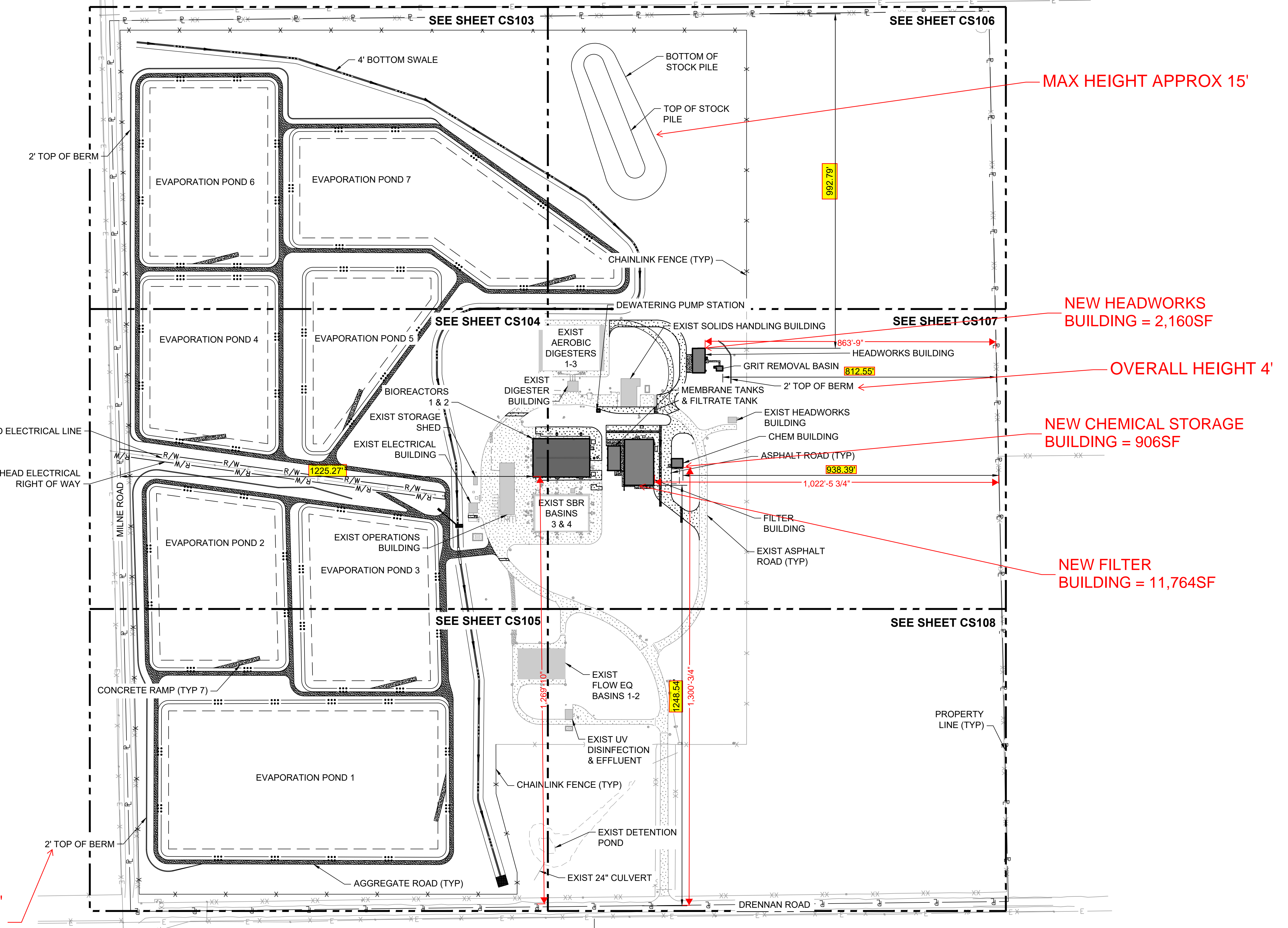


no.	date	by	ckd	description
0	10/2/20	MJL	NT	ISSUED FOR PERMIT REVIEW



MAX HEIGHT APPROX 15'

NEW HEADWORKS BUILDING = 2,160SF

OVERALL HEIGHT 4'

NEW CHEMICAL STORAGE BUILDING = 906SF

NEW FILTER BUILDING = 11,764SF

OVERALL HEIGHT 3' (TYPICAL OF WEST SIDE)

Approval includes approval of alternative landscape plan, pursuant to LDC Sec. 6.2.2(A)(4).
Condition of approval: detention maintenance agreement shall be approved and recorded prior to commencement of construction.

BURNS MEDONNELL
9785 Maroon Cir., Suite 400
Centennial, CO 80112
303-721-9292

date	OCTOBER 2020	detailed	M. LIESENDAHL
designed	M. LIESENDAHL	checked	N. TESSITORE

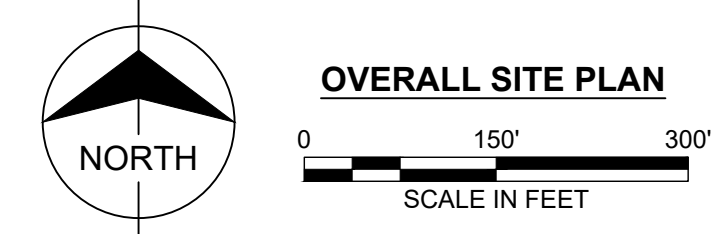


CHEROKEE METROPOLITAN DISTRICT
TDS REDUCTION FACILITY
OVERALL SITE PLAN

Approved
By: Craig Dossey, Executive Director
Date: 12/18/2020
El Paso County Planning & Community Development



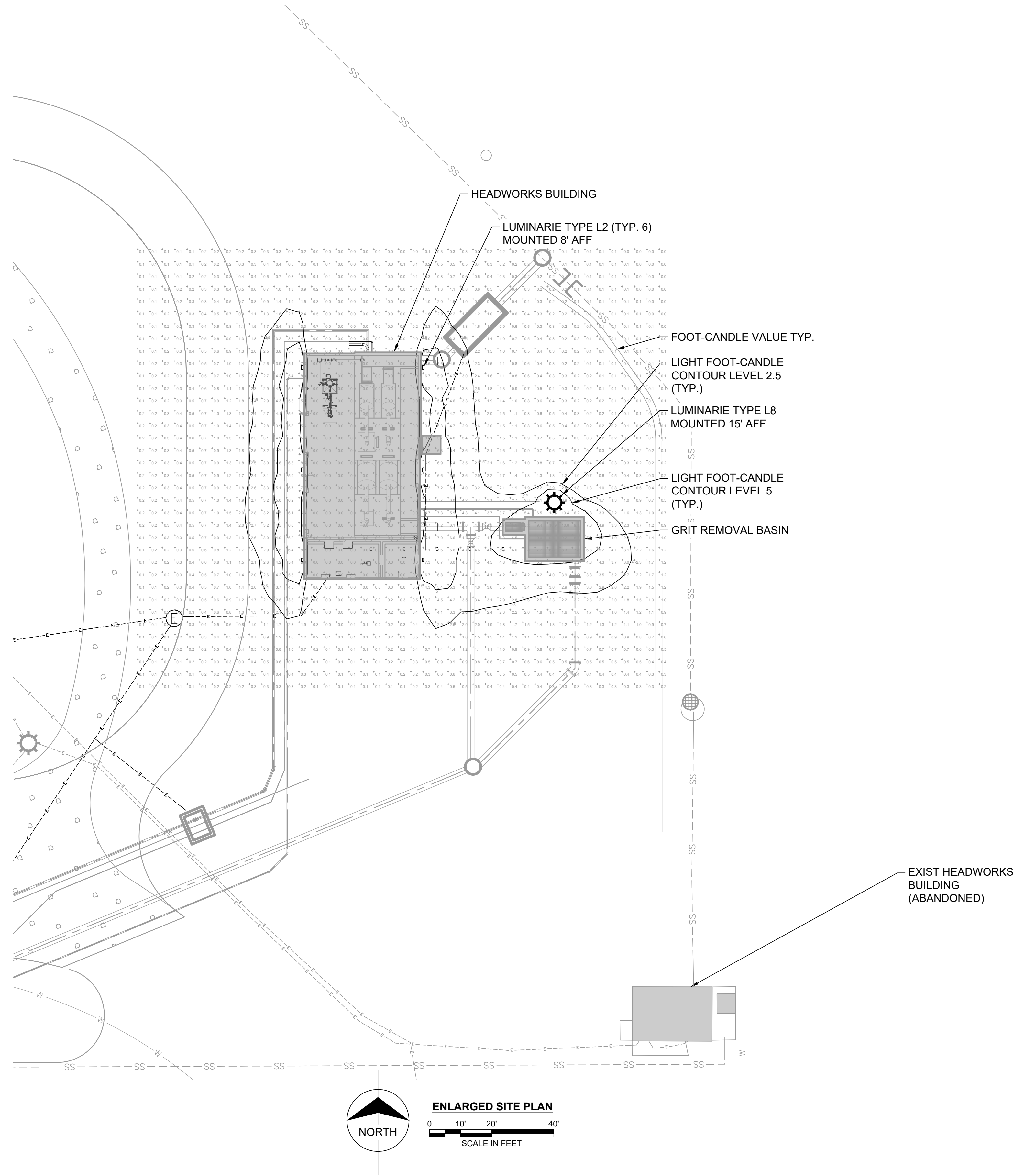
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drawing	CS102	rev.	0
sheet	6 of	sheets	
file	119461_CS102.DWG		



Scale For Microfitting
Millimeters
Inches

Scale For Microfining
Millimeters

Inches



no.	date	by	ckd	description
0	10/2/20	ZLP	VKP	ISSUED FOR PERMIT REVIEW
1	12/11/20	ZLP	VKP	REISSUED FOR EL PASO COUNTY PERMIT REVIEW

FOR PERMITTING PURPOSES ONLY

BURNS MEDONNELL
9785 Maroon Cir., Suite 400
Centennial, CO 80112
303-721-9292

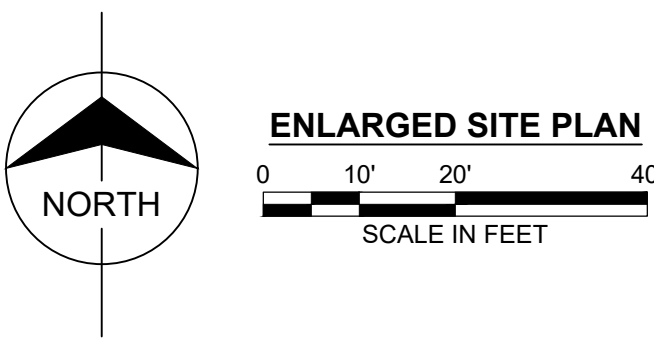
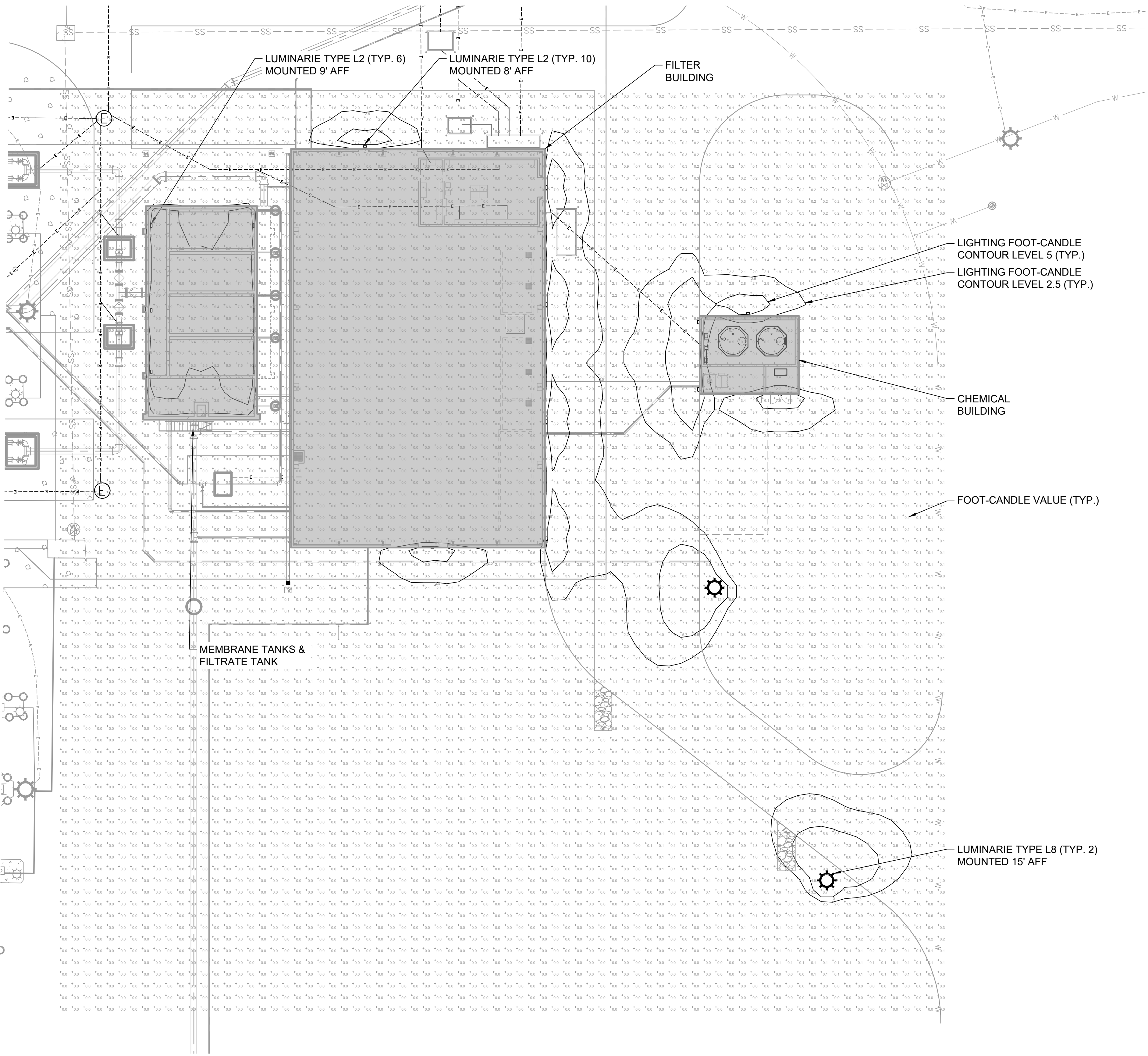
date DECEMBER 2020	detailed Z. PYLE
designed V. PATWARI	checked B. GRAEBER



CHEROKEE METROPOLITAN DISTRICT
TDS REDUCTION FACILITY
ENLARGED SITE LIGHTING PLAN 1

project 119461	contract
drawing SL-01	rev. 1
sheet --- of --- sheets	
file 119461_SITE_LIGHTING.DWG	





no.	date	by	ckd	description
0	10/2/20	ZLP	VKP	ISSUED FOR PERMIT REVIEW
1	12/11/20	ZLP	VKP	REISSUED FOR EL PASO COUNTY PERMIT REVIEW

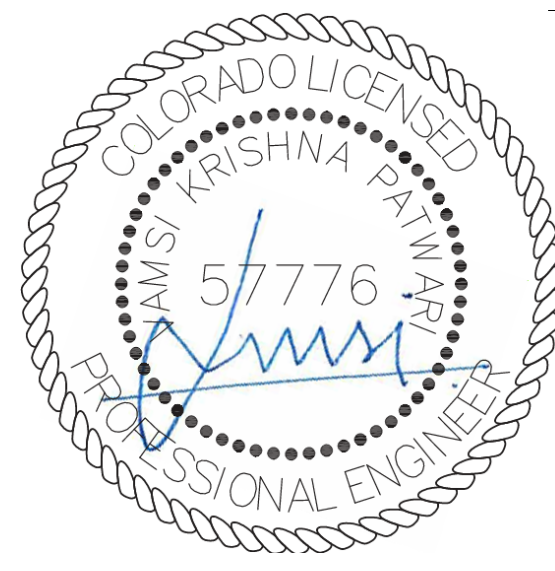
FOR PERMITTING PURPOSES ONLY

BURNS & MCDONNELL
 9785 Maroon Cir., Suite 400
 Centennial, CO 80112
 303-721-9292

date	DECEMBER 2020	detailed	Z. PYLE
designed	V. PATWARI	checked	B. GRAEBER

CHEROKEE METROPOLITAN DISTRICT
 TDS REDUCTION FACILITY
 ENLARGED SITE LIGHTING PLAN 2

project	119461	contract	
drawing	SL-02	rev.	1
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file	119461_SITE_LIGHTING.DWG		



Millimeters
Scale For Microfitting
Inches

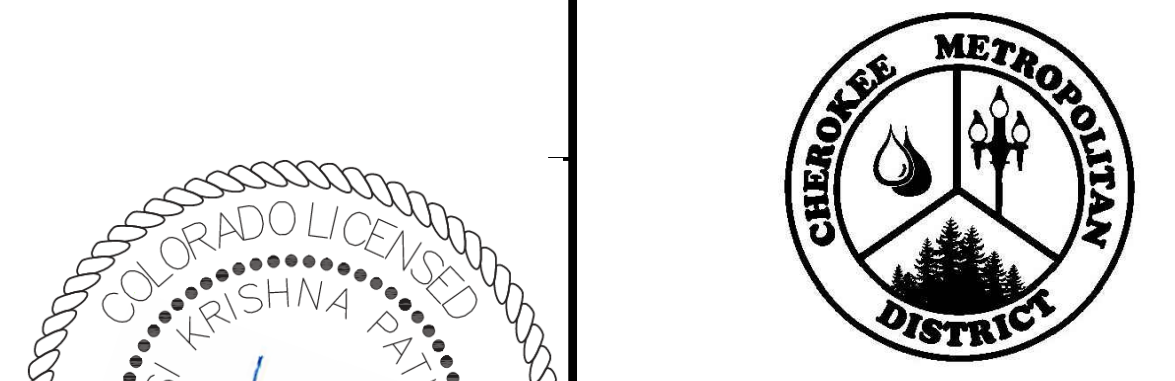
LUMINAIRE SCHEDULE								
LUMINAIRE TYPE	MANUFACTURER	CATALOG NUMBER	CONSTRUCTION	TYPE OF FIXTURE	OPTICS	LAMP	BALLAST	ACCESORIES/NOTES
L1	ACUITY BRANDS OR ENGINEER APPROVED EQUAL	EVT4_4000LM_FST_WD_40K_80CR	UV STABILIZED, INJECTION MOLDED, IMPACT RESISTANT, FROSTED POLYCARBONATE HOUSING, NEMA 4X, STAINLESS STEEL LATCHES	1X4 INDUSTRIAL FULLY ENCLOSED GASKET STRIP	FROSTED POLYCARBONATE LENS	LED	120V/277V	1. TOTAL WATTAGE PER FIXTURE: 33 WATTS 2. STAINLESS STEEL LATCHES 3. CEILING OR SUSPENDED MOUNTED
L1E	ACUITY BRANDS OR ENGINEER APPROVED EQUAL	EVT4_4000LM_FST_WD_40K_80CR_E15WCP	SAME AS LUMINAIRE TYPE L1	SAME AS LUMINAIRE TYPE L1	SAME AS LUMINAIRE TYPE L1	LED	SAME AS LUMINAIRE TYPE L1	1. TOTAL WATTAGE PER FIXTURE: 33 WATTS 2. EMERGENCY LED POWER PACK (15W CONSTANT POWER) 3. CEILING OR SUSPENDED MOUNTED
L2	ACUITY BRANDS OR ENGINEER APPROVED EQUAL	W4PLED_30C700_40K_T3M_MVOLT_SPD_PE_EL_CW_BZSDP	DIE CAST ALUMINUM HOUSING WITH POLYCARBONATE LENS, DARK BRONZE POLYESTER POWDER COAT FINISH, INTEGRAL AC POWER INDICATOR AND TEST SWITCH LOCATED ON THE BOTTOM OF THE LUMINAIRE	WALL PACK	TYPE 3 MEDIUM	LED, 5176 LUMENS 4000K, 70 CRI	120_277V NON_DIMMING TYPE	1. TOTAL WATTAGE PER FIXTURE: 67 WATTS 2. EMERGENCY BATTERY BACKUP
L3	ACUITY BRANDS OR ENGINEER APPROVED EQUAL	HXPL5L42TAS	CORROSION RESISTANT, EXPLOSION PROOF, FINNED DRIVER HOUSING FOR CLASS 1, DIV 1 AREAS	1X4 CLASS 1, DIV 1, LED LUMINAIRE	EXPLOSION PROOF, IMPACT RESISTANT, LED PROTECTION	LED	120V/277V	1. TOTAL WATTAGE PER FIXTURE: 47 WATTS
L3E	ACUITY BRANDS OR ENGINEER APPROVED EQUAL	HXPL5L42TASEM	SAME AS LUMINAIRE TYPE L3	SAME AS LUMINAIRE TYPE L3	SAME AS LUMINAIRE TYPE L3	LED	SAME AS LUMINAIRE TYPE L3	1. TOTAL WATTAGE PER FIXTURE: 47 WATTS 2. EM BATTERY BACKUP: 10W
L4	HE WILLIAMS OR ENGINEER APPROVED EQUAL	EXIT_R_EM_WHT_SDT_D	HIGH IMPACT THERMOPLASTIC WHITE HOUSING WITH UNIVERSAL MOUNTING AND FACE UNIT	EXIT SIGN RED LETTERS	N/A	LED	120V	1. TOTAL WATTAGE PER FIXTURE: 3.2 WATTS 2. NI_CAD BATTERY PROVIDES 90 MINUTES OF EMERGENCY OPERATION
L5	EATON OR ENGINEER APPROVED EQUAL	EVLPFBA02520/UNW/EXD EVLPEBXX02520/UNW/EXD	CORROSION RESISTANT STAINLESS STEEL HOUSING FOR CLASS 1, DIV 1 AREAS	CLASS 1, DIV 1 EXIT SIGN RED LETTERS	N/A	LED	120V	1. TOTAL WATTAGE PER FIXTURE: 3.2 WATTS 2. NI_CAD BATTERY PROVIDES 90 MINUTES OF EMERGENCY OPERATION
L6	ACUITY BRANDS OR ENGINEER APPROVED EQUAL	EVT4_4000LM_PCL_WD_40K_80CRI	UV STABILIZED, INJECTION MOLDED, IMPACT RESISTANT, FROSTED POLYCARBONATE HOUSING	1X4 INDUSTRIAL TYPE	FROSTED POLYCARBONATE LENS	LED	120V/277V	1. TOTAL WATTAGE PER FIXTURE: 33 WATTS 2. STAINLESS STEEL LATCHES 3. CEILING OR SUSPENDED MOUNTED
L6E	ACUITY BRANDS OR ENGINEER APPROVED EQUAL	EVT_4000LM_PCL_WD_40K_80CRI_E15WCP	SAME AS LUMINAIRE TYPE L6	SAME AS LUMINAIRE TYPE L6	SAME AS LUMINAIRE TYPE L6	LED	120V/277V	1. TOTAL WATTAGE PER FIXTURE: 33 WATTS 2. EMERGENCY LED POWER PACK (15W CONSTANT POWER) 3. CEILING OR SUSPENDED MOUNTED
L7	ACUITY BRANDS OR ENGINEER APPROVED EQUAL	EVT4_6000LM_PCL_WD_40K_80CRI	UV STABILIZED, INJECTION MOLDED, IMPACT RESISTANT, FROSTED POLYCARBONATE HOUSING	1X4 INDUSTRIAL TYPE	FROSTED POLYCARBONATE LENS	LED	120V/277V	1. TOTAL WATTAGE PER FIXTURE: 49 WATTS 2. STAINLESS STEEL LATCHES 3. CEILING OR SUSPENDED MOUNTED
L7E	ACUITY BRANDS OR ENGINEER APPROVED EQUAL	EVT4_6000LM_PCL_WD_40K_80CRI_E15WCP	SAME AS LUMINAIRE TYPE L7	SAME AS LUMINAIRE TYPE L7	SAME AS LUMINAIRE TYPE L7	LED	120V/277V	1. TOTAL WATTAGE PER FIXTURE: 49 WATTS 2. EMERGENCY LED POWER PACK (15W CONSTANT POWER) 3. CEILING OR SUSPENDED MOUNTED
L8	ACUITY BRANDS OR ENGINEER APPROVED EQUAL	ATBM_P20_MVOLT_R4_4B_DDB_MP_UMR_XX_PCCC_RKATBMMVOLTMP POLE_RT_5_T_15_A_C_M_1_E_G_V	POLE MOUNTED AREA LIGHT, HEAVY DUTY, SINGLE PIECE DIE CAST ALUMINUM. GASKETED SEALED DOOR TO HOUSING, DARK_SKY COMPLIANT FULL CUTOFF. POLE SHALL BE ROUND TAPERED ALUMINUM, DARK BRONZE, WITH HANDHOLE COVER AND GROUND LUG, GFCI RECEPTACLE, MANUFACTURER INSTALLED VIBRATION DAMPNER, PROVIDE BASEPLATE COVER, COLOR SHALL MATCH POLE COLOR	SINGLE POLE MOUNTED LUMINAIRE	TYPE IV	LED	120V/277V	1. TOTAL WATTAGE PER FIXTURE: 94 WATTS 2. EATON ROUND POLE.

no.	date	by	ckd	description
0	10/2/20	ZLP	VKP	ISSUED FOR PERMIT REVIEW
1	12/11/20	ZLP	VKP	REISSUED FOR EL PASO COUNTY PERMIT REVIEW

FOR PERMITTING PURPOSES ONLY



date DECEMBER 2020	detailed Z. PYLE
designed V. PATWARI	checked B. GRAEBER



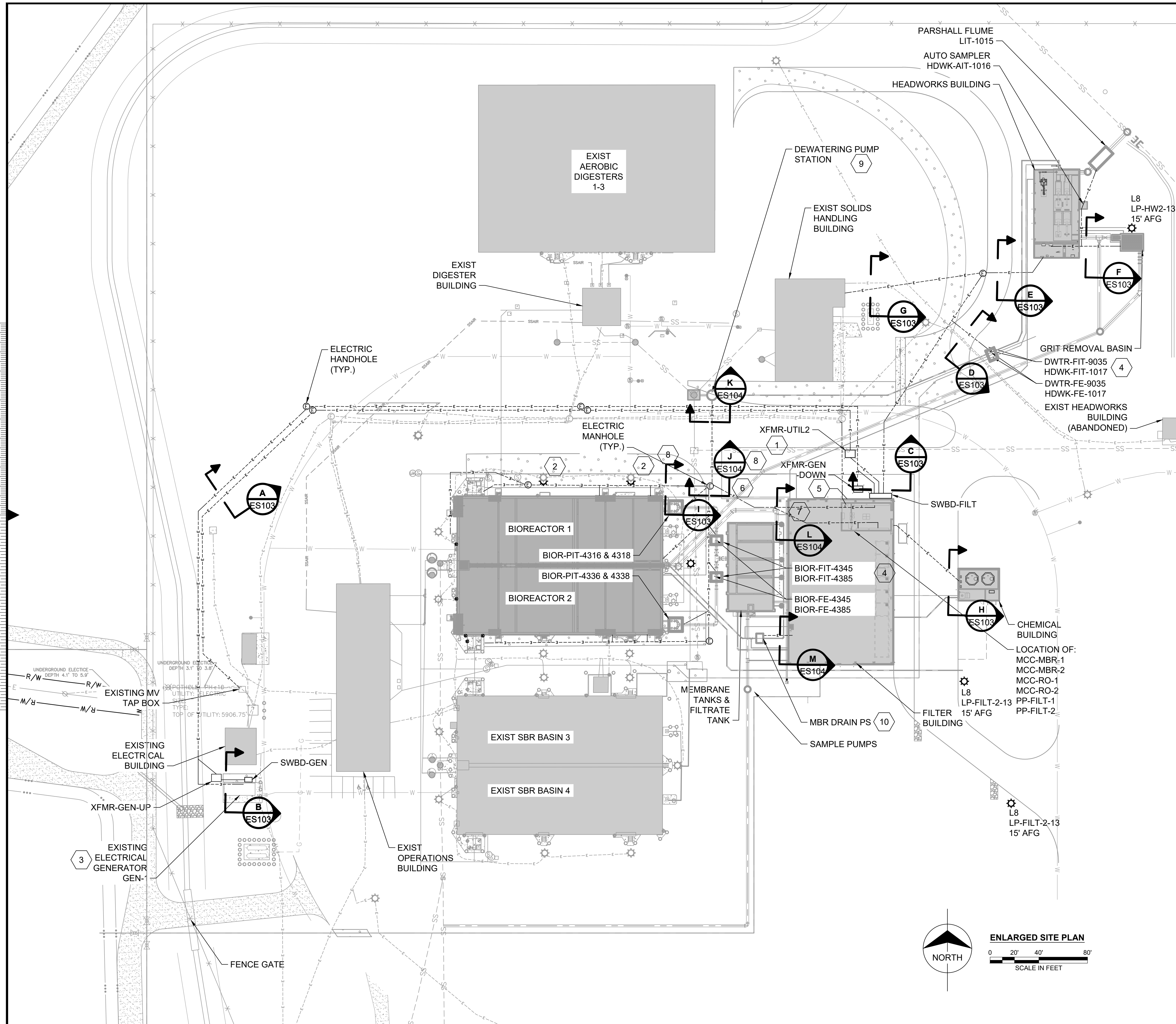
CHEROKEE METROPOLITAN DISTRICT
TDS REDUCTION FACILITY
LUMINAIRE SCHEDULE

project 119461	contract
drawing EL001	rev. 1
sheet --- of --- sheets	
file 119461_SITE_LIGHTING.DWG	

KEYED NOTES:

- 1 COORDINATE WITH MVEA FOR CT/PT REQUIREMENTS AND PROVIDE ADDITIONAL ENCLOSURE AS NEEDED.
- 2 EXISTING LIGHTS POLES TO BE RELOCATED. COORDINATE AND PROVIDE NEW CONDUIT AND CABLES AS NEEDED.
- 3 MODIFY THE EXISTING GENERATOR CONTROL CONNECTIONS TO PROVIDE THE FOLLOWING SIGNALS.
I. GENERATOR RUN
II. GENERATOR READY
III. GENERATOR ON LOAD
IV. GENERATOR FAIL
- 4 FLOWMETER LOCATED INSIDE THE VAULT. MOUNT THE FLOW TRANSMITTER ON A UNISTRUT ANCHORED TO A CONCRETE PAD.
- 5 MOUNT THE ARMS SELECTOR SWITCH FOR THE MAIN BREAKERS ON THE WALL IN A WEATHERPROOF ENCLOSURE.
- 6 LOCATE THE DUCT BANK SUCH THERE IS AT LEAST 12" CLEARANCE FROM THE FOUNDATION.
- 7 THE DUCT BANK SHALL ENTER WITHIN 15 FEET FROM THE NORTHWEST EDGE OF THE BUILDING.
- 8 THIS DUCT BANK SEGMENT HAS CONDUITS FROM MULTIPLE EQUIPMENT ALONG THE BIOREACTOR AREA. FOR THE CLARITY OF THE DRAWING, NOT ALL DUCT BANK SECTIONS BRANCHED OUT FROM THIS SEGMENT ARE SHOWN IN THIS DRAWING. REFER TO DUCT BANK SECTION DRAWINGS FOR ADDITIONAL DETAILS.
- 9 THE DEWATERING PUMP STATION CONSISTS OF DWTR-P-9010, DWTR-P-9020, DWTR-LE/LIT-9015, DWTR-LSH-9016, DWTR-LSL-9017. REFER TO PROCESS AND INSTRUMENTATION DETAILS FOR INSTALLATION REQUIREMENTS OF EQUIPMENT AND INSTRUMENTS WITHIN THE STATION.
- 10 THE DRAIN PUMP STATION CONSISTS OF MBR-P-5350, MBR-P-5360, MBR-PSH-5355, MBR-PSH-5365. REFER TO PROCESS AND INSTRUMENTATION DETAILS FOR INSTALLATION REQUIREMENTS OF EQUIPMENT AND INSTRUMENTS WITHIN THE STATION.

no.	date	by	ckd	description
0	10/2/20	ZLP	VKP	ISSUED FOR PERMIT REVIEW
1	12/11/20	ZLP	VKP	REISSUED FOR EL PASO COUNTY PERMIT REVIEW



Scale For Microfitting
Millimeters
Inches

REF - FOR PERMITTING PURPOSES ONLY



date DECEMBER 2020	detailed Z. PYLE
designed V. PATWARI	checked B. GRAEBER



**CHEROKEE METROPOLITAN DISTRICT
TDS REDUCTION FACILITY
ENLARGED SITE PLAN**

project 119461	contract
drawing ES102	rev. 1
sheet --- of --- sheets	
file 119461_ES101.DWG	

LUMINAIRE TYPE L2



Catalog Number	
Notes	Type

Wallpack® LED



LVG - Vandal guard



LWG - Wire guard

Description

Perimeter and security lighting requires excellent control and uniformity while minimizing light trespass and glare. The W4GLED/W4PLED Wallpack LED luminaires excel at this, requiring fewer luminaires to achieve required light levels in infrastructure, industrial and municipal applications. With energy cost reductions up to 77% and expected service life of over 20 years, Wallpack LED provides the latest lighting technology from the company that introduced the very first Wallpack to the market.

Optics

- The W4G uses a tempered glass lens and the W4P uses a protective polycarbonate lens that covers the light engine's precision-molded proprietary acrylic lenses.
- Type 3 medium
- Type 3 short (IP66 rated light engine)

Mechanical

- The housing is constructed of die-cast aluminum and is fully gasketed for ease of maintenance
- The LED driver is mounted to the front casting to thermally isolate it from the light engine for low operating temperature and long life
- Housing is completely sealed against moisture and environmental contaminants, IP55
- 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.

Electrical

- Light engine(s) consist of 10-30 high-efficacy LEDs mounted to a metal-core circuit board and integral aluminum heat sink to maximize heat dissipation and promote long life
- The dimmable electronic driver has a power factor of >90%, THD <20%
- SPD: 20kV/10kA standard
- CCT: 3000K, 4000K, 5000K
- CRI: 70CRI
- Integrated emergency backup on W4GLED with T3M option

Installation

- Top 3/4" threaded wiring access
- Back access through removable 3/4" knockout
- Feed-thru wiring can be achieved by using a conduit tee

Certification and Standards

- UL listed for wet locations. Rated for -40°C to 40°C ambient, refer to page 4 for details
- Designlights ConsortiumÆ (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.
- LM-79 compliant
- The projected LED Lumen Maintenance shall be based only on IES LM-80-08 and TM-21

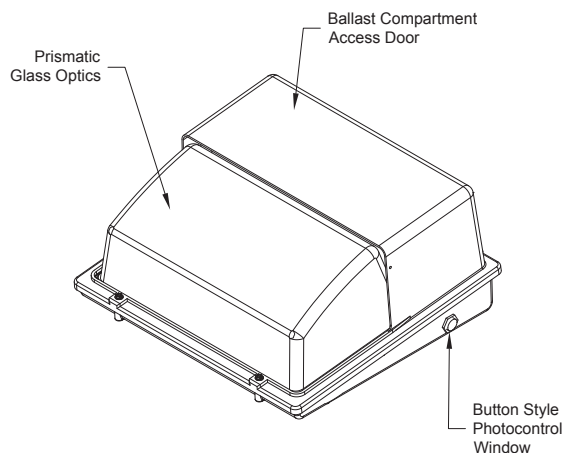
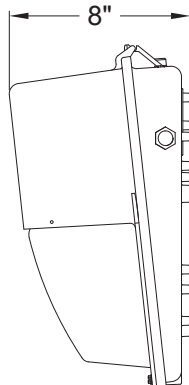
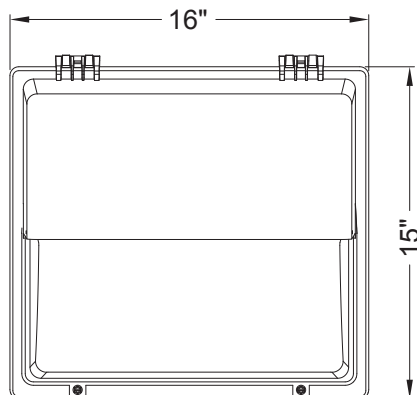
Warranty

5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_Conditions.aspx.

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25°C.



DIMENSIONAL DATA



ORDERING INFORMATION *Italicized and Blue INDICATES OPTIONS ONLY AVAILABLE WITH W4GLED*

Example: W4GLED 30C1000 40K T3S MVOLT SPD P7 BZSDP

Series	Performance Package	Color Temperature	Distribution	Voltage	Surge Protection
<i>W4GLED</i> Wallpack IV Glass LED	<i>10C1000</i> 10 LED	30K 3000 series CCT	<i>T3M</i> Type III Medium	<i>MVOLT</i> Multi-volt: 120-277 volt	<i>SPD</i> 20kV/10kA (Standard)
<i>W4PLED</i> Wallpack IV Plastic LED	<i>20C1000</i> 20 LED	<i>40K</i> 4000 series CCT	T3S Type III Short	120 120 Volt	
	<i>30C1000</i> 30 LED	50K 5000 series CCT		208 208 Volt	
	10C700 10 LED			240 240 Volt	
	20C700 20 LED			277 277 Volt	
	<i>30C700</i> 30 LED			347 347 Volt	
				480 480 Volt	

Control Options	Options	Super Durable Paint
<i>PE</i> Button Style Photoelectric Cell	<i>AO</i> Field Adjustable Output	BKSDP Black Super Durable Paint
<i>P3</i> N.E.M.A. Twistlock 3-pin Receptacle - Control not included	SF Single Fusing	<i>BZSDP</i> Bronze Super Durable Paint
<i>P7</i> N.E.M.A. Twistlock 7-pin Receptacle - Control not included	DF Double Fusing	GYS DP Grey Super Durable Paint
	TP Tamper resistant screws	WHSDP White Super Durable Paint
	NOM NOM Certified	
	<i>ELSW</i> Emergency Battery Backup (Standard 0°C)	
	<i>ELCW</i> Emergency Battery Backup (Cold Weather -20°C)	
	<i>LWG</i> Wire Guard	
	<i>LVG</i> Vandal Guard	

Accessories: Order as separate catalog number.	
<i>DLL127F 1.5 JU</i>	Photocell - SSL Twist-Lock (120-277V)
<i>DLL347 1.5 CUL JU</i>	Photocell - SSL Twist-Lock (347V)
<i>DLL480 1.5 CUL JU</i>	Photocell - SSL Twist-Lock (480V)
<i>SCU</i>	Shorting Cap
<i>W4GVGU</i>	Vandal Guard
<i>W4GWGU</i>	Wire Guard

OPTIONS MATRIX

Parameters		Voltage Options by LED Package			SELECTED OPTION											
		10Cxxxx	20Cxxxx	30Cxxxx	A0	PE	P3	P7	SF	DF	TP	NOM	ELSW	ELCW	LWG	LVG
LED Package	10Cxxxx				N	Y	W4G	W4G	Y	Y	Y	T3M	W4GM	W4GM	Y	W4G
	20Cxxxx				Y	Y	W4G	W4G	Y	Y	Y	T3M	W4GM	W4GM	Y	W4G
	30Cxxxx				Y	Y	W4G	W4G	Y	Y	Y	T3M	N	N	Y	W4G
Voltage	MVOLT	Y	Y	Y	Y	Y	W4G	W4G	Y	N	Y	T3M	W4GM	W4GM	Y	W4G
	120	Y	Y	Y	Y	Y	W4G	W4G	Y	Y	Y	T3M	W4GM	W4GM	Y	W4G
	208	Y	Y	Y	Y	Y	W4G	W4G	Y	Y	Y	T3M	W4GM	W4GM	Y	W4G
	240	Y	Y	Y	Y	Y	W4G	W4G	Y	Y	Y	T3M	W4GM	W4GM	Y	W4G
	277	Y	Y	Y	Y	Y	W4G	W4G	Y	Y	Y	T3M	W4GM	W4GM	Y	W4G
	347	N	Y	Y	Y	Y	W4G	W4G	Y	Y	Y	T3M	N	N	Y	W4G
	480	N	Y	Y	Y	N	W4G	W4G	Y	Y	Y	T3M	N	N	Y	W4G
Optic	T3M				Y	Y	W4G	W4G	Y	Y	Y	T3M	W4GM	W4GM	Y	W4G
	T3S				W4G	Y	W4G	W4G	Y	Y	Y	N	N	N	Y	W4G
Controls	A0					Y	W4G	W4G	Y	Y	Y	T3M	W4GM	W4GM	Y	W4G
	PE				Y		N	N	Y	N	Y	T3M	N	N	Y	W4G
	P3				W4G	N		N	W4G	W4G	W4G	W4GM	N	N	W4G	W4G
	P7				W4G	N	N		W4G	W4G	W4G	W4GM	N	N	W4G	W4G
Options	SF				Y	Y	W4G	W4G		N	Y	T3M	W4GM	W4GM	Y	W4G
	DF				Y	Y	W4G	W4G	N		Y	T3M	W4GM	W4GM	Y	W4G
	TP				Y	Y	W4G	W4G	Y	Y		T3M	W4GM	W4GM	Y	W4G
	NOM				Y	W4G	W4G	W4G	Y	Y	Y		W4GM	W4GM	N	W4G
	ELSW				Y	N	N	N	W4G	W4G	W4G	T3M			W4G	W4G
	ELCW				Y	N	N	N	W4G	W4G	W4G	T3M			W4G	W4G
	LWG				Y	Y	Y	Y	Y	Y	Y	T3M	W4GM	W4GM		N
	LVG				W4G	W4G	W4G	W4G	W4G	W4G	W4G	W4GM	W4GM	W4GM	N	

LEGEND

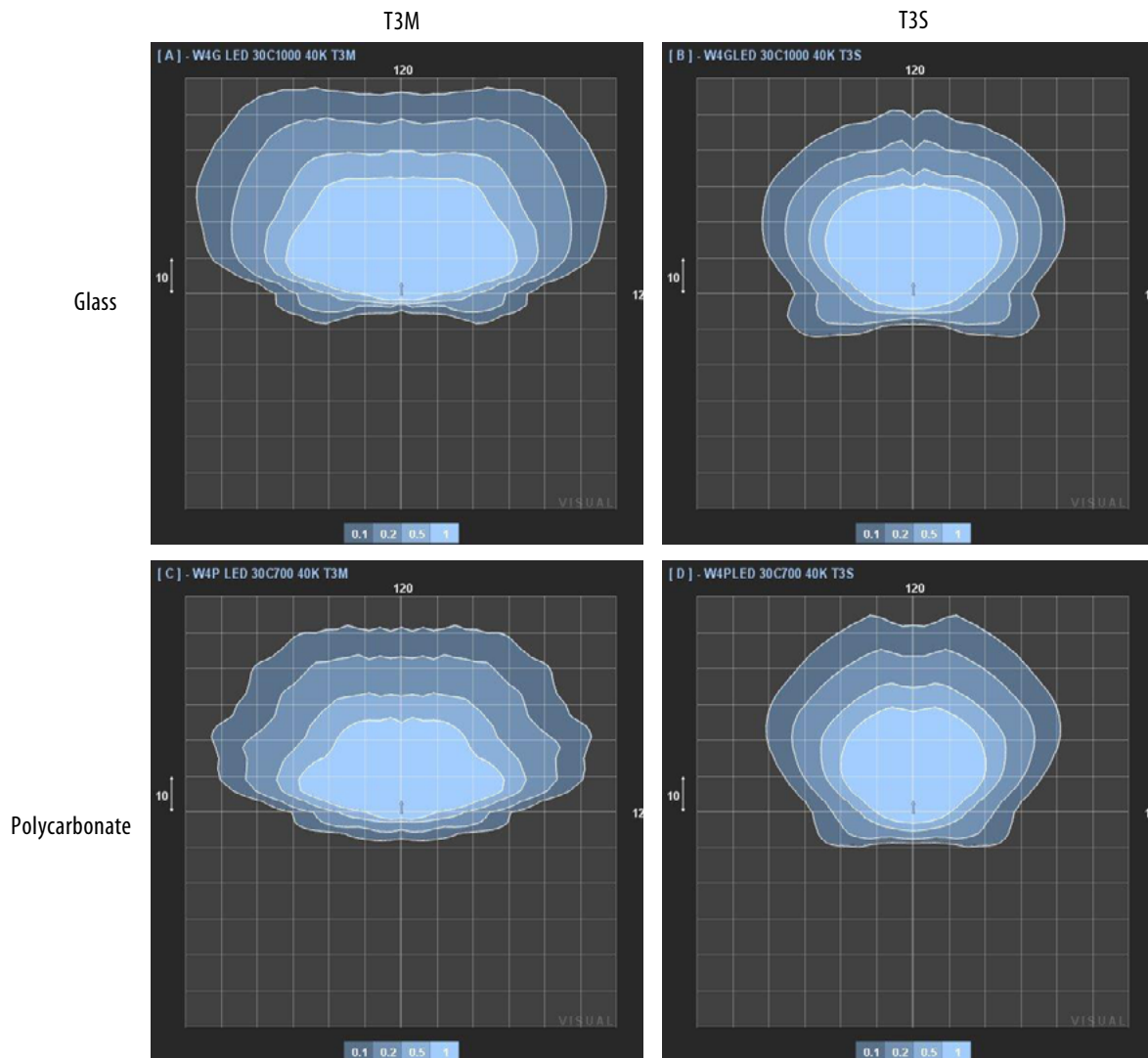
- N = Not available with W4GLED & W4PLED
- Y = Valid combination with W4GLED & W4PLED
- T3M = Only available on W4GLED & W4PLED with T3M distribution
- W4G = Only available with W4GLED
- W4GM = Only available on W4GLED with T3M distribution

OPERATIONAL DATA

Operating Characteristics

Series	LED Package	System Watts	Distribution Type	30K (3000K, 70 CRI)					40K (4000K, 70 CRI)					50K (5000K, 70 CRI)					
				Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	
W4G	10C1000	39	T3M	3140	81	0	3	3	3377	87	0	3	3	3398	87	0	3	3	
	20C1000	72		6495	90	1	3	4	6983	97	1	3	4	7027	98	1	3	4	
	30C1000	104		7789	75	1	3	4	8375	81	1	3	5	8427	81	1	3	5	
W4P	10C700	26		2030	78	0	3	2	2183	84	0	3	2	2197	85	0	3	2	
	20C700	45		3912	87	0	3	3	4207	93	1	3	3	4233	94	1	3	3	
	30C700	67		4813	72	1	3	3	5176	77	1	3	4	5208	78	1	3	4	
W4G	10C1000	28		T3S	3206	115	0	3	2	3485	124	0	3	2	3485	124	0	3	2
	20C1000	57			6507	114	1	3	2	7073	124	1	3	3	7073	124	1	3	3
	30C1000	77			8477	110	1	3	3	9214	120	1	3	3	9214	120	1	3	3
W4P	10C700	27	2709		100	0	3	2	2944	109	0	3	3	2944	109	0	3	3	
	20C700	38	3299		87	0	3	3	4017	106	1	3	3	4017	106	1	3	3	
	30C700	49	4203		86	1	3	3	5173	106	1	3	3	5173	106	1	3	3	

PHOTOMETRIC DISTRIBUTIONS



OPERATIONAL DATA

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.

Lumen Maintenance Factor with TM3 Optic Option

Operating Hours	0	25,000	50,000	100,000
Glass Lumen Maintenance Factor	1.00	0.969	0.935	0.870
Polycarbonate Lumen Maintenance Factor	1.00	0.998	0.993	0.982

Lumen Maintenance Factor with T3S Optic Option

Operating Hours	0	25,000	50,000	100,000
Glass Lumen Maintenance Factor	1.00	1.00	0.977	0.925
Polycarbonate Lumen Maintenance Factor	1.00	1.00	0.977	0.925

The italicized is extrapolated beyond the TM-21 standard.

$$E = (LM) \times (LAT) \times (LLD)$$

Lumen Ambient Temperature (LAT) Multipliers

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

Ambient		Lumen Temperature	
		LEDs with T3M	LEDs with T3S
0° C	32° F	1.02	1.05
10° C	50° F	1.01	1.03
20° C	68° F	1.00	1.01
25° C	77° F	1.00	1.00
30° C	86° F	1.00	0.99
40° C	104° F	0.98	0.97

Ambient Temperature Ratings

Distribution	LED Package	Temperature
T3M	10C1000	40° C
	20C1000	35° C
	30C1000	35° C
	ELSW Option	30° C
	ELCW Option	30° C

Distribution	LED Package	Temperature
T3M	10C700	40° C
	20C700	40° C
	30C700	40° C

Distribution	LED Package	Temperature
T3S	10C700	40° C
	20C700	40° C
	30C700	40° C
	10C1000	40° C
	20C1000	40° C
	30C1000	40° C



Consistent with LEED® goals & Green Globes™ criteria for light pollution reduction

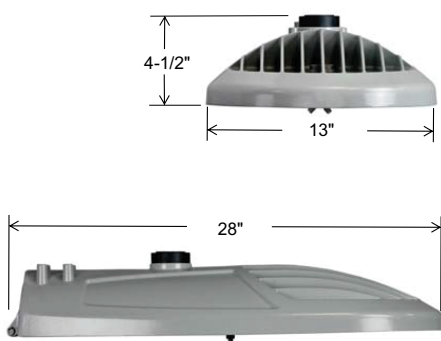
PRODUCT OVERVIEW



Applications:

- Residential streets
- Parking lots
- High speed roadways

DIMENSIONS



Effective Projected Area (EPA)
The EPA for the ATBM is 0.3 sq. ft.,
Approx. Wt. = 21 lbs. (9.5 kg)

STANDARDS

Color temperatures of $\leq 3000\text{K}$ must be specified for International Dark-Sky Association certification.

Rated for -40°C to 40°C ambient

CSA Certified to U.S. and Canadian standards

Complies with ANSI: C136.2, C136.10, C136.14, C136.31, C136.15, C136.37

Features:

OPTICAL

Same Light: Performance is comparable to 150W – 250W HPS

White Light: Correlated color temperature - 4000K, 70 CRI minimum, 3000K, 70 CRI minimum or optional 5000K, 70 CRI minimum.

IP66 rated borosilicate glass optics ensure longevity and minimize dirt depreciation. Unique IP66 rated LED light engines provide 0% uplight and restrict backlight to within sidewalk depth, providing optimal application coverage and optimal pole spacing.

Available distributions are Type II, III, IV, & V roadway distributions.

ELECTRICAL

Expected Life: LED light engines are rated $>100,000$ hours at 25°C , L70.

Electronic driver has an expected life of 100,000 hours at a 25°C ambient.

Lower Energy: Saves an expected 40-60% over comparable HID luminaires.

Robust Surge Protection: Standard surge protection is 20kV/10kA "Extreme Level" per ANSI C136.2. An optional MOV pack provides 10kV/5kA "Enhanced Level."

MECHANICAL

Includes standard AEL lineman-friendly features such as tool-less entry, 3 station terminal block and quick disconnects. Bubble level located inside the electrical compartment for easy leveling at installation.

Rugged die-cast aluminum housing and door are polyester powder-coated for durability and corrosion resistance. Rigorous five-stage pre-treating and painting process yields a finish that achieves a scribe creepage rating of 8 (per ASTM D1654) after over 5000 hours exposure to salt fog chamber (operated per ASTM B117).

Mast arm mount is adjustable for arms from 1-1/4" to 2" (1-5/8" to 2-3/8" O.D.) diameter. The 2 – bolt and optional 4 bolt clamping mechanism provide 3G vibration rating per ANSI C136.31.

The Wildlife shield is cast into the housing (not a separate piece).

CONTROLS

NEMA 3 pin photocontrol receptacle is standard, with the Acuity designed ANSI standard 7 pin receptacle optionally available.

Premium solid state locking-style photocontrol – PCSS (10 year rated life) Extreme long life solid state locking-style photocontrol – PCL1 (20 year rated life).

Extreme long life solid state locking-style photocontrol with on demand remote on/off control - PCCC (15 year rated life).

Optional onboard Adjustable Output module allows the light output and input wattage to be modified to meet site specific requirements, and also can allow a single fixture to be flexibly applied in many different applications.

Autobahn Series ATBM

Roadway

ORDERING INFORMATION

Series	Performance Packages	Voltage	Optics	Mounting
ATBM Autobahn LED Roadway	P05 9,700 lumens P10 11,000 lumens P20 12,800 lumens P30 15,500 lumens P40 17,400 lumens P50 18,700 lumens P60 20,000 lumens P70 21,500 lumens	MVOLT Multi-volt, 120-277V 347 347V 480 480V	R2 Roadway Type II R3 Roadway Type III R4 Roadway Type IV R5 Roadway Type V	(Blank) 2 Bolt Mounting 4B 4 Bolt Mounting

Options

Color Temperature (CCT)

(Blank)	4000K CCT, 70 CRI Min.
3K	3000K CCT, 70 CRI Min.
5K	5000K CCT, 70 CRI Min.

Paint

(Blank)	Gray
BK	Black
BZ	Bronze
DDB	Dark Bronze
GI	Graphite
WH	White

Surge Protection

(Blank)	Standard 20kV/10kA SPD
MP	MOV Pack

Miscellaneous Options

HSS	House Side Shield
NL	NEMA Label Indicating Wattage
XL	Not CSA Certified – No Terminal Block Cover
UMR-XX	8" Horizontal Arm for Round Pole, Painted to match Fixture
UMS-XX	8" Horizontal Arm for Square Pole, Painted to match Fixture
UMR-GALV	8" Horizontal Arm for Round Pole, Painted to match Fixture
UMS-GALV	8" Horizontal Arm for Square Pole, Painted to match Fixture

Control Options

(Blank)	3 Pin NEMA Photocontrol Receptacle
P7	7 Pin Photocontrol Receptacle (dimmable driver included) ¹
NR	No Photocontrol Receptacle
AO	Field Adjustable Output ³
DM	0-10V Dimmable Driver ²
PCSS	Solid-State Lighting Photocontrol ⁴
PCLL	Solid-State Long Life Photocontrol
PCCC	Solid-State Long Life Photocontrol with remote control on/off ⁴
SH	Shorting Cap

Packages

(Blank)	Standard Pack
JP	Job Pack (36/pallet)

Accessories

ATBMHSS	House Side Shield
ATBMLTS	Light Trespass Shield
RKATBMMVOLTSPD	ATBM Acuity SPD, MVOLT
RKATBMHVSPD	ATBM Acuity SPD, 347/480V
RKATBMMVOLTMP	ATBM MOV Pack, MVOLT
RKATBMHVMP	ATBM MOV Pack, 347/480V

Notes:

- 1 Dimmable Driver included. Not available with DM or NR.
- 2 Controls by others. Not available with P7 or AO.
- 3 Not available with DM.
- 4 MVOLT only.



AEL Headquarters, 3825 Columbus Road, Granville, OH 43023
 www.americanelectriclighting.com

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Warranty Five-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomResources/Terms_and_conditions.aspx
 Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.

Please contact your sales representative for the latest product information.

ATBM

Autobahn Series ATBM

Roadway

PERFORMANCE PACKAGE

Performance Package	Distribution	Input Watts	3K (3000K CCT, 70 CRI)					4K/5K (4000K/5000K CCT, 70 CRI)					LLD @ 25°C		
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	25k Hours	75k Hours	100k Hours
P05	R2	68	9,396	138	1	0	2	9,718	143	1	0	2	0.93	0.86	0.83
	R3		9,366	138	1	0	3	9,688	142	1	0	3			
	R4		9,030	133	1	0	3	9,340	137	1	0	3			
	R5		10,334	152	3	0	2	10,689	157	3	0	2			
P10	R2	81	10,635	131	2	0	3	11,299	139	2	0	3	0.93	0.86	0.83
	R3		10,675	132	2	0	3	11,302	140	2	0	3			
	R4		10,391	128	2	0	4	10,994	136	2	0	4			
	R5		11,504	142	3	0	2	12,086	149	3	0	2			
P20	R2	94	12,073	128	2	0	3	12,874	137	2	0	3	0.93	0.86	0.83
	R3		12,065	128	2	0	3	12,818	136	2	0	3			
	R4		11,946	127	2	0	4	12,525	133	2	0	4			
	R5		13,085	139	4	0	2	13,776	147	4	0	2			
P30	R2	118	14,637	124	2	0	3	15,514	131	2	0	3	0.93	0.86	0.83
	R3		14,631	124	2	0	3	15,452	131	2	0	3			
	R4		14,317	121	2	0	4	15,151	128	2	0	5			
	R5		15,775	134	4	0	2	16,685	141	4	0	2			
P40	R2	135	16,233	120	2	0	3	17,493	130	2	0	3	0.93	0.86	0.83
	R3		16,402	121	2	0	3	17,367	129	2	0	3			
	R4		15,911	118	2	0	5	17,008	126	2	0	5			
	R5		17,507	130	4	0	2	18,595	138	4	0	2			
P50	R2	152	17,541	115	2	0	3	18,748	123	2	0	3	0.93	0.86	0.83
	R3		17,677	116	2	0	4	18,712	123	2	0	4			
	R4		17,154	113	2	0	5	18,246	120	2	0	5			
	R5		19,008	125	4	0	2	20,088	132	4	0	2			
P60	R2	168	18,770	112	2	0	3	20,095	120	3	0	3	0.93	0.86	0.83
	R3		18,830	112	2	0	4	20,094	120	3	0	4			
	R4		18,369	109	2	0	5	19,648	117	2	0	5			
	R5		20,350	121	4	0	2	21,505	128	4	0	2			
P70	R2	190	20,190	106	3	0	3	21,565	114	3	0	3	0.93	0.86	0.83
	R3		20,142	106	3	0	4	21,504	113	3	0	4			
	R4		19,660	103	2	0	5	21,024	111	3	0	5			
	R5		21,988	116	4	0	2	23,076	121	4	0	2			

Note: Individual fixture performance may vary. Specifications subject to change without notice.



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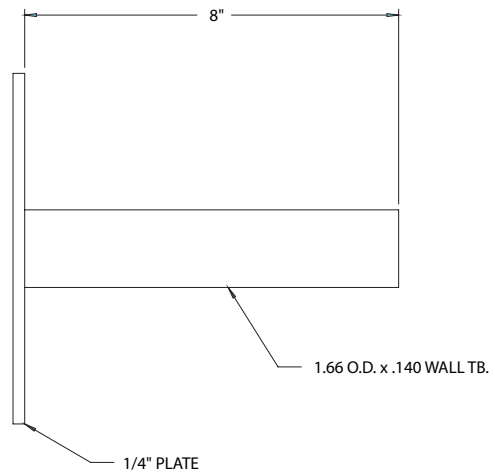
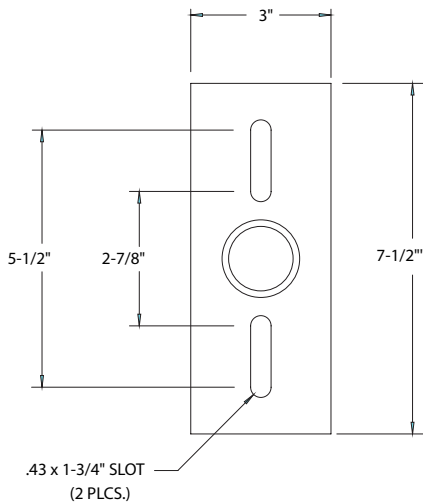
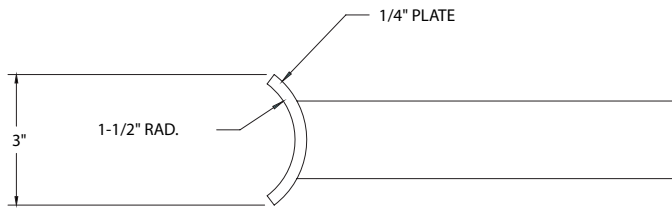
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UMR POLE ADAPTOR

RECOMMENDED FOR USE WITH POLES OF 4" DIAMETER OR SMALLER



UMS POLE ADAPTOR