

APPLICATION FOR
URBAN DESIGN COMMISSION
REVIEW AND APPROVAL

AGENDA ITEM # _____
Project # _____
Legistar # 21036

DATE SUBMITTED: <u>March 13, 2013</u>	Action Requested
	☐ Informational Presentation
	☐ Initial Approval and/or Recommendation
UDC MEETING DATE: <u>April 3, 2013</u>	☒ Final Approval and/or Recommendation

PLEASE PRINT!

PROJECT ADDRESS: 5709 ODANA ROAD, MADISON, WI

ALDERMANIC DISTRICT: 19

OWNER/DEVELOPER (Partners and/or Principals)	ARCHITECT/DESIGNER/OR AGENT:
<u>MADISON FAMILY DENTAL ASSOCIATES SC</u>	<u>DESIGN UNLIMITED</u>
<u>5709 Odana Road</u>	<u>1029 West McMillan Street</u>
<u>Madison, WI</u>	<u>Marshfield, WI 54449</u>

CONTACT PERSON: Daniel Helwig A.I.A.

Address: 1029 West McMillan Street

Marshfield, WI 54449

Phone: (715) 384-3207

Fax: (715) 384-9922

E-mail address: dan@designunlimitedmfld.com

PLEASE PRINT!

TYPE OF PROJECT:
(See Section A for:)

☐ Planned Unit Development (PUD)

☐ General Development Plan (GDP)

☐ Specific Implementation Plan (SIP)

☐ Planned Community Development (PCD)

☐ General Development Plan (GDP)

☐ Specific Implementation Plan (SIP)

☒ Planned Residential Development (PRD)

☒ New Construction or Exterior Remodeling in an Urban Design District * (A public hearing is required as well as a fee)

☐ School, Public Building or Space (Fee may be required)

☐ New Construction or Addition to or Remodeling of a Retail, Hotel or Motel Building Exceeding 40,000 Sq. Ft.

☐ Planned Commercial Site

(See Section B for:)

☐ New Construction or Exterior Remodeling in C4 District (Fee required)

(See Section C for:)

☐ R.P.S.M. Parking Variance (Fee required)

(See Section D for:)

☐ Comprehensive Design Review* (Fee required)

☐ Street Graphics Variance* (Fee required)

☐ Other _____

*Public Hearing Required (Submission Deadline 3 Weeks in Advance of Meeting Date)

Where fees are required (as noted above) they apply with the first submittal for either initial or final approval of a project.

CITY OF MADISON

MAR 13 2013

7:35

Planning & Community
& Economic Development

HALO Commercial

DESCRIPTION

Recessed 6 inch aperture open downlight for vertical ED17P metal halide lamp. Electronic ballast suitable for 120 volt or 277 volt operation. Fixture is suitable for commercial construction. Insulation must be kept 3" from top and sides of housing. Specify housing and trim separately to complete luminaire.

Catalog #		Type
Project		A
Comments		Date
Prepared by		

SPECIFICATION FEATURES

MECHANICAL Frame

Boat shaped galvanized steel frame with 1/2" plaster lip accommodates ceilings up to 2" thick. May be used for new construction or remodeling installations. Provided with (2) remodel clips to secure frame when installed from below the ceiling.

Mounting Brackets

Bar hanger receivers adjusts 2" vertically from above the ceiling or thru the aperture. Use with No Fuss™ bar hangers or with 1/2" EMT. Removable to facilitate installation from below the ceiling.

No Fuss™ Bar Hangers

Pre-installed and centered bar hanger locks to tee grid with a screwdriver or pliers. Centering marks on the bar hanger mechanism allows consistent positioning of fixtures.

OPTICAL Reflector

Highly efficient one piece aluminum reflector provides for equal lamp and lamp image cutoff for a visually comfortable optic. Self flanged standard.

- **Specular Reflectors** - Polished flange standard with white painted flange option.
- **Baffles and White Reflector** - White painted flange standard.

Trim Retention

Reflector is retained with two torsion springs and held tightly to the finished ceiling surface.

ELECTRICAL

Junction Box

(6) 1/2" and (2) 3/4" trade size pry outs positioned to allow straight conduit runs. Listed for (12) #12 AWG (six in, six out) 90°C conductors and feed thru branch wiring.

Lamp Socket

Pulse rated E26 medium base protected porcelain socket with nickel plated brass screw shell accepts open fixture rated (protected) lamp only.

Socket Cap

Galvanized steel socket housing attached securely to reflector with turn & lock mechanism. Vents provide effective lamp thermal management.

Control Gear

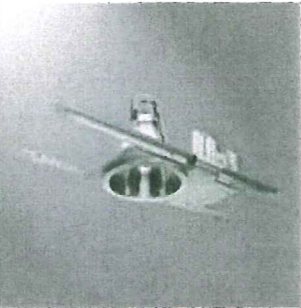
Dual input 120V/277V or 347V electronic ballast.

Insulation Detector

Self heating insulation detector opens circuit if insulation is improperly installed.

Code Compliance

- Thermally protected and cULus listed for damp locations.
- IP20 rated for open trims.
- EMI/RFI per FCC Title 47 CFR, Part 18, non consumer limits.
- High efficacy luminaire may be used to meet IECC, ASHRAE and Title 24 commercial standards.
- Meets California T20 and Federal EISA ballast efficiency standards.



PD6V50E
PD6V70E
PD6V100E
60V

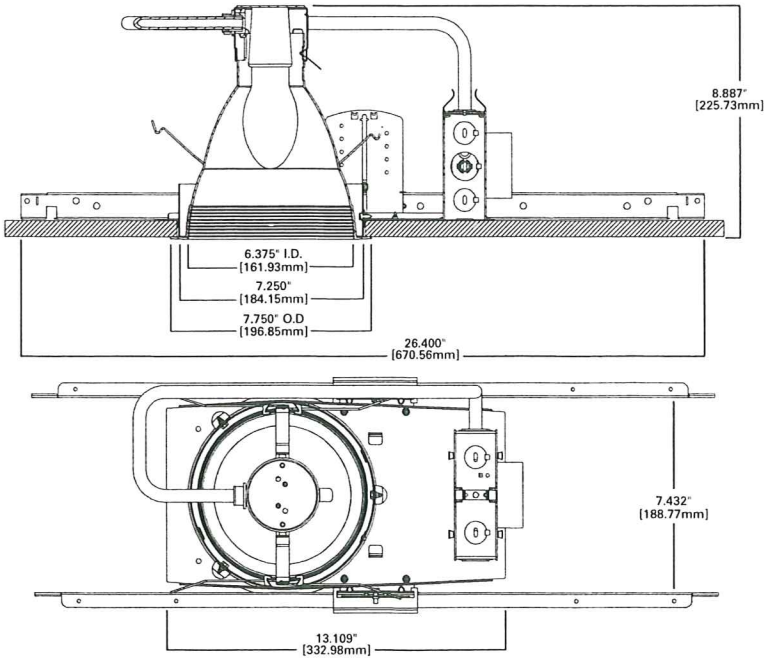
50, 70, 100W
ED17P

Metal Halide

6-Inch Aperture
Open Downlight

New Construction or
Remodel
Non-IC

DIMENSIONS



HALO Commercial

PD6V50E
PD6V70E
PD6V100E
60V

ENERGY DATA

PD6V50E, PD6CPV50E		PD6V70E, PD6CPV70E		PD6V100E, PD6CPV100E	
Min. Starting Temp -15°C, +5°F	Sound Rating Class A	Min. Starting Temp -15°C, +5°F	Sound Rating Class A	Min. Starting Temp -15°C, +5°F	Sound Rating Class A
EMI/RFI Emissions FCC 47CFR Part 18 Non-Consumer Limits		EMI/RFI Emissions FCC 47CFR Part 18 Non-Consumer Limits		EMI/RFI Emissions FCC 47CFR Part 18 Non-Consumer Limits	
Input Frequency 50/60 Hz	Power Factor > 0.95	Input Frequency 50/60 Hz	Power Factor > 0.95	Input Frequency 50/60 Hz	Power Factor > 0.95
THD < 10% @ 120V	Input Voltage 120V/277V ±10%	THD < 6% @ 120V	Input Voltage 120V/277V ±10%	THD < 8% @ 120V	Input Voltage 120V/277V ±10%
THD < 13% @ 277V		THD < 12% @ 277V		THD < 11% @ 277V	
Crest factor < 1.5	Ballast factor 1.00	Crest factor < 1.5	Ballast factor 1.00	Crest factor < 1.5	Ballast factor 1.00
Operating Frequency 140 Hz	cULus Listed, Type 1 Outdoor	Operating Frequency 140 Hz	cULus Listed, Type 1 Outdoor	Operating Frequency 140 Hz	cULus Listed, Type 1 Outdoor
50ED17P, MHC50/U/MPX 50ED17, MXR50/U/MED/O 50ED17, MP50/U/MED	Input Power 58W @ 120V	70ED17P, MHC70/U/MP 70ED17, MXR70/U/MED/O 70ED17, MP70/U/MED	Input Power 81W @ 120V	100ED17P, MHC100/U/MP 100ED17, MXR100/U/MED/O 100ED17, MP100/U/MED	Input Power 112W @ 120V
	Input Power 57W @ 277V		Input Power 80W @ 277V		Input Power 109W @ 277V
	Input Current 0.50A @ 120V		Input Current 0.69A @ 120V		Input Current 0.96A @ 120V
	Input Current 0.23A @ 277V		Input Current 0.30A @ 277V		Input Current 0.43A @ 277V
PD6V503E		PD6V703E		PD6V1003E	
Min. Starting Temp -30°C, -22°F	SOUND RATING CLASS A	Min. Starting Temp -30°C, -22°F	SOUND RATING CLASS A	Min. Starting Temp -30°C, -22°F	SOUND RATING CLASS A
EMI/RFI Emissions FCC 47CFR Part 18 Non-Consumer Limits, Subparts C		EMI/RFI Emissions FCC 47CFR Part 18 Non-Consumer Limits, Subparts C		EMI/RFI Emissions FCC 47CFR Part 18 Non-Consumer Limits, Subparts C	
Input Frequency 50/60 Hz	Power Factor > 0.99	Input Frequency 50/60 Hz	Power Factor > 0.99	Input Frequency 50/60 Hz	Power Factor > 0.99
THD < 10%	Input Voltage 347V ±10%	THD < 10%	Input Voltage 347V ±10%	THD < 10%	Input Voltage 347V ±10%
Crest factor < 1.6	Ballast factor 1.00	Crest factor < 1.6	Ballast factor 1.00	Crest factor < 1.6	Ballast factor 1.00
Operating Frequency 170 Hz	UL Listed, cUL Certified, Class P, Type 1 Outdoor, HL	Operating Frequency 170 Hz	UL Listed, cUL Certified, Class P, Type 1 Outdoor, HL	Operating Frequency 170 Hz	UL Listed, cUL Certified, Class P, Type 1 Outdoor, HL
50ED17P, MHC50/U/MPX 50ED17, MXR50/U/MED/O 50ED17, MP50/U/MED	Input Power 56W	70ED17P, MHC70/U/MP 70ED17, MXR70/U/MED/O 70ED17, MP70/U/MED	Input Power 80W	100ED17P, MHC100/U/MP 100ED17, MXR100/U/MED/O 100ED17, MP100/U/MED	Input Power 108W
	Input Current 0.16A @ 347V		Input Current 0.23A @ 347V		Input Current 0.31A @ 347V

ORDERING INFORMATION

SAMPLE NUMBER: PD6V70E 60VC

Order housing, reflector and lamp separately for a complete luminaire.

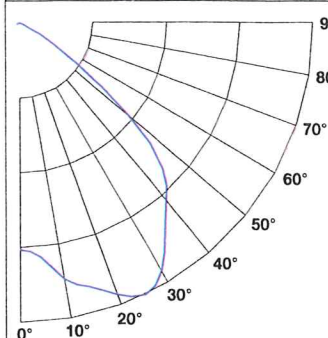
Housing PD6V = 6 Inch vertical E26 (protected) metal halide PD6CPV = 6 Inch vertical E26 (protected) metal halide, CCEA listed (Chicago Plenum)	Wattage / Ballast Option 50E = 50W MH, M110, M148, 120V/277V 503E = 50W MH, M110, M148, 347V 70E = 70W MH, M98, M139, 120V/277V 703E = 70W MH, M98, M139, 347V 100E = 100W MH, M90, M140, 120V/277V 1003E = 100W MH, M90, M140, 347V	Finish Option C=Specular Clear G=Specular Gold H=Semi Specular Clear W=Gloss White (White Flange) BB=Black Baffle (White Flange) WB=White Baffle (White Flange)	Flange Option Blank=Polished Flange (C, G, H) Blank=White flange (W, BB, WB) WF=White Flange (C, G, H)	Accessories HB128APK = L channel hanger bar, 26", "No-Fuss", pair (replacement) RMB22 = 22" long wood joist mounting bars	
	Reflector 60V = 6" vertical				

PHOTOMETRY

PD6V100E-60VC_M100

Spacing Criteria = 1.60
Lumens per Watt = 48 LpW
Test No. P21699
Test Model: PD6V100E-60VC_M100

Candlepower Distribution Curve



Candela Distribution	
Degrees Vertical	Candela
0*	1752
5	1810
15	2103
25	2309
35	1977
45	1580
55	555
65	25
75	6
85	2
90	0

*CBCP

Luminance	
(Average Candela/M²)	
Degree	Avg. 0° Luminance
45	90629
55	36201
65	1959
75	612
85	305

Beam of Light Footcandles			
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam (ft.)	
		L Length	W Width
5.5'	64	8.3	8.3
7'	39	10.6	10.6
8'	30	12.1	12.1
9'	24	13.6	13.6
10'	19	15.2	15.2
12'	13	18.2	18.2
14'	10	21.2	21.2

Beam diameter is to 50% of maximum footcandles, rounded to the nearest half-foot.
Footcandle values are initial, apply appropriate light loss factors where necessary.

Zonal Lumen Summary			
Zone	Lumens	% Lamp	% Fixture
0-30	1833.49	23.20	38.00
0-40	3074.26	38.90	63.70
0-60	4769.41	60.40	98.80
0-90	4828.35	61.10	100.00

Note: Specifications and Dimensions subject to change without notice.

Visit our web site at www.cooperlighting.com

DESCRIPTION

The IMPACT EliteTrapezoid full cutoff wall luminaire makes an ideal complement to site design. Rugged construction and full cutoff classified optics provide facade and security lighting for light restricted zones surrounding schools, office complexes, apartments, and recreational facilities. UL/cUL Listed for wet locations in down mount applications and damp locations in up mounted applications.

SPECIFICATION FEATURES

Construction

Durable two-piece die-cast aluminum housing and removable hinged door frame envelopes the optical enclosure from nature's elements. 1/8" clear, heat and impact resistant tempered flat glass lens combined with molded silicone gasket seals the integrated optical assembly to ensure peak optical performance. Captive stainless steel hardware secures the removable hinged door allowing for ease of installation and maintenance.

Electrical

Integral hard mount electrical components are safely secured and grounded within the die-cast aluminum housing for optimal heat sinking and extended component life. All wiring is extended through a silicone grommet at the back of the housing to prevent entry of debris, moisture, dust and insects. UL listed high power factor ballasts are Class H insulation rated [metal halide: 150, 175, 200, 250, 320, 350, 400W (-30°C /-20°F), [high pressure sodium: 250, 400W (-40°C/-40°F).

High efficiency ballasts are available in a multitude of voltage configurations. Compact fluorescent high power factor ballasts are Class P insulation rated for 120V-277V and have a starting temperature of -18°C / 0°F.

Optical Systems

Custom engineered highly reflective anodized aluminum reflectors provide high efficiency Type II, Type III and Type IV distributions. All Impact Wall Series reflectors classify as IESNA full cutoff in downlight only applications. Optional silk screened house-side flat glass shield provides decreased wall brightness. Optical assemblies are offered standard with horizontal medium or mogul-based metal halide [MH/MP], high pressure sodium [HPS] or energy efficient 4-pin compact fluorescent [CF] lamps. Available 10% or 30% uplight options allow for architectural highlighting of building details.

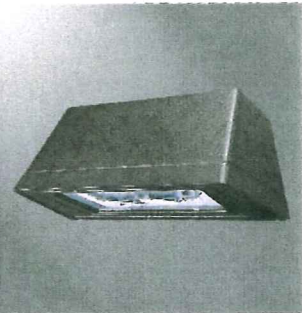
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Mounting

Impact Elite's "Hook-N-Lock" gasketed and zinc plated rigid universal mounting assembly fits directly to a 4" junction box or wall. The "Hook-N-Lock" system allows for fast installation and mounting in both traditional downlighting [wet location] or inverted uplighting [damp location only] mounting positions.

Finish

Housing and door are protected with 5-stage premium TGIC polyester powder coat paint. Premium TGIC powder coat finishes withstand extreme climate changes while providing optimal color and gloss retention over the fixture's installed life. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult McGraw-Edison Architectural Colors Brochure for complete selection.



IMT
IMPACT ELITE
MEDIUM
TRAPEZOID

- 150 - 400W
- Pulse Start Metal Halide
- Metal Halide
- High Pressure Sodium
- 32 - 120W
- Compact Fluorescent

FULL CUTOFF
WALL MOUNT LUMINAIRE

TECHNICAL DATA

UL1598 Listed, CUL Listed
Down Mounted - Wet Location
Up Mounted - Damp Location
25°C Ambient Temperature,
40°C w/HA Option
EISA Compliant ©

ENERGY DATA

High Reactance Ballast Input Watts

150W MP HPF (185 Watts)
250W HPS HPF (300 Watts)
400W HPS HPF (465 Watts)

CWA Ballast Input Watts

200W MP CWA (227 Watts) ©
250W MP CWA (283 Watts) ©
320W MP CWA (365 Watts) ©
350W MP CWA (400 Watts) ©
400W MP CWA (452 Watts) ©

Electronic Ballast Input Watts

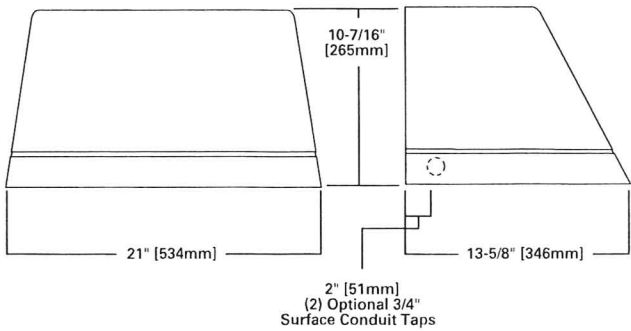
32W CF HPF (36 Watts)
42W CF HPF (46 Watts)
57W CF HPF (59 Watts)
60W CF HPF (70 Watts)
70W CF HPF (75 Watts)
85W CF HPF (98 Watts)
120W CF HPF (139 Watts)

SHIPPING DATA

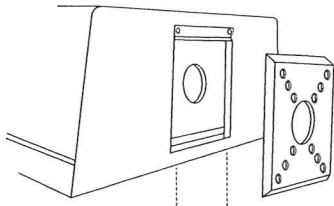
Approximate Net Weight:
42 lbs. (19 kgs.)



ADH100172 pc
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HOOK-N-LOCK MOUNTING



Mounting attachment included.
J-Box not included.

IMPACT™

DARK SKY
COMPLIANT FCO
Full Cutoff

NOTE: In downlight applications only.

ORDERING INFORMATION

Sample Number: IMT-250-MP-MT-3S-GM

Product Family	Lamp Wattage ¹	Lamp Type	Distribution	Options			
IMT=Impact Elite Medium Trapezoid	MP 150=150W 200=200W 250=250W 320= 320W 350= 350W 400= 400W HPS 250= 250W 400= 400W MH ² 175= 175W ² 250= 250W ² 400= 400W ² CE 57= (1) 57W 60= (1) 60W 64= (2) 32W 70= (1) 70W 84=(2) 42W 85=(1) 85W 96=(3) 32W 114=(2) 57W 120=(1) 120W 126=(3) 42W	MP=Pulse Start Metal Halide HPS=High Pressure Sodium MH=Metal Halide ² CF= Compact Fluorescent Voltage ³ 120= 120V 208= 208V 240= 240V 277= 277V 347= 347V ³ 480= 480V DT= Dual-Tap ⁴ MT= Multi-Tap ⁴ TT= Triple-Tap ^{3, 4} E1= Electronic 120-277V ³	HID 3S=Type III Segmented 4S=Type IV Segmented CF 2S= Type II Segmented ⁵ 4S= Type IV Segmented ⁵ Color ⁶ AP= Grey BZ= Bronze BK= Black WH= White DP= Dark Platinum GM= Graphite Metallic	F=Single Fuse,Specify Voltage (120, 277 or 7 347V) FF=Double Fuse, Specify Voltage (208, 240 ⁷ or 480V) L= Lamp Included HA= 40 Degrees C High Ambient ⁸ SC= Surface Conduit entry Taps (2) 3/4" NPT ⁹ CSW= Circuit Switching ¹⁰ FR= Frosted Lens ¹¹ P= Button Type Photocontrol (120V, 208, 7, 12 240, or 277V) TR= Tamper Resistant Fasteners UPL10= 10% Uplight UPL30= 30% Uplight ¹³ DIM= CF Dimming Ballast (CF Lamp/Must ¹⁴ Specify Number of Lamps) HS= House Side Shield Glass ¹⁵ Q= Quartz Restrike T4 Lamp ^{16, 17} EM= Emergency Quartz Restrike T4 Lamp ^{16, 17} w/ Time Delay Relay EM/SC=Emergency Separate Circuit ^{16, 17, 18} T4 Lamp QMR=Quartz Restrike MR16 Lamp ^{17, 19} 2QMR=Quartz Restrike w/ (2) MR16 ^{17, 19} Lamps 2QMR/SC=Quartz Restrike (1) MR16 ^{17, 18, 19} Lamp and (1) Emergency Separate Circuit MR16 Lamp EMMR=Emergency Quartz Restrike ^{17, 19} MR16 Lamp w/ Time Delay Relay 2EMMR=Emergency Quartz Restrike with ^{17, 19} (2) MR16 Lamps w/Time Delay Relay 2EMMR/SC=Emergency Quartz ^{17, 18, 19} Restrike with Time Delay Relay (1) MR16 and (1) MR16 Emergency Separate Circuit Lamp EM/SC/MR=Emergency Separate ^{17, 18, 19} Circuit MR16 Lamp 2EM/SC/MR=Emergency Separate ^{17, 18, 19} Circuit with (2) MR16 Lamps EM/SC/12V=Emergency Separate ^{17, 18, 20} Circuit 12V Low Voltage (1) MR16 Lamp 2EM/SC/12V=(2) Emergency ^{17, 18, 20} Separate Circuit MR16 Lamps (12V) EMI40B=Emergency Cold Temperature ^{7, 21} (UL924 Listed) Power Pack -18 degrees C / 0 degrees F, (1) CF Lamp 2EIM40B=Emergency Cold Temperature ^{7, 22} (UL924 Listed) Power Pack -18 degrees C/0 degrees F, (2) CF lamps with Back Box matching housing finish. CFEMB= Emergency CF Power Pack ^{7, 23} (UL924 Listed) (1) CF Lamps, 0 Degrees C/32 Degrees F 2CFEMB= Emergency CF Power Pack ^{7, 24} (UL924 Listed) , 0 Degrees C/32 Degrees F, (2) CF Lamps, with Back Box matching housing finish.			

Notes:

1

All HID Metal Halide lamps are mogul-base, reduced envelope ED-28 except 200W Pulse Start Metal Halide is T15. All HID High Pressure Sodium lamps are mogul-base ED-18.

2

175, 250 and 400W MH available for non-US markets only.

3

Products also available in non-US voltages and 50HZ for international markets. 88% Efficient EISA Compliant MP Fixtures not available in 347V and TT Voltages. Electronic E1 only available with CF source. Consult your Cooper Representative for availability and ordering information.

4

Dual-Tap ballast is 120/277V wired 277V. Multi-Tap ballast is 120/208/240/277V wired 277V. Triple-Tap ballast is 120/277/347V wired 347V.

5

Type II - 60, 64, 70, 84, 85, 96, 114 or 126W CF only. Type IV - 60, 85, 120W CF only. In cold temperatures, compact fluorescent lamps produce lower illumination levels.

6

Add as suffix.

7

Must specify voltage.

8

Rated for 40°C for 250W and below fixture. Not available with CF lamps.

9

Not available in Type IV 320V through 400W. Not available in Type III with PE 320W through 400W. 175-250W requires thru-wire rating of 120°C, 320-400W requires rating of 140°C

10

Each ballast independently wired. Available on 96, 114, or 126W CF wattages.

11

Not available with 320W thru 400W or 114 or 126W CF options.

12

Not available with SC option teamed with 320-400W. Not available with 480V.

13

Type III only. Not available with CF lamps.

14

Specify CF option 96 or 126W, not available with HS, FR, or VS options. Must specify number of lamps.

15

Not available with 320 thru 400W.

16

(1) 120W Lamp, 150W maximum quartz lamp. Utility power may need to cycle to allow HID lamp to cool in warm climates.

17

Emergency lamps supplied by others.

18

Leads out of the back of the unit for auxillary power.

19

(1) or (2) 120V Lamps. GU10 base, 50W maximum each. Lamps supplied by others.

20

Power supplied by low voltage DC source (supplied by others). (1) or (2) 12V bi-pin socket GU5.3 base. 12V 35W maximum.

21

Specify 120 or 277V, (-18°C) minimum temperature, not available with UP10 or CSW option, 57W CF maximum.

22

Specify 120 or 277V, (-18°C minimum, operates (2) 32W 4-pin lamps or less, not available with UPL10 or CSW option, (lamps supplied by others).

23

Specify 120 or 277V, (0°C) minimum temperature, not available with UPL10 or CSW option, 57W CF maximum.

24

Specify 120 or 277V, (0°C minimum, operates (2) 32W 4-pin lamps or less, not available with UPL10 or CSW option, (lamps supplied by others).

25

Order separately.

26

Not available with VS option.

27

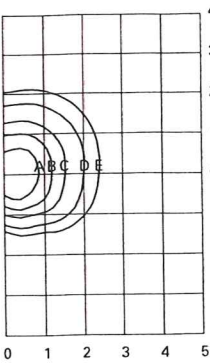
Not available with 320 thru 400W. Not available with wire guard.

Accessories²⁵

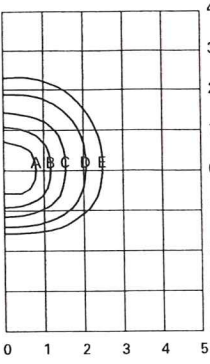
WG/ITM= Wire Guard²⁶

VS/ITM= Vandal Resistant Shield²⁷

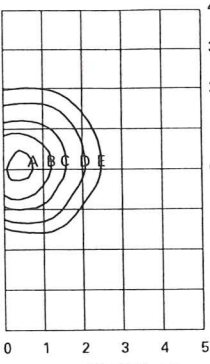
PHOTOMETRICS (Complete IES files available at www.cooperlighting.com)



IMT-126-CF-XX-2S
126-Watt CF
[3] 9,600-Lumen Clear Lamp
Type II



IMT-114-CF-XX-2S
114-Watt CF
[2] 8,600-Lumen Clear Lamp
Type II

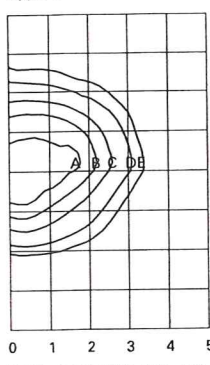


IMT-85-CF-XX-2S
85-Watt CF
6,000-Lumen Clear Lamp
Type II

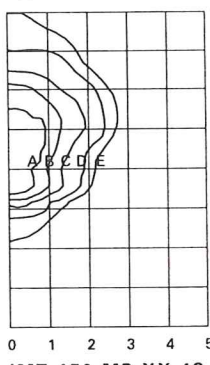
FOOTCANDLE TABLE

Select mounting height and read across for footcandle values of each isofootcandle line. Distance in units of mounting height.

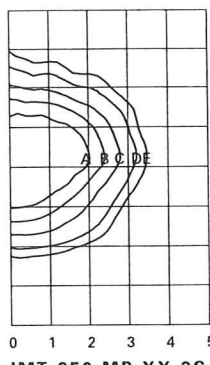
Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
126-CF-2S / 114-CF-2S / 85-CF-2S					
18'	2.46	1.23	0.62	0.25	0.12
20'	2.00	1.00	0.50	0.20	0.10
25'	1.28	0.64	0.32	0.13	0.06



IMT-150-MP-XX-3S
150-Watt MP
14,000-Lumen Clear Lamp
Type III



IMT-150-MP-XX-4S
150-Watt MP
14,000-Lumen Clear Lamp
Type IV

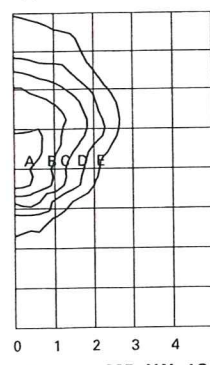


IMT-250-MP-XX-3S
250-Watt MP
23,750-Lumen Clear Lamp
Type III

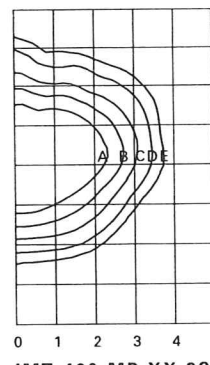
FOOTCANDLE TABLE

Select mounting height and read across for footcandle values of each isofootcandle line. Distance in units of mounting height.

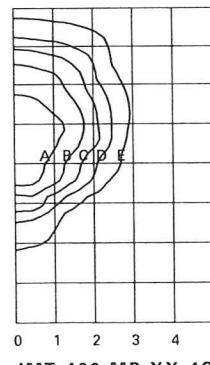
Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
150-MP-3S / 150-MP-4S / 250-MP-3S					
18'	2.46	1.23	0.62	0.25	0.12
20'	2.00	1.00	0.50	0.20	0.10
25'	1.28	0.64	0.32	0.13	0.06



IMT-250-MP-XX-4S
250-Watt MP
23,750-Lumen Clear Lamp
Type IV



IMT-400-MP-XX-3S
400-Watt MP
40,000-Lumen Clear Lamp
Type III



IMT-400-MP-XX-4S
400-Watt MP
40,000-Lumen Clear Lamp
Type IV

FOOTCANDLE TABLE

Select mounting height and read across for footcandle values of each isofootcandle line. Distance in units of mounting height.

Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
400-MP-3S					
18'	2.46	1.23	0.62	0.25	0.12
20'	2.00	1.00	0.50	0.20	0.10
25'	1.28	0.64	0.32	0.13	0.06

250-MP-4S / 400-MP-4S

18'	6.15	2.46	1.23	0.62	0.25
20'	5.00	2.00	1.00	0.50	0.20
25'	3.20	1.28	0.64	0.32	0.13

E

COOPER LIGHTING - LUMARK®

DESCRIPTION

The Lumark Wal-Pak Series of wall luminaires provides traditional architectural style with high performance energy efficient illumination. Rugged die-cast aluminum construction, stainless steel hardware along with a sealed and gasketed optical compartment make the Wal-Pak virtually impenetrable to contaminants. IP65 Rated. Six available lamp sources including patent pending energy efficient LED, pulse start metal halide, compact fluorescent, ceramic metal halide, standard metal halide and high pressure sodium.UL/cUL wet location listed. The Wal-Pak wall luminaire is ideal for pathway illumination, building entrances, vehicle ramps, schools, tunnels, stairways and loading docks.

SPECIFICATION FEATURES

Housing

Rugged one-piece die-cast aluminum housing and hinged, removable die-cast aluminum door. One-piece silicone gasket seals the optical chamber. UL 1598 wet location listed and IP65 ingress protection rated. Not recommended for car wash applications.

Electrical

Ballasts, LED driver and related electrical components are hard mounted to the die-cast housing for optimal heat sinking and operating efficiency. Wiring is extended through a silicone gasket at the back of the housing. Three 1/2" threaded conduit entry points allow for thru-branch wiring. LED thermal management system incorporates both conduction and natural convection to transfer heat rapidly away from LED source. Integral LED electronic driver incorporates internal fusing designed to withstand a 3kV surge test and is Class 2 rated for 120-277V with an operating temperature of -30° to 60°C.

Wal-Pak LED systems maintain greater than 70% of the initial light output after 50,000 hours of operation. UL listed HID high power factor ballasts are Class H insulation rated (metal halide: 150, 175, 200, 250, 320, 350, 400W [-30°C / -20°F], (high pressure sodium: 50, 70, 100, 150, 250, 400W [-40°C / -40°F]. High efficiency HID ballasts are available in 120V, 208V, 240V, 277V, 347V and 480V. Compact fluorescent high power factor ballasts are Class P insulation rated for 120-277V and have a starting temperature of -18°C / 0°F.

Optical

Highly reflective anodized aluminum reflectors provide high efficiency illumination. Optical assemblies include impact resistant borosilicate refractive glass, Solite™ flat diamond patterned glass and full cutoff IESNA compliant configurations. Patent pending, solid state LED luminaires are thermally optimized with 2400 or 4000 sourced lumen package modules. HID models are offered in

Catalog #		Type
Project		C19
Comments		Date
Prepared by		

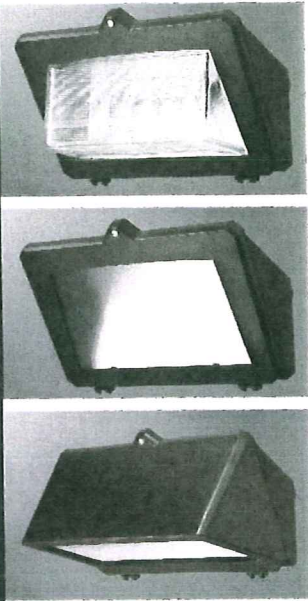
horizontal medium or mogul-based metal halide [MH / MP] or high pressure sodium [HP] lamps. T6 ceramic metal halide [CM] and 4-pin compact fluorescent [CF] lamp models offer high efficiency energy saving illumination.

Door Assembly

Single point, captive stainless steel hardware secures the removable hinged door allowing for ease of installation and maintenance. Door assembly is hinged at the bottom for easy removal, installation and re-lamping.

Finish

Housing and door are protected with 5-stage TGIC dark bronze polyester powder coat paint. Premium TGIC power coat finishes withstand extreme climate changes while providing optimal color and gloss retention. Optional premium colors are available.



WP WAL-PAK

2400 - 4000 Lumen LED
39 - 400W

High Pressure Sodium
Pulse Start Metal Halide

Metal Halide

Ceramic Metal Halide

32 - 140W

Compact Fluorescent

WALL MOUNT LUMINAIRE

TECHNICAL DATA

UL/cUL Wet Location Listed
IP65 Rated
40°C Maximum Ambient Temperature
External Supply Wiring 90°C Minimum
EISA @, ARRA, Title 20 Compliant
LM79 / LM80 Compliant

ENERGY DATA

Reactor Ballast Input Watts

50W HPS NPF (58 Watts)
70W HPS NPF (82 Watts)
100W HPS NPF (118 Watts)
150W HPS NPF (175 Watts)

High Reactance Ballast Input Watts

50W MP HPF (69 Watts)
70W MP HPF (94 Watts)
100W MP HPF (129 Watts)
150W MP HPF (185 Watts)

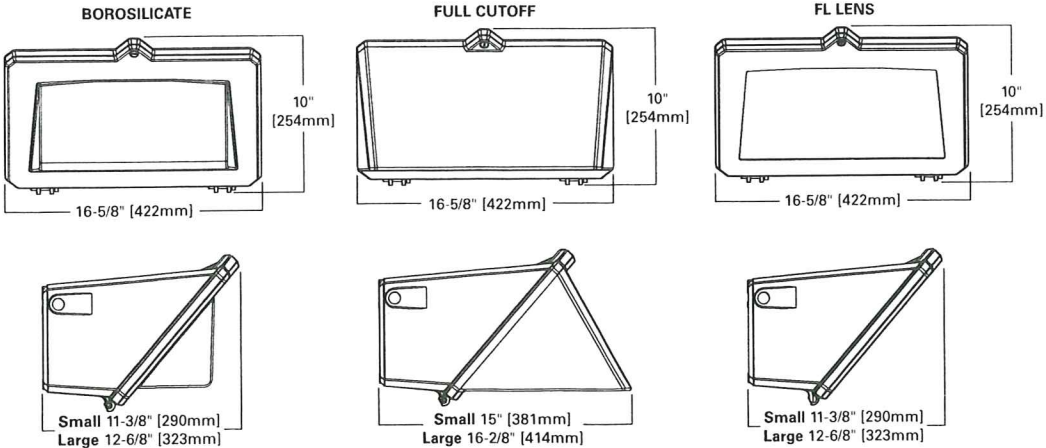
CWA Ballast Input Watts

200W HPS HPF (250 Watts)
200W MP HPF (227 Watts) @
250W MP HPF (283 Watts) @
320W MP HPF (365 Watts) @
350W MP HPF (400 Watts) @
400W HPS HPF (465 Watts)
400W MP HPF (452 Watts) @

SHIPPING DATA

Approximate Net Weight:
32-42 lbs. (15-19 kgs.) ADH092103 pc
2012-01-12 09:08:16

DIMENSIONS



ORDERING INFORMATION

WP WAL-PAK

Sample Number: MPWP-GL-250-MT-2EM/SC/MR

Lamp Type MP=Pulse Start Metal Halide HP=High Pressure Sodium LD=Solid State Light-Emitting Diodes (LED) CF=Compact Fluorescent ¹ CM=Ceramic Metal Halide ² MH=Metal Halide ³	Series WP= Wal-Pak Door Type ⁴ GL= Borosilicate Glass Door FC= Full Cutoff Door FL= Flat Solite Glass Door PL=Polycarb Refractor Door	Lamp Wattage ⁵ LED 2A=(2 Package), 28W 4A=(4 Package), 40W MP 50=50W 70=70W 100=100W 150=150W 200=200W 250=250W 320=320W 350=350W 400=400W MH 175=175W 250=250W 400=400W	HP 50=50W 70=70W 100=100W 150=150W 250=250W 400=400W CM 39=39W 70=70W 100=100W 150=150W CF 32=32W 42=42W 57=57W 70=70W 64=(2-32) 84=(2-42) 114=(2-57) 140=(2-70)	Voltage ⁶ 120V=120V 208V=208V 240V=240V 277V=277V 347V=347V ⁷ 480V=480V DT=Dual-Tap MT=Multi-Tap TT=Tri-Tap 5T=5-Tap E= Electronic Ballast ⁸ ED=Electronic LED Driver	Options ⁹ F1=Single fuse ¹⁰ F2=Double fuse ¹⁰ PE=Photocontrol button ¹⁰ LL=Includes lamp ² BK=Black housing WH=White housing GM=Graphite Metallic housing AP=Grey housing DP=Dark Platinum housing ¹¹ DIMA=CF Dimming Ballast ¹¹ DIMB=CF Dimming Ballast ¹¹ SGL=Solite Glass Lens ¹² Q=Quartz Restrike T4 Lamp ¹³ EM=Emergency Quartz Restrike T4 Lamp with Time Delay Relay ¹³ EM/SC=Emergency Separate Circuit T4 Lamp ¹³ QMR=Emergency Back-Up 1-MR16 Lamp ^{14,15} 2QMR=Emergency Back-Up 2-MR16 Lamps ^{14,15} 2QMR/SC=Emergency Back-Up MR16 and EM separate circuit 2-MR16 Lamp ^{14,16} EMMR=Emergency Back-Up 1-MR16 Lamp with Time Delay Relay ^{14,15} 2EMMR=Emergency Back-Up 2-MR16 Lamps with Time Delay Relay ^{14,15} 2EMMR/SC=Emergency Back-Up 1-MR16 Lamp with Time Delay Relay and EM Separate Circuit ^{14,15,16} EM/SC/MR=Emergency Back-Up Separate Circuit 1-MR16 Lamp ^{14,15,16} 2EM/SC/MR=Emergency Back-Up Separate Circuit 2-MR16 Lamps ^{14,15,16} EM/SC/12V=Emergency Separate Circuit 12V 1-MR16 Lamp ^{14,16,17} 2EM/SC/12V=Emergency Separate Circuit 12V 2-MR16 Lamps ^{14,16,17} EMI40=Emergency Cold Temperature UL 924 CF Power Pack 1 Lamp ¹⁸ EMI40/2L=Emergency Cold Temperature UL 924 CF Power Pack 2 Lamp ¹⁸ CF-EM=Emergency UL924 CF Power Pack 1 Lamp ¹⁹ CF-EM/2L=Emergency UL924 CF Power Pack 2 Lamp ¹⁹ EMLED-CD=LED Battery Back-Up Cold Temperature ²⁰	Accessories ²¹ WG/WPGL=Wire Guard Borosilicate Glass Lens Door WG/WPFC=Wire Guard Full Cutoff Door WG/WPFL=Wire Guard FL Lens Door TR/WP= Tamper Resistant Screw and Bit VS/WPGL=Polycarbonate Vandal Shield for Borosilicate Glass Lens Door

STOCK SAMPLE NUMBER - LAMP INCLUDED

SAMPLE NUMBER: WPP40C

Series WP=Wal-Pak	Lamp Type L=LED P=Pulse Start Metal Halide S=High Pressure Sodium	Lamp Wattage 2A=28W 4A=40W 10=100W 15=150W 25=250W 32=320W 40=400W	Door/Glass Type Blank=Standard C =Full Cutoff Door

NOTES: Options not available with stock products. Refer to standard order information to add options. MT is standard. Lamp Type: MP not available in 100W. HPS not available in 320W or Full Cutoff [C] Door. Borosilicate glass door is standard. 2A and 4A models available in LED only. LED models are 120-277V.

LED LUMEN TABLE

BUG RATING	B	U	G	Delivered Lumens ²²		B	U	G	Delivered Lumens ²²
Borosilicate Glass Door (GL)					Flat Lens Door (FL)				
LDWP-GL-2A-ED	0	3	2	1836	LDWP-FL-2A-ED	0	2	1	1454
LDWP-GL-4A-ED	1	3	2	2795	LDWP-FL-4A-ED	0	3	1	2084
Polycarbonate Lens (PL)					Full Cutoff Door (FC)				
LDWP-PL-2A-ED	0	3	2	1508	LDWP-FC-2A-ED	0	1	1	1090
LDWP-PL-4A-ED	1	3	2	2297	LDWP-FC-4A-ED	0	1	1	1313

For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit www.iesna.org/PDF/Erratas/TM-15-07BugRatingsAddendum.pdf

- NOTES: 1 CF Single lamp offered in all door configurations. CF dual lamp models not offered with FL door type. 70W models not available with EMI40-2L, CF-EM, CF-EM-2L. CF not available in 347V.
- 2 All CM models offered with T6 envelope G12 lamp base. T6 Lamp included with CM models. Order LL with CM models. Ceramic Metal Halide (CM) is available with (MP) pulse start metal halide or E - Electronic Ballast. 400W MP must be ordered with LL option to be Title 20 Compliant.
- 3 MH products available for non-US markets only.
- 4 Small housing offered for 175W and below, CF and LD models. Large housing for 200W-400W. FL door not available with CF or 200-400W models. Polycarbonate lens available in models up to 175W max including LD. Polycarbonate lens not available with full cutoff door or FL models. Solite stipple glass is standard for FL lens. Clear glass is standard for full cutoff door types except for LD. LD full cutoff door is standard with solite glass.
- 5 LED packages based on 67 CRI/5000K package at 25°C ambient. MH and MP 175W and below are medium base all others are mogul base. CF 64, 84, 114 and 140 models are offered in borosilicate glass and full cutoff doors only. In cold temperatures, compact fluorescent lamps produce lower illumination levels. CF 140 models and 400W HPS rated for 25°C.
- 6 See Voltage Chart for descriptions. 5T available in 400W MH models only. 90°C Rated wire required for thru-branch wiring for units 175W and lower. 105°C Rated wire required for thru-branch wiring for units 200W and higher. Thru-branch wiring is rated for 40°C for LD and 175W and below. Higher wattage thru-branch wiring is rated for use in 25°C ambient operating environments.
- 7 347V not available with thru-branch wiring. For 347 or 480V LD specify voltage. ED will be supplied with integral step down transformer. 347V not available with CF lamps.
- 8 Available with 70-150W MP or CM lamps. E is standard for all CF models. All electronic ballasts are universal 120-277V.
- 9 Not all options can be combined. Only one emergency or battery back-up option available within the fixture. CF Models utilize EMI40, EMI40/2L, CF/EM or CF-EM/2L option for emergency egress. LD Models utilize EM-LED or EMLED-CD options only for battery back-up.
- 10 Must specify voltage. F1=120, 277 or 347V. F2=208, 240 or 480V. PE=120, 208, 240 or 277V.
- 11 DIMA dimming ballast, specify number of lamps, available for 1 or 2-26W or 1-32W, 1-42W. DIMB available for 2-42W, 1-57W or 1-70W.
- 12 SGL optional on HID and CF models only. See note number 4.
- 13 Q or EM not available with LD or E electronic ballast. Q or EM Minimum HID wattage is 70 watts. EM/SC available in 120V only, EM/SC not available with LD. Maximum 100W 120V T4 DC Bayonet Quartz lamp. Lamp supplied by others.
- 14 QMR, 2QMR, EMMR, 2EMMR & 2EMMR/SC not available with LD or E electronic ballast. Minimum HID wattage is 70 watts.
- 15 1 or 2 GU10 base 50W max - 120V Halogen. Lamps supplied by others. EM/SC/MR, 2EM/SC/MR, EM/SC/12V, 2EM/SC/12V not available with LD.
- 16 Emergency lamp leads out of the back of the unit to auxiliary power. Lamps independently wired to separate circuits.
- 17 Low Voltage 1 or 2 GU5.3 MR16 base, 12V DC, 35W max. Lamps supplied by others.
- 18 For use in 25°C ambient operating temperature environments. EMI40, EMI40/2L used for CF lamps. Specify 120 or 277V. EMI40 supports 1-70W CF max, EMI40/2L supports 2-32W CF max. Minimum -18°C/-4°F.
- 19 For use in 25°C ambient operating temperature environments. Specify 120 or 277V. CF-EM supports up to 1-57W CF. CF-EM/2L supports 2-18W CF, 18W lamps supplied by others. Minimum temperature is 32°C/0°F.
- 20 EMLED-CD available with 4A models only. For use in 25°C ambient operating temperature environments. Specify 120 or 277V. EMLED-CD minimum -20°C/-4°F. Battery pack is a UL recognized component.
- 21 Order separately.
- 22 Delivered lumens subject to change. Consult IES file for details.

VOLTAGE CHART	
DT=Dual-Tap	120/277 (wired 277V)
MT=Multi-Tap	120/208/240/277 (wired 277V)
TT=Tri-Tap	120/277/347 (wired 347V)
5T=5 Tap	120/208/240/277/480 (wired 480V)
E=Electronic Ballast	120-277V (Universal) (50/60 HZ)
ED=Electronic LED Driver	120-277V (Universal) (50/60 HZ)

LAMP TYPE	WATTAGE
Pulse Start Metal Halide	50, 70, 100, 150, 200, 250, 320, 350, 400W
Metal Halide	175, 250, 400W
High Pressure Sodium	50, 70, 100, 150, 250, 400W
T6 Ceramic Metal Halide	39, 70, 100, 150W
Compact Fluorescent	(1) 32, (1) 42, (1) 57, (1) 70, (2) 32, (2) 42, (2) 57, (2) 70
LED	2A (2 Package) 28W, 4A (4 Package) 40W

energy
solutions

The Lumark Tribute is the most versatile, functionally designed, universally adaptable outdoor luminaire available. The Tribute brings outstanding performance to walkways, parking lots, roadways, loading docks, building areas, and any security lighting application. U.L. listed and CSA certified for wet locations.

Catalog #		Type
Project		D
Comments		Date
Prepared by		

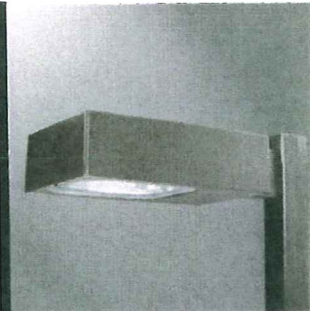
Rugged one-piece die-cast aluminum housing and door frame. One-piece silicone gasket protects the optical chamber from performance degrading contaminants. One (1) stainless spring latch and two (2) stainless hinges allow toolless opening and removal of door frame.

Choice of nine (9) high efficiency optical distributions, including five (5) segmented optical systems constructed of premium 95% reflective oxidized aluminum sheet. Optical segments are rigidly mounted inside a thick gauge aluminum housing for superior protection. All segment faces are clean of rivet heads, tabs or other means of attachment which may cause streaking in the light distribution. Optical modules are

Ballast and related electrical componentry are hard mounted to die-cast housing for optimal heat transfer and operating efficiency. Optional swing-down galvanized steel power tray with integral handle and quick disconnects allows tray to be completely removed from housing providing ample room for fixture installation and maintenance.

Standard single carton packaging of housing, square pole arm and round pole adapter allow for consolidated product arrival to site. Optional internal mast arm mount accepts a 1 1/4" to 2 3/8" O.D. horizontal tenon, while a 4-bolt clamping mechanism secures fixture. Cast-in leveling guides provide +/-5° vertical leveling adjustment.

Housing and arm finished in a 5 stage premium TGIC bronze polyester powder coat paint. Optional colors include black, grey, white, dark platinum and graphite metallic. RAL and custom color matches available.



AREA LUMINAIRE



Technical drawing of the 1000 Series LED Light Bar showing front and side views with dimensions:

- Front View (Left):** Shows a rectangular light bar with a width of $15\frac{1}{2}"$ [394mm].
- Side View (Right):** Shows the light bar with a height of $6\frac{1}{2}"$ [165mm]. The mounting bracket on the right side has a width of $22"$ [559mm] and a depth of $8"$ [203mm].

TYPE "M"

2 5/16" [59mm]
 3/4" [20mm] dia. hole
 2 7/16" [124mm]
 4 7/8" [124mm]
 (2) 5/8" [16mm] dia. holes

WALL MOUNT (MA1219-XX)

12" [305mm]
 4 7/8" [124mm]
 10 1/2" [267mm]
 6 1/2" [165mm]
 8" [203mm]
 9/16" [14mm] Dia. Hole (4)

TRUNNION MOUNT

1" [25mm]
 7/16" [12mm] x 3/4" [20mm] slot (2)
 13/32" [11mm] slot
 1 1/2" [39mm]
 3" [77mm]

ORDERING INFORMATION

Sample Number: MPTR-SL-400-MT-LL

Lamp Type

MP= Pulse Start Metal Halide

MH= Metal Halide

HP= High Pressure Sodium

Series ¹

TR= Tribute (Arm Included)

Distribution

2F= Type II Formed

2S= Type II Segmented

3F= Type III Formed

3S= Type III Segmented

4F= Type IV Formed

4S= Type IV Segmented

5F= Type V Formed

5S= Type V Segmented

SL= Spill Light Eliminator

Lamp Wattage ²

MP

70= 70W

100= 100W

150= 150W

200= 200W

250= 250W

320= 320W

350= 350W

400= 400W³

MH

175= 175W⁴

250= 250W⁴

400= 400W^{3, 4}

HPS

70= 70W

100= 100W

150= 150W

250= 250W

400= 400W³

Voltage ⁵

120V= 120V

208V= 208V

240V= 240V

277V= 277V

347V= 347V⁶

480V= 480V

DT= Dual-Tap

MT= Multi-Tap, wired 277V

TT= Triple-Tap, ⁶ wired 347V

5T= 5 Tap Wired⁵ 480V

Options

F1= Single Fuse (120, 277 or 347V⁷ only)

F2= Double Fuse (208, 240 or 480V⁷ only)

Q= Quartz Restrike (Hot Strike Only)⁸

EM= Quartz Restrike with "Delay Relay" (Quartz lamp strikes at both hot and cold starts)

EM/SC= Emergency Separate⁸ Circuit

LL= Lamp Included

S= 1 1/4" - 2 3/8" Internal Mast Arm Mount

TM= Trunnion Mount

PT= Electrical Power Tray

PER= NEMA Twistlock Photocontrol Receptacle

PC= Button Type Photocontrol⁹

HS= House Side Cutoff¹⁰

LA= Less Arm (Order Mounting Separately)

Standard Color

= Bronze (Standard)

WH= White

BK= Black

AP= Grey

DP= Dark Platinum

GM= Graphite Metallic

Accessories ¹¹

MA1201-XX= Direct Wall Mount Kit¹

MA1218-XX= Direct Mount for Pole¹

MA1219-XX= Wall Mounting Plate

OA1090-XX= Adjustable slipfitter Arm for Tenon Mount 2 3/8" O.D.¹

MA1221-XX= External House Side Shield Kit (EPA= 0.38)

MA1222= Internal House Side Shield Kit for 2S/3S

MA1223= Internal House Side Shield Kit 4S

MA1224= Internal House Side Shield Kit for 2F/3F

MA1225= Internal House Side Shield Kit for 4F

MA1010-XX= Single Tenon Adapter for 3 1/2" O.D. Tenon

MA1011-XX= 2 @ 180 degrees Tenon Adapter for 3 1/2" O.D. Tenon

MA1012-XX= 3 @ 120 degrees Tenon Adapter for 3 1/2" O.D. Tenon

MA1013-XX= 4 @ 90 degrees Tenon Adapter for 3 1/2" O.D. Tenon

MA1014-XX= 2 @ 90 degrees Tenon Adapter for 3 1/2" O.D. Tenon

MA1015-XX= 2 @ 120 degrees Tenon Adapter for 3 1/2" O.D. Tenon

MA1016-XX= 3 @ 90 degrees Tenon Adapter for 3 1/2" O.D. Tenon

MA1017-XX= Single Tenon Adapter for 2 3/8" O.D. Tenon

MA1018-XX= 2 @ 180 degrees Tenon Adapter for 2 3/8" O.D. Tenon

MA1019-XX= 3 @ 120 degrees Tenon Adapter for 2 3/8" O.D. Tenon

MA1045-XX= 4 @ 90 degrees Tenon Adapter for 2 3/8" O.D. Tenon

MA1048-XX= 2 @ 90 degrees Tenon Adapter for 2 3/8" O.D. Tenon

MA1049-XX= 3 @ 90 degrees Tenon Adapter for 2 3/8" O.D. Tenon

TR/VS= Field Installed Vandal Shield¹²

OA/RA1013= Photocontrol Shorting Cap

OA/RA1016= NEMA Photocontrol - Multi-Tap

OA/RA1027= NEMA Photocontrol 480V

OA/RA1201= NEMA Photocontrol 347V

Notes: ¹ 8 Inch Arm and pole adapter included with fixture. Specify Less Arm "LA" option when mounting accessory is ordered separately. ² 150W and below in Pulse Start Metal Halide are medium base sockets. All other wattages are mogul base. ³ Requires reduced envelope lamp. ⁴ 175W, 250W, and 400W MH available in non-U.S. markets only. ⁵ Products also available in non-US voltages and 60HZ for international markets. Consult your Cooper Representative for availability and ordering information. 5T only available in 400W MH. ⁶ 88% efficient EISA Compliant MP fixtures not available in 347V or TT Voltages. ⁷ Must specify voltage. ⁸ Quartz options not available with SL optics. ⁹ Specify 120V, 208V, 240V, or 277V only. ¹⁰ House side shield not available on 5S, 5F, or SL optics. ¹¹ Order separately/replace XX with color specification. ¹² Not available with SLE or House Side Shield.

STOCK SAMPLE NUMBER (Lamp Included)

SAMPLE NUMBER: MPTR2340

MP

TR

23

Lamp Type

MP= Pulse Start Metal Halide

HP= High Pressure Sodium ²

Series ¹

TR= Tribute

Distribution

23= Type II/III Formed

Lamp Wattage

15= 150W

25= 250W

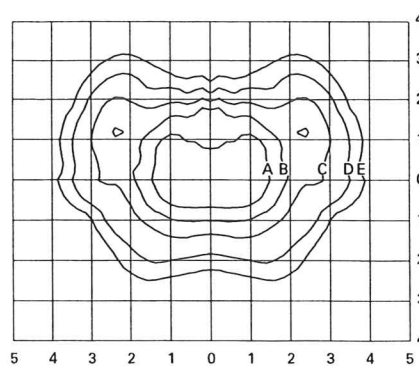
32= 320W

40= 400W

NOTES:
¹ Short logic fixtures are finished bronze include multi-tap ballast, lamp, arm and round pole adapter. Other options not available. Refer to standard ordering logic. ² Available in 150, 250 and 400 Watt. Refer to In Stock Guide for availability.

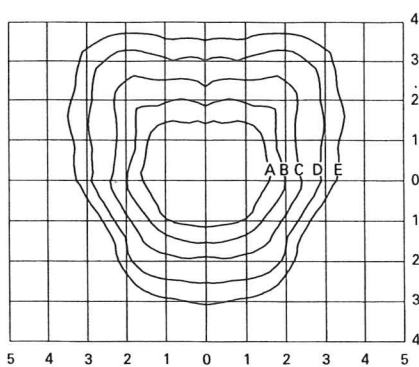
VOLTAGE CHART	
DT= Dual-Tap	120/277 (wired 277V)
MT= Multi-Tap	120/208/240/277 (wired 277V)
TT= Triple-Tap	120/277/347 (wired 347V)
5T= 5-Tap	120/208/240/277/480 (wired 480V)

LAMP TYPE	WATTAGE
Pulse Start Metal Halide	70, 100, 150, 250, 320, 350, 400W
Metal Halide	175, 250, 400W
High Pressure Sodium	70, 100, 150, 250, 400W



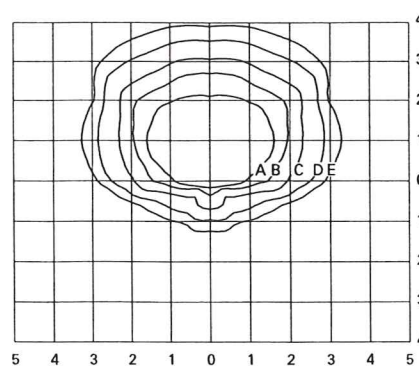
MPTR-3S-320
320—Watt MP
30,000—Lumen Clear Lamp
Type III Segmented

Footcandle Table					
Select mounting height and read across for footcandle values of each isofootcandle line. Distance in units of mounting height.					
Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
20'	3.00	1.50	0.75	0.30	0.15
25'	2.00	1.00	0.50	0.20	0.10
30'	1.38	0.69	0.34	0.13	0.06



MPTR-4S-400
400—Watt MP
40,000—Lumen Clear Lamp
Type IV Segmented

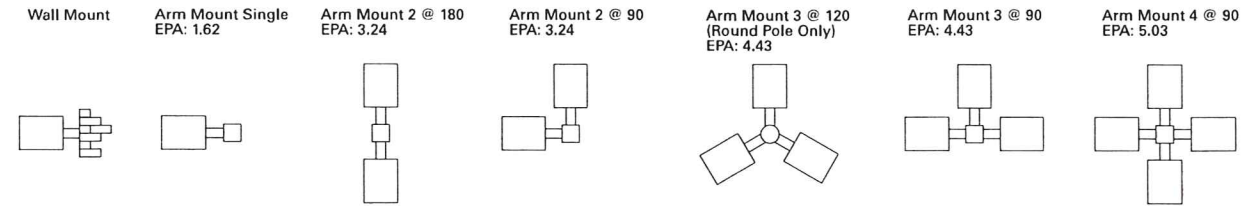
Footcandle Table					
Select mounting height and read across for footcandle values of each isofootcandle line. Distance in units of mounting height.					
Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
20'	3.00	1.50	0.75	0.30	0.15
25'	2.00	1.00	0.50	0.20	0.10
30'	1.38	0.69	0.34	0.13	0.06

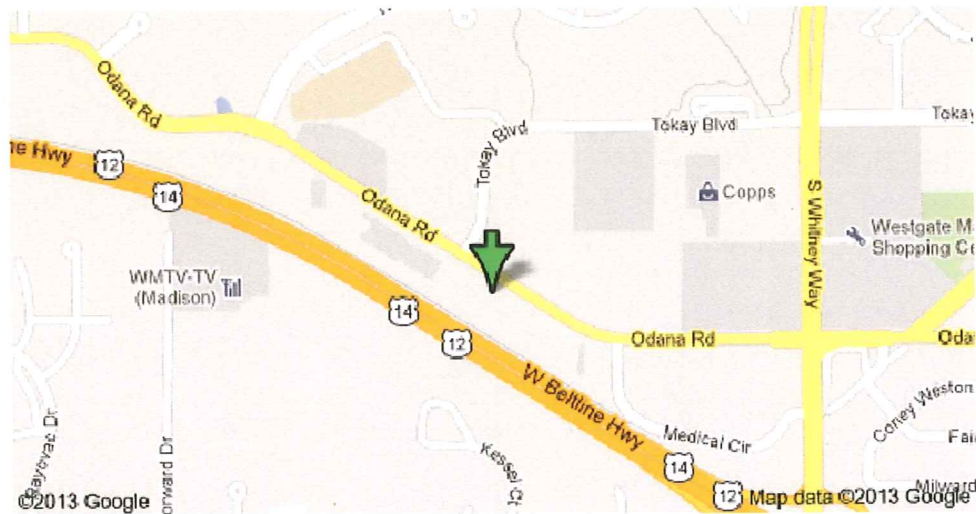


MPTR-SL-400
400—Watt MP
40,000—Lumen Clear Lamp
Spill Light Eliminator

Footcandle Table					
Select mounting height and read across for footcandle values of each isofootcandle line. Distance in units of mounting height.					
Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
20'	3.00	1.50	0.75	0.30	0.15
25'	2.00	1.00	0.50	0.20	0.10
30'	1.38	0.69	0.34	0.13	0.06

MOUNTING CONFIGURATIONS





LOCATION MAP
5709 ODANA ROAD, MADISON, WI



NEW ADDITION



MADISON FAMILY DENTAL

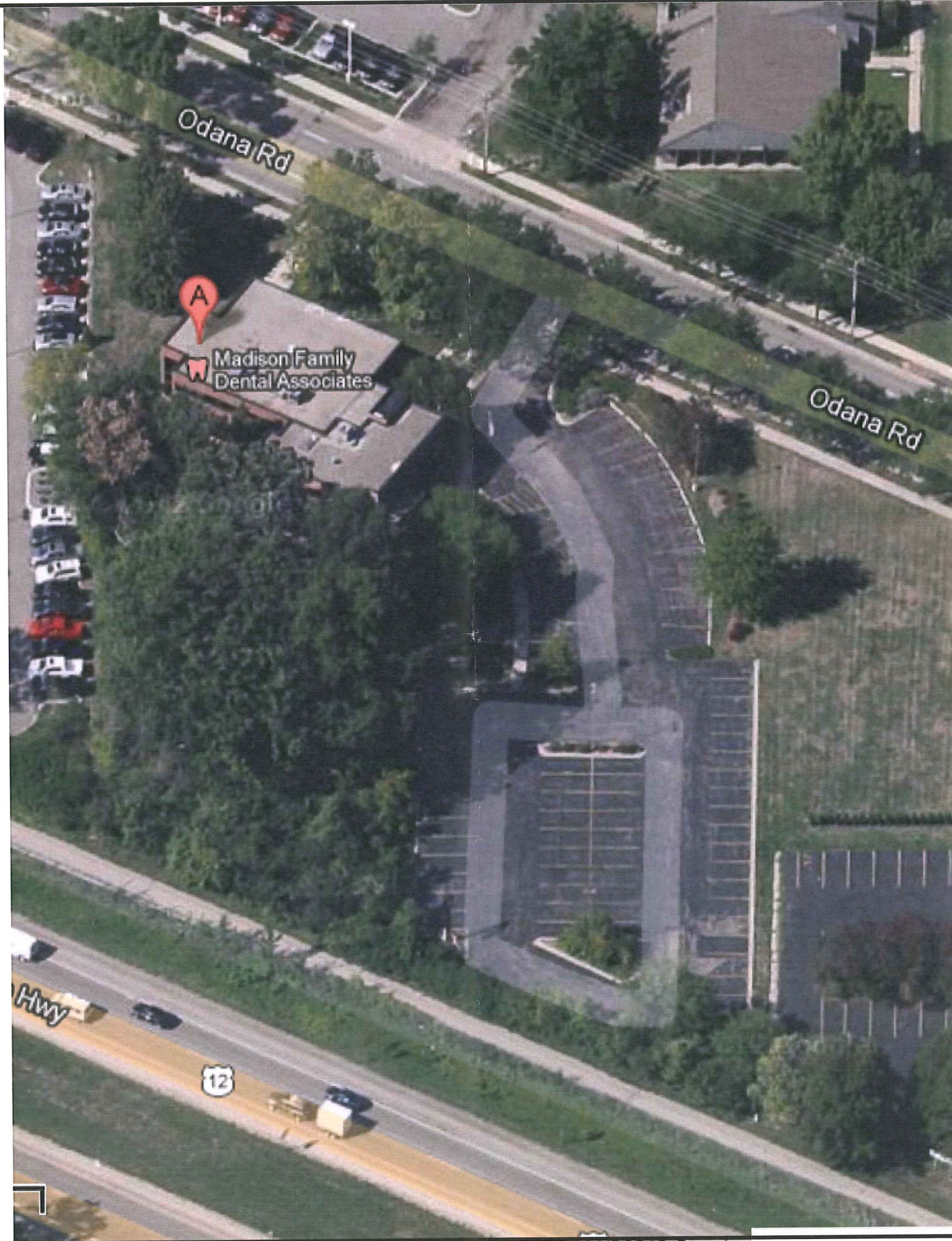
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EXISTING SITE



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EXISTING PARKING LOT WITH MATURE LANDSCAPING



EXISTING PARKING LOT



EXISTING FRONT ENTRY



EXISTING FRONT & SIGN

MADISON FAMILY DENTAL



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EXISTING EAST ELEVATION



EXISTING SOUTH WOODS



EXISTING NORTH ELEVATION



EXISTING EAST LANDSCAPING



EXISTING NORTH PARKING



EXISTING SOUTH PARKING

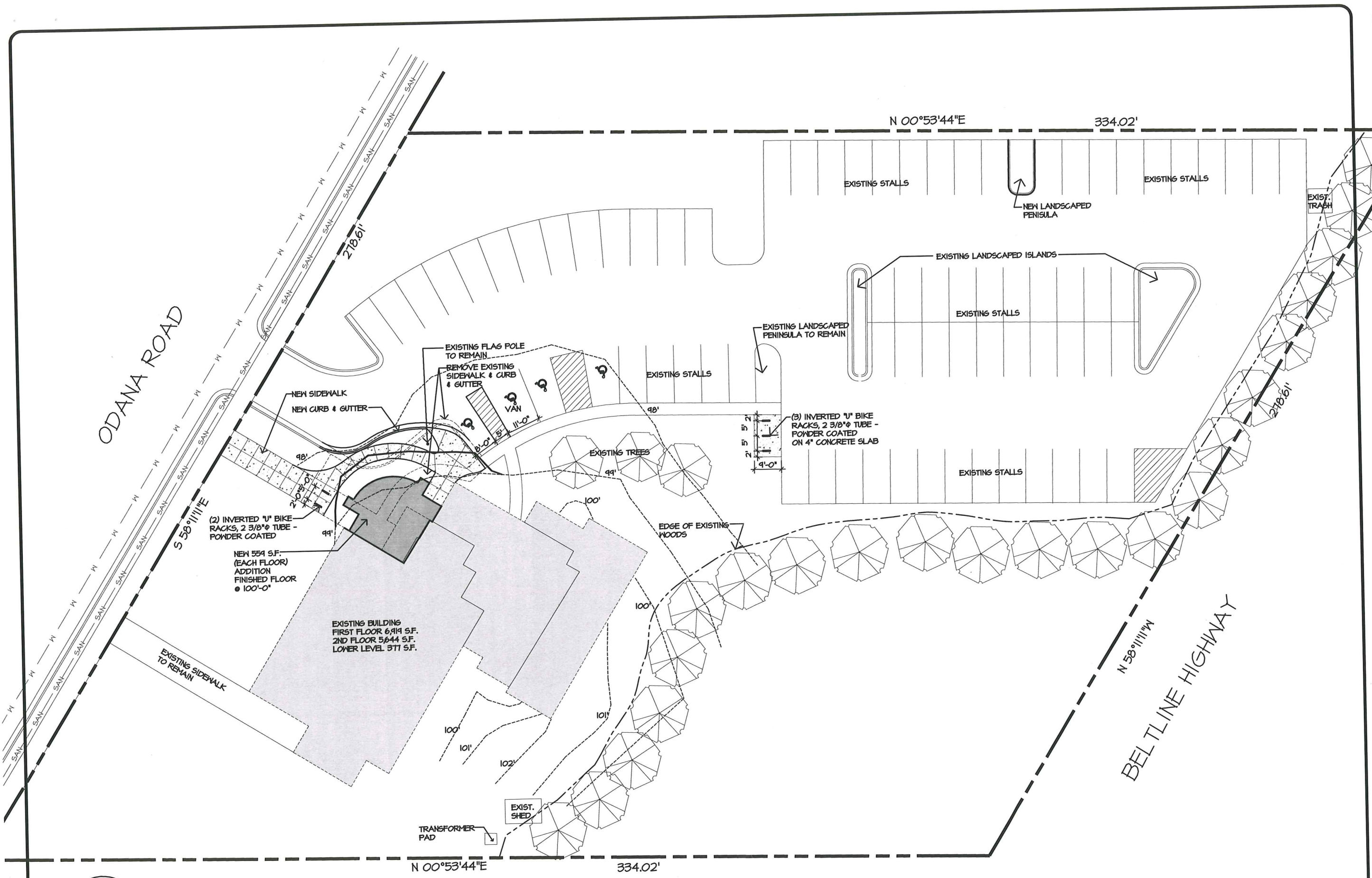


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SITE PLAN

SCALE: 1"=30'-0"



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Broadleaf Deciduous

Conifer Evergreen

Perennial

Shrub

Existing Plants

Zoning district is.....
Total square footage of developed area..... 42,161 s.f.
Total square footage of developed area divided by 300 square feet..... 141 Landscape Units

[illegible]

A) Areas labeled "Red B Colored Wood Mulch" to receive a mixture of recycled wood mulch, colored brown or red as indicated, spread to a 3" depth over pre-emergent herbicide.

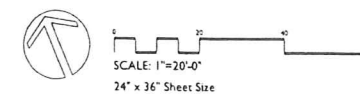
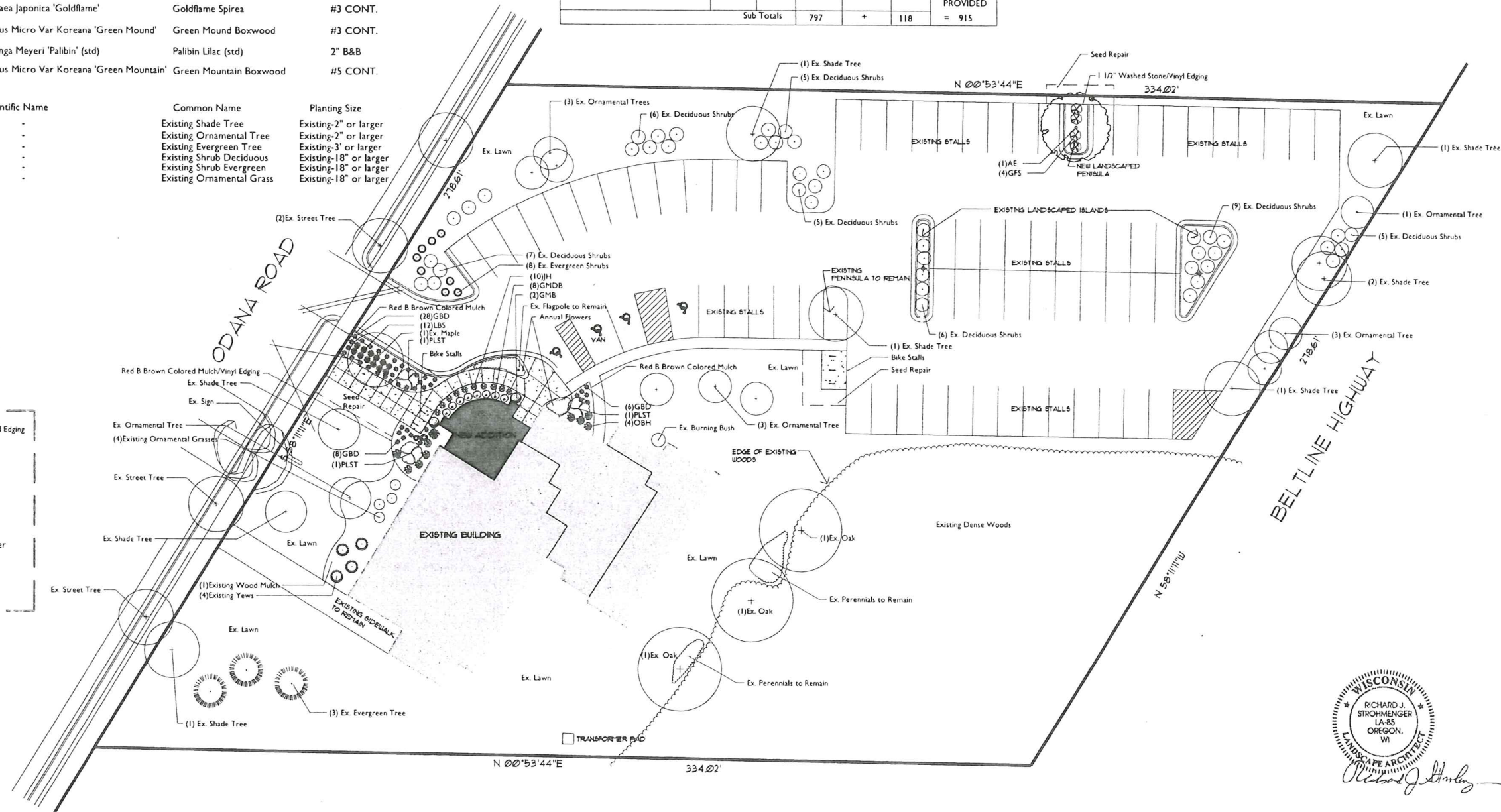
B) "Vinyl Edging" to be Valley View Black Diamond Vinyl Edging or equivalent.

C) Areas labeled "washed stone" to receive 1-1/2" washed stone spread to a 3" depth over fabric weed barrier.

D) "Seed Repair" areas shall be finish-graded and seeded at a rate of 4 lbs. per 1,000 sq. ft.

E) Seed shall consist of the following mixture:

- 40% Palmer Ryegrass
- 20% Baron Bluegrass
- 20% Nassau Bluegrass
- 20% Pennlawn Creeping Red Fescue



Checked By: SS
Drawn By: 3/12/13 RS

[illegible]

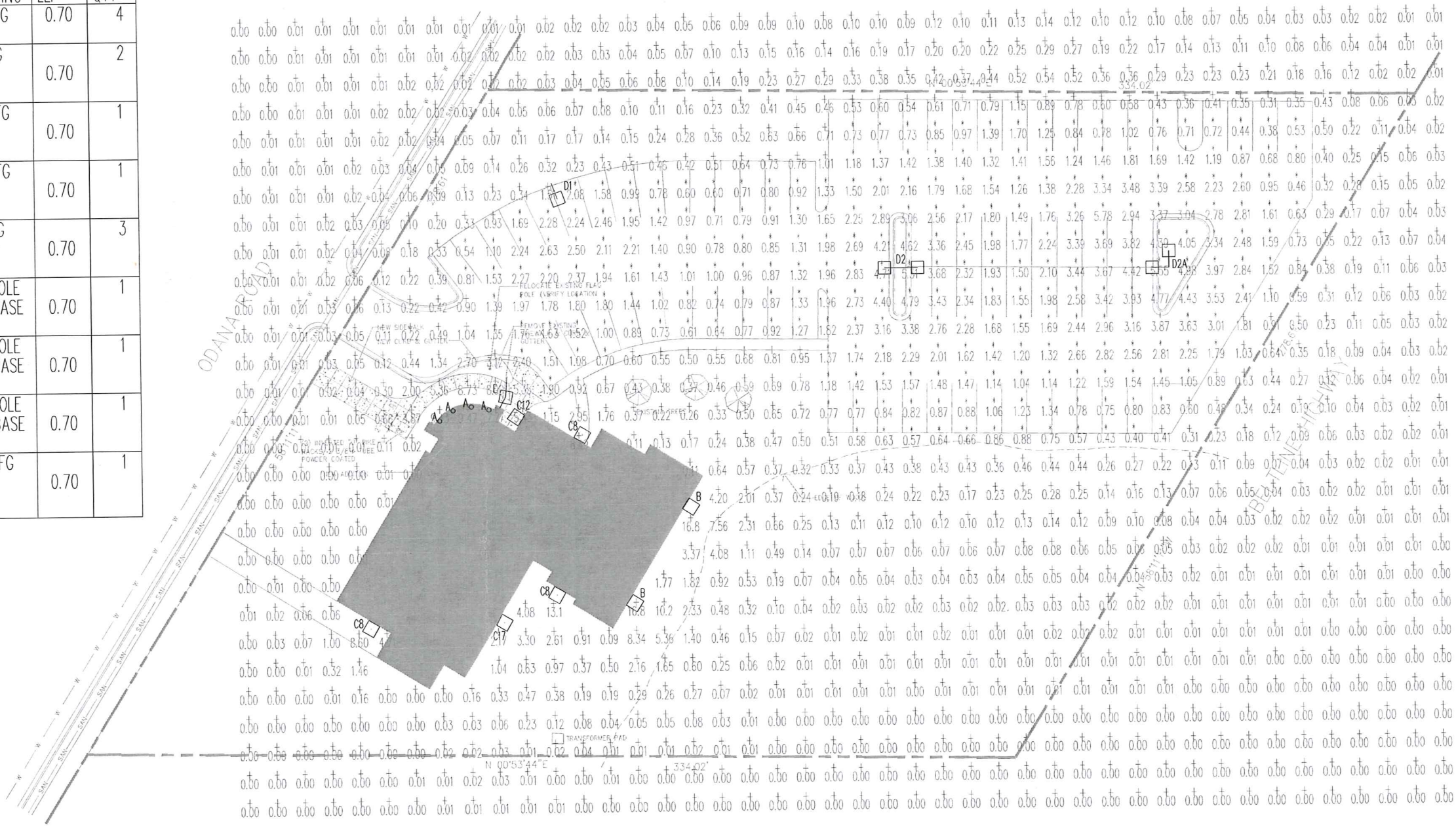
L1

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CONTOUR LINES = 0.50 FC @ 4' AFG

BASE CALCULATION SUMMARY						
GRID HEIGHT	GROUP	AVE	MAX	MIN	MAX/MIN	AVE/MIN
At Grade	<+> MISC	0.36	16.83	0.00	N/A	N/A
	<*> PARKING	1.85	5.78	0.38	15.16	4.85

Madison Family Dental BASE LUMINAIRE SCHEDULE						
TYPE	DESCRIPTION	LAMP	LUMENS	MOUNTING	LLF	QTY
A	Halo Commercial (1) PD6V70E-60VH	(1) 70 PSMH	5500	17' AFG	0.70	4
B	McGraw-Edison Impact (1) IMT-150-MP-MT-4S-BZ	(1) 150 PSMH	14000	9' AFG	0.70	2
C12	Lumark WP (Existing) (1) MPWP-FC-100-MT	(1) 100 PSMH	8100	12' AFG	0.70	1
C17	Lumark WP (Existing) (1) MPWP-FC-100-MT	(1) 100 PSMH	8100	17' AFG	0.70	1
C8	Lumark WP (Existing) (1) MPWP-FC-100-MT	(1) 100 PSMH	8100	8' AFG	0.70	3
D1	Lumark Tribute (1) MPTR-SL-250	(1) 250 PSMH	22000	25' POLE 24" BASE	0.70	1
D2	Lumark Tribute (2 @ 180) (2) MPTR-5S-250	(2) 250 PSMH	22000	25' POLE 24" BASE	0.70	1
D2A	Lumark Tribute (2 @ 90) (2) MPTR-4S-250	(2) 250 PSMH	22000	25' POLE 24" BASE	0.70	1
E	Lumark Falcon (Existing) (1) PSF-K-100-120V	(1) 100 PSMH	8100	19' AFG	0.70	1

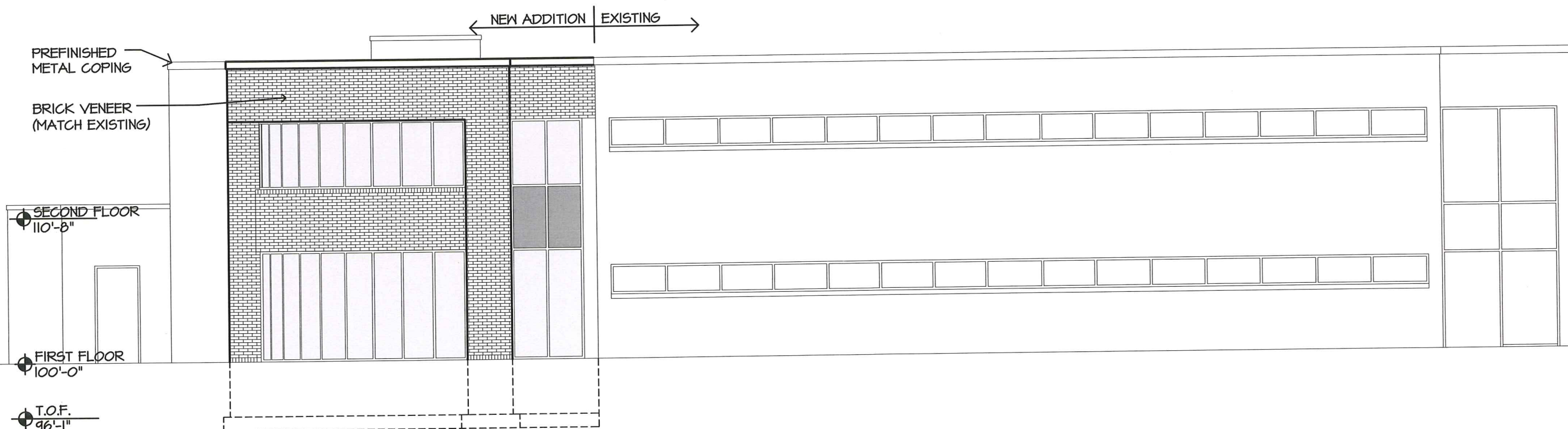




CONCEPTUAL RENDERING



EXISTING NORTH ELEVATION



NEW NORTH ELEVATION

SCALE: 1/8"=1'-0"

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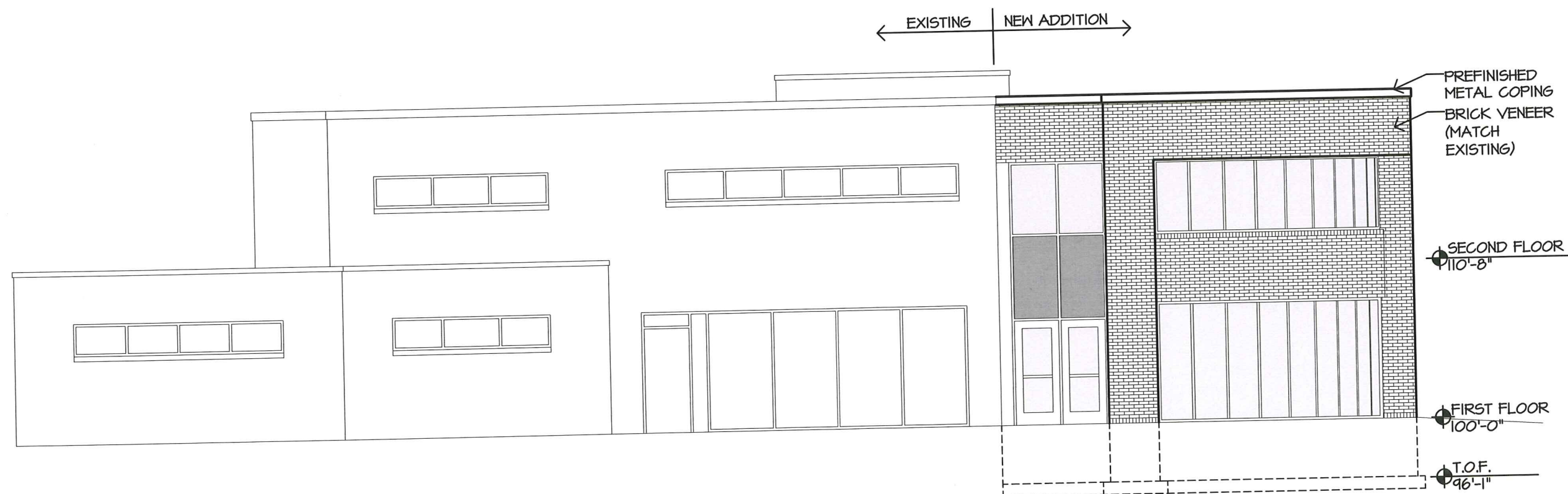
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CONCEPTUAL RENDERING



EXISTING EAST ELEVATION



NEW EAST ELEVATION

SCALE: 1/8"=1'-0"

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