



City of Fitchburg
 Planning/Zoning Department
 5520 Lacy Road
 Fitchburg, WI 53711
 (608-270-4200)

ARCHITECTURAL & DESIGN REVIEW APPLICATION

Applicant/Contact Person: Fitchburg Lands, LLC, Phil Sveum

Address: 2920 Market Place Drive, Suite #202 **Phone Number of Contact Person:** 608-338-4299

City, State, Zip Code: Fitchburg, WI 53719 **Email of Contact Person:** psveum@cbsuccess.com

Project Address: Terravessa **Lot:** OL 36 **Subdivision:** Terravessa

Project Type: **Multi-Family** **Commercial** **Industrial** **Lift Station** **Other**

New **Addition**

Impervious Surface Ratio (ISR): 43% (City Standard: maximum 65% ISR)

All items listed below must be included with the application to be considered complete. If an item is not included with the application, the applicant must provide in writing the basis for not including it. Building and site plans submitted to the Fitchburg Plan Commission for architectural and design review shall contain the following information:

Site Data:

- 1. Lot or property dimensions.
- 2. Orientation (to north).
- 3. Adjacent highways, roads, drive, etc.
- 4. Existing natural features (rivers, ponds, wetlands).
- 5. Existing buildings and/or improvements.
- 6. Existing and proposed site drainage.
- 7. Utility plans, including main/lateral sizes and existing fire hydrants on site or within 300 feet of the site
- 8. ISR shall be indicated on all plans.
- 9. Stormwater management plans and details, including grading plan.
- 10. Lighting plan in footcandles and light fixture cut sheets.

Building:

- 1. Building size, configuration and orientation.
- 2. Distance from lot lines.
- 3. Distance from other buildings, improvements and natural features.
- 4. Location of well, septic tank, drainfield, etc. (if applicable)
- 5. Additional proposed additions or new structures, including trash/recycling enclosure(s).
- 6. Construction type (wood frame, structural steel, etc.).
- 7. Foundation type (full basement, slab on grade, etc.).
- 8. Number of levels.
- 9. Siding/exterior covering type, color, texture, etc.
- 10. Roof type (gable, hip, shed, flat, etc.) and pitch.
- 11. Roofing material type, color, texture, etc.
- 12. Exterior door and window location, size, type, etc.
- 13. Fire protection sprinklers or fire alarm systems.

Ingress, Egress, Parking:

- 1. Location of highway and road access points.
- 2. Location, size, configuration of drivers and walks.
- 3. Number, size, location of parking spaces.
- 4. Location of handicapped parking and accessible building entrances.
- 5. Bicycle rack(s).

Landscaping:

- 1. Location, species, size of existing trees, shrubs, and plantings.
- 2. Location, species, size of proposed plantings.
- 3. Location and size of all paved, seeded/sodded and gravelled areas.
- 4. Location of all retaining walls, fences, berms and other landscape features.

***It is highly recommended that an applicant hold at least one neighborhood meeting prior to submitting an ADR application to identify any concerns or issues of surrounding residents.**

The preceding information is considered to be the minimum information for submission, and the City may require additional information for its review. Any interpretations provided by city officials as the result of submitting the attached information are based on the submitted plans, and any plan changes, may affect the interpretations.

It is the responsibility of the owner/applicant to insure compliance with all local and state requirements. The below signed applicant acknowledges the above information and hereby submits the attached information for the City's Architectural and Design Review Process.

Signed: _____ Date: 1-22-18
Applicant or Authorized Agent

***** Application shall be accompanied by one (1) sets of full-size plans, two (2) sets no larger than 11"x17", and one (1) pdf document of the complete submittal to planning@fitchburgwi.gov. Applications are due at least 4 weeks prior to the desired Plan Commission Meeting. The time frame assumes a complete set of plans is provided, and if it is not provided the Plan Commission date will be adjusted.**

FOR CITY USE ONLY

Date Received: 1/23/2018 Plan Commission Date: _____

Comments:

January 23, 2018

Mr. Thomas Hovel
Zoning Administrator/City Planner
City of Fitchburg
5520 Lacy Road
Fitchburg, WI 53711

Re: Terravessa Lift Station ADR Application
MARS Project Number: 1747

Dear Tom:


Enclosed are 3 sets of the plans and supporting information for the Architectural Design Review application for the Terravessa lift station.

The ADR application will be delivered separately by Phil Sveum. The application is being submitted for the February 20, 2018 Plan Commission meeting.

Please feel free to contact me with any questions or concerns regarding the ADR submittal materials.

Sincerely,

Montgomery Associates: Resource Solutions, LLC



Deborah J. Hatfield, PE
Project Engineer

Enclosures:
Copy, w/enclosures: Phil Sveum

DRAWN BY	CNB	CHECKED BY	DJH
DATE			
REVISION / ISSUE			
NO.			

MONTGOMERY ASSOCIATES:
 RESOURCE SOLUTIONS, LLC
 119 SOUTH MAIN STREET
 SUITE A
 COTTAGE GROVE, WI 53627
 WWW.MRSA.CO



Site Plan
 Terravessa Lift Station
 Terravessa Plat
 Fitchburg, WI
 Fitchburg Lands, LLC

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

SCALE
 1" = 20'

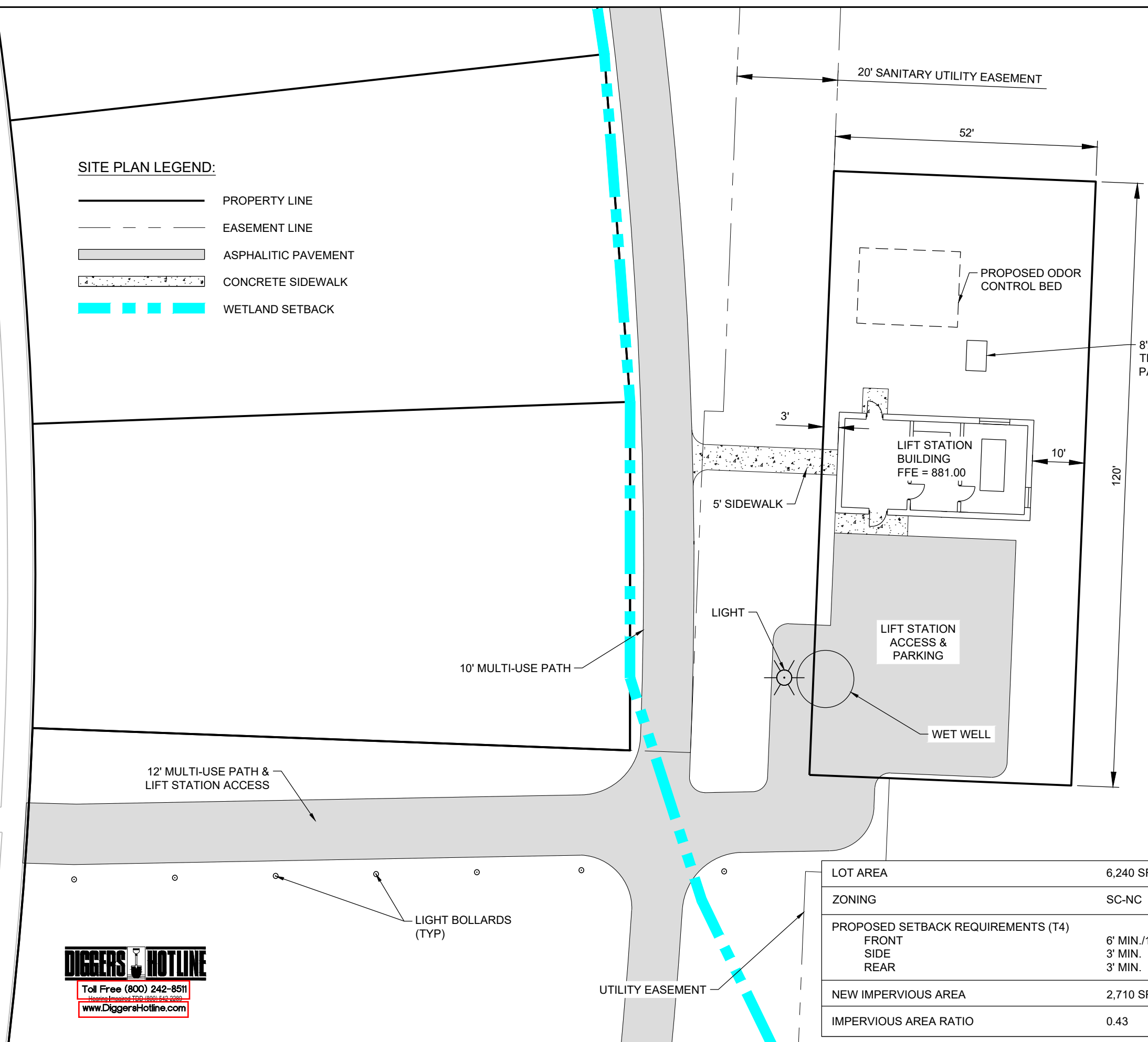
PROJECT NO. 1747 DATE 1/23/2018

SHEET NO.
 1

SITE PLAN LEGEND:

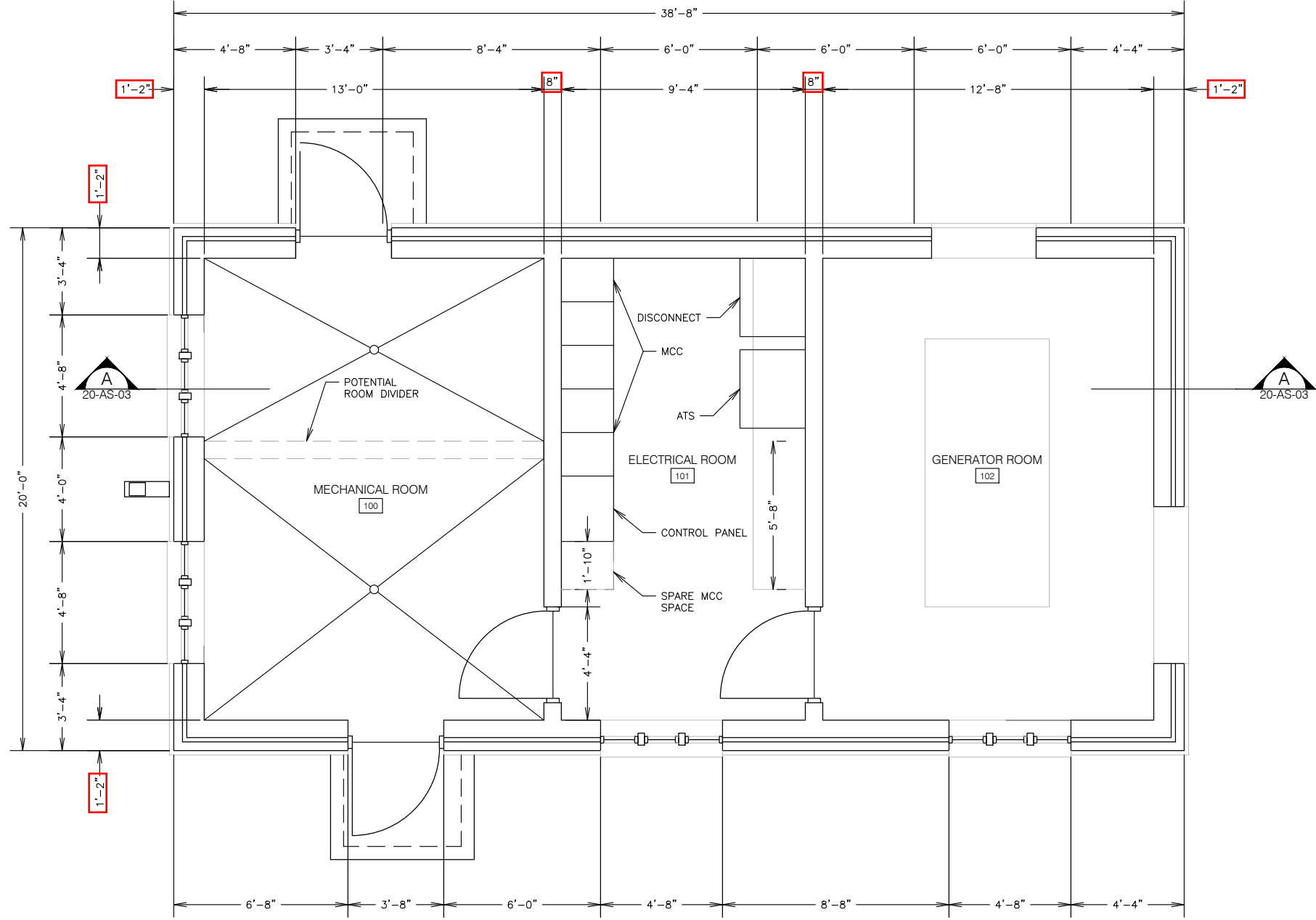
- PROPERTY LINE
- EASEMENT LINE
- ASPHALTIC PAVEMENT
- CONCRETE SIDEWALK
- WETLAND SETBACK

RADICCHIO DRIVE



LOT AREA	6,240 SF
ZONING	SC-NC
PROPOSED SETBACK REQUIREMENTS (T4)	
FRONT	6' MIN./18' MAX.
SIDE	3' MIN.
REAR	3' MIN.
NEW IMPERVIOUS AREA	2,710 SF
IMPERVIOUS AREA RATIO	0.43

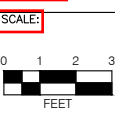
DIGGERS HOTLINE
 Toll Free (800) 242-8511
 Hearing Impaired TDD (800) 542-2399
 www.DiggersHotline.com

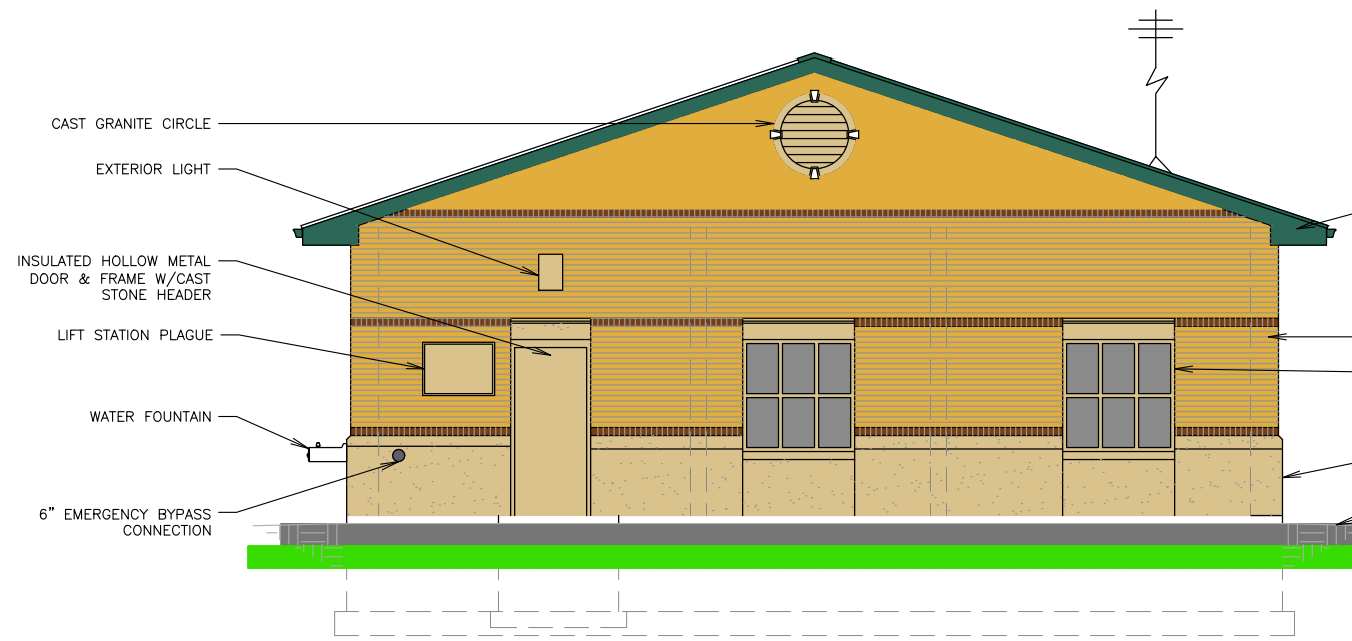


FLOOR PLAN

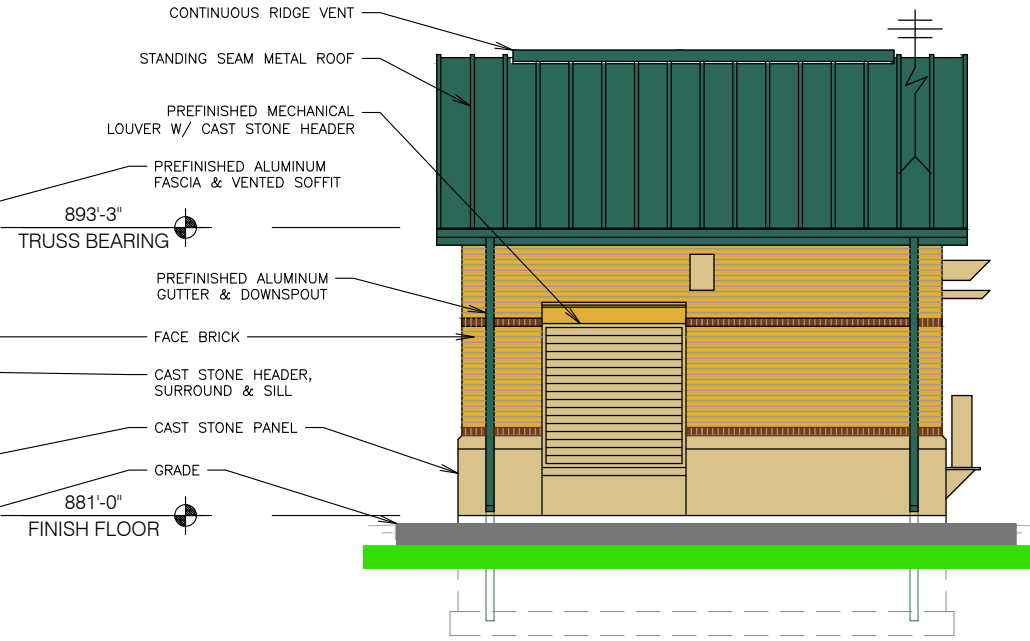


PROJECT NO.:	20-AS-01
DRAWN BY:	JMS - G3
CHECKED BY:	JMS - G3
DATE:	11-22-18
REVISIONS:	

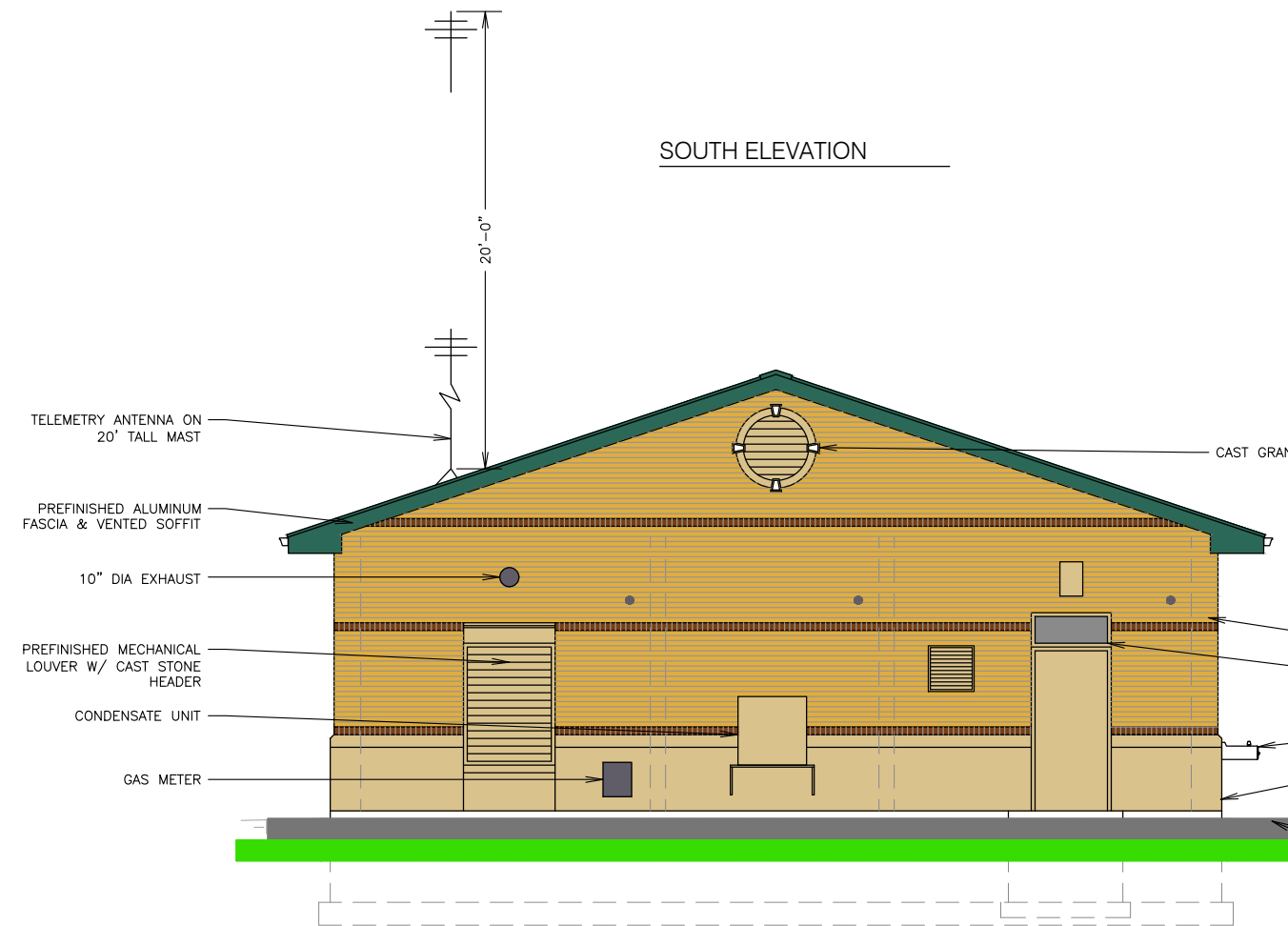




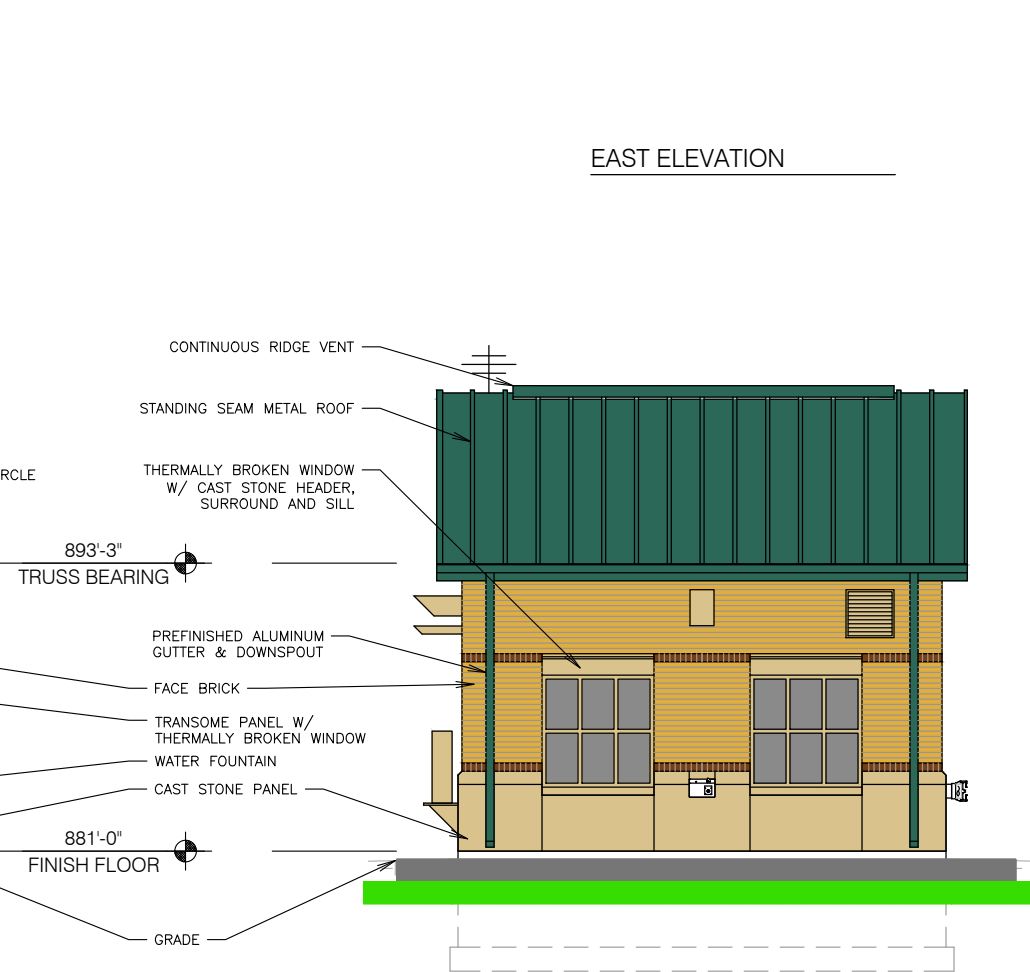
SOUTH ELEVATION



EAST ELEVATION

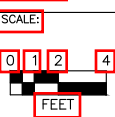


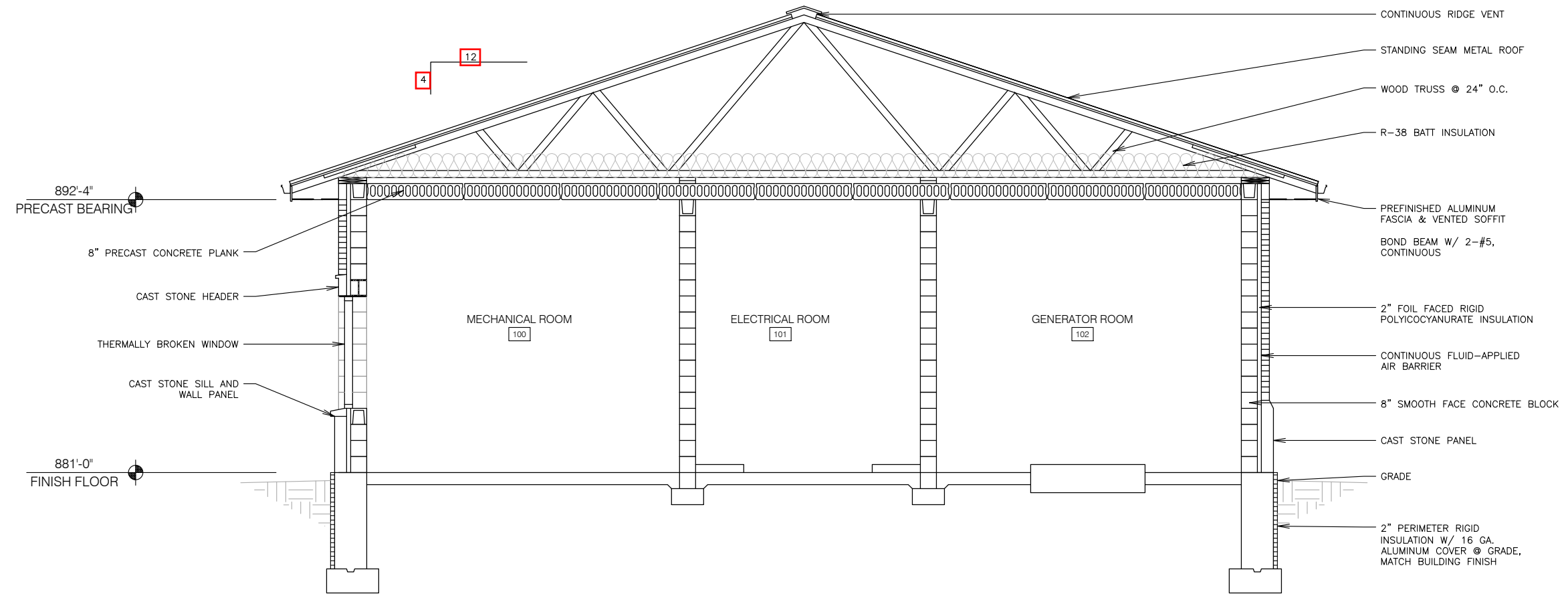
NORTH ELEVATION



WEST ELEVATION

PROJECT NO.:	18MS-03
DRAWN BY:	20-AS-02
CHECKED BY:	
DATE:	11-22-18
REVISIONS:	





BUILDING SECTION

- CONTINUOUS RIDGE VENT
- STANDING SEAM METAL ROOF
- WOOD TRUSS @ 24" O.C.
- R-38 BATT INSULATION
- PREFINISHED ALUMINUM FASCIA & VENTED SOFFIT
- BOND BEAM W/ 2-#5, CONTINUOUS
- 2" FOIL FACED RIGID POLYISOCYANURATE INSULATION
- CONTINUOUS FLUID-APPLIED AIR BARRIER
- 8" SMOOTH FACE CONCRETE BLOCK
- CAST STONE PANEL
- GRADE
- 2" PERIMETER RIGID INSULATION W/ 16 GA. ALUMINUM COVER @ GRADE, MATCH BUILDING FINISH

- 892'-4" PRECAST BEARING
- 8" PRECAST CONCRETE PLANK
- CAST STONE HEADER
- THERMALLY BROKEN WINDOW
- CAST STONE SILL AND WALL PANEL
- 881'-0" FINISH FLOOR

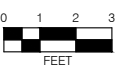
4 12

MECHANICAL ROOM
100

ELECTRICAL ROOM
101

GENERATOR ROOM
102

PROJECT NO.	18-03
DRAWN BY	MS
CHECKED BY	MS
DATE	11-22-18
REVISIONS	
SCALE	



MEMORANDUM

Date: January 23, 2018

To: City of Fitchburg Planning/Zoning Department

From: Eugene Laschinger, P.E., Town & Country Engineering, Inc.
Cassie Elmer, E.I.T., Town & Country Engineering, Inc.

Subject: Architectural and Design Review for Terravessa Lift Station Building

The Terravessa Lift Station Building will be a brick and block building with a metal roof with a slab on grade foundation and footings. The lift station building will include three different rooms; a mechanical room, electrical room, and generator room. The mechanical room will contain the force main valves, flow meter, water back flow preventer, and wash sink. A portion of the room will be reserved for the possible odor control equipment if needed in the future. At this time, it is not anticipated to be needed. The electrical room will contain all MCC equipment, disconnect switch, automatic transfer switch (ATS) and the SCADA HMI screen. The generator room will house the emergency power generator. Specific details of the building include:

- 14" exterior walls with 8" of block and 2" of insulation and 4" of brick
- 8" block interior walls
- Interior of the building to be epoxy painted
- Standing seam metal roof, gable style with a 4:12 pitch
- Precast ceilings
- Cast stone lower paneling on the exterior, 32" high
- Brick exterior, with line enhancements
- Thermally broken insulated glass windows
- Hollow metal painted exterior and interior doors
- Cast stone window sills, with ledges above and below window
- Acoustic louvers for generator intake and exhaust

The City has decided to match the color scheme to that of the Fitchburg Public Library, located at 5530 Lacy Rd, Fitchburg. Colors will be selected during the submittal review and approved by the City of Fitchburg. Colors of the renderings for the lift station building are not an exact match and actual colors will be as follows:

- The cast stone paneling on the exterior of the building, as well as the cast stone ledges above and below the windows, will match the beige color of cast stone at the library (City of Fitchburg to provide submittal for cast stone color used at library.)
- The brick color of the exterior of the building will match the tan color of the bricks at the library (City of Fitchburg to provide submittal for brick color and texture used at library.)
- The fascia, soffit, and metal roof will match the greenish-gray color of the tile under the eave of the library (City of Fitchburg to provide submittal for color of tile used at library.)
- The doors will match the beige color of cast stone at the library.
- The louvers will match the beige color of cast stone at the library.
- The cast stone plaque will match the beige color of the cast stone at the library.

There will be a number of lighting selections for the lift station and surrounding area, as well as the bike path. Lighting information is as follows:

- The lift station building will be lit by four (4) dark-sky compliant, wall mounted LED lights. Lights will be located on each side of the building. These lights will have three modes

TOWN & COUNTRY ENGINEERING, INC.

Madison ♦ Rhinelander ♦ Kenosha

2912 Marketplace Drive, Suite 103 • Madison, WI 53719 • (608) 273-3350 • tce@tcengineers.net

controlled by a hardwired HOA switch. In Hand mode, the light be on the high setting. In the Off mode, light will be fully off and will override the dusk to dawn and motion sensor. In the Auto setting, the light be on the low setting from dusk to dawn, with the high setting being activated by the motion sensor. Dusk to dawn will be controlled by a building mounted photocell, and each exterior building light will have its own HOA switch for individual control. See Building Light Submittal for cut sheets and the lighting plan.

- The lift station access and parking area will be lit by a 15' pole mounted light, with a hardwired HOA switch. The pole mounted light will have the same controls in Hand, Off, and Auto mode as the building lights described above. See Pole Mounted Submittal Options 1-3 for cut sheets and lighting plans.
- The bike path will be lit by five (5) 4' tall bollard lights, which will be on from dusk to dawn, controlled by the building mounted photocell. The ability to add motion sensors to activate the lights at a higher level is being investigated. However, we are requesting if lighting this section of bike path is necessary, as the portion of the bike path running north to south will not be lit. Not lighting the bike path will reduce the light to the surrounding homes. Let us know the final desires for the bike path lighting. See Bike Path Lighting Submittal for cut sheets and the lighting plan.

If you have any questions, please do not hesitate to contact me.

Building Light Submittal

2300 LED SERIES

2300 LED Exterior Palermo Cutoff Dark Sky Series features a Lantern Design with Luminous Bottom Lens, great application for shopping centers, cities, and multi family housing projects

DARK SKY

EVERGREEN LIGHTING

Catalog #		Type
Project		
Comments		Date
Prepared By		

SPECIFICATION FEATURES

Material

Paintlok Non-Rustable Steel construction for high quality appearance in a Lantern Style Cutoff Design, standard powder-coat finish, clear frosted acrylic flat panel lens, .125 thick

Installation

Supplied with standard mounting hardware to mount to a 4" J-box or plaster ring

Optics

Contact Evergreen Lighting for complete photometrics.

LED

Alta #AL-R-1W-30 LED array to be mounted onto an Aluminum MPCB Board configured to the proper wattage. The LED arrays will be centered within the Lens area and mounted on a white aluminum reflective backplate.

Driver

Specific Drivers will be matched with each different LED array configuration/wattage. Standard Driver features are:

- Constant Current
- 5 year warranty
- 120/277 multi-voltage power supplies
- IP66, IP67

Driver Options:
0-10V Dimming
Phase Dimming
Triac Dimming




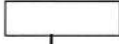
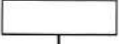
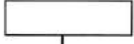
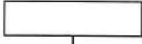
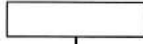
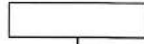
6"H X 11"W X 6"D
12"H X 22"W X 12"D

2300 Series

Labels
ETL for US and
Canada for wet
location

ORDERING INFORMATION

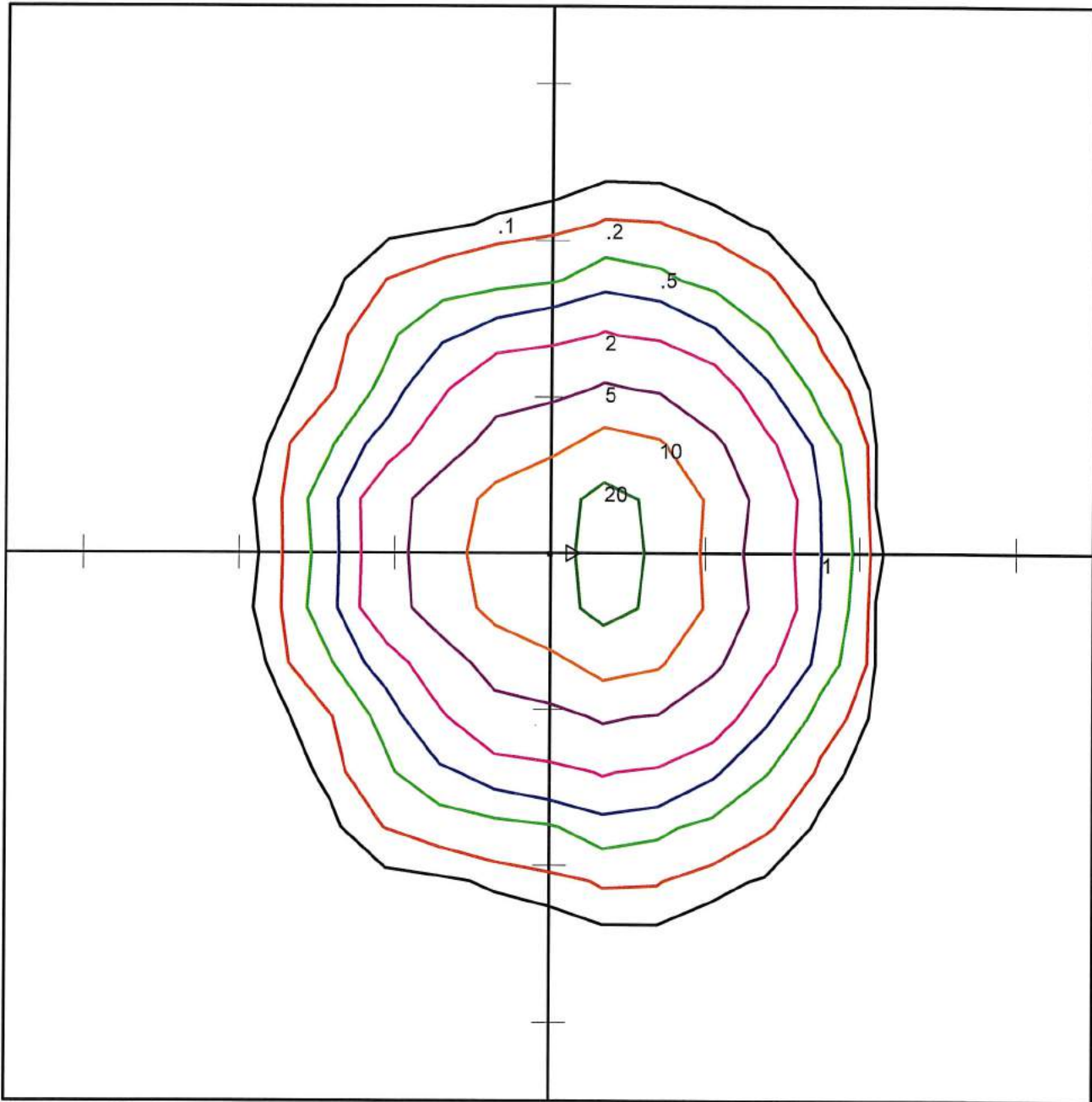
Sample Number: 2300-W-22-36W-AB-CFA

						
Series 2300	Style Wall	Size 11" 22"	LED 11" 6W 12W 22" 24W 36W	Finish Architectural Bronze (AB) Textured Bronze (TBR) Matte Black (MBK) Semi Gloss Black (GBK) Textured Black (TBK) Textured Rust (TR) Matte White (MW) Textured White (TW) Gloss White (GW) Metallic Grey (MG) Textured Gold (TG) Metallic Nickel (MN) Textured Verde Patina (TVP) Satin Brass (SB) Copper Vein (CV) Gold Vein (GV) Silver Vein (SV) Polished Brass (PB) Adder Chrome (CH)	Lens White Acrylic (A) Clear Frosted Acrylic (CFA) White Frosted (WF) White Alabaster (WA) Honey Onyx (HO) Natural Horn (NH) Beige Alabaster (BA) Honey Swirl (HS) Clear Frosted Glass (CFG)	Options EMR, 700 Lumen EMR, 900 Lumen Dimming Drivers Design Modifications
	LED to CFL Lamp 6W = (1) F13DBX 12W = (2) F13DBX (1) F26DBX 24W = (2) F26DBX (2) F32TBX 36W = (1) 70 MH = (1) 100 MH					

Evergreen Lighting
www.evergreenlighting.com



Building Light
Submittal



Evergreen Lighting
2300-36LED-9-CFA-30K
ARCHITECTURAL SCONCE WITH FORWARD THROW
DISTRIBUTION WITH CLEAR FROSTED ACRYLIC LENS.
COATED LAMP.
MEETS THE 'NIGHTTIME FRIENDLY' CRITERIA
LED Arrays

Horizontal Footcandles
Scale: 1 Inch = 10 Ft.
Light Loss Factor = 2.00
Lumens Per Lamp = 3240
Total Lamp Lumens = 3240
Mounting Height = 10.00 Ft
Maximum Calculated Value = 25.14 Fc
Arrangement: Single

PHOTOMETRIC FILENAME : 2300-36LED.IES

DESCRIPTIVE INFORMATION (From Photometric File)

Evergreen Lighting
2300-36LED-9-CFA-30K
ARCHITECTURAL SCONCE WITH FORWARD THROW
DISTRIBUTION WITH CLEAR FROSTED ACRYLIC LENS.
COATED LAMP.
MEETS THE 'NIGHTTIME FRIENDLY' CRITERIA
LED Arrays

TEMPLATE SPECIFICATION

Horizontal Footcandles
Scale: 1 Inch = 10 Ft.
Light Loss Factor = 2.00
Lumens Per Lamp = 3240
Total Lamp Lumens = 3240
Mounting Height = 10.00 Ft
Maximum Calculated Value = 25.14 Fc
Arrangement: Single

LUMINAIRE LAYOUT INFORMATION

<u>#</u>	<u>X</u>	<u>Y</u>	<u>Z</u>	<u>Orient</u>	<u>Tilt</u>	<u>Roll</u>	<u>Spin</u>	<u>Tilt Correction</u>
1	0.00	0.00	10.00	0.00	0.00	0.00	0.00	1.00

Pole Mounted Submittal Option 1



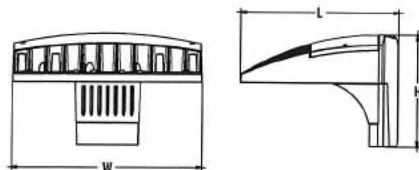
D-Series Pole Mount LED Area Luminaire



d^{series}

Specifications Luminaire

- EPA:** 0.8 ft² (0.07 m²)
- Width:** 13-3/4" (34.9 cm)
- Length:** 11.5" (29.2 cm)
- Height:** 8" (20.3 cm)
- Weight:** 16.03 lbs (7.3 kg)



Catalog Number
Notes
Type

Click the Tab Key on mobile over this page to see all interactive elements.

Introduction

The D-Series Pole Mount luminaire is a stylish, fully integrated LED solution for area and site applications. It features a sleek, modern design and is carefully engineered to provide long-lasting, energy-efficient lighting with a variety of optical and control options for customized performance.

With an expected service life of over 20 years of nighttime use and up to 74% in energy savings over comparable 250W metal halide luminaires, the D-Series Pole Mount is a reliable, low-maintenance lighting solution that produces sites that are exceptionally illuminated.

Ordering Information

EXAMPLE: DSXWPM LED 20C 1000 40K T5M MVOLT SPUMBA DDBXD

DSXWPM LED		Drive current		Color temperature		Distribution		Voltage		Mounting ³		
Series	LEDs											
	10C 10 LEDs (one engine)	350	350 mA	30K	3000K	T2S	Type II short	T5M	Type V medium	MVOLT ¹	Shipped included	
20C 20 LEDs (two engines)	530	530 mA	40K	4000K	T2M	Type II medium	T5S	Type V short	120 ¹	SPUMBA		Square pole universal mounting adapter
		700	700 mA	50K	5000K	T3S	Type III short	T5A	Type V area	208 ¹	RPUMBA	Round pole universal mounting adapter
		1000	1000 mA (1 A)	AMBPC	Amber phosphor converted	T3M	Type III medium	T5W	Type V wide	240 ¹	PUMBA	Square and round universal mounting adapters
						T4M	Type IV medium	ASYDF	Asymmetric diffuse	277 ¹		
						TFTM	Forward throw medium	SYMDF	Symmetric diffuse	347 ²		
										480 ²		

Control Options	Other Options	Finish (required)
Shipped installed PE Photoelectric cell, button type ⁴ DMG 0-10V dimming driver (no controls) PIR Motion/ambient light sensor, <15' mtg ht ^{5,6} PIRH Motion/ambient light sensor, 15-30' mtg ht ^{5,6} PIR1FC3V Motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1ft ⁷ PIRH1FC3V Motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1ft ⁷	Shipped installed SF Single fuse (120, 277, 347V) ⁸ DF Double fuse (208, 240, 480V) ⁸ HS House-side shield ⁹	Shipped separately⁹ BSW Bird-deterrent spikes WG Wire guard VG Vandal guard DDL Diffused drop lens
		DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DSSXD Sandstone DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white DSSTXD Textured sandstone

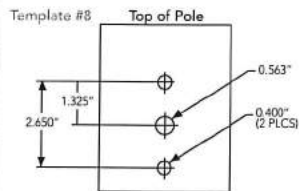
- NOTES**
- MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120, 208, 240 or 277 options only when ordering with fusing (SF, DF options), or photocontrol (PE option).
 - Only available with 20C, 700mA or 1000mA. Not available with PIR, PIRH.
 - Not available with 90 degree mounting. Not recommended for 3" poles.
 - Photocontrol (PE) requires 120, 208, 240, or 347 voltage option. Not available with motion/ambient light sensors (PIR or PIRH).
 - PIR specifies the SensorSwitch SBGR-10-ODP control; PIRH specifies the SensorSwitch SBGR-6-ODP control; see Motion Sensor Guide for details. Dimming driver standard. Includes ambient light sensor. Not available with "PE" option (button type photocell).
 - Not available with 20 LED/1000 mA configuration (DSXWPM LED 20C 1000).
 - PIR and PIR1FC3V specify the SensorSwitch SBGR-10-ODP control; PIRH and PIRH1FC3V specify the SensorSwitch SBGR-6-ODP control; see Motion Sensor Guide for details. Dimming driver standard. Not available with PER5 or PER7. Ambient sensor disabled when ordered with DCR. Separate on/off required.
 - Single fuse (SF) requires 120, 277, or 347 voltage option. Double fuse (DF) requires 208, 240, or 480 voltage option.
 - Also available as a separate accessory; see Accessories information.

Accessories	
Ordered and shipped separately.	
DSXWHS U	House-side shield (one per light engine)
DSXWBSW U	Bird-deterrent spikes
DSXW1WG U	Wire guard accessory
DSXW1VG U	Vandal guard accessory
DSXWDDL U	Diffused drop lens



Pole Mounted Submittal option 1

Drilling



Visit Lithonia Lighting's
POLES CENTRAL to see
our wide selection of
poles, accessories and
educational tools.

If ordering new poles, specify the AERIS™ drilling pattern, per the table below.

DM19AS Single unit DM28AS 2 at 180°

Example: SSA 20 4C DM19AS DDBXD

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Actual performance may differ as a result of end-user environment and application. Actual wattage may differ by +/- 8% when operating between 120-480V +/- 10%. Contact factory for performance data on any configurations not shown here.

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K					40K					50K					AMBPC (Amber Phosphor Converted)				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
10C (10 LEDs)	350mA	14W	T2S	1,415	0	0	1	101	1,520	0	0	1	109	1,529	0	0	1	109	894	0	0	1	64
			T2M	1,349	0	0	1	96	1,449	0	0	1	103	1,458	0	0	1	104	852	0	0	1	61
			T3S	1,400	0	0	1	100	1,503	0	0	1	107	1,512	0	0	1	108	884	0	0	1	63
			T3M	1,386	0	0	1	99	1,488	0	0	1	106	1,497	0	0	1	107	876	0	0	1	63
			T4M	1,358	0	0	1	97	1,458	0	0	1	104	1,467	0	0	1	105	858	0	0	1	61
			TFTM	1,411	0	0	1	101	1,515	0	0	1	108	1,525	0	0	1	109	892	0	0	1	64
			TSM	1,486	1	0	0	106	1,595	1	0	0	114	1,605	1	0	0	115	939	1	0	0	67
			T5S	1,516	1	0	0	108	1,627	1	0	0	116	1,638	1	0	0	117	958	1	0	0	68
			T5A	1,425	1	0	1	102	1,531	1	0	1	109	1,540	1	0	1	110	901	1	0	1	64
			TSW	1,423	1	0	1	102	1,528	1	0	1	109	1,538	1	0	1	110	899	1	0	1	64
ASYDF	1,262	0	0	1	90	1,355	1	0	1	97	1,363	1	0	1	97	797	0	0	1	57			
SYMDF	1,299	1	0	1	93	1,394	1	0	1	100	1,403	1	0	1	100	821	1	0	1	59			
530mA	20W	T2S	2,054	1	0	1	103	2,205	1	0	1	110	2,219	0	0	1	111	1,264	0	0	1	63	
		T2M	1,957	1	0	1	98	2,102	1	0	1	105	2,115	0	0	1	106	1,205	0	0	1	60	
		T3S	2,031	0	0	1	102	2,181	0	0	1	109	2,195	0	0	1	110	1,250	0	0	1	63	
		T3M	2,010	1	0	1	101	2,159	1	0	1	108	2,172	0	0	1	109	1,237	0	0	1	62	
		T4M	1,970	1	0	1	98	2,115	1	0	1	106	2,128	0	0	1	106	1,212	0	0	1	61	
		TFTM	2,047	0	0	1	102	2,198	0	0	1	110	2,212	0	0	1	111	1,260	0	0	1	63	
		TSM	2,156	1	0	0	108	2,315	2	0	0	116	2,329	1	0	0	116	1,326	1	0	0	66	
		T5S	2,199	1	0	0	110	2,361	1	0	0	118	2,376	1	0	0	119	1,353	1	0	0	68	
		T5A	2,068	2	0	1	103	2,221	2	0	1	111	2,235	1	0	1	112	1,272	1	0	1	64	
		TSW	2,065	2	0	1	103	2,217	2	0	1	111	2,231	1	0	1	112	1,271	1	0	1	64	
ASYDF	1,830	1	0	1	92	1,966	1	0	1	98	1,978	0	0	1	99	1,127	0	0	1	56			
SYMDF	1,884	1	0	1	94	2,023	1	0	1	101	2,036	1	0	1	102	1,160	1	0	1	58			
700mA	27W	T2S	2,623	1	0	1	97	2,816	1	0	1	104	2,834	0	0	1	105	1,544	0	0	1	57	
		T2M	2,499	1	0	1	93	2,684	1	0	1	99	2,701	0	0	1	100	1,472	0	0	1	55	
		T3S	2,593	1	0	1	96	2,785	1	0	1	103	2,802	0	0	1	104	1,527	0	0	1	57	
		T3M	2,567	1	0	1	95	2,757	1	0	1	102	2,774	0	0	1	103	1,512	0	0	1	56	
		T4M	2,515	1	0	1	93	2,701	1	0	1	100	2,718	0	0	1	101	1,481	0	0	1	55	
		TFTM	2,614	1	0	1	97	2,807	1	0	1	104	2,825	0	0	1	105	1,539	0	0	1	57	
		TSM	2,753	2	0	0	102	2,956	2	0	0	109	2,974	1	0	0	110	1,621	1	0	0	60	
		T5S	2,808	1	0	0	104	3,015	1	0	0	112	3,034	1	0	0	112	1,654	1	0	0	61	
		T5A	2,641	2	0	1	98	2,836	2	0	1	105	2,854	1	0	1	106	1,555	1	0	1	58	
		TSW	2,637	2	0	1	98	2,831	2	0	1	105	2,849	1	0	1	106	1,553	1	0	1	58	
ASYDF	2,337	1	0	1	87	2,510	1	0	1	93	2,526	1	0	1	94	1,376	1	0	1	51			
SYMDF	2,406	1	0	1	89	2,584	1	0	1	96	2,600	1	0	1	96	1,417	1	0	1	52			
1000mA	40W	T2S	3,685	1	0	1	92	3,957	1	0	1	99	3,982	1	0	1	100	2,235	1	0	1	58	
		T2M	3,512	1	0	1	88	3,771	1	0	1	94	3,795	1	0	1	95	2,130	1	0	2	55	
		T3S	3,644	1	0	1	91	3,913	1	0	1	98	3,938	1	0	1	98	2,210	1	0	2	57	
		T3M	3,607	1	0	1	90	3,874	1	0	1	97	3,898	1	0	1	97	2,187	1	0	2	56	
		T4M	3,534	1	0	1	88	3,795	1	0	1	95	3,819	1	0	1	95	2,143	1	0	2	55	
		TFTM	3,674	1	0	1	92	3,945	1	0	1	99	3,969	1	0	1	99	2,228	1	0	2	57	
		TSM	3,868	2	0	1	97	4,153	2	0	1	104	4,179	3	0	1	104	2,345	3	0	1	60	
		T5S	3,946	1	0	0	99	4,237	2	0	0	106	4,264	2	0	0	107	2,393	2	0	1	62	
		T5A	3,711	2	0	1	93	3,985	2	0	1	100	4,010	3	0	1	100	2,250	3	0	2	58	
		TSW	3,705	2	0	1	93	3,978	2	0	1	99	4,003	3	0	1	100	2,247	3	0	2	58	
ASYDF	3,284	1	0	1	82	3,527	1	0	1	88	3,549	1	0	1	89	1,991	1	0	2	51			
SYMDF	3,381	1	0	1	85	3,630	1	0	1	91	3,653	2	0	1	91	2,050	2	0	2	53			

Pole Mounted Submittal Option 1

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Actual performance may differ as a result of end-user environment and application. Actual wattage may differ by +/- 8% when operating between 120-480V +/- 10%. Contact factory for performance data on any configurations not shown here.

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)					AMBPC (Amber Phosphor Converted)				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
				20C (20 LEDs)																			
20C (20 LEDs)	350mA	24W	T2S	2,820	1	0	1	118	3,028	1	0	1	126	3,047	1	0	1	127	1,777	1	0	1	74
			T2M	2,688	1	0	1	112	2,886	1	0	1	120	2,904	1	0	1	121	1,693	1	0	1	71
			T3S	2,789	1	0	1	116	2,995	1	0	1	125	3,013	1	0	1	126	1,757	0	0	1	73
			T3M	2,761	1	0	1	115	2,964	1	0	1	124	2,983	1	0	1	124	1,739	1	0	1	72
			T4M	2,705	1	0	1	113	2,904	1	0	1	121	2,922	1	0	1	122	1,704	1	0	1	71
			TFTM	2,811	1	0	1	117	3,019	1	0	1	126	3,038	1	0	1	127	1,771	0	0	1	74
			T5M	2,960	2	0	1	123	3,178	2	0	1	132	3,198	2	0	1	133	1,865	1	0	0	78
			T5S	3,020	1	0	0	126	3,242	1	0	0	135	3,263	1	0	0	136	1,903	1	0	0	79
			T5A	2,840	2	0	1	118	3,049	2	0	1	127	3,068	2	0	1	128	1,789	2	0	1	75
			T5W	2,835	2	0	1	118	3,044	2	0	1	127	3,063	2	0	1	128	1,786	2	0	1	74
			ASYDF	2,513	1	0	1	105	2,699	1	0	1	112	2,716	1	0	1	113	1,584	1	0	1	66
			SYMDF	2,587	1	0	1	108	2,778	1	0	1	116	2,796	1	0	1	116	1,630	1	0	1	68
	530mA	36W	T2S	4,079	1	0	1	113	4,380	1	0	1	122	4,408	1	0	1	122	2,504	1	0	1	70
			T2M	3,887	1	0	1	108	4,174	1	0	1	116	4,200	1	0	1	117	2,387	1	0	1	66
			T3S	4,034	1	0	1	112	4,332	1	0	1	120	4,359	1	0	1	121	2,477	1	0	1	69
			T3M	3,993	1	0	1	111	4,288	1	0	1	119	4,315	1	0	1	120	2,451	1	0	2	68
			T4M	3,912	1	0	2	109	4,201	1	0	2	117	4,227	1	0	1	117	2,402	1	0	1	67
			TFTM	4,066	1	0	1	113	4,367	1	0	1	121	4,394	1	0	1	122	2,496	1	0	1	69
			T5M	4,281	3	0	1	119	4,597	3	0	1	128	4,626	3	0	1	129	2,629	3	0	1	73
			T5S	4,368	2	0	1	121	4,690	2	0	1	130	4,719	2	0	1	131	2,682	2	0	1	75
			T5A	4,108	3	0	2	114	4,411	3	0	2	123	4,438	3	0	2	123	2,522	3	0	2	70
			T5W	4,101	3	0	2	114	4,403	3	0	2	122	4,431	3	0	2	123	2,518	3	0	2	70
			ASYDF	3,635	1	0	2	101	3,904	1	0	2	108	3,928	1	0	2	109	2,232	1	0	1	62
			SYMDF	3,742	2	0	2	104	4,018	2	0	2	112	4,044	2	0	2	112	2,297	2	0	2	64
	700mA	47W	T2S	5,188	1	0	1	110	5,571	1	0	1	119	5,606	1	0	1	119	3,065	1	0	1	65
			T2M	4,945	1	0	1	105	5,310	1	0	1	113	5,343	1	0	1	114	2,921	1	0	1	62
			T3S	5,131	1	0	1	109	5,510	1	0	2	117	5,544	1	0	2	118	3,031	1	0	1	64
			T3M	5,079	1	0	2	108	5,454	1	0	2	116	5,488	1	0	2	117	3,000	1	0	1	64
			T4M	4,976	1	0	2	106	5,343	1	0	2	114	5,377	1	0	2	114	2,939	1	0	1	63
			TFTM	5,172	1	0	2	110	5,554	1	0	2	118	5,589	1	0	2	119	3,055	1	0	1	65
			T5M	5,446	3	0	1	116	5,848	3	0	1	124	5,884	3	0	1	125	3,217	3	0	1	68
			T5S	5,555	2	0	1	118	5,966	2	0	1	127	6,003	2	0	1	128	3,282	2	0	1	70
			T5A	5,225	3	0	2	111	5,610	3	0	2	119	5,645	3	0	2	120	3,086	3	0	2	66
			T5W	5,216	3	0	2	111	5,601	3	0	2	119	5,636	3	0	2	120	3,081	3	0	2	66
			ASYDF	4,624	1	0	2	98	4,966	1	0	2	106	4,997	1	0	2	106	2,732	1	0	1	58
			SYMDF	4,760	2	0	2	101	5,111	2	0	2	109	5,143	2	0	2	109	2,812	2	0	2	60
1000mA	74W	T2S	7,205	1	0	1	97	7,736	1	0	1	105	7,785	1	0	1	105	4,429	1	0	1	61	
		T2M	6,866	1	0	2	93	7,373	1	0	2	100	7,419	1	0	2	100	4,221	1	0	2	58	
		T3S	7,124	1	0	2	96	7,650	1	0	2	103	7,698	1	0	2	104	4,380	1	0	2	60	
		T3M	7,052	1	0	2	95	7,573	1	0	2	102	7,620	1	0	2	103	4,335	1	0	2	59	
		T4M	6,909	1	0	2	93	7,420	1	0	2	100	7,466	1	0	2	101	4,248	1	0	2	58	
		TFTM	7,182	1	0	2	97	7,712	1	0	2	104	7,760	1	0	2	105	4,415	1	0	2	60	
		T5M	7,562	3	0	1	102	8,120	3	0	1	110	8,171	3	0	1	110	4,648	3	0	1	63	
		T5S	7,714	2	0	1	104	8,284	2	0	1	112	8,335	2	0	1	113	4,742	2	0	1	64	
		T5A	7,255	3	0	2	98	7,790	3	0	2	105	7,839	3	0	2	106	4,460	3	0	2	62	
		T5W	7,243	3	0	2	98	7,777	3	0	2	105	7,826	3	0	2	106	4,452	3	0	2	61	
		ASYDF	6,421	1	0	2	87	6,895	2	0	2	93	6,938	1	0	2	94	3,947	1	0	2	54	
		SYMDF	6,609	2	0	2	89	7,097	2	0	2	96	7,142	2	0	2	97	4,063	2	0	2	55	



Pole Mounted Submittal Option 1

Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	77°F	1.00
30°C	86°F	1.00
40°C	104°F	0.98

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the DSXWPM LED 20C 1000 platform in a 25°C ambient, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	0.95	0.93	0.88

Electrical Load

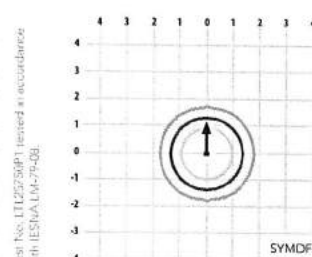
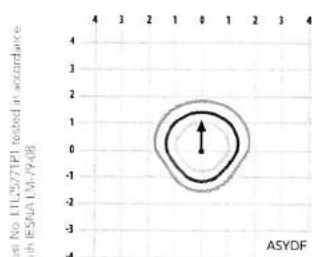
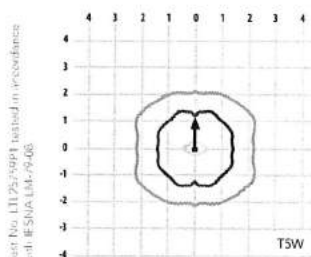
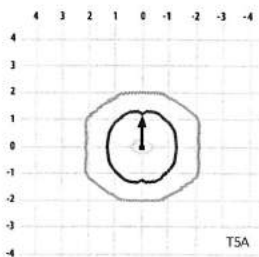
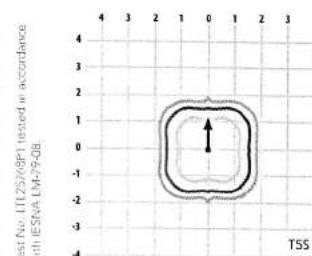
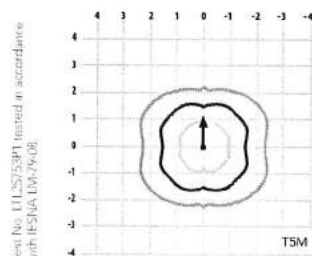
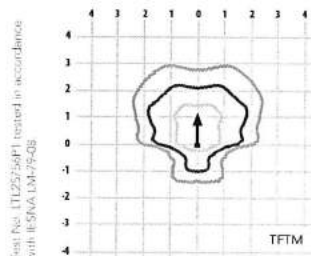
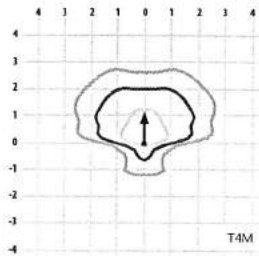
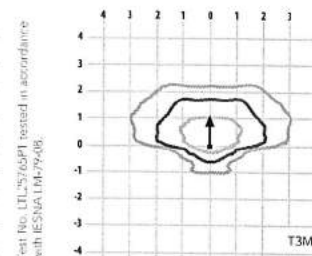
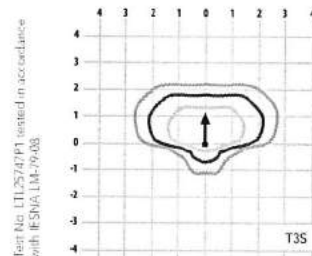
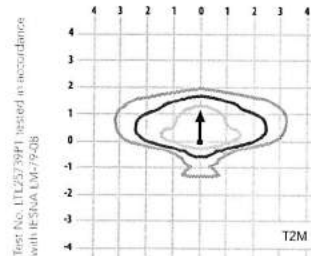
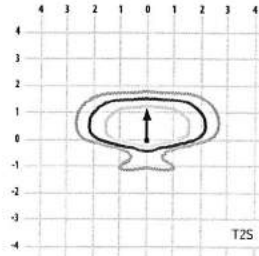
LEDs	Drive Current (mA)	System Watts	Current (A)					
			120	208	240	277	347	480
10C	350	14 W	0.13	0.07	0.06	0.05	-	-
	530	20 W	0.19	0.11	0.09	0.08	-	-
	700	27 W	0.25	0.14	0.13	0.11	-	-
	1000	40 W	0.37	0.21	0.19	0.16	-	-
20C	350	24 W	0.23	0.13	0.12	0.10	-	-
	530	36 W	0.33	0.19	0.17	0.14	-	-
	700	47 W	0.44	0.25	0.22	0.19	0.15	0.11
	1000	74 W	0.69	0.40	0.35	0.30	0.23	0.17

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Wall Pole Mount homepage.

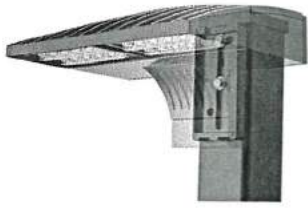
Isocandela plots for the DSXWPM LED 20C 1000 40K. Distances are in units of mounting height (20').

LEGEND



Pole Mounted Submittal Option 1

Options and Accessories



Mounting detail



ASYDF - Asymmetric diffuse (left engine is T3M, right engine is diffused)



HS - House-side shields



BSW - Bird-deterrent spikes



WG - Wire guard



VG - Vandal guard



DDL - Diffused drop lens

FEATURES & SPECIFICATIONS

INTENDED USE

The energy savings, long life and easy-to-install design of the D-Series Pole Mount make it the smart choice for area and site illumination for nearly any facility.

CONSTRUCTION

Two-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance. The LED driver is mounted to the door to thermally isolate it from the light engines for low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65).

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in textured and non-textured finishes.

OPTICS

Precision-molded proprietary acrylic lenses provide multiple photometric distributions tailored specifically to area lighting applications. Light engines are available in 3000K, 4000K or 5000K with 70 min. CRI configurations.

ELECTRICAL

Light engine(s) consist of 10 high-efficacy LEDs mounted to a metal-core circuit board to maximize heat dissipation and promote long life (L88/100,000 hrs at 25°C). Class 1 electronic drivers have a power factor >90%, THD <20%, and a minimum 6KV surge rating. The luminaire meets a minimum Category C Low (per ANSI/IEEE C62.41.2).

INSTALLATION

Includes universal mounting plate, which utilizes existing drill patterns and allows for quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles.

LISTINGS

CSA certified to U.S. and Canadian standards. Rated for -40°C minimum ambient.

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org to confirm which versions are qualified.

WARRANTY

Five-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

Note: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.

Specifications subject to change without notice.



Pole Mounted Submittal Option 2

McGraw-Edison

DESCRIPTION

The GAT Generation Series Avenue LED provides an updated styling and smooth exterior appearance, making it the perfect choice to add a contemporary feel to any setting. Its superior photometrics offer excellent illumination and uniformity for many of today's applications. Its styling blends well in many settings – historic districts, downtown streetscapes, roadways, residential neighborhoods, as well as city parks and educational campuses. The Generation Series LED sets a new standard for decorative post top luminaires..

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction

HOUSING: Heavy-duty cast aluminum housing and removable door. A single quarter turn fastener on the removable door provides tool-less access to wiring compartment. **CAGE ASSEMBLY** Cage assembly manufactured of heavy-duty cast aluminum and mounted to the exterior of the base housing via four stainless steel fasteners. Finished to match housing. **TOPS AND FINIALS:** Avenue top is heavy-duty spun aluminum offering top access for tool-less entrance into the source compartment during maintenance. Choose from four cast aluminum finials for customized fixture style. **TWISTLOCK GLOBE:** The optional twistlock assembly offers ease of maintenance through instant access to both the LED and wiring compartment by twisting the top refractor assembly and lifting it from the mating lock plate

Optical

REFRACTIVE GLOBE: High efficiency refractive optical systems are precisely designed utilizing a combination of refractive and reflective prisms. Available in Type III or Type V distributions. Lighting grade acrylic ensures long lasting optical clarity and resistance to discoloration.

Electrical

120-277V 50/60Hz operation. 10kV /10kA common- and differential mode surge protection standard. Thermal management transfers heat rapidly away from the LED source for optimal efficiency and light output. Ambient operating temperature from -40°C to 40°C. Standard three-position tunnel type compression terminal block.

Mounting

Base casting slipfits over a standard 3" O.D. tenon and secured via four stainless steel allen head fasteners. 3G vibration tested.

Finish

Cast and spun components finished in a five-stage premium TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Consult the McGraw-Edison Architectural Color brochure for a complete selection of standard colors including black, bronze, grey, white, dark platinum, graphite metallic and hartford green. RAL and custom color matches available.

Warranty

Five-year warranty.

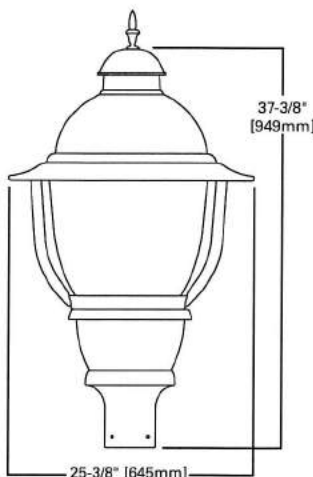


GAT GENERATION SERIES AVENUE LED

LED

DECORATIVE POST TOP
LUMINAIRE

DIMENSIONS



EPA

Effective Projected Area: (Sq. Ft.)
2.1

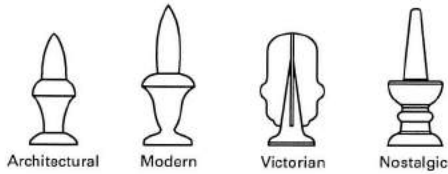
SHIPPING DATA

Approximate Net Weight:
50 lbs. (23 kgs.)

Pole Mounted Submittal Option 2

GAT GENERATION SERIES AVENUE LED

FINIALS



POWER AND LUMENS

Distribution	Correlated Color Temperature (CCT)	Cage	Total Lumens (Estimated)	Luminaire Wattage (Nominal)
Type III	4000K	Avenue	5,200	99W
Type III	4000K	None	8,000	99W
Type V	4000K	Avenue	5,500	99W
Type V	4000K	None	8,500	99W

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (36,000 Hours)	Theoretical L70 (Hours)
15°C	>93%	240,000
25°C	>92%	210,000
40°C	>89%	117,000

ORDERING INFORMATION

Sample Number: GAT-080-LED-E1-3-UUA-BK

Product Family ¹	LED Series	Lamp Type	Voltage	Refractor Type	Top Type ²	Cage Type ²	Finial Type ²	Color ³
GAT=Architectural Base	080=080 Series	LED=Solid State Light Emitting Diodes	E1=Electronic (120-277V)	3=Type III 5=Type V	U=Avenue	C=Classical U=Avenue X=None	A=Architectural M=Modern N=Nostalgic V=Victorian X=None	AP=Grey BZ=Bronze BK=Black GN=Hartford Green WH=White DP=Dark Platinum GM=Graphite Metallic
Options (Add as Suffix)		Accessories (Order Separately)						
P=Polycarbonate Refractor R=NEMA Twistlock Photocontrol Receptacle D=Downlight Reflector 2L=Two Circuits SH=Street Side/House Side Switching Capable		MA1252=10kV Circuit Module Replacement GLR-080-E1=080 Series LED Replacement Module with 120-277V Universal Driver GLR-080-E1-2L=080 Series LED Replacement Module with 120-277V Universal Driver and Bi-Level Switching Capable GLR-080-E1-SH=080 Series LED Replacement Module with 120-277V Universal Driver and Street Side/House Side Switching Capable						

NOTES:

- Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional support information.
- Painted to match base.
- Other finish colors available, including a full line of RAL color matches. Consult your lighting representative at Eaton for more information.

Pole Mounted Submittal Option 3

DESCRIPTION

The Traditionaire™ luminaire displays the old-fashioned charm of traditional area lighting, enhancing any setting with a distinctive styling. UL listed and CSA certified for wet locations.

As a decorative luminaire, the Traditionaire luminaire tastefully complements the architectural and environmental design of estates, parks, motels, restaurants, apartments, churches, institutions and roadways.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction

HOUSING + COVER: Hinged (stainless steel hinge pins) die-cast aluminum housing and cover with cupola.

Optical

REFRACTOR: The injection-molded acrylic refractor panels are precisely designed utilizing a combination of refractive and reflective prisms to create Type II or Type V distributions while maintaining a consistent exterior form. High efficiency refractive optical systems constructed of lighting grade acrylic ensures long lasting optical clarity and resistance to the gradual discoloration that results from exposure to sunlight.

Electrical

LED DRIVER: Assembly incorporates quick disconnects for ease of installation and maintenance. **LED LIGHT ENGINE:** Solid State LED engine provides even and uniform illumination without the pixilation common to LED applications. Thermal management incorporates both conduction and natural convection to transfer heat rapidly away from the LED source and retain optimal efficiency and light output. The LED replacement module is backwards compatible with existing Traditionaire luminaire installations enabling retrofit opportunities. Shipped standard with Cooper Lighting proprietary circuit module designed to withstand 10kV of transient line surge. 50,000 + hour life with >70% lumen maintenance. For low temperature operation the Traditionaire luminaire is suitable to -30°C.

Mounting

Self-aligning pole-top fitter fits 3" O.D. pole tops or vertical tenons. Square headed 1-1/4" polymer coated mounting bolts with a lock nut.

Finish

Cast components finished in a super-durable TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Consult the McGraw-Edison Architectural Color brochure for a complete selection. Standard colors include: black, bronze, grey, white, dark platinum, graphite metallic and hartford green. RAL and custom color matches available.

Warranty

Five-year warranty.

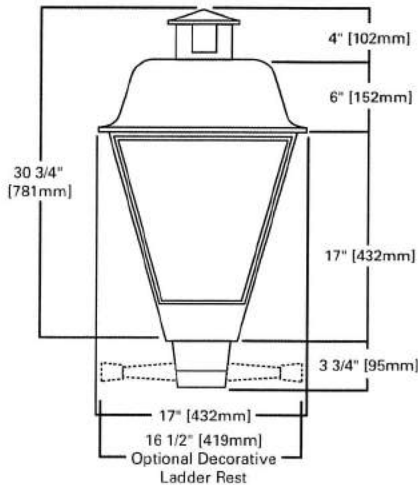


TRR TRADITIONAIRE™ LED

Solid State LED

POST TOP AREA LUMINAIRE

DIMENSIONS



Pole Mounted Submittal Option 3

TRR TRADITIONAIRE™ LED

ORDERING INFORMATION

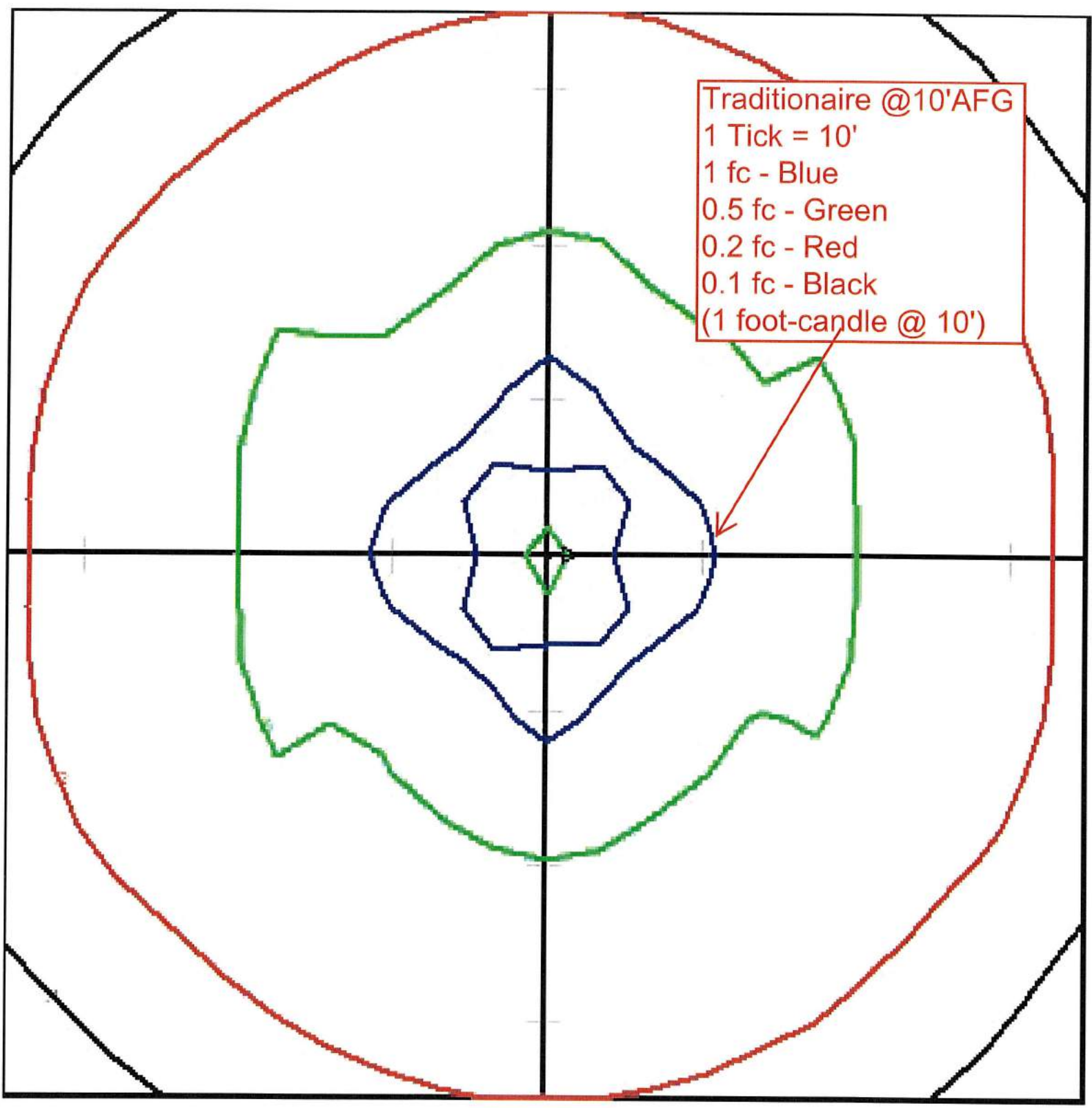
Sample Number: TRR-50-LED-E1-5-BK

Product Family	Lamp Package ¹	Source Type	Voltage	Distribution	Color ²
TRR=Traditionaire	50=5000 Lumens	LED=Solid State Light-Emitting	E1=Electronic 120-277V	2=Type II 5=Type V Refractive	AP=Grey BZ=Bronze BK=Black GN=Hartford Green WH=White DP=Dark Platinum GM=Graphite Metallic
Options (Add as Suffix)		Accessories (Order Separately)			
P=Polycarbonate Refractor R=NEMA Twistlock Photocontrol Receptacle S=Tool-less Entry 2L=Two Circuits 8030=80 CRI/3000K CCT SH=Street Side/House Side Switching Capable		OA/RA 1016=NEMA Twistlock Photocontrol - Multi-Tap TA 1BK=Ladder Rest MA1252=10kV Circuit Module Replacement TRR-50-E1=5000 Lumen LED Replacement Module with 120-277V Universal Driver TRR-50-E1-2L=5000 Lumen LED Replacement Module with 120-277V Universal Driver and Bi-level Switching Capable TRR-50-E1-SH=5000 Lumen LED Replacement Module with 120-277V Universal Driver and Street Side/House Side Switching Capable			

Notes:

- LED module nominal source lumens prior to optical and configuration losses based on 65 CRI/5000K package at 25°C ambient. Refer to IES files for delivered lumens by configuration.
- Other finish colors available, including a full line of RAL color matches. Consult your Eaton's Cooper Lighting business representative.

Pole Mounted Submittal Option 3



Bike Path Lighting Submittal

SOLID STATE BOLLARDS

PROJECT NAME: _____

BRA SERIES-LED

FIXTURE TYPE: _____

S P E C I F I C A T I O N S

BOLLARD

Durable corrosion resistant extruded and cast aluminum construction. 1/4" wall thickness.

LED POWER ARRAY

Three-dimensional array consisting of 6 individual LED tubes for the BDA8 model and 4 individual LED tubes for the BDA6 model, which are fastened to a retaining plate equally spaced to provide 360° of even illumination output. Each LED tube consists of a circuit board populated with a multiple of LED's which is fastened to a radial aluminum heat sink. A white polycarbonate lens and end caps protect each LED tube's internal components and provides diffusion to prevent shadowing and striations.

INTERNAL LOUVER (IL) - A specular louver stack conceals the inner LED Power Array Module and provides uplight and glare control through the external clear polycarbonate lens.

CAST LOUVER (CL) - External cast aluminum louver stack protects the internal LED Power Array Module and provides uplight and glare control. An internal clear polycarbonate lens is integrated with the LED Power Array Module.

OPAL LENS (WP) - Exterior white polycarbonate lens protects the internal LED Power Array Module and provides a uniform white glow.

RADIAL LED MODULE

LED'S are mounted to a circular heatsink in a radial array. The radial LED module is concealed in the cap of the bollard. LED's are not directly visible from angles above 90°.

PARABOLIC REFLECTOR (TR) - A specular Parabolic Reflector reflects a portion of the distribution from the radial LED module and provides a uniform wide angle throw through the outer clear polycarbonate lens.

LED EMITTERS

High Output LED's are driven at 350mA for nominal 1 Watt output each. 70CRI Minimum. LED's are available in standard Neutral White (4000K), or optional Cool White (5000K) or Warm White (3000K). Consult Factory for other LED options.

LED DRIVER

UL and CUL recognized Constant Current LED drivers operate on input voltages from 120-277VAC, 50/60hz. Consult Factory for (347-480VAC). Driver is mechanically fastened to a retaining bracket. Driver has a minimum 4KV of internal surge protection, 10KV & 20KV Surge Protector optional. Dimmable and High-Low Driver options available.

FINISH

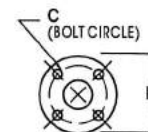
Polyester powder coat incorporates four step iron phosphate process to pretreat metal surface for maximum adhesion. Top coat is baked at 400°F for maximum hardness and exterior durability.



BRA

BRA8 SHOWN WITH -TR OPTICS

PATENT PENDING



BOLLARD	A	B	C	D
BRA8	42" 1067mm	8" 203mm	6" 152mm	8" 203mm
BRA6	42" 1067mm	6" 152mm	4" 102mm	6" 152mm



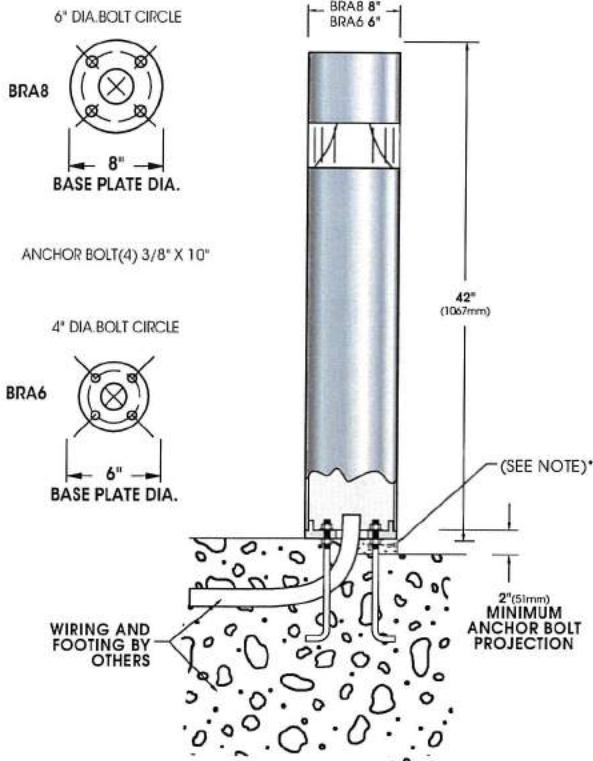
2015239

Bike Path Lighting Submittal

BRA SERIES-LED

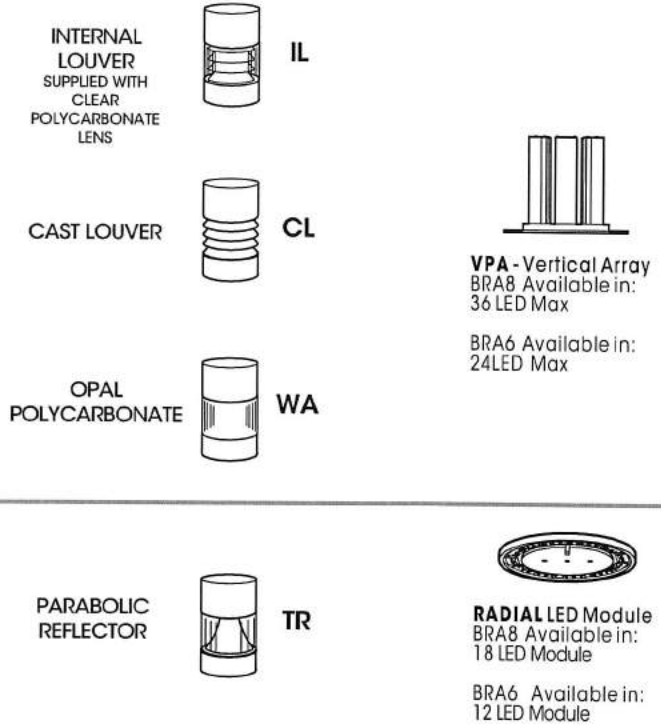
SPECIFICATIONS

INSTALLATION



* When mounting in soil, anchor bolt fasteners and other hardware must be protected from soil by grouting.

OPTICS



Spec/Order Example: BRA6-TR/12LED120WW/RAL-8019-T/HL5W

ORDERING INFORMATION

BOLLARD	OPTICS	# of LED's	COLOR	VOLTAGE	MOUNTING	FINISH	OPTIONS
<input type="checkbox"/> BRA8-LED	<input type="checkbox"/> INTERNAL LOUVER IL	<input type="checkbox"/> 36LED ¹ (42 Watts)	<input type="checkbox"/> NW (4000K) Standard		<input type="checkbox"/> GROUND INSTALLATION (STANDARD)	<input type="checkbox"/> BLACK RAL-9005-T	<input type="checkbox"/> DIMMABLE DRIVER (0-10V PROVIDED) DIM
<input type="checkbox"/> BRA6-LED	<input type="checkbox"/> CAST LOUVER CL	<input type="checkbox"/> 24LED (28 Watts)	<input type="checkbox"/> CW (5000K)		<input type="checkbox"/> WALL MOUNT WM	<input type="checkbox"/> WHITE RAL-9003-T	<input type="checkbox"/> HIGH-LOW DIMMING FOR HARDWIRED SWITCHING OR NONINTEGRATED MOTION SENSOR HLSW
	<input type="checkbox"/> OPAL POLYCARBONATE WP*		<input type="checkbox"/> WW (3000K)		<input type="checkbox"/> GREY RAL-7004-T	<input type="checkbox"/> INTERNAL HOUSE SIDE SHIELD HS	
			OTHER LED COLORS AVAILABLE CONSULT FACTORY		<input type="checkbox"/> DARK BRONZE RAL-8019-T	<input type="checkbox"/> DUPLEX RECEPTACLE DUP	
	RADIAL LED MODULE		VOLTAGE		<input type="checkbox"/> GREEN RAL-6005-T	<input type="checkbox"/> GROUND FAULT RECEPTACLE GFI	
	<input type="checkbox"/> PARABOLIC REFLECTOR TR	<input type="checkbox"/> 18LED ¹ (21 Watts)	<input type="checkbox"/> 120		FOR SMOOTH FINISH REPLACE SUFFIX "T" WITH SUFFIX "S" (EXAMPLE: RAL-9500-S)	<input type="checkbox"/> 10KV SURGE PROTECTOR 10SP	
		<input type="checkbox"/> 12LED ² (15 Watts)	<input type="checkbox"/> 208		SEE USALTG.COM FOR ADDITIONAL COLORS	<input type="checkbox"/> 20KV SURGE PROTECTOR (277V & 480V Only) 20SP	
			<input type="checkbox"/> 240			OPTIONAL HEIGHTS:	
			<input type="checkbox"/> 277			<input type="checkbox"/> 30"	
			<input type="checkbox"/> 347			<input type="checkbox"/> 36"	
			<input type="checkbox"/> 480				

NOTES:
1 - AVAILABLE IN BRA8 ONLY.
2 - AVAILABLE IN BRA6 ONLY.

Bike Path Lighting Submitted

Bike Path

Illuminance (Ft)
 Average = 1.55
 Minimum = 0.34
 Avg/Min Ratio = 4.54
 Max/Min Ratio = 45.56

Luminaire Information		
Code	Manufacturer	Manufacturer
3	UP Architectural	UP Architectural
		UP
		0.950

