

A GUIDE TO STANDARDIZED HIGHWAY LIGHTING POLE HARDWARE

PREPARED BY TASK FORCE No. 13

APRIL, 1980



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AASHTO-AGC-ARTBA JOINT COOPERATIVE COMMITTEE
SPECIAL SUBCOMMITTEE ON NEW HIGHWAY MATERIALS
TASK FORCE No. 13
(STANDARDIZATION OF DETAILS FOR BRIDGE AND ROAD HARDWARE)

MEMBERS

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Vice President, Sales
Syracuse Tank and
Manufacturing Company, Inc.
West Palm Beach, Florida

Gordon A. Alison
Market Manager
The Aluminum Association
Washington, D. C.

Charlie H. Cook
Chief Bridge Engineer
State Highway Department
Montgomery, Alabama

Louis A. Garrido
Bridge Design Engineer
Department of Transportation
and Development
Baton Rouge, Louisiana

Malcolm D. Graham
Assistant Commissioner for
Transportation Operations
New York State Department
of Transportation
Albany, New York

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Federal Highway Administration
Washington, D. C.

David S. Huval
Lafayette Steel Erectors
Scott, Louisiana

David R. Lewis
General Sales Manager
Siro Steel Company
Girard, Ohio

Larry G. Walker
Materials and Test Engineer
State Department of Highways
and Public Transportation
Austin, Texas

Charles H. Wilson
Bridge Engineer
Wyoming Highway Department
Cheyenne, Wyoming

ACKNOWLEDGEMENTS

The Task Force desires to express its thanks to the personnel in the State Highway Agencies who have assisted in the preparation of this guide through the submission of plans and their reviews of the guide in draft form.

Cooperation and assistance from the pole manufacturers and related industries and associations of the country has been extremely gratifying and much appreciated.

Finally, a special tribute is due Louis A. Garrido, Bridge Design Engineer; James C. Lorio, Electrical Design Engineer; Charles J. Meyer; Ronald D. Carter; Barry L. Langlois; and Loring Bacot of the Bridge and Structural Design Section of the Louisiana Department of Transportation and Development who carried the burden of coordination, design, and production of six drafts of the guide.

CONTENTS

	PAGE
DISCLAIMER	i
TASK FORCE No. 13 MEMBERS	ii
ACKNOWLEDGEMENTS	iii
INTRODUCTION	v
SUGGESTED SPECIFICATION FORMAT	vi
INDEX TO DRAWINGS	viii
PICTURE INDEX	x
SECTION STEEL POLE SHAFT ASSEMBLY (SPS)	1
SECTION STEEL LUMINAIRE SUPPORT ARM ASSEMBLY (SSA)	12
SECTION ALUMINUM POLE SHAFT ASSEMBLY (APS)	16
SECTION ALUMINUM LUMINAIRE SUPPORT ARM ASSEMBLY (ASA)	26
SECTION POLE ANCHORING ASSEMBLIES (PA)	30
SECTION NOT FULLY INTERCHANGEABLE (NFI)	38
APPENDIX	43

INTRODUCTION

The Task Force has produced suggested standard details and specifications in this publication for those lighting pole items which are widely used and which have well defined service requirements.

The suggested details shown in Sections (SPS, SSA, APS, ASA, and PA) are intended to eliminate the small variations in pole components which prevent the interchangeability of functionally identical hardware items.

The poles listed in Section NFI are intended to provide flexibility in design and fabrication and are considered acceptable alternates where interchangeable components are of minor importance.

The Task Force believes that the designs suggested in this guide meet the requirements of the 1975 Edition of AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals; however, A DESIGNER WISHING TO USE A SUPPORT DESIGN SUGGESTED IN THIS GUIDE MUST ASSURE HIMSELF OF THE ADEQUACY OF THE DESIGN.

A potential problem of standardization is stagnation. The Task Force is aware of this problem and wishes to avoid this happening as a result of its activities. It therefore, invites comments on the contents of the guide and information on new developments in light pole design that can be used in preparing future editions of this guide.

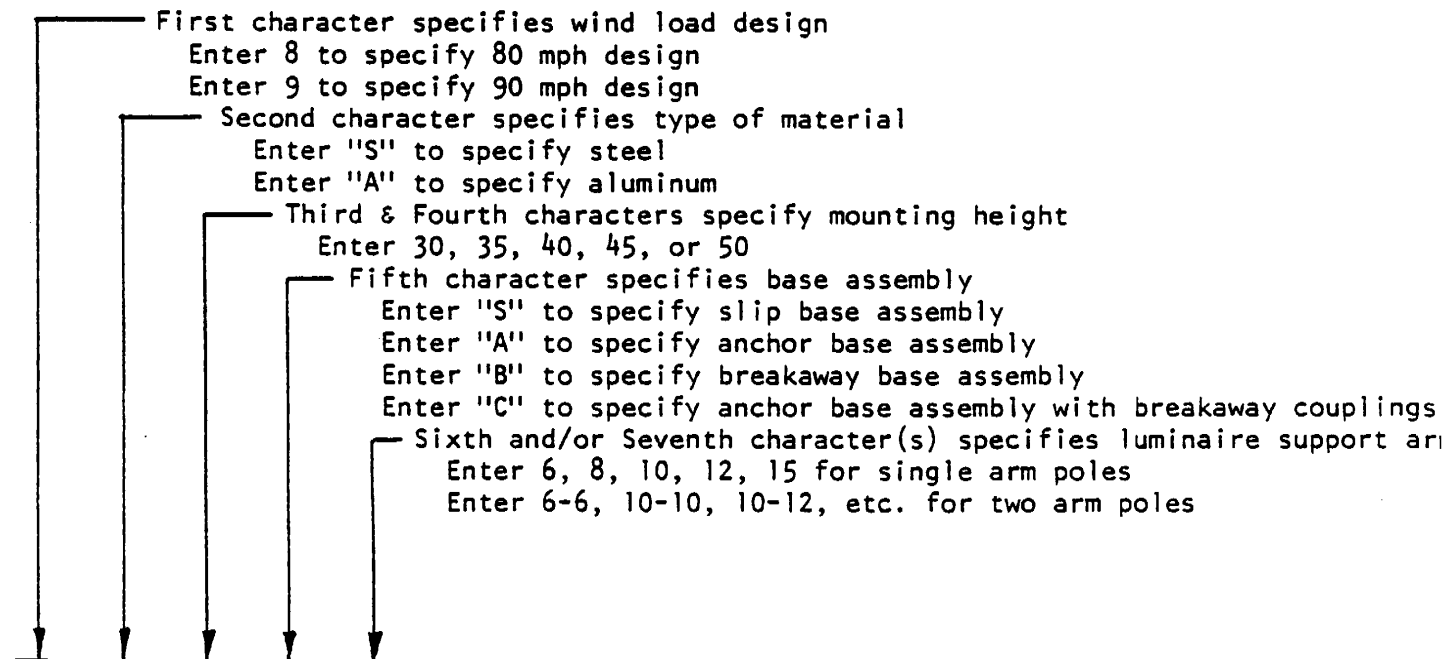
SUGGESTED SPECIFICATION FORMAT

AASHTO lighting poles may be specified by the use of a standard system specification number and option suffixes.

The use of a standard system specification number will completely specify the following:

1. Wind Loading Design (80 mph or 90 mph)
2. Type of Material (Steel or Aluminum)
3. Mounting Height (30', 35', 40', 45', or 50')
4. Pole Shaft with Handhole, Pole Top, Arm Attachments, Anchor Base, or Breakaway Base
5. Luminaire Support Arm, Attachments, Bolts, and Washers
6. Type Anchors (Anchor Bolts, Nuts, and Washers)

The form of standard system specification numbers are as follows:



Suffixes added to the standard specification numbers will alter the specifications as follows:

Suffixes:

C	Specifies bolt covers
B	Specifies single ballast adapter
B2	Specifies twin ballast adapter
NH	Omit handhole
NAB	Omit anchor bolts
P	Followed by color specifies painted poles
X°	Specifies handhole location other than 90° (90° is standard location)
X"	Specifies anchor bolt length other than standard (36" and 42" are standard)
CA	Specifies clamp type arm attachment (for aluminum poles only)
FI	Specifies fully interchangeable poles
TB	Specifies transformer base with pole

EXAMPLE

User Requirements:

90 mph design wind loading, galvanized steel construction, 40' mounting height, slip base, 6' luminaire support arm, provide bolt covers, locate handhole opposite support arm, provide 3 - 1" x 42" anchor bolts.

Specification Number:

9S40S6,C 180°,42"

INDEX TO DRAWINGS

SECTION SPS STEEL POLE SHAFT ASSEMBLY

TITLE	DRAWING No.	PAGE No.
Pole Shaft for One Single Member Luminaire Support Arm	SPS1-1	1
Pole Shaft for Two Single Member Luminaire Support Arms	SPS1-2	2
Pole Shaft for One 10' or 12' Truss Type Luminaire Support Arm	SPS1-3	3
Pole Shaft for Two 10' or 12' Truss Type Luminaire Support Arms	SPS1-4	4
Pole Shaft for One 15' Truss Type Luminaire Support Arm	SPS1-5	5
Pole Shaft for Two 15' Truss Type Luminaire Support Arms	SPS1-6	6
 Pole Shaft Attachment for Luminaire Support Arms	 SPS2-1	 7
 Handhole, Cover, and Bolts	 SPS3-1	 8
 Pole Top	 SPS4-1	 9
 Anchor Base	 SPS5-1	 10
Anchor Base Dimension Table	SPS5-1A	10A
Slip Base	SPS5-2	11
Slip Base Dimension Table	SPS5-2A	11A

SECTION SSA STEEL LUMINAIRE SUPPORT ARM ASSEMBLY

Single Member Luminaire Support Arm	SSA1-1	12
Truss Type Luminaire Support Arm	SSA1-2	13
 Luminaire Support Arm Attachment	 SSA2-1	 14
Luminaire Support Arm Attachment Bolt and Washers	SSA3-1	15

SECTION APS ALUMINUM POLE SHAFT ASSEMBLY

Pole Shaft for One Single Member Luminaire Support Arm	APS1-1	16
Pole Shaft for Two Single Member Luminaire Support Arms	APS1-2	17
Pole Shaft for One 10' or 12' Truss Type Luminaire Support Arm	APS1-3	18
Pole Shaft for Two 10' or 12' Truss Type Luminaire Support Arms	APS1-4	19
Pole Shaft for One 15' Truss Type Luminaire Support Arm	APS1-5	20
Pole Shaft for Two 15' Truss Type Luminaire Support Arms	APS1-6	21
 Handhole, Cover, and Bolts	 APS3-1	 22
 Pole Top	 APS4-1	 23
 Anchor Base	 APS5-1	 24
Integral Breakaway Base	APS5-3	25

**SECTION ASA
ALUMINUM LUMINAIRE SUPPORT ARM ASSEMBLY**

Single Member Luminaire Support Arm	ASA1-1	26
Truss Type Luminaire Support Arms	ASA1-2	27
Bolted Type Luminaire Support Arm Attachment for Single Member Arm	ASA2-1	28
Clamp Type Luminaire Support Arm Attachment for Truss Type Arms	ASA2-2	29

**SECTION PA
POLE ANCHORING ASSEMBLIES**

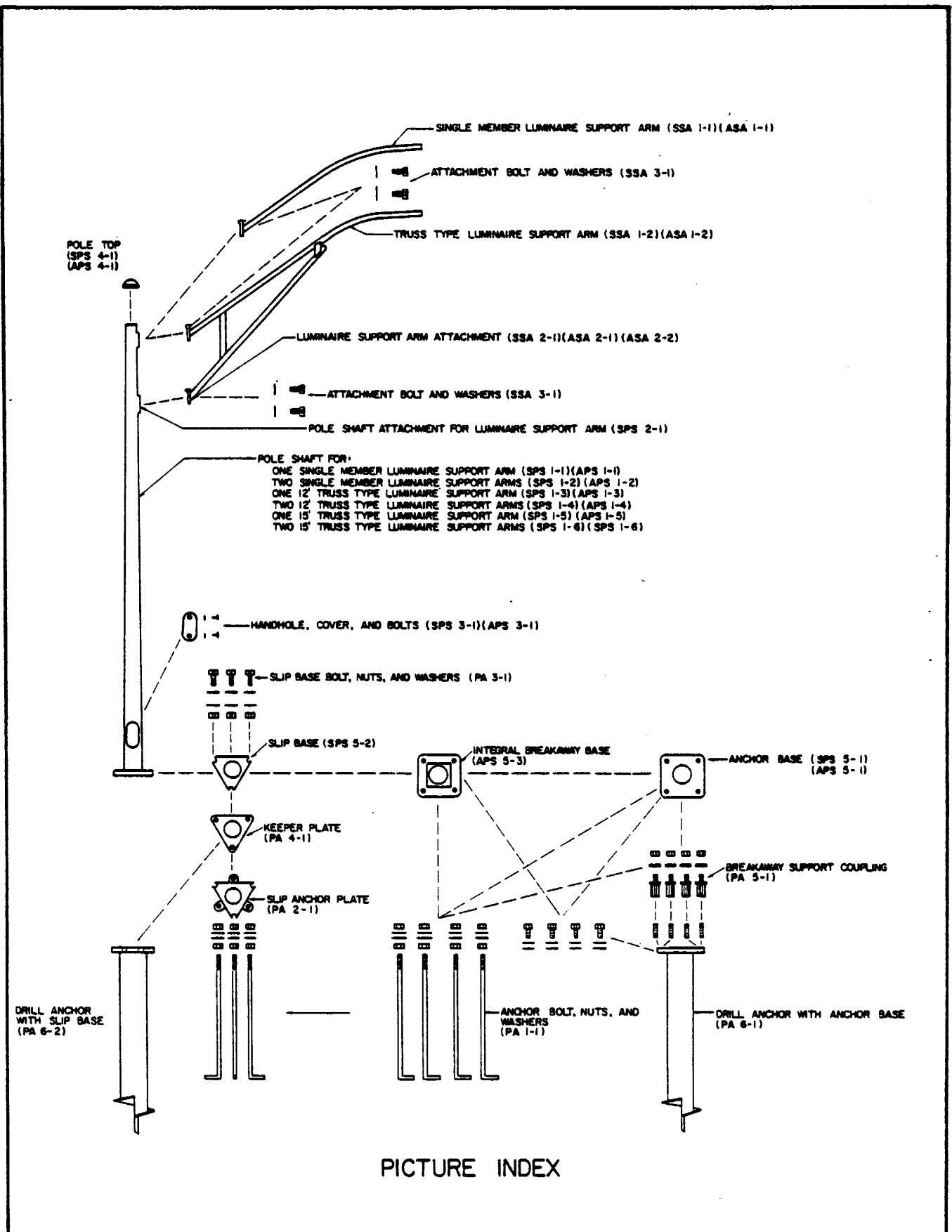
Anchor Bolt, Nuts, and Washers	PA1-1	30
Slip Anchor Plates	PA2-1	31
Slip Base Bolt, Nut, and Washers	PA3-1	32
Keeper Plate	PA4-1	33
Breakaway Support Coupling	PA5-1	34
Skirt Cover for Breakaway Support Couplings	PA5-2	35
Drill Anchor with Anchor Base	PA6-1	36
Drill Anchor with Slip Base	PA6-2	37

**SECTION NFI
NOT FULLY INTERCHANGEABLE**

Aluminum Pole (Alloy 5086)	NFI1-1	38
Integral Breakaway Base (Alloy 5086 Poles)	NFI1-2	39
Aluminum Poles (6063 and 6005 Alloy)	NFI2-1	40
Breakaway Transformer Base	NFI3-1	41
Alternate - But Not Fully Interchangeable Poles		42

APPENDIX

Alternate Dimensions for Steel Pole Shafts		43
Slip Base Assembly	SBA-1	44



PICTURE INDEX

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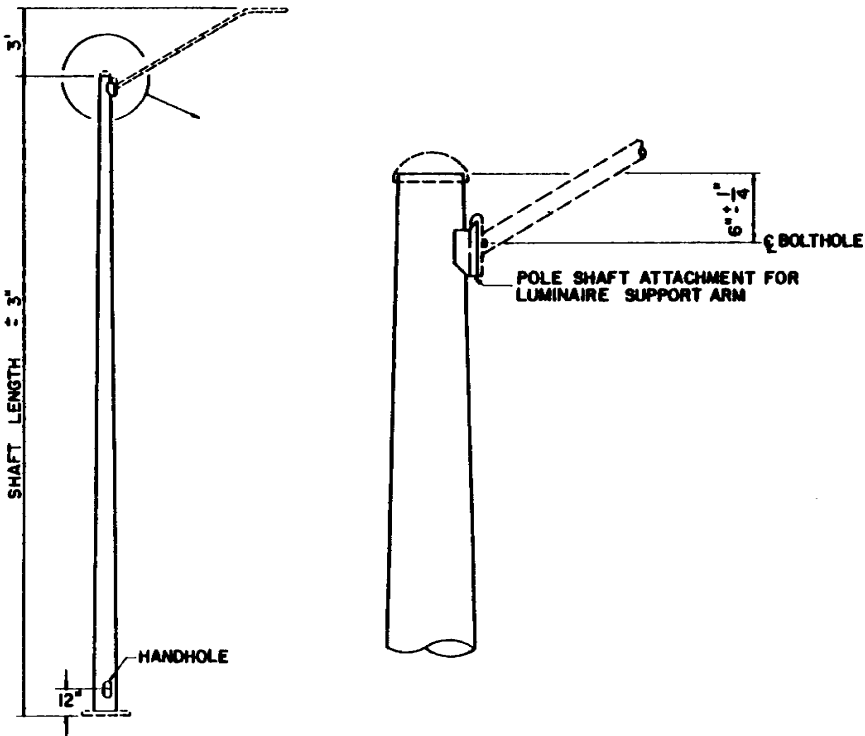
Documents
Document Sharing Hub

SECTION SPS

STEEL POLE SHAFT ASSEMBLY

DIMENSION TABLE				
MOUNTING HEIGHT	SHAFT LENGTH	SHAPE	90MPH	80MPH
30'	27'	ROUND	7 x 3.5 x 0.120	← SAME
		OCTAGON	7.5 x 4 x 0.120	← SAME
		DODECAGON	7.5 x 3.9 x 0.120	← SAME
35'	32'	ROUND	7 x 3.5 x 0.120	← SAME
		OCTAGON	8.5 x 4 x 0.120	7.5 x 4 x 0.120
		DODECAGON	7.5 x 3.9 x 0.120	← SAME
40'	37'	ROUND	7.2 x 3.5 x 0.120	← SAME
		OCTAGON	10 x 4 x 0.120	9 x 4 x 0.120
		DODECAGON	7.5 x 3.9 x 0.120	← SAME
45'	42'	ROUND	7.7 x 3.5 x 0.120	7.5 x 3.5 x 0.120
		OCTAGON	10 x 4 x 0.134	10 x 4 x 0.120
		DODECAGON	8.25 x 3.9 x 0.120	7.5 x 3.9 x 0.120
50'	47'	ROUND	8.2 x 3.5 x 0.120	← SAME
		OCTAGON	10 x 4 x 0.179	10.75 x 4 x 0.134
		DODECAGON	9.25 x 3.9 x 0.120	8.5 x 3.9 x 0.120

Ø Diameters Are Measured From Corner To Corner



SPECIFICATION

POLE SHAFT HAS STRUCTURAL CAPABILITIES EQUAL TO OR EXCEEDING THOSE INTENDED BY AASHTO 1975 EDITION, STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS.

DESIGN WIND LOADS ARE FOR 80 OR 90 MPH WIND ZONES, AS SPECIFIED ACTING ON A POLE HAVING ONE (1) 8' SINGLE MEMBER LUMINAIRE SUPPORT ARM EQUIPPED WITH A LUMINAIRE HAVING A PROJECTED AREA OF 3.3 SQUARE FEET AND WEIGHING 60 POUNDS.

POLE SHAFT IS FABRICATED FROM STEEL TUBES HAVING A MAXIMUM SILICON CONTENT OF .06%.

TABLE SHOWS MINIMUM DIMENSIONS OF SHAFTS FABRICATED FROM 50 KSI YIELD MATERIAL. SEE APPENDIX FOR MINIMUM DIMENSIONS OF SHAFTS FABRICATED FROM 55 KSI YIELD MATERIAL.

SHAFT DIMENSIONS ARE GIVEN IN INCHES UNLESS OTHERWISE INDICATED, AND ARRANGED WITH BOTTOM DIAMETER x TOP DIAMETER x WALL THICKNESS.

STEEL POLE SHAFT, INCLUDING BASES ARE GALVANIZED IN ACCORDANCE WITH SECTION 1.4.3(2) OF AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS. (ASTM A-123).

WHEN PAINTING IS SPECIFIED IN LIEU OF GALVANIZING, THE PAINTING WILL CONFORM TO SECTION 1.4.3(1) OF AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS.

DIMENSIONAL TOLERANCES FOR STEEL TUBES ARE IN ACCORDANCE WITH ASTM A-595 OR A-501.

WELDING IS IN ACCORDANCE WITH SECTION 1.4.2 OF AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS.

POLES SHOWN HAVE BEEN DESIGNED WITH A MINIMUM RADIUS OF CURVATURE OF 550' APPLIED 6" FROM POLE TOP WHEN EQUIPPED WITH A LUMINAIRE SUPPORT ARM AND 60 POUND LUMINAIRE.

MINIMUM RADIUS OF CURVATURE CRITERIA IS NOT A REQUIREMENT OF AASHTO, 1975 EDITION, STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS; HOWEVER, THE CRITERIA IS CONSISTENT WITH CURRENT INDUSTRY PRACTICE. INTENDED USE

THIS POLE SHAFT IS FOR USE WITH ONE (1) 6' OR 8' SINGLE MEMBER LUMINAIRE SUPPORT ARM.

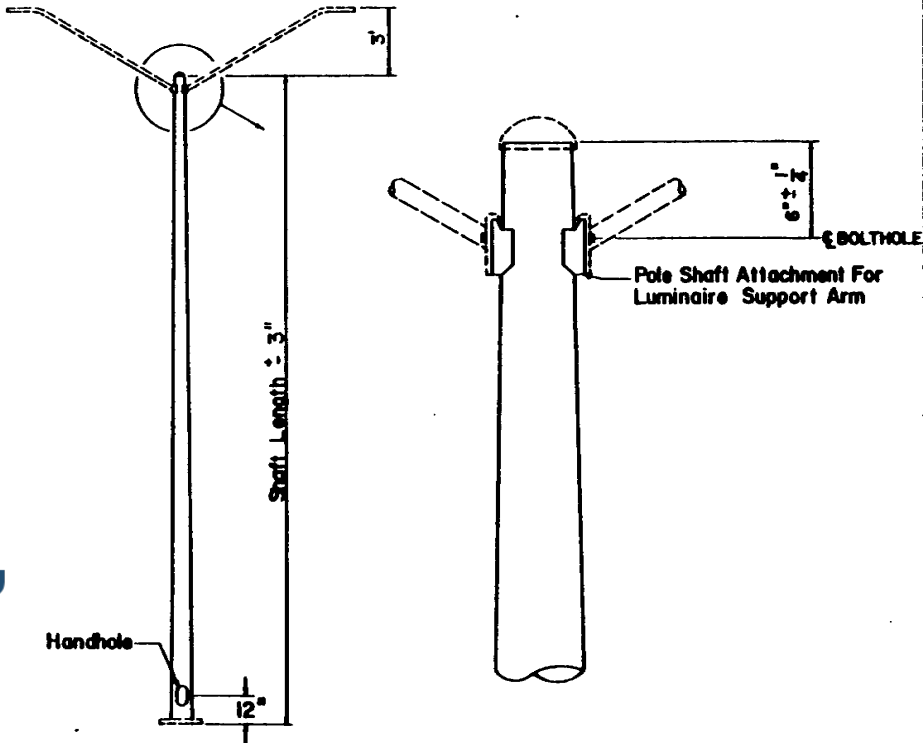
STEEL POLE SHAFT FOR ONE SINGLE MEMBER LUMINAIRE SUPPORT ARM

AASHTO-AGC-ARTBA
DRAWING

SPS-I-80

DIMENSION TABLE				
MOUNTING HEIGHT	SHAFT LENGTH	SHAPE	90 MPH	80 MPH
30'	27'	ROUND	7 x 3 2 x 0.120	← SAME
		OCTAGON	7.5 x 4 x 0.120	← SAME
		DODECAGON	7.5 x 3.9 x 0.120	← SAME
35'	32'	ROUND	7.5 x 3 x 0.120	7 x 3 x 0.120
		OCTAGON	8.5 x 4 x 0.120	7.5 x 4 x 0.120
		DODECAGON	7.5 x 3.9 x 0.120	← SAME
40'	37'	ROUND	8.5 x 3.3 x 0.120	8 x 3 x 0.120
		OCTAGON	10 x 4 x 0.120	9 x 4 x 0.120
		DODECAGON	8.5 x 3.9 x 0.120	7.75 x 3.9 x 0.120
45'	42'	ROUND	9 x 3.1 x 0.120	8.5 x 3 x 0.120
		OCTAGON	10 x 4 x 0.134	10 x 4 x 0.120
		DODECAGON	9.75 x 3.9 x 0.120	8.75 x 3.9 x 0.120
50'	47'	ROUND	10 x 3.4 x 0.120	9 x 3 x 0.120
		OCTAGON	10 x 4 x 0.178	10 x 4 x 0.120
		DODECAGON	10.75 x 4 x 0.120	9.75 x 3.9 x 0.120

Ø Diameter Are Measured From Corner To Corner



SPECIFICATION

POLE SHAFT HAS STRUCTURAL CAPABILITIES EQUAL TO OR EXCEEDING THOSE INTENDED BY AASHTO 1975 EDITION, STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS.

DESIGN WIND LOADS ARE FOR 80 OR 90 MPH WIND ZONES, AS SPECIFIED ACTING ON A POLE HAVING TWO (2) 8' SINGLE MEMBER LUMINAIRE SUPPORT ARMS, EACH EQUIPPED WITH A LUMINAIRE HAVING A PROJECTED AREA OF 3.3 SQUARE FEET AND WEIGHING 60 POUNDS.

POLE SHAFT IS FABRICATED FROM STEEL TUBES HAVING A MAXIMUM SILICON CONTENT OF .06%.

TABLE SHOWS MINIMUM DIMENSIONS OF SHAFTS FABRICATED FROM 50 KSI YIELD MATERIAL. SEE APPENDIX FOR MINIMUM DIMENSIONS OF SHAFTS FABRICATED FROM 55 KSI YIELD MATERIAL.

SHAFT DIMENSIONS ARE GIVEN IN INCHES UNLESS OTHERWISE INDICATED, AND ARRANGED WITH BOTTOM DIAMETER x TOP DIAMETER x WALL THICKNESS.

STEEL POLE SHAFT, INCLUDING BASES ARE GALVANIZED IN ACCORDANCE WITH SECTION 1.4.3(2) OF AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS. (ASTM A-123)

WHEN PAINTING IS SPECIFIED IN LIEU OF GALVANIZING, THE PAINTING WILL CONFORM TO SECTION 1.4.3(1) OF AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS.

DIMENSIONAL TOLERANCES FOR STEEL TUBES ARE IN ACCORDANCE WITH ASTM A-595 OR A-501.

WELDING IS IN ACCORDANCE WITH SECTION 1.4.2 OF AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS.

INTENDED USE

THIS POLE SHAFT IS FOR USE WITH TWO (2) 6' OR 8' SINGLE MEMBER LUMINAIRE SUPPORT ARMS.

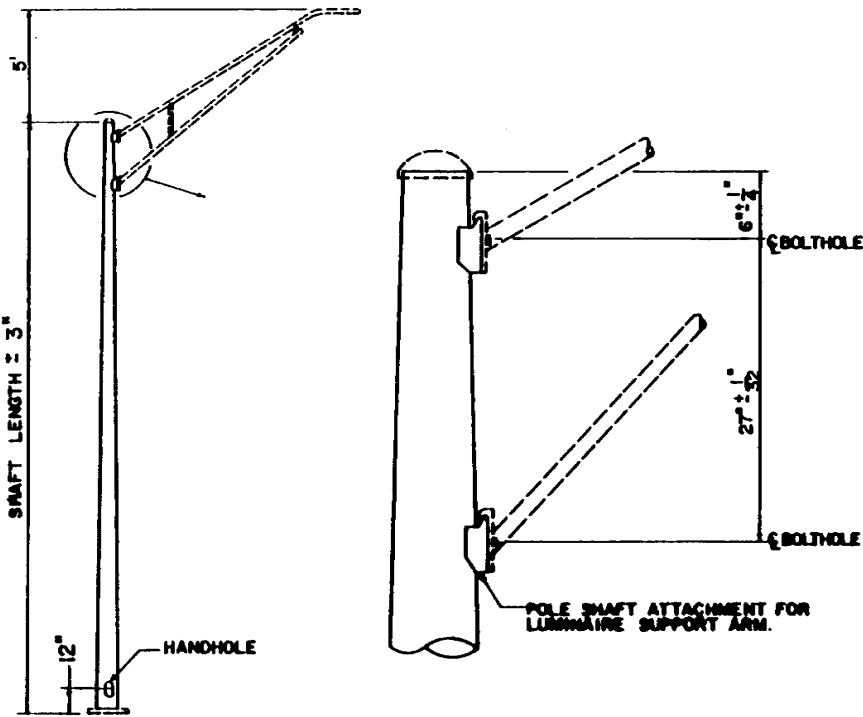
STEEL POLE SHAFT FOR TWO SINGLE MEMBER LUMINAIRE SUPPORT ARMS

AASHTO-AGC-ARTBA
DRAWING

SPSI-2

DIMENSION TABLE				
MOUNTING HEIGHT	SHAFT LENGTH	SHAPE	90 MPH	80 MPH
30'	25'	ROUND	7 x 3.8 x 0.120	← SAME
		OCTAGON [⊙]	7.5 x 4 x 0.120	← SAME
		DODECAGON [⊙]	7.5 x 3.9 x 0.120	← SAME
35'	30'	ROUND	7 x 3.8 x 0.120	← SAME
		OCTAGON [⊙]	8.5 x 4 x 0.120	7.5 x 4 x 0.120
		DODECAGON [⊙]	7.5 x 3.9 x 0.120	← SAME
40'	35'	ROUND	7.3 x 3.8 x 0.120	← SAME
		OCTAGON [⊙]	10 x 4 x 0.120	9 x 4 x 0.120
		DODECAGON [⊙]	8 x 3.9 x 0.120	7.8 x 3.9 x 0.120
45'	40'	ROUND	8.5 x 3.8 x 0.120	← SAME
		OCTAGON [⊙]	10 x 4 x 0.134	10 x 4 x 0.120
		DODECAGON [⊙]	9 x 3.9 x 0.120	8 x 3.9 x 0.120
50'	45'	ROUND	9.5 x 3.8 x 0.120	9 x 3.8 x 0.120
		OCTAGON [⊙]	10 x 4 x 0.120	10.75 x 4 x 0.134
		DODECAGON [⊙]	10 x 4 x 0.120	9 x 3.9 x 0.120

⊙ Diameters Are Measured From Corner To Corner
Δ For Missing Dimensions See Section NF1



SPECIFICATION

POLE SHAFT HAS STRUCTURAL CAPABILITIES EQUAL TO OR EXCEEDING THOSE INTENDED BY AASHTO 1975 EDITION, STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS.

DESIGN WIND LOADS ARE FOR 80 OR 90 MPH WIND ZONES, AS SPECIFIED, ACTING ON A POLE HAVING ONE (1) 12' TRUSS TYPE LUMINAIRE SUPPORT ARM EQUIPPED WITH A LUMINAIRE HAVING A PROJECTED AREA OF 3.3 SQUARE FEET AND WEIGHING 60 POUNDS.

POLE SHAFT IS FABRICATED FROM STEEL TUBES HAVING A MAXIMUM SILICON CONTENT OF .60%.

TABLE SHOWS MINIMUM DIMENSIONS OF SHAFTS FABRICATED FROM 50 KSI YIELD MATERIAL. SEE APPENDIX FOR MINIMUM DIMENSIONS OF SHAFTS FABRICATED FROM 55 KSI YIELD MATERIAL.

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POLES SHOWN HAVE BEEN DESIGNED WITH A MINIMUM RADIUS OF CURVATURE OF 550' APPLIED 3' FROM POLE TOP WHEN EQUIPPED WITH A LUMINAIRE SUPPORT ARM AND 60 POUND LUMINAIRE.

MINIMUM RADIUS OF CURVATURE CRITERIA IS NOT A REQUIREMENT OF AASHTO, 1975 EDITION, STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS; HOWEVER, THE CRITERIA IS CONSISTENT WITH CURRENT INDUSTRY PRACTICE

INTENDED USE

THIS POLE SHAFT IS FOR USE WITH ONE (1) 10' OR 12' TRUSS TYPE LUMINAIRE SUPPORT ARM.

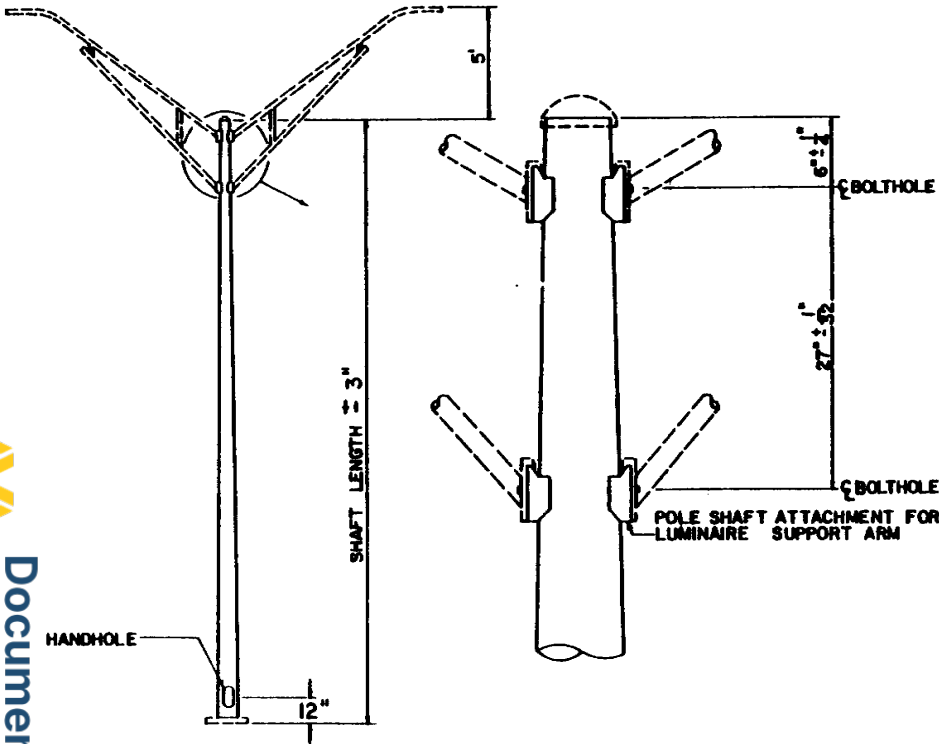
STEEL POLE SHAFT FOR ONE 10' OR 12' TRUSS TYPE
LUMINAIRE SUPPORT ARM

AASHTO-AGC-ARTBA
DRAWING

SPSI-3

DIMENSION TABLE				
MOUNTING HEIGHT	SHAFT LENGTH	SHAPE	90 MPH	80 MPH
30'	25'	ROUND	7.3 x 3.6 x 0.120	7 x 3.5 x 0.120
		OCTAGON	8.5 x 4 x 0.120	8 x 4 x 0.120
		DODECAGON	9 x 3.9 x 0.120	7.5 x 3.5 x 0.120
35'	30'	ROUND	8.2 x 4 x 0.120	8 x 3.6 x 0.120
		OCTAGON	9.5 x 3.9 x 0.120	9.5 x 4 x 0.120
		DODECAGON	9 x 3.9 x 0.120	8.5 x 3.9 x 0.120
40'	35'	ROUND	9.2 x 4 x 0.120	8.5 x 3.6 x 0.120
		OCTAGON	9 x 3.5 x 0.179	9.5 x 3.9 x 0.134
		DODECAGON	10 x 3.9 x 0.120	9.25 x 3.9 x 0.120
45'	40'	ROUND	10.2 x 4.6 x 0.120	9.4 x 3.9 x 0.120
		OCTAGON	10.2 x 4 x 0.179	11 x 3.9 x 0.134
		DODECAGON	11.5 x 4 x 0.120	10.5 x 4 x 0.120
50'	45'	ROUND	9.7 x 3.4 x 0.179	10.3 x 4 x 0.120
		OCTAGON	11.5 x 4.5 x 0.179	13.8 x 4 x 0.134
		DODECAGON	12.8 x 4.5 x 0.120	11.5 x 4 x 0.120

Ø Diameters Are Measured From Corner To Corner



SPECIFICATION

POLE SHAFT HAS STRUCTURAL CAPABILITIES EQUAL TO OR EXCEEDING THOSE INTENDED BY AASHTO 1975 EDITION, STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS.

DESIGN WIND LOADS ARE FOR 80 OR 90 MPH WIND ZONES, AS SPECIFIED ACTING ON A POLE HAVING TWO (2) 12' TRUSS TYPE LUMINAIRE SUPPORT ARMS, EACH EQUIPPED WITH A LUMINAIRE HAVING A PROJECTED AREA OF 3.3 SQUARE FEET AND WEIGHING 60 POUNDS.

POLE SHAFT IS FABRICATED FROM STEEL TUBES HAVING A MAXIMUM SILICON CONTENT OF .06%.

TABLE SHOWS MINIMUM DIMENSIONS OF SHAFTS FABRICATED FROM 50 KSI YIELD MATERIAL. SEE APPENDIX FOR MINIMUM DIMENSIONS OF SHAFTS FABRICATED FROM 55 KSI YIELD MATERIAL.

SHAFT DIMENSIONS ARE GIVEN IN INCHES UNLESS OTHERWISE INDICATED, AND ARRANGED WITH BOTTOM DIAMETER x TOP DIAMETER x WALL THICKNESS.

STEEL POLE SHAFT, INCLUDING BASES ARE GALVANIZED IN ACCORDANCE WITH SECTION 1.4.3(2) OF AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS. (ASTM A-123)

WHEN PAINTING IS SPECIFIED IN LIEU OF GALVANIZING, THE PAINTING WILL CONFORM TO SECTION 1.4.3(1) OF AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS.

DIMENSIONAL TOLERANCES FOR STEEL TUBES ARE IN ACCORDANCE WITH ASTM A-595 OR A-501.

WELDING IS IN ACCORDANCE WITH SECTION 1.4.2 OF AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS.

INTENDED USE

THIS POLE IS FOR USE WITH TWO (2) 10' OR 12' TRUSS TYPE LUMINAIRE SUPPORT ARMS.

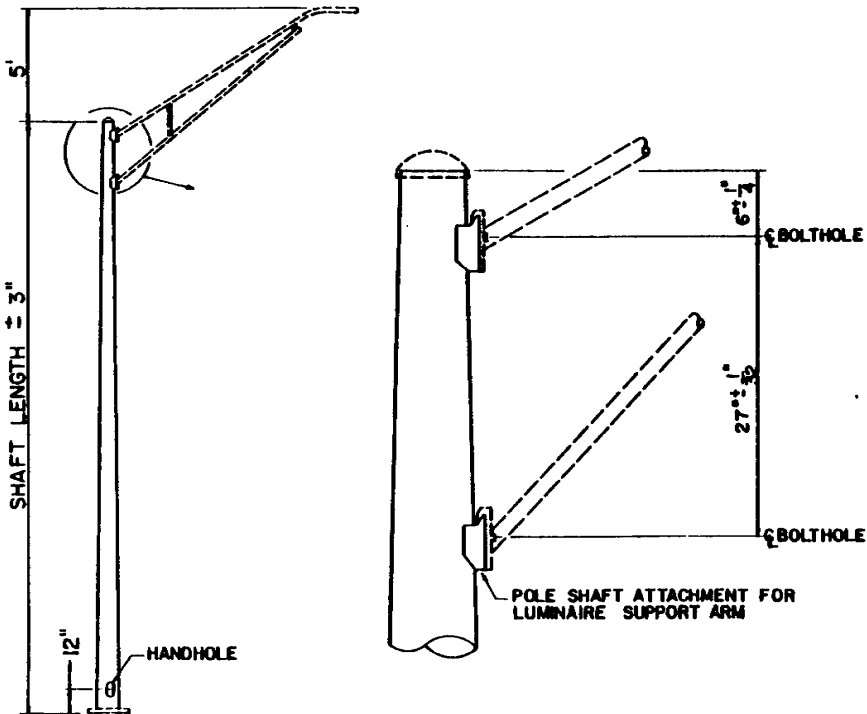
STEEL POLE SHAFT FOR TWO 10' OR 12' TRUSS TYPE LUMINAIRE SUPPORT ARMS

AASHTO-AGC-ARTBA
DRAWING

SPSI-4

DIMENSION TABLE				
MOUNTING HEIGHT	SHAFT LENGTH	SHAPE	90 MPH	80 MPH
30'	25'	ROUND	7 x 4.3 x 0.120	← SAME
		OCTAGON	7.5 x 4.5 x 0.120	← SAME
		DODECAGON	7.5 x 4.4 x 0.120	← SAME
35'	30'	ROUND	7 x 4.3 x 0.120	← SAME
		OCTAGON	8.5 x 4.5 x 0.120	7.5 x 4.5 x 0.120
		DODECAGON	7.5 x 4.4 x 0.120	← SAME
40'	35'	ROUND	7.8 x 4.3 x 0.120	7.5 x 4.3 x 0.120
		OCTAGON	9.5 x 4.3 x 0.134	8.5 x 4.5 x 0.120
		DODECAGON	8.5 x 4.4 x 0.120	7.75 x 4.4 x 0.120
45'	40'	ROUND	9 x 4.3 x 0.120	8.3 x 4.3 x 0.120
		OCTAGON	10.8 x 4.3 x 0.134	9.5 x 4.3 x 0.134
		DODECAGON	9.75 x 4.4 x 0.120	8.75 x 4.4 x 0.120
50'	45'	ROUND	9.5 x 4.3 x 0.120	8.8 x 4.3 x 0.120
		OCTAGON	11.5 x 4.3 x 0.134	11.5 x 4.3 x 0.134
		DODECAGON	10.2 x 4.2 x 0.134	9.75 x 4.4 x 0.120

⊙ Diameters Are Measured From Corner To Corner
△ For Missing Dimensions See Section NF1



SPECIFICATION

POLE SHAFT HAS STRUCTURAL CAPABILITIES EQUAL TO OR EXCEEDING THOSE INTENDED BY AASHTO 1975 EDITION, STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS.

DESIGN WIND LOADS ARE FOR 80 OR 90 MPH WIND ZONES, AS SPECIFIED ACTING ON A POLE HAVING ONE (1) 15' TRUSS TYPE LUMINAIRE SUPPORT ARM EQUIPPED WITH A LUMINAIRE HAVING A PROJECTED AREA OF 3.3 SQUARE FEET AND WEIGHING 60 POUNDS.

POLE SHAFT IS FABRICATED FROM STEEL TUBES HAVING A MAXIMUM SILICON CONTENT OF .06%.

TABLE SHOWS MINIMUM DIMENSIONS OF SHAFTS FABRICATED FROM 50 KSI YIELD MATERIAL. SEE APPENDIX FOR MINIMUM DIMENSIONS OF SHAFTS FABRICATED FROM 55 KSI YIELD MATERIAL.

SHAFT DIMENSIONS ARE GIVEN IN INCHES UNLESS OTHERWISE INDICATED, AND ARRANGED WITH BOTTOM DIAMETER x TOP DIAMETER x WALL THICKNESS.

STEEL POLE SHAFT, INCLUDING BASES ARE GALVANIZED IN ACCORDANCE WITH SECTION 1.4.3(2) OF AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS. (ASTM A-123)

WHEN PAINTING IS SPECIFIED IN LIEU OF GALVANIZING, THE PAINTING WILL CONFORM TO SECTION 1.4.3(1) OF AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS.

DIMENSIONAL TOLERANCES FOR STEEL TUBES ARE IN ACCORDANCE WITH ASTM A-595 OR A-501.

WELDING IS IN ACCORDANCE WITH SECTION 1.4.2 OF AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS.

POLES SHOWN HAVE BEEN DESIGNED WITH A MINIMUM RADIUS OF CURVATURE OF 550' APPLIED 3' FROM POLE TOP WHEN EQUIPPED WITH A LUMINAIRE SUPPORT ARM AND 60 POUND LUMINAIRE.

MINIMUM RADIUS OF CURVATURE CRITERIA IS NOT A REQUIREMENT OF AASHTO 1975 EDITION, STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS; HOWEVER, THE CRITERIA IS CONSISTENT WITH CURRENT INDUSTRY PRACTICE.

INTENDED USE

THIS POLE IS FOR USE WITH ONE (1) 15' TRUSS TYPE LUMINAIRE SUPPORT ARM.

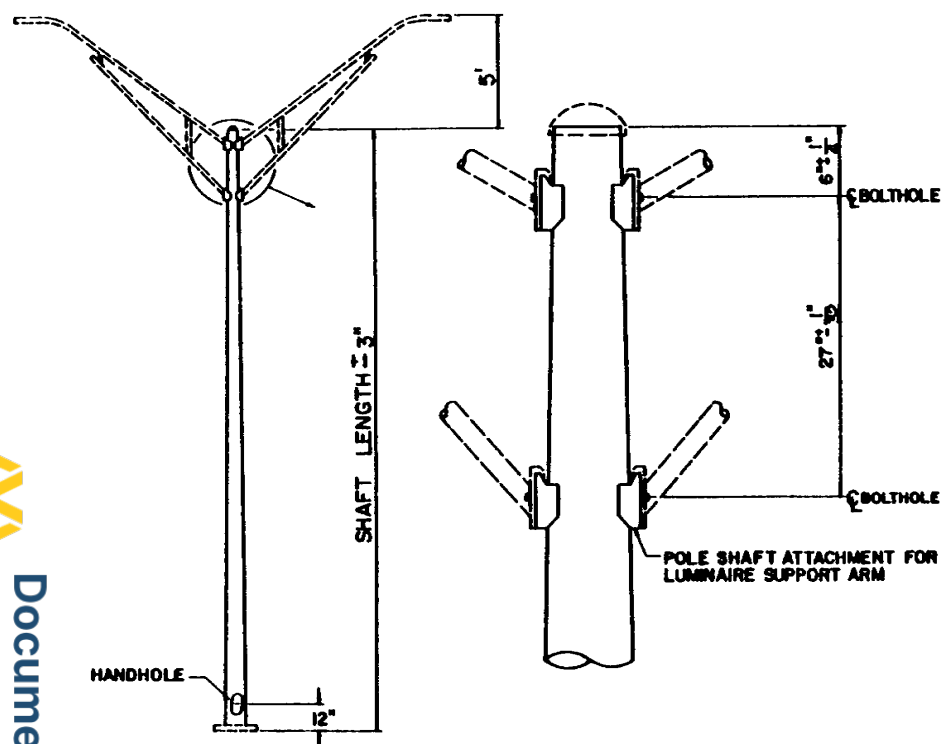
STEEL POLE SHAFT FOR ONE 15' TRUSS TYPE
LUMINAIRE SUPPORT ARM

AASHTO-AGC-ARTBA
DRAWING

SPSI-5

DIMENSION TABLE				
MOUNTING HEIGHT	SHAFT LENGTH	SHAPE	90 MPH	80 MPH
30'	25'	ROUND	7.8 x 4.3 x 0.120	7 x 3.5 x 0.120
		OCTAGON	9.5 x 4.5 x 0.120	8.5 x 4.5 x 0.120
		DODECAGON	8.5 x 4.4 x 0.120	7.5 x 4.4 x 0.120
35'	30'	ROUND	8.8 x 4.6 x 0.120	8.5 x 4.3 x 0.120
		OCTAGON	8.75 x 3.8 x 0.179	9.5 x 4.3 x 0.134
		DODECAGON	9.75 x 4.4 x 0.120	8.5 x 4.4 x 0.120
40'	35'	ROUND	9.9 x 5 x 0.120	8.9 x 3.9 x 0.120
		OCTAGON	9.75 x 3.8 x 0.179	10.25 x 4.3 x 0.134
		DODECAGON	11 x 4.4 x 0.120	9.5 x 4.4 x 0.120
45'	40'	ROUND	9 x 3.4 x 0.179	10.1 x 4.5 x 0.120
		OCTAGON	10.75 x 3.8 x 0.179	9.75 x 3.8 x 0.179
		DODECAGON	12.5 x 4.4 x 0.120	11 x 4.4 x 0.120
50'	45'	ROUND	9.8 x 3.5 x 0.179	11 x 4.7 x 0.120
		OCTAGON	11.8 x 4 x 0.179	10.5 x 3.8 x 0.179
		DODECAGON	13.25 x 5 x 0.120	12.25 x 4.4 x 0.120

Ø Diameters Are Measured From Corner To Corner



SPECIFICATION

POLE SHAFT HAS STRUCTURAL CAPABILITIES EQUAL TO OR EXCEEDING THOSE INTENDED BY AASHTO 1975 EDITION, STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS.

DESIGN WIND LOADS ARE FOR 80 OR 90 MPH WIND ZONES, AS SPECIFIED ACTING ON A POLE HAVING TWO (2) 15' TRUSS TYPE LUMINAIRE SUPPORT ARMS, EACH EQUIPPED WITH A LUMINAIRE HAVING A PROJECTED AREA OF 3.3 SQUARE FEET AND WEIGHING 60 POUNDS.

POLE SHAFT IS FABRICATED FROM STEEL TUBES HAVING A MAXIMUM SILICON CONTENT OF .06%.

TABLE SHOWS MINIMUM DIMENSIONS OF SHAFTS FABRICATED FROM 50 KSI YIELD MATERIAL. SEE APPENDIX FOR MINIMUM DIMENSIONS OF SHAFTS FABRICATED FROM 55 KSI YIELD MATERIAL.

SHAFT DIMENSIONS ARE GIVEN IN INCHES UNLESS OTHERWISE INDICATED, AND ARRANGED WITH BOTTOM DIAMETER x TOP DIAMETER x WALL THICKNESS.

STEEL POLE SHAFT, INCLUDING BASES ARE GALVANIZED IN ACCORDANCE WITH SECTION 1.4.3(2) OF AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS. (ASTM A-123)

WHEN PAINTING IS SPECIFIED IN LIEU OF GALVANIZING, THE PAINTING WILL CONFORM TO SECTION 1.4.3(1) OF AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS.

DIMENSIONAL TOLERANCES FOR STEEL TUBES ARE IN ACCORDANCE WITH ASTM A-595 OR A-501.

WELDING IS IN ACCORDANCE WITH SECTION 1.4.2 OF AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS.

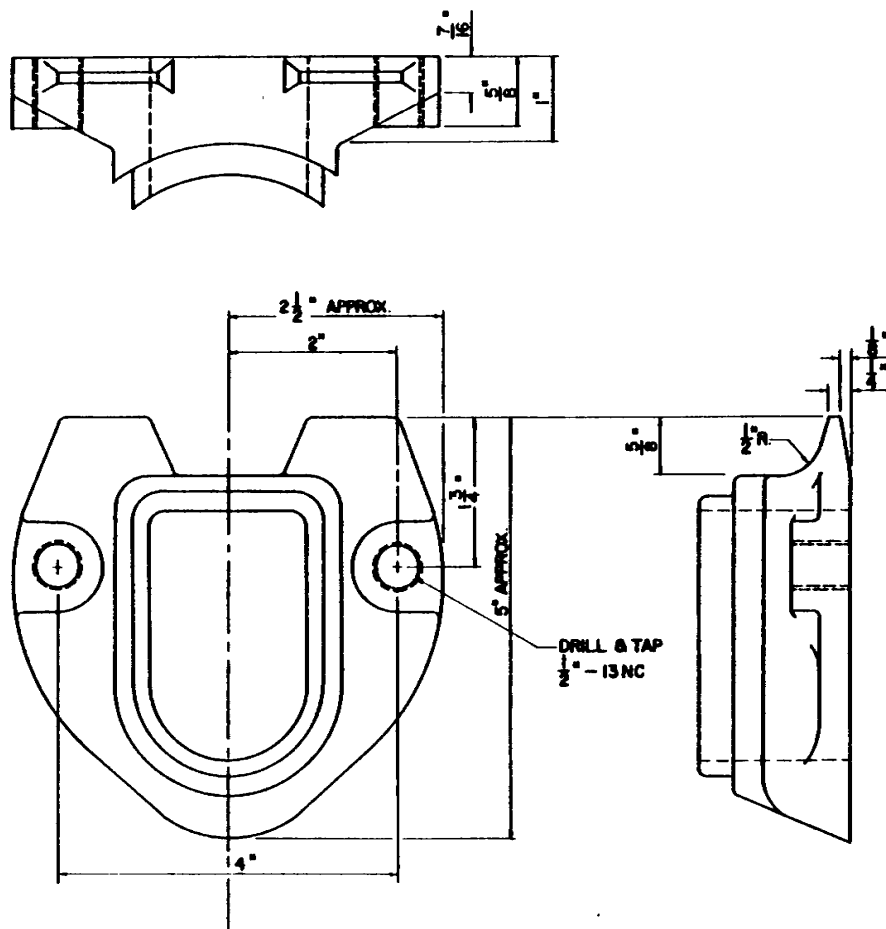
INTENDED USE

THIS POLE SHAFT IS FOR USE WITH TWO (2) 15' TRUSS TYPE LUMINAIRE SUPPORT ARMS.

STEEL POLE SHAFT FOR TWO 15' TRUSS TYPE LUMINAIRE SUPPORT ARMS

AASHTO-AGC-ARTBA
DRAWING

SPSI-6



SPECIFICATIONS

ATTACHMENT IS CAST ACCORDING TO ASTM A-27, GRADE 65-35 OR FORGED ACCORDING TO A-521.

ATTACHMENT IS WELDED TO POLE SHAFT IN ACCORDANCE WITH SECTION 1.5.5 OF AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS.

INTENDED USE

ATTACHMENT IS FOR CONNECTION OF LUMINAIRE SUPPORT ARM TO POLE SHAFT.

POLE SHAFT ATTACHMENT FOR LUMINAIRE SUPPORT ARMS

**AASHTO-AGC-ARTBA
DRAWING**

SPS2-1