the construction rings shall conform to Figure 3 of this specification.

4.2.15 Mud Plates. Mud plates shall be fabricated from a suitable ferrous material necessary to meet the test requirements in paragraph 5. The mud plates shall conform to Figure 3 and dimensions of Figure 5 of this specification. The mud plates shall be plated as specified in paragraph 4.2.10. The mud plates shall have two knock-out holes as shown in Figure 3.

4.2.16 Flange Rings. Flange rings shall be fabricated from a suitable ferrous material necessary to meet the test requirements in paragraph 5. The dimensions of the flange rings shall conform to Figure 5 of this specification. The flange rings shall be plated as specified in paragraph 4.2.10.

4.2.17 Spacer Rings. Spacer rings shall be fabricated from suitable ferrous material necessary to meet the test requirements in paragraph 5. The dimensions of the spacer rings shall conform to Figure 3 of this specification. The spacer rings shall be plated as specified in paragraph 4.2.10. Provide RTV silicone seal material.

4.2.18 Conversion Rings. Conversion rings shall be fabricated from a suitable ferrous material necessary to meet the test requirements in paragraph 5. The dimensions of the conversion rings shall conform to Figure 3 of this specification. The conversion rings shall be plated as specified in paragraph 4.2.10.

4.2.19 Rubber Grommet. The rubber grommets shall meet dimensions and requirements as shown in Figures 6 and 7 of this specification. They shall be fabricated in one piece from neoprene rubber. The grommets shall have four holes as shown in Figures 6 and 7. These holes shall be .120 inch or .180 inch in diameter, and shall have a suitable removable plug. Three grommets with .180-inch diameter wire holes and one with a .120-inch diameter wire hole in each junction box or extensions shall be considered standard, but optional wire hole sizes and number of each to be supplied with the junction box or extension can be specified to meet special conditions.

5. QUALITY ASSURANCE PROVISIONS.

5.1 Qualification Testing. The manufacturer shall furnish an alternate type base assembly to an independent testing laboratory, acceptable to the Federal Aviation Administration, Airports Service, Washington, D.C. 20591, for testing in accordance with the tests specified herein. This testing is required to certify the manufacturer's ability to produce a base meeting requirements of this specification. Each type of unit shown in Figures 1 through 7 shall be subjected to qualification tests. When approved, the name of the qualified manufacturer and a description of his equipment will be included in Advisory Circular 150/5345-1, Approved Airport Lighting Equipment. The manufacturer shall bear all testing costs.

5.1.1 Leakage Test. This test shall be performed after the base has undergone the load test described in paragraph 5.1.2. A steel cover plate with a flat or an "O" ring gasket, as required, shall be securely bolted to the base and torqued to manufacturer's recommendations using the specified flat or "O" ring gasket. An internal air pressure of 12 p.s.i., ± 2 p.s.i., shall be maintained within the base by use of proper pressure fittings and plugs in the hubs. An approved bubble test material (high-foam detergent producing a low surface tension) shall be brushed on the entire assembly and around the flange. The pressure shall be held for a period required to carefully examine the entire light base for air bubbles. Test for extensions, multi-section bases, flange rings, cap rings, and spacer rings, using specified flat or "O" ring gaskets, shall be conducted in the same manner as above. An assembly utilizing RTV silicone as a seal shall be tested as above within two hours of sealing. The seal shall not be broken between tests. The base and/or assemblies shall be considered unsatisfactory if a leakage is evident.

5.1.2 Load Test. The base and cover assembly or assemblies including flange rings, spacer rings, extensions, multi-section bases, conversion rings, and cover as described in paragraph 5.1.1 shall be placed on a flat steel plate mounted in a standard testing machine. The load shall be applied to the top part of the base through a block of rubber with a diameter equal to

the cover plate, 1-1/2 inches thick, and having a shore A hardness of 55 to 70. A unit load of 400 pounds per square inch shall be applied uniformly over the area of the rubber at a rate not greater than 10,000 pounds per minute. The base shall be considered unsatisfactory if there is any permanent deformation or cracking of material or coating. The above test shall be repeated three times. After each loading, bolts shall be checked for loss of tension. The bolts shall be torqued to the manufacturer's recommended service tension after the first two loadings. The base and/or assembly will be considered unsatisfactory if there is any loss of tension in the bolts after the third loading.

5.1.3 Visual Inspection. Each unit shall be visually inspected for quality of workmanship and material. Particular attention shall be given to smoothness and continuity of welds, flatness and smoothness of the flange surface, complete and uniform application of the protective coating, freedom of excess zinc, and absence of burrs and sharp edges.

5.1.4 Protective Plating Test. Zinc plating shall be tested by appropriate method described in Federal Specification QQ-Z-325. Cadmium plating shall be tested by appropriate method described in Federal Specification QQ-P-416. The weight of the hot-dipped galvanizing shall be tested by the appropriate method described in ASTM A-153.

5.2 Production Testing. Samples shall be selected at random from production units before receiving protective coating to be submitted to the leakage test. MIL-STD-105 shall be used for determining the sampling frequency. The leakage test as described in paragraph 5.1.1 shall be performed. Rejection rates as described in MIL-STD-105 shall set sample frequency and any leaks shall be repaired after air is evacuated from base and subjected to another test after repair. Records of all testing shall be maintained for a period of at least two years. Visual and dimensional checks shall be carried out, by sampling, in accordance with MIL-STD-105.

6. PREPARATION FOR DELIVERY.

6.1 Packing.

6.1.1 Type I Packing. Each unit shall be individually packed as follows: The flange surface of each light base shall be protected by a cover as described in paragraph 4.1.4 of this specification. The diameter of the cover shall be as specified in paragraph 6.1.2.1. A polyethylene gasket shall be used between the shipping cover and flange and shall be a minimum of three mils in thickness. The shipping cover shall be bolted to the flange by means of six 3/8-16 hex head cadmium plated steel machine bolts seated to 25-inch pounds of torque. Additionally, the hubs shall be protected with an anti-sieze compound and standard thread protectors.

6.1.2 Type II Packing.

6.1.2.1 Light Bases and Light Base Extensions. Each unit shall be individually packed. The flange shall be protected by a shipping cover as described in paragraph 4.2.8. The diameter of the shipping cover shall be 3/8-inch greater than the flange of the base. A polyethylene gasket shall be used between the shipping cover and flange and shall be a minimum of three mils in thickness. The shipping cover shall be bolted to the flange by means of six 3/8-16 hex head cadmium plated one-inch long steel machine bolts seated to 25 inch-pounds of torque. The bolt holes shall be counterbored 1/4-inch deep and 1-1/8-inches in diameter. The edges and a minimum of one inch on each surface of the cover shall be coated with paraffin wax. Six stainless steel (18-8) hex head bolts treated for anti-loosening as well as the "O" ring gasket shall be packed separately and placed within the base before closing with the cover, unless otherwise specified. The hubs shall be protected with an anti-sieze compound and standard thread protectors. The bolts and "O" ring for base extensions shall be fastened securely to the lower flange inside of the extension.

6.1.2.2 Junction Boxes and Extensions. Each unit shall be individually packed. Six 1/4-20 hex head stainless (18-8) machine bolts treated for anti-loosening shall be included in each package together with the "O" ring gasket. Rubber grommets shall be supplied.

6.1.2.3 Construction Rings and/or Mud Plates. Construction rings and mud plates shall be fastened to the top flange of the base, unless otherwise specified. The plywood cover described in paragraph 4.2.8 shall be 5/8-inch thick when used with a mud plate. The sequence of the assembly shall be the mud plate on top, the plywood cover next, the construction ring, and polyethylene gasket. The assembly shall be fastened to the top flange with cadmium plated hex head machine bolts of the proper length as described in paragraph 6.1.2.1. If any item is omitted, the order would be the same except for the omitted item. If no mud plate is required, the plywood cover shall be 3/4-inch thick.

6.1.2.4 Flange Rings, Spacer Rings, Conversion Rings, and Covers. Flange rings, spacer rings, conversion rings, and covers shall be individually packed. Six 3/8-16 stainless steel (18-8) hex head bolts of the proper length shall be packaged with the flange rings, spacer rings, conversion rings, and covers.

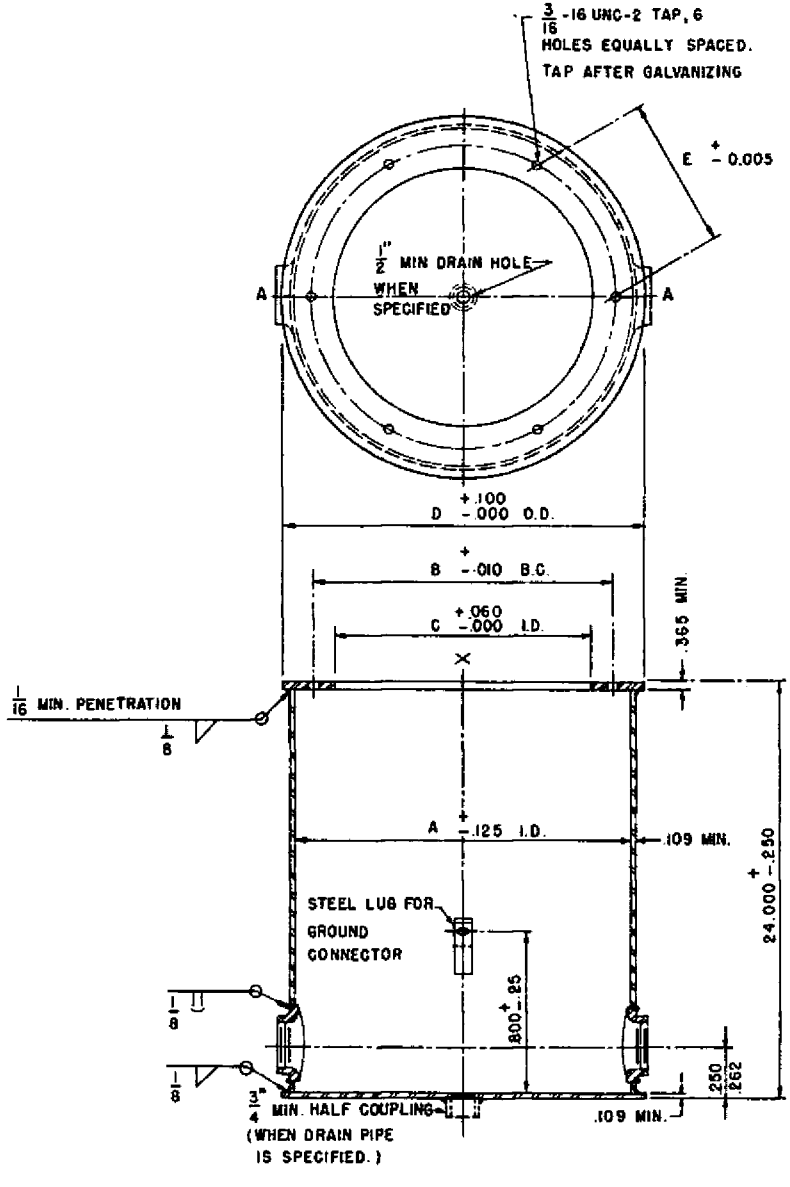
6.2 Marking.

6.2.1 Type I Marking. Each light base shall have the following information on the outer cylinder wall if required:

Consignee's name and address.
Component name and part number.
Federal stock number (when required).
Specification number.
Contract number and date (when required).
Manufacturer's name and address.

6.2.2 Type II Marking. Each light base shall have the following information stenciled on the cover if required:

Consignee's name and address.
Component name and part number.
Federal stock number (when required).
Specification number.
Contract number and date (when required).
Manufacturer's name and address.
Light station from plans.



NOTES:

1. SEE FIGURE 5 FOR DIMENSIONS.
2. BOLT HOLES TO BE DRILLED OR PUNCHED BEFORE GALVANIZING.
3. TWO 2" HALF COUPLINGS OR FLANGES 180° ±1° APART AND WITH AN ANGULAR TOLERANCE OF ±1° FROM BEING PERPENDICULAR TO X-X AXIS.
4. CONDUIT HUBS TO BE LOCATED ON BOLT HOLE AXIS A-A.
5. SUPPLY SIX STAINLESS STEEL HEX HEAD 3/8"-16 UNC-2 BOLTS ONE INCH IN LENGTH WITH EACH BASE.

FIGURE 1. FAA SPECIFICATION L-857 TYPE I

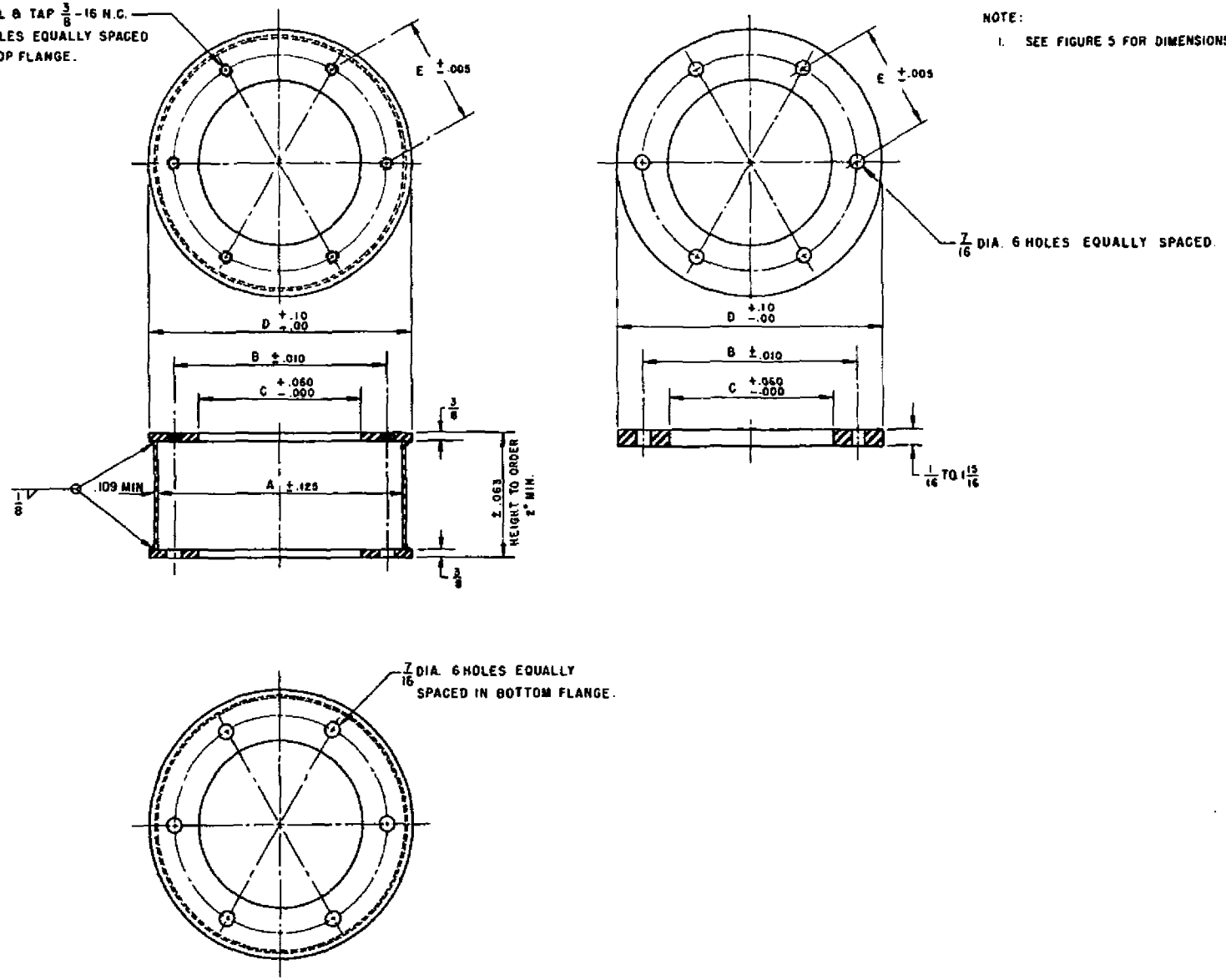
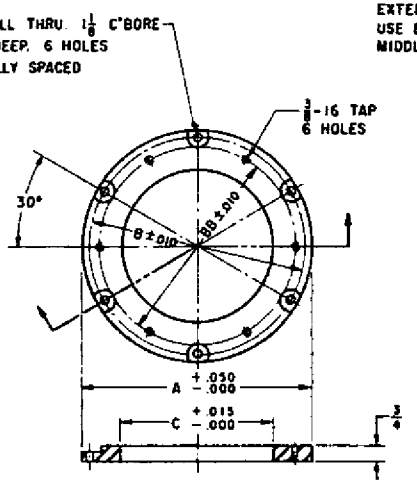
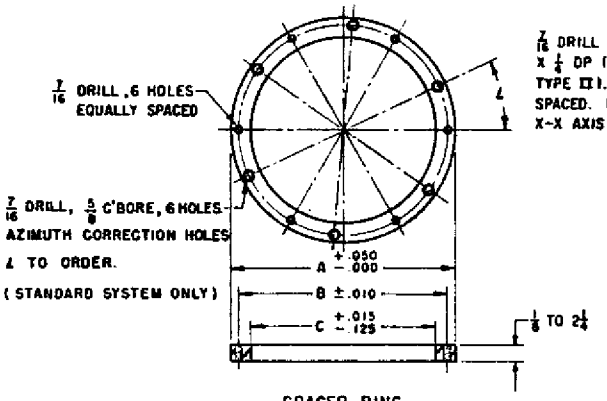


FIGURE 2. TYPE II EXTENSIONS

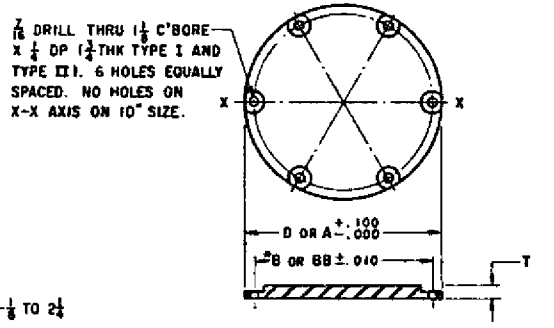
NOTES:
1. USE B DIMENSION FOR TOP SECTION & EXTENSION, TYPE II BASES & TYPE I. USE BB DIMENSION FOR BOTTOM & MIDDLE SECTIONS, TYPE II BASES.
2. SEE FIGURE 5 FOR DIMENSIONS.
3. SUPPLY SIX 18-8 STAINLESS STEEL HEX HEAD $\frac{3}{8}$-16 UNC-2 BOLTS OF A LENGTH REQUIRED FOR MINIMUM $\frac{1}{2}$-INCH ENGAGEMENT IN TOP FLANGE OF BASE.



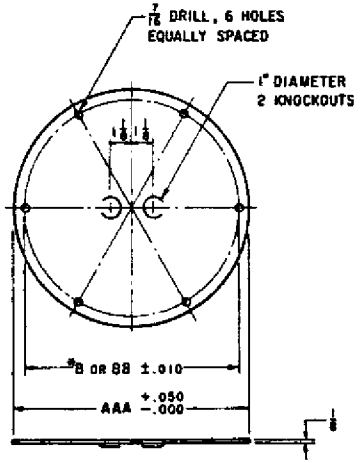
CONVERSION RING
TYPE II



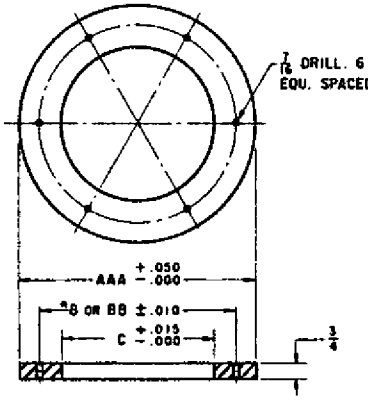
SPACER RING
(SPACER RING AVAILABLE)
SLOPE TO ORDER
TYPE II



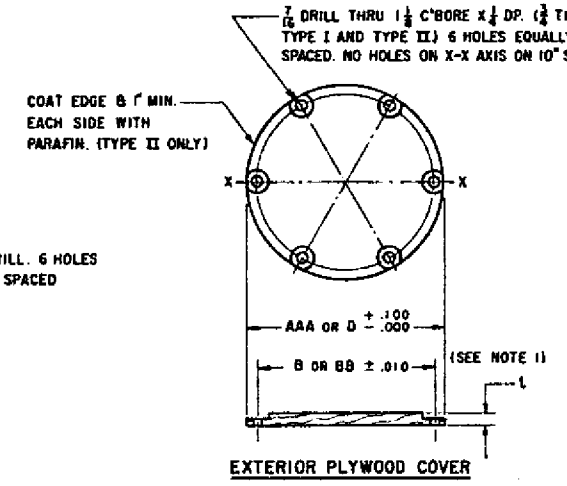
STEEL COVER PLATE
USE A FOR TYPE II BASE
USE D FOR TYPE I BASE



MUD PLATE
TYPE II

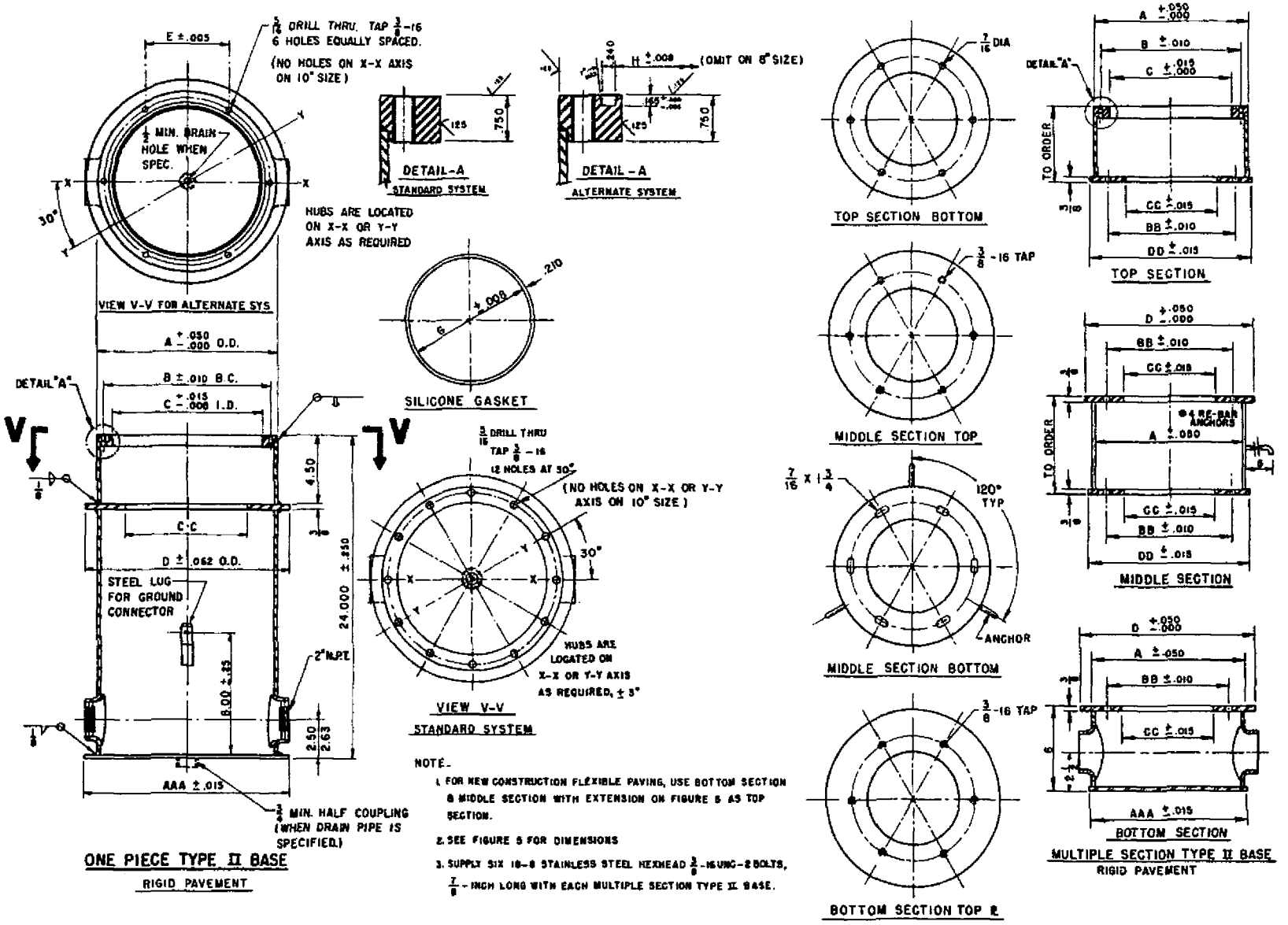


CONSTRUCTION RING
TYPE II



EXTERIOR PLYWOOD COVER
USE AAA FOR TYPE II BASE
USE D FOR TYPE I BASE

FIGURE 3. TYPE I AND II ACCESSORY RINGS, PLATES AND COVERS

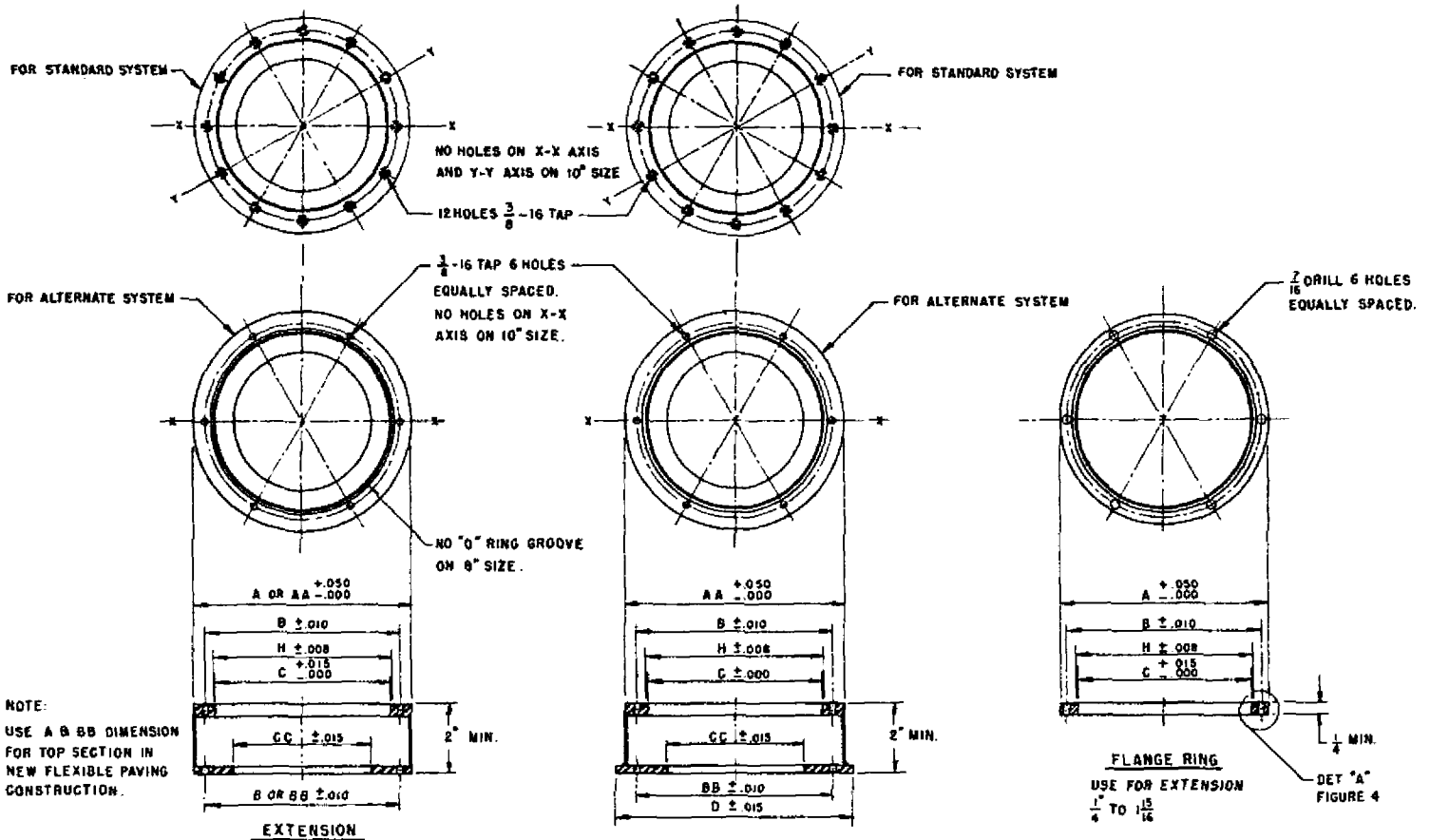


ONE PIECE TYPE II BASE
RIGID PAVEMENT

NOTE-

1. FOR NEW CONSTRUCTION FLEXIBLE PAVING, USE BOTTOM SECTION & MIDDLE SECTION WITH EXTENSION ON FIGURE 5 AS TOP SECTION.
2. SEE FIGURE 5 FOR DIMENSIONS
3. SUPPLY SIX 18-8 STAINLESS STEEL HEXHEAD 3/8-16UNC-2 BOLTS, 7/8 - INCH LONG WITH EACH MULTIPLE SECTION TYPE II BASE.

FIGURE 4. MULTIPLE SECTION TYPE II BASES



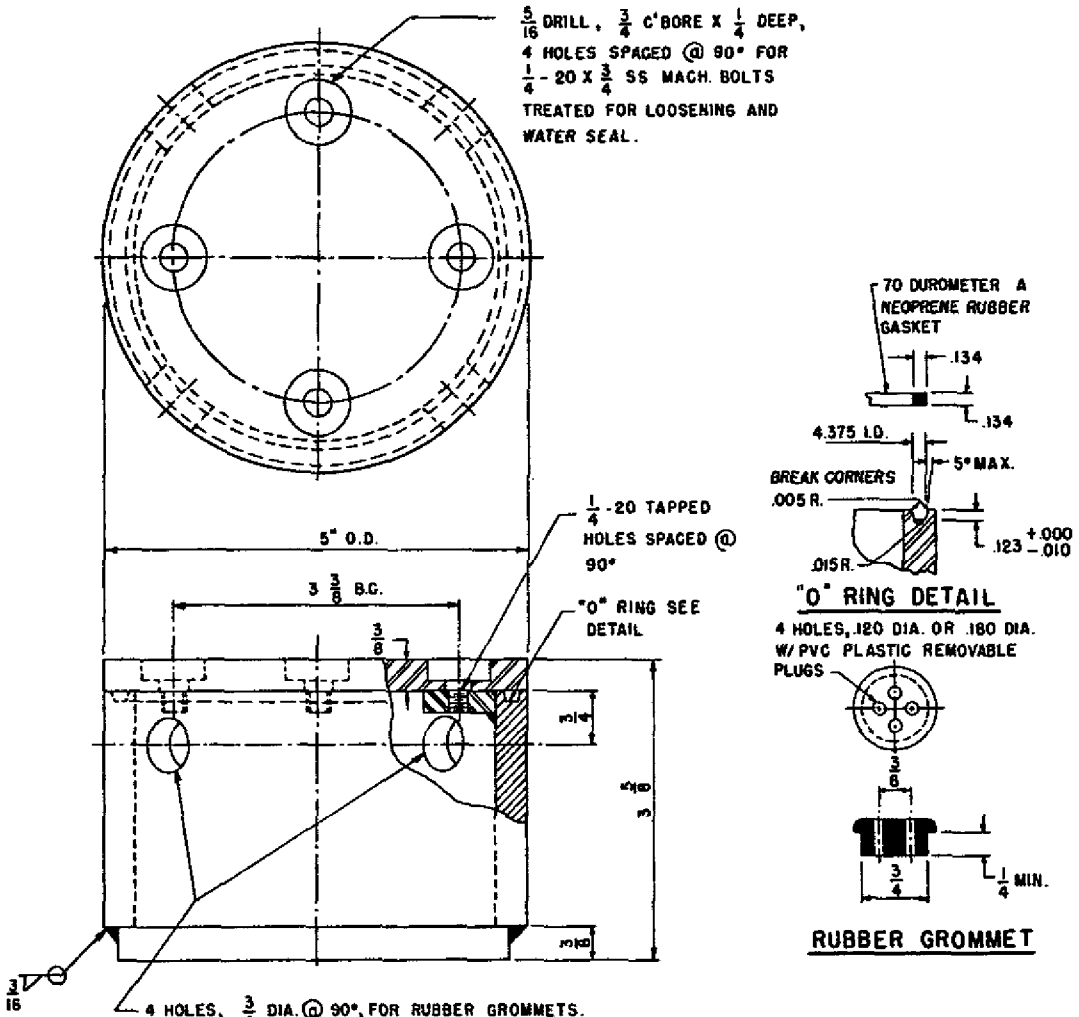
	NOM. DIAM.	ACTUAL DIAM. A	AA	AAA	BOLT CIRCLE B	BB	I.D. RING C	CC	O.D. RING D	DD	CHORD E	DIAM. O'GASK. G	DIAM. GROOVE H	STEEL COVER T	PLYWOOD COVER t
TYPE I	12	12.375			10.250		8.000		13.500		5.125			.375	1/2
	16"	16.250			14.250		12.375		17.375		7.125			1.250##	1/2
TYPE II	10"	10.000	10.500	10.375	9.250	9.250	8.000	6.000	11.500	10.313	4.625	8.160	8.145	.750	##3/4
	12"	12.000	12.500	12.375	11.250	10.250	10.000	8.000	13.500	12.313	5.625	10.160	10.145	.750	##3/4
	15"	15.000	15.500	15.375	14.250	13.250	13.000	8.000	16.500	15.313	7.125	13.160	13.145	1.250	1 1/4

NOTE:
SUPPLY SIX 18-8 STAINLESS STEEL HEX HEAD 3/8-16 UNC-2 BOLTS, 1/4-INCH LONG WITH EACH TYPE II EXTENSION.

WHEN USED IN IMPACT AREA. OTHER AREAS 0.375"

5/8" WHEN USED WITH MUD PLATE.

FIGURE 5. TYPE II EXTENSIONS, FLANGE RING AND DIMENSIONS



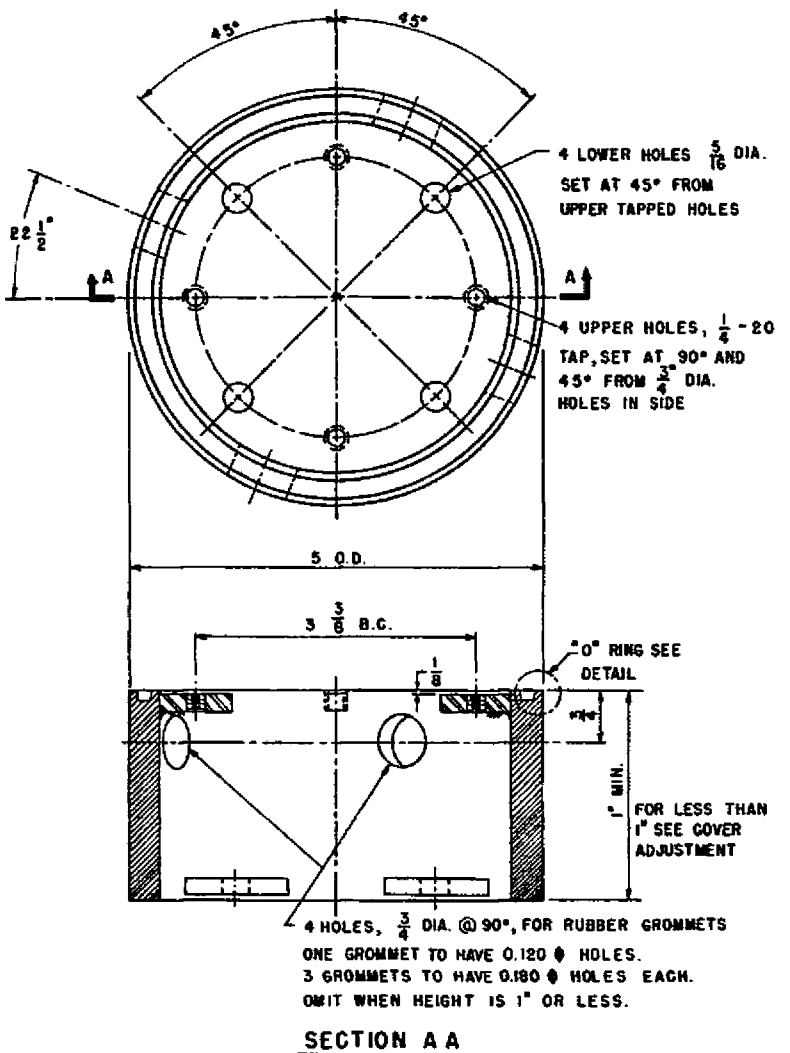
NOTES:

1. BOX SHALL BE PLATED W/ZINC PER QQ-Z-325
2. INSIDE TO BE COATED W/ZINC DUST PRIMER PER MIL-P-26915
3. COVER SHALL BE HOT-DIP GALVANIZED.
4. SEE FIGURE 5 FOR DIMENSIONS.
5. SUPPLY FOUR 18-8 STAINLESS STEEL HEX HEAD 1/4-20-2 BOLTS 3/4-INCH LONG WITH EACH TYPE II JUNCTION BOX.

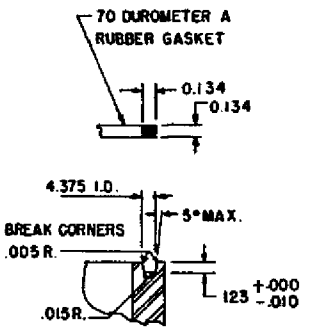
FIGURE 6. TYPE II JUNCTION BOX

NOTES:

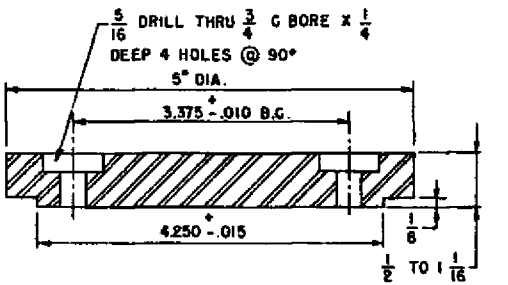
1. BOX EXT. SHALL BE PLATED W/ZINC PER QQ-Z-325
2. INSIDE SHALL BE COATED W/ZINC DUST PRIMER PER MIL-P-26915
3. SEE FIGURE 5 FOR DIMENSIONS.
4. SUPPLY FOUR 18-8 STAINLESS STEEL HEX HEAD $\frac{1}{4}$-20-2 BOLTS, $\frac{3}{4}$-INCH LONG WITH EACH TYPE II JUNCTION BOX EXTENSION.



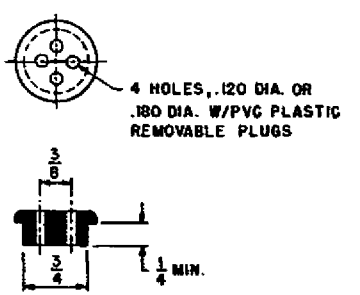
SECTION A A



"O" RING DETAIL



COVER ADJUSTMENT



RUBBER GROMMET

FIGURE 7. TYPE II JUNCTION BOX EXTENSION

GPO 867-789