

## **URBAN DESIGN COMMISSION APPLICATION** CITY OF MADISON

This form may also be completed online at: <a href="http://www.cityofmadison.com/planning/documents/UDCapplication.pdf">http://www.cityofmadison.com/planning/documents/UDCapplication.pdf</a>

215 Martin Luther King Jr. Blvd; Room LL-100 PO Box 2985; Madison, Wisconsin 53701-2985 Phone: 608.266.4635 | Facsimile: 608.267.8739

Please complete all sections of the application, including the desired meeting date and the type of action requested.

Date Submitted: 04/15/15		Informational Presentation
UDC Meeting Date:04/22/15		☐ Initial Approval
Combined Schedule Plan Commission Date (if applicable):04		☑ Final Approval
1. Project Address: 4901 Tradewinds Parkway Project Title (if any): 2015 Unit Well 31 Water Treatment		
2. This is an application for (Check all that apply to this UDC application	on):	
		velonment
A. Project Type:    Project in an Urban Design District* (public hearing-\$300 fe   Project in the Downtown Core District (DC) or Urban   Suburban Employment Center (SEC) or Campus Instit   Planned Development (PD)   General Development Plan (GDP)   Specific Implementation Plan (SIP)   Planned Multi-Use Site or Planned Residential Comp	Mixed-Use District (UM utional District (CI) or En	네트리트 경험 그 가는 사람들은 그리고 있다면 하는 것이 되었다. 그리지 않는 것이 없는 것이 없는 것이 없는 것이 없는 것이 없는 것이 없는 것이다.
B. Signage:  Comprehensive Design Review* (public hearing-\$300 fee) Signage Exception(s) in an Urban Design District (public C. Other:  Please specify:		ariance* (public hearing-\$300 fee)
3. Applicant, Agent & Property Owner Information:		
Applicant Name: Alan Larson, PE, BCEE	Company: Madison V	
Street Address: 119 East Olin Avenue	City/State: Madison, V	
Telephone:(608)266-4651 Fax:()	Email: ALarson@ma	disonwater.org
Project Contact Person: Randy Sanford	Company: SEH, Inc	
Street Address: 10 North Bridge Street	City/State: Chippewa	
Telephone: $(715)720-6200$ Fax: $(715)720-6300$	Email:_rsanford@sehi	nc.com
Project Owner (if not applicant) :_ Same as Applicant		
Street Address:	de la constantina della consta	Zip:
Telephone:() Fax:()	Email:	
<ul> <li>4. Applicant Declarations:</li> <li>A. Prior to submitting this application, the applicant is required to discuss the B. The applicant attests that all required materials are included in this submit the application deadline, the application will not be placed on an Urban Designation of the properties of the properties</li></ul>	tal and understands that if any i	required information is not provided by
Name of Applicant Alan Largon	Relationship to Property	160
Authorized Signature Lor Al Lawson	Date $\frac{3/4/2}{}$	.015

#### 5. Submission Requirements

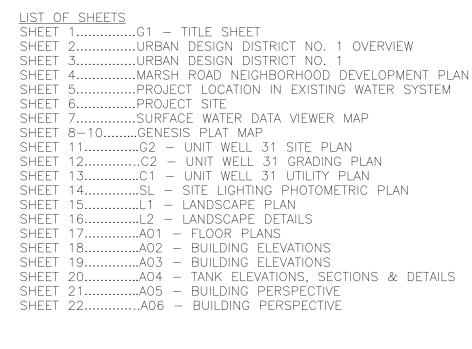
Application: Each submittal must include 14 collated paper copies (11" x 17" max.) and an electronic copy of all application materials. The electronic copy must include individual Adobe Acrobat PDF files compiled either on a non-returnable CD-ROM submitted with the paper copies, or in an e-mail sent to: UDCApplications@cityofmadison.com

The transmittal shall include the name of the project, address, and applicant. Applicants unable to provide the materials electronically should contact the Secretary of the Urban Design Commission at 267-8740 for assistance. For an application to be considered complete and scheduled for a UDC meeting, both the paper copies and electronic copy need to be submitted prior to the application deadline. Late materials will not be accepted. An application is required for each UDC appearance. For projects also requiring Plan Commission approval, applicants must have submitted an accepted application for Plan Commission consideration prior to obtaining any formal action (initial or final approval) from the UDC. All plans must be easily read when reduced.

<u>Fees</u>: Fees are required to be paid with the first application for either initial or final approval of a project, unless the project is part of the combined application process involving the Urban Design Commission in conjunction with Plan Commission and/or Common Council consideration. Make checks payable to City Treasurer, Madison, Wisconsin.

<u>Project Plans</u>: The items listed below are minimal application requirements for the type of approval indicated. Please note that the UDC and/or staff may require additional information in order to have a complete understanding of the project.

1.	<u>Info</u>	ormational Presentation
		Locator Map
		Brief Narrative Description of the Project, Site Plan, and 2-dimensional images of proposed buildings or structures. Additional information may provide for a greater level of feedback from the Commission.
		Contextual site information, including photographs and layout of adjacent buildings/structures
		Any and all relevant plans and information on which feedback from the UDC is requested.
2.	<u>Init</u>	ial Approval
		Locator Map
		Contextual site information, including photographs and layout of adjacent buildings/structures
		Site Plan showing location of existing and proposed buildings, walks, drives, bike lanes, bike parking, and existing trees over 18" diameter
		Landscape Plan and Plant List
		Building Elevations for all building sides
		PD text and letter of intent (if applicable)
3.	<u>Fina</u>	al Approval
	Ø	Locator Map
	X	Site Plan showing location of existing and proposed buildings
	X	Grading Plan
	X	Landscape Plan
	Ø	Plant List, including scientific name, size at planting, quantity and root condition for each species.
	X	Building Elevations for all building sides, colored with shadow lines, including exterior building materials and colors.
	Ø	Proposed Signage
	X	Lighting Plan, including fixture cut sheets and photometrics plan
	X	Utility/HVAC equipment location and screening details
	X	PD text and letter of intent (if applicable)
	X	Samples of the exterior building materials (presented at the UDC meeting)



WELL 31 WATER TREATMENT F C GROUND STORAGE RESERVOII MADISON, WISCONSIN

> DATE DESCRIPTIO REVISIONS

3-02-15
ANDY SANFORD
DSHUA BOHNERT
. ® (SEH)

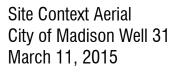
ISSUE DATE
DESIGNED BY
DRAWN BY
Short Elliott Hendrick

ET TITLE SHEET

SHEET

G1

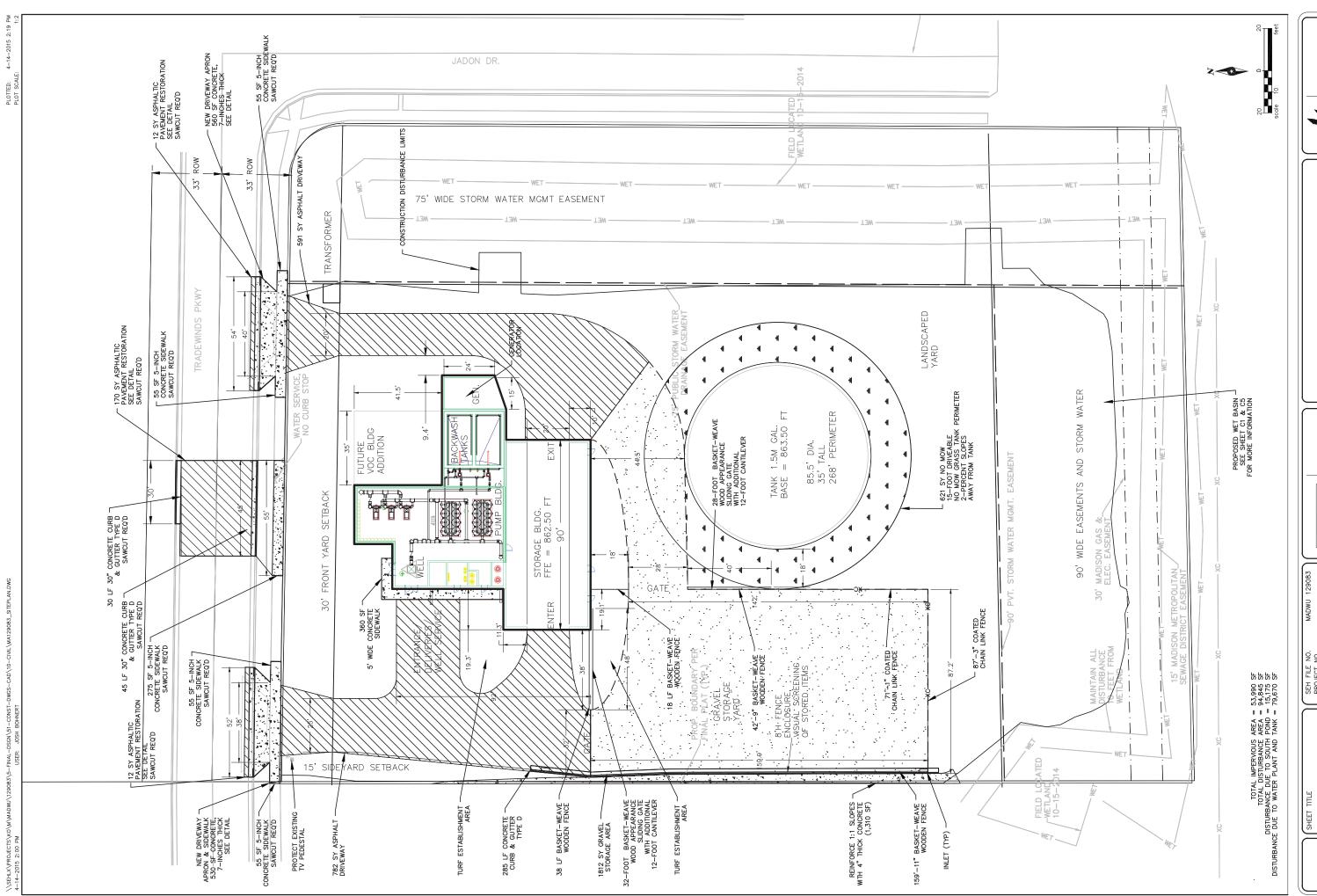








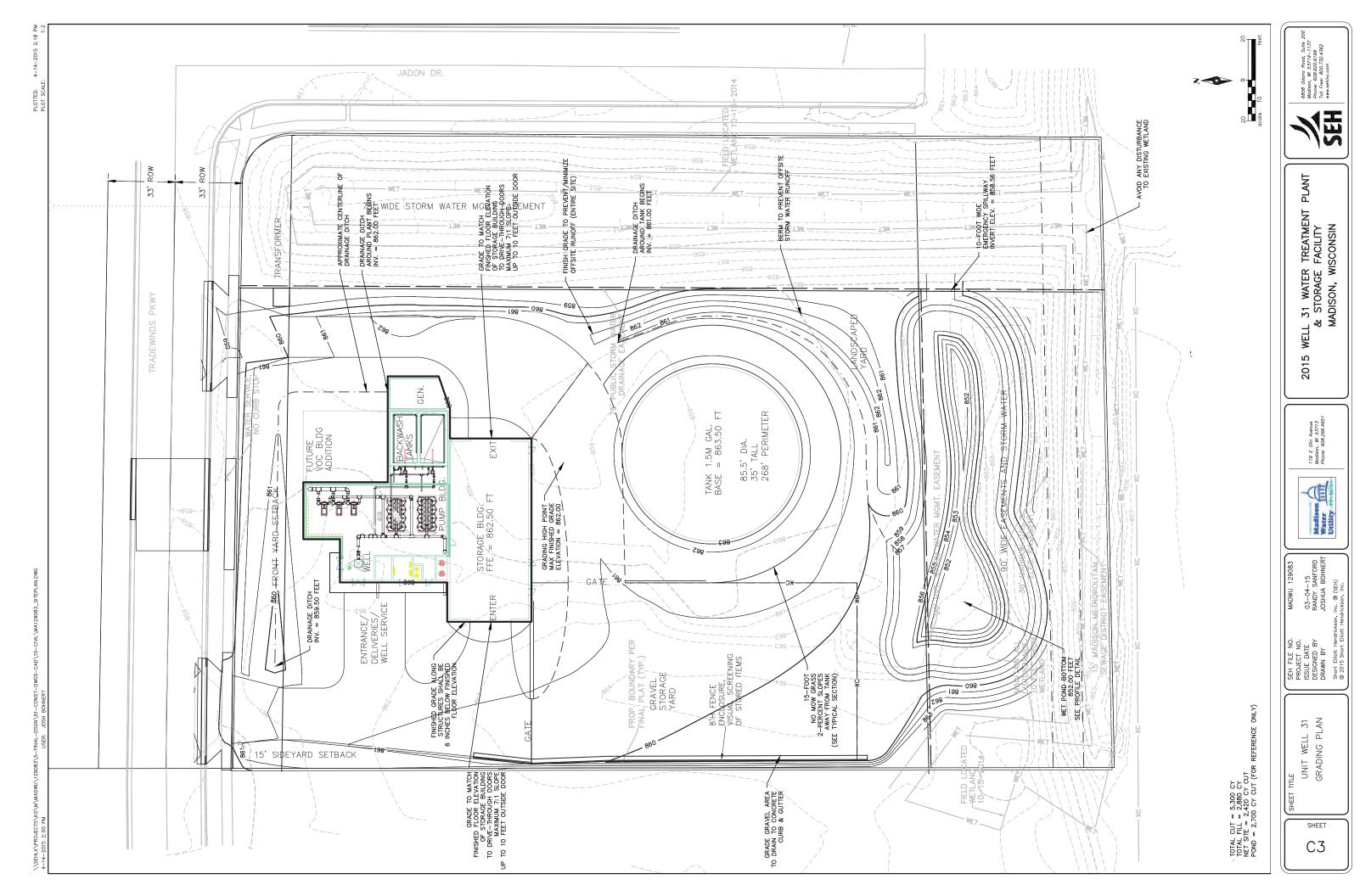


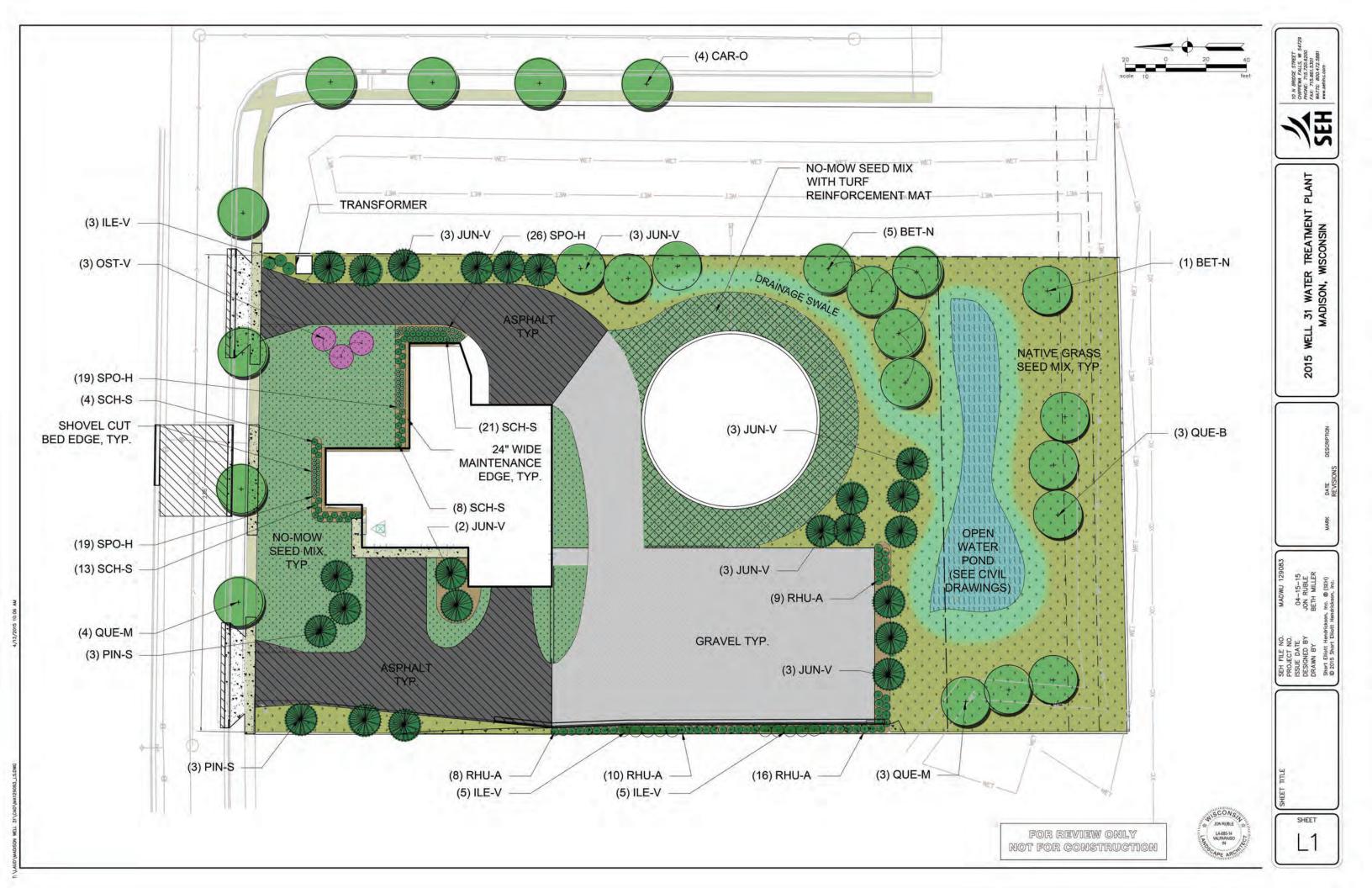


**人保** 2015 WELL 31 WATER TREATMENT PLANT & STORAGE FACILITY MADISON, WISCONSIN 119 E Olin Avenue Madison, WI 53713 Phone: 608.266.4651 Madison Water Utility specific 03-04-15 RANDY SANFORD JOSHUA BOHNERT SEH FILE NO.
PROJECT NO.
ISSUE DATE
DESIGNED BY
DRAWN BY TITLE
UNIT WELL 31
SITE PLAN

SHEET

C8





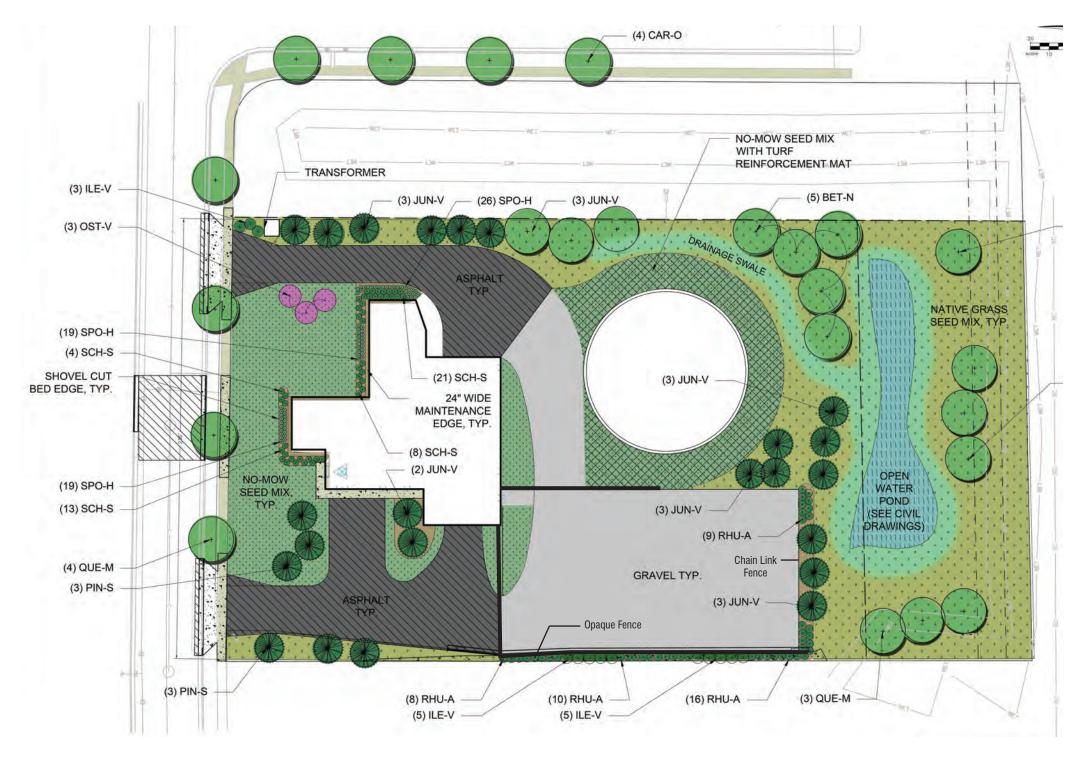




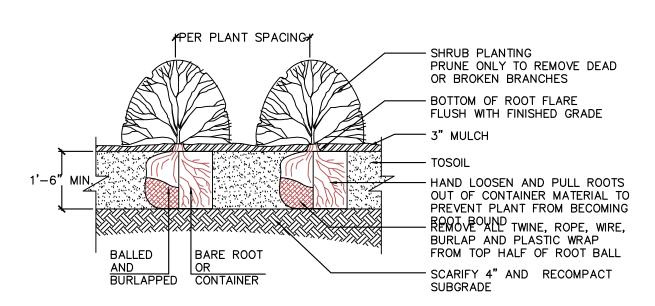




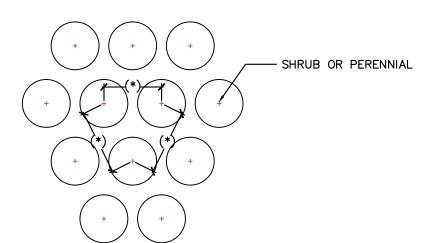








SHRUB PLANTING DETAIL
NOT TO SCALE



(\*) = SPECIFIED PLANT SPACING PER PLANTING

Z PLANT SPACING DETAIL
NOT TO SCALE

Lineal feet of frontage: 236
Total Developed Area (sq. ft.): 92,484

#### ORDIANCE 28.142 LANDSCAPE & SCREENING REQUIREMENTS Minimum Size at Installation <u>Plant Type</u> 2.5 inch caliper Overstory Deciduous Tree Ornamental Tree 1.5 inch caliper Evergreen Tree 3 feet tall Shrub, deciduous 18" or 3 gallon container size Shrub, evergreen 18" or 3 gallon container size Ornamental Grasses 18" or 3 gallon container size Ornamental/decorative fencing or wall 4 per 10 ln.ft. n/a

Landscape Calculations & Distrubution	Plant Reg.	Reg. Points	-
Required Landscape Units:	154	771	
Development Frontage Landscape	<u>Plant Req.</u>	<u>Points</u>	
Overstory Deciduous Trees:	8	275	
Ornamental Trees:	0	0	
Evergreen Trees:	0	0	1
Shrub, deciduous	39	0	
Shrub, evergreen	0	0	
Ornamental Grasses	0	0	
Frontage Fencing (in lineal feet)	236	0	

TOTAL POINTS: 275

Development Landscape	<u>Plants</u>	<u>Points</u>
Overstory Deciduous Trees:	20	700
Ornamental Trees:	3	45
Evergreen Trees:	23	345
Shrub, deciduous	56	112
Shrub, evergreen	0	0
Ornamental Grasses	110	220
	TOTAL POINTS:	1422

/ ORDINANCE REQUIREMENTS

## Madison Wellhead 31

## Plant List

Quantity	Code	Botanical Name	Common Name	Size	Spacing
SHADE TR	EES				
6	BET-N	Betula nigra	River Birch	2.5" cal.	24'
4	CAR-O	Carya ovata	Shagbark Hickory	2.5" cal.	24'
3	QUE-B	Quercus bicolor	Swamp White Oak	2.5" cal.	24'
7	QUE-M	Quercus macrocarpa	Bur Oak	2.5" cal.	24'
20					

ORNAMENTAL TREES								
			Ironwood (Eastern Hop					
3	OST-V	Ostrya virginiana	Hornbeam)	8' B&B	12'			
3								

## EVERGREEN TREES

LVLINGINE	ENGNELIA INCLO						
17	JUN-V	Juniperus virginiana	Eastern Red Cedar	8' B&B			
6	PIN-S	Pinus strobus	Eastern White Pine	8' B&B			
23							

## SHRUBS

13	ILE-V	Ilex verticillata	Winterberry	#5	5'
43	RHU-A	Rhus aromatica 'Gro-Low'	Gro-Low Sumac	#5	3'
56					

## ORNAMENTAL GRASSES

46	SCH-S	Schizachyrium scoparium 'Carousel'	Carousel Little Bluestem	#3	30"
64	SPO-H	Sporobolus heterolepis	Prairie Dropseed	#3	24"
110					

GRASSES				
-	-	1	No-Mow Seed Mix	
-	-	-	Native Grass Seed Mix	

FLANT SCHEDULE

### PLANTING NOTES:

- EXISTING SHRUBS FOUND ON SITE SHALL BE REMOVED. QUESTIONS REGARDING EXISTING PLANT MATERIAL SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO REMOVAL.
- 2. THE LAYOUT OF ALL PLANTING BEDS AND INDIVIDUAL TREES SHALL BE STAKED BY THE CONTRACTOR IN ADVANCE OF INSTALLATION. FLAGGING, STAKES, OR PAINT MAY BE USED TO DELINEATE LOCATIONS AS SCALED FROM THE PLANS. THE LANDSCAPE ARCHITECT WILL REVIEW THESE LOCATIONS WITH THE CONTRACTOR AND MAKE MINOR ADJUSTMENTS AS NECESSARY. BED LAYOUT SHALL ALSO INCLUDE PERENNIAL GROUPINGS BY SPECIES.
- 3. THE CONTRACTOR IS RESPONSIBLE FOR INDEPENDENTLY DETERMINING THE PLANT MATERIAL QUANTITIES REQUIRED BY THE LANDSCAPE PLANS. REPORT ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT.
- 4. SALVAGE TOPSOIL FROM THE EARTHWORK AREAS AS APPROPRIATE AND/OR AS DIRECTED BY LANDSCAPE ARCHITECT AND STOCKPILE FOR REUSE IN LOCATION APPROVED BY OWNER
- 5. CONTRACTOR SHALL ENSURE THAT SOIL CONDITIONS AND COMPACTION ARE ADEQUATE TO ALLOW FOR PROPER DRAINAGE AROUND THE CONSTRUCTION SITE.

  UNDESIRABLE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING OF WORK. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE PROPER SURFACE AND SUBSURFACE DRAINAGE IN ALL AREAS
- 6. ALL SEED & SOD AREAS SHALL RECEIVE A MINIMUM OF 6" DEPTH OF TOPSOIL
- 7. ALL PLANTING BEDS SHALL RECEIVE 18" DEPTH OF PREPARED SOIL.
- 8. PAINT OR STAKE LIMITS OF SEEDING FOR REVIEW BY LANDSCAPE ARCHITECT & OWNER PRIOR TO SEEDING.
- 9. NEW SEEDED AREAS TO BE TREATED WITH HERBICIDE TO KILL ALL EXISTING GROUNDCOVER. THERE SHALL BE A MINIMUM OF TWO (2) APPLICATIONS SEPARATED BY 10 DAYS. IF ALL EXISTING GROUNDCOVER VEGETATION IS NOT KILLED WITHIN 10 DAYS OF 2ND APPLICATION, A 3RD APPLICATION IS REQUIRED.
- 10. ALL DISTURBED AREAS OUTSIDE THE LIMITS OF WORK SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE OWNER.
- 11. ALL PLANTING BEDS SHALL HAVE A SHOVEL CUT EDGE, UNLESS OTHERWISE SPECIFIED.
- 12. ALL PLANTING BEDS AND PLANTED TREES SHALL BE MULCHED WITH 3" DEEP SHREDDED HARDWOOD MULCH PER PLANTING DETAILS. MULCH SHALL BE CONSIDERED INCIDENTAL TO PLANT MATERIALS
- 13. NO PLANT MATERIAL SUBSTITUTIONS WILL BE ACCEPTED UNLESS APPROVAL BY THE LANDSCAPE ARCHITECT. ALL PLANT MATERIAL AND SEED SHALL BE PROVIDED FROM A NURSERY (WITHIN 200 MILES) WITH A SIMILAR PLANT HARDINESS ZONE AS PROJECT LOCATION.
- 14. CONTRACTOR IS RESPONSIBLE FOR ON-GOING
  MAINTENANCE OF ALL NEWLY INSTALLED MATERIALS UNTIL
  TIME OF OWNER ACCEPTANCE. ANY ACTS OF VANDALISM
  OR DAMAGE WHICH MAY OCCUR PRIOR TO OWNER
  ACCEPTANCE SHALL BE THE RESPONSIBILITY OF THE
  CONTRACTOR
- 15. PROVIDE 1 YEAR WARRANTY ON ALL PLANT MATERIAL
- 16. NO-MOW LAWN SHALL INCLUDE A BLEND OF BUNCH-FORMING AND CREEPING FESCUES DERIVED FROM SPECIES THAT ARE NATIVE TO WISCONSIN. SPECIES MIX AND SEEDING RATES SHALL BE "NO-MOW LAWN MIX" AS PREPARED BY PRAIRIE NURSERY, OR APPROVED EQUIVALENT.
- 17. NO-MOW LAWN SEED SHALL BE ESTABLISHED BY THE CONTRACTOR TO A DENSE, GREEN CONSISTENT LAWN VOID OF ANY BARE OR PATCHY AREAS LARGER THAN 3"X3"
- 18. SEED PRIOR TO OCT. 15. IF SEEDED AFTER OCT. 15,
  MAINTAIN AND ESTABLISH LAWN UNTIL SPRING REVIEW

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SHEET L2

JON RUBLE

LA-685-14

VALPARAISO

IN

CARE ARCHITICATION

CARE ARC

- 0.5FC HORIZONTAL FOOTCANDLE CONTOUR

MOUNTED ON — SIDE OF PARAPET ENTER ACCESS HATCHES wB (9'AFG) (9'AFG) MOUNTED ON 24" STANCHION TO - HORIZONTAL FOOTCANDLES AT 4-FT ABOVE GRADE

 $\overset{\text{Y}}{\cap}$ 

JADON

### KEYED NOTES:

- (1) LIGHT CONTROLLED VIA PHOTOCELL (ON DUSK/DAWN)
- (2) LIGHT CONTROLLED VIA SWITCH (ONLY ON FOR MAINTENANCE WORK)

LUMINAIRE SCHEDULE										
Symbol	Label	Qty	Catalog Number	Description	Lamp	Flle	Lumens	LLF	Watts	
â	WA	MVOLT LED's, 350mA DRIVER, 20C_35i 4000K LED TYPE TFTM_N		DSXW1_LED_ 20C_350_40K_ TFTM_MVOLT. les	Absolute	0.85	25			
	WB	2	DSXW1 LED 10C 350 40K T3M MVOLT	DSXW1 LED WITH 1 LIGHT ENGINE, 10 LED's, 350mA DRIVER, 4000K LED, TYPE 3 MEDIUM OPTIC	LED	DSXW1_LED_ 10C_350_40K_ T3M_MVOLT.I es	Absolute	0.85	13,21	
-	PA	1	DSX1 LED 30C 530 40K T3M MVOLT HS	DSX1 LED WITH (1) 30 LED LIGHT ENGINES, TYPE T3M OPTIC, 4000K, @ 530mA WITH HOUSE SIDE SHIELD	LED	DSX1_LED_30 C_530_40K_T3 M_MVOLT_HS .les	Absolute	0.85	52	
-	РВ	5	DSX1 LED 40C 700 40K T3M MVOLT HS	DSX1 LED WITH (2) 20 LED LIGHT ENGINES, TYPE T3M OPTIC, 4000K, @ 700mA WITH HOUSE SIDE SHIELD	LED	DSX1_LED_40 C_700_40K_T3 M_MVOLT_HS .ies	Absolute	0.85	89	
0	DNLT	6	DOM6 600L DO6	603 delivered lumens	ONE 15-WATTLED, HORIZONTAL POS.	DOM6_600L_D O6.les	Absolute	0.85	15.624	
â	ROOF1	1	TWR1 LED 1 40K MVOLT	2100lm TWR1 LED WALLPACK	LED	TWR1_LED_1_ 50K_MVOLT.le s	Absolute	0.85	34.4	
Ô	ROOF2	1	DSXF1 LED 1 A530/40K HMF MVOLT	D-SERIES FLOOD SIZE 1 WITH 1 COB, 4000K, (HMF) DISTRIBUTION, NEMA TYPE 6HX4V	LED	DSXF1_LED_1 _A530_40K_H MF_MVOLT.le s	Absolute	0.85	21	

Powrtek MEngineering,Inc.

20711 WATERTOWN RD., SUITE C WAUKESHA, WI 53186 VOICE: 262-827-9575 FAX: 262-827-9615

PLANT WELL 31 WATER TREATMENT MADISON, WISCONSIN

2015

03-02-15 RICK BOYA BRIAN FULLER

SITE LIGHITNG PHOTOMETRIC PLAN

SHEET

SL



## **D-Series Size 1** LED Wall Luminaire







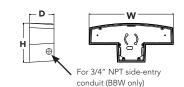
#### d"series

#### **Specifications** Luminaira

Luminaire				Back Box (BBW, ELCW)			
Width:	13-3/4" (34.9 cm)	Weight:	12 lbs (5.4 kg)	Width:	13-3/4" (34.9 cm)	BBW Weight:	5 lbs (2.3 kg)
Depth:	10" (25.4 cm)			Depth:	4" (10.2 cm)	ELCW Weight:	10 lbs (4.5 kg)
Height:	6-3/8" (16.2 cm)			Height:	6-3/8" (16.2 cm)		







# Catalog Number LUMINAIRES - WA, WB

Туре

#### Introduction

The D-Series Wall luminaire is a stylish, fully integrated LED solution for building-mount 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 Wall is a reliable, low-maintenance lighting solution that produces sites that are exceptionally illuminated.

### **Ordering Information**

#### **EXAMPLE:** DSXW1 LED 20C 1000 40K T3M MVOLT DDBTXD

DSXW1 LED			3	350	4	l0K										DDE	BXD
Series	LEDs		Drive (	Current	Color ten	nperature	Distribut	tion	Voltage	Mounti	ng	Contro	l Options	Other	Options	Finish (requ	uired)
DSXW1 LED	10C 20C	10 LEDs (one engine) 20 LEDs (two engines)	350 530 700 1000	350 mA 530 mA 700 mA 1000 mA (1 A)	30K 40K 50K AMBPC	3000 K 4000 K 5000 K Amber phosphor converted	T2S T2M T3S T3M T4M TFTM ASYDF	Type II Short Type II Medium Type III Short Type III Medium Type IV Medium Forward Throw Medium Asymmetric diffuse	MVOLT <sup>1</sup> 120 <sup>1</sup> 208 <sup>1</sup> 240 <sup>1</sup> 277 <sup>1</sup> 347 <sup>2</sup> 480 <sup>2</sup>	٠	d included Surface mounting bracket Surface- mounted back box (for conduit entry) 3	Shipp PE DMG PIR PIRH	ed installed Photoelectric cell, button type 4 0-10V dimming driver (no controls) 180° motion/ ambient light sensor, <15' mtg ht 5 180° motion/ ambient light sensor, 15-30' mtg ht 5 Emergency battery backup (includes external component enclosure) 6	Shippinsta SF  DF  HS  SPD  Shippinsepai BSW  WG  VG  DDL	Single fuse (120, 277 or 347V) <sup>7</sup> Double fuse (208, 240 or 480V) <sup>7</sup> House-side shield <sup>8</sup> Separate surge protection <sup>9</sup> Ded	DDBXD  DBLXD  DNAXD  DWHXD  DSSXD  DDBTXD  DBLBXD  DNATXD  DWHGXD  DSSTXD	Dark bronze Black Natural aluminum White Sandstone Textured dark bronze Textured black Textured natural aluminum Textured white Textured sandstone

#### NOTES

- 1 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)
- 2 Only available with 20C, 700mA or 1000mA. Not available with PIR or PIRH.
- 3 Back box ships installed on fixture. Cannot be field installed. Cannot be ordered as an accessory. 4 Photocontrol (PE) requires 120, 208, 240, 277 or 347 voltage option. Not available with motion/ambient light sensors (PIR or PIRH).
- 5 PIR specifies the Sensor Switch SBGR-10-ODP control; PIRH specifies the Sensor Switch SBGR-6-ODP control; see Motion Sensor Guide for details. Includes ambient light sensor. Not available with "PE" option (button type photocell). Dimming driver standard. Not available with 20 LED/1000 mA configuration (DSXW1 LED 20C 1000).
- 6 Cold weather (-20C) rated. Not compatible with conduit entry applications. Not available with BBW mounting option. Not available with fusing. Emergency components located in back box housing. Emergency mode IES files located on product page at <a href="https://www.lithonia.com">www.lithonia.com</a>
- 7 Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option. Not available with ELCW.
- Also available as a separate accessory; see Accessories information
- 9 See the electrical section on page 3 for more details.

### Accessories

DSXWHS U House-side shield (one per light engine) DSXW1WG II DSXW1VG U Vandal guard accessory



### LITHONIA LIGHTING

#### **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.

	Drive	System	Dist.			30K			40K					50K			AMBER						
LEDs	Current (mA)	Watts	Туре	Lumens	В	U	G	LPW	Lumens	В	U	G	LPW	Lumens	В	U	G	LPW	Lumens	В	U	G	LPW
			T2S	1,843	1	0	1	92	1,956	1	0	1	98	1729	1	0	1	86	1,264	0	0	1	63
			T2M	1,756	1	0	1	88	1,864	1	0	1	93	1,648	1	0	1	82	1,205	0	0	1	60
			T3S	1,822	0	0	1	91	1,934	0	0	1	97	1,710	0	0	1	86	1,250	0	0	1	63
	530mA	20 W	T3M	1,804	1	0	1	90	1,914	1	0	1	96	1,693	1	0	1	85	1,237	0	0	1	62
			T4M	1,767	1	0	1	88	1,876	1	0	1	94	1,658	0	0	1	83	1,212	0	0	1	61
			TFTM	1,837	0	0	1	92	1,950	0	0	1	98	1,724	0	0	1	86	1,260	0	0	1	63
			ASYDF	1,642	1	0	1	82	1,743	1	0	1	87	1,541	1	0	1	77	1,127	0	0	1	56
			T2S	2,272	1	0	1	84	2,409	1	0	1	89	2,421	1	0	1	90	1,544	0	0	1	57
10C			T2M	2,165	1	0	1	80	2,296	1	0	1	85	2,307	1	0	1	85	1,472	0	0	1	55
100			T3S	2,247	1	0	1	83	2,382	1	0	1	88	2,394	1	0	1	89	1,527	0	0	1	57
	700mA	27 W	T3M	2,224	1	0	1	82	2,358	1	0	1	87	2,370	1	0	1	88	1,512	0	0	1	56
(10 LEDs)			T4M	2,179	1	0	1	81	2,310	1	0	1	86	2,322	1	0	1	86	1,481	0	0	1	55
			TFTM	2,265	1	0	1	84	2,401	1	0	1	89	2,413	1	0	1	89	1,539	0	0	1	57
			ASYDF T2S	2,025	1	0	1	75	2,147	1	0	1	80	2,158	1	0	1	80	1,376	1	0	1	51
			T2M	3,011 2,870	1	0	1	75 72	3,190 3,040	1	0	1	80 76	3,202 3,051	1		1	80 76	2,235	1	0	2	
			T3S	2,870	1	0	1	74	3,040	1	0	1	76	3,166	1	0	1	79	2,130 2,210	1	0	2	55
	1000mA	40 W	T3M	2,948	1	0	1	74	3,123	1	0	1	78	3,134	1	0	1	78	2,210	1	0	2	56
	IUUUIIIA		T4M	2,946	1	0	1	72	3,123	1	0	1	76	3,134	1	0	1	77	2,167	1	0	2	55
			TFTM	3.002	1	0	1	75	3,180	1	0	1	80	3,192	1	0	1	80	2,143	1	0	2	57
			ASYDF	2,684	1	0	1	67	2,843	1	0	1	71	2,854	1	0	1	71	1,991	1	0	2	51
			T2S	3,649	1	0	1	101	3,876	1	0	1	108	3,429	1	0	1	95	2,504	1	0	1	70
			T2M	3,478	1	0	1	97	3,694	1	0	1	103	3,267	1	0	1	91	2,387	1	0	1	66
			T3S	3,609	1	0	1	100	3,833	1	0	1	106	3,390	1	0	1	94	2,477	1	0	1	69
	530mA	36 W	T3M	3,572	1	0	1	99	3,794	1	0	1	105	3,356	1	0	1	93	2,451	1	0	2	68
	350		T4M	3,500	1	0	2	97	3,717	1	0	2	103	3,288	1	0	1	91	2,402	1	0	1	67
			TFTM	3,638	1	0	1	101	3,864	1	0	1	107	3,418	1	0	1	95	2,496	1	0	1	69
			ASYDF	3,252	1	0	2	90	3,454	1	0	2	96	3,056	1	0	2	85	2,232	1	0	1	62
			T2S	4,502	1	0	1	96	4,776	1	0	1	102	4,794	1	0	1	102	3,065	1	0	1	65
			T2M	4,290	1	0	1	91	4,552	1	0	1	97	4,569	1	0	1	97	2,921	1	0	1	62
20C			T3S	4,452	1	0	1	95	4,723	1	0	2	100	4,741	1	0	2	101	3,031	1	0	1	64
	700mA	47 W	T3M	4,407	1	0	2	94	4,675	1	0	2	99	4,693	1	0	2	100	3,000	1	0	1	64
(20 LEDs)			T4M	4,318	1	0	2	92	4,581	1	0	2	97	4,598	1	0	2	98	2,939	1	0	1	63
(20 LLD3)			TFTM	4,488	1	0	2	95	4,761	1	0	2	101	4,779	1	0	2	102	3,055	1	0	1	65
			ASYDF	4,012	1	0	2	85	4,257	1	0	2	91	4,273	1	0	2	91	2,732	1	0	1	58
			T2S	5,963	1	0	1	80	6,327	1	0	1	84	6,351	1	0	1	85	4,429	1	0	1	61
			T2M	5,683	1	0	2	76	6,029	1	0	2	80	6,052	1	0	2	81	4,221	1	0	2	58
			T3S	5,896	1	0	2	79	6,256	1	0	2	83	6,280	1	0	2	84	4,380	1	0	2	60
	1000mA	74 W	T3M	5,837	1	0	2	78	6,193	1	0	2	83	6,216	1	0	2	83	4,335	1	0	2	59
			T4M	5,719	1	0	2	76	6,067	1	0	2	81	6,090	1	0	2	81	4,248	1	0	2	58
			TFTM	5,944	1	0	2	79	6,307	1	0	2	84	6,330	1	0	2	84	4,415	1	0	2	60
			ASYDF	5,314	1	0	2	71	5,638	2	0	2	75	5,660	2	0	2	75	3,947	1	0	2	54

#### **Performance Data**

#### **Lumen Ambient Temperature (LAT) Multipliers**

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

Aml	Ambient						
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 **DSXW1 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

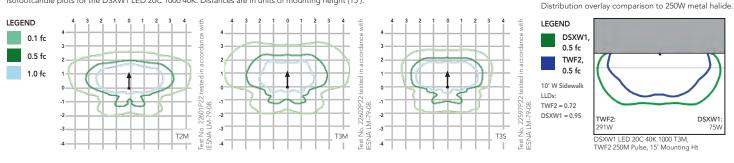
#### **Electrical Load**

					Curre	nt (A)		
LEDs	Drive Current (mA)	System Watts	120	208	240	277	347	480
	350	14 W	0.13	0.07	0.06	0.06	-	-
10C	530	20 W	0.19	0.11	0.09	0.08	-	-
100	700	27 W	0.25	0.14	0.13	0.11	-	-
	1000	40 W	0.37	0.21	0.19	0.16	-	-
	350	25 W	0.23	0.13	0.12	0.10	-	-
200	530	36 W	0.33	0.19	0.17	0.14	-	-
20C	700	47 W	0.44	0.25	0.22	0.19	0.15	0.11
	1000	75 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 Size 1 homepage.

Isofootcandle plots for the DSXW1 LED 20C 1000 40K. Distances are in units of mounting height (15').



#### **Options and Accessories**













T3M (left), ASYDF (right) lenses

HS - House-side shields

BSW - Bird-deterrent spikes

WG - Wire guard

VG - Vandal guard

**DDL** - Diffused drop lens

#### **FEATURES & SPECIFICATIONS**

The energy savings, long life and easy-to-install design of the D-Series Wall Size 1 make it the smart choice for building-mounted doorway and pathway 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).

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.

Precision-molded proprietary acrylic lenses provide multiple photometric distributions tailored specifically to building mounted applications. Light engines are available in 3000 K (80 min. CRI), 4000 K (70 min. CRI) or 5000 K (70 CRI) configurations.

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

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power factor >90%, THD <20%, and a minimum 2.5KV surge rating. When ordering the SPD option, a separate surge protection device is installed within the luminaire which meets a minimum Category C Low (per ANSI/IEEE C62.41.2).

#### INSTALLATION

Included universal mounting bracket attaches securely to any 4" round or square outlet box for quick and easy installation. Luminaire has a slotted gasket wireway and attaches to the nting bracket via corrosion-resistant screws.

#### 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.

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Five year limited warranty. Full warranty terms located at www.acuitybrands.com/ tomerResources/Terms\_and\_conditions.aspx.

Note: Specifications subject to change without notice



DSXW1-LED Rev. 9/17/14



FPA:

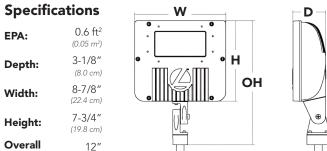
Height

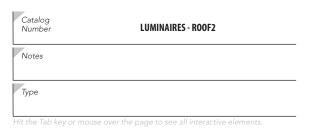
Weight:

## **D-Series Size 1** LED Flood Luminaire



d"series





#### Introduction

The D-Series Size 1 Flood features precision optics to beautifully illuminate a variety of applications while its sleek, compact styling blends seamlessly with the environment.

The D-Series Flood reflector systems and cuttingedge chip-on-board LED technology produce low field-to-beam ratios for minimal spill light and incredible photometric performance. It's the ideal long-life replacement for 50 - 150W metal halide floods, with typical energy savings of 72% and expected service life of over 100,000 hours.

### **Ordering Information**

(30.5 cm)

7.2 lbs

### **EXAMPLE:** DSXF1 LED 2 A530/40K MSP MVOLT THK DDBXD

DSXF1 LED	1	A530/40K	НМЕ	MVOLT	ТНК		DDBXD
Series	Light Engines	Performance Package	Distribution	Voltage	Mounting	Options	Finish (required)
DSXF1 LED	1 One COB engine 2 Two COB engines	530 mA options: A530/30K 3000K A530/40K 4000K A530/50K 5000K	MSP Narrow spot MSP Medium spot MFL Medium flood FL Flood WFL Wide flood WFR Wide flood, rectangular HMF Horizontal flood	MVOLT 1 120 1 208 1 240 1 277 1	Shipped included THK Knuckle wit 1/2" NPS threaded pi, IS Integral slipi (fits 2-3/8"( tenon) Shipped separately <sup>2</sup> DSXF1/2TS Tenon slipfit (2-3/8" 0.D. required)	se sitter 2.0.0. SF Single fuse (120, 277V) 4  Shipped separately 2  UBV Upper/bottom visor (universal)  FV Full visor  VG Vandal guard	DDBXD Dark bronze  DBLXD Black  DNAXD Natural aluminum  DWHXD White

#### Stock configurations are offered for shorter lead times:

Standard Part Number	Stock Part Number
DSXF1 LED 1 A530/40K WFL MVOLT THK DDBXD	DSXF1 LED 1 40K
DSXF1 LED 1 A530/50K WFL MVOLT THK DDBXD	DSXF1 LED 1 50K
DSXF1 LED 2 A530/40K WFL MVOLT THK DDBXD	DSXF1 LED 2 40K
DSXF1 LED 2 A530/50K WFL MVOLT THK DDBXD	DSXF1 LED 2 50K

## Accessories

DSXF1/2TS DDBXD U Slipfitter for 1-1/4" to 2-3/8" OD tenons; mates

FRWB DDBXD U FSPB DDBXD U

Radius wall bracket, 2-3/8"OD tenon (specify Steel square pole bracket, 2-3/8" OD tenon

DSXF1UBV DDBXD U Upper/bottom visor accessory (specify finish) DSXF1FV DDBXD U Full visor accessory (specify finish) DSXF1VG U Vandal guard accessory

For more mounting options, visit our

#### NOTES

- 1 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 option) or photocontrol (PE).
- 2 Also available as separate accessories; see Accessories information at left
- 3 Photocontrol (PE) requires 120, 208, 240 or 277 voltage option.
- 4 Single fuse (SF) requires 120 or 277 voltage option.



#### **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.

Light	Drive Current	Performance	System			Field Beam Angle Angle			(3	30K 000K, 70 CF	RI)	(40	40K 00K, 70 CRI	)	(50	50K 00K, 70 CRI	LPW 89 101 84 111	
Engines	(mA)	Package	Watts	Туре	°Н	°H °V °H		°۷		Lumens	LPW	Max Cd	Lumens	LPW	Max Cd	Lumens	LPW	
				NSP	48	49	19	19	7062	1408	74	7300	1692	89	7277	1700	89	
			MSP	50	48	24	23	6782	1541	81	6740	1923	101	6719	1916	101		
				MFL	60	60	47	46	2249	1316	69	2806	1581	83	2797	1588	84	
1	530	A530/K	19W	FL	85	84	63	62	1845	1752	92	1855	2105	111	1849	2115	111	
				WFL	106	106	71	72	1301	1739	92	1391	1995	105	1387	2099	110	
				WFR	107	88	85	64	1279	1764	93	1386	2119	112	1381	2129	112	
				HMF	100	62	80	13	1445	771	41	1259	927	49	1255	931	49	
				NSP	48	49	19	19	13,379	2668	72	13,803	3206	87	13,760	3221	87	
				MSP	50	48	24	23	12,850	2920	79	12,744	3643	98	12,704	3631	98	
				MFL	60	60	47	46	4260	2493	67	5305	2995	81	5288	3009	81	
2	530	A530/K	37W	FL	85	84	63	62	3496	3320	90	3507	3989	108	3496	4008	108	
				WFL	106	106	71	72	2465	3294	89	2630	3958	107	2622	3977	107	
				WFR	107	88	85	64	2422	3342	90	2620	4015	109	2612	4034	109	
				HMF	100	62	80	13	2738	1462	40	2381	1756	47	2374	1764	48	

#### **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							
0°C	32°F	1.07						
10°C	50°F	1.04						
20°C	68°F	1.02						
25°C	77°F	1.00						
30°C	86°F	0.98						
40°C	104°F	0.95						

#### **Projected LED Lumen Maintenance**

Data references the extrapolated performance projections for the **DSXF1 LED 2 A530** platform based on 8400 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	0.94	0.90	0.80

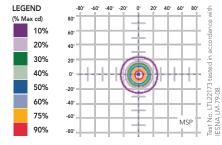
#### **Electrical Load**

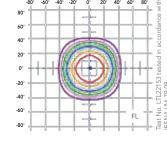
					Curre	nt (A)		
Light Engines	Drive Current (mA)	System Watts	120	208	240	277	347	480
1	530	19W	0.16	0.1	0.09	0.08	-	-
2	530	37W	0.32	0.19	0.17	0.15	-	-

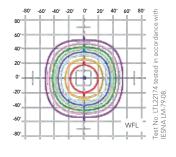
#### **Photometric Diagrams**

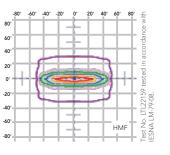
To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Flood Size 1 homepage.

Isocandela plots for the DSXF1 LED 2 A530/40K.









### **Mounting, Options and Accessories**



THK - Knuckle with 1/2" NPS threaded pipe



IS - Integral slipfitter H= 2-1/2" (6.3 cm) ID= 2-3/8" (6.0 cm)





UBV – Upper/bottom visor W= 5-1/4" (13.3 cm) H= 2-1/2" (6.3 cm) D= 3" (7.6 cm)



FV - Full visor W= 5-1/4" (13.3 cm) H= 2-1/2" (6.3 cm)



VG – Vandal guard W= 6-1/2" (16.5 cm) H= 4" (10.1 cm)



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#### **FEATURES & SPECIFICATIONS**

#### INTENDED USE

The sleek design of the D-Series Size 1 Flood reflects the embedded high performance LED  $\,$ technology. It is ideal for landscape, signage and accent lighting in many commercial and residential applications.

#### CONSTRUCTION

Die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. The LED driver is mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65). Low EPA (0.6 ft²) for optimized wind loading.

#### 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.

A variety of precision-molded vacuum-metallized specular reflectors are engineered for superior field-to-beam ratios, uniformity and spacing. Light engines are available in 3000K (70 CRI min.), 4000K (70 CRI min.) or 5000K (70 CRI min.) configurations. Optional visors offer additional

#### ELECTRICAL

Light engine(s) consist of chip-on-board (COB) LEDs directly coupled to the housing to maximize heat dissipation and promote long life (100,000 hrs, L80). Single-engine unit uses a Class 2 electronic driver; dual-engine unit uses a Class 1 electronic driver. Both drivers have a power factor >90%, THD <20%, and an expected life of 100,000 hours. Surge protection meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

#### INSTALLATION

Integral adjustable knuckle with 1/2-14NPS threaded pipe, tenon slipfitter, or integral slipfitter, facilitates quick and easy installation to a variety of mounting accessories. This secure connection enables the D-Series Size 1 to withstand up to a 1.5 G vibration load rating

CSA certified to U.S. and Canadian standards. Luminaire is IP65 rated. 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. Full warranty terms located at www.acuitybrands.com/  $\,$ esources/Terms\_and\_conditions.aspx.

 $\textbf{Note:} \ \mathsf{Specifications} \ \mathsf{subject} \ \mathsf{to} \ \mathsf{change} \ \mathsf{without} \ \mathsf{notice}.$ 





### TWR1 LED LED Wall Luminaire

Catalog Number	LUMINAIRE - ROOF1	
Notes		
Туре		

#### Introduction

The popular TWR1 luminaire is now available with long-lasting, energy-efficient LED technology. Featuring a classic dayform, the TWR1 LED offers a traditional appearance and is powered by advanced LEDs.

The TWR1 LED luminaire is powerful yet energy efficient, capable of replacing up to a 320W metal halide luminaire while saving up to 80% in energy costs. Offering an expected service life of more than 20 years, the TWR1 LED eliminates frequent lamp and ballast replacements associated with traditional technologies.

**EXAMPLE: TWR1 LED 2 50K MVOLT** 

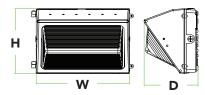
#### **Specifications**

12-15/16" Width: (32.9 cm)

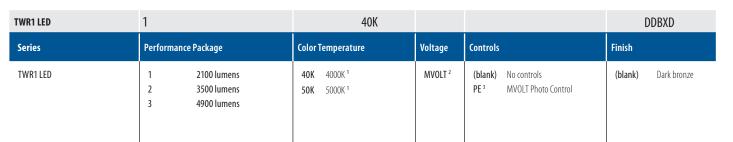
Height: (22.9 cm) 7-1/2"

Depth:

11.95 lbs Weight:



## **Ordering Information**



- Correlated color temperature (CCT) shown is nominal per ANSI C78, 377-2008. Except TWR1 LED 1 50K which is 5400 CCT.
- 2 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
- 3 Photo control not available with 4000K

#### **FEATURES & SPECIFICATIONS**

#### INTENDED USE

The TWR1 LED combines traditional wall pack design with high-output LEDs to provide an energy-efficient, low maintenance LED wall pack suitable for replacing up to 320W MH fixtures. The traditional shape helps maintain building aesthetics when replacing only a portion of your building's wall packs. TWR1 LED is ideal for outdoor applications such as carports, loading areas, driveways and parking areas.

Rugged cast-aluminum housing with bronze polyester powder paint for lasting durability. Door is hinged on the side so door swings out of the way during installation and service. Castings are sealed with a one-piece gasket to inhibit the entrance of external contaminants. MVOLT driver operates on any line voltage from 120-277V (50/60Hz). 6kV surge protection. Rated for outdoor

#### OPTICS

High-performance LEDs maintain up to 87% of light output at 100,000 hours of service life (L87/100,000 hours). Prismatic glass lens designed for superior lighting distribution, uniformity and fixture spacing. See Lighting Facts label and photometry reports for specific fixture performance.

Designed for wall mounting above four feet from ground. Housing is configured for mounting directly over a standard 4" outlet box (by others) or for surface wiring via any of three convenient 1/2" threaded conduit entry hubs.

#### LISTINGS

UL Listed to U.S. and Canadian safety standards for wet locations. Tested in accordance with IESNA LM-79 and LM-80 standards.

Five-year limited warranty. Full warranty terms located at www.acuitybrands.com/

Note: Specifications are subject to change without notice. Actual performance may differ as a result of end-user environment and application

### LITHONIA LIGHTING.

### **Performance Data**

#### **Lumen Output**

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representat of the configurations shown, within the tolerances allowed by Lighting Facts. Actual performance may differ as a result of enduser environment and application.

Fixture Model Number	ССТ	Drive Current	System Watts	Lumens	В	U	G	LPW	CRI
TWR1 LED 1 40K MVOLT	4000K	960mA	33W	2161	0	3	2	66	75
TWR1 LED 1 50K MVOLT	5000K	960mA	35W	2126	0	3	2	62	70
TWR1 LED 2 40K MVOLT	4000K	530mA	39W	3497	1	3	3	90	73
TWR1 LED 2 50K MVOLT	5000K	530mA	41W	3527	1	3	3	86	66
TWR1 LED 3 40K MVOLT	4000K	530mA	55W	4966	1	3	3	91	73
TWR1 LED 3 50K MVOLT	5000K	530mA	59W	4875	1	3	3	83	66

Electrical Load		Current Load (A) @						
Fixture Model Number	Drive Current	System Watts	120V	208V	240V	277V		
TWR1 LED 1 40K MVOLT	960mA	33W	0.31	0.18	0.15	0.13		
TWR1 LED 1 50K MVOLT	960mA	35W	0.34	0.20	0.17	0.15		
TWR1 LED 2 40K MVOLT	530mA	39W	0.36	0.21	0.18	0.16		
TWR1 LED 2 50K MVOLT	530mA	41W	0.40	0.23	0.20	0.17		
TWR1 LED 3 40K MVOLT	530mA	55W	0.51	0.29	0.25	0.22		
TWR1 LED 3 50K MVOLT	530mA	59W	0.56	0.32	0.28	0.24		

#### **Lumen Ambient Temperature (LAT) Multipliers**

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

Amb	oient	Lumen Multiplier				
0°C	32°F	1.03				
10°C	50°F	1.01				
20°C	68°F	1.00				
25°C	77°F	1.00				
30°C	86°F	0.99				
40°C	104°F	0.98				

#### **Projected LED Lumen Maintenance**

Data references the extrapolated performance projections in a 40°C ambient, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA

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	60,000	100,000
LM Factor TWR1 LED 1	1.0	.93	.88	.86	.79
LM Factor TWR1 LED 2	1.0	.94	.91	.90	.86
LM Factor TWR1 LED 3	1.0	.94	.92	.91	.87

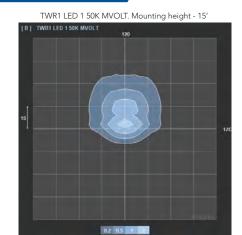
### **Photometric Diagrams**

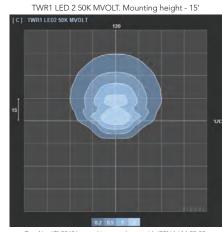
LEGEND 0.2 fc

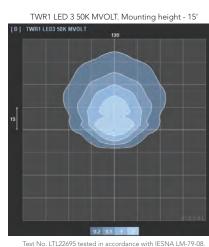
0.5 fc 1.0 fc

2.0 fc

To see complete photometric reports or download .ies files for this product, visit the Lithonia Lighting TWR1 LED homepage. Tested in accordance with IESNA LM-79 and LM-80 standards

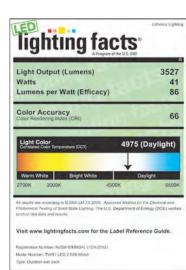


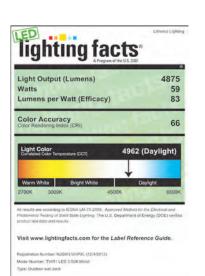




### **Lighting Facts Labels**









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### FEATURES & SPECIFICATIONS

 ${f INTENDED}$   ${f USE}$  — Round tapered aluminum roadway pole with upsweep mast arm(s) for up to 40 foot mounting heights including rise of arm.

**CONSTRUCTION** — Shaft: Shaft is spun tapered from seamless 6063 alloy aluminum tubing and heat-treated to a T6 temper. Circumferential satinbrushed finish. Round in cross-section down length of shaft and cone tapered to the base diameter.

Arm: Body of mounting arm is tapered aluminum alloy 6063-T6 tube with 2-3/ 8" OD (2" NPS) pipe size at luminaire end. The pole end of the arm is welded to an aluminum alloy 6063-T6 mounting plate.

Mounting: Arm mounting plate bolts to the shaft using stainless steel bolts, nuts and washers. A grommet is provided for the 1-1/4" diameter wiring hole between the pole shaft and the bracket arm.

Anchor base: Cast from A356 aluminum alloy and heat treated to T6 temper. Base plate and shaft are circumferentially welded top and bottom.

Anchor bolts: Fabricated from carbon steel bar with minimum-yield strength of 55,000 psi. Upper portion of anchor bolt is galvanized per ASTM A-153. Each anchor bolt is furnished with two hex nuts and two flat washers.

Grounding: Provision located inside hand hole rim. Grounding hardware is not included (provided by others).

Hand hole: A nominal 3" x 5" or 4" or 6" reinforced flush covered hand hole is centered 18" above the base

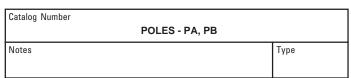
Hardware: Stainless steel

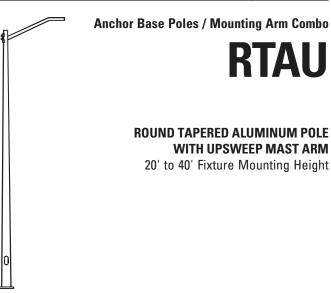
Top cap: Removable top cap provided.

Bolt covers: A356 bolt covers included with anchor base unless other-

wise specified.

Finish: Must specify finish.

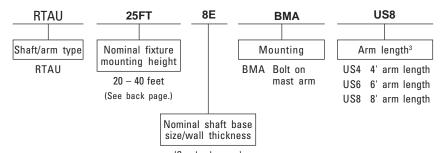




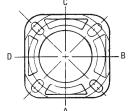
### **ORDERING INFORMATION**

Lead times will vary depending on options selected. Consult with your sales representative. Example: RTAU 20 6G BMA US4 BA VD

FBC/VD



HANDHOLE ORIENTATION



Outdoor

Arm is located on side B NOTES:

1 Specify location and orientation when ordering option. For 1st "x": Specify the height in feet above base of pole Example: 5ft = 5 and 20ft = 20

For 2nd "x": Specify orientation from handhole (A,B,C,D) Refer to the Handhole Orientation diagram on this page.

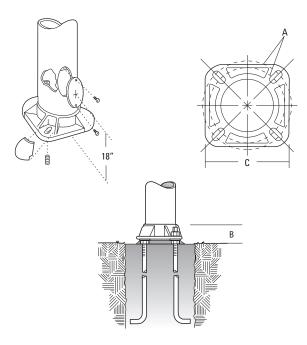
- 2 Horizontal arm is 18" x 2-3/8" O.D. tenon standard.
- 3 Additional arm lengths and types available, some restrictions apply.
- 4 Finish must be specified. Additional colors available: see www.lithonia.com/archcolors or Architectural Colors brochure (Form No. 794.3).

#### Options Shipped installed Standard colors L/AB Less anchor bolts DDB Dark bronze FBC Full base cover DWH White VD Vibration damper DBL Black TP Tamper proof DMB Medium H1-18Axx Horizontal arm bracket (1 fixture)<sup>1,2</sup> DNA Natural FDLxx Festoon outlet less electrical1 BA Brushed CPL12xx 1/2" coupling1 Classic colors CPL34xx 3/4" coupling1 DSS Sandstone CPL1xx 1" coupling1 DGC Charcoal NPL12xx 1/2" threaded nipple1 NPL34xx 3/4" threaded nipple1 DTG Tennis NPL1xx 1" threaded nipple1 EHHxx Extra handhole<sup>1</sup> DBR Bright red DSB Steel blue Class 1 architectural ΔRI ADB Dark bronze

## **RTAU** Round Tapered Aluminum Poles with Mast Arm

	TECHNICAL INFORMATION													
Catalog Number	Fixture mount ht. (ft) <sup>1</sup>	Mtg. arm length (feet)	Pole shaft diam. (in. x in.)	Wall thickness (in.)	EPA ft <sup>2</sup> with 1.3 gust 100 mph	Max. Weight (lbs.)	Bolt circle (in.)	Bolt size (inches)	App. ship weight (pounds)					
RTAU 20 6E BMA US4	20'	4'	4.5" x 6"	0.156	2	65	9-10	.75 x 30 x 3	90					
RTAU 20 6G BMA US6	20'	6'	4.5" x 6"	0.188	2	65	9-10	.75 x 30 x 3	100					
RTAU 20 6G BMA US8	20'	8'	4.5" x 6"	0.188	1.74	65	9-10	.75 x 30 x 3	105					
RTAU 25 7E BMA US4	25'	4'	4.5" x 7"	0.156	2	65	10-11	1 x 36 x 4	120					
RTAU 25 7G BMA US6	25'	6'	4.5" x 7"	0.188	2	65	10-11	1 x 36 x 4	140					
RTAU 25 8E BMA US8	25'	8'	4.5" x 8"	0.156	1.74	65	11-12	1 x 36 x 4	135					
RTAU 30 8E BMA US4	30'	4'	4.5" x 8"	0.156	2	65	11-12	1 x 36 x 4	150					
RTAU 30 8G BMA US6	30'	6'	4.5" x 8"	0.188	2	65	11-12	1 x 36 x 4	170					
RTAU 30 8G BMA US8	30'	8'	4.5" x 8"	0.188	1.74	65	11-12	1 x 36 x 4	175					
RTAU 35 8G BMA US4	35'	4'	4.5" x 8"	0.188	2	65	11-12	1 x 36 x 4	190					
RTAU 35 8J BMA US6	35'	6'	4.5" x 8"	0.250	2	65	11-12	1 x 36 x 4	240					
RTAU 35 8J BMA US8	35'	8'	4.5" x 8"	0.250	1.74	65	11-12	1 x 36 x 4	245					
RTAU 40 8J BMA US4	40'	4'	4.5" x 8"	0.250	2	65	11-12	1 x 36 x 4	255					
RTAU 40 8J BMA US6	40'	6'	4.5" x 8"	0.250	2	65	11-12	1 x 36 x 4	260					
RTAU 40 10G BMA US8	40'	8'	6" x 10"	0.188	1.74	65	14-15	1 x 48 x 4	265					

1 Denotes fixture mounting height, NOT nominal pole height.



		1	POLE DA	TA
Shaft	Bolt	Bolt	Base	
base	circle	projection	square	Template
size	Α	В	C	description
6"	9" - 10"	4.75"	9.75"	ABTEMPLATE PJ5003
7"	10" - 11"	4.75"	10.5"	ABTEMPLATE PJ5003
8"	11" – 12"	4.25"	11.5"	ABTEMPLATE PJ5003
10"	14" – 15"	5.25"	14"	ABTEMPLATE PJ504

#### IMPORTANT:

• These specifications are intended for general purposes only. Lithonia reserves the right to change material or design, without prior notice, in a continuing effort to upgrade its products.

#### IMPORTANT INSTALLATION NOTES:

- Do not erect poles without having fixtures installed.
- · Factory-supplied templates must be used when setting anchor bolts. Lithonia Lighting will not accept claim for incorrect anchorage placement due to failure to use factory template
- If poles are stored outside, all protective wrapping must be removed immediately upon delivery to prevent finish damage
- · Lithonia Lighting is not responsible for the foundation design.



An **Acuity**Brands Company

Outdoor One Lithonia Way, Convers, GA 30012 Phone: 770-922-9000 Fax: 770-918-1209 www.lithonia.com

Lithonia Lighting

Anchor bolt

description

AB30-0

AB36-0

AB36-0

AB481-0

**ADB** 

Finish<sup>4</sup>

aluminum

grav

areen

anodized

Black

ANA Natural

Architectural colors

(powder finish)4



## Mast Arm Mount LED Area Luminaire





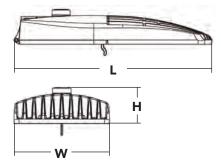


(mast arm not included)

d"series

### **Specifications**

0.9 ft<sup>2</sup> EPA: (0.08 m<sup>2</sup>) 27" Length: (68.6 cm) 13" Width: (33.0 cm) 5" Height: (12.7 cm) Weight 26 lbs (max):



### Catalog Number **D-Series Size 1** Notes

Туре

**LUMINAIRES - ROOF2** 

#### Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment.

The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire. The outstanding photometric performance results in excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing 100 – 400W metal halide in area and street lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

### **Ordering Information**

#### **EXAMPLE:** DSX1 LED 60C 1000 40K T3M MVOLT MA DDBXD

DSX1 LED								DDBXD
Series	LEDs	Drive current	Color temperature	Distribution	Voltage	Voltage Mounting Options		Finish (required)
DSX1 LED	Forward optic 30C 30 LEDs (one engine) 40C 40 LEDs (two engines) 60C 60 LEDs (two engines) Rotated optic 60C 60 LEDs (two engines)	530 530 mA 700 700 mA 1000 1000 mA (1 A)	30K 3000 K (80 CRI min.) 40K 4000 K (70 CRI min.) 50K 5000 K (67 CRI)	T1S Type I short T2S Type II short T2M Type II medium T3S Type III short T3M Type III medium T4M Type IV medium TFTM Forward throw medium T5VS Type V very short T5S Type V short T5M Type V medium T5W Type V wide	MVOLT <sup>1</sup> 120 <sup>1</sup> 208 <sup>1</sup> 240 <sup>1</sup> 277 <sup>1</sup> 347 <sup>2</sup> 480 <sup>2</sup>	MA Mast arm ready	Shipped installed (blank) No NEMA twist-lock receptacle (decorative cover), wildlife shield, trigger latch, and bridge fitter.  DMG 0-10V dimming driver (no controls) PER NEMA twist-lock receptacle only (no controls)  DCR Dimmable and controllable via ROAM® (no controls) <sup>3</sup> HS House-side shield <sup>4</sup> WTB Utility terminal block DS Dual switching <sup>5,6</sup> BUBLVL External bubble level L90 Left rotated optics <sup>7</sup> R90 Right rotated optics <sup>7</sup>	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white

#### Accessories

Ordered and shipped separately.

SBOR 10 ODP BZ 3V Pole-mounted motion/ambient sensor, 8-15' mounting height, MVOLT SBOR 6 ODP BZ 3V Pole-mounted motion/ambient sensor, 15-30' mounting height, MVOLT DLL127F 1.5 JU Photocell - SSL twist-lock, MVOLT DLL347F 1.5 CUL JU Photocell - SSL twist-lock (347V) 8 DLL480F 1.5 CUL JU Photocell - SSL twist-lock (480V) 8 SC U Shorting cap 8 DSX1HS 30C U House-side shield for 30 LED unit DSX1HS 40C U House-side shield for 40 LFD unit

For more control options, visit Sensor Switch, DTL and ROAM online.

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

and educational tools.

LITHONIA

LIGHTING.

House-side shield for 60 LED unit

- MVOLT driver operates on any line voltage from 120-277V (50/60Hz).
- 2 Not available with single board, 530 mA product (30C 530 or 60C 530 DS). Not available with DCR.
- 3 Specifies a ROAM® enabled luminaire with 0-10V dimming capability, requires NEMA twist-lock receptacle. Not available with 347 or 480V. Additional hardware and services required for ROAM® deployment; must be purchased separately. Call 1-800-442-6745 or email: sales@roamservices.net. 4 Also available as a separate accessory; see Accessories information at left.
- Requires two light engines. Provides 50% dimming capability via two independent drivers, each operating half the luminaire. N/A with PER, DCR, WTB or 530mA with 347v or 480v.
- 6 Requires an additional switched line.
- 7 Available with 60 LEDs (60C option) only.
- 8 Requires luminaire to be specified with PER option. Ordered and shipped as a separate line item.

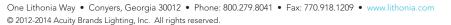
DSX1-MA-LED



## **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

	Drive Current	Performance	System	Dist.			30K					40K					50K		
LEDs	(mA)	Package	Watts	Type			minimu		10111		000K, 70			1.0111			K, 67 CR	_	1.0111
				T1S	5,290	B 1	0	1	LPW 78	Lumens 6,524	B 2	0	2	LPW 96	7,053	B 2	0	<u>G</u> 2	104
				T2S	5,540	1	0	1	81	6,833	2	0	2	100	7,033	2	0	2	109
				T2M	5,360	1	0	2	79	6,611	2	0	2	97	7,147	2	0	2	105
				T3S	5,479	1	0	1	81	6,757	1	0	2	99	7,305	2	0	2	107
				T3M	5,452	1	0	2	80	6,724	2	0	2	99	7,269	2	0	2	107
	700 mA	30C 700K	68 W	T4M	5,461	1	0	2	80	6,736	2	0	2	99	7,282	2	0	2	107
				TFTM	5,378	1	0	2	79	6,633	1	0	2	98	7,171	1	0	2	105
				T5VS T5S	5,708 5,639	2	0	0	84 83	7,040 6,955	3	0	0	104 102	7,611 7,519	3	0	0	112 111
206				T5M	5,710	3	0	1	84	7,042	3	0	1	102	7,613	3	0	2	112
30C				T5W	5,551	3	0	1	82	6,847	3	0	2	101	7,401	3	0	2	109
(20150.)				T1S	7,229	2	0	2	69	9,168	2	0	2	87	9,874	2	0	2	94
(30 LEDs)				T2S	7,572	2	0	2	72	9,603	2	0	2	91	10,342	2	0	2	98
				T2M	7,325	2	0	2	70	9,291	2	0	2	88	10,005	2	0	3	95
				T3S	7,488	2	0	2	71	9,496	2	0	2	90	10,227	2	0	2	97
	1000 mA	30C 1000K	105 W	T3M T4M	7,451 7,464	2	0	2	71 71	9,450 9,467	2	0	2	90 90	10,177 10,195	2	0	2	97 97
	1000111A	30C 1000K	103 W	TFTM	7,404	1	0	2	70	9,323	2	0	2	89	10,193	2	0	3	96
				T5VS	7,801	3	0	1	74	9,894	3	0	1	94	10,655	3	0	1	101
				T5S	7,803	3	0	2	74	9,774	3	0	1	93	10,526	3	0	1	100
				T5M	7,707	3	0	0	73	9,897	3	0	2	94	10,658	4	0	2	102
				T5W	7,586	3	0	2	72	9,621	4	0	2	92	10,363	4	0	2	99
				T1S	6,876	2	0	2	77	8,639	2	0	2	97	9,345	2	0	2	105
				T2S T2M	7,202 6,968	2	0	2	81 78	9,049 8,755	2	0	2	102 98	9,788 9,469	2	0	3	110 106
				T3S	7,122	2	0	2	80	8,948	2	0	2	101	9,679	2	0	2	109
				T3M	7,088	2	0	2	80	8,905	2	0	2	100	9,632	2	0	2	108
	700 mA	40C 700K	89 W	T4M	7,100	2	0	2	80	8,920	2	0	2	100	9,649	2	0	2	108
				TFTM	6,992	1	0	2	79	8,785	2	0	2	99	9,502	2	0	2	107
				T5VS	7,421	3	0	0	83	9,323	3	0	1	105	10,085	3	0	1	113
				TSS	7,331	2	0	0	82	9,210	3	0	1	103	9,962	3	0	1	112
40C				T5M T5W	7,423 7,216	3	0	2	83 81	9,326 9,066	3	0	2	105 102	10,087 9,807	4	0	2	113 110
				T1S	9,521	2	0	2	69	11,970	2	0	2	87	12,871	3	3	0	93
(40 LEDs)			T2S	9,972	2	0	2	72	12,558	3	0	3	91	13,481	3	0	3	98	
				T2M	9,648	2	0	3	70	12,149	3	0	3	88	13,043	3	0	3	95
			-K 138 W	T3S	9,862	2	0	2	71	12,418	2	0	2	90	13,331	2	0	2	97
				T3M	9,814	2	0	2	71	12,358	3	0	3	90	13,267	3	0	3	96
	1000 mA	40C 1000K		T4M	9,831	2	0	2	71	12,379	2	0	3	90	13,290	2	0	3	96
				TFTM T5VS	9,681 10,275	3	0	2	70 74	12,191 12,937	3	0	3	88 94	13,087 13,890	2	0	3	95 101
				T5S	10,273	3	0	1	74	12,782	3	0	1	93	13,721	3	0	1	99
				T5M	10,278	4	0	2	74	12,942	4	0	2	94	13,894	4	0	2	101
				T5W	9,991	4	0	2	72	12,582	4	0	2	91	13,507	4	0	2	98
				T1S	10,226	2	0	2	78	12,871	3	0	3	98	13,929	3	0	3	106
				T2S	10,711	2	0	2	82	13,481	3	0	3	103	14,589	3	0	3	111
				T2M	10,363	2	0	3	79	13,043	3	0	3	100	14,115	3	0	3	108
				T3S T3M	10,592 10,541	2	0	2	81 80	13,331 13,267	3	0	3	102 101	14,427 14,357	3	0	3	110 110
	700 mA	60C 700K	131 W	T4M	10,559	2	0	2	81	13,290	2	0	3	101	14,382	3	0	3	110
				TFTM	10,398	2	0	3	79	13,087	2	0	3	100	14,163	2	0	3	108
				T5VS	11,036	3	0	1	84	13,890	4	0	4	106	15,032	4	0	1	115
				T5S	10,902	3	0	1	83	13,721	3	0	1	105	14,849	4	0	1	113
60C				T5M	11,039	4	0	2	84	13,894	4	0	2	106	15,036	4	0	2	115
				T5W T1S	10,732 14,017	3	0	3	82 67	13,507 17,632	3	0	3	103 84	14,617	3	0	3	91
(60 LEDs)				T1S T2S	14,017	3	0	3	67 70	18,467	3	0	3	88	19,007 19,908	3	0	3	95
				T2M	14,001	3	0	3	68	17,867	3	0	3	85	19,260	3	0	3	92
				T3S	14,518	3	0	3	69	18,262	3	0	3	87	19,687	3	0	3	94
				T3M	14,448	3	0	3	69	18,173	3	0	4	87	19,591	3	0	4	94
	1000 mA	60C 1000K	209 W	T4M	14,473	3	0	3	69	18,205	3	0	3	87	19,625	3	0	4	94
				TFTM	14,253	2	0	3	68	17,928	3	0	4	86	19,326	3	0	4	92
				T5VS T5S	15,127 14,943	4	0	1	72 71	19,028 18,797	4	0	1	91 90	20,512 20,263	4	0	1	98 97
				T5M	15,131	4	0	2	72	19,033	4	0	2	91	20,263	5	0	3	98
				T5W	14,710	4	0	2	70	18,503	5	0	3	89	19,946	5	0	3	95
				.511	,,				. •	,505					,,				



#### **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).

ient	Lumen Multiplier				
32°F	1.02				
50°F	1.01				
68°F	1.00				
77°F	1.00				
86°F	1.00				
104°F	0.99				
	32°F 50°F 68°F 77°F 86°F				

### **Projected LED Lumen Maintenance**

Data references the extrapolated performance projections for the platforms noted 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	DSX1 LED 60C 1000									
	1.0	0.88								
	DSX1 LED 60C 700									
	1.0	0.99	0.98	0.96						

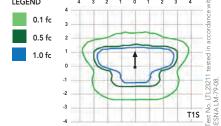
#### **Electrical Load**

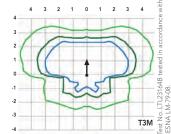
			Current (A)									
Number of LEDs	Drive Current (mA)	System Watts	120	208	240	277	347	480				
	530	52	0.52	0.30	0.26	0.23						
30	700	68	0.68	0.39	0.34	0.30	0.24	0.17				
	1000	105	1.03	0.59	0.51	0.45	0.36	0.26				
	530	68	0.67	0.39	0.34	0.29	0.23	0.17				
40	700	89	0.89	0.51	0.44	0.38	0.31	0.22				
	1000	138	1.35	0.78	0.67	0.58	0.47	0.34				
	530	99	0.97	0.56	0.48	0.42	0.34	0.24				
60	700	131	1.29	0.74	0.65	0.56	0.45	0.32				
	1000	209	1.98	1.14	0.99	0.86	0.69	0.50				

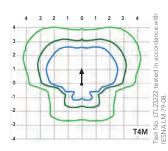
### Photometric Diagrams

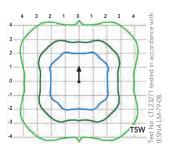
To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Area Size 1 homepage.

Isofootcandle plots for the DSX1 LED 60C 1000 40K. Distances are in units of mounting height (20').









#### **FEATURES & SPECIFICATIONS**

#### INTENDED US

The sleek design of the D-Series Size 1 reflects the embedded high performance LED technology. It is ideal for area and street lighting applications.

#### CONSTRUCTION

Single-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 and future light engine upgrades. The LED driver is mounted in direct contact with the casting to promote low operating temperature and long life. Low EPA (0.9 ft²) for optimized pole wind loading.

#### 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 both textured and non-textured finishes.

#### OPTI

Precision-molded proprietary acrylic lenses are engineered for superior lighting distribution, uniformity, and pole spacing. Light engines are available in 3000K (>80 CRI), 4000K (>70 CRI) or 5000K (67 CRI) configurations. The D-Series Size 1 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

#### ELECTRICAL

Light engine configurations consist of 30, 40 or 60 high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L96/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV or 6kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

#### INSTALLATION

Four-bolt mast arm mount provides easy, secure installation for nominal 1-1/4" to 2"diameter arms (1-5/8" to 2-3/8" O.D.) and enables the D-Series Size 1 to withstand up to a 3.0 G vibration load rating per ANSI C136.31. Housing includes cast-in wildlife shield. Die-cast trigger latch on door provides tool-less entry for easy and secure opening with one hand; top-side leveling crosshairs and internal bubble level assist with installation.

#### LISTINGS

UL Listed for wet locations. Light engines are IP66 rated. Rated for -40°C minimum ambient. U.S. D663,462 S. International patents pending.

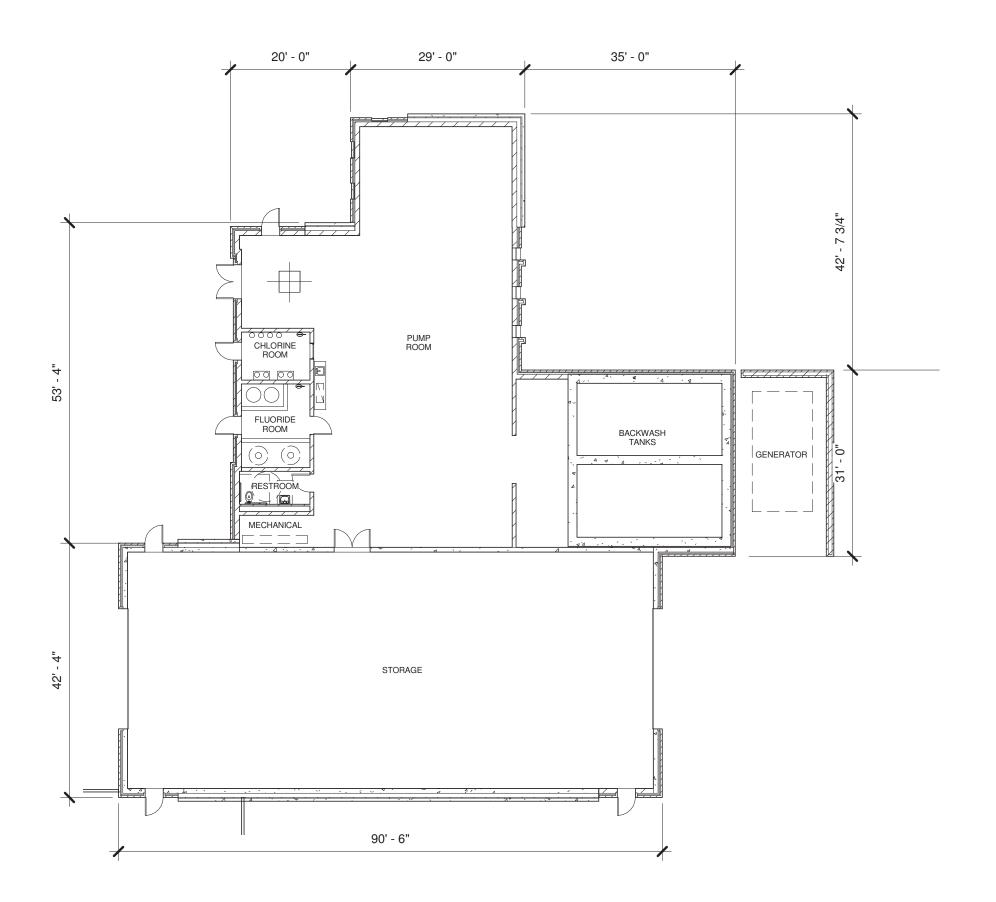
DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at <a href="https://www.designlights.org">www.designlights.org</a> to confirm which versions are qualified.

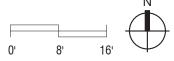
#### WARRANTY

Five year limited warranty. Full warranty terms located at: www.acuitybrands.com/CustomerResources/Terms\_and\_conditions.aspx

**Note:** Specifications subject to change without notice.







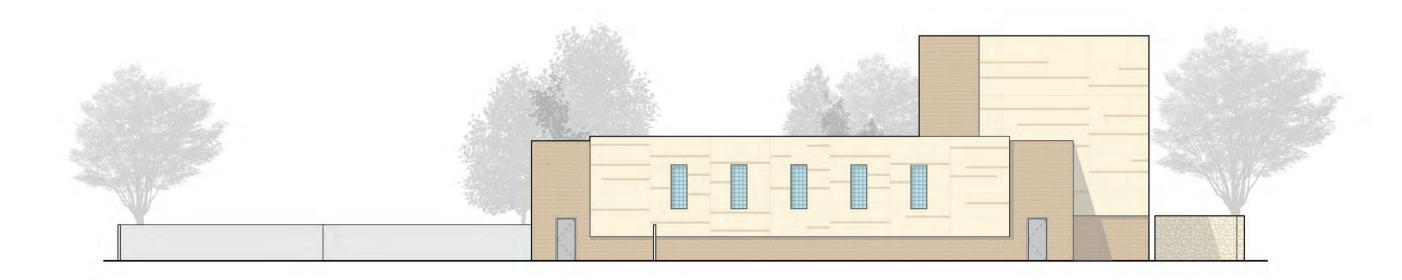


2015 WELL 31 WATER TREATMENT PLANT 04/15/15





2 NORTH ELEVATION A02 1/8" = 1'-0"

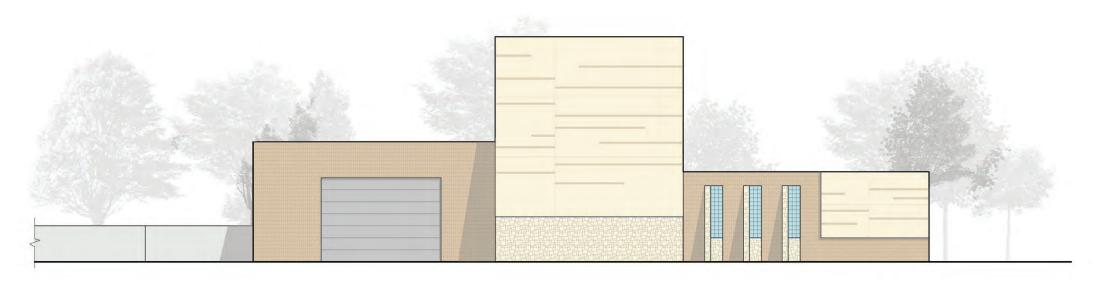


1 SOUTH ELEVATION
A02 1/8" = 1'-0"









2 EAST ELEVATION A03 1/8" = 1'-0"



1 WEST ELEVATION
A03 1/8" = 1'-0"





























2015 WELL 31 WATER TREATMENT PLANT

TANK ELEVATIONS, SECTIONS & DETAILS

SHEET A04

MADISON, WI