CITY OF WAUWATOSA

BOARD OF PUBLIC WORKS

AGENDA ● AUGUST 17, 2015

Special Meeting | **Committee Room #1** | **8:30 AM**

7725 West North Avenue, Wauwatosa, WI 53213

PLEASE NOTE: The items on this agenda may be revised before the time of the Common Council meeting, some items may be removed and others added prior to the completion of the final Common Council agenda. The final agenda will be available in the City Clerk's office and on the city website at www.wauwatosa.net. It is anticipated that each item listed on the agenda may be discussed, referred or acted upon unless it is noted in the specific agenda item that no action is contemplated.

BOARD OF PUBLIC WORKS ITEMS

1. Request by Brian Sell, on behalf of JC Penney, 11800 W. Burleigh Street, for an exception to the 25' height limitation on private parking lot light poles

2. Memo from the Fleet Superintendent regarding surplus fleet vehicles

3. Board resolution approving partial payments

Any person who has a qualifying disability as defined by the Americans with Disabilities Act who requires the meeting or materials at the meeting to be in an accessible location or format, must contact the City Clerk at voice telephone 479-8917 or TTY 471-8484 (City Hall, 7725 W. North Avenue, Wauwatosa, Wisconsin 53213) for accommodations. Requests for accommodations for meetings should be made at least three (3) business days prior to the meeting. Every effort will be made to arrange accommodations for all meetings; so please give the City Clerk as much advance notice as possible.

CITY OF WAUWATOSA
MEMO

To: **Board of Public Works**

From: **Michael Steiner**

Date: **August 14, 2015**

Subject: **Request by Brian Sell, on behalf of JC Penney, 11800 W. Burleigh Street, for an exception to the 25' height limitation on private parking lot light poles**

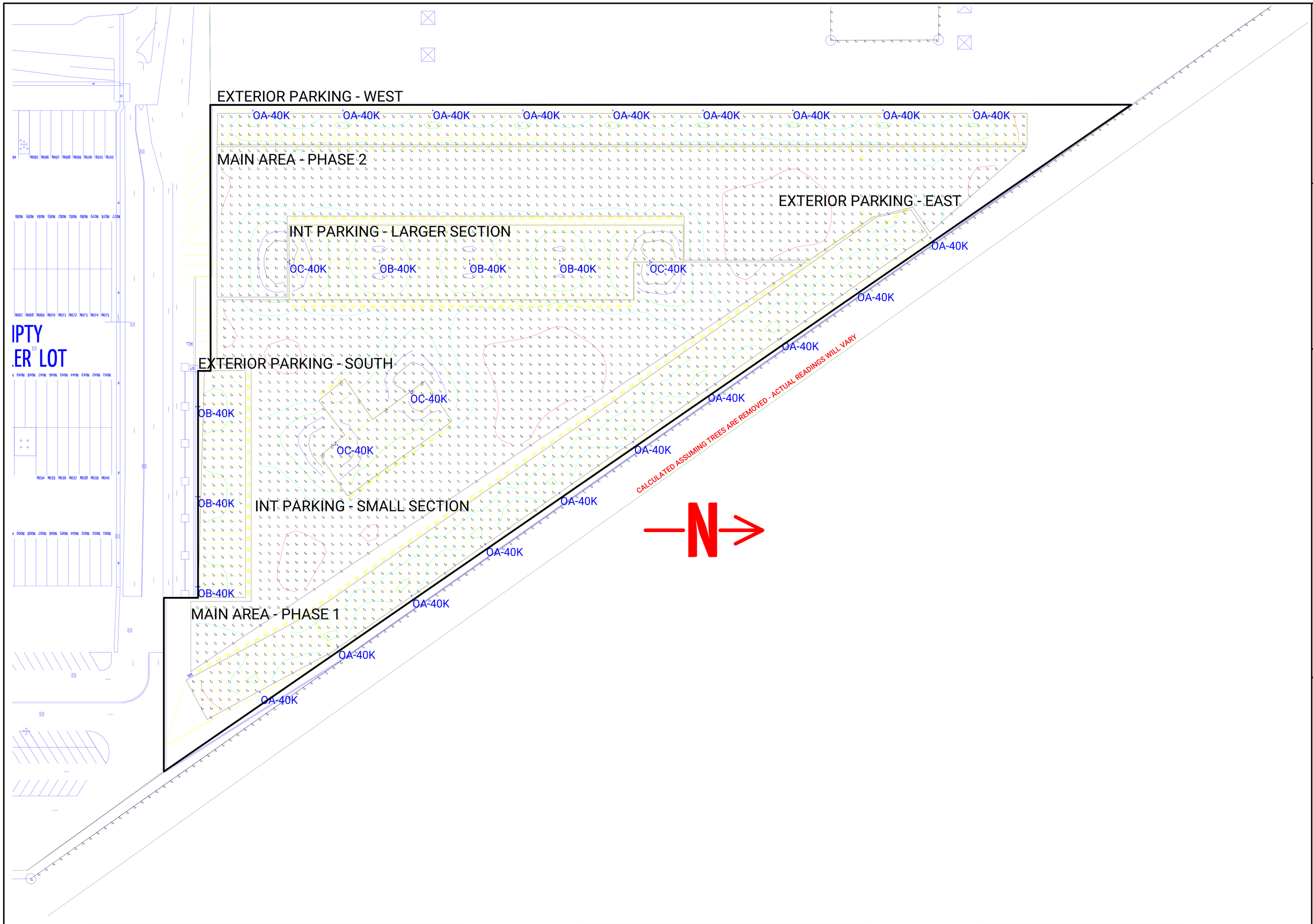
A. Issue
Proposed light poles exceed height limitation and illumination levels allowed in the code

B. Background/Discussion
JC Penney intends to install new parking lot lighting to improve security in the triangular truck parking lot located north of W. Wirth Street. The proposed Light Emitting Diode (LED) cut-off fixtures will be mounted on 30' high poles on 4' high bases. The total height of 34' exceeds the code requirement of a maximum 25 feet. The height is needed to ensure adequate light levels can be achieved over the top of the trailers that are parked in the spots. If smaller poles would be required, the fixtures will need to be installed at an upward angle to cast sufficient light into the lot. Fixtures angled upward would be more visible to passing motorists and could present a safety hazard.

The illumination levels along the east and west property lines also slightly exceed codes levels, however, cut off fixtures are used to minimize the level at the actual property lines versus in the parking lot 10' off the lot line. Railroad right-of-way and a grassed easement area for high tension towers are the two adjacent land uses to the parking lot.

The lighting design will also incorporate a system to dim the lights to 50% of the proposed illumination level after a set time period. The period will be long enough for a trailer to be parked and the cab to exit the parking lot.

D. Recommendation
1. Approve the lighting plan as presented.



Luminaire Schedule					
Scene: LED 2					
Symbol	Qty	Label	LLF	Description / Part Number	Watts
	19	OA-40K	0.900	DSX2 LED 100C 700 40K TFTM MVOLT	227
	6	OB-40K	0.900	DSX2 LED 100C 700 40K TFTM MVOLT	454
	4	OC-40K	0.900	DSX2 LED 100C 700 40K TFTM MVOLT	681

Calculation Summary						
Scene: LED 2						
Label	Units	Avg	Max	Min	Avg/Min	Max/Min
EXTERIOR PARKING - EAST	Fc	2.07	3.4	0.6	3.45	5.67
EXTERIOR PARKING - SOUTH	Fc	2.82	4.0	1.7	1.66	2.35
EXTERIOR PARKING - WEST	Fc	2.13	3.3	0.8	2.66	4.13
INT PARKING - LARGER SECTION	Fc	3.29	6.7	2.5	1.32	2.68
INT PARKING - SMALL SECTION	Fc	3.67	6.7	2.1	1.75	3.19
Lighting Trespass	Fc	0.32	1.5	0.0	N.A.	N.A.
MAIN AREA - PHASE 1	Fc	1.85	6.6	0.5	3.70	13.20
MAIN AREA - PHASE 2	Fc	1.64	6.5	0.5	3.28	13.00

Watts / Square Foot Estimate			
Scene: LED 2			
Label	Total Watts	Area	LPD
JC Penny	9080	372933	0.024

FAITH TECHNOLOGIES® ELECTRICAL CONTRACTOR

jcpenney

JCPenny - Secured Parking Lot - 34' MH - 100%

Photometric Drawing - LED Option 2

PAGE SIZE - ARCH E

SCALE - 1/32" = 1'-0"

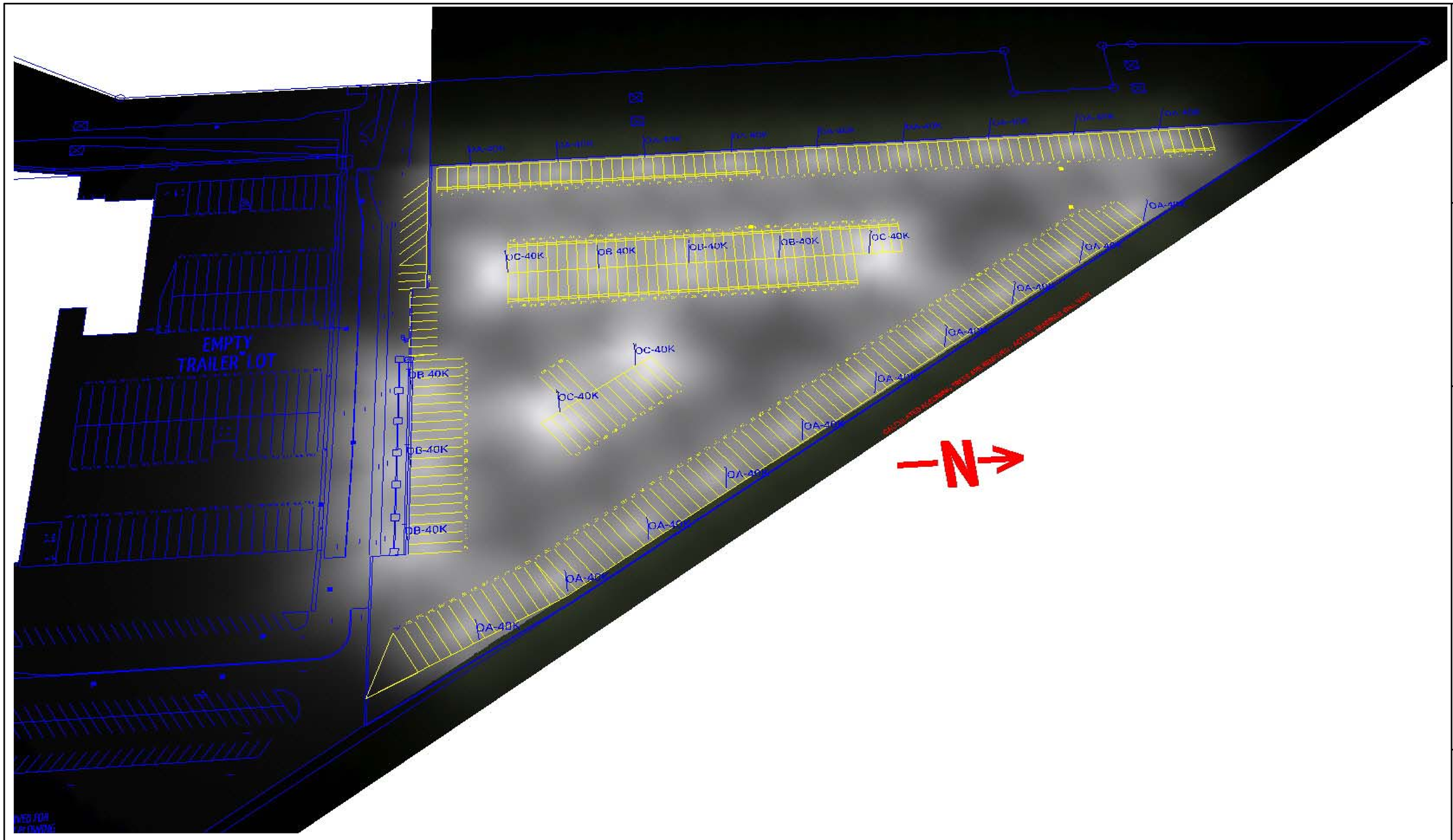
REVISION # - 4000K

DATE - 8/10/2015

DRAWN BY - KWH

PAGE NAME - E-102A

Viking Electric Supply
2900 N. 112th Street | Milwaukee, WI 53222
Kevin House | P - 414-773-4451
E - kevin.house@vikingelectric.com



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Photometric Rendering Drawing - LED Option 2

SCALE - N/A | REVISION # - 4000K | PAGE SIZE - ARCH E

DATE - 8/10/2015 | DRAWN BY - KWH | PAGE NAME - E-102B

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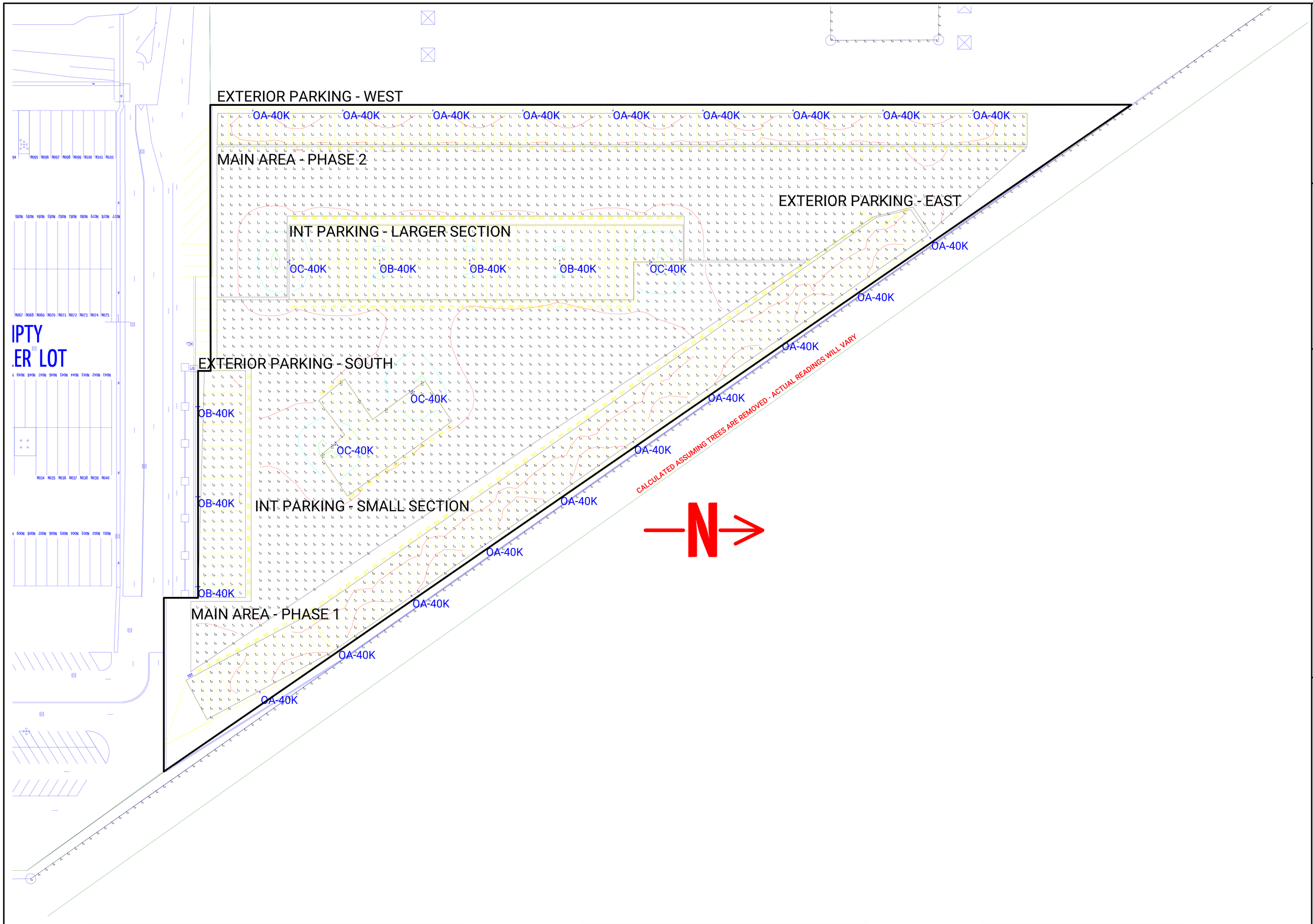
Attachment: JC Penny Variance Attachment (3365 : Parking lot variance JC Penney parking lot at 11800 Burleigh)



Luminaire Schedule					
Scene: LED 2 @ 50%					
Symbol	Qty	Label	LLF	Description / Part Number	Watts
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Calculation Summary						
Scene: LED 2 @ 50%						
Label	Units	Avg	Max	Min	Avg/Min	Max/Min
EXTERIOR PARKING - EAST	Fc	1.03	1.7	0.3	3.43	5.67
EXTERIOR PARKING - SOUTH	Fc	1.41	2.0	0.9	1.57	2.22
EXTERIOR PARKING - WEST	Fc	1.07	1.6	0.4	2.68	4.00
INT PARKING - LARGER SECTION	Fc	1.64	3.3	1.2	1.37	2.75
INT PARKING - SMALL SECTION	Fc	1.84	3.3	1.1	1.67	3.00
Lighting Trespass	Fc	0.16	0.7	0.0	N.A.	N.A.
MAIN AREA - PHASE 1	Fc	0.93	3.3	0.3	3.10	11.00
MAIN AREA - PHASE 2	Fc	0.82	3.3	0.3	2.73	11.00

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Scene: LED 2 @ 50%			
Label	Total Watts	Area	LPD
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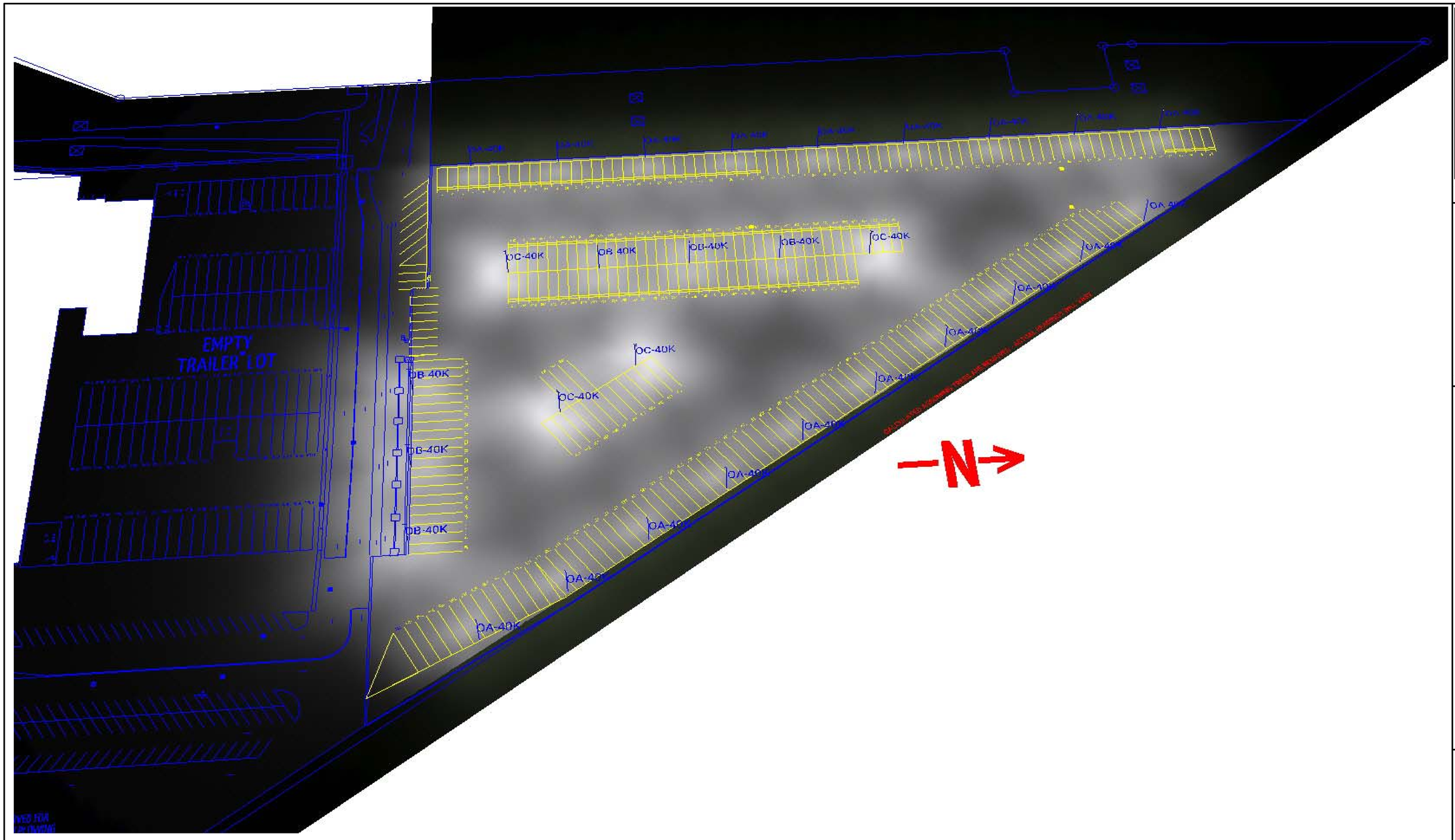

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Kevin House | P - 414-773-4451
E - kevin.house@vikingelectric.com

Viking Electric Supply

the distributor you can depend on…

Date: May 5, 2015

Viking Electric Supply
2900 N. 112th St.
Milwaukee WI 53222
Phone: (414) 475-690
Fax:

Job Name
JC Penny - Secured Lot Parking - Revised
MW2015-13513
Milwaukee WI

Bid Date
Apr 22, 2015

Submittal Date
May 5, 2015

Attachment: JC Penny Variance Attachment (3365 : Parking lot variance JC Penney parking lot at 11800 Burleigh)

Date: May 5, 2015

Job Name: JC Penny - Secured Lot Parking - Revised

LED SITE LIGHTING

Bid Date: Apr 22, 2015
Submittal Date: May 5, 2015

Attachment: JC Penny Variance Attachment (3365 : Parking lot variance JC Penney parking lot at 11800 Burleigh)

Submitted by Viking Electric Supply

Job Name:
JC Penny - Secured Lot Parking - Revised

Catalog Number:
DSX2 LED 100C 700 50K TFTM 480 SPA DS DDBXD SSS 30 5G DM19AS DDB
Notes: 4-6 Week Lead Time

Type:
OA

MW2015-13513

D-Series Size 2
LED Area Luminaire

Catalog Number

Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

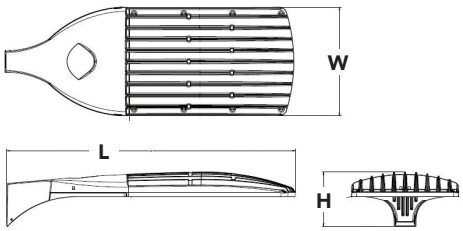
EPA: 2.0 ft² (0.19 m²)

Length: 40" (101.6 cm)

Width: 15" (38.1 cm)

Height: 7-1/4" (18.4 cm)

Weight (max): 36 lbs (16.3 kg)



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 sites with excellent uniformity, greater pole spacing and lower power density. The Size 2 is ideal for replacing 400-1000W metal halide in area lighting applications with energy savings of up to 80% and expected service life of over 100,000 hours.

Ordering Information

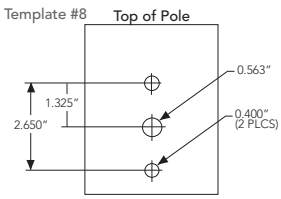
EXAMPLE: DSX2 LED 80C 1000 40K T4M MVOLT SPA DDBXD

DSX2 LED

Series	LEDs	Drive current	Color temperature	Distribution	Voltage	Mounting
DSX2 LED	**Forward optics** 80C 80 LEDs (four engine) 100C 100 LEDs (four engines) **Rotated optics** [1] 90C 90 LEDs	530 530 mA 700 700 mA 1000 1000 mA (1 A)	30K 3000 K 40K 4000 K 50K 5000 K AMBPC Amber phosphor converted	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 [2] 120 [2] 208 [2] 240 [2] 277 [2] 347 480	**Shipped included** SPA Square pole mounting RPA Round pole mounting WBA Wall bracket SPUMBA Square pole universal mounting adaptor [3] RPUMBA Round pole universal mounting adaptor [3] **Shipped separately** KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish) [4]

Control options		Other options		Finish *(required)*	
Shipped installed		**Shipped installed**		DDBXD	Dark bronze
PER	NEMA twist-lock receptacle only (no controls) [5]	HS	House-side shield [13]	DBLXD	Black
PER5	Five-wire receptacle only (no controls) [5,6]	SF	Single fuse (120, 277, 347V) [2]	DNAXD	Natural aluminum
PER7	Seven-wire receptacle only (no controls) [5,6]	DF	Double fuse (208, 240, 480V) [2]	DWHXD	White
DMG	0-10V dimming driver (no controls) [7]	L90	Left rotated optics	DDBTXD	Textured dark bronze
DCR	Dimmable and controllable via ROAM® (no controls) [8]	R90	Right rotated optics	DBLBXD	Textured black
DS	Dual switching [9,10]			DNATXD	Textured natural aluminum
PIRH	Motion sensor, 15-30' mounting height [11]			DWHGXD	Textured white
BL30	Bi-level switched dimming, 30% [10,12]				
BL50	Bi-level switched dimming, 50% [10,12]				
PNMTDD3	Part night, dim till dawn [12]				
PNMT5D3	Part night, dim 5 hrs [12]				
PNMT6D3	Part night, dim 6 hrs [12]				
PNMT7D3	Part night, dim 7 hrs [12]				

Drilling



DSX2 shares a unique drilling pattern with the AERIS™ family. Specify this drilling pattern when specifying poles, per the table below.

DM19AS	Single unit	**DM29AS**	2 at 90° *
DM28AS	2 at 180°	**DM39AS**	3 at 90° *
DM49AS	4 at 90° *	**DM32AS**	3 at 120° **

Example: SSA 20 4C **DM19AS** DDBXD

Visit Lithonia Lighting's POLES CENTRAL to see our wide selection of poles, accessories and educational tools.
**Round pole top must be 3.25" O.D. minimum.*
***For round pole mounting (RPA) only.*

Controls & Shields

Accessories
Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) [14]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) [14]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) [14]
SC U	Shorting cap [14]
DSX2HS 80C U	House-side shield for 80 LED unit
DSX2HS 90C U	House-side shield for 90 LED unit
DSX2HS 100C U	House-side shield for 100 LED unit
PUMBA DDBXD U*	Square and round pole universal mounting bracket (specify finish)
KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish) [4]

For more control options, visit DTL and ROAM online.

Tenon Mounting Slipfitter **

Tenon O.D.	Single Unit	2 at 180°	2 at 90°	3 at 120°	3 at 90°	4 at 90°
2-3/8"	AST20-190	AST20-280	AST20-290	AST20-320	AST20-390	AST20-490
2-7/8"	AST25-190	AST25-280	AST25-290	AST25-320	AST25-390	AST25-490
4"	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490

NOTES
1 Rotated optics option(L90, R90) required for 90C.
2 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
3 Available as a separate combination accessory: PUMBA (finish) U. Round pole must have 4" O.D. minimum; 1.5 G vibration load rating per ANCI C136.31.
4 Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8" O.D. mast arm (not included).
5 Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Not available with DS option.
6 If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Not available with DCR.
7 347 or 480 voltage option with DMG requires 1000 mA.
8 Specifies a ROAM® enabled luminaire with 0-10V dimming capability; PER option required. Additional hardware and services required for ROAM® deployment; must be purchased separately. Call 1-800-442-6745 or email: sales@roamservices.net. Not available with PIRH, DS, BL30, BL50, PER5, PER7, or part night options (PNMTxxx).
9 Provides 50/50 luminaire operation via two independent drivers on two separate circuits. Not available with 80C 530, 90C 530, PER, PER5, PER7, DCR, BL30, BL50, or part night options (PNMTxxx).
10 Requires an additional switched line.
11 Specifies the SensorSwitch SBGR-6-ODP control; see Motion Sensor Guide for details. Dimming driver standard. Not available with BL30, BL50 or DCR.
12 Dimming driver standard. Not available with DCR, DS, or PIRH.
13 Also available as a separate accessory; see Accessories information.
14 Requires luminaire to be specified with PER, PER5 or PER7 option. Ordered and shipped as a separate line item from Acuity Brands Controls.

LITHONIA LIGHTING
One Lithonia Way • Conyers, Georgia 30012 • Phone: 800.279.8041 • Fax: 770.918.1209 • www.lithonia.com
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Attachment: JC Penny Variance Attachment (3365 : Parking lot variance JC Penney parking lot at 11800 Burleigh)

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. 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
80C (80 LEDs)	530 mA	137 W	T1S	14,438	3	0	3	108.1	15,360	3	0	3	115.1	15,415	3	0	3	115.5	10,752	2	0	2	78.5
			T2S	14,172	3	0	3	106.2	15,077	3	0	3	112.9	15,131	3	0	3	113.3	10,554	2	0	2	77.0
			T2M	14,196	3	0	3	106.3	15,102	3	0	3	113.1	15,156	3	0	3	113.5	10,571	2	0	2	77.2
			T3S	14,165	3	0	3	106.1	15,069	3	0	3	112.9	15,123	3	0	3	113.3	10,548	2	0	2	77.0
			T3M	14,193	3	0	4	106.3	15,099	3	0	4	113.1	15,153	3	0	4	113.5	10,569	2	0	2	77.1
			T4M	13,736	3	0	4	102.9	15,067	3	0	4	112.9	15,121	3	0	4	113.3	10,547	2	0	2	77.0
			TFTM	14,424	3	0	4	108.0	15,345	3	0	4	114.9	15,400	3	0	4	115.4	10,741	1	0	2	78.4
			T5VS	14,980	5	0	1	112.2	15,936	5	0	1	119.4	15,993	5	0	1	119.8	11,155	3	0	0	81.4
			T5S	14,972	4	0	2	112.1	15,927	4	0	2	119.3	15,985	4	0	2	119.7	11,149	3	0	0	81.4
			T5M	14,900	5	0	3	111.6	15,851	5	0	3	118.7	15,908	5	0	3	119.2	11,096	3	0	2	81.0
			T5W	14,713	5	0	3	110.2	15,652	5	0	3	117.2	15,709	5	0	3	117.7	10,957	3	0	2	80.0
	700 mA	188 W	T1S	17,944	3	0	3	98.1	19,089	3	0	3	104.4	19,158	3	0	3	104.7	13,362	2	0	2	71.1
			T2S	17,613	3	0	3	96.3	18,738	3	0	3	102.4	18,805	3	0	3	102.8	13,116	2	0	2	69.8
			T2M	17,643	3	0	3	96.5	18,769	3	0	3	102.6	18,836	3	0	3	103.0	13,138	2	0	2	69.9
			T3S	17,604	3	0	3	96.3	18,728	3	0	3	102.4	18,795	3	0	3	102.8	13,110	2	0	2	69.7
			T3M	17,639	3	0	4	96.4	18,764	3	0	4	102.6	18,832	3	0	4	103.0	13,135	2	0	3	69.9
			T4M	17,071	3	0	4	93.3	18,725	3	0	4	102.4	18,792	3	0	4	102.7	13,108	2	0	2	69.7
			TFTM	17,926	3	0	4	98.0	19,071	3	0	4	104.3	19,139	3	0	4	104.6	13,349	2	0	2	71.0
			T5VS	18,617	5	0	1	101.8	19,805	5	0	1	108.3	19,876	5	0	1	108.7	13,864	3	0	1	73.7
			T5S	18,607	4	0	2	101.7	19,794	4	0	2	108.2	19,866	4	0	2	108.6	13,856	3	0	1	73.7
			T5M	18,518	5	0	3	101.2	19,700	5	0	3	107.7	19,771	5	0	3	108.1	13,790	3	0	2	73.4
			T5W	18,286	5	0	3	100.0	19,453	5	0	3	106.4	19,523	5	0	3	106.7	13,617	4	0	2	72.4
	1000 mA	282 W	T1S	24,339	3	0	3	85.5	25,892	3	0	3	90.9	25,985	3	0	3	91.3	18,125	2	0	2	64.3
			T2S	23,891	3	0	3	83.9	25,416	3	0	3	89.3	25,507	3	0	3	89.6	17,791	3	0	3	63.1
			T2M	23,931	3	0	3	84.1	25,458	3	0	4	89.4	25,550	3	0	4	89.7	17,821	3	0	3	63.2
			T3S	23,879	3	0	3	83.9	25,403	3	0	3	89.2	25,494	3	0	3	89.5	17,782	2	0	2	63.1
			T3M	23,925	3	0	4	84.0	25,452	3	0	4	89.4	25,544	3	0	4	89.7	17,817	3	0	3	63.2
			T4M	23,155	3	0	4	81.3	25,399	3	0	4	89.2	25,490	3	0	4	89.5	17,779	2	0	3	63.0
			TFTM	24,315	3	0	4	85.4	25,867	3	0	4	90.9	25,960	3	0	4	91.2	18,107	2	0	3	64.2
			T5VS	25,252	5	0	1	88.7	26,864	5	0	1	94.4	26,960	5	0	1	94.7	18,805	3	0	1	66.7
			T5S	25,238	5	0	2	88.6	26,849	5	0	2	94.3	26,946	5	0	2	94.6	18,794	3	0	1	66.6
			T5M	25,118	5	0	3	88.2	26,721	5	0	3	93.9	26,817	5	0	3	94.2	18,705	4	0	2	66.3
			T5W	24,803	5	0	4	87.1	26,386	5	0	4	92.7	26,481	5	0	4	93.0	18,470	4	0	2	65.5
100C (100 LEDs)	530 mA	175 W	T1S	17,592	3	0	3	103.3	18,715	3	0	3	109.8	18,782	3	0	3	110.2	13,100	2	0	2	74.9
			T2S	17,268	3	0	3	101.3	18,370	3	0	3	107.8	18,436	3	0	3	108.2	12,859	2	0	2	73.5
			T2M	17,297	3	0	3	101.5	18,401	3	0	3	108.0	18,467	3	0	3	108.4	12,881	2	0	2	73.6
			T3S	17,259	3	0	3	101.3	18,361	3	0	3	107.8	18,427	3	0	3	108.2	12,853	2	0	2	73.4
			T3M	17,293	3	0	4	101.5	18,397	3	0	4	108.0	18,463	3	0	4	108.4	12,878	2	0	3	73.6
			T4M	16,736	3	0	4	98.2	18,358	3	0	4	107.7	18,424	3	0	4	108.1	12,851	2	0	2	73.4
			TFTM	17,575	3	0	4	103.2	18,697	3	0	4	109.7	18,764	3	0	4	110.1	13,088	2	0	2	74.8
			T5VS	18,252	5	0	1	107.1	19,417	5	0	1	114.0	19,487	5	0	1	114.4	13,592	3	0	1	77.7
			T5S	18,242	4	0	2	107.1	19,406	4	0	2	113.9	19,476	4	0	2	114.3	13,584	3	0	1	77.6
			T5M	18,155	5	0	3	106.6	19,314	5	0	3	113.4	19,383	5	0	3	113.8	13,520	3	0	2	77.3
			T5W	17,927	5	0	3	105.2	19,071	5	0	3	111.9	19,140	5	0	3	112.3	13,350	4	0	2	76.3
	700 mA	232 W	T1S	22,078	3	0	3	97.1	23,487	3	0	3	103.3	23,571	3	0	3	103.7	16,441	2	0	2	70.9
			T2S	21,671	3	0	3	95.4	23,055	3	0	3	101.4	23,137	3	0	3	101.8	16,138	2	0	2	69.6
			T2M	21,707	3	0	3	95.5	23,093	3	0	3	101.6	23,176	3	0	3	102.0	16,165	2	0	3	69.7
			T3S	21,660	3	0	3	95.3	23,043	3	0	3	101.4	23,126	3	0	3	101.8	16,130	2	0	2	69.5
			T3M	21,702	3	0	4	95.5	23,088	3	0	4	101.6	23,171	3	0	4	102.0	16,161	2	0	3	69.7
			T4M	21,004	3	0	4	92.4	23,039	3	0	4	101.4	23,122	3	0	4	101.7	16,127	2	0	3	69.5
			TFTM	22,056	3	0	4	97.1	23,464	3	0	4	103.2	23,549	3	0	4	103.6	16,425	2	0	2	70.8
			T5VS	22,906	5	0	1	100.8	24,368	5	0	1	107.2	24,456	5	0	1	107.6	17,058	3	0	1	73.5
			T5S	22,894	4	0	2	100.7	24,355	4	0	2	107.2	24,442	4	0	2	107.6	17,048	3	0	1	73.5
			T5M	22,784	5	0	3	100.3	24,239	5	0	3	106.7	24,326	5	0	3	107.0	16,967	4	0	2	73.1
			T5W	22,498	5	0	3	99.0	23,935	5	0	3	105.3	24,021	5	0	3	105.7	16,754	4	0	2	72.2
	1000 mA	360 W	T1S	28,465	3	0	3	80.2	31,708	3	0	3	89.2	32,074	3	0	3	89.4	22,196	3	0	3	61.7
			T2S	29,257	3	0	3	81.9	31,125	3	0	3	87.7	31,237	3	0	3	87.5	21,787	3	0	3	60.5
			T2M	29,306	3	0	3	82.1	31,177	3	0	3	86.6	31,289	3	0	3	87.6	21,824	3	0	3	60.6
			T3S	29,243	3	0	3	81.9	31,109	3	0	3	87.7	31,221	3	0	3	87.4	21,776	3	0	3	60.5
			T3M	29,299	3	0	4	82.0	31,170	3	0	4	86.6	31,282	3	0	4	87.6	21,819	3	0	3	60.6
			T4M	28,356	3	0	4	78.9	31,104	3	0	4	86.2	31,216	3	0	4	87.4	21,773	3	0	3	60.5
			TFTM	29,777	3	0	4	83.4	31,678	3	0	4	88.1	31,792	3	0	4	89.0	22,175	3	0	3	61.6
			T5VS	30,924	5	0	1	86.6	32,898	5	0	1	92.9	33,017	5	0	1	92.4	23,029	4	0	1	64.0
			T5S	30,908	4	0	2	86.5	32,880	4	0	2	91.3	32,999	4	0	2	92.4	23,016	4	0	1	63.9
			T5M	30,760	5	0	3	86.1	32,723	5	0	3	92.2	32,841	5	0	3	92.0	22,906	4	0	2	63.6
			T5W	30,374	5	0	3	85.0	32,313	5	0	3	91.2	32,429	5	0	3	90.8	22,619	4	0	2	62.8

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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	1.04
10°C	50°F	1.02
20°C	68°F	1.01
25°C	**77°F**	**1.00**
30°C	86°F	0.99
40°C	104°F	0.97

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	DSX2 LED 80C 1000			
	1.0	0.95	0.92	0.86
	DSX2 LED 100C 700			
	1.0	0.98	0.97	0.96
	DSX2 LED 100C 1000			
	1.0	0.94	0.90	0.84

Electrical Load

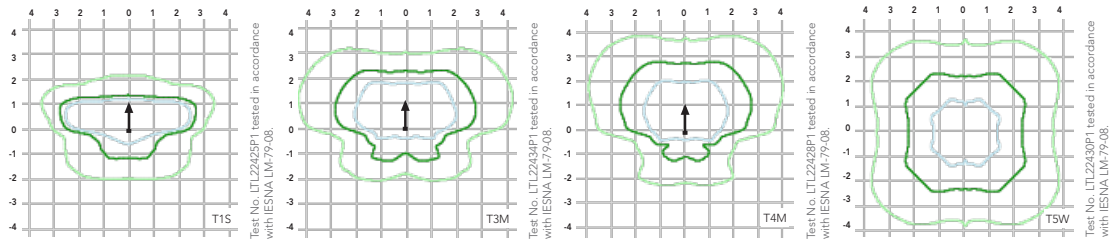
LEDs	Drive Current (mA)	System Watts	Current (A) 120	208	240	277	347	480
80	530	137W	1.15	0.66	0.53	0.51	0.39	0.28
	700	188W	1.58	0.92	0.81	0.73	0.55	0.41
	1000	282W	2.37	1.35	1.18	1.04	0.83	0.61
100	530	175W	1.47	0.86	0.76	0.68	0.51	0.38
	700	232W	1.95	1.13	0.99	0.88	0.67	0.49
	1000	360W	3.03	1.72	1.49	1.3	1.05	0.77

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Area Size 2 homepage.

Isofootcandle plots for the DSX2 LED 80C 1000 40K. Distances are in units of mounting height (30').

LEGEND
- 0.1 fc
- 0.5 fc
- 1.0 fc



FEATURES & SPECIFICATIONS

INTENDED USE
The sleek design of the D-Series Area Size 2 reflects the embedded high performance LED technology. It is ideal for applications like car dealerships and large parking lots adjacent to malls, transit stations, grocery stores, home centers, and other big-box retailers.

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. The LED drivers are 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 (2.0 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.

OPTICS
Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in 3000 K, 4000 K, or 5000 K (70 CRI) configurations. The D-Series Size 2 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 80, 90 or 100 high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L96/100,000 hrs at 25°C). Class 1 electronic drivers have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily-serviceable surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

INSTALLATION
Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 2 to withstand up to a 2.0 G vibration load rating per ANSI C136.31. The D-Series Size 2 utilizes the AERIS™ series pole drilling pattern (Template #8). NEMA photocontrol receptacle is available.

LISTINGS
UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40°C minimum ambient. U.S. Patent No. D670,857 S. International patent pending.

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/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.

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Submitted by Viking Electric Supply

Job Name:
JC Penny - Secured Lot Parking - Revised

Catalog Number:
(2) DSX2 LED 100C 700 50K TFTM 480 SPA DS DDBXD (1) SSS 30 5G DM28AS DDB

Notes: 4-6 Week Lead Time

Type:
OB

MW2015-13513

D-Series Size 2
LED Area Luminaire

Catalog Number

Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

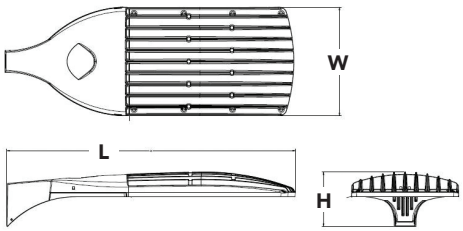
EPA: 2.0 ft² (0.19 m²)

Length: 40" (101.6 cm)

Width: 15" (38.1 cm)

Height: 7-1/4" (18.4 cm)

Weight (max): 36 lbs (16.3 kg)



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 sites with excellent uniformity, greater pole spacing and lower power density. The Size 2 is ideal for replacing 400-1000W metal halide in area lighting applications with energy savings of up to 80% and expected service life of over 100,000 hours.

Ordering Information

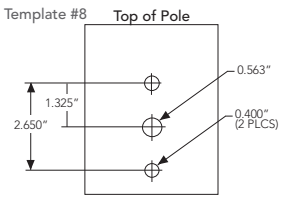
EXAMPLE: DSX2 LED 80C 1000 40K T4M MVOLT SPA DDBXD

DSX2 LED

Series	LEDs	Drive current	Color temperature	Distribution	Voltage	Mounting
DSX2 LED	**Forward optics** 80C 80 LEDs (four engine) 100C 100 LEDs (four engines) **Rotated optics** [1] 90C 90 LEDs	530 530 mA 700 700 mA 1000 1000 mA (1 A)	30K 3000 K 40K 4000 K 50K 5000 K AMBPC Amber phosphor converted	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 [2] 120 [2] 208 [2] 240 [2] 277 [2] 347 480	**Shipped included** SPA Square pole mounting RPA Round pole mounting WBA Wall bracket SPUMBA Square pole universal mounting adaptor [3] RPUMBA Round pole universal mounting adaptor [3] **Shipped separately** KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish) [4]

Control options				Other options		Finish *(required)*	
Shipped installed				**Shipped installed**		DDBXD	Dark bronze
PER	NEMA twist-lock receptacle only (no controls) [5]	BL30	Bi-level switched dimming, 30% [10,12]	HS	House-side shield [13]	DBLXD	Black
PER5	Five-wire receptacle only (no controls) [5,6]	BL50	Bi-level switched dimming, 50% [10,12]	SF	Single fuse (120, 277, 347V) [2]	DNAXD	Natural aluminum
PER7	Seven-wire receptacle only (no controls) [5,6]	PNMTDD3	Part night, dim till dawn [12]	DF	Double fuse (208, 240, 480V) [2]	DWHXD	White
DMG	0-10V dimming driver (no controls) [7]	PNMT5D3	Part night, dim 5 hrs [12]	L90	Left rotated optics	DDBTXD	Textured dark bronze
DCR	Dimmable and controllable via ROAM® (no controls) [8]	PNMT6D3	Part night, dim 6 hrs [12]	R90	Right rotated optics	DBLBXD	Textured black
DS	Dual switching [9,10]	PNMT7D3	Part night, dim 7 hrs [12]			DNATXD	Textured natural aluminum
PIRH	Motion sensor, 15-30' mounting height [11]					DWHGXD	Textured white

Drilling



DSX2 shares a unique drilling pattern with the AERIS™ family. Specify this drilling pattern when specifying poles, per the table below.

DM19AS	Single unit	**DM29AS**	2 at 90° *
DM28AS	2 at 180°	**DM39AS**	3 at 90° *
DM49AS	4 at 90° *	**DM32AS**	3 at 120° **

Example: SSA 20 4C **DM19AS** DDBXD

Visit Lithonia Lighting's POLES CENTRAL to see our wide selection of poles, accessories and educational tools.
**Round pole top must be 3.25" O.D. minimum.*
***For round pole mounting (RPA) only.*

Controls & Shields

Accessories
Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) [14]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) [14]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) [14]
SC U	Shorting cap [14]
DSX2HS 80C U	House-side shield for 80 LED unit
DSX2HS 90C U	House-side shield for 90 LED unit
DSX2HS 100C U	House-side shield for 100 LED unit
PUMBA DDBXD U*	Square and round pole universal mounting bracket (specify finish)
KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish) [4]

For more control options, visit DTL and ROAM online.

Tenon Mounting Slipfitter **

Tenon O.D.	Single Unit	2 at 180°	2 at 90°	3 at 120°	3 at 90°	4 at 90°
2-3/8"	AST20-190	AST20-280	AST20-290	AST20-320	AST20-390	AST20-490
2-7/8"	AST25-190	AST25-280	AST25-290	AST25-320	AST25-390	AST25-490
4"	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490

NOTES
1 Rotated optics option(L90, R90) required for 90C.
2 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
3 Available as a separate combination accessory: PUMBA (finish) U. Round pole must have 4" O.D. minimum; 1.5 G vibration load rating per ANCI C136.31.
4 Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8" O.D. mast arm (not included).
5 Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Not available with DS option.
6 If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Not available with DCR.
7 347 or 480 voltage option with DMG requires 1000 mA.
8 Specifies a ROAM® enabled luminaire with 0-10V dimming capability; PER option required. Additional hardware and services required for ROAM® deployment; must be purchased separately. Call 1-800-442-6745 or email: sales@roamservices.net. Not available with PIRH, DS, BL30, BL50, PER5, PER7, or part night options (PNMTxxx).
9 Provides 50/50 luminaire operation via two independent drivers on two separate circuits. Not available with 80C 530, 90C 530, PER, PER5, PER7, DCR, BL30, BL50, or part night options (PNMTxxx).
10 Requires an additional switched line.
11 Specifies the SensorSwitch SBGR-6-ODP control; see Motion Sensor Guide for details. Dimming driver standard. Not available with BL30, BL50 or DCR.
12 Dimming driver standard. Not available with DCR, DS, or PIRH.
13 Also available as a separate accessory; see Accessories information.
14 Requires luminaire to be specified with PER, PER5 or PER7 option. Ordered and shipped as a separate line item from Acuity Brands Controls.

LITHONIA LIGHTING
One Lithonia Way • Conyers, Georgia 30012 • Phone: 800.279.8041 • Fax: 770.918.1209 • www.lithonia.com
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Attachment: JC Penny Variance Attachment (3365 : Parking lot variance JC Penney parking lot at 11800 Burleigh)

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. 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
80C (80 LEDs)	530 mA	137 W	T1S	14,438	3	0	3	108.1	15,360	3	0	3	115.1	15,415	3	0	3	115.5	10,752	2	0	2	78.5
			T2S	14,172	3	0	3	106.2	15,077	3	0	3	112.9	15,131	3	0	3	113.3	10,554	2	0	2	77.0
			T2M	14,196	3	0	3	106.3	15,102	3	0	3	113.1	15,156	3	0	3	113.5	10,571	2	0	2	77.2
			T3S	14,165	3	0	3	106.1	15,069	3	0	3	112.9	15,123	3	0	3	113.3	10,548	2	0	2	77.0
			T3M	14,193	3	0	4	106.3	15,099	3	0	4	113.1	15,153	3	0	4	113.5	10,569	2	0	2	77.1
			T4M	13,736	3	0	4	102.9	15,067	3	0	4	112.9	15,121	3	0	4	113.3	10,547	2	0	2	77.0
			TFTM	14,424	3	0	4	108.0	15,345	3	0	4	114.9	15,400	3	0	4	115.4	10,741	1	0	2	78.4
			T5VS	14,980	5	0	1	112.2	15,936	5	0	1	119.4	15,993	5	0	1	119.8	11,155	3	0	0	81.4
			T5S	14,972	4	0	2	112.1	15,927	4	0	2	119.3	15,985	4	0	2	119.7	11,149	3	0	0	81.4
			T5M	14,900	5	0	3	111.6	15,851	5	0	3	118.7	15,908	5	0	3	119.2	11,096	3	0	2	81.0
			T5W	14,713	5	0	3	110.2	15,652	5	0	3	117.2	15,709	5	0	3	117.7	10,957	3	0	2	80.0
	700 mA	188 W	T1S	17,944	3	0	3	98.1	19,089	3	0	3	104.4	19,158	3	0	3	104.7	13,362	2	0	2	71.1
			T2S	17,613	3	0	3	96.3	18,738	3	0	3	102.4	18,805	3	0	3	102.8	13,116	2	0	2	69.8
			T2M	17,643	3	0	3	96.5	18,769	3	0	3	102.6	18,836	3	0	3	103.0	13,138	2	0	2	69.9
			T3S	17,604	3	0	3	96.3	18,728	3	0	3	102.4	18,795	3	0	3	102.8	13,110	2	0	2	69.7
			T3M	17,639	3	0	4	96.4	18,764	3	0	4	102.6	18,832	3	0	4	103.0	13,135	2	0	3	69.9
			T4M	17,071	3	0	4	93.3	18,725	3	0	4	102.4	18,792	3	0	4	102.7	13,108	2	0	2	69.7
			TFTM	17,926	3	0	4	98.0	19,071	3	0	4	104.3	19,139	3	0	4	104.6	13,349	2	0	2	71.0
			T5VS	18,617	5	0	1	101.8	19,805	5	0	1	108.3	19,876	5	0	1	108.7	13,864	3	0	1	73.7
			T5S	18,607	4	0	2	101.7	19,794	4	0	2	108.2	19,866	4	0	2	108.6	13,856	3	0	1	73.7
			T5M	18,518	5	0	3	101.2	19,700	5	0	3	107.7	19,771	5	0	3	108.1	13,790	3	0	2	73.4
			T5W	18,286	5	0	3	100.0	19,453	5	0	3	106.4	19,523	5	0	3	106.7	13,617	4	0	2	72.4
	1000 mA	282 W	T1S	24,339	3	0	3	85.5	25,892	3	0	3	90.9	25,985	3	0	3	91.3	18,125	2	0	2	64.3
			T2S	23,891	3	0	3	83.9	25,416	3	0	3	89.3	25,507	3	0	3	89.6	17,791	3	0	3	63.1
			T2M	23,931	3	0	3	84.1	25,458	3	0	4	89.4	25,550	3	0	4	89.7	17,821	3	0	3	63.2
			T3S	23,879	3	0	3	83.9	25,403	3	0	3	89.2	25,494	3	0	3	89.5	17,782	2	0	2	63.1
			T3M	23,925	3	0	4	84.0	25,452	3	0	4	89.4	25,544	3	0	4	89.7	17,817	3	0	3	63.2
			T4M	23,155	3	0	4	81.3	25,399	3	0	4	89.2	25,490	3	0	4	89.5	17,779	2	0	3	63.0
			TFTM	24,315	3	0	4	85.4	25,867	3	0	4	90.9	25,960	3	0	4	91.2	18,107	2	0	3	64.2
			T5VS	25,252	5	0	1	88.7	26,864	5	0	1	94.4	26,960	5	0	1	94.7	18,805	3	0	1	66.7
			T5S	25,238	5	0	2	88.6	26,849	5	0	2	94.3	26,946	5	0	2	94.6	18,794	3	0	1	66.6
			T5M	25,118	5	0	3	88.2	26,721	5	0	3	93.9	26,817	5	0	3	94.2	18,705	4	0	2	66.3
			T5W	24,803	5	0	4	87.1	26,386	5	0	4	92.7	26,481	5	0	4	93.0	18,470	4	0	2	65.5
100C (100 LEDs)	530 mA	175 W	T1S	17,592	3	0	3	103.3	18,715	3	0	3	109.8	18,782	3	0	3	110.2	13,100	2	0	2	74.9
			T2S	17,268	3	0	3	101.3	18,370	3	0	3	107.8	18,436	3	0	3	108.2	12,859	2	0	2	73.5
			T2M	17,297	3	0	3	101.5	18,401	3	0	3	108.0	18,467	3	0	3	108.4	12,881	2	0	2	73.6
			T3S	17,259	3	0	3	101.3	18,361	3	0	3	107.8	18,427	3	0	3	108.2	12,853	2	0	2	73.4
			T3M	17,293	3	0	4	101.5	18,397	3	0	4	108.0	18,463	3	0	4	108.4	12,878	2	0	3	73.6
			T4M	16,736	3	0	4	98.2	18,358	3	0	4	107.7	18,424	3	0	4	108.1	12,851	2	0	2	73.4
			TFTM	17,575	3	0	4	103.2	18,697	3	0	4	109.7	18,764	3	0	4	110.1	13,088	2	0	2	74.8
			T5VS	18,252	5	0	1	107.1	19,417	5	0	1	114.0	19,487	5	0	1	114.4	13,592	3	0	1	77.7
			T5S	18,242	4	0	2	107.1	19,406	4	0	2	113.9	19,476	4	0	2	114.3	13,584	3	0	1	77.6
			T5M	18,155	5	0	3	106.6	19,314	5	0	3	113.4	19,383	5	0	3	113.8	13,520	3	0	2	77.3
			T5W	17,927	5	0	3	105.2	19,071	5	0	3	111.9	19,140	5	0	3	112.3	13,350	4	0	2	76.3
	700 mA	232 W	T1S	22,078	3	0	3	97.1	23,487	3	0	3	103.3	23,571	3	0	3	103.7	16,441	2	0	2	70.9
			T2S	21,671	3	0	3	95.4	23,055	3	0	3	101.4	23,137	3	0	3	101.8	16,138	2	0	2	69.6
			T2M	21,707	3	0	3	95.5	23,093	3	0	3	101.6	23,176	3	0	3	102.0	16,165	2	0	3	69.7
			T3S	21,660	3	0	3	95.3	23,043	3	0	3	101.4	23,126	3	0	3	101.8	16,130	2	0	2	69.5
			T3M	21,702	3	0	4	95.5	23,088	3	0	4	101.6	23,171	3	0	4	102.0	16,161	2	0	3	69.7
			T4M	21,004	3	0	4	92.4	23,039	3	0	4	101.4	23,122	3	0	4	101.7	16,127	2	0	3	69.5
			TFTM	22,056	3	0	4	97.1	23,464	3	0	4	103.2	23,549	3	0	4	103.6	16,425	2	0	2	70.8
			T5VS	22,906	5	0	1	100.8	24,368	5	0	1	107.2	24,456	5	0	1	107.6	17,058	3	0	1	73.5
			T5S	22,894	4	0	2	100.7	24,355	4	0	2	107.2	24,442	4	0	2	107.6	17,048	3	0	1	73.5
			T5M	22,784	5	0	3	100.3	24,239	5	0	3	106.7	24,326	5	0	3	107.0	16,967	4	0	2	73.1
			T5W	22,498	5	0	3	99.0	23,935	5	0	3	105.3	24,021	5	0	3	105.7	16,754	4	0	2	72.2
	1000 mA	360 W	T1S	28,465	3	0	3	80.2	31,708	3	0	3	89.2	32,074	3	0	3	89.4	22,196	3	0	3	61.7
			T2S	29,257	3	0	3	81.9	31,125	3	0	3	87.7	31,237	3	0	3	87.5	21,787	3	0	3	60.5
			T2M	29,306	3	0	3	82.1	31,177	3	0	3	86.6	31,289	3	0	3	87.6	21,824	3	0	3	60.6
			T3S	29,243	3	0	3	81.9	31,109	3	0	3	87.7	31,221	3	0	3	87.4	21,776	3	0	3	60.5
			T3M	29,299	3	0	4	82.0	31,170	3	0	4	86.6	31,282	3	0	4	87.6	21,819	3	0	3	60.6
			T4M	28,356	3	0	4	78.9	31,104	3	0	4	86.2	31,216	3	0	4	87.4	21,773	3	0	3	60.5
			TFTM	29,777	3	0	4	83.4	31,678	3	0	4	88.1	31,792	3	0	4	89.0	22,175	3	0	3	61.6
			T5VS	30,924	5	0	1	86.6	32,898	5	0	1	92.9	33,017	5	0	1	92.4	23,029	4	0	1	64.0
			T5S	30,908	4	0	2	86.5	32,880	4	0	2	91.3	32,999	4	0	2	92.4	23,016	4	0	1	63.9
			T5M	30,760	5	0	3	86.1	32,723	5	0	3	92.2	32,841	5	0	3	92.0	22,906	4	0	2	63.6
			T5W	30,374	5	0	3	85.0	32,313	5	0	3	91.2	32,429	5	0	3	90.8	22,619	4	0	2	62.8

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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	1.04
10°C	50°F	1.02
20°C	68°F	1.01
25°C	**77°F**	**1.00**
30°C	86°F	0.99
40°C	104°F	0.97

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	DSX2 LED 80C 1000			
	1.0	0.95	0.92	0.86
	DSX2 LED 100C 700			
	1.0	0.98	0.97	0.96
	DSX2 LED 100C 1000			
	1.0	0.94	0.90	0.84

Electrical Load

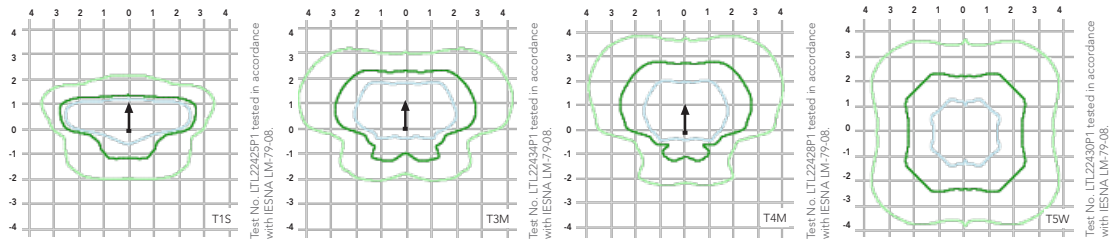
LEDs	Drive Current (mA)	System Watts	Current (A) 120	208	240	277	347	480
80	530	137W	1.15	0.66	0.53	0.51	0.39	0.28
	700	188W	1.58	0.92	0.81	0.73	0.55	0.41
	1000	282W	2.37	1.35	1.18	1.04	0.83	0.61
100	530	175W	1.47	0.86	0.76	0.68	0.51	0.38
	700	232W	1.95	1.13	0.99	0.88	0.67	0.49
	1000	360W	3.03	1.72	1.49	1.3	1.05	0.77

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Area Size 2 homepage.

Isofootcandle plots for the DSX2 LED 80C 1000 40K. Distances are in units of mounting height (30').

LEGEND
- 0.1 fc
- 0.5 fc
- 1.0 fc



FEATURES & SPECIFICATIONS

INTENDED USE
The sleek design of the D-Series Area Size 2 reflects the embedded high performance LED technology. It is ideal for applications like car dealerships and large parking lots adjacent to malls, transit stations, grocery stores, home centers, and other big-box retailers.

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. The LED drivers are 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 (2.0 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.

OPTICS
Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in 3000 K, 4000 K, or 5000 K (70 CRI) configurations. The D-Series Size 2 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 80, 90 or 100 high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L96/100,000 hrs at 25°C). Class 1 electronic drivers have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily-serviceable surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

INSTALLATION
Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 2 to withstand up to a 2.0 G vibration load rating per ANSI C136.31. The D-Series Size 2 utilizes the AERIS™ series pole drilling pattern (Template #8). NEMA photocontrol receptacle is available.

LISTINGS
UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40°C minimum ambient. U.S. Patent No. D670,857 S. International patent pending.

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/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.

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Submitted by Viking Electric Supply

Job Name:
JC Penny - Secured Lot Parking - Revised

Catalog Number:
(3) DSX2 LED 100C 700 50K TFTM 480 SPA DS DDBXD (1) SSS 30 6G DM39AS DDB

Notes: 4-6 Week Lead Time

Type:
OC

MW2015-13513

D-Series Size 2
LED Area Luminaire

Catalog Number

Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

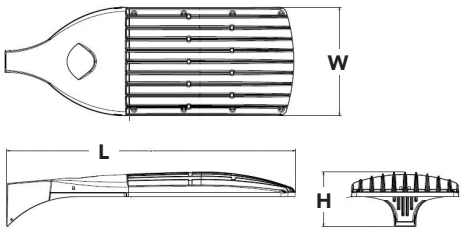
EPA: 2.0 ft² (0.19 m²)

Length: 40" (101.6 cm)

Width: 15" (38.1 cm)

Height: 7-1/4" (18.4 cm)

Weight (max): 36 lbs (16.3 kg)



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 sites with excellent uniformity, greater pole spacing and lower power density. The Size 2 is ideal for replacing 400-1000W metal halide in area lighting applications with energy savings of up to 80% and expected service life of over 100,000 hours.

Ordering Information

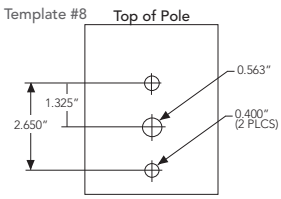
EXAMPLE: DSX2 LED 80C 1000 40K T4M MVOLT SPA DDBXD

DSX2 LED

Series	LEDs	Drive current	Color temperature	Distribution	Voltage	Mounting
DSX2 LED	**Forward optics** 80C 80 LEDs (four engine) 100C 100 LEDs (four engines) **Rotated optics** [1] 90C 90 LEDs	530 530 mA 700 700 mA 1000 1000 mA (1 A)	30K 3000 K 40K 4000 K 50K 5000 K AMBPC Amber phosphor converted	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 [2] 120 [2] 208 [2] 240 [2] 277 [2] 347 480	**Shipped included** SPA Square pole mounting RPA Round pole mounting WBA Wall bracket SPUMBA Square pole universal mounting adaptor [3] RPUMBA Round pole universal mounting adaptor [3] **Shipped separately** KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish) [4]

Control options				Other options		Finish *(required)*	
Shipped installed				**Shipped installed**		DDBXD	Dark bronze
PER	NEMA twist-lock receptacle only (no controls) [5]	BL30	Bi-level switched dimming, 30% [10,12]	HS	House-side shield [13]	DBLXD	Black
PER5	Five-wire receptacle only (no controls) [5,6]	BL50	Bi-level switched dimming, 50% [10,12]	SF	Single fuse (120, 277, 347V) [2]	DNAXD	Natural aluminum
PER7	Seven-wire receptacle only (no controls) [5,6]	PNMTDD3	Part night, dim till dawn [12]	DF	Double fuse (208, 240, 480V) [2]	DWHXD	White
DMG	0-10V dimming driver (no controls) [7]	PNMT5D3	Part night, dim 5 hrs [12]	L90	Left rotated optics	DDBTXD	Textured dark bronze
DCR	Dimmable and controllable via ROAM® (no controls) [8]	PNMT6D3	Part night, dim 6 hrs [12]	R90	Right rotated optics	DBLBXD	Textured black
DS	Dual switching [9,10]	PNMT7D3	Part night, dim 7 hrs [12]			DNATXD	Textured natural aluminum
PIRH	Motion sensor, 15-30' mounting height [11]					DWHGXD	Textured white

Drilling



DSX2 shares a unique drilling pattern with the AERIS™ family. Specify this drilling pattern when specifying poles, per the table below.

DM19AS	Single unit	**DM29AS**	2 at 90° *
DM28AS	2 at 180°	**DM39AS**	3 at 90° *
DM49AS	4 at 90° *	**DM32AS**	3 at 120° **

Example: SSA 20 4C **DM19AS** DDBXD

Visit Lithonia Lighting's POLES CENTRAL to see our wide selection of poles, accessories and educational tools.
**Round pole top must be 3.25" O.D. minimum.*
***For round pole mounting (RPA) only.*

Controls & Shields

Accessories
Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) [14]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) [14]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) [14]
SC U	Shorting cap [14]
DSX2HS 80C U	House-side shield for 80 LED unit
DSX2HS 90C U	House-side shield for 90 LED unit
DSX2HS 100C U	House-side shield for 100 LED unit
PUMBA DDBXD U*	Square and round pole universal mounting bracket (specify finish)
KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish) [4]

For more control options, visit DTL and ROAM online.

Tenon Mounting Slipfitter **

Tenon O.D.	Single Unit	2 at 180°	2 at 90°	3 at 120°	3 at 90°	4 at 90°
2-3/8"	AST20-190	AST20-280	AST20-290	AST20-320	AST20-390	AST20-490
2-7/8"	AST25-190	AST25-280	AST25-290	AST25-320	AST25-390	AST25-490
4"	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490

NOTES
1. Rotated optics option(L90, R90) required for 90C.
2. MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
3. Available as a separate combination accessory: PUMBA (finish) U. Round pole must have 4" O.D. minimum; 1.5 G vibration load rating per ANCI C136.31.
4. Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8" O.D. mast arm (not included).
5. Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Not available with DS option.
6. If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Not available with DCR.
7. 347 or 480 voltage option with DMG requires 1000 mA.
8. Specifies a ROAM® enabled luminaire with 0-10V dimming capability; PER option required. Additional hardware and services required for ROAM® deployment; must be purchased separately. Call 1-800-442-6745 or email: sales@roamservices.net. Not available with PIRH, DS, BL30, BL50, PER5, PER7, or part night options (PNMTxxx).
9. Provides 50/50 luminaire operation via two independent drivers on two separate circuits. Not available with 80C 530, 90C 530, PER, PER5, PER7, DCR, BL30, BL50, or part night options (PNMTxxx).
10. Requires an additional switched line.
11. Specifies the SensorSwitch SBGR-6-ODP control; see Motion Sensor Guide for details. Dimming driver standard. Not available with BL30, BL50 or DCR.
12. Dimming driver standard. Not available with DCR, DS, or PIRH.
13. Also available as a separate accessory; see Accessories information.
14. Requires luminaire to be specified with PER, PER5 or PER7 option. Ordered and shipped as a separate line item from Acuity Brands Controls.

LITHONIA LIGHTING
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Attachment: JC Penny Variance Attachment (3365 : Parking lot variance JC Penney parking lot at 11800 Burleigh)

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. 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
80C (80 LEDs)	530 mA	137 W	T1S	14,438	3	0	3	108.1	15,360	3	0	3	115.1	15,415	3	0	3	115.5	10,752	2	0	2	78.5
			T2S	14,172	3	0	3	106.2	15,077	3	0	3	112.9	15,131	3	0	3	113.3	10,554	2	0	2	77.0
			T2M	14,196	3	0	3	106.3	15,102	3	0	3	113.1	15,156	3	0	3	113.5	10,571	2	0	2	77.2
			T3S	14,165	3	0	3	106.1	15,069	3	0	3	112.9	15,123	3	0	3	113.3	10,548	2	0	2	77.0
			T3M	14,193	3	0	4	106.3	15,099	3	0	4	113.1	15,153	3	0	4	113.5	10,569	2	0	2	77.1
			T4M	13,736	3	0	4	102.9	15,067	3	0	4	112.9	15,121	3	0	4	113.3	10,547	2	0	2	77.0
			TFTM	14,424	3	0	4	108.0	15,345	3	0	4	114.9	15,400	3	0	4	115.4	10,741	1	0	2	78.4
			T5VS	14,980	5	0	1	112.2	15,936	5	0	1	119.4	15,993	5	0	1	119.8	11,155	3	0	0	81.4
			T5S	14,972	4	0	2	112.1	15,927	4	0	2	119.3	15,985	4	0	2	119.7	11,149	3	0	0	81.4
			T5M	14,900	5	0	3	111.6	15,851	5	0	3	118.7	15,908	5	0	3	119.2	11,096	3	0	2	81.0
			T5W	14,713	5	0	3	110.2	15,652	5	0	3	117.2	15,709	5	0	3	117.7	10,957	3	0	2	80.0
	700 mA	188 W	T1S	17,944	3	0	3	98.1	19,089	3	0	3	104.4	19,158	3	0	3	104.7	13,362	2	0	2	71.1
			T2S	17,613	3	0	3	96.3	18,738	3	0	3	102.4	18,805	3	0	3	102.8	13,116	2	0	2	69.8
			T2M	17,643	3	0	3	96.5	18,769	3	0	3	102.6	18,836	3	0	3	103.0	13,138	2	0	2	69.9
			T3S	17,604	3	0	3	96.3	18,728	3	0	3	102.4	18,795	3	0	3	102.8	13,110	2	0	2	69.7
			T3M	17,639	3	0	4	96.4	18,764	3	0	4	102.6	18,832	3	0	4	103.0	13,135	2	0	3	69.9
			T4M	17,071	3	0	4	93.3	18,725	3	0	4	102.4	18,792	3	0	4	102.7	13,108	2	0	2	69.7
			TFTM	17,926	3	0	4	98.0	19,071	3	0	4	104.3	19,139	3	0	4	104.6	13,349	2	0	2	71.0
			T5VS	18,617	5	0	1	101.8	19,805	5	0	1	108.3	19,876	5	0	1	108.7	13,864	3	0	1	73.7
			T5S	18,607	4	0	2	101.7	19,794	4	0	2	108.2	19,866	4	0	2	108.6	13,856	3	0	1	73.7
			T5M	18,518	5	0	3	101.2	19,700	5	0	3	107.7	19,771	5	0	3	108.1	13,790	3	0	2	73.4
			T5W	18,286	5	0	3	100.0	19,453	5	0	3	106.4	19,523	5	0	3	106.7	13,617	4	0	2	72.4
	1000 mA	282 W	T1S	24,339	3	0	3	85.5	25,892	3	0	3	90.9	25,985	3	0	3	91.3	18,125	2	0	2	64.3
			T2S	23,891	3	0	3	83.9	25,416	3	0	3	89.3	25,507	3	0	3	89.6	17,791	3	0	3	63.1
			T2M	23,931	3	0	3	84.1	25,458	3	0	4	89.4	25,550	3	0	4	89.7	17,821	3	0	3	63.2
			T3S	23,879	3	0	3	83.9	25,403	3	0	3	89.2	25,494	3	0	3	89.5	17,782	2	0	2	63.1
			T3M	23,925	3	0	4	84.0	25,452	3	0	4	89.4	25,544	3	0	4	89.7	17,817	3	0	3	63.2
			T4M	23,155	3	0	4	81.3	25,399	3	0	4	89.2	25,490	3	0	4	89.5	17,779	2	0	3	63.0
			TFTM	24,315	3	0	4	85.4	25,867	3	0	4	90.9	25,960	3	0	4	91.2	18,107	2	0	3	64.2
			T5VS	25,252	5	0	1	88.7	26,864	5	0	1	94.4	26,960	5	0	1	94.7	18,805	3	0	1	66.7
			T5S	25,238	5	0	2	88.6	26,849	5	0	2	94.3	26,946	5	0	2	94.6	18,794	3	0	1	66.6
			T5M	25,118	5	0	3	88.2	26,721	5	0	3	93.9	26,817	5	0	3	94.2	18,705	4	0	2	66.3
			T5W	24,803	5	0	4	87.1	26,386	5	0	4	92.7	26,481	5	0	4	93.0	18,470	4	0	2	65.5
100C (100 LEDs)	530 mA	175 W	T1S	17,592	3	0	3	103.3	18,715	3	0	3	109.8	18,782	3	0	3	110.2	13,100	2	0	2	74.9
			T2S	17,268	3	0	3	101.3	18,370	3	0	3	107.8	18,436	3	0	3	108.2	12,859	2	0	2	73.5
			T2M	17,297	3	0	3	101.5	18,401	3	0	3	108.0	18,467	3	0	3	108.4	12,881	2	0	2	73.6
			T3S	17,259	3	0	3	101.3	18,361	3	0	3	107.8	18,427	3	0	3	108.2	12,853	2	0	2	73.4
			T3M	17,293	3	0	4	101.5	18,397	3	0	4	108.0	18,463	3	0	4	108.4	12,878	2	0	3	73.6
			T4M	16,736	3	0	4	98.2	18,358	3	0	4	107.7	18,424	3	0	4	108.1	12,851	2	0	2	73.4
			TFTM	17,575	3	0	4	103.2	18,697	3	0	4	109.7	18,764	3	0	4	110.1	13,088	2	0	2	74.8
			T5VS	18,252	5	0	1	107.1	19,417	5	0	1	114.0	19,487	5	0	1	114.4	13,592	3	0	1	77.7
			T5S	18,242	4	0	2	107.1	19,406	4	0	2	113.9	19,476	4	0	2	114.3	13,584	3	0	1	77.6
			T5M	18,155	5	0	3	106.6	19,314	5	0	3	113.4	19,383	5	0	3	113.8	13,520	3	0	2	77.3
			T5W	17,927	5	0	3	105.2	19,071	5	0	3	111.9	19,140	5	0	3	112.3	13,350	4	0	2	76.3
	700 mA	232 W	T1S	22,078	3	0	3	97.1	23,487	3	0	3	103.3	23,571	3	0	3	103.7	16,441	2	0	2	70.9
			T2S	21,671	3	0	3	95.4	23,055	3	0	3	101.4	23,137	3	0	3	101.8	16,138	2	0	2	69.6
			T2M	21,707	3	0	3	95.5	23,093	3	0	3	101.6	23,176	3	0	3	102.0	16,165	2	0	3	69.7
			T3S	21,660	3	0	3	95.3	23,043	3	0	3	101.4	23,126	3	0	3	101.8	16,130	2	0	2	69.5
			T3M	21,702	3	0	4	95.5	23,088	3	0	4	101.6	23,171	3	0	4	102.0	16,161	2	0	3	69.7
			T4M	21,004	3	0	4	92.4	23,039	3	0	4	101.4	23,122	3	0	4	101.7	16,127	2	0	3	69.5
			TFTM	22,056	3	0	4	97.1	23,464	3	0	4	103.2	23,549	3	0	4	103.6	16,425	2	0	2	70.8
			T5VS	22,906	5	0	1	100.8	24,368	5	0	1	107.2	24,456	5	0	1	107.6	17,058	3	0	1	73.5
			T5S	22,894	4	0	2	100.7	24,355	4	0	2	107.2	24,442	4	0	2	107.6	17,048	3	0	1	73.5
			T5M	22,784	5	0	3	100.3	24,239	5	0	3	106.7	24,326	5	0	3	107.0	16,967	4	0	2	73.1
			T5W	22,498	5	0	3	99.0	23,935	5	0	3	105.3	24,021	5	0	3	105.7	16,754	4	0	2	72.2
	1000 mA	360 W	T1S	28,465	3	0	3	80.2	31,708	3	0	3	89.2	32,074	3	0	3	89.4	22,196	3	0	3	61.7
			T2S	29,257	3	0	3	81.9	31,125	3	0	3	87.7	31,237	3	0	3	87.5	21,787	3	0	3	60.5
			T2M	29,306	3	0	3	82.1	31,177	3	0	3	86.6	31,289	3	0	3	87.6	21,824	3	0	3	60.6
			T3S	29,243	3	0	3	81.9	31,109	3	0	3	87.7	31,221	3	0	3	87.4	21,776	3	0	3	60.5
			T3M	29,299	3	0	4	82.0	31,170	3	0	4	86.6	31,282	3	0	4	87.6	21,819	3	0	3	60.6
			T4M	28,356	3	0	4	78.9	31,104	3	0	4	86.2	31,216	3	0	4	87.4	21,773	3	0	3	60.5
			TFTM	29,777	3	0	4	83.4	31,678	3	0	4	88.1	31,792	3	0	4	89.0	22,175	3	0	3	61.6
			T5VS	30,924	5	0	1	86.6	32,898	5	0	1	92.9	33,017	5	0	1	92.4	23,029	4	0	1	64.0
			T5S	30,908	4	0	2	86.5	32,880	4	0	2	91.3	32,999	4	0	2	92.4	23,016	4	0	1	63.9
			T5M	30,760	5	0	3	86.1	32,723	5	0	3	92.2	32,841	5	0	3	92.0	22,906	4	0	2	63.6
			T5W	30,374	5	0	3	85.0	32,313	5	0	3	91.2	32,429	5	0	3	90.8	22,619	4	0	2	62.8

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Submitted by Viking Electric Supply

Job Name:
JC Penny - Secured Lot Parking - Revised

Catalog Number:
(3) DSX2 LED 100C 700 50K TFTM 480 SPA DS DDBXD (1) SSS 30 6G DM39AS DDB

Notes: 4-6 Week Lead Time

Type:
OC

MW2015-13513

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	1.04
10°C	50°F	1.02
20°C	68°F	1.01
25°C	**77°F**	**1.00**
30°C	86°F	0.99
40°C	104°F	0.97

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	DSX2 LED 80C 1000			
	1.0	0.95	0.92	0.86
	DSX2 LED 100C 700			
	1.0	0.98	0.97	0.96
	DSX2 LED 100C 1000			
	1.0	0.94	0.90	0.84

Electrical Load

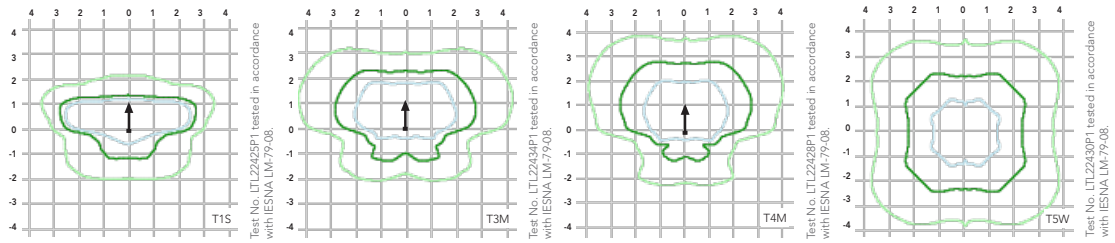
LEDs	Drive Current (mA)	System Watts	Current (A) 120	208	240	277	347	480
80	530	137W	1.15	0.66	0.53	0.51	0.39	0.28
	700	188W	1.58	0.92	0.81	0.73	0.55	0.41
	1000	282W	2.37	1.35	1.18	1.04	0.83	0.61
100	530	175W	1.47	0.86	0.76	0.68	0.51	0.38
	700	232W	1.95	1.13	0.99	0.88	0.67	0.49
	1000	360W	3.03	1.72	1.49	1.3	1.05	0.77

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Area Size 2 homepage.

Isofootcandle plots for the DSX2 LED 80C 1000 40K. Distances are in units of mounting height (30').

LEGEND
- 0.1 fc
- 0.5 fc
- 1.0 fc



FEATURES & SPECIFICATIONS

INTENDED USE
The sleek design of the D-Series Area Size 2 reflects the embedded high performance LED technology. It is ideal for applications like car dealerships and large parking lots adjacent to malls, transit stations, grocery stores, home centers, and other big-box retailers.

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. The LED drivers are 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 (2.0 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.

OPTICS
Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in 3000 K, 4000 K, or 5000 K (70 CRI) configurations. The D-Series Size 2 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 80, 90 or 100 high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L96/100,000 hrs at 25°C). Class 1 electronic drivers have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily-serviceable surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

INSTALLATION
Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 2 to withstand up to a 2.0 G vibration load rating per ANSI C136.31. The D-Series Size 2 utilizes the AERIS™ series pole drilling pattern (Template #8). NEMA photocontrol receptacle is available.

LISTINGS
UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40°C minimum ambient. U.S. Patent No. D670,857 S. International patent pending.

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/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.

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CITY OF WAUWATOSA
MEMO

To: **Board of Public Works**

From: **Mary Steffey**

Date: **August 10, 2015**

Subject: **Memo from the Fleet Superintendent regarding surplus fleet vehicles**

Board of Public Works
City of Wauwatosa
7725 West North Ave.
Wauwatosa, WI. 53226

Dear Members:

Re: Surplus Equipment

We request that the following fleet vehicles:

M-63 2003 Dodge Neon
M-67 2003 Dodge Neon
P-166 2009 Jeep Wrangler right hand drive
P-178 2009 Ford Crown Victoria Police Interceptor
P-184 2010 Ford Crown Victoria Police Interceptor
P-186 2010 Ford Crown Victoria Police Interceptor
P-187 2010 Ford Crown Victoria Police Interceptor
P-188 2010 Ford Crown Victoria Police Interceptor
P-191 2011 Ford Crown Victoria Police Interceptor
P-192 2011 Ford Crown Victoria Police Interceptor
T-01/T-34 1976 International 1800 Dump (w/leaf vac unit on rear)

Be declared surplus so that the Fleet Superintendent and Fleet Maintenance Department can dispose of them in a manner most advantageous to the City of Wauwatosa.

All of the above vehicles have been replaced or will be replaced by new vehicles.

Sincerely,

Michael C. Hahn
Fleet Superintendent

CITY OF WAUWATOSA
Resolution

By:

BE IT RESOLVED, By the Board of Public Works of the City of Wauwatosa, Wisconsin that the proper City Officers be and they are hereby authorized and directed subject to Finance review to issue City orders in favor of the contractor listed below in the amount listed in the column headed "Amount" as partial payment for work completed as indicated on the attached Exhibit pursuant to the terms of the contract noted.

Contractor	Payment No.	Contract/Project No.	Amount
Visu-Sewer, Inc.	1	15-10/3003, Sanitary Sewer Improvements	$402,761.05
Advance Construction, Inc.	3	15-06/4006, North 104th Street and West Fisher Parkway Improvements	$652,361.73
MJ Construction, Inc.	1	15-51/1105, W Center Street Sanitary and Water Relays	$609,615.42

Passed and Dated _____

_____

Secretary

Approved _____

_____

President

CITY OF WAUWATOSA

PARTIAL - PAYMENT NO. 1

2 PAGES

CONTRACT 15-51: Center StreetSanitary and Water Relays
CONTRACTOR: MJ Construction
CONTRACT PERIOD: July 20, 2015 through August 15, 2015

NO.	BID ITEMS DESCRIPTION	CONTRACT UNITS	NO. OF UNITS	UNITS	UNIT PRICE	TOTAL AMOUNT
DIVISION A - STORM SEWER						
1	Linear feet of 10-inch Polyvinyl Chloride, ASTM D-3034 SDR26, Sanitary Sewer Relay. Class "C" bedding with mechanically compacted crushed concrete backfill including sawcutting, Type "A" 3-inch temporary asphalt pavement restoration and temporary asphalt curb and gutter, pedestrian islands replacement, temporary asphalt sidewalk, pavement striping replacement, and removal and disposal of existing sanitary sewer and manholes	415	405.5	LF	$255.00	$103,402.50
2	Linear feet of 10-inch Polyvinyl Chloride, ASTM D-3034 SDR26, Sanitary Sewer Relay. Class "C" bedding with mechanically compacted crushed concrete backfill including sawcutting, Type "B" 3-inch permanent asphalt pavement and concrete replacement and curb and gutter, pedestrian islands replacement, temporary asphalt sidewalk, pavement striping replacement, and removal and disposal of existing sanitary sewer and manholes	604	578.5	LF	$262.00	$151,567.00
3	Linear feet of 10-inch Polyvinyl Chloride, ASTM D-3034 SDR26, Sanitary Sewer Relay. Class "C" bedding with mechanically compacted spoil backfill, and clearing and grubbing, sidewalk replacement and lawn restoration.	383	364.6	LF	$215.00	$78,389.00
4	Linear feet of 8-inch Polyvinyl Chloride, ASTM D-3034 SDR26, Sanitary Sewer Relay. Class "C" bedding with mechanically compacted crushed concrete backfill including sawcutting, Type "B" 3-inch permanent asphalt pavement and concrete replacement and curb and gutter, pedestrian islands replacement, temporary asphalt sidewalk, pavement striping replacement, and removal and disposal of existing sanitary sewer and manholes	28	3.5	LF	$245.00	$857.50
5	Linear feet of 8-inch Polyvinyl Chloride, ASTM D-3034 SDR26, Sanitary Sewer Relay. Class "C" bedding with mechanically compacted crushed concrete backfill including sawcutting, Type "A" 3-inch temporary asphalt pavement restoration and temporary asphalt curb and gutter, pedestrian islands replacement, temporary asphalt sidewalk, pavement striping replacement, and removal and disposal of existing sanitary sewer and manholes	13	8.0	LF	$240.00	$1,920.00
6	Each sanitary sewer Wye, 10"x10"x6" lateral reconnection	15	8.0	EA	$250.00	$2,000.00
7	Vertical feet 6-inch Polyvinyl Chloride Sanitary Lateral Riser. ASTM D-3034 SDR-35 including excavation, compacted crushed concrete backfill, and materials.	51	7.0	VF	$100.00	$704.00
8	Vertical feet of 48" diameter Precast Sanitary Sewer Manhole. Complete with steps, new Neenah R-1661-B non-modernized (369 lbs.) frame (self-seal cover shall be provided by the City), iron and precast adjusting rings as required, internal seal, external perimeter joint seal, manhole vacuum testing, mechanically compacted crushed concrete backfill and surface restoration.	24	12.7	VF	$375.00	$4,762.50
9	Vertical feet of 48" diameter Precast Sanitary Sewer Outside Drop Manhole. Complete with steps, new Neenah R-1661-B non-modernized (369 lbs.) frame (self-seal cover shall be provided by the City), iron and precast adjusting rings as	49	31.8	VF	$385.00	$12,243.00
10	Linear feet of 12-inch diameter, DIP water main Class 55 with polywrap, sand bedding and cover, crushed concrete backfill including sawcutting, Type "A" 3-inch temporary asphalt pavement restoration and temporary asphalt curb and gutter replacement, pedestrian island replacement, temporary asphalt sidewalk, and	198		LF	$415.00	$0.00
11	Linear feet of 12-inch diameter, DIP water main Class 55 with polywrap, sand bedding and cover, with mechanically compacted spoil backfill, asphalt sidewalk replacement, and clearing and grubbing, spoil backfill and lawn restoration with matting.	140		LF	$465.00	$0.00
12	Linear feet of 8-inch diameter, DIP water main Class 55 with polywrap, sand bedding and cover, crushed concrete backfill including sawcutting, Type "A" 3-inch temporary asphalt pavement restoration and temporary asphalt curb and gutter replacement, pedestrian island replacement, temporary asphalt sidewalk, and pavement striping	85		LF	$330.00	$0.00
13	Linear feet of 6-inch diameter, DIP water main Class 55 with polywrap, sand bedding and cover, crushed concrete backfill including sawcutting, Type "A" 3-inch temporary asphalt pavement restoration and temporary asphalt curb and gutter replacement, pedestrian island replacement, temporary asphalt sidewalk, and	54		LF	$350.00	$0.00
14	Lineal feet of 12-inch diameter, DIP water main Class 55 in casing including 24-inch steel casing, casing spacers, and end seals jack and bored in place	208		LF	$575.00	$0.00

Attachment: Partial Payment for 8-17-15 (3366 : Partial payments 8/17/2015)

15	Each 12-inch MJ butterfly valve with adaptor, polywrap, roadway box and cover	4		EA	$2,000.00	$0.00
16	Each 8-inch MJ resilient wedge gate valve with adaptor, polywrap, roadway box and cover	1		EA	$1,800.00	$0.00
17	Each 6-inch MJ resilient wedge gate valve with adaptor, polywrap, roadway box and cover	2		EA	$2,500.00	$0.00
18	Lump sum for excavation of jacking and receiving pits including earth retention and excavated material backfill	1	1.0	LS	$280,000.00	$280,000.00
19	Each cut-in connections of new main to existing 12-inch main, including removing any existing valves and pipe as needed, furnishing and installing new pipe, sleeves, temporary plugs, caps, buttresses, flushing vents for testing and sampling, excavation, backfill, and restoration	2		EA	$7,000.00	$0.00
20	Each cut-in connections of new main to existing 8-inch main, including removing any existing valves and pipe as needed, furnishing and installing new pipe, sleeves, temporary plugs, caps, buttresses, flushing vents for testing and sampling, excavation, backfill, and restoration	1		EA	$6,500.00	$0.00
21	Each cut-in connections of new main to existing -inch main, including removing any existing valves and pipe as needed, furnishing and installing new pipe, sleeves, temporary plugs, caps, buttresses, flushing vents for testing and sampling, excavation, backfill, and restoration	1		EA	$6,300.00	$0.00
22	Lump sum for abandonment of existing water main, valve manholes, hydrants and valves, including permanent plugs and restoration. Filling with Elastizell or approved equal including excavation	1		LS	$8,000.00	$0.00
23	Each hydrant furnished and installed with megalugs and restrained join extensions, including crushed concrete backfill, temporary asphalt sidewalk, temporary asphalt curb and gutter replacement, and lawn restoration with matting	4		EA	$5,800.00	$0.00
24	Lump Sum for locating, marking and maintaining the operation of the City's street lights and traffic control signals during construction by making permanent and temporary repairs or by taking special provisions, such as, temporary overhead wiring, to the City's street lighting or traffic signal cable and conduit systems and upon completion of the construction on each street return the street lighting or traffic control system to its preconstruction condition all at the direction of the City Electrician and in conformance with City Specifications.	1	1.0	LS	$500.00	$500.00
25	Traffic control, including signing, barricades, performed by a traffic control subcontractor.	1		LS	$5,500.00	$0.00
26	Lump sum for Erosion Control	1		LS	$3,500.00	$0.00
		TOTAL				**$636,345.50**

TOTAL DUE TO DATE	$636,345.50
LESS AMOUNT RETAINED (5%)	$26,730.08
NET AMOUNT TO DATE	$609,615.42
AMOUNT PAID TO DATE	$0.00
AMOUNT DUE THIS PAYMENT	**$609,615.42**

Sanitary Sewer	$355,845.50
Water Main	$280,500.00

Attachment: Partial Payment for 8-17-15 (3366 : Partial payments 8/17/2015)

CITY OF WAUWATOSA

PARTIAL - PAYMENT NO. 3

Contract 15-06 / Project 4006 North 104th Street and West Fisher Parkway Improvements

CONTRACTOR Advance Construction, Inc.

CONTRACT PERIOD July 25, 2015 to August 8, 2015

NO.	BID ITEMS DESCRIPTION	CONTRACT UNITS	NO. OF UNITS	UNIT	UNIT PRICE	TOTAL AMOUNT
DIVISION A - STORM SEWER, SANITARY SEWER AND WATER MAIN						
Section 1 - Storm Sewer						
1	12" RCP Class V Storm Sewer Catch Basin Lead; me	60.0	0.0	LF	$ 83.00	$0.00
2	12" RCP Class V Storm Sewer; with slurry	9.0	0.0	LF	$ 115.00	$0.00
3	12" C-900 PVC Forcemain Storm Sewer; with slurry	7.0	6.8	LF	$ 215.00	$1,451.25
4	15" RCP Class IV Storm Sewer; mech. Compacted cr	18.0	0.0	LF	$ 86.00	$0.00
5	15" RCP Class V Storm Sewer; slurry backfill	18.0	0.0	LF	$ 120.00	$0.00
6	18" RCP Class V Storm Sewer; mech. Compacted cr	20.0	0.0	LF	$ 90.00	$0.00
7	12" - 18" storm sewer reconnection, including first	5.0	0.0	each	$ 1,300.00	$0.00
8	7' x 8' Box culvert Class IV Storm Sewer Relay or Ext	446.0	329.1	LF	$ 960.00	$315,936.00
9	6' x 8' Box culvert Class IV Storm Sewer Relay or Ext	449.4	313.9	LF	$ 922.00	$289,415.80
10	7' x 8' apron endwa;; with galvanized grate and a m	1.0	0.0	each	$ 80,000.00	$0.00
11	42-inch heavy duty aluminum tube railings for 6' x	1.0	0.0	LS	$ 11,660.00	$0.00
12	2' x 3' Storm water catch basin with 24" sump, 6" P	5.0	0.0	each	$ 3,900.00	$0.00
13	48" Riser MH on Concrete Box Culver Storm sewer	4.9	3.6	VF	$ 500.00	$1,775.00
14	60" dia. Storm sewer MH with frame & cover and	5.3	0.0	VF	$ 600.00	$0.00
15	48" Riser MH on Concrete Box Culvert Storm sewer	27.4	0.0	VF	$ 500.00	$0.00
16	Transition 6' x 8' Box Culvert to 7' x 8' Box Culvert	1.0	0.0	LS	$ 5,754.00	$0.00
17	7' x 8' Mitered Concrete Box Culvert including stam	1.0	1.0	LS	$ 6,020.00	$6,020.00
18	6' x 8' Mitered concrete Box Culvert including stam	2.0	1.0	each	$ 5,754.00	$5,754.00
19	Remove storm MH structure slurry backfill and rest	3.0	0.0	each	$ 2,000.00	$0.00
20	Abandon 10" to 15" storm sewers by bulkheading &	26.0	0.0	LF	$ 25.00	$0.00
21	Abandon 18" to 30" storm sewers by bulkheading &	109.0	0.0	LF	$ 55.00	$0.00
22	Abandon 66" storm sewers by bulkheading & filling	37.0	0.0	LF	$ 170.00	$0.00
23	Bulkhead and plug including all concrete bloack at	1.0	0.0	LS	$ 3,000.00	$0.00
24	66" connection to new 6' x 8' concrete box culvert in	1.0	0.0	LS	$ 15,000.00	$0.00
25	42" to 48" Rip-Rap on Type "HR" Geotextile fabric, i	300.0	0.0	CF	$ 125.00	$0.00
26	Erosion Control at 7' x 8' outfall including coffer dam	1.0	0.0	LS	$ 75,000.00	$0.00
27	Connection of outfall to existing concrete channel w	1.0	0.0	LS	$ 60,000.00	$0.00
28	Tree removal with 90" or larger spade, hauling and i	139.0	234.0	ID	$ 42.00	$9,828.00
Section 2 - Sanitary Sewer						
29	9" PVC sanitary sewer relay; ASTM D-3034 SDR35	21.0	18.3	LF	$ 220.00	$4,026.00
30	8" PVC sanitary sewer relay; AWWA Standard C-90	485.0	502.7	LF	$ 205.00	$103,047.35
31	10" PVC sanitary sewer relay; ASTM D-3034 SDR3	231.0	0.0	LF	$ 249.00	$0.00
32	10" Sanitary Sewer relay; ASTM D-3034 SDR35; M	36.0	230.0	LF	$ 200.00	$46,000.00
33	12" PVC sanitary sewer force main; AWWA Standa	49.0	50.3	LF	$ 216.00	$10,854.00
34	10" Sanitary Sewer Protection, inlcuding concrete c	1.0	0.0	each	$ 40,000.00	$0.00
35	18" Sanitary Sewer Protection, including concrete c	1.0	1.0	each	$ 45,000.00	$45,000.00
36	39" MIS Sanitary Sewer Protection, including concre	1.0	1.0	each	$ 90,000.00	$90,000.00
37	Sanitary Lateral Reconnect including 1st 4 ft, excav	10.0	7.0	each	$ 450.00	$3,150.00
38	Sanitary Lateral Relay over 4.0 if in conjunction with	127.0	85.1	LF	$ 155.00	$13,182.75
39	Sanitary Lateral Relay in conjenction with sewer rela	2.0	3.0	each	$ 3,000.00	$9,000.00
40	6" flexible pipe Riser connected to flexible pipe mair	8.0	31.9	VF	$ 210.00	$6,707.40

Attachment: Partial Payment for 8-17-15 (3366 : Partial payments 8/17/2015)

CITY OF WAUWATOSA

PARTIAL - PAYMENT NO. 3

Contract 15-06 / Project 4006 North 104th Street and West Fisher Parkway Improvements

CONTRACTOR Advance Construction, Inc.

CONTRACT PERIOD July 25, 2015 to August 8, 2015

NO.	BID ITEMS DESCRIPTION	CONTRACT UNITS	NO. OF UNITS	UNIT	UNIT PRICE	TOTAL AMOUNT
41	48" dia. Sanitary sewer MH with new frame and inst	107.4	96.0	VF	$ 315.00	$30,230.55
42	Abandon 8" and 10" sanitary sewers by bulkheading	230.0	0.0	LF	$ 15.00	$0.00
43	Concrete Support Columns for pipe encased in con	6.0	0.0	each	$ 7,000.00	$0.00
Section 3 - Water						
44	8" DIP water main spec. CI 55; polywrap; sand bed	893.2	846.7	LF	$ 175.00	$148,172.50
45	12" DIP water main spec. CI 55, polywrap; sand bed	78.6	59.5	LF	$ 416.00	$24,752.00
46	20" DIP water main spec. CI 55; polywrap; sand ber	59.0	44.8	LF	$ 682.00	$30,553.60
47	6" MJ Duo-sized sleeve	4.0	0.0	each	$ 900.00	$0.00
48	8" MJ Duo-sized sleeve	4.0	0.0	each	$ 1,055.00	$0.00
49	12" MJ Duo-sized sleeve	1.0	0.0	each	$ 1,650.00	$0.00
50	20" MJ Duo-sized sleeve	2.0	0.0	each	$ 1,800.00	$0.00
51	8" Resilient wedge gate valve with box & valve box	9.0	10.0	each	$ 1,640.00	$16,400.00
52	8" x 11.25 degree MJ Horz. Bend with buttress and	5.0	1.0	each	$ 600.00	$600.00
53	8" x 11.25 degree MJ Vert. Offset Bend with buttres	12.0	12.0	each	$ 650.00	$7,800.00
54	12" x 45 degree MJ Vert. Offset Bend with buttress	4.0	4.0	each	$ 900.00	$3,600.00
55	20" x 45 degree MJ Vert. Offset Bend with buttress	4.0	4.0	each	$ 2,000.00	$8,000.00
56	8" x 6" MJ Anchor Tee with buttress and megalug re	3.0	3.0	each	$ 740.00	$2,220.00
57	8" x 8" MJ Tee with buttress and megalug retainer g	2.0	2.0	each	$ 830.00	$1,660.00
58	20" x 8" MJ Tee with buttress and megalug retainer	1.0	1.0	each	$ 2,800.00	$2,800.00
59	8" x 8" MJ Cross with buttress and megalug retainer	1.0	1.0	each	$ 860.00	$860.00
60	ROS - Replace Original Service 1" min. with tap, sa	138.0	45.5	LF	$ 179.00	$8,144.50
61	New Hydrant including backfill, valve, blocking, butt	3.0	3.0	each	$ 6,000.00	$18,000.00
62	Removal of existing hydrant assembly and salvage	3.0	2.0	each	$ 1,000.00	$2,000.00
63	Adandon existing water valve, restoration paid sepe	8.0	2.0	each	$ 400.00	$800.00
64	6" Cut-in Interconnect with pipe, sleeved, fittings, pl	6.0	2.0	each	$ 2,900.00	$5,800.00
65	8" Cut-in Interconnect with pipe, sleeved, fittings, pl	2.0	2.0	each	$ 3,000.00	$6,000.00
66	12" Cut-in Interconnect with pipe, sleeves, fittings, p	1.0	0.0	each	$ 3,500.00	$0.00
67	20" Cut-in Interconnect with pipe, sleeves, fittings, p	2.0	0.0	each	$ 10,000.00	$0.00
DIVISION B - ROAD CONSTRUCTION						
68	Dense Graded Base Course for New concrete road	1035.0	0.0	SY	$ 5.50	$0.00
69	Asphaltic Concrete Pavement (5.5") for new roadwa	760.0	0.0	tons	$ 65.75	$0.00
70	10" concrete oavement at North Ave	1035.0	0.0	SY	$ 84.75	$0.00
71	Spot Removal and Replace Curb & Gutter (at Fishe	129.0	0.0	LF	$ 45.00	$0.00
72	Removal and Replace Curb & Gutter inclding restor	1322.0	0.0	LF	$ 24.00	$0.00
73	Dense Graded Base Course for New roadway (10")	1250.0	0.0	tons	$ 14.00	$0.00
74	Common Excavting including all base and asphalt r	1.0	0.0	LS	$ 65,000.00	$0.00
75	Concrete Sidewalk including ramps	140.0	0.0	SY	$ 60.00	$0.00
76	7-inch Concrete Driveways and 7-inch Concrete Sic	40.0	0.0	SY	$ 64.00	$0.00
77	Detectable Warning Field per ramps	5.0	0.0	each	$ 325.00	$0.00
78	Pavement Marking Crosswalk, white, Epoxy	113.0	0.0	LF	$ 22.50	$0.00
79	Pavement Marking 18-inch stop Line, White, Epoxy	160.0	0.0	LF	$ 20.25	$0.00
80	Pavement Marking 4" dashed, White, Epoxy	480.0	0.0	LF	$ 1.95	$0.00
81	Pavement Marking 8" Channelizing, White, Epoxy	400.0	0.0	LF	$ 0.85	$0.00

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CONTRACTOR Advance Construction, Inc.

CONTRACT PERIOD July 25, 2015 to August 8, 2015

NO.	BID ITEMS DESCRIPTION	CONTRACT UNITS	NO. OF UNITS	UNIT	UNIT PRICE	TOTAL AMOUNT
82	Pavement Marking Arrows, Type 2, White, Epoxy	5.0	0.0	each	$ 285.00	$0.00
83	Pavement Marking Arrows, Type 3, White, Epoxy	1.0	0.0	each	$ 350.00	$0.00
84	Pavement Marking 4" Double Yellow, Epoxy	50.0	0.0	LF	$ 1.70	$0.00
85	Colored Concrete Crosswalk	267.0	0.0	SY	$ 143.00	$0.00
86	Concrete Median Nose	2.0	0.0	each	$ 550.00	$0.00
87	Traffic Control at North Avenue	1.0	0.0	LS	$ 40,000.00	$0.00
88	Type A Sod Lawn Restoration including 6-inches of	200.0	0.0	SY	$ 12.00	$0.00
89	Type D Lawn Restoration excluding restoration nee	400.0	0.0	SY	$ 12.00	$0.00
90	Excavation Below Subgrade	300.0	0.0	CY	$ 45.00	$0.00
91	Sawcutting	730.0	0.0	LF	$ 3.00	$0.00
92	Temporary Mailboxes	1.0	0.0	LS	$ 4,000.00	$0.00
DIVISION T - TRAFFIC SIGNALS						
93	Removing Concrete Bases	11.0	0.0	each	$ 250.00	$0.00
94	Conduit Regid Nonmetallic Schedule 40 2-inch	40.0	0.0	LF	$ 6.00	$0.00
95	Conduit Regid Nonmetallic Schedule 40 3-inch	200.0	0.0	LF	$ 8.00	$0.00
96	Conduit Special 3-inch	800.0	0.0	LF	$ 20.00	$0.00
97	Pull Boxes Stel 12 x 24-inch	12.0	0.0	each	$ 750.00	$0.00
98	Removing Pull Boxes	3.0	0.0	each	$ 150.00	$0.00
99	Concrete Bases Type 1	3.0	0.0	each	$ 600.00	$0.00
100	Concrete Bases Type 2	1.0	0.0	each	$ 4,500.00	$0.00
101	Concrete Control Cabinet Bases Type 9 Special	1.0	0.0	each	$ 1,250.00	$0.00
102	Cable Traffic Signal 5-14 AWG	633.0	0.0	LF	$ 1.20	$0.00
103	Cable Traffic Signal 7-14 AWG	923.0	0.0	LF	$ 1.40	$0.00
104	Cable Traffic Signal 12-14 AWG	1154.0	0.0	LF	$ 2.20	$0.00
105	Electrical Wire Traffic Signal 10 AWG	1023.0	0.0	LF	$ 0.80	$0.00
106	Electrical Wire Traffic Signal 12 AWG	2402.0	0.0	LF	$ 0.70	$0.00
107	Traffic Signal EVP Detector Cable	754.0	0.0	LF	$ 1.20	$0.00
108	Electrical Service Meter Breaker Pedestral 114th St	1.0	0.0	each	$ 1,250.00	$0.00
109	Pedestal Bases	3.0	0.0	each	$ 190.00	$0.00
110	Transformer Bases Breakaway 11 1/2-inch Bolt Circ	5.0	0.0	each	$ 370.00	$0.00
111	Poles Type 4	5.0	0.0	each	$ 1,350.00	$0.00
112	Traffic Signal Standards Aluminum 3.5 Ft	2.0	0.0	each	$ 210.00	$0.00
113	Traffic Signal Standards Aluminum 12 Ft	1.0	0.0	each	$ 460.00	$0.00
114	Luminaire Arms Single Member 4-Inch clamp 6-Ft	5.0	0.0	each	$ 520.00	$0.00
115	Traffic Signal face 3- 12 inch Vertical	13.0	0.0	each	$ 340.00	$0.00
116	Traffic Signal Face 4- 12 inch Vertical	5.0	0.0	each	$ 430.00	$0.00
117	Traffic Signal Face 5- 12 inch Vertical	2.0	0.0	each	$ 520.00	$0.00
118	Backplates Signal Face 3 Section 23-inch	13.0	0.0	each	$ 70.00	$0.00
119	Backplates Signal Face 4 Section 12-inch	5.0	0.0	each	$ 90.00	$0.00
120	Backplates Signal Face 5 Section 12-inch	2.0	0.0	each	$ 100.00	$0.00
121	Pedestrian Signal Face 16-inch	8.0	0.0	each	$ 230.00	$0.00
122	Pedestrian Push Buttons	8.0	0.0	each	$ 250.00	$0.00
123	LED Modules 12-inch Red Ball	13.0	0.0	each	$ 70.00	$0.00

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CITY OF WAUWATOSA

PARTIAL - PAYMENT NO. 3

Contract 15-06 / Project 4006 North 104th Street and West Fisher Parkway Improvements

CONTRACTOR Advance Construction, Inc.

CONTRACT PERIOD July 25, 2015 to August 8, 2015

NO.	BID ITEMS DESCRIPTION	CONTRACT UNITS	NO. OF UNITS	UNIT	UNIT PRICE	TOTAL AMOUNT
124	LED Modules 12-inch Yellow Ball	13.0	0.0	each	$ 70.00	$0.0(
125	LED Modules 12-inch Green Ball	13.0	0.0	each	$ 70.00	$0.0(
126	LED Modules 12-inch Red Arrow	7.0	0.0	each	$ 70.00	$0.0(
127	LED Modules 12-inch Yellow Arrow	13.0	0.0	each	$ 70.00	$0.0(
128	LED Modules 12-inch Green Arrow	10.0	0.0	each	$ 70.00	$0.0(
129	LED Modules Pedestrian Countdown Timer 16-inch	8.0	0.0	each	$ 280.00	$0.0(
130	Signal Mounting Hardware 104th & North	1.0	0.0	LS	$ 3,730.00	$0.0(
131	Concrete Bases Type 10 Contractor Supplies Anch	4.0	0.0	each	$ 3,500.00	$0.0(
132	Poles Type 9	2.0	0.0	each	$ 3,650.00	$0.0(
133	Poles Type 10	2.0	0.0	each	$ 5,650.00	$0.0(
134	Monotube Arms 30 ft	4.0	0.0	each	$ 3,650.00	$0.0(
135	Luminaire Arms Steel 6-Ft	4.0	0.0	each	$ 790.00	$0.0(
136	EVP Detector Type 1	4.0	0.0	each	$ 700.00	$0.0(
137	EVP Discriminator Type IV	1.0	0.0	each	$ 2,350.00	$0.0(
138	EVP Confirmation Light Assembly Type 1	4.0	0.0	each	$ 270.00	$0.0(
139	EVP Card Rack	1.0	0.0	each	$ 390.00	$0.0(
140	Traffic Signal Controller, Fully Actuated, 8-Phase	1.0	0.0	each	$ 12,800.00	$0.0(
141	Type UF Cable 2-conductor No 14	754.0	0.0	LF	$ 1.00	$0.0(
142	Remove Traffic Signals	1.0	0.0	LS	$ 1,650.00	$0.0(
143	Video Vehicle Detection Sytem	1.0	0.0	LS	$ 24,670.00	$0.0(
144A	Street Sign D3-1, W North Ave, located on poles SE	2.0	0.0	each	$ 570.00	$0.0(
144B	Street Sign D3-1, W 104th St., located on poles SB	2.0	0.0	each	$ 560.00	$0.0(
144C	Sign R1-1F, Folding sign, located on poles SB2, SB	4.0	0.0	each	$ 300.00	$0.0(
144D	Poles SB2, SB5, SB8, SB11, SB12, sheet #22	7.0	0.0	each	$ 470.00	$0.0(
144E	Arrow, Located on poles SB3, SB10, sheet #22	2.0	0.0	each	$ 470.00	$0.0(
144F	SIGN w1-7, Two Direction Large Arrow, Located on	2.0	0.0	each	$ 350.00	$0.0(
DIVISION L - ELECTRICAL AND LIGHTING						
145	Protection and support of existing electrical lines, ca	1.0	0.0	LS	$ 2,500.00	$0.0(
146	Remove existing light poles	8.0	0.0	each	$ 250.00	$0.0(
147	Provide remporary lighting and protection of existing	1.0	0.0	LS	$ 2,500.00	$0.0(
148	Street Lighting Unit, 25 Foot Poles on 104th Street,	4.0	0.0	each	$ 1,950.00	$0.0(
149	Street Lighting Unit, 30 Foot Poles on North Ave, Si	4.0	0.0	each	$ 2,000.00	$0.0(
150	New PVC 3-inch conduit	70.0	0.0	LF	$ 8.00	$0.0(
151	New PVC 4-inch conduit	175.0	0.0	LF	$ 10.00	$0.0(
152	Cast-in-place splice kits - undistributed	14.0	0.0	each	$ 125.00	$0.0(
153	Cable-in-duct, 2 conductor No. 4 with No 8 ground	1400.0	0.0	LF	$ 4.00	$0.0(
154	Polymer Concrete Junction Box, 17 x 30 inch	2.0	0.0	each	$ 750.00	$0.0(
DIVISION A - WATER MAIN (TIF #9)						
155	Open cut DIP water main spec. CI 55; polywrap; sar	124.0	0.0	LF	$ 160.00	$0.0(
156	8" Certa-lock PVC water main by directional drilling	846.0	0.0	LF	$ 135.00	$0.0(
157	Option to install 8" certa-lock PVC water main by dir	368.0	0.0	LF	$ 155.00	$0.0(
158	8" Resilient wedge gate valve with box & valve box	7.0	0.0	each	$ 1,640.00	$0.0(
159	8" x 45 degree MJ Horz. Bend with buttress and me	9.0	0.0	each	$ 590.00	$0.0(

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PARTIAL - PAYMENT NO. 3

Contract 15-06 / Project 4006 North 104th Street and West Fisher Parkway Improvements

CONTRACTOR Advance Construction, Inc.

CONTRACT PERIOD July 25, 2015 to August 8, 2015

NO.	BID ITEMS DESCRIPTION	CONTRACT UNITS	NO. OF UNITS	UNIT	UNIT PRICE	TOTAL AMOUNT
160	8" x 11.25 degree MJ Horz. Bend with buttress and	1.0	0.0	each	$ 576.00	$0.00
161	8" x 6" MJ Reducer and megalug retianer glands	2.0	0.0	each	$ 350.00	$0.00
162	8" x 6" MJ Anchor Tee with buttress and megalug re	3.0	0.0	each	$ 560.00	$0.00
163	8" x 8" MJ Tee with buttress and megalug retainer g	2.0	0.0	each	$ 650.00	$0.00
164	9" MJ Duo-sized sleeve	1.0	0.0	each	$ 1,000.00	$0.00
165	6" MJ Duo-sized sleeve	2.0	0.0	each	$ 850.00	$0.00
166	COS - Connection to Service to Copper Service - 1'	11.0	0.0	LF	$ 1,700.00	$0.00
167	new Hydrant including backfill, blocking, valve, buttr	3.0	0.0	each	$ 6,000.00	$0.00
168	Removal of existing hydrant assembly and salvage	3.0	0.0	each	$ 1,000.00	$0.00
169	Abandon exist. Water valve; Type "C" lawn replacer	2.0	0.0	each	$ 1,000.00	$0.00
170	Each for the a cut-in interconnection of the new 8" n	2.0	0.0	each	$ 4,000.00	$0.00
171	Each for the a cut-in interconnection of the new 8" n	2.0	0.0	each	$ 4,000.00	$0.00
	Total					**$1,279,540.70**

TOTAL DUE TO DATE	$1,279,540.70
LESS AMOUNT RETAINED	$63,977.04
NET AMOUNT TO DATE	$1,215,563.67
AMOUNT PAID TO DATE	$563,201.94
AMOUNT DUE THIS PAYMENT	**$652,361.73**

Account	Account Name	Amount to be encumbered
03-331-5980-000	Streets	$0.00
03-242-5980-000	Traffic Control	$0.00
03-335-5980-000	Street Lighting	$0.00
03-336-5980-000	Storm Sewers	$598,671.05
03-367-5980-000	Sanitary Sewers	$343,138.15
50-XXX-XXXX-XX	Water	$214,076.00
03-809-5980-030	TIF #9	$59,678.47
	TOTAL $	1,215,563.67

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CITY OF WAUWATOSA

PARTIAL - PAYMENT NO. 1

Contract 15-10 - Sanitary Sewer Improvements
Project 3003

CONTRACTOR Visu-Sewer, Inc.
CONTRACT PERIOD June 11, 2015 to July 31, 2015

NO.	BID ITEMS DESCRIPTION	CONTRACT UNITS	NO. OF UNITS	UNIT	UNIT PRICE	TOTAL AMOUN
1A	8-inch Sanitary Sewer relay (spot repairs) (5.1 LF - 10.0 LF)	5	1	each	$ 11,500.00	$11,500.0
2A	8-inch Sanitary Sewer relay (spot repairs) (10.1 LF - 15.0 LF)	5	9	each	$ 11,000.00	$99,000.0
3A	8-inch Sanitary Sewer relay (spot repairs) (25.1 LF - 30.0 LF)	1	1	each	$ 13,500.00	$13,500.0
4A	8-inch Sanitary Sewer relay (spot repairs) (30.1 LF - 35.0 LF)	2	2	each	$ 14,500.00	$29,000.0
5A	Vertical feet in 5 each of 48" dia. precast sanitary sewer manhole	48.0	47.8	VF	$ 270.00	$12,906.0
6A	Furnish and install new Cretex or NPC Flexrib Internal Frame/ Chimney Seal into rebuilt Sanitary manholes.	5	0	each	$ 400.00	$0.0
7A	Abandoning sanitary manhole after relining.	5	0	each	$ 3,250.00	$0.0
8A	Sanitary lateral reconnections/repair, up to 4 feet	16	18	each	$ 450.00	$8,100.0
9A	Sanitary lateral reconnections/repair of more than 4 feet	7.0	3.7	LF	$ 110.00	$407.0
10A	lump sum for locating, marking and maintaining the operation of the City's street lights and traffic control signals	1	0	LS	$ 150.00	$0.0
11A	8-inch nominal diameter sanitary sewer lining (CIPP)	19,162.0	9,148.0	LF	$ 27.00	$246,996.0
12A	10-inch nominal diameter sanitary sewer lining (CIPP)	641.0	0.0	LF	$ 32.00	$0.0
13A	Grouting for first 10 feet of existing san sewer lateral conn to 8" main	513	0	each	$ 595.00	$0.0
14A	Grouting for first 10 ft of existing san sewer lateral conn to 10" main	3	0	each	$ 595.00	$0.0
15A	Grouting for first 10 ft of existing san sewer lateral conn to 12" main	1	0	each	$ 800.00	$0.0
16A	Grouting and verification testing of lateral connections to 42" or 48" diameter sanitary sewer manholes and the initial first Thirty feet of the sanitary sewer lateral	80	0	each	$ 795.00	$0.0
17A	Removal of tree root obstruction (medium roots or root balls) for first 7 feet of existing sanitary sewer lateral connection to sewer main in advance of grouting activity.	42	0	each	$ 750.00	$0.0
18A	Removal of medium calcium deposits for first 10 inches of existing sanitary sewer lateral connection to sewer main in advance of grouting activity.	20	3	each	$ 850.00	$2,550.0
19A	Removal of heavy calcium deposits for first 10 inches of existing sanitary sewer lateral connection to sewer main in advance of grouting activity.	2	0	each	$ 1,150.00	$0.0
20A	Gallons of acrylamide based grout, incl ltx & root inhibitor add'ves.	10038.0	0.0	gallon	$ 1.00	$0.0
	Total					**$423,959.0**

TOTAL DUE TO DATE	$423,959.0
LESS AMOUNT RETAINED	$21,197.9
NET AMOUNT TO DATE	$402,761.0
AMOUNT PAID TO DATE	$0.0
AMOUNT DUE THIS PAYMENT	**$402,761.0**

Account	Account Name	Amount to be encumbered
03-331-5980-000	Streets	$0.0
03-242-5980-000	Traffic Control	$0.0
03-335-5980-000	Street Lighting	$0.0
03-336-5980-000	Storm Sewers	$0.0
03-367-5980-000	Sanitary Sewers	$402,761.0
50-XXX-XXXX-XX	Water	$0.0
	TOTAL	$ 402,761.0

Attachment: Partial Payment for 8-17-15 (3366 : Partial payments 8/17/2015)