



ADDENDUM NO. 1

Issue Date: August 1, 2019

Project Name: Indian River Boulevard and Grand Harbor Boulevard
Signalization

Bid Number: 2019071

Bid Opening Date: August 8, 2019

This addendum is being released to provide minutes to the pre-bid meeting.

The information and documents contained in this addendum are hereby incorporated in the invitation to bid. **This addendum must be acknowledged where indicated on the bid form, or the bid will be declared non-responsive.**

Attachments:

Pre-Bid Meeting Minutes



Board of County Commissioners

1801 27th Street
Vero Beach, Florida 32960-3365
Telephone: (772) 567-8000
Fax: (772) 778-9391

MANDATORY PRE-BID MEETING MINUTES

JULY 30, 2019, 2:00 P.M.

INDIAN RIVER COUNTY ADMINISTRATION BUILDING

Room A1-303 Building A

INDIAN RIVER BOULEVARD AND GRAND HARBOR BOULEVARD SIGNALIZATION

PROJECT No. IRC-1806

The following meeting notes set forth our understanding of the discussions and decisions made at the subject meeting. If no objections, questions, additions, or comments are received within three (3) working days from issuance of the meeting notes, we will assume that our understandings are correct. The project will move forward according to the bid plans and specifications and the understandings herein.

Project Name: INDIAN RIVER BOULEVARD AND GRAND HARBOR SIGNALIZATION
Project Number: IRC-1806
Bid Number: 2019071

INTRODUCTIONS / SIGN IN SHEET

Attendance at this conference by all bidders was **MANDATORY**. No bidder arriving after the meeting began was allowed to sign in. This meeting was recorded as part of the project records.

PROJECT DESCRIPTION:

The proposed improvements to the intersection of Indian River Boulevard and Grand Harbor Boulevard consist of the signalization of the intersection by installing mast arm assemblies which will be provided by the County, with all other appurtenances to be furnished by the Contractor. Also included is milling and resurfacing, curb ramp upgrades, signing and pavement markings, and sodding.

CONTRACT DETAILS

Bid opening: Thursday, August 8, 2019 at 2:00 PM
Contract time: 150 days to substantial completion
180 days to final completion
Engineers Estimate: \$472,501.00 (includes force account)
Liquidated Damages: \$1,241.00 per day

CONTACTS BIDDING PROCESS

All communications concerning this bid shall be directed to Indian River County Purchasing Division at purchasing@ircgov.com.

PROJECT CONSULTANTS:

Kimley-Horn and Associates, Inc.

UTILITIES

AT&T
 Comcast Cable Communications, Inc.
 Florida City Gas
 Florida Power and Light, Co.
 Indian River County Department of Utilities Services
 Indian River County Telecommunications
 Indian River County Traffic Operations

OTHER ISSUES

- Bidders to review plan documents and provide comments to Indian River Purchasing Department as soon as possible. No further comments or questions will be addressed from end of business, August 2, 2019.
- Maintenance of Traffic:
 - Contractor shall submit a Maintenance of Traffic Plan to the Indian River County, Engineering Division for approval.
 - The Maintenance of Traffic Plan shall meet the FDOT Index 600, FY2017-2018 Edition and shall be signed and sealed by a Florida Professional Engineer.
 - Traffic shall be maintained at all times.
 - Access for businesses and residences shall be maintained at all times.
 - School buses, sanitation & US Postal Service must be maintained.
- All testing on this project will follow FDOT specifications, this will include subgrade, asphalt, concrete and the drilled shaft testing installation.
- All drilled shaft locations will require a 5 ft hand excavation for utility clearance.
- A Drilled Shaft Installation Plan needs to be submitted for approval.
- The mast arms have been purchased by the County and are in the process of being manufactured. There will be no submittal for the mast arms. Mast arms will be delivered to the site around October 25, 2019. A close coordination between the County and the contractor will be required for the delivery time and the handling of the mast arms.
Kirstin Leiendecker (IRC-Eng) added that the Mast Arm Supplier is Valmont and the current delivery date is an estimate. For further information see approved mast arm submittal attached to this document.
John Ankeny (IRC) added that the contractor is expected to unload the mast arms at the time of arrival.
Al LaShier (Traffic Engineering and Management LLC) asked for a lay down area onsite. Kirstin Leiendecker (IRC) stated that we have enough right-of-way at the northeast corner of the intersection, that can be used for storage. Contractor shall keep in mind that all disturbed areas will need to be restored.
John Ankeny (IRC-Traffic) stated that bolts for the mast arms are at the IRC traffic yard at 41st Street and shall be picked up by the contractor.
- The mast arms shall be handled by the contractor at delivery.
Al LaShier (Traffic Engineering and Management LLC) stated that Valmont will give 2 days advanced notice to the delivery.

Kirstin Leiendecker (IRC-Eng) stated that the contractor shall coordinate directly with IRC for delivery time and the necessary equipment that is needed to unload the mast arms at delivery.

- All areas disturbed by the contractor will need to be restored to original conditions or better.

Tim Rose (Tim Rose Contracting, Inc.) asked if irrigation is present. Mike Forman (KH - Kimley-Horn Associates, Inc.) stated that irrigation is believed to be present and needs to be replaced if damaged.

- Contractor shall submit a “Hurricane Preparedness” plan prior to Notice to Proceed.

PROJECT REQUIREMENTS:

- Subcontractors – per Contract Documents requirements “Section 00458 – List of Subcontractors” must be completed.
- Summary of required contractor form submittals checklist (Section 00300 – Bid Package Contents)
- Invoicing shall be submitted on monthly basis and must include release of liens and Surety’s Consent.

DISCUSSION

Questions & Answers

Mike Forman (KH) stated that the electrical service connection is in the southwest corner behind bushes, underground.

KL (IRC-Eng) stated that the contractor shall look at the submittal from Valmont to determine which items are included with the mast arm purchase by IRC. For example, the luminaires are part of the purchase but no cabinets, cameras, or signals.

ATTACHMENTS

Sign In-sheet

Approved Mast Arm Submittal by DOT Lighting, Inc. for Valmont, Inc.

Mandatory/Pre-Bid Meeting Sign In Sheet
 2019071 - IR Blvd and Grand Harbor Blvd Signalization
 07/30/2019/2:00 PM/A1-303

Name	Company	Phone	Address	Email
Tim Rose	Tim Rose Contracting	772-567-7800	1360 SW Old Dixie Vero Beach 32962	Timrose7@comcast.net
Al LeShier	TEAM Control Specialists	321-431-7098	707 Nicolette Ave Sto. 100. Winter Park, FL	alashier@controlspecialists.com
MIKE FORMAN	KIMBLE HOEN & ASSOC.	(772) 794-4064	445 24TH ST, SRE 200 VERO BEACH, FL 32966	MIKE.FORMAN@KIMBLEHOEN.COM
Kishia Weindach	IRC-ENG	772-226-1327		keleindach@ircgov.com
MIKE HELLER	IRC-ENG	772-226-1585		mhell@ircgov.com
Carrie Ferngren	IRC-Eng	772-226-1771		cfern@ircgov.com
John Aukony	IRC-Traffic	772-226-1563		jaukony@ircgov.com
Diane Lysthund	IRC - Purchasing	772-226-1418		dlystlund@ircgov.com



Transmittal

Dot Lighting, Inc.
6353 Millstone Drive
New Port Richey FL 34655
Phone: (727) 375-0555

Project Indian River Blvd and Grand Harbor Blvd - Traffic

Quote DOT19-13292

To Indian River County
1801 27th Street
Bldg. A
Vero Beach FL 32960
Contact: Kirsten Leiendecker, P.E.

Location Indian River FL
From Nikki Supenor
Distributor: Dot Lighting, Inc.
Municipality Indian River County

ATTACHED WE ARE SENDING YOU 1 COPIES OF THE FOLLOWING ITEMS:

- | | | |
|-----------------------------------|--|--------|
| <input type="checkbox"/> Drawings | <input type="checkbox"/> Specifications | Other: |
| <input type="checkbox"/> Prints | <input type="checkbox"/> Information | |
| <input type="checkbox"/> Plans | <input checked="" type="checkbox"/> Submittals | |

THESE ARE TRANSMITTED FOR:

- | | | |
|--|---|---------------------------------|
| <input type="checkbox"/> Prior Approval | <input type="checkbox"/> Resubmittal for Approval | <input type="checkbox"/> Record |
| <input checked="" type="checkbox"/> Approval | <input type="checkbox"/> Corrections | Bids due on: |
| <input type="checkbox"/> Approval as Submitted | <input type="checkbox"/> Your Use | Other: |
| <input type="checkbox"/> Approval as Noted | <input type="checkbox"/> Review and Comment | |

Qty	Type	MFG	Part
1	1	Valmont Traffic (Valle	649-21-15-70 S FP/GV A70/S - P5/S
1	2	Valmont Traffic (Valle	649-21-10-60 S FP/GV A60/S - P4/S
1	3	Valmont Traffic (Valle	649-21-15-70 S FP/GV A70/S - P5/S
1	4	Valmont Traffic (Valle	649-21-6-50 S FP/GV A50/S - P3/S
4	715-5-	General Electric Co. (ERL2030D340DGRAYGIT Item Note: Qty-4

Notes:

1 Valmont Drawings,
* Page 1 of 1, Valmont Cover Page for DB01192 Drawings
* Pages 1 thru 6 of 6, # DB01192 Per FDOT 2017-18 design standard index # 17743 & 17745 (for Reference Only)

1 GELS Cutsheet, ERL2030D340DGRAYGIT

*****PROVIDE HIGHWAY GREEN PAINT SAMPLE IN ORDER TO MATCH*****

DOT19-13292
Sold To: DOT Lighting, Inc.
PO #83638-00
Valmont Order #447652-P1

**INDIAN RIVER COUNTY
SHOP DRAWING REVIEW**

APPROVED

APPROVED AS NOTED

NOT APPROVED - RESUBMIT

REVIEWER: K. Leiendecker
DATE: 6/28/2019



Job Name:

Indian River Blvd and Grand Harbor Blvd - Traffic
Distributor: Dot Lighting, Inc. (New Port Richey)
Municipality: Indian River County (Vero Beach)

Catalog Number:

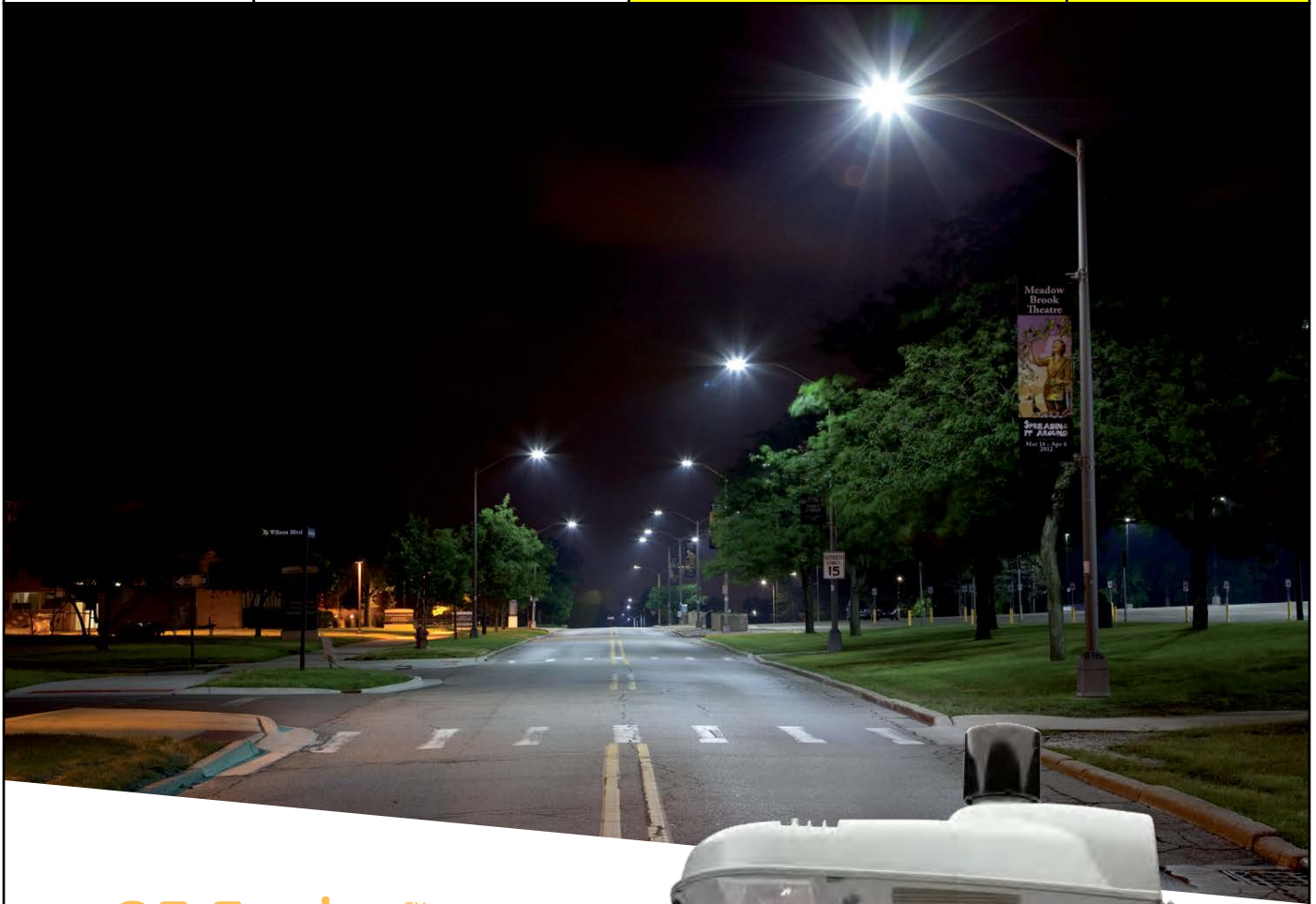
ERL2030D340DGRAYGIT

Notes: Qty-4

Type:

715-5-31

DOT19-13292



GE Evolve™ LED Roadway Lighting ERL1-ERLH-ERL2



**INDIAN RIVER COUNTY
SHOP DRAWING REVIEW**

APPROVED

APPROVED AS NOTED

NOT APPROVED - RESUBMIT

REVIEWER: *K. Winder*

DATE: 6/28/2019

current
powered by GE





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Catalog Number:

ERL2030D340DGRAYGIT

Notes: Qty-4

Type:

715-5-31

DOT19-13292

GE Evolve™
LED Roadway Lighting
 ERL1-ERLH-ERL2



The **Evolve** LED Roadway Luminaire is optimized for customers requiring a LED solution for local, collector and major roadways. GE's unique reflective optics are designed to optimize application efficiency and minimize glare. The modern design incorporates the heat sink directly into the unit for heat transfer to prolong LED life. This reliable unit has a 100,000 hour design life, significantly reducing maintenance needs and expense over the life of the fixture. This efficient solution lowers energy consumption compared to a traditional HID fixture for additional operating cost savings.

Features:

- Optimized roadway photometric distributions
- **Evolve™** light engine consisting of reflective technology designed to optimize application efficiency and minimize glare
- 70 CRI at 2700K, 3000K and 4000K typical.
- -40°C to 50°C UL Ambient Typical.
- ULOR = 0 (zero uplight)
- Designed & Assembled in USA

Applications:

- Local Roadways
- Collector Roadways
- Major Roadway/Streets

**INDIAN RIVER COUNTY
 SHOP DRAWING REVIEW**

APPROVED

APPROVED AS NOTED

NOT APPROVED - RESUBMIT



REVIEWER: E. Winder

DATE: 6/28/2019

Compatible with **LightGrid™** Outdoor Wireless Control System



To learn more about **GE Evolve LED Roadway Lighting**, go to: www.currentbyge.com





Job Name:

Indian River Blvd and Grand Harbor Blvd - Traffic
 Distributor: Dot Lighting, Inc. (New Port Richey)
 Municipality: Indian River County (Vero Beach)

Catalog Number:

ERL2030D340DGRAYGIT

Type:

715-5-31

Notes: Qty-4

DOT19-13292

GE Evolve™
 LED Roadway Lighting

ERL1-ERLH-ERL2

Typical Specifications: ERL1-ERLH-ERL2

LED & Optical

- **Output Range:** 1900 – 30000 lm
- **Photometric Options:** Type II Narrow, Type II Wide, Type III, Type IV
- **System Efficacy:** 100 - 145 LPW
- **CCT:** 2700K, 3000K, 4000K; High brightness LEDs @ 70 CRI

Lumen Maintenance Tables

Projected Lxx per IES TM-21 at 25°C for reference:

ERL1 LUMEN OUTPUT CODES	LXX(10K)@HOURS		
	25,000 HR	50,000 HR	100,000 HR
02,03,04,05,06	L96	L95	L91
07,08,09	L95	L91	L84
10	L89	L80	L64

ERLH LUMEN OUTPUT CODES	LXX(10K)@HOURS		
	25,000 HR	50,000 HR	100,000 HR
10, 11	L97	L96	L94
13, 14	L95	L93	L88
15, 16	L94	L91	L85

ERL2 LUMEN OUTPUT CODES	LXX(10K)@HOURS		
	25,000 HR	50,000 HR	100,000 HR
16, 18, 19, 21, 23	L96	L94	L91
25, 27, 28	L95	L93	L88
30	L95	L93	L87

Note: Projected Lxx based on LM80 (10,000 hour testing). DOE Lighting Facts Verification Testing Tolerances apply to initial luminous flux and lumen maintenance measurements.

Electrical

- **Input Voltage:** 120-277 volt and 347-480 volt
- **Input Frequency:** 50/60Hz
- **Power Factor (PF)*:** >90%
- **Total Harmonic Distortion (THD)*:** <20%

*Power factor and THD tolerance exceptions: ERL1 "02" Lumen output: PF and THD within tolerances above only at 120 volt. ERL1 "03" Lumen output: @120 volt PF-0.89; @ 480 volt THD-26% ERL1 "04" Lumen output: @480 volt THD-22%

Ratings

- **Surge Protection:** per ANSI C136.2-2015: (Driver Internal)
 - 6kV/3kA "Basic: (120 Strikes)" - Standard on ERL1 (02-06)
 - 10kV/5kA "Enhanced: (40 Strikes)" - Standard on ERL1 (07 - 10), ERLH, ERL2
- **(Additional Separate Secondary SPD)**
 - 10kV/5kA "Enhanced: (40 Strikes)" - Option "R"
 - 20kV/10kA "Elevated" (40 Strikes)" - Option "T"
- **Safety:** UL/cUL Listed. UL 1598 listed, suitable for wet locations (UL) / (cUL)
- **Environmental:** Compliant with the materials restrictions of RoHS
- **EMI:** Title 47 CFR Part 15 Class A
- **Vibration:** 3G per ANSI C136.31-2010
- LM-79 testing in accordance with IESNA Standards
- Std. Optical enclosure rated per ANSI C136.25-2009:
 - ERL1/ERLH/ERL2 = IP65, Optional: IP66



Please refer to the DLC QPL website for the latest and most complete information. www.designlights.org/QPL



International Dark Sky Association listed. 2700K or 3000K must be selected to meet IDA certification and approval.

**INDIAN RIVER COUNTY
 SHOP DRAWING REVIEW**

Project name: _____
 Date: _____
 APPROVED
 APPROVED AS NOTED
 NOT APPROVED - RESUBMIT
 REVIEWER: K. Wiendr
 DATE: 6/28/2019

• **Operating Temperature:**

PRODUCT ID	LUMEN OUTPUT	AMBIENT READING
ERL1	02-10	-40°C to 50°C
ERLH	10-11, 13	-40°C to 50°C
ERLH	14-16	-40°C to 45°C
ERL2	16-28	-40°C to 50°C
ERL2	30	-40°C to 45°C

Delayed start may be experienced < -35°C

Construction & Finish

- **Housing:**
 - Die Cast Enclosure
 - Casting-integral heat sink for maximum heat transfer
- **Lensing:** Impact resistant tempered glass, standard
- **Paint:** Corrosion resistant polyester powder painted, minimum 2.0 mil. thickness.
 - Standard Colors: Dark Bronze, Black, & Gray
 - RAL & custom colors available
 - Optional coastal finish available.
- **Weight:** 12.4lbs (5.6kg) – 24lbs (10.9kg)

Warranty

- **System Warranty:** 5 Year Standard, 10 Year Optional

Controls

- **Dimming:**
 - Standard: 0-10V; Optional: DALI (120-277V Only)
- **Sensors:**
 - Photo electric sensors (PE) available.
- LightGrid™ compatible

Mounting

- Slipfitter with +/- 5 degree of adjustment for leveling.
- Integral die cast mounting pipe stop.
- Adjustable for 1.25 in. or 2 in. mounting pipe.

Suggested HID Replacement Lumen Levels

- ~4,000-5,000 lumens to replace 100W HPS Cobra-head
- ~7,000-8,800 lumens to replace 150W HPS Cobra-head
- ~8,500-11,500 lumens to replace 200W HPS Cobra-head
- ~11,500-14,000 lumens to replace 250W HPS Cobra-head
- ~21,000-30,000 lumens to replace 400W HPS Cobra-head

Note: Actual replacement lumens may vary based upon mounting height, pole spacing, design criteria, etc.

PREVIOUS	DESCRIPTION	CURRENT	DESCRIPTION**
A1, B1	Extra Narrow/Narrow Asymmetric	A3	Type II Narrow
C1, E1	Asymmetric Short/Medium	B3	Type II Wide
D1, G1	Asymmetric Forward/Extra Wide	C3	Type III
F1	Asymmetric Wide	D3	Type IV
		E3	Type II Enhanced Back Light

**The information above is designed to provide a guideline to select the correct luminaire for a roadway application. The best and most accurate way to ensure the proper design is do a lighting layout Utilizing AGI.



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Indian River Blvd and Grand Harbor Blvd - Traffic
 Distributor: Dot Lighting, Inc. (New Port Richey)
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Catalog Number:

ERL2030D340DGRAYGIT

Type:

715-5-31

Notes: Qty-4

DOT19-13292

GE Evolve™
LED Roadway Lighting
 ERL1-ERLH-ERL2



**INDIAN RIVER COUNTY
 SHOP DRAWING REVIEW**

Project name _____
 APPROVED
 Date _____
 APPROVED AS NOTED
 Type _____
 NOT APPROVED - RESUBMIT
REVIEWER: K. Wiendr
DATE: 6/28/2019

ERL2

PROD. ID	VOLTAGE	LUMEN OUTPUT	DISTRIBUTION*	CCT	CONTROLS	COLOR	OPTIONS
E = Evolve	0 = 120-277V*	16	A3 = Type II Narrow	30 = 3000K	A = ANSI C136.41 7-pin	GRAY = Gray	A = 4 Bolt Slipfitter †
R = Roadway	1 = 120	18	B3 = Type II Wide	40 = 4000K	D = ANSI C136.41 7-pin with Shorting Cap	BLCK = Black	F = Fusing
L = Local	2 = 208	19	C3 = Type III	50 = 5000K*	E = ANSI C136.41 7-pin with non-Dimming PE Control*	DKBZ = Dark Bronze	G = Internal Bubble Level
2 = Double Module	3 = 240	21	D3 = Type IV	<> Select 3000K CCT for IDA approved units.	*PE Control Only available for 120-277V or 480V Discrete. Not available for 347-480V or 347V Discrete.		I = IP66 Optical
	4 = 277	23	E3 = Type II Enhanced Back Light	*50 = 5200K for ERL2 lumen outputs 25, 27, 28, and 30.	NOTE: Dimming controls wired for 0-10V standard unless DALI option "U" requested.		L = Tool-Less Entry
	5 = 480	25	See Table				R = Secondary 10kV/5kA SPD
	D = 347	27	*Nominal IES Type classing subject to typical variation, individual units may differ.				T = Secondary 20kV/10kA SPD
	H = 347-480*#	28					U = DALI Programmable ^
		30					V1 = Variable Output via Field Adjustable Module**
							Y = Coastal Finish*
							XXX = Special Options
							† Contact manufacturer for Lead-Time.
							* Recommended for installations within 750 ft. from the coast. Contact Factory for Lead-Time.
							+ Compatible with LightGrid 2.0 nodes.
							^ Not available in 347V, 480V or 347-480V.
							** Not available with DALI (U) option.

***Special Color Match Highway Green**

LUMEN OUTPUT	DISTRIBUTION	TYPICAL INITIAL LUMENS		TYPICAL SYSTEM WATTAGE		BUG RATING		IES FILE NUMBER					
		4000K/5000-5200K	3000K	120-277V	347-480V	4000K	3000K	120-277V	4000K	347-480V	120-277V	3000K	347-480V
16	A3	16000	15300	120	120	B3-U0-G3	B3-U0-G3	ERL2_16A340	IES			ERL2_16A330	IES
	B3					B3-U0-G3	ERL2_16B340	IES			ERL2_16B330	IES	
	C3					B2-U0-G3	ERL2_16C340	IES			ERL2_16C330	IES	
	D3					B2-U0-G3	ERL2_16D340	IES			ERL2_16D330	IES	
18	A3	18000	17300	140	140	B3-U0-G3	B3-U0-G3	ERL2_18A340	IES			ERL2_18A330	IES
	B3					B3-U0-G3	ERL2_18B340	IES			ERL2_18B330	IES	
	C3					B2-U0-G3	ERL2_18C340	IES			ERL2_18C330	IES	
	D3					B2-U0-G3	ERL2_18D340	IES			ERL2_18D330	IES	
19	A3	19000	18200	149	149	B3-U0-G3	B3-U0-G3	ERL2_19A340	IES			ERL2_19A330	IES
	B3					B3-U0-G3	ERL2_19B340	IES			ERL2_19B330	IES	
	C3					B2-U0-G3	ERL2_19C340	IES			ERL2_19C330	IES	
	D3					B2-U0-G3	ERL2_19D340	IES			ERL2_19D330	IES	
21	A3	21000	20100	174	177	B3-U0-G3	B3-U0-G3	ERL2_21A340	IES	ERL2_21A330	-120-277VIES	ERL2_21A330	-347-480VIES
	B3					B3-U0-G3	ERL2_21B340	IES	ERL2_21B330	-120-277VIES	ERL2_21B330	-347-480VIES	
	C3					B3-U0-G4	ERL2_21C340	IES	ERL2_21C330	-120-277VIES	ERL2_21C330	-347-480VIES	
	D3					B2-U0-G3	ERL2_21D340	IES	ERL2_21D330	-120-277VIES	ERL2_21D330	-347-480VIES	
23	A3	23000	22100	194	196	B3-U0-G3	B3-U0-G3	ERL2_23A340	IES	ERL2_23A330	-120-277VIES	ERL2_23A330	-347-480VIES
	B3					B3-U0-G3	ERL2_23B340	IES	ERL2_23B330	-120-277VIES	ERL2_23B330	-347-480VIES	
	C3					B3-U0-G4	ERL2_23C340	IES	ERL2_23C330	-120-277VIES	ERL2_23C330	-347-480VIES	
	D3					B2-U0-G4	ERL2_23D340	IES	ERL2_23D330	-120-277VIES	ERL2_23D330	-347-480VIES	
25	A3	25000	24000	214	214	B4-U0-G4	B3-U0-G3	ERL2_25E340	IES	ERL2_25E330	-120-277VIES	ERL2_25E330	-347-480VIES
	B3					B3-U0-G3	ERL2_25B340	IES			ERL2_25B330	IES	
	C3					B3-U0-G4	ERL2_25C340	IES			ERL2_25C330	IES	
	D3					B2-U0-G4	ERL2_25D340	IES			ERL2_25D330	IES	
27	A3	27000	25900	237	237	B4-U0-G4	B4-U0-G4	ERL2_27E340	IES	ERL2_27E330	-120-277VIES	ERL2_27E330	-347-480VIES
	B3					B3-U0-G3	ERL2_27A340	IES			ERL2_27A330	IES	
	C3					B3-U0-G4	ERL2_27B340	IES			ERL2_27B330	IES	
	D3					B3-U0-G4	ERL2_27C340	IES			ERL2_27C330	IES	
28	A3	28000	26900	251	251	B4-U0-G4	B4-U0-G4	ERL2_28E340	IES	ERL2_28E330	-120-277VIES	ERL2_28E330	-347-480VIES
	B3					B3-U0-G3	ERL2_28A340	IES			ERL2_28A330	IES	
	C3					B3-U0-G4	ERL2_28B340	IES			ERL2_28B330	IES	
	D3					B3-U0-G4	ERL2_28C340	IES			ERL2_28C330	IES	
30	A3	30000	28800	278	278	B4-U0-G4	B4-U0-G4	ERL2_30E340	IES	ERL2_30E330	-120-277VIES	ERL2_30E330	-347-480VIES
	B3					B4-U0-G4	ERL2_30A340	IES			ERL2_30A330	IES	
	C3					B3-U0-G4	ERL2_30B340	IES			ERL2_30B330	IES	
	D3					B3-U0-G4	ERL2_30C340	IES			ERL2_30C330	IES	
	E3					B2-U0-G4	B2-U0-G4	ERL2_30D340	IES			ERL2_30D330	IES
						B4-U0-G4	B4-U0-G4	ERL2_30E340	IES			ERL2_30E330	IES



Job Name:

Indian River Blvd and Grand Harbor Blvd - Traffic
 Distributor: Dot Lighting, Inc. (New Port Richey)
 Municipality: Indian River County (Vero Beach)

Catalog Number:

ERL2030D340DGRAYGIT

Notes: Qty-4

Type:

INDIAN RIVER COUNTY
SHOP DRAWING REVIEW
715-5-31
 DOT19-13292

- APPROVED**
- APPROVED AS NOTED**
- NOT APPROVED - RESUBMIT**

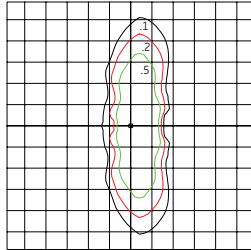
REVIEWER: E. Wiendy
 DATE: 6/28/2019

Photometrics:

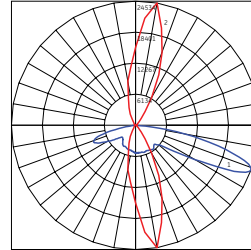
Evolve™ LED Streetlight (ERL2)

ERL2
 Type II Narrow
 (23A340)

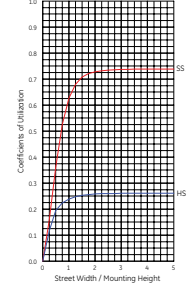
23,000 Lumens
 4000K
 ERL2_23A340__IES



Grid Distance in Units of Mounting Height at 30'
 Initial Footcandle Values at Grade

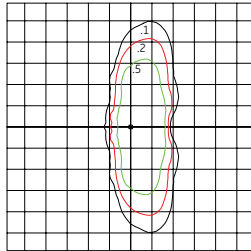


— Vertical plane through horizontal angle of Max. Cd at 80°
 — Horizontal cone through vertical angle of Max. Cd at 69°

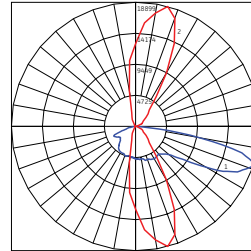


ERL2
 Type II Wide
 (23B340)

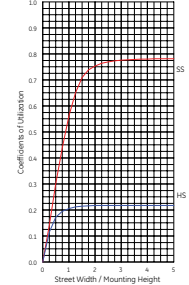
23,000 Lumens
 4000K
 ERL2_23B340__IES



Grid Distance in Units of Mounting Height at 30'
 Initial Footcandle Values at Grade

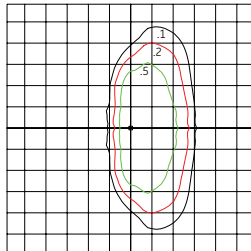


— Vertical plane through horizontal angle of Max. Cd at 75°
 — Horizontal cone through vertical angle of Max. Cd at 72°

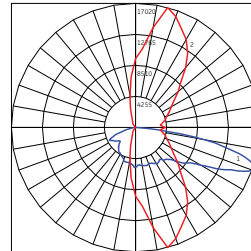


ERL2
 Type III
 (23C340)

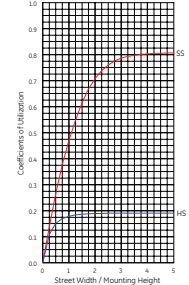
23,000 Lumens
 4000K
 ERL2_23C340__IES



Grid Distance in Units of Mounting Height at 30'
 Initial Footcandle Values at Grade

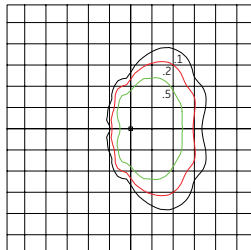


— Vertical plane through horizontal angle of Max. Cd at 75°
 — Horizontal cone through vertical angle of Max. Cd at 71°

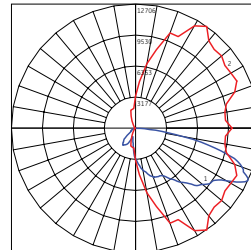


ERL2
 Type IV
 (23D340)

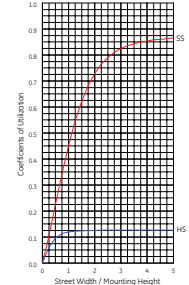
23,000 Lumens
 4000K
 ERL2_23D340__IES



Grid Distance in Units of Mounting Height at 30'
 Initial Footcandle Values at Grade

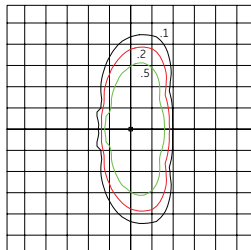


— Vertical plane through horizontal angle of Max. Cd at 55°
 — Horizontal cone through vertical angle of Max. Cd at 65°

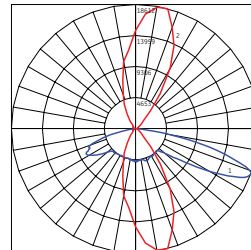


ERL2
 Type II Enhanced Back Light
 (23E340)

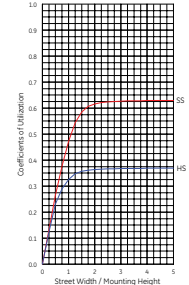
23,000 Lumens
 4000K
 ERL2_23E340__IES



Grid Distance in Units of Mounting Height at 30'
 Initial Footcandle Values at Grade



— Vertical plane through horizontal angle of Max. Cd at 75°
 — Horizontal cone through vertical angle of Max. Cd at 69°





Job Name:

Indian River Blvd and Grand Harbor Blvd - Traffic
Distributor: Dot Lighting, Inc. (New Port Richey)
Municipality: Indian River County (Vero Beach)

Catalog Number:

ERL2030D340DGRAYGIT

Notes: Qty-4

Type:

715-5-31

DOT19-13292

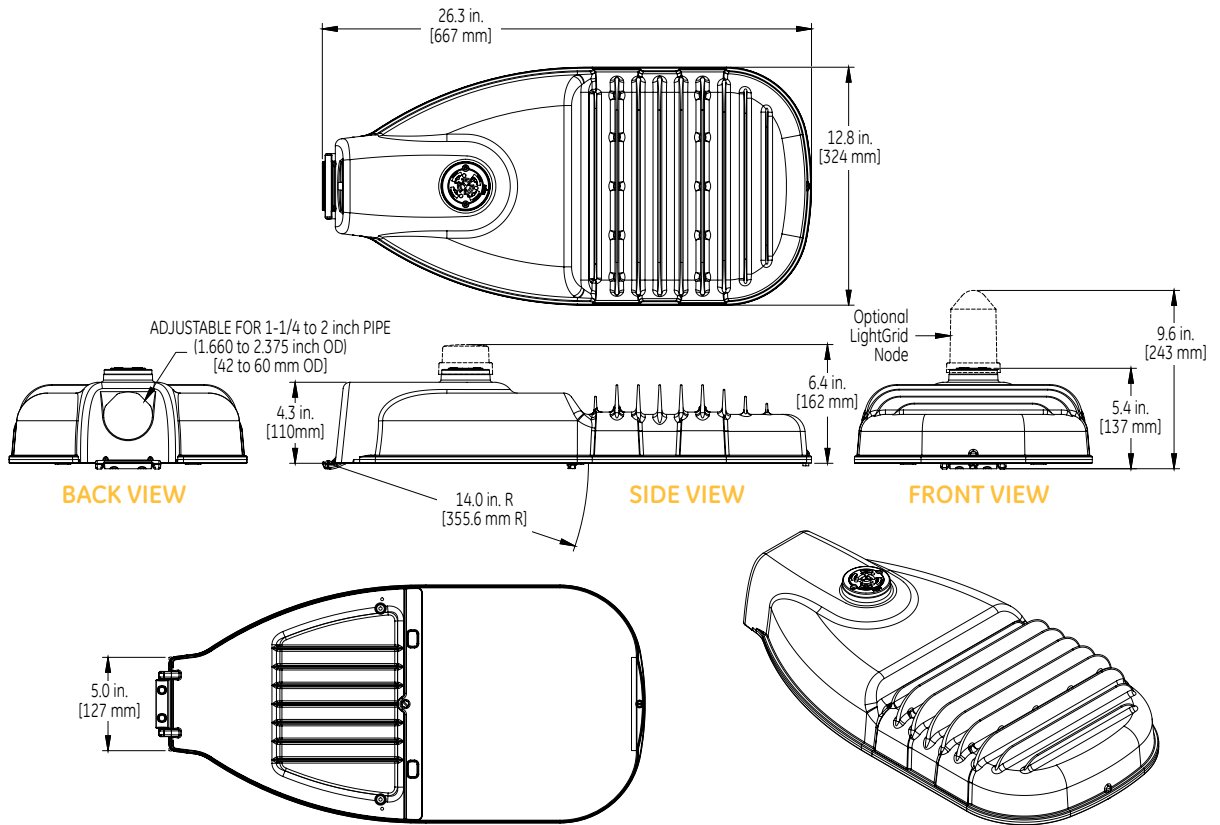
GE Evolve™
LED Roadway Lighting
ERL1-ERLH-ERL2

Product Dimensions:
Evolve™ LED Streetlight (ERL2)

**INDIAN RIVER COUNTY
SHOP DRAWING REVIEW**

- APPROVED**
- APPROVED AS NOTED**
- NOT APPROVED - RESUBMIT**

REVIEWER: E. Vienda
DATE: 6/28/2019



DATA

- Approximate net weight: 24.0 lbs (10.9 kgs)
Contact manufacturer for specific configuration weight.
- Effective Projected Area (EPA): 0.57 sq ft max (0.053 sq m)



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Job Name:

Indian River Blvd and Grand Harbor Blvd - Traffic
Distributor: Dot Lighting, Inc. (New Port Richey)
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Catalog Number:

ERL2030D340DGRAYGIT

Type:

715-5-31

Notes: Qty-4

DOT19-13292

1/23/2019

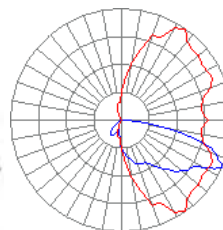
Photometric File Details

Photometric File Details

Filename: ERL2_30D340___.IES

More Information:

Classification: Luminaire Lumens	30000
Efficiency	N.A.
IES Classification	Type IV
Longitudinal Classification	Short
Cutoff Classification (deprecated)	N.A.
Upward Waste Light Ratio	0.00
CIE Type	Direct
Luminaire Efficacy Rating (LER)	108
NEMA Horizontal Beam	N.A.
NEMA Vertical Beam	N.A.
Bug Rating	B2-U0-G4



Contents:

IESNA:LM-63-2002
 [TEST]17072611 17072711 17072712 17072816 17072817 17072818
 [TESTLAB] GE LIGHTING SOLUTIONS-HENDERSONVILLE NC USA
 [ISSUE DATE] 8/07/2017
 [MANUFAC] GE LIGHTING SOLUTIONS
 [LUMCAT] ERL2_30D340___.IES
 [LUMINAIRE] Evolve LED Roadway Streetlight-ERL2
 [DISTRIBUTION] TYPE IV
 [LAMP CAT] LEDs E21A
 [LAMP] LED
 [OTHER]
 [MORE]
 [_DRIVE_CURRENT]
 [_CCT] 4000K
 [_CRI] 70
 [_ABSOLUTELUMENS] 30000
 [_SYSTEM_WATTS] 278W
 [_ACCESSORIES]
 [_SEARCH_SOURCE TYPE] LED
 [_SEARCH_CRI] 70
 [_SEARCH_COLORTEMP] 4000
 [_SEARCH_APPLICATION] Outdoor, Area, Automotive, Commercial, Educational, Government, Healthcare, Hospitality, Hotel, Industrial, Institutional, Landscape
 [MORE] Retail, Roadway, Sidewalk, Street, Substation, Utility, Walkway, Direct, Security, Wet Location
 [_SEARCH_MOUNTING] Arm, Pole
 [_SEARCH_CERTIFICATION] UL
 [_SEARCH_CLASSIFICATION] IP65
 TILT=NONE

**INDIAN RIVER COUNTY
SHOP DRAWING REVIEW**

- APPROVED
- APPROVED AS NOTED
- NOT APPROVED - RESUBMIT

REVIEWER: E. Winder
 DATE: 6/28/2019

STANDARD MAST ARM ASSEMBLIES DESIGN TABLE

QTY.	DESIGNATION	STRUCTURE I.D. NO.	FIRST ARM			SECOND ARM			UF (DEG)	LUMINAIRE ORIENTATION "LL" (DEG)	POLE			HANDHOLE ORIENTATION (DEG)	SPECIAL DRILLED SHAFT DATA						
			ARM TYPE	FAA (FT)	FBA (IN)	ARM TYPE	SAA (FT)	SBA (IN)			POLE TYPE	UAA (FT)	UB (FT)		UCA (IN)	DA (FT)	DB (FT)	RA	RB	RC	RD (IN)
1	649-21-15-70	1	A70/S						45	P5/S/L		20.75	270								
1	649-21-10-60	2	A60/S						45	P4/S/L		19.75	270								
1	649-21-15-70	3	A70/S						45	P5/S/L		19.75	270								
1	649-21-6-50	4	A50/S						45	P3/S/L		19.25	270								

PLEASE SUPPLY PAINT SAMPLE. THIS IS REQUIRED AT TIME OF RELEASE.

**INDIAN RIVER COUNTY
SHOP DRAWING REVIEW**

APPROVED

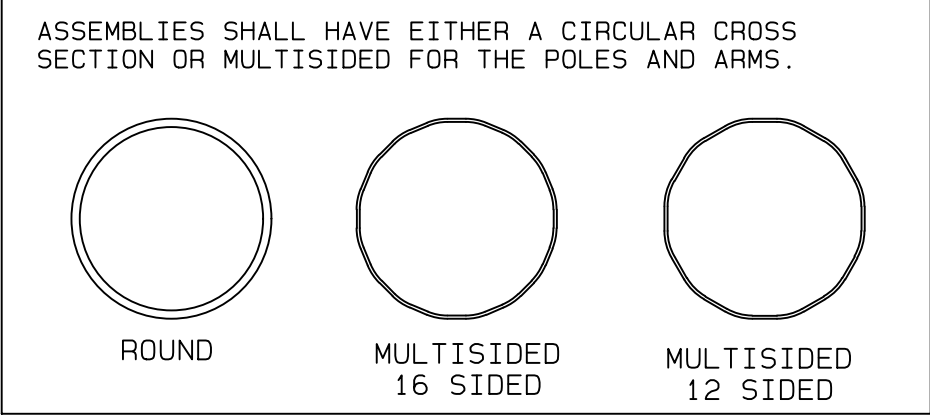
APPROVED AS NOTED

NOT APPROVED - RESUBMIT

REVIEWER: E. Winder

DATE: 6/28/2019

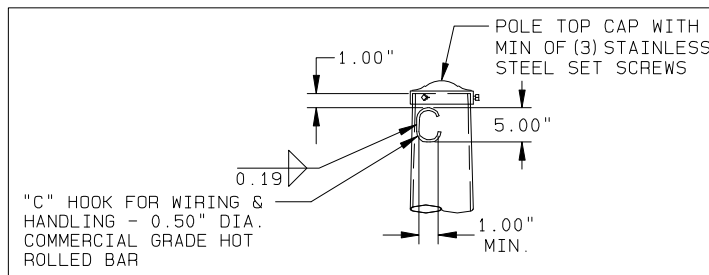
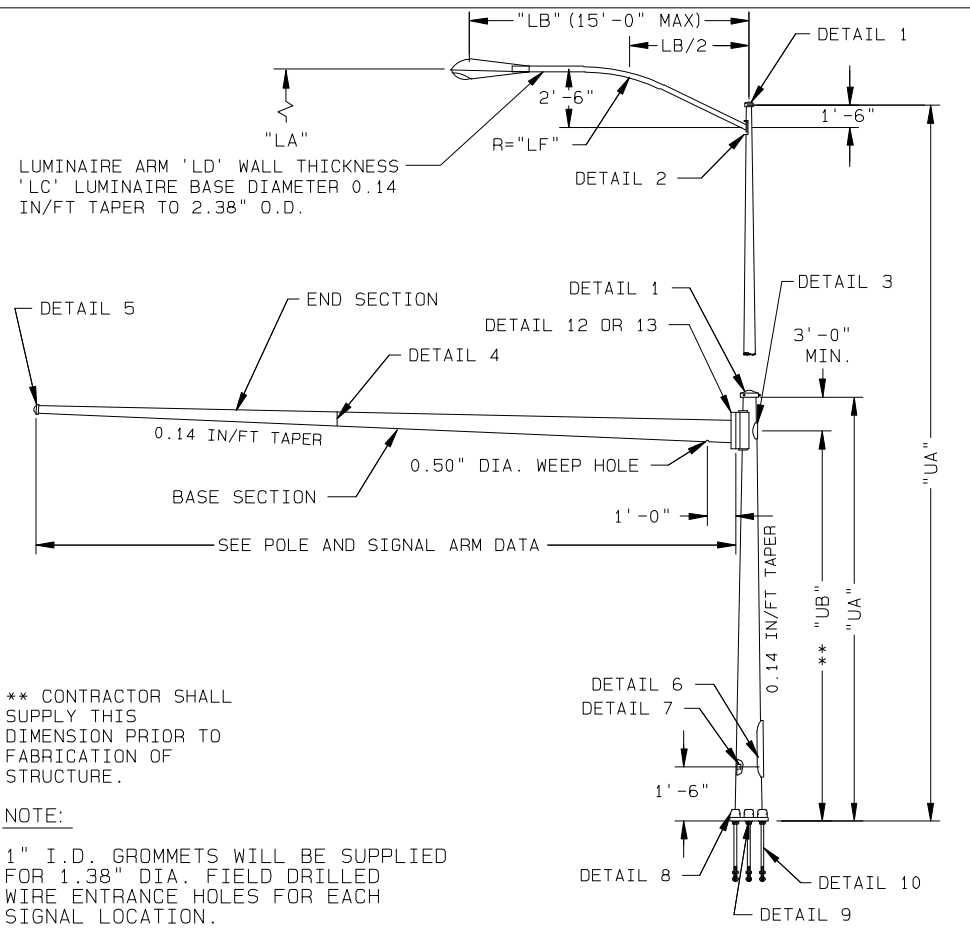
FINISH NOTES:
 BASE COAT: HOT DIP GALVANIZED TO ASTM: A123
 PRIME COAT: NEW HIGH BUILD EPOXY POWDER
 FINISH COAT: SUPER DURABLE POWDER
 COLOR: F.S. 595C #14066 HIGHWAY GREEN
 VALMONT SPEC: F578?? (5) YEAR WARRANTY



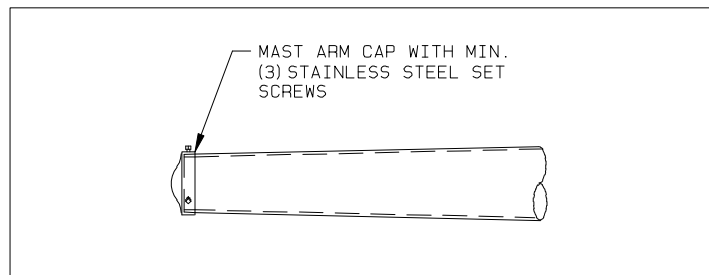
FLORIDA APL COVER SHEET

SIZES NOTED ON THIS SHEET AND DB01192 HAVE BEEN APPROVED BY THE STATE OF FLORIDA. SIZING TO INDEX 649-030 (2018-2019)

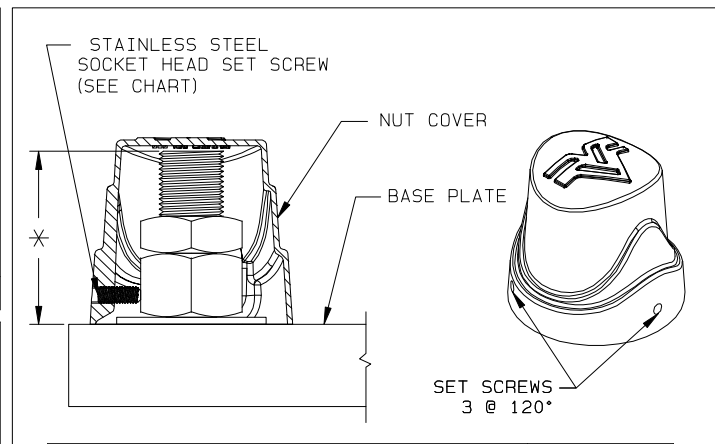
			SOLD TO: DOT LIGHTING, INC. SHIP TO: INDIAN RIVER COUNTY P.O. #: 83638-00 AGENT: DOT LIGHTING, INC.	JOB INDIAN RIVER COUNTY, FL INDIAN RIVER & GRAND HARBOR TITLE TRAFFIC SIGNAL STRUCTURES	VALMONT INDUSTRIES, INC. RESERVES THE RIGHT TO INSTALL VARIOUS, ENGINEER APPROVED, MATERIAL HANGING ACCOMMODATIONS TO FACILITATE THE MANUFACTURING PROCESS.	 Valley, NE 68064 (402) 359-2201	ORDER NUMBER: 447652-P1 PAGE NUMBER: 1 OF 1 DRAWING NUMBER FL447652P1
NKL 06/24/19 REV DRAWN BY-DATE	NKL 06/24/19 CHECK BY-DATE	----- DESCRIPTION					REV



DETAIL 1 POLE TOP

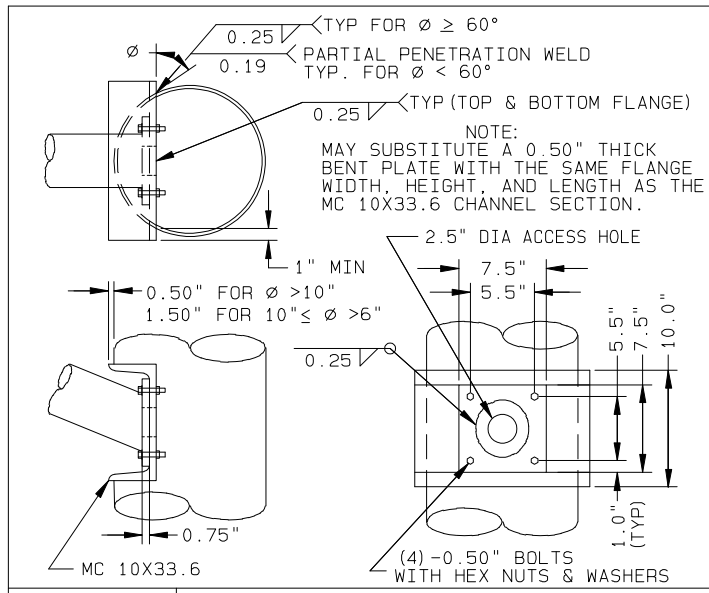


DETAIL 5 ARM END CAP

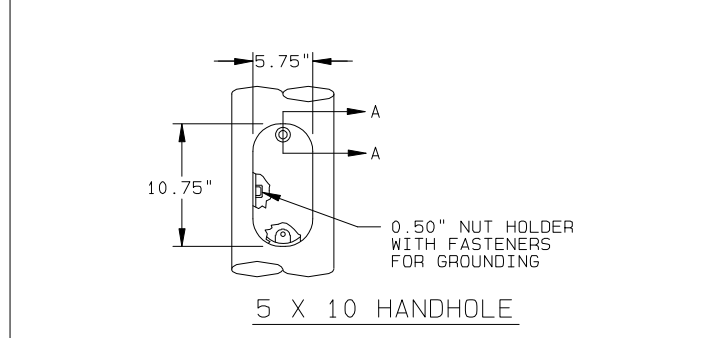
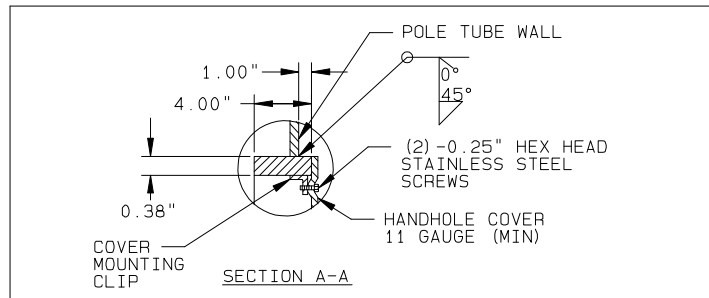


HARDWARE		* MAX. BOLT PROJECTION
ANCHOR BOLT SIZE	SET SCREW SIZE	
1.50" - 1.75"	0.38"-16UNC X 1.00"	3.88"
2.00" - 2.25"	0.38"-16UNC X 1.25"	5.13"

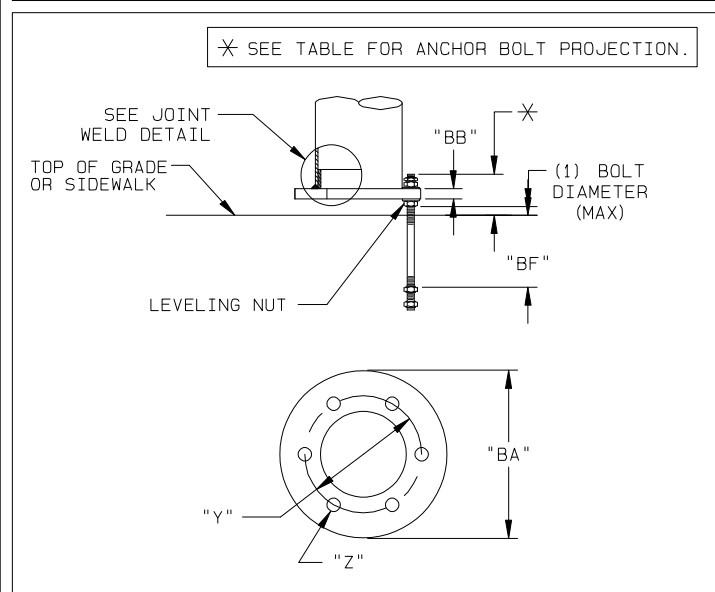
DETAIL 8 WAVE NUT COVER



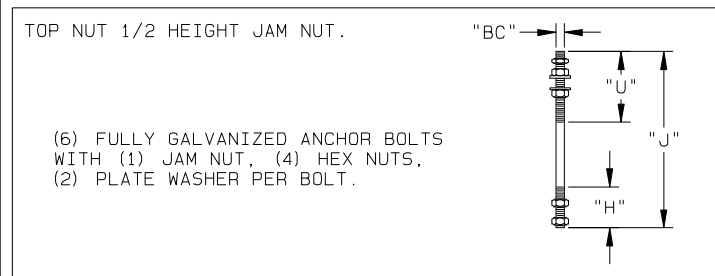
DETAIL 2 LUMINAIRE ARM ATTACHMENT



5 X 10 HANDHOLE

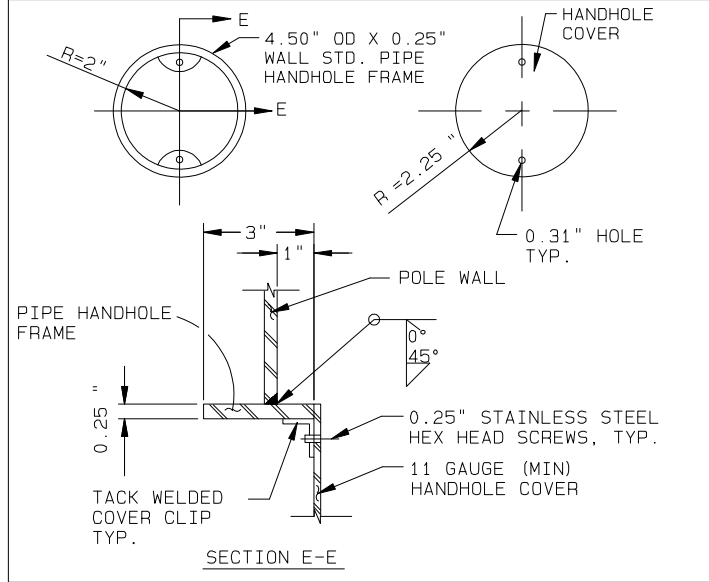
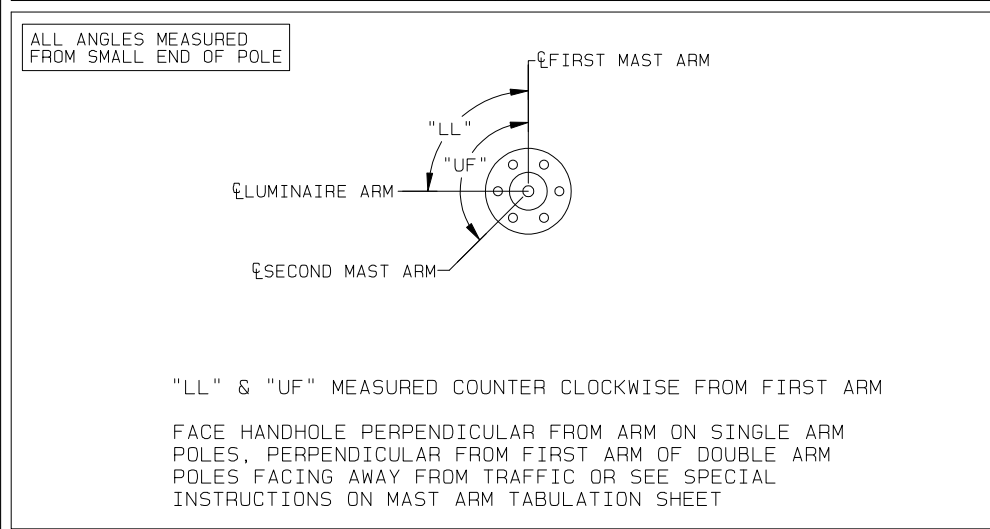


DETAIL 9 6-BOLT POLE BASE

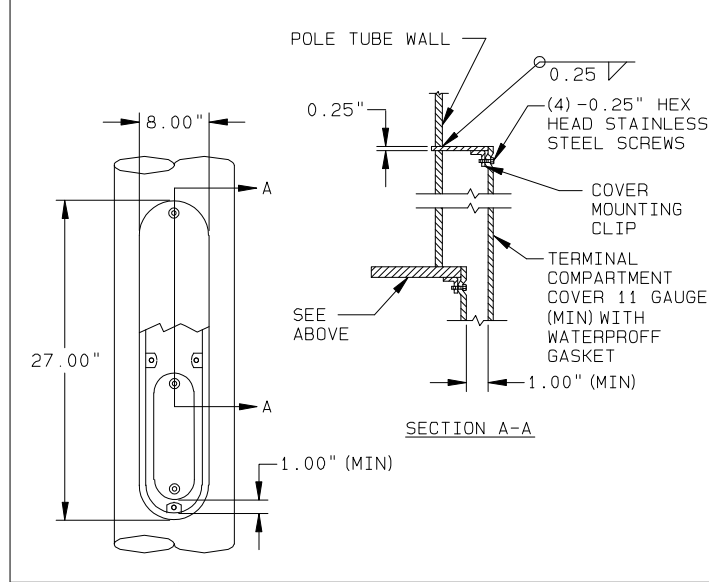


DETAIL 10 ANCHOR BOLT

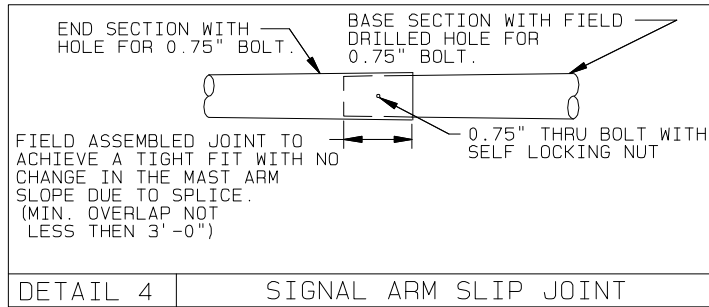
MATERIAL DATA			
COMPONENT	ASTM DESIGNATION	MIN. YIELD (KSI)	DESIGNATION
TAPERED TUBES & BACK UP RINGS	A595 GR. A OR A572	55	BOLTS (EXCEPT AB'S) ASTM F3125, A325 TYPE 1
STEEL PLATES	A36	36	NUTS (EXCEPT ANCHOR BOLTS) ASTM A563 DH OR EQUIVALENT
ANCHOR BOLTS	F1554 GR.55	55	WASHERS (EXCEPT ANCHOR BOLTS) ASTM F436 TYPE 1
HH NUTS FOR ANCHOR BOLTS	A563 GR.A		STAINLESS STEEL SCREWS AISI TYPE 316
WASHERS FOR ANCHOR BOLTS	A36		GALVANIZED HARDWARE F2329
HANDHOLE FRAME	ASTM A36		GALVANIZING ALL OTHER ASTM A123
HANDHOLE COVER	A1011/A572	50 55 60	WELD MATERIAL E70XX
			CAP & NUT COVERS ASTM A1011 ASTM B26 (319-F) ASTM A48



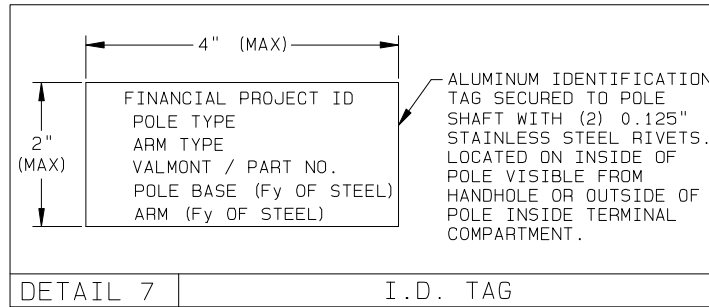
DETAIL 3 HANDHOLE (REQ'D WITH LUMINAIRE)



DETAIL 6 HANDHOLE W/TERMINAL COMPARTMENT



DETAIL 4 SIGNAL ARM SLIP JOINT



DETAIL 7 I.D. TAG

REV	DRAWN BY-DATE	CHECK BY-DATE	DESCRIPTION
---	NKL 05/23/17	NKL 05/23/17	---

TITLE FLORIDA-DOT APPROVED PRODUCTS LIST
TRAFFIC SIGNAL STRUCTURES
DESIGN STANDARDS

VALMONT INDUSTRIES, INC. RESERVES
THE RIGHT TO INSTALL VARIOUS,
ENGINEER APPROVED, MATERIAL HANGING
ACCOMMODATIONS TO FACILITATE THE
MANUFACTURING PROCESS.

**INDIAN RIVER COUNTY
SHOP DRAWING REVIEW**

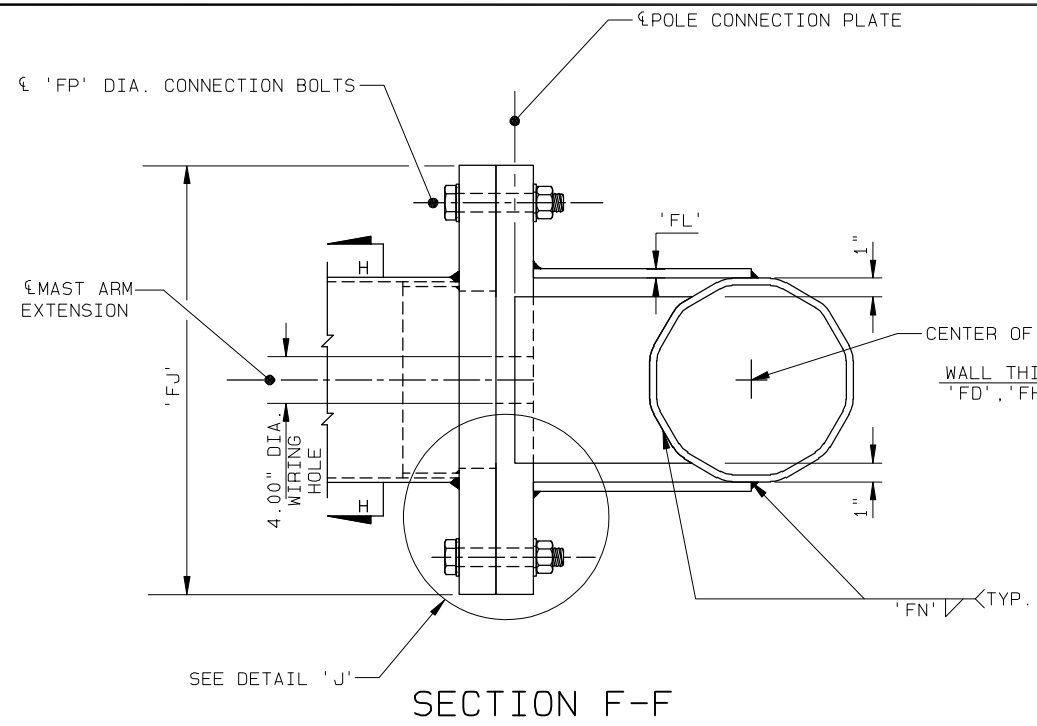
APPROVED
 APPROVED AS NOTED
 NOT APPROVED - RESUBMIT

REVIEWER: K. Wiendr
DATE: 6/28/2019

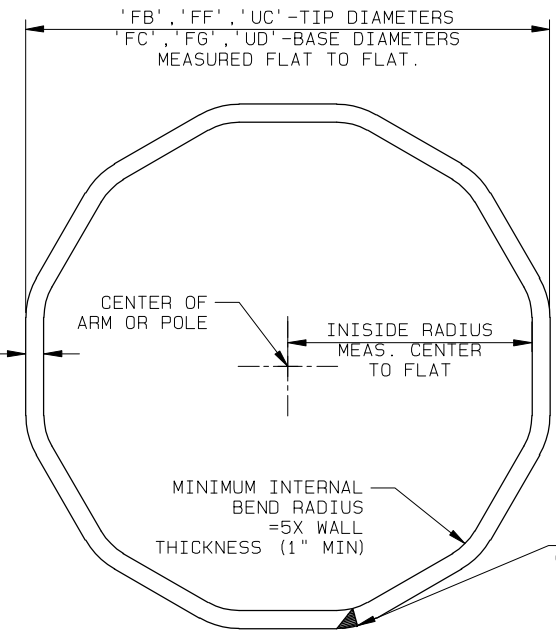
valmont

Valley, NE 68064
(402) 359-2201

PAGE NUMBER: 1 OF 6
DRAWING NUMBER DB01192
OVERALL REV

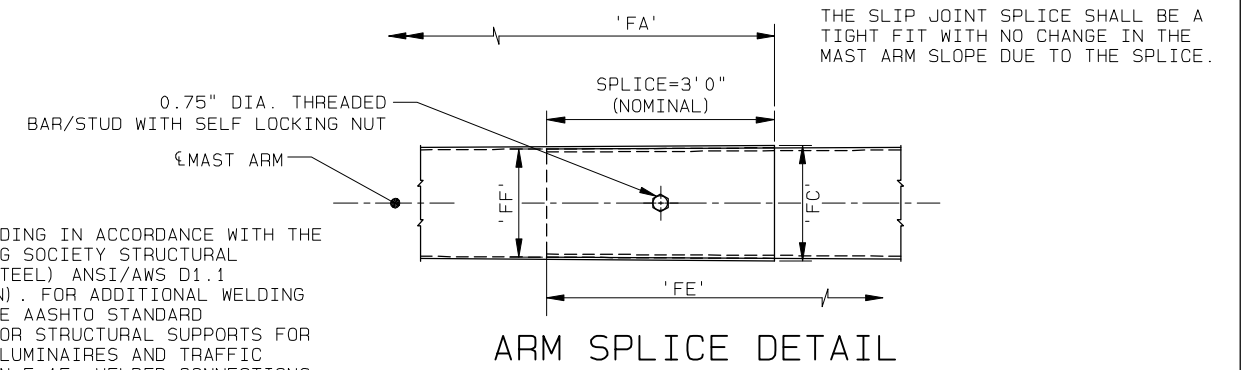


SECTION F-F

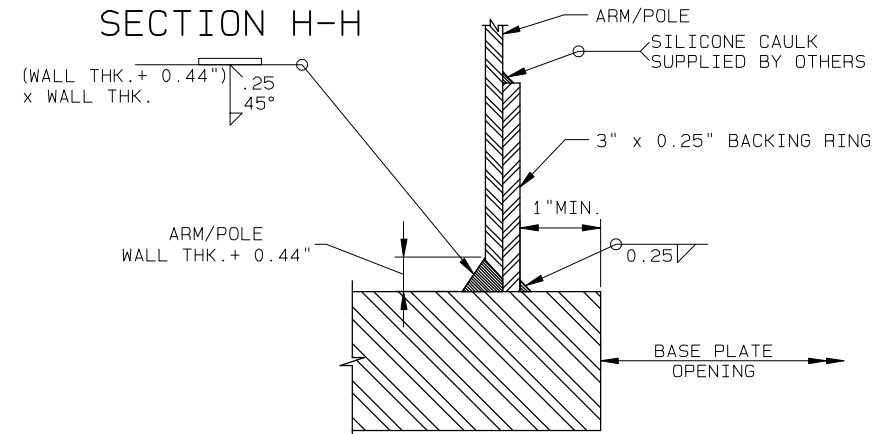


SECTION H-H

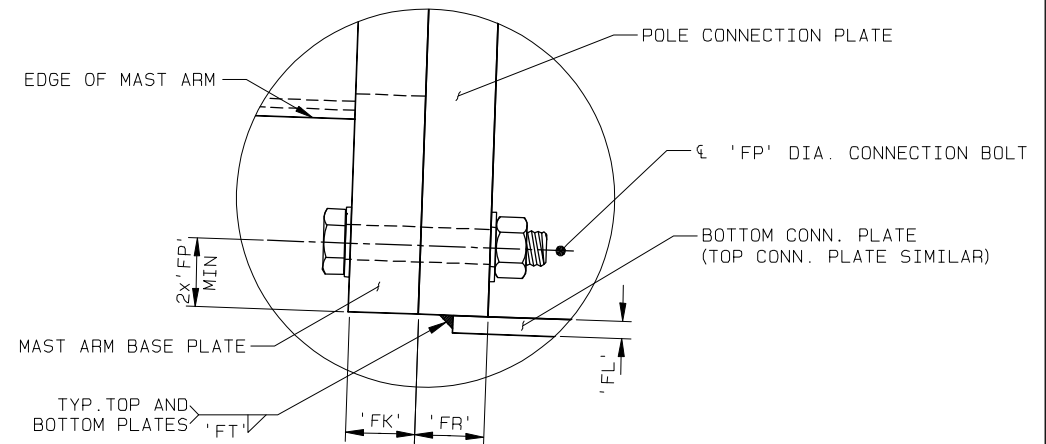
NOTE:
 PERFORM ALL WELDING IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE (STEEL) ANSI/AWS D1.1 (CURRENT EDITION). FOR ADDITIONAL WELDING REQUIREMENTS SEE AASHTO STANDARD SPECIFICATION FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, SECTION 5.15, WELDED CONNECTIONS.



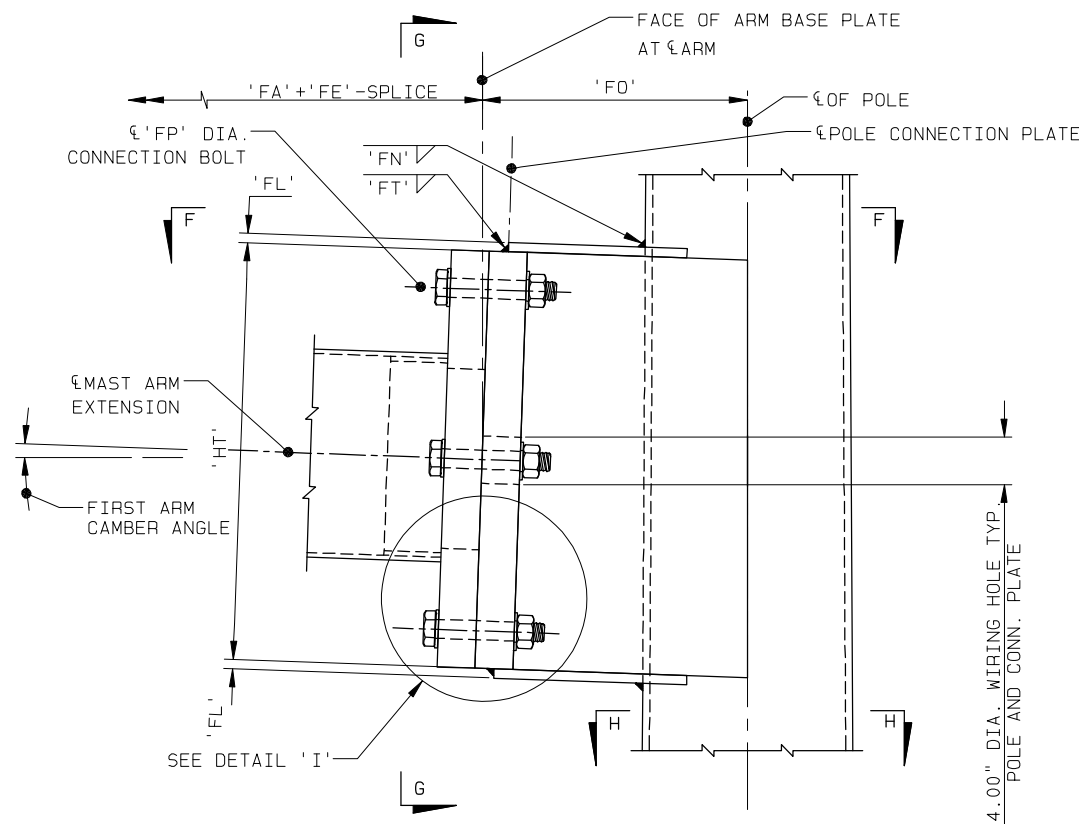
ARM SPLICE DETAIL



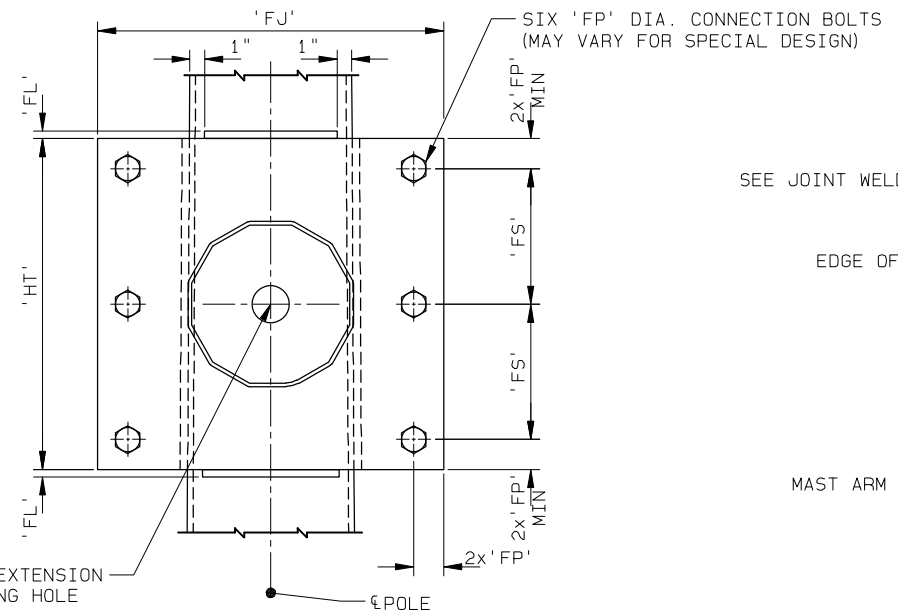
JOINT WELD DETAIL



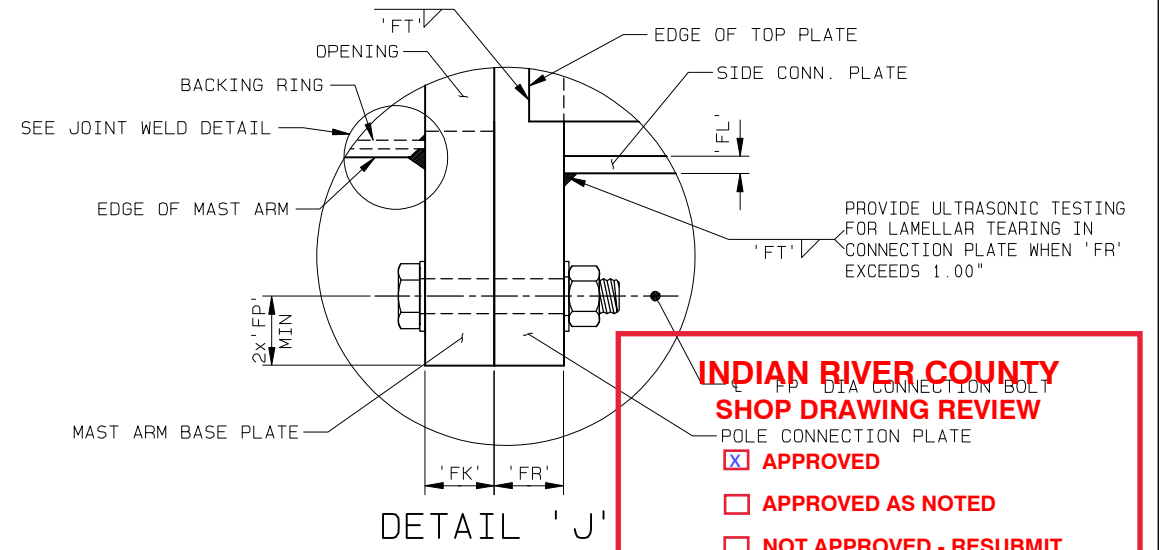
DETAIL 'I'



ELEVATION
(SINGLE ARM CONNECTION)



SECTION G-G



DETAIL 'J'

NOTE: 1. DETAILS SHOWN ON THIS SHEET ARE FOR 12 SIDED POLE SECTIONS. HOWEVER, SECTIONS WITH MORE THAN 12 SIDES AND ROUND SECTIONS ARE PERMITTED PROVIDED OUTSIDE DIAMETER AND WALL THICKNESS ARE NOT REDUCED.

NOTE: 2. MATCH MARK THE ARM AND CONNECTION PLATES TO ENSURE PROPER ASSEMBLY AND THE SEAM WELD IS IN THE PROPER LOCATION (SEAM LOCATED AT THE BOTTOM SIDE OF THE ARM)

INDIAN RIVER COUNTY
SHOP DRAWING REVIEW

POLE CONNECTION PLATE

APPROVED

APPROVED AS NOTED

NOT APPROVED - RESUBMIT

REVIEWER: *E. Woods*

DATE: 6/28/2019

TYPICAL SINGLE ARM CONNECTION DETAILS

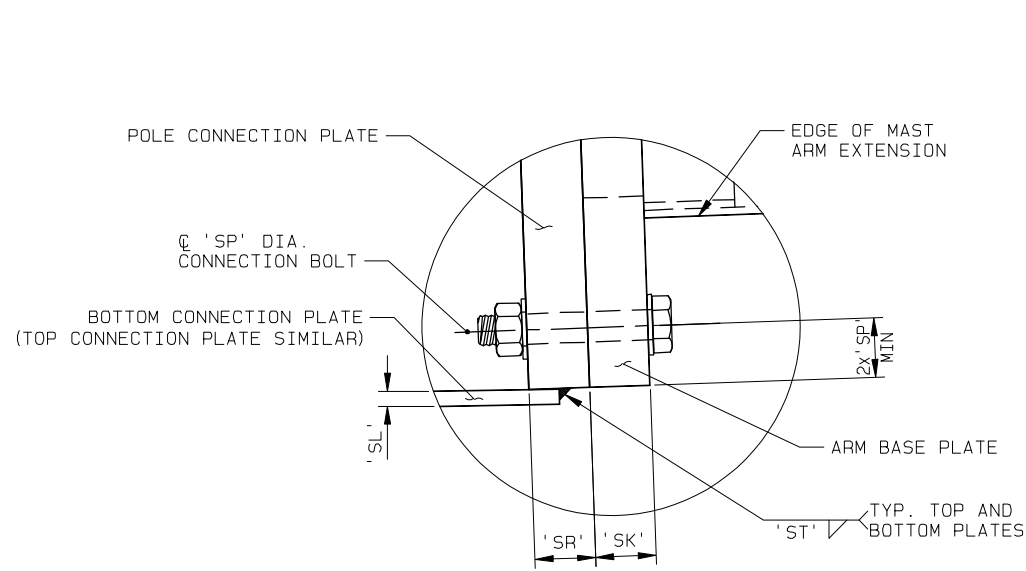
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—	NKL 05/23/17	NKL 05/23/17	

TITLE FLORIDA-DOT APPROVED PRODUCTS LIST
 TRAFFIC SIGNAL STRUCTURES
 DESIGN STANDARDS

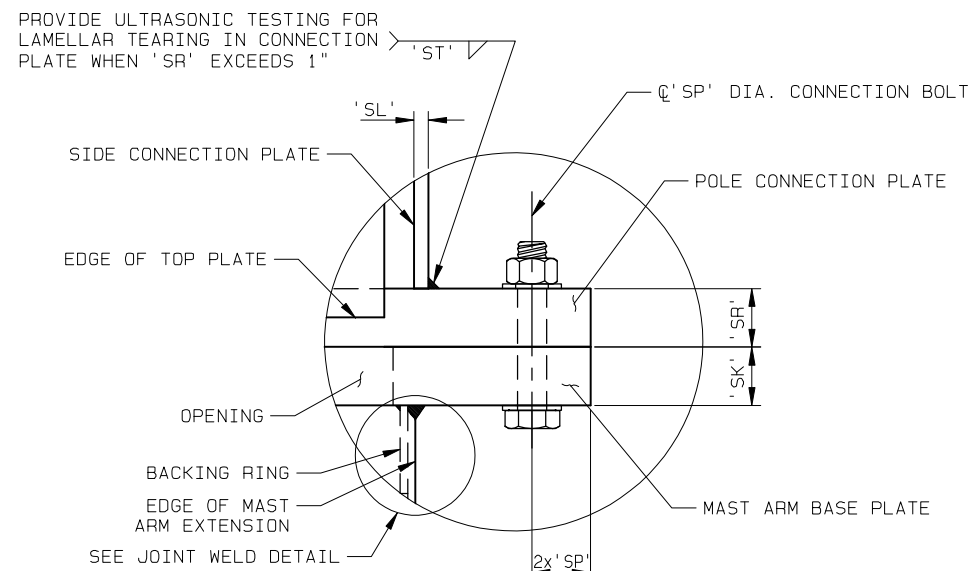
VALMONT INDUSTRIES, INC. RESERVES THE RIGHT TO INSTALL VARIOUS, ENGINEER APPROVED, MATERIAL HANGING ACCOMMODATIONS TO FACILITATE THE MANUFACTURING PROCESS.



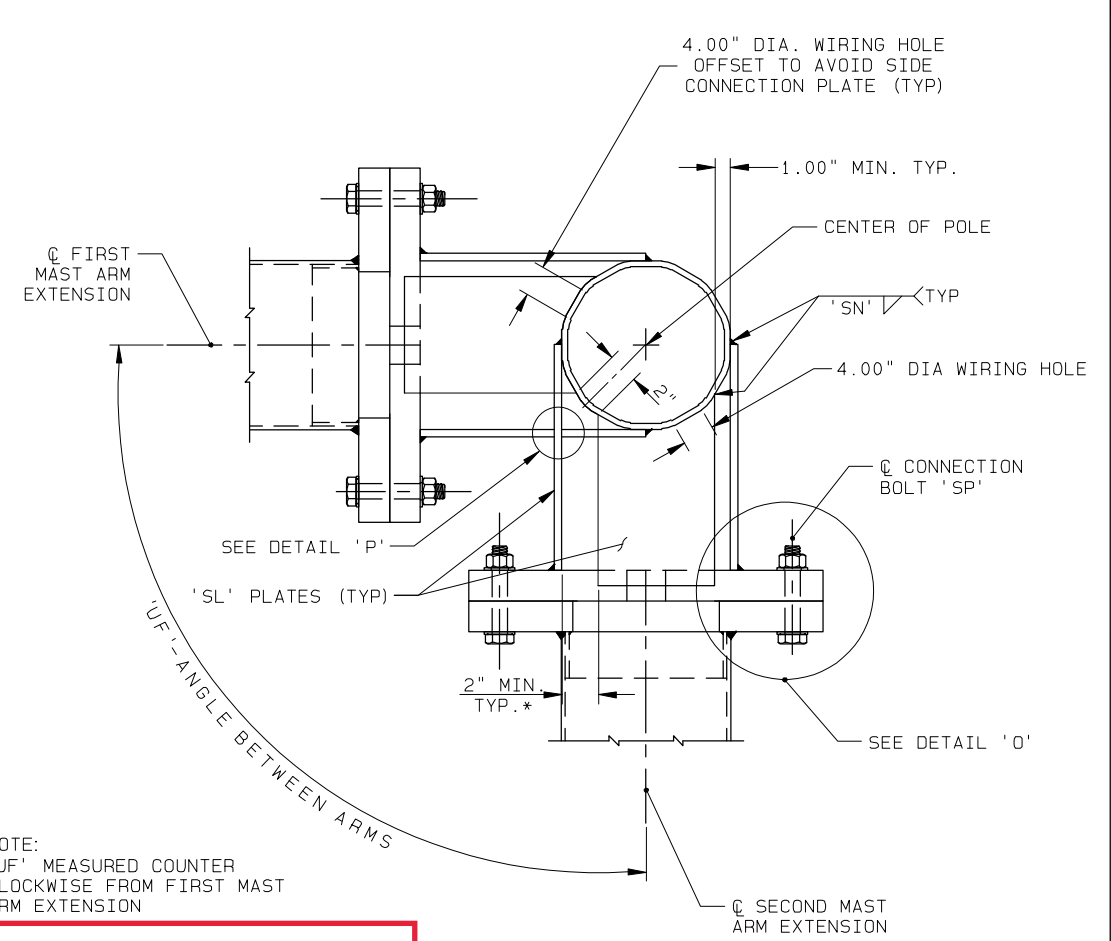
PAGE NUMBER: 2 OF 6	OVERALL REV
DRAWING NUMBER	DB01192



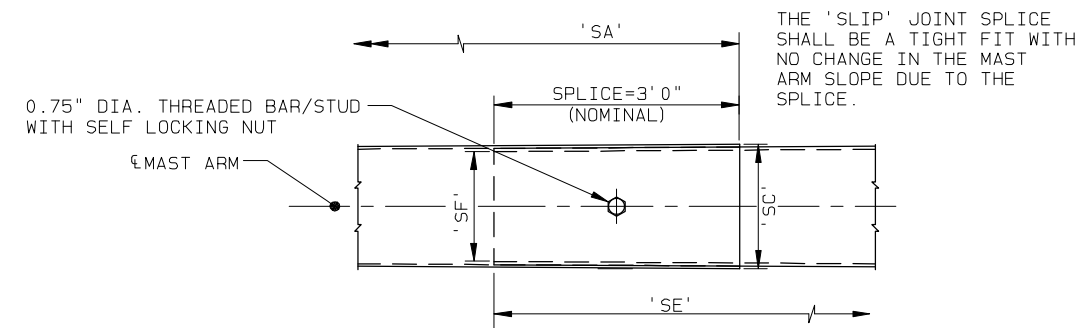
DETAIL 'N'



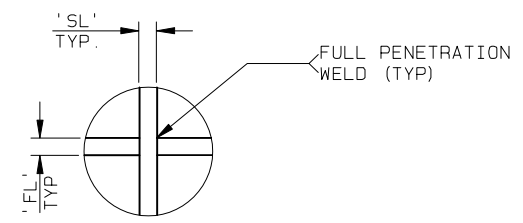
DETAIL 'O'



SECTION 'K-K'



ARM SPLICE DETAIL



DETAIL 'P'

**INDIAN RIVER COUNTY
SHOP DRAWING REVIEW**

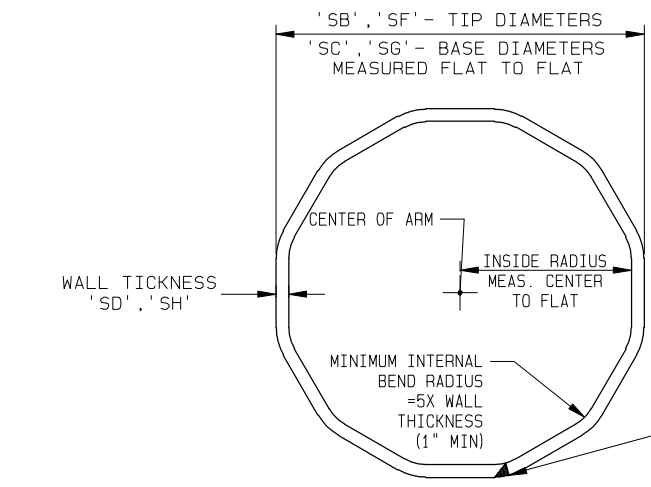
APPROVED

APPROVED AS NOTED

NOT APPROVED - RESUBMIT

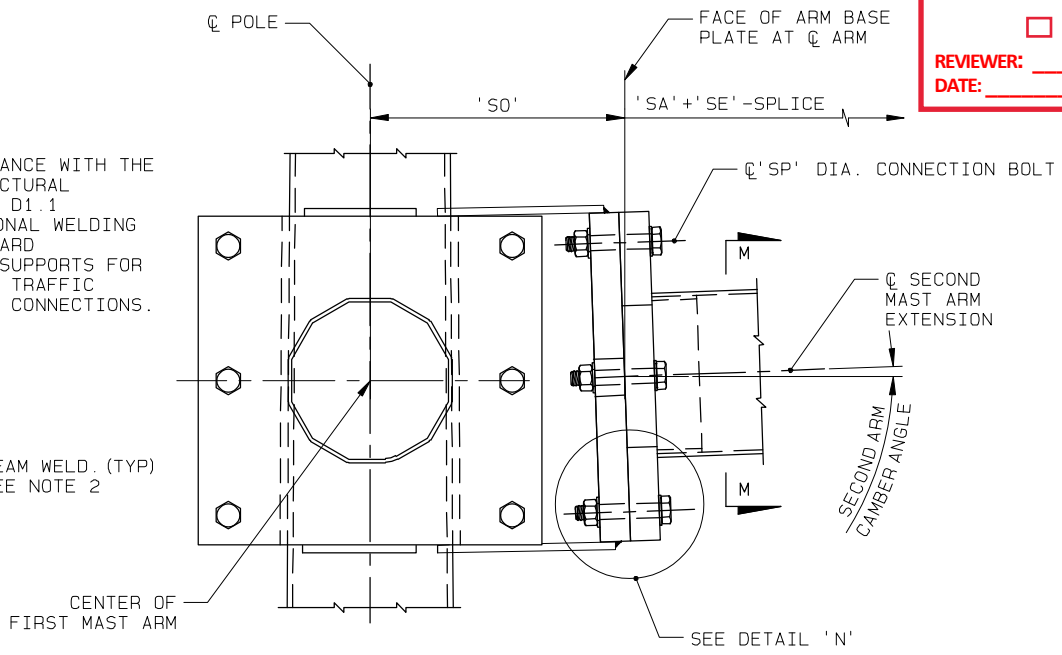
REVIEWER: E. Winder

DATE: 6/28/2019

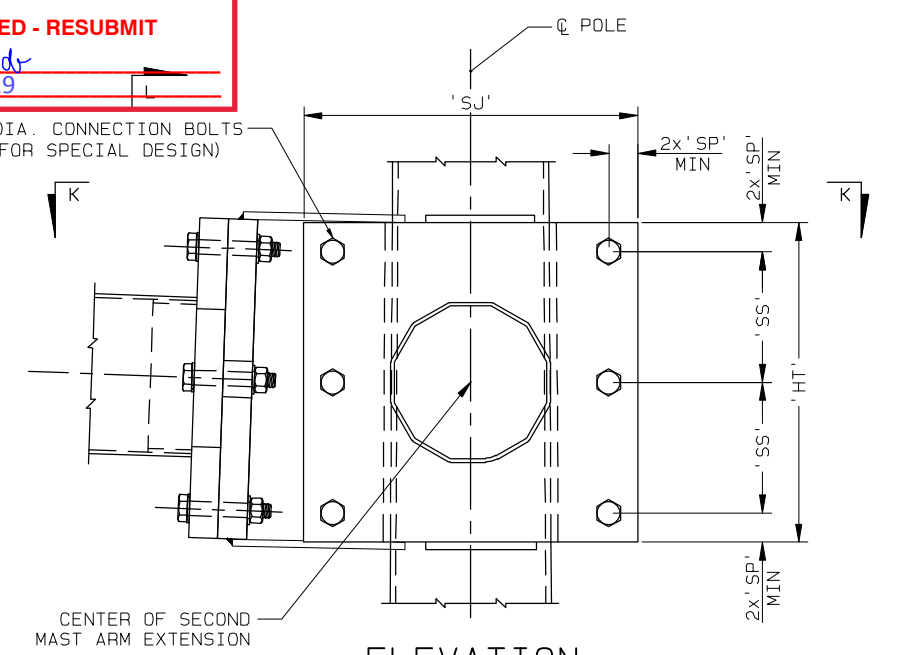


SECTION 'M-M'

NOTE:
PERFORM ALL WELDING IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE (STEEL) ANSI/AWS D1.1 (CURRENT EDITION). FOR ADDITIONAL WELDING REQUIREMENTS SEE AASHTO STANDARD SPECIFICATION FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, SECTION 5.15, WELDED CONNECTIONS.



SECTION 'L-L'



ELEVATION
(DOUBLE ARM CONNECTION)

NOTE: 1. DETAILS SHOWN ON THIS SHEET ARE FOR 12 SIDED POLE SECTIONS. HOWEVER, SECTIONS WITH MORE THAN 12 SIDES AND ROUND SECTIONS ARE PERMITTED PROVIDED OUTSIDE DIAMETER AND WALL THICKNESS ARE NOT REDUCED.

NOTE: 2. MATCH MARK THE ARM AND CONNECTION PLATES TO ENSURE PROPER ASSEMBLY AND THE SEAM WELD IS IN THE PROPER LOCATION (SEAM LOCATED AT THE BOTTOM SIDE OF THE ARM)

TYPICAL DOUBLE ARM CONNECTION DETAILS

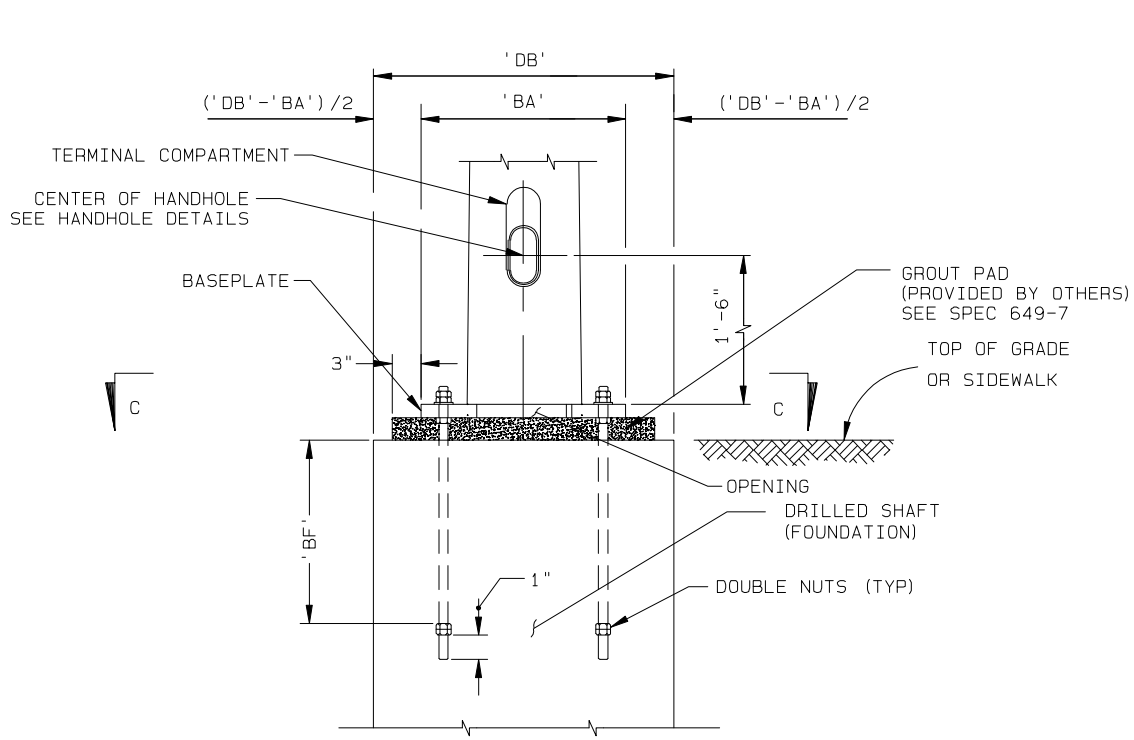
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---	NKL 05/23/17	NKL 05/23/17	---

TITLE	FLORIDA-DOT APPROVED PRODUCTS LIST
	TRAFFIC SIGNAL STRUCTURES
	DESIGN STANDARDS

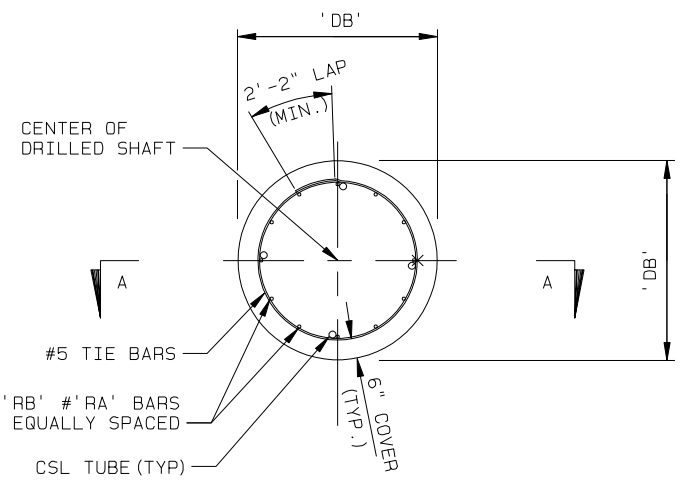
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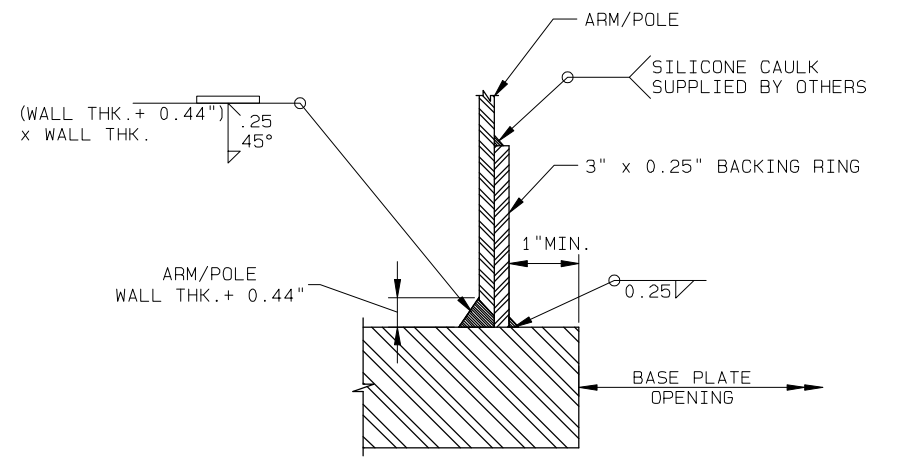
PAGE NUMBER:	3	OF	6
DRAWING NUMBER	DB01192	OVERALL REV	---



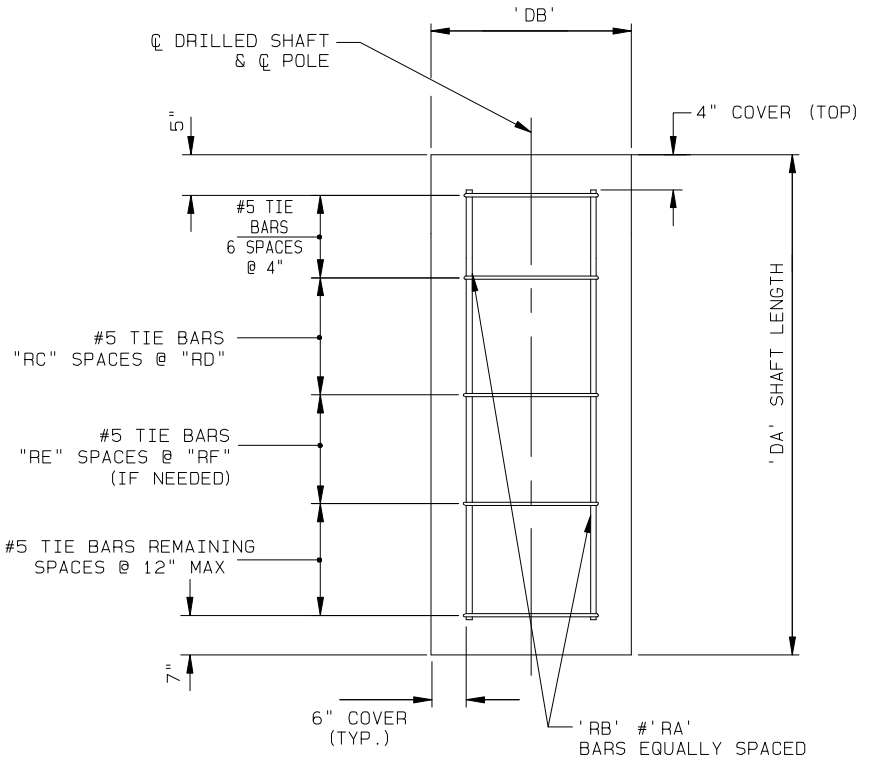
BASE PLATE AND ANCHORAGE ELEVATION
(REINFORCEMENT NOT SHOWN)



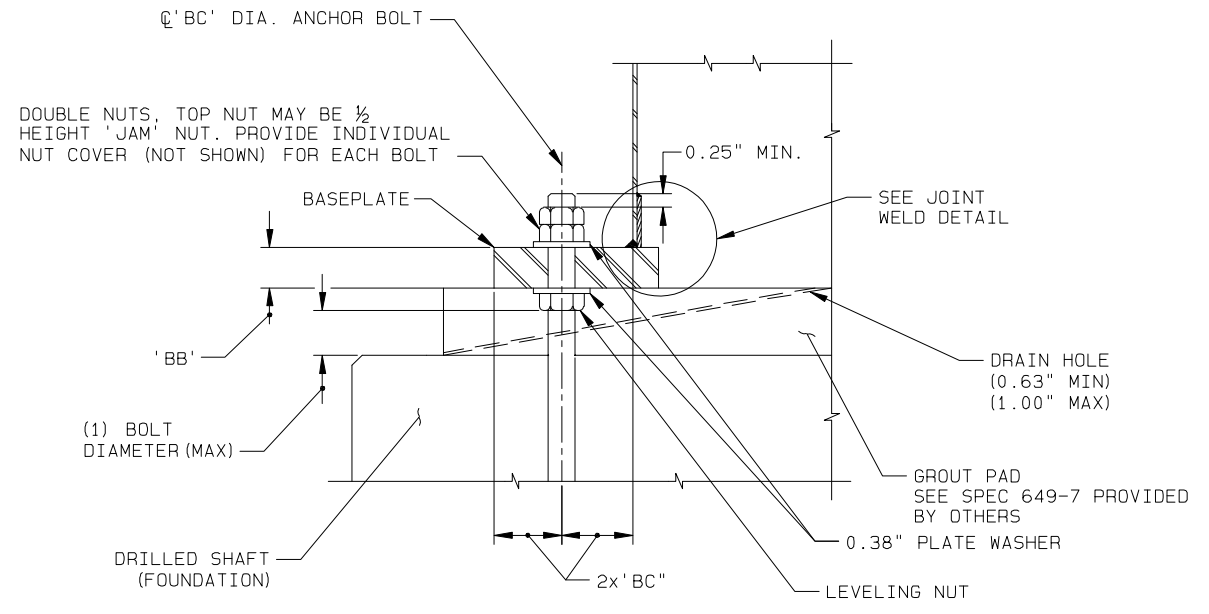
FOUNDATION PLAN



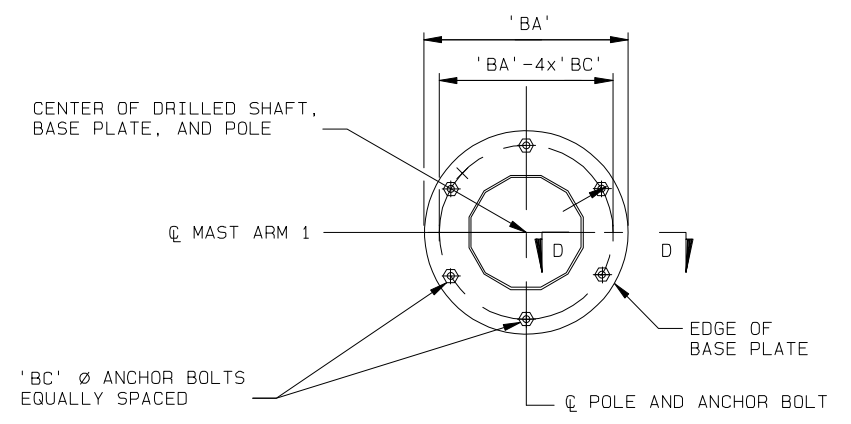
JOINT WELD DETAIL



SECTION A-A



SECTION D-D



SECTION C-C
(6 ANCHOR BOLTS)

TYPICAL FOUNDATION AND BASE PLATE DETAILS

**INDIAN RIVER COUNTY
SHOP DRAWING REVIEW**

APPROVED

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NOT APPROVED - RESUBMIT

REVIEWER: K. Winder

DATE: 6/28/2019

REV	DRAWN BY-DATE	CHECK BY-DATE	DESCRIPTION
---	NKL 05/23/17	NKL 05/23/17	---

TITLE FLORIDA-DOT APPROVED PRODUCTS LIST
TRAFFIC SIGNAL STRUCTURES
DESIGN STANDARDS

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POLE, BASE PLATE AND ARM CONNECTION

POLE ID PX-POLE NO S-SINGLE ARM D-DOUBLE ARM H-HEAVY DUTY	UPRIGHT				BASE PLATE					ANCHOR BOLT DATA						ARM-UPRIGHT CONNECTION																				
	UPRIGHT HEIGHT "UA" (FT)	BASE DIA "UD" (IN)	POLE WALL THK "UE" (IN)	LUMINAIRE ATTACHMENT "UG" (FT)	NO BOLTS	DIA. "BA" (IN)	(MIN) BOLT CIRCLE (IN)	PLATE THK "BB" (IN)	BOLT HOLE DIA (IN)	ANCHOR BOLT DIA "BC" (IN)	(MIN) LENGTH "J" (IN)	(MIN) THREAD LENGTH "U" (IN)	(MIN) THREAD LENGTH "H" (IN)	BOLT PROJECTION ABOVE GRADE (IN)	EMBEDMENT "BF" (IN)	HT (IN)	FJ/SJ (IN)	FL/SL (IN)	FN.SN (IN)	FO/SO (IN)	FP/SP (IN)	FR/SR (IN)	FS/SS (IN)	FT/ST (IN)												
P1/S	25.00	16.00	0.375		6	30.00	23.00	2.50	2.00	1.75	54.50	12.00	8.00	10.00	40.00	22.00	25.00	0.75	0.438	14.00	1.25	2.00	8.50	0.438												
P1/S/L	39.00															37.50	30.00			23.00		2.50	2.00		1.75	54.50	12.00	8.00	10.00	40.00	22.00	25.00	0.75	0.438	14.00	1.25
P1/D	25.00																											30.00	36.00			23.00		2.75	12.50	
P1/D/L	39.00																37.50											30.00	36.00			23.00		2.75	12.50	
P2/S	25.00	18.00	0.375		6	34.00	26.00	2.50	2.25	2.00	56.00	13.00	8.00	11.00	40.00	22.00	27.00	0.75	0.438	15.00	1.25	2.00	8.50	0.438												
P2/S/L	39.00															37.50	34.00			26.00		2.50	2.25		2.00	56.00	13.00	8.00	11.00	40.00	22.00	27.00	0.75	0.438	15.00	1.25
P2/D	25.00																											30.00	36.00			23.00		2.75	12.50	
P2/D/L	39.00																37.50											30.00	36.00			23.00		2.75	12.50	
P3/S	25.00	20.00	0.375		6	36.00	28.00	2.50	2.25	2.00	56.00	13.00	8.00	11.00	40.00	22.00	29.00	0.75	0.438	16.00	1.25	2.00	8.50	0.438												
P3/S/L	39.00															37.50	36.00			28.00		2.50	2.25		2.00	56.00	13.00	8.00	11.00	40.00	22.00	29.00	0.75	0.438	16.00	1.25
P3/D	25.00																											30.00	36.00			23.00		2.75	12.50	
P3/D/L	39.00																37.50											30.00	36.00			23.00		2.75	12.50	
P4/S	25.00	22.00	0.375		6	38.00	30.00	2.50	2.25	2.00	56.00	13.00	8.00	11.00	40.00	22.00	29.00	0.75	0.438	17.00	1.25	2.50	12.50	0.438												
P4/S/L	39.00															37.50	38.00			30.00		2.50	2.25		2.00	56.00	13.00	8.00	11.00	40.00	22.00	29.00	0.75	0.438	17.00	1.25
P4/D	25.00																											30.00	36.00			23.00		2.75	12.50	
P4/D/L	39.00																37.50											30.00	36.00			23.00		2.75	12.50	
P5/S	25.00	24.00	0.375		6	40.00	32.00	2.50	2.25	2.00	56.00	13.00	8.00	11.00	40.00	22.00	29.00	0.75	0.500	18.00	1.25	2.50	12.50	0.500												
P5/S/L	39.00															37.50	40.00			32.00		2.50	2.25		2.00	56.00	13.00	8.00	11.00	40.00	22.00	29.00	0.75	0.500	18.00	1.25
P5/D	25.00																											30.00	36.00			23.00		2.75	12.50	
P5/D/L	39.00																37.50											30.00	36.00			23.00		2.75	12.50	
P6/S	25.00	24.00	0.500		6	42.00	33.00	2.50	2.50	2.25	62.50	14.00	8.00	12.00	45.00	22.00	29.00	0.75	0.625	18.00	1.50	2.50	12.00	0.625												
P6/S/L	39.00															37.50	42.00			33.00		2.50	2.50		2.25	62.50	14.00	8.00	12.00	45.00	22.00	29.00	0.75	0.625	18.00	1.50
P6/D	25.00																											30.00	36.00			23.00		2.75	12.50	
P6/D/L	39.00																37.50											30.00	36.00			23.00		2.75	12.50	
P7/S	25.00	26.00	0.500		6	44.00	35.00	2.50	2.50	2.25	62.50	14.00	8.00	12.00	45.00	22.00	29.00	0.75	0.625	19.00	1.50	2.50	12.00	0.625												
P7/S/L	39.00															37.50	44.00			35.00		2.50	2.50		2.25	62.50	14.00	8.00	12.00	45.00	22.00	29.00	0.75	0.625	19.00	1.50
P7/D	25.00																											30.00	36.00			23.00		2.75	12.50	
P7/D/L	39.00																37.50											30.00	36.00			23.00		2.75	12.50	

DRILLED SHAFT								
DRILLED SHAFT ID	DA (FT)	DB (FT)	RA	RB	RC	RD (IN)	RE	RF (IN)
DS/12/4.0	12	4.0	11	14	8	12		
DS/12/4.5	12	4.5	11	16	8	12		
DS/14/4.5	14	4.5	11	16	10	8		
DS/14/5.0	14	5.0	11	18	10	8		
DS/16/4.5	16	4.5	11	16	10	8		
DS/16/5.0	16	5.0	11	18	10	8		
DS/18/5.0	18	5.0	11	18	10	8		
DS/20/5.0	20	5.0	11	18	10	6	10	9

LUMINAIRE CONNECTION DATA SHOWN IN DETAIL 2 ON SHEET 1 OF 6.

LUMINAIRE ARM DATA						
LA (FT)	LB (FT)	(MIN) LC BASE DIA (IN)	FREE END DIA (IN)	(MIN) LD GAUGE	LE	LF (FT)
40.00	10.00	3.00	2.38	10	0.500	9.00

**INDIAN RIVER COUNTY
SHOP DRAWING REVIEW**

APPROVED
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REVIEWER: K. Ulander
 DATE: 6/28/2019

REV	DATE	DESCRIPTION
NKL 05/23/17	NKL 05/23/17	

TITLE FLORIDA-DOT APPROVED PRODUCTS LIST
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ARM AND BASE PLATE

ARM ID AXX-ARM LENGTH S-SINGLE ARM D-DOUBLE ARM H-HEAVY DUTY	TOTAL ARM LENGTH (FT)	ARM			ARM EXTENSION			BASE PLATE			
		FA/SA (FT)	FC/SC (IN)	FD/SD (IN)	FE/SE (FT)	FG/SG (IN)	FH/SH (IN)	HT (IN)	FJ/SJ (IN)	FK/SK (IN)	
A30/S	30.00	30.00	11.00	0.250				22.00	25.00	3.00	
A30/S/H		30.00	12.00	0.250							
A30/D		30.00	11.00	0.250				30.00	36.00		
A30/D/H		30.00	12.00	0.250							
A40/S	40.00	40.00	13.00	0.250				22.00	27.00	3.00	
A40/S/H		40.00	14.00	0.250							
A40/D		40.00	13.00	0.250				30.00	36.00		
A40/D/H		40.00	14.00	0.250							
A50/S	50.00	32.50	12.00	0.250	20.50	14.00	0.313	22.00	29.00	3.00	
A50/S/H		32.50	13.00	0.250	20.50	15.00					
A50/D		32.50	12.00	0.250	20.50	14.00			30.00		36.00
A50/D/H		32.50	13.00	0.250	20.50	15.00					
A60/S	60.00	35.50	12.00	0.250	27.50	15.00	0.375	30.00	36.00	3.00	
A60/S/H		35.50	13.00	0.250	27.50	16.00					
A60/D		35.50	12.00	0.250	27.50	15.00					
A60/D/H		35.50	13.00	0.250	27.50	16.00					
A70/S	70.00	38.00	13.00	0.250	35.00	17.00	0.375	30.00	36.00	3.00	
A70/S/H		38.00	14.00	0.250	35.00	18.00					
A70/D		38.00	13.00	0.250	35.00	17.00					
A70/D/H		38.00	14.00	0.250	35.00	18.00					
A78/S	78.00	39.00	13.00	0.250	42.00	18.00	0.375	30.00	36.00	3.00	
A78/S/H		39.00	15.00	0.250	42.00	20.00					
A78/D		39.00	13.00	0.250	42.00	18.00					
A78/D/H		39.00	15.00	0.250	42.00	20.00					

**INDIAN RIVER COUNTY
SHOP DRAWING REVIEW**

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REVIEWER: E. Uindt
DATE: 6/28/2019

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