POLE, TYPE 7

(TOP VIEW)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SLOTTED ANCHOR ROD HOLES FOR 1"-8 UNC ANCHOR RODS (4 EACH, 15" BOLT CIRCLE) SHALL BE PROVIDED IN BASE CASTING.

POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM. EXCEPT THAT BASE CASTINGS SHALL BE CONSTRUCTED OF 356-T6 ALUMINUM. THE SHAFT SHALL BE ROUND AND UNIFORMLY TAPERED FROM A 10" O.D. BUTT TO A 6" O.D. TOP.

HEAT TREATMENT OF WELDMENTS IN STRUCTURAL AREAS (e.g. BASE CASTING, HAND HOLE, BRACKET FOR GROUNDING LUG) REQUIRED.

ALL THREADED FASTENER COMPONENTS SHALL BE STAINLESS STEEL. NUTS SHALL BE HEX NUTS. BOLTS SHALL BE HEX HEAD. ALL THREADED SURFACES SHALL BE COATED WITH ANTI-SEIZE COMPOUND PRIOR TO INSTALLATION.

LUMINAIRE ARMS AND CLAMP ASSEMBLIES SHOWN FOR INFORMATION ONLY (PAID SEPARATELY).

LUMINAIRE LOADING FOR DESIGN CALCULATION SHALL BE 50 LBS. IN WEIGHT AND 1.5 SQ. FT. FOR E.P.A.

- SHOE BASE.
- (2) 4" x 6" REINFORCED HANDHOLE & COVER ASSEMBLY SECURED BY TWO (2) ¼" X ¾"- 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

HANDHOLE SHALL BE 90 DEGREES FROM LUMINAIRE ARMS OF TWIN LUMINAIRE POLES; 180 DEGREES FROM LUMINAIRE ARM OF SINGLE LUMINAIRE POLES; 0 DEGREES FROM LUMINAIRE ARM FOR STRUCTURE MOUNTED POLES

- (3) INTERNAL DUMBBELL-TYPE VIBRATION DAMPER.
- (4) FURNISH AND INSTALL CAST OR METALLIC (ALUMINUM ALLOY) POLE CAP. FASTEN CAP WITH THREE ½" X ½"- 20 TPI STAINLESS STEEL HEX HEAD BOLTS.
- (5) 1 3/8" FIELD DRILLED HOLE WITH 1" CHASE NIPPLE AND NUT (OR NEO- PRENE GROMMET), PER EACH REQUIRED LUMINAIRE ARM.
- (6) FACTORY-WELDED "J" HOOK FOR POLE WIRE STRAIN RELIEF.
- 7 FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE. (LUG AND HARDWARE PAID UNDER SEPARATE ITEMS; SHOWN FOR INFORMATION ONLY). PROVIDE HOLE IN BRACKET FOR ¼" x ¾" 20 TPI STAINLESS STEEL HEX HEAD BOLTS.
- (8) MANUFACTURER'S PLATE SHOWING WISDOT POLE TYPE, MANUFACTURER, AND DATE.

POLE TYPE (NOM. SHAFT LENGTH)	TYPICAL APPLICATION	ARM & LUMINAIRE LOADS (MAX.)	ADDITIONAL (MAX.) LOADS
TYPE 7	ARTERIALS	TWIN ARMS UP TO 10 FT. (SINGLE MEMBER)	UP TO 20 SQ. FT. OF TRAFFIC SIGNS, MOUNTED AS HIGH AS 15 FT. TO TOP OF SIGN, PLUS 1 - 3 SECTION, 1 - 5 SECTION, AND 2 - PED. TRAFFIC HEAD
(35' - 10")	FREEWAY	SINGLE ARM, UP TO 20 FT. TRUSS TYPE	UP TO 20 SQ. FT. OF TRAFFIC SIGNS, MOUNTED AS HIGH AS 15 FT. TO TOP OF SIGN

POLES, TYPE 7 ALUMINUM - 35' -10" SHAFT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

May 2022 /S/ Ahmet Demirbilek

DATE STATE ELECTRICAL ENGINEER

JD 10A17 - 05a

Version 5 Standard Detail Drawing 10A17 (sheet a) May 17, 2022

Poles, Type 7 Aluminum - 35'-10" Shaft

References:

<u>FDM15-5 Attachment 30.5</u> and <u>30.6</u> for conventional symbols. <u>Standard Spec 657</u> Poles, Arms, Standards and Bases

Bid items associated with this drawing:

ITEM NUMBER	<u>DESCRIPTION</u>	<u>UNIT</u>
657.0330	Poles Type 7	EACH
657.0620 - 0699	Luminaire Arms Single Member 6-Inch Clamp (feet)	EACH
657.0720 - 0799	Luminaire Arms Truss Type 6-Inch Clamp (feet)	EACH

Standardized Special Provisions associated with this drawing:

STSP NUMBER TITLE

NONE

Other SDDs associated with this drawing:

<u>SDD 9C10</u>	Transformer Base for 15-inch Bolt Circle
SDD 10A1	Electrical Handhole Wiring
SDD 10A5	Electrical Details Ground Mount Light Poles Isolated Neutral Systems
SDD 10A6	Electrical Details Ground Mount Poles Grounded Neutral Systems
SDD 10A7	Electrical Details Ground Mount Light Poles Isolated Neutral Systems
SDD 10A8	Electrical Details Structure Mount Light Poles Isolated Neutral Systems
SDD 10A9	Electrical Details Structure Mount Light Poles Grounded Neutral Systems
SDD 10A10	Electrical Details Structure Mount Light Poles Phase-to-Phase Systems
SDD 10A11	Electrical Details Median Mount Light Poles Isolated Neutral Systems
SDD 10A12	Electrical Details Median Mount Light Poles Grounded Neutral Systems
SDD 10A18	Luminaire Arms, Single Member 6-inch Clamp sheets "a" and "b"

Design Notes:

NONE

Contact Person:

Ahmet Demirbilek (414) 220-6801 (414) 322-9606 (Mobile)

(TOP VIEW)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM, EXCEPT THAT BASE CASTINGS SHALL BE CONSTRUCTED OF 356-T6 ALUMINUM. THE SHAFT SHALL BE ROUND AND UNIFORMLY TAPERED FROM A 10" O D BUTT TO A 6" O D TOP

HEAT TREATMENT OF WELDMENTS IN STRUCTURAL AREAS (e.g. BASE CASTING, HAND HOLE, BRACKET FOR GROUNDING LUG) REQUIRED.

ALL THREADED FASTENER COMPONENTS SHALL BE STAINLESS STEEL. NUTS SHALL BE HEX NUTS. BOLTS SHALL BE HEX HEAD. ALL THREADED SURFACES SHALL BE COATED WITH ANTI-SEIZE

LUMINAIRE ARMS AND CLAMP ASSEMBLIES SHOWN FOR INFORMATION ONLY (PAID SEPARATELY).

LUMINAIRE LOADING FOR DESIGN CALCULATION SHALL BE 50 LBS. IN WEIGHT AND 1.5 SQ. FT. FOR E.P.A.

- (1) OPTIONAL TELESCOPING FIELD JOINT SECURED BY A 1/2" 11 TPI THROUGH BOLT OR STUD.
- (2) SHOE BASE.
- 3 4" x 6" REINFORCED HANDHOLE & COVER ASSEMBLY SECURED BY TWO (2) ¼" X ¾"- 20 TPI STAINLESS

HANDHOLE SHALL BE 90 DEGREES FROM LUMINAIRE ARMS OF TWIN LUMINAIRE POLES; 180 DEGREES FROM LUMINAIRE ARM OF SINGLE LUMINAIRE POLES; 0 DEGREES FROM LUMINAIRE ARM FOR STRUCTURE

- (4) INTERNAL DUMBBELL-TYPE VIBRATION DAMPER.
- (5) FURNISH AND INSTALL CAST OR METALLIC (ALUMINUM ALLOY) POLE CAP. FASTEN CAP WITH THREE ½" X ¾"- 20 TPI STAINLESS STEEL HEX HEAD BOLTS.
- 1 %" FIELD DRILLED HOLE WITH 1" CHASE NIPPLE AND NUT (OR NEO- PRENE GROMMET), PER EACH
- (7) FACTORY-WELDED "J" HOOK FOR POLE WIRE STRAIN RELIEF.
- FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE. (LUG AND HARDWARE PAID UNDER SEPARATE ITEMS; SHOWN FOR INFORMATION ONLY). PROVIDE HOLE IN BRACKET FOR 1/4" X 3/4" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.
- MANUFACTURER'S PLATE SHOWING WISDOT POLE TYPE, MANUFACTURER, AND DATE.

POLE TYPE (NOM. SHAFT LENGTH)	TYPICAL APPLICATION	ARM & LUMINAIRE LOADS (MAX.)	ADDITIONAL (MAX.) LOADS
TYPE A, (47' - 6")	FREEWAY MEDIAN OR STRUCTURE MOUNT	SINGLE ARM, UP TO 10 FT., OR TWIN 4 FT. ARMS	UP TO 20 SQ. FT. OF TRAFFIC SIGNS, MOUNTED AS HIGH AS 15 FT. TO TOP OF SIGN.

POLES, TYPE A ALUMINUM - 47' - 6" SHAFT

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED May 2022 DATE

/S/ Ahmet Demirbilel STATE ELECTRICAL ENGINEER

POLE, TYPE A

Version 5

Standard Detail Drawing 10A17 (sheet b)

May 17, 2022

Poles, Type A Aluminum 47-6" Shaft

References:

<u>FDM15-5 Attachment 30.5</u> and <u>30.6</u> for conventional symbols. <u>Standard Spec 657</u> Poles, Arms, Standards and Bases

Bid items associated with this drawing:

ITEM NUMBER	<u>DESCRIPTION</u>	<u>UNIT</u>
657.0375	Poles Type A	EACH
657.0620 - 0699	Luminaire Arms Single Member 6-Inch Clamp (feet)	EACH
657.0720 - 0799	Luminaire Arms Truss Type 6-Inch Clamp (feet)	EACH

Standardized Special Provisions associated with this drawing:

STSP NUMBER TITLE

NONE

Other SDDs associated with this drawing:

<u>SDD 9C10</u>	Transformer Base for 15-inch Bolt Circle
SDD 10A1	Electrical Handhole Wiring
SDD 10A5	Electrical Details Ground Mount Light Poles Isolated Neutral Systems
SDD 10A6	Electrical Details Ground Mount Poles Grounded Neutral Systems
SDD 10A7	Electrical Details Ground Mount Light Poles Isolated Neutral Systems
SDD 10A8	Electrical Details Structure Mount Light Poles Isolated Neutral Systems
SDD 10A9	Electrical Details Structure Mount Light Poles Grounded Neutral Systems
SDD 10A10	Electrical Details Structure Mount Light Poles Phase-to-Phase Systems
SDD 10A11	Electrical Details Median Mount Light Poles Isolated Neutral Systems
SDD 10A12	Electrical Details Median Mount Light Poles Grounded Neutral Systems
SDD 10A18	Luminaire Arms, Single Member 6-inch Clamp sheets "a" and "b"

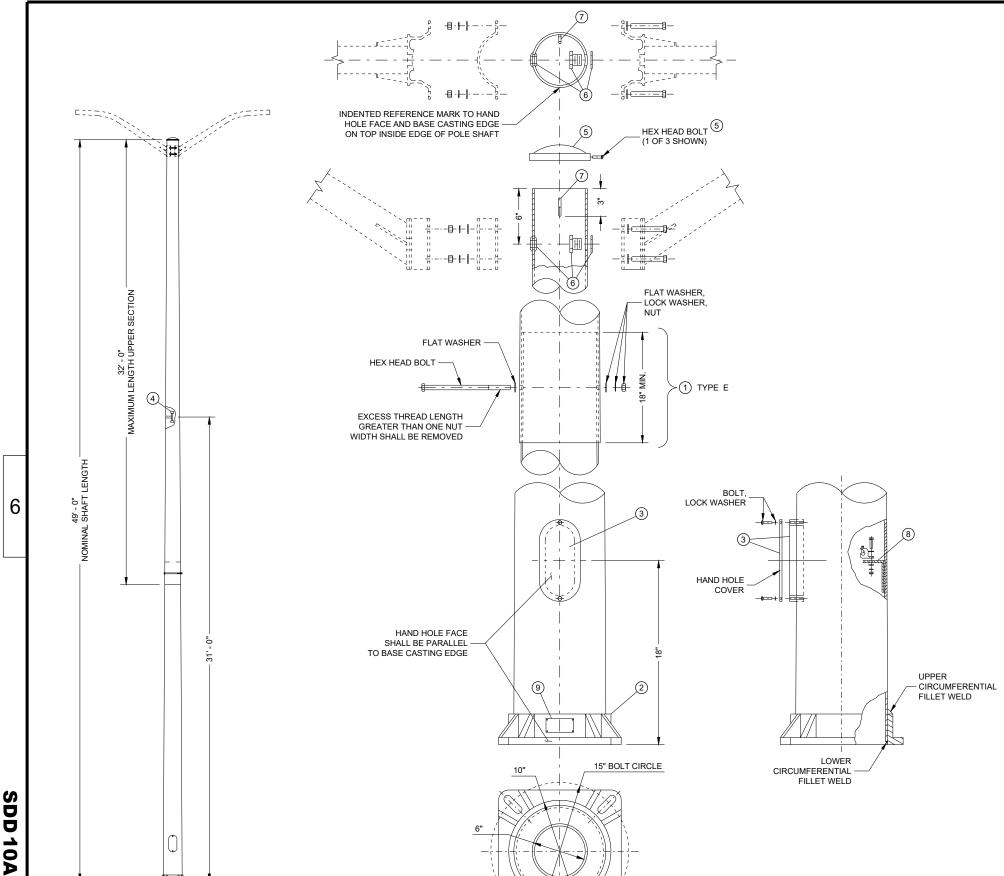
Design Notes:

NONE

Contact Person:

Ahmet Demirbilek (414) 220-6801 (414) 322-9606 (Mobile)

POLE, TYPE A



(TOP VIEW)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM, EXCEPT THAT BASE CASTINGS SHALL BE CONSTRUCTED OF 356-T6 ALUMINUM.

HEAT TREATMENT OF WELDMENTS IN STRUCTURAL AREAS (e.g. BASE CASTING, HAND HOLE, BRACKET FOR GROUNDING LUG) REQUIRED.

ALL THREADED FASTENER COMPONENTS SHALL BE STAINLESS STEEL. NUTS SHALL BE HEX NUTS. BOLTS SHALL BE HEX HEAD. ALL THREADED SURFACES SHALL BE COATED WITH ANTI-SEIZE COMPOUND PRIOR TO INSTALLATION.

LUMINAIRE ARMS AND CLAMP ASSEMBLIES SHOWN FOR INFORMATION ONLY (PAID SEPARATELY).

LUMINAIRE LOADING FOR DESIGN CALCULATION SHALL BE 50 LBS. IN WEIGHT AND 1.5 SQ. FT. FOR E.P.A.

- (1) OPTIONAL TELESCOPING FIELD JOINT SECURED BY A 5/8" 11 TPI THROUGH BOLT OR STUD.
- 2 SHOE BASE
- 3 4" x 6" REINFORCED HANDHOLE & COVER ASSEMBLY SECURED BY TWO (2) ¼" X ¾"- 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

HANDHOLE SHALL BE 90 DEGREES FROM LUMINAIRE ARMS OF TWIN LUMINAIRE POLES; 180 DEGREES FROM LUMINAIRE ARM OF SINGLE LUMINAIRE POLES; 0 DEGREES FROM LUMINAIRE ARM FOR STRUCTURE MOUNTED POLES.

- (4) INTERNAL DUMBBELL-TYPE VIBRATION DAMPER.
- 6 1 %" FIELD DRILLED HOLE WITH 1" CHASE NIPPLE AND NUT (OR NEO- PRENE GROMMET), PER EACH REQUIRED LUMINAIRE ARM.
- 7) FACTORY-WELDED "J" HOOK FOR POLE WIRE STRAIN RELIEF.
- (8) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE. (LUG AND HARDWARE PAID UNDER SEPARATE ITEMS; SHOWN FOR INFORMATION ONLY). PROVIDE HOLE IN BRACKET FOR ½" x ¾" 20 TPI STAINLESS STEEL HEX HEAD BOLTS.
- 9 MANUFACTURER'S PLATE SHOWING WISDOT POLE TYPE, MANUFACTURER, AND DATE.

POLE TYPE (NOM. SHAFT LENGTH)	TYPICAL APPLICATION	ARM & LUMINAIRE LOADS (MAX.)	ADDITIONAL (MAX.) LOADS
TYPE A, (49' - 0")	FREEWAY MEDIAN OR STRUCTURE MOUNT	SINGLE ARM, UP TO 20 FT., TRUSS TYPE OR TWIN ARMS UP TO 10' SINGLE MEMBER	UP TO 20 SQ. FT. OF TRAFFIC SIGNS, MOUNTED AS HIGH AS 15 FT. TO TOP OF SIGN.

POLES, TYPE E ALUMINUM - 49' - 0" SHAFT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

May 2022 /S/ Ahmet Demirbilek

DATE STATE ELECTRICAL ENGINEER

DD 10A17 - 0

Version 5 Standard Detail Drawing 10A17 (sheet c) May 17, 2022

Poles, Type E Aluminum 49'- 0" Shaft

References:

<u>FDM15-5 Attachment 30.5</u> and <u>30.6</u> for conventional symbols. <u>Standard Spec 657</u> Poles, Arms, Standards and Bases

Bid items associated with this drawing:

ITEM NUMBER	<u>DESCRIPTION</u>	<u>UNIT</u>
657.0380	Poles Type E	EACH
657.0620 - 0699	Luminaire Arms Single Member 6-Inch Clamp (feet)	EACH
657.0720 - 0799	Luminaire Arms Truss Type 6-Inch Clamp (feet)	EACH

Standardized Special Provisions associated with this drawing:

STSP NUMBER TITLE

NONE

Other SDDs associated with this drawing:

SDD 9C10	Transformer Base for 15-inch Bolt Circle
SDD 10A1	Electrical Handhole Wiring
SDD 10A5	Electrical Details Ground Mount Light Poles Isolated Neutral Systems
SDD 10A6	Electrical Details Ground Mount Poles Grounded Neutral Systems
SDD 10A7	Electrical Details Ground Mount Light Poles Isolated Neutral Systems
SDD 10A8	Electrical Details Structure Mount Light Poles Isolated Neutral Systems
SDD 10A9	Electrical Details Structure Mount Light Poles Grounded Neutral Systems
SDD 10A10	Electrical Details Structure Mount Light Poles Phase-to-Phase Systems
SDD 10A11	Electrical Details Median Mount Light Poles Isolated Neutral Systems
SDD 10A12	Electrical Details Median Mount Light Poles Grounded Neutral Systems
SDD 10A18	Luminaire Arms, Single Member 6-inch Clamp sheets "a" and "b"

Design Notes:

NONE

Contact Person:

Ahmet Demirbilek (414) 220-6801 (414) 322-9606 (Mobile)

Standard Detail Drawing 10A17 (sheet d)

May 17, 2022

Poles, Type F

References:

<u>FDM15-5 Attachment 30.5</u> and <u>30.6</u> for conventional symbols. <u>Standard Spec 657</u> Poles, Arms, Standards and Bases

Bid items associated with this drawing:

<u>ITEM</u> <u>NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
657.0381	Poles Type F	EACH
657.0609	Luminaire Arms Single Member 4-Inch Clamp (feet)	EACH
657.0704	Luminaire Arms Truss Type 4-Inch Clamp (feet)	EACH

Standardized Special Provisions associated with this drawing:

STSP NUMBER TITLE

NONE

Other SDDs associated with this drawing:

<u>SDD 10A1</u>	Electrical Handhole Wiring
SDD 10A5	Electrical Details Ground Mount Light Poles Isolated Neutral Systems
SDD 10A6	Electrical Details Ground Mount Poles Grounded Neutral Systems
SDD 10A7	Electrical Details Ground Mount Light Poles Isolated Neutral Systems
SDD 10A8	Electrical Details Structure Mount Light Poles Isolated Neutral Systems
SDD 10A9	Electrical Details Structure Mount Light Poles Grounded Neutral Systems
SDD 10A10	Electrical Details Structure Mount Light Poles Phase-to-Phase Systems
SDD 10A11	Electrical Details Median Mount Light Poles Isolated Neutral Systems
SDD 10A12	Electrical Details Median Mount Light Poles Grounded Neutral Systems
SDD 10A18	Luminaire Arms, Single Member 6-inch Clamp sheets "a" and "b"

Design Notes:

NONE

Contact Person:

Ahmet Demirbilek (414) 220-6801

(414) 322-9606 (Mobile)