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

ARCHITECTURAL & DESIGN REVIEW APPLICATION

Applicant/Contact Person: David Ewanowski

Address: 621 Williamson St **Phone Number of Contact Person:** 608-255-9202

City, State, Zip Code: Madison, WI 53703 **Email of Contact Person:** david@keearch.com

Project Address: 2885 Fish Hatchery Rd **Lot:** 1 **Subdivision:** CSM 14700

Project Type: _____ **Multi-Family** __X__ **Commercial** _____ **Industrial** _____ **Other**

__X__ **New** _____ **Addition**

Impervious Surface Ratio (ISR): 75.6% (City Standard: maximum 65% ISR)

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

Site Data:

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

Building:

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

Ingress, Egress, Parking:

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

Landscaping:

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

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

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

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

Signed: _____ **Date:** 8/21/2018
Applicant or Authorized Agent

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

FOR CITY USE ONLY

Date Received: _____ **Plan Commission Date:** _____

Comments:

KEE Architecture, Inc.
621 Williamson Street
Madison, Wisconsin 53703
(608)255-9202

August 21, 2018

To: City of Fitchburg
Planning & Zoning Department
5520 Lacy Road
Fitchburg, Wisconsin 53711

RE: **Architectural Design Review Application**
UW Credit Union – Fish Hatchery Road Branch
2885 Fish Hatchery Road
Fitchburg, Wisconsin

Dear Planning & Zoning Department:

We are submitting the attached Architectural Design Review application for approval on behalf of UW Credit Union, the owner of the property located at 2885 Fish Hatchery Road in the city of Fitchburg.

PROPOSED USE:

UW Credit Union proposes to develop the parcel for use as a commercial office building. The development will feature a structural steel, two-story building with a full basement, totaling approximately 20,000 gross square feet. The first floor (±6,925 sf) will be a fully functioning UW Credit Union branch, with four drive-through lanes. The second floor (±6,125 sf) will be leased to a tenant for office use, and may be used for additional UW Credit Union office space in the future. The lower (basement) level will serve as a temporary UW Credit Union disaster recovery site, which will be used when other facilities are forced to move to temporary quarters due to loss of service or other shutdown.

SITE PLAN & UTILITIES:

The proposed site plan (Drawing C03) has been developed to provide vehicular access to/from the site from Fish Hatchery Road, as well as shared access with the adjacent Avalon residential development. Future access to the proposed Pike Drive (east) extension and controlled intersection is anticipated. Pedestrian access to the building entrance is provided from the parking areas as well as from the public sidewalk along Fish Hatchery Road. Bicycle parking is located east of the building entry near the northeast corner of the building.

The proposed landscape plan (Drawing L02) includes elements that have been provided in accordance with city of Fitchburg *Design review standards* (Section 22-607).

Site utilities - including water, sanitary sewer, power, natural gas - are located in Fish Hatchery Road and are identified in the utility plan (Drawing C05). They will be utilized for the proposed development as necessary.

STORMWATER MANAGEMENT:

Stormwater will be managed by collecting storm water on site and tying into existing underground storm lines (Drawing C04), which take storm drainage to a retention pond located to the east of the Avalon. The pond will be modified (as submitted to the City under separate cover) to serve the UWCU parcel.

FISH HATCHERY ROAD MODIFICATIONS:

As part of the development of the site, modifications to the median in Fish Hatchery Road are proposed to allow for safe ingress and egress for both the UWCU and Avalon sites while the Pike Drive extension is being completed. Per discussions with city of Fitchburg transportation and public works staff, southbound traffic will be able to turn left into the site and vehicles exiting the site will be able to turn left to go south on Fish Hatchery Road.

PROJECT TEAM:

The team for this project includes the following:

Property Owner:

UW Credit Union
3500 University Avenue
Madison, Wisconsin 53705
Attn: Brad McClain, CFO
(608)236-9000

Architect:

KEE Architecture, Inc.
621 Williamson Street
Madison, Wisconsin 53703
Attn: David Ewanowski AIA
(608)255-9202

Landscape Architect:

Saiki Design
1110 South Park Street
Madison, Wisconsin 53715
Attn: Ken Saiki
(608)251-3600

Mechanical/Electrical Engineer:

IMEG Corporation
1800 Deming Way, Suite 200
Madison, Wisconsin 53562
Attn: Kris Cotharn
(608)221-6713

City of Fitchburg Planning & Zoning Department
RE: Architectural Design Review Application
2885 Fish Hatchery Road
Fitchburg, Wisconsin
August 21, 2018

Site/Civil Engineer:

Quam Engineering, LLC
4604 Siggelkow Road, Suite A
McFarland, Wisconsin 53558
Attn: Ryan D. Quam PE
(608)838-7750

Traffic Engineer:

KL Engineering, Inc.
5400 King James Way, Suite 200
Madison, Wisconsin 53719
Attn: Mike Scarmon, PE | PTOE
(608)663-1218

Surveyor:

Chaput Land Surveys
234 W. Florida Street, Suite 306
Milwaukee, Wisconsin 53204
Attn: Donald C. Chaput, P.L.S.
(414)292-1311

General Contractor:

J.H Findorff & Son
300 South Bedford Street
Madison, Wisconsin 53703
Attn: Aaron Zutz, Project Manager
(608)257-5321

PROJECT SCHEDULE:

It is anticipated that construction for the UW Credit Union project will begin in October 2018, with occupancy in September 2019.

Please review the attached application and other supporting documents, and contact us if you have any questions.

Sincerely,
KEE Architecture, Inc.

David J. Ewanowski AIA

City of Fitchburg Planning & Zoning Department
RE: Architectural Design Review Application
2885 Fish Hatchery Road
Fitchburg, Wisconsin
August 21, 2018

Enclosures:

- Plan Commission Application – *(one copy)*
- Cover Letter (4 pages) – *(one copy; includes project description)*
- Plans – *(one copy at 24" x 36"; two at 11" x 17"; collated):*
  - Title Sheet – (Drawing G01)
  - Plat of Survey – (Drawing SV1)
  - Land Title Survey – (Drawing SV2)
  - Existing Site Plan – (Drawing C01)
  - Demolition Plan – (Drawing C02)
  - Site Plan – (Drawing C03)
  - Grading Plan – (Drawing C04)
  - Utility Plan – (Drawing C05)
  - Median Work Plans (Drawings C11-C14)
  - Existing Vegetation Plan (Drawing L101)
  - Landscape Plan and Plant List – (Drawing L102)
  - Site Lighting Calcs – (Drawing E01)
  - Floor Plans – (Drawings A01 & A02)
  - Building Elevations – (Drawing A03)
- Site Light Fixture Cut Sheets *(23 pages – one copy)*

Submitted Previously Under Separate Cover:

- Stormwater Management Report (UW Credit Union Site) *(68 pages – one copy)*
- Stormwater Management Report (Avalon Senior Campus) *(72 pages – one copy)*
- PDF with all above documents - submitted to planning@fitchburgwi.gov

UW Credit Union Fish Hatchery

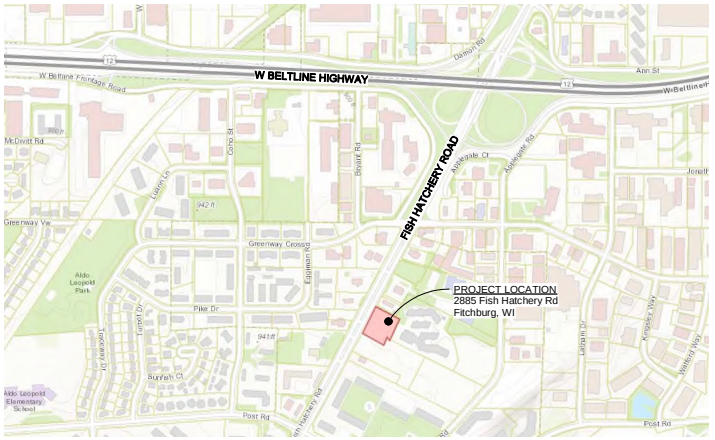
2885 Fish Hatchery Rd Fitchburg, WI

KEE Project ZC04E

ARCHITECTURAL DESIGN REVIEW

Drawing Index

Location Map



ARCHITECTURAL DESIGN REVIEW

08/21/18

REV	DESCRIPTION	DATE

UW Credit Union
Fish Hatchery

2885 Fish Hatchery Rd
Fitchburg, WI

ZC04E

KEE architecture

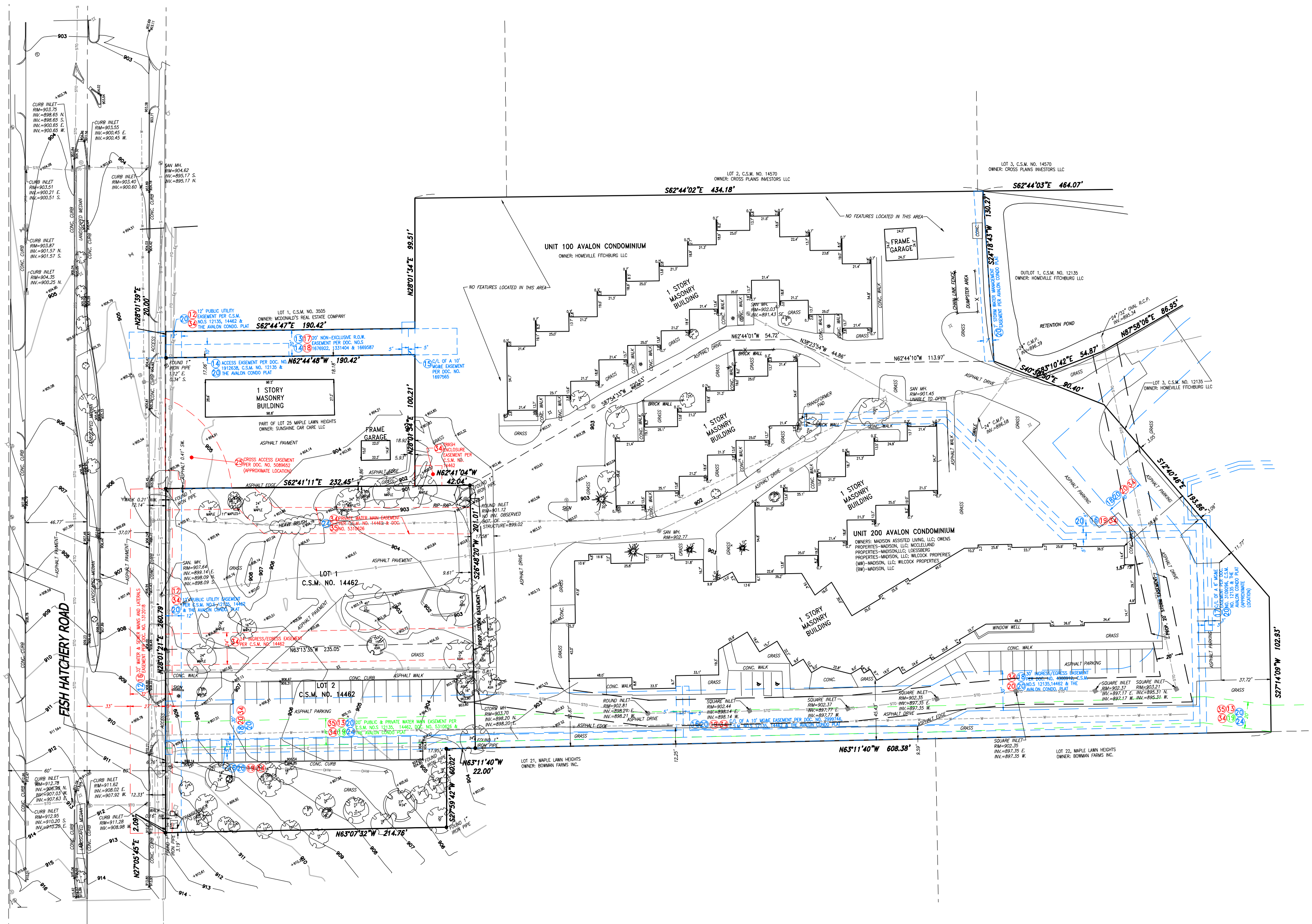
621 WILLIAMSON ST | MADISON WI 53703

Findorff

G01 TITLE SHEET

Printed: 8/20/2018 11:35:20 AM

PLAT OF SURVEY



SITE ADDRESS

2875 & 2879 Fish Hatchery Road, City of Fitchburg, Dane County, Wisconsin.

LEGAL DESCRIPTION

Lot One (1) and Lot Two (2), Certified Survey Map No. 14462 recorded in the Office of the Register of Deeds for Dane County, Wisconsin on March 7, 2017, in Volume 99 of Certified Survey Maps, Pages 203- 204, as Document No. 5310625, located in the City of Fitchburg, Dane County, Wisconsin.

BASIS OF BEARINGS

Bearings are referenced to the WCCS (Dane Zone) in which the North line of the Northeast 1/4 of Section 3 bears North 89°16'11" West

TITLE COMMITMENT

This survey was prepared based on First American Title Insurance Company Commitment No. NCS-756600-MAD, effective date of August 17, 2017 which lists the following easements and/or restrictions from schedule B-II:

1, 2, 3, 5, 8 & 9 visible evidence shown, if any.

4, 6, 7, 11, 27, 36 & 37 not survey related.

10, 28, 29, 30, 31 & 32 intentionally deleted.

12. Twelve (12) Public Utility Easement disclosed by Certified Survey Map No. 12135. Affects property by location, shown.
13. Twenty (20) foot public water main easement disclosed by Certified Survey Map No. 12135. Affects property by location, shown.
14. Notes disclosed by Certified Survey Map No. 12135. Affects property by location, general in nature.
15. Controlled Access Highway Recorded: June 18, 1973, in Volume 447 of Records, Page 483, as Document No. 1368501. Affects property by location, general in nature.
16. Water and Sewer Mains and Laterals Easement Recorded: December 10, 1971 Volume 304 of Records, Page 324, as Document No. 1312018. Affects property by location, shown.
17. Agreement Recorded: August 27, 1980, in Volume 2163 of Records, Page 38, as Document No. 1676922. Does not affect property by location.
18. Right-of-way for driveway purposes contained in instrument Recorded: June 29, 1972 Volume 355 of Records, Page 170, as Document No. 1331404. Modified in Quit Claim Deed recorded June 30, 1980, in Volume 2012 of Records, Page 8, as Document No. 1669587. Modified in Easement Agreement recorded December 5, 1985, in Volume 7569 of Records, Page 50, as Document No. 1912638. Does not affect property by location.
19. Right-of-Way Grant to Madison Gas and Electric Company Recorded: July 29, 1998, as Document No. 2999746. Also shown on CSM 14462. Affect property by location, shown.
20. Private Driveway Access Easement Agreement Recorded: April 20, 2007, as Document No. 4300912. Also shown on CSM 14462. Affects property by location, shown.
21. Temporary Parking Easement Recorded: May 22, 2007, as Document No. 4312288. Affects property by location, blanket in nature.
22. Storm Water Management System Construction and Maintenance Declaration Recorded: May 22, 2007, as Document No. 4312293. Affects property by location, general in nature.
23. Agreement for Subdivision Improvements recorded July 27, 2007, as Document No. 4338363. Affects property by location, general in nature.
24. Terms and conditions contained in Ordinance No. 2007-0-09 Issuing Planned Development District General Implementation Plan and Planned Development District Specific Implementation Plan Zoning for Development at 2875 Fish Hatchery Road Recorded: July 19, 2007, as Document No. 4335531. Planned Development District Amending General Implementation Plan recorded June 4, 2014, as Document No. 5073615. Affects property by location, general in nature.
25. Access Easement Agreement recorded August 6, 2014, as Document No. 5089652. Benefits property by location, shown.
26. Planned Development District recorded August 11, 2015, as Document No. 5175731. Affects property by location, general in nature.
33. License Agreement for Access Water Shutoff Valves, recorded February 11, 2016 as Document No. 5214493. Affects property by location, general in nature.
34. Matters shown by Certified Survey Map No. 14462 March 7, 2017 as Document No. 5310625. Affects property by location.
    - -12' PUBLIC UTILITY EASEMENT. Shown.
    - -24' INGREESS/EGRESS EASEMENT. Shown.
    - -30' INGRESS /EGRESS EASEMENT, DOC. NO. 4300912. Shown.
    - -20' PUBLIC WATER MAIN EASMENT PER CERTIFIED SURVEY MAP NO. 12135. Shown.
    - -10' WIDE EASEMENT TO MG&E PER DOCUMENT NO. 2999746. Shown.
    - -PRIVATE WATER MAIN EASMENTS (NORTH) AND (SOUTH). Shown.
    - -TRASH ENCLOSURE EASEMENT. Shown.
    - -NOTE REGARDING STREET OPENING PERMITS. General in nature.
    - -NOTE REGARDING UTILITY EASEMENT. General in nature.
    - -NOTE REGARDING WETLANDS. General in nature.
35. Grant of Private Water Main Easement recorded March 7, 2017 as Document No. 5310626. Affects property by location, shown.

TITLE COMMITMENT

This survey was prepared based on First American Title Insurance Company Commitment No. NCS-864349-MAD, effective date of August 10 2017 which lists the following easements and/or restrictions from schedule B-II:

1, 2, 3, 5, 9 & 10 visible evidence shown, if any.

4, 6, 7, 8, 25, 26 & 27 not survey related.

11. Controlled Access Highway Recorded: June 18, 1973, in Volume 447 of Records, Page 483, as Document No. 1368501. Affects property by location, general in nature.
12. Water and Sewer Mains and Laterals Easement Recorded: December 10, 1971 Volume 304 of Records, Page 324, as Document No. 1312018. Does not affect property by location, shown.
13. Agreement Recorded: August 27, 1980, in Volume 2163 of Records, Page 38, as Document No. 1676922. Affects property by location, shown.
14. Right-of-way for driveway purposes contained in instrument Recorded: June 29, 1972 Volume 355 of Records, Page 170, as Document No. 1331404. Modified in Quit Claim Deed recorded June 30, 1980, in Volume 2012 of Records, Page 8, as Document No. 1669587. Modified in Easement Agreement recorded December 5, 1985, in Volume 7569 of Records, Page 50, as Document No. 1912638. Affects property by location, shown.
15. Right-of-Way Grant to Madison Gas and Electric Company Recorded: February 16, 1981 Volume 2585 of Records, Page 2, as Document No. 1697565. Affects property by location, shown.
16. Right-of-Way Grant to Madison Gas and Electric Company Recorded: July 29, 1998 as Document No. 2999746 and disclosed by Avalon Condominium Plat. Affects property by location, shown.
17. Right-of-Way Grant to Madison Gas and Electric Company Recorded: May 5, 1999 as Document No. 3109296, and disclosed by Avalon Condominium Plat. Affects property by location, shown.
18. Private Driveway Access Easement Agreement Recorded: April 20, 2007 as Document No. 4300912, and disclosed by Avalon Condominium Plat and Certified Survey Map No. 12135 as Thirty (30) foot ingress/egress easement. Affects property by location, shown.
19. Twenty (20) foot public water main easement as disclosed by Avalon Condominium Plat and Certified Survey Map No. 12135. Affects property by location, shown.
20. Terms and Conditions of the Declaration of Avalon Condominium recorded May 8, 2007 as Document No. 4306841. Condominium Plat of Avalon Condominium recorded May 8, 2007, as Document No. 4306842; First Addendum recorded July 6, 2007 as Document No. 4331065. Affects property by location, shown.
21. Temporary Parking Easement Recorded: May 22, 2007 as Document No. 4312288. Does not affect property by location, blanket easement over Lot 1, C.S.M. NO. 14462
22. Storm Water Management System Construction and Maintenance Declaration Recorded: May 22, 2007 as Document No. 4312293. Affects property by location, general in nature.
23. Terms and conditions contained in Ordinance No. 2007-0-09 Issuing Planned Development District General Implementation Plan and Planned Development District Specific Implementation Plan Zoning for Development at 2875 Fish Hatchery Road Recorded: July 19, 2007 as Document No. 4335531. Affects property by location, general in nature.
24. Grant of Private Water Main Easement, recorded March 7, 2017 as Document No. 5310626. Affects property by location, shown

PARKING SPACES

There are 63 regular parking spaces and 2 handicap spaces marked on this site.

FLOOD NOTE

According to the flood insurance rate map of the County of Dane, Community Panel No. 55025C0418G, effective date of January 2, 2009, this site falls in Zone X (Areas determined to be outside the 0.2% annual chance floodplain).

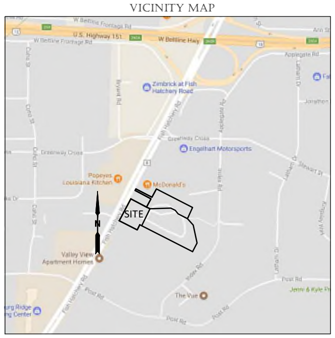
MUNICIPAL ZONING

Municipal Code: City of Fitchburg Zoning Code; Sec. 22-599
Site is zoned: PDD-SIP (Planned Development District - Specific Implementation Plan)
Site restrictions determined by common council and plan commission at time of submittal of development.

LAND AREA

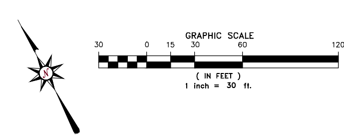
The Land Area of the subject property is 60,261 square feet or 1.3834 acres.

VICINITY MAP



LEGEND

- INDICATES FOUND 1" IRON PIPE
- INDICATES SET 1" IRON PIPE
- INDICATES FOUND CHISELED CROSS
- SANITARY MANHOLE
- SANITARY CLEANOUT OR VENT
- SEPTIC TANK ACCESS COVER
- M.I.S. MANHOLE
- UNKNOWN MANHOLE
- STORM MANHOLE
- INLET (ROUND)
- INLET (SQUARE)
- CURB INLET
- STORM SEWER END SECTION
- GAS VALVE
- GAS METER
- WATER VALVE
- HYDRANT
- WATER MANHOLE
- WATER SERVICE CURB STOP
- WELL HEAD
- STAND PIPE
- WALL INDICATOR VALVE
- POST INDICATOR VALVE
- LIGHT POLE
- SPOT/YARD LIGHT
- UTILITY POLE
- GUY POLE
- GUY WIRE
- ELECTRIC MANHOLE
- ELECTRIC PEDESTAL
- ELECTRIC METER
- TELEPHONE MANHOLE
- TELEPHONE PEDESTAL
- CABLE PEDESTAL
- CONTROL BOX
- FIBER OPTIC SIGN
- TRAFFIC LIGHT
- COMMUNICATION MANHOLE
- BOLLARD
- SOIL BORING/MONITORING WELL
- WATER SURFACE
- WETLANDS FLAG
- MARSH
- FLAGPOLE
- PARKING METER
- SIGN
- MAILBOX
- RAILROAD CROSSING SIGNAL
- HANDICAP SPACE
- CONIFEROUS TREE
- DECIDUOUS TREE
- SANITARY SEWER
- STORM SEWER
- WATERLINE
- MARKED GAS MAIN
- MARKED ELECTRIC
- OVERHEAD WIRES
- MARKED TELEPHONE
- MARKED CABLE TV LINE
- MARKED FIBER OPTIC
- FENCE



I Certify that I have surveyed the above described property (Property), and the above map is correct to the best of my professional knowledge and belief and shows the size and location of the Property, its exterior boundaries, the location and dimensions of all visible structures thereon, boundary fences, apparent easements and roadways and visible encroachments, if any. This survey is made for the exclusive use of the present owners of the Property, and also those who purchase, mortgage, or guarantee the title thereto, within one (1) year from date hereof.

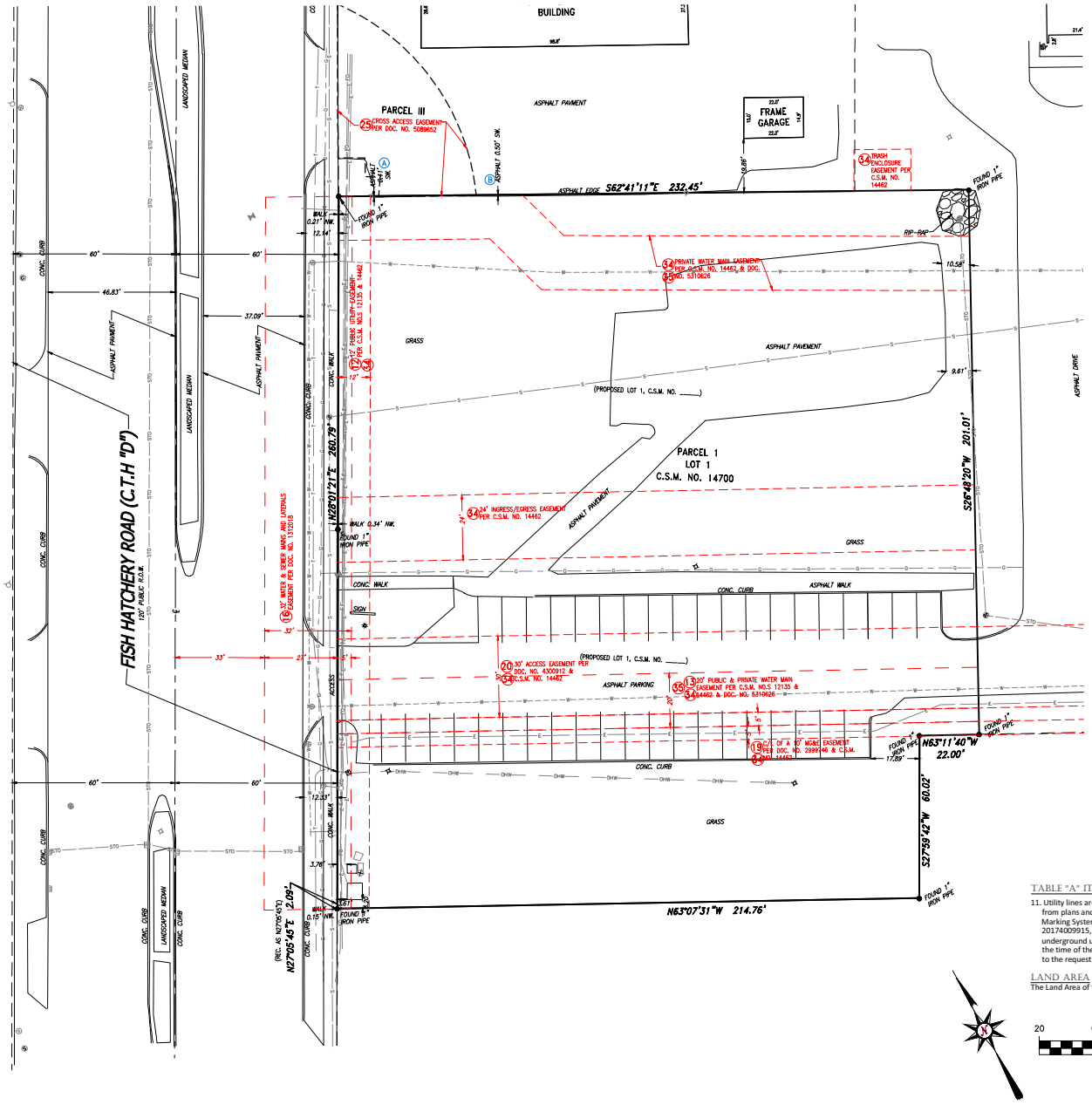
Date: October 25, 2017

Donald C. Chaput
Professional Land Surveyor
Registration Number S-1316

Date	Revision description

CHAPUT LAND SURVEYS
234 W. Florida Street
Milwaukee, WI 53204
414-224-8068
www.chaputlandsurveys.com

Drawing No. 2709-dmb



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- MARKED ELECTRIC
- OVERHEAD WIRES
- MARKED TELEPHONE
- MARKED CABLE TV LINE
- MARKED FIBER OPTIC
- FENCE

ENCROACHMENT TABLE

A	ASPHALT 0.41' OVER NORTHERLY PROPERTY LINE
B	ASPHALT 0.50' OVER NORTHERLY PROPERTY LINE

VICINITY MAP

TABLE "A" ITEMS

11. Utility lines are shown from visible surface evidence, municipal plans and from plans and markings provided by Diggers Hotline, the One-call Utility Marking System (Wisconsin Statute 182.0175), Ticket Numbers 20174010076, 20174009915, 20174009838 & 20174010927. This survey represents the underground utilities that participated with the request and were marked on the time of the survey. Additional utilities may exist, but were non-responsive to the request.

LAND AREA

The Land Area of the subject property is 60,261 square feet or 1.3834 acres.

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

ALTA/NSPS LAND TITLE SURVEY

CLIENT

University of Wisconsin Credit Union

SITE ADDRESS

2875 & 2879 Fish Hatchery Road, City of Fitchburg, Dane County, Wisconsin.

LEGAL DESCRIPTION

Parcel I:
Lot One, Certified Survey Map No. 14700 recorded in the Office of the Register of Deeds for Dane County, Wisconsin on January 29, 2018, in Volume 102 of Certified Survey Maps, Page 155, as Document No. 5386746, located in the City of Fitchburg, Dane County, Wisconsin.

Parcel II:
Easement contained in Consolidated Easement Agreement for Storm Water Management, System Construction, and Maintenance and Private Water Main dated _____ and recorded as Document No. _____.

Parcel III:
Access Easement contained in Access Easement Agreement dated July 10, 2014 and recorded August 6, 2014 as Document No. 5089652.

BASIS OF BEARINGS

Bearings are referenced to the WCCS (Dane Zone) in which the North line of the Northeast 1/4 of Section 3 bears North 89°16'11" West

TITLE COMMITMENT

This survey was prepared based on First American Title Insurance Company Commitment No. NCS-756600-MAD, effective date of August 17, 2017 which lists the following easements and/or restrictions from schedule B-II:

1, 2, 3, 5, 8 & 9 visible evidence shown, if any.

4, 6, 7, 11, 27, 36 & 37 not survey related.

10, 28, 29, 30, 31 & 32 intentionally deleted.

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17. Agreement Recorded: August 27, 1980, in Volume 2163 of Records, Page 38, as Document No. 1676922. Does not affect property by location.
18. Right-of-way for driveway purposes contained in instrument Recorded: June 29, 1972 Volume 355 of Records, Page 170, as Document No. 1331404. Modified in Quit Claim Deed recorded June 30, 1980, in Volume 2012 of Records, Page 8, as Document No. 1669587. Modified in Easement Agreement recorded December 5, 1985, in Volume 7569 of Records, Page 50, as Document No. 1912638. Does not affect property by location.
19. Right-of-Way Grant to Madison Gas and Electric Company Recorded: July 29, 1998, as Document No. 2999746. Also shown on CSM 14462. Affect property by location, shown.
20. Private Driveway Access Easement Agreement Recorded: April 20, 2007, as Document No. 4300912. Also shown on CSM 14462. Affects property by location, shown.
21. Temporary Parking Easement Recorded: May 22, 2007, as Document No. 4312288. Affects property by location, blanket in nature.
22. Storm Water Management System Construction and Maintenance Declaration Recorded: May 22, 2007, as Document No. 4312293. Affects property by location, general in nature.
23. Agreement for Subdivision Improvements recorded July 27, 2007, as Document No. 4338363. Affects property by location, general in nature.
24. Terms and conditions contained in Ordinance No. 2007-O-09 Issuing Planned Development District General Implementation Plan and Planned Development District Specific Implementation Plan Zoning for Development at 2875 Fish Hatchery Road Recorded: July 19, 2007, as Document No. 4335531. Planned Development District Amending General Implementation Plan recorded June 4, 2014, as Document No. 5073615. Affects property by location, general in nature.
25. Access Easement Agreement recorded August 6, 2014, as Document No. 5089652. Benefits property by location, shown.
26. Planned Development District recorded August 11, 2015, as Document No. 5175731. Affects property by location, general in nature.
33. License Agreement for Access Water Shutoff Valves, recorded February 11, 2016 as Document No. 5214493. Affects property by location, general in nature.
34. Matters shown by Certified Survey Map No. 14462 March 7, 2017 as Document No. 5310625. Affects property by location.
    -12' PUBLIC UTILITY EASEMENT. Shown.
    -24' INGRESS/EGRESS EASEMENT. Shown.
    -30' INGRESS /EGRESS EASEMENT, DOC. NO. 4300912. Shown.
    -20' PUBLIC WATER MAIN EASMENT PER CERTIFIED SURVEY MAP NO. 12135. Shown.
    -10' WIDE EASEMENT TO MG&E PER DOCUMENT NO. 2999746. Shown.
    -PRIVATE WATER MAIN EASMENTS (NORTH) AND (SOUTH). Shown.
    -TRASH ENCLOSURE EASEMENT. Shown.
    -NOTE REGARDING STREET OPENING PERMITS. General in nature.
    -NOTE REGARDING UTILITY EASEMENT. General in nature.
    -NOTE REGARDING WETLANDS. General in nature.
35. Grant of Private Water Main Easement recorded March 7, 2017 as Document No. 5310626. Affects property by location, shown.

TO: University of Wisconsin Credit Union
First American Title Insurance Company

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 1, 2, 3, 4, 7(a), 8, 9, 11, 20 and 22 of Table A thereof. The field work was completed on October 16, 2017.

Date of Map: October 27, 2017.

WISCONSIN DONALD C. CHAPUT S-1316 MILWAUKEE LAND SURVEYOR

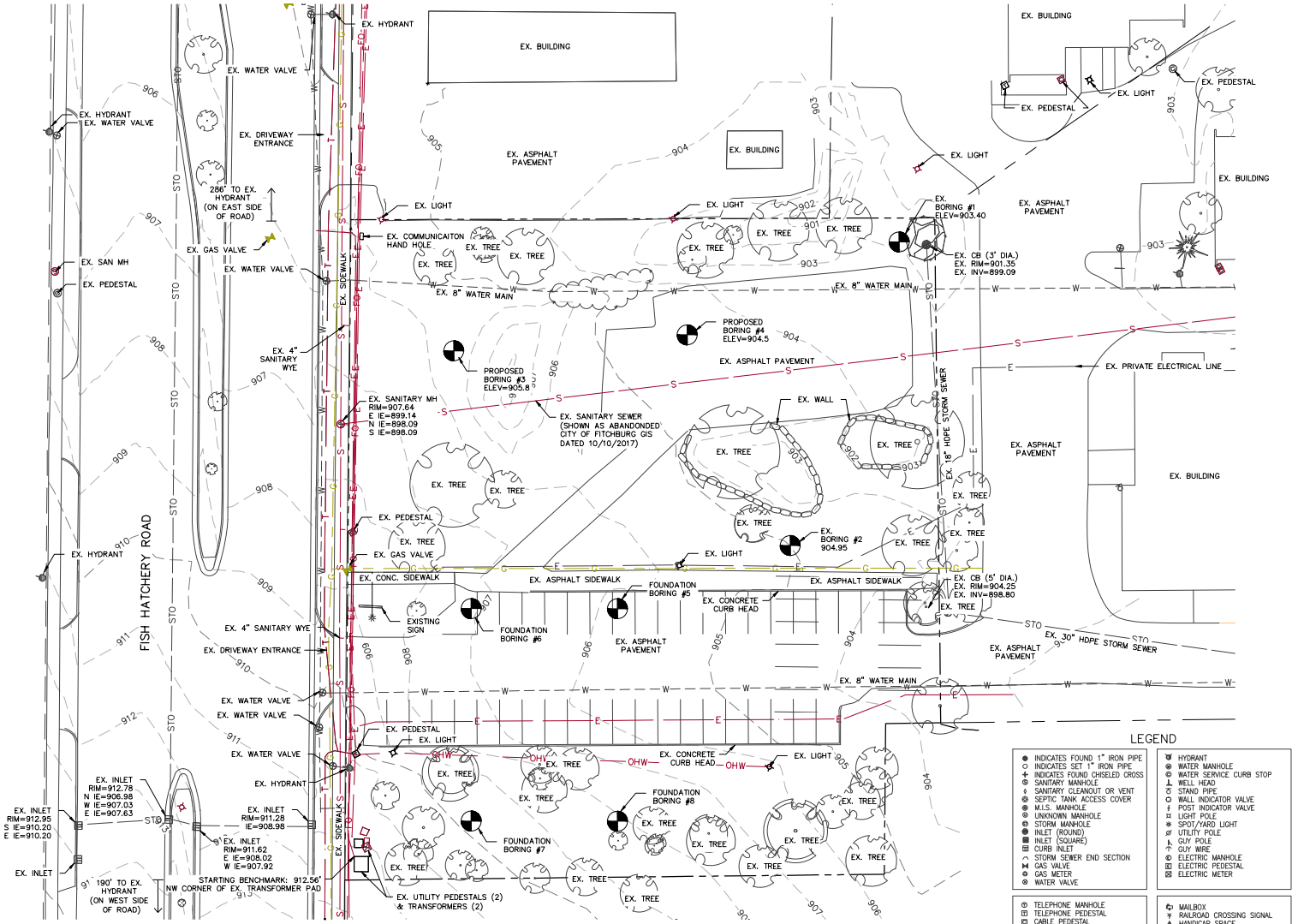
Donald C. Chaput
Professional Land Surveyor
Registration Number S-1316

Date	Revision description
11/06/17	Added Water Laterals
1/31/18	Revised Legal Descriptions

CHAPUT LAND SURVEYS
234 W. Florida Street Milwaukee, WI 53204 414-224-8068 www.chaputlandsurveys.com

Drawing No. 2709-dmb

CHAPUT LAND SURVEYS



QUAM ENGINEERING, LLC
Residential and Commercial Site Design Consultants
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ARCHITECTURAL DESIGN REVIEW

8/21/18

REV	DESCRIPTION	DATE

UW Credit Union
Fish Hatchery

2885 Fish Hatchery Rd
Fitchburg, WI

ZCD4E

KEE architecture
621 WILLIAMSON ST | MADISON WI 53703
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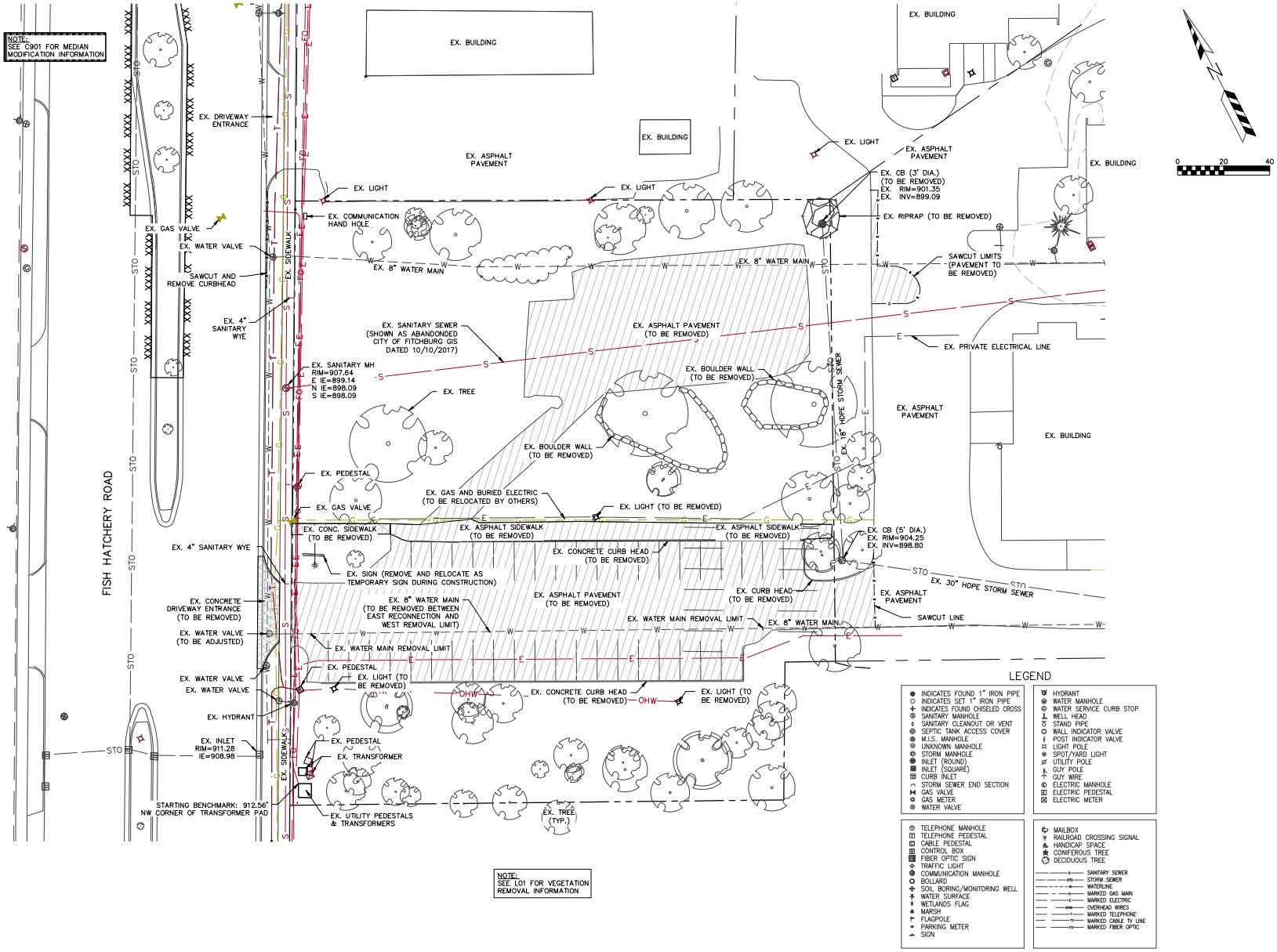
C01 EXISTING SITE PLAN



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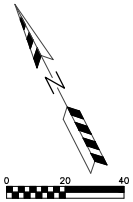
C02 DEMOLITION PLAN



PAVING LEGEND

HEAVY DUTY ASPHALT PAVEMENT
4" (1-1/2" SURFACE/2-1/2" BINDER) ASPHALTIC CONCRETE (WISDOT FDM 14-10, ATTACH. 5.1 (A=0.44)

10" CRUSHED STONE AGGREGATE BASE COURSE (WISDOT FDM 14-10, ATTACH. 5.1 1-1/4" CRUSHED STONE (A=0.14)

DESIGNATION, MARKING AND MAINTENANCE OF FIRE LANES

THE DESIGNATION, MARKING AND MAINTENANCE OF FIRE LANES SHALL BE ACCOMPLISHED AS SPECIFIED BY THE FIRE CHIEF. THE CURRENT STATE DEPARTMENT OF TRANSPORTATION STANDARDS FOR HIGHWAY MARKING SHALL BE USED AS GUIDELINES IN DESIGNATING AND MARKING FIRE LANES.

(1) DESIGNATED FIRE LANES SHALL BE MARKED WITH SIGNS WITHIN FIVE FEET OF THE BEGINNING AND WITHIN FIVE FEET OF THE END OF FIRE LANE, WITH SPACING BETWEEN SIGNS NOT TO EXCEED 75 FEET. EACH SIGN SHALL FACE IN THE DIRECTION OF ONCOMING TRAFFIC. THE CURB SHALL BE PAINTED YELLOW, IF THERE IS NO CURB A FOUR-INCH WIDE STRIPE SHALL BE PAINTED THE FULL LENGTH OF THE FIRE LANE. FIRE LANE SIGN SHALL BE AFFIXED TO A STATIONARY POLE OR OBJECT. SIGN SHALL BE PLAINLY VISIBLE.

(2) ROADWAYS IDENTIFIED EXCLUSIVELY AS FIRE LANES, SHALL BE IDENTIFIED WITH APPROVED FIRE LANE SIGNS ON EACH SIDE FACING FORWARD AND THE PAVEMENT AREA BETWEEN THE SIGNS SHALL BE STRIPED WITH FOUR-INCH WIDE YELLOW STRIPES.

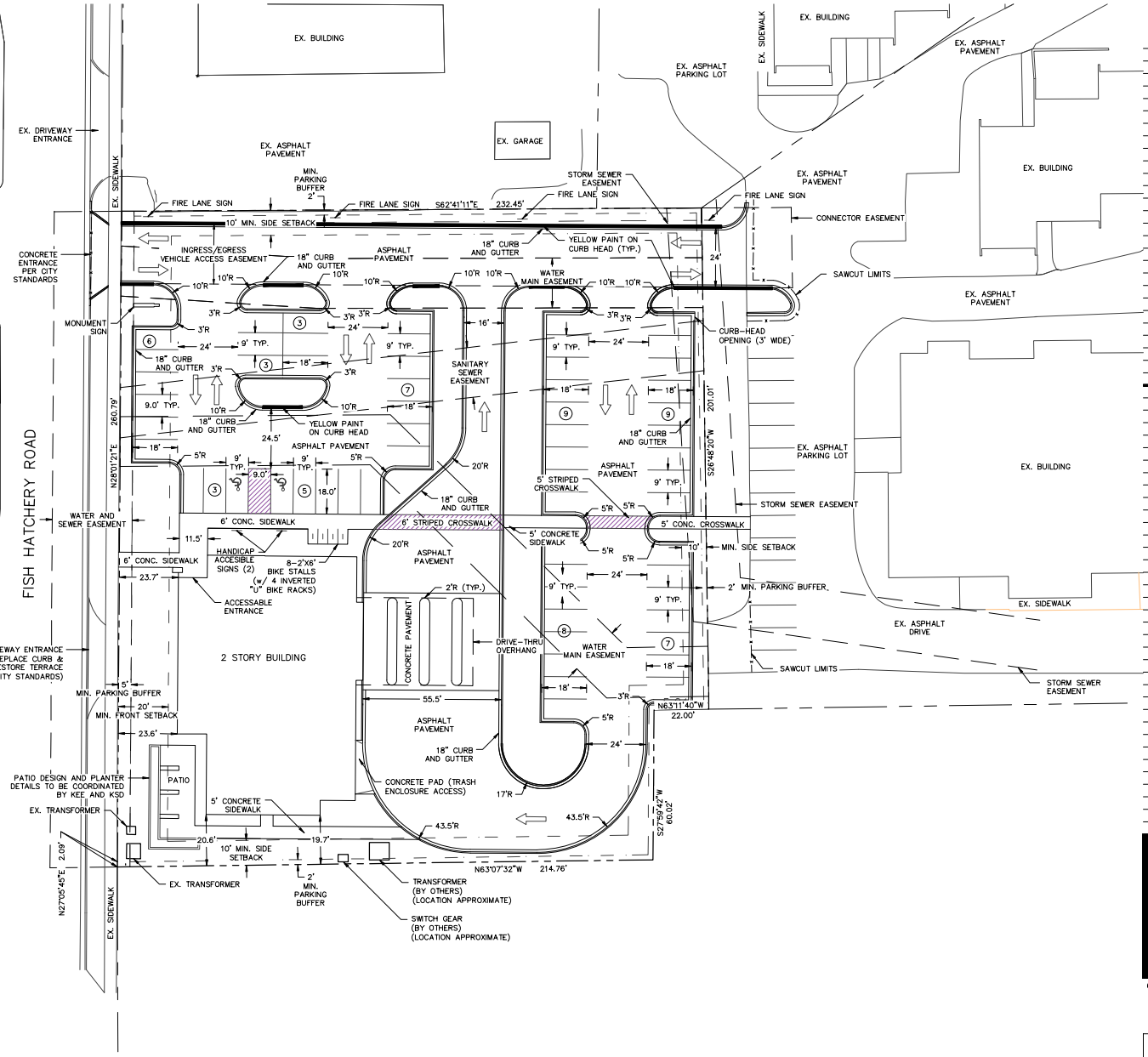
(3) BEFORE THE REQUIREMENTS MAY BE ENFORCED, THE FIRE LANE MUST BE APPROVED BY THE FIRE DEPARTMENT. A STICKER IS PLACED ON EACH SIGN INDICATING APPROVAL AND AUTHORIZING ENFORCEMENT OF THE PROVISIONS OF THE CITY FIRE PREVENTION CODE.

HANDICAP ACCESSIBLE SIGN DETAIL

PARKING LOT PLAN SITE INFORMATION BLOCK		
Site Address	FISH HATCHERY ROAD	
Site acreage (total)	1.38 ACRES	
Current Zoning	BP	
Number of Parking stalls:		
		SHOWN
Bike		8
Car		58
Accessible		2
Total		68

SITE PLAN NOTES:

1. DIMENSIONS ARE TO FACE OF CURB AND FACE OF BUILDING UNLESS OTHERWISE NOTED.
2. ALL STRIPING AND SIGNAGE SHALL COMPLY WITH THE WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.



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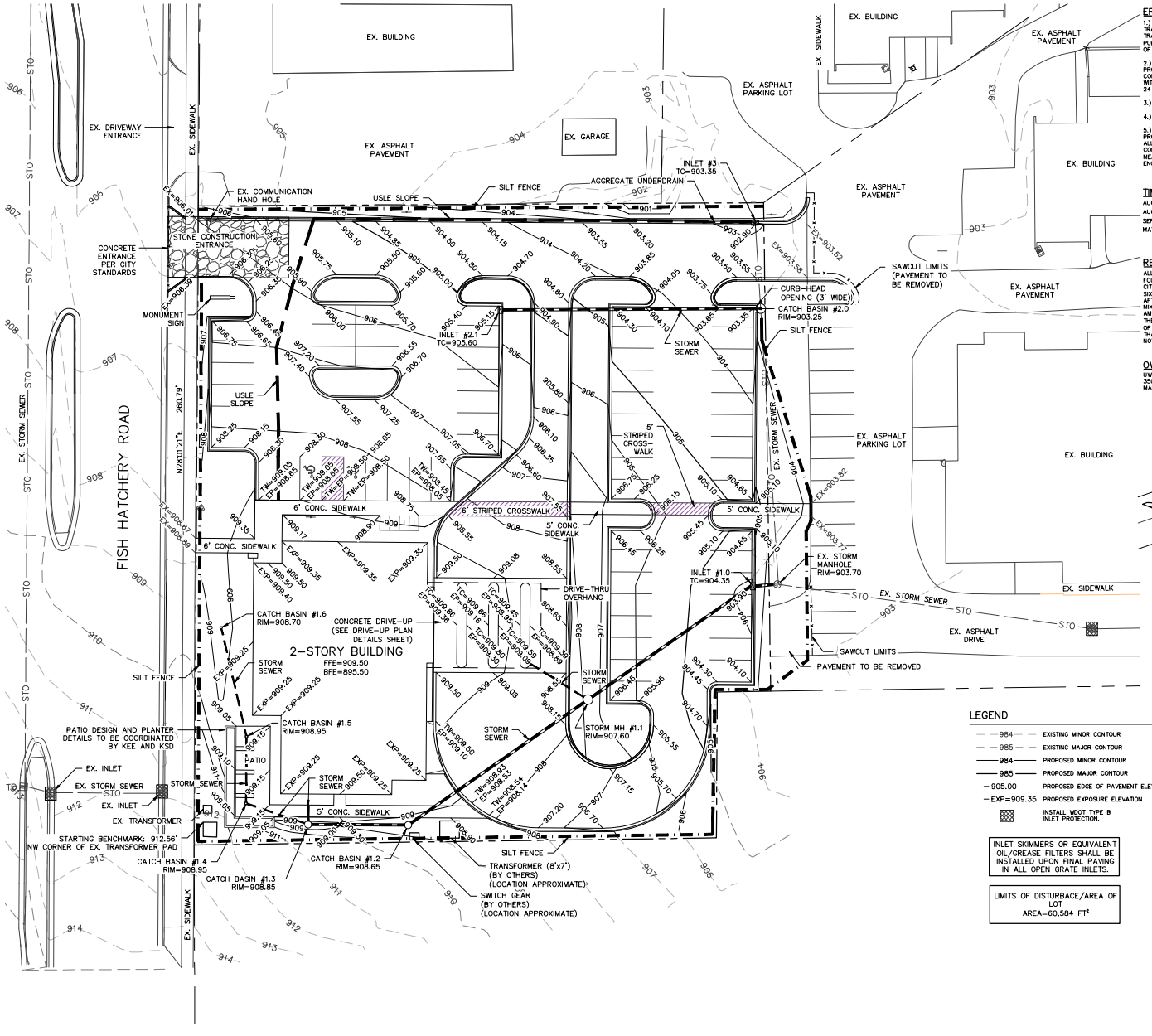
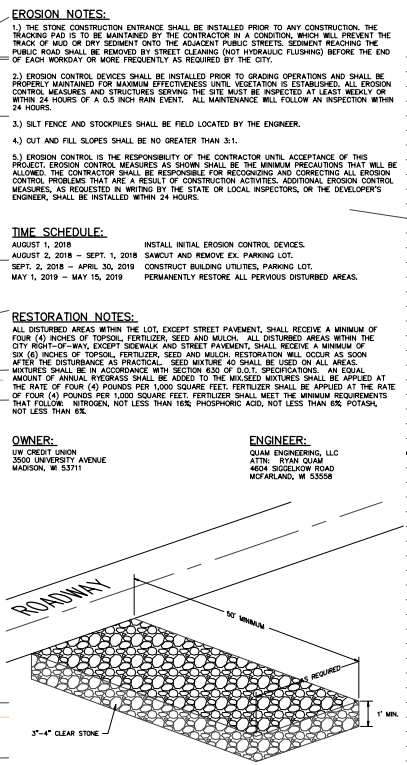
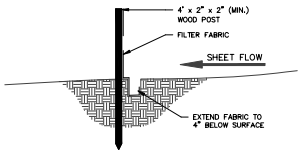
C03 SITE PLAN





STONE CONSTRUCTION ENTRANCE



SILT FENCE CONSTRUCTION (SHEET FLOW)

LEGEND

- 984 — EXISTING MINOR CONTOUR
- 985 — EXISTING MAJOR CONTOUR
- 984 — PROPOSED MINOR CONTOUR
- 985 — PROPOSED MAJOR CONTOUR
- 905.00 — PROPOSED EDGE OF PAVEMENT ELEVATION
- EXP=909.35 — PROPOSED EXPOSURE ELEVATION
- INSTALL WOOT TYPE B INLET PROTECTION.

INLET SKIMMERS OR EQUIVALENT OIL/GREASE FILTERS SHALL BE INSTALLED UPON FINAL PAVING IN ALL OPEN GRATE INLETS.

LIMITS OF DISTURBACE/AREA OF LOT
AREA=60,584 FT²

0 20 40

EROSION NOTES:

1.) THE STONE CONSTRUCTION ENTRANCE SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION. THE TRACKING PAD IS TO BE MAINTAINED BY THE CONTRACTOR IN A CONDITION, WHICH WILL PREVENT THE TRACK OF MUD OR DRY SEDIMENT ONTO THE ADJACENT PUBLIC STREETS. SEDIMENT REACHING THE PUBLIC ROAD SHALL BE REMOVED BY STREET CLEANING (NOT HYDRAULIC FLUSHING) BEFORE THE END OF EACH WORKDAY OR MORE FREQUENTLY AS REQUIRED BY THE CITY.

2.) EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO GRADING OPERATIONS AND SHALL BE PROPERLY MAINTAINED FOR MAXIMUM EFFECTIVENESS UNTIL VEGETATION IS ESTABLISHED. ALL EROSION CONTROL MEASURES AND STRUCTURES SERVING THE SITE MUST BE INSPECTED AT LEAST WEEKLY OR WITHIN 24 HOURS OF A 0.5 INCH RAIN EVENT. ALL MAINTENANCE WILL FOLLOW AN INSPECTION WITHIN 24 HOURS.

3.) SILT FENCE AND STOCKPILES SHALL BE FIELD LOCATED BY THE ENGINEER.

4.) CUT AND FILL SLOPES SHALL BE NO GREATER THAN 3:1.

5.) EROSION CONTROL IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ACCEPTANCE OF THIS PROJECT. EROSION CONTROL MEASURES AS SHOWN SHALL BE THE MINIMUM PRECAUTIONS THAT WILL BE ALLOWED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECOGNIZING AND CORRECTING ALL EROSION CONTROL PROBLEMS THAT ARE A RESULT OF CONSTRUCTION ACTIVITIES. ADDITIONAL EROSION CONTROL MEASURES, AS REQUESTED IN WRITING BY THE STATE OR LOCAL INSPECTORS, OR THE DEVELOPER'S ENGINEER, SHALL BE INSTALLED WITHIN 24 HOURS.

TIME SCHEDULE:

AUGUST 1, 2018	INSTALL INITIAL EROSION CONTROL DEVICES.
AUGUST 2, 2018 – SEPT. 1, 2018	SAWCUT AND REMOVE EX. PARKING LOT.
SEPT. 2, 2018 – APRIL 30, 2019	CONSTRUCT BUILDING UTILITIES, PARKING LOT.
MAY 1, 2019 – MAY 15, 2019	PERMANENTLY RESTORE ALL PERVIOUS DISTURBED AREAS.

RESTORATION NOTES:

ALL DISTURBED AREAS WITHIN THE LOT, EXCEPT STREET PAVEMENT, SHALL RECEIVE A MINIMUM OF FOUR (4) INCHES OF TOPSOIL, FERTILIZER, SEED AND MULCH. ALL DISTURBED AREAS WITHIN THE CITY RIGHT-OF-WAY, EXCEPT SIDEWALK AND STREET PAVEMENT, SHALL RECEIVE A MINIMUM OF SIX (6) INCHES OF TOPSOIL, FERTILIZER, SEED AND MULCH. RESTORATION WILL OCCUR AS SOON AFTER THE DISTURBANCE AS PRACTICAL. SEED MIXTURE 40 SHALL BE USED ON ALL AREAS. MIXTURES SHALL BE IN ACCORDANCE WITH SECTION 630 OF D.O.T. SPECIFICATIONS. AN EQUAL AMOUNT OF ANNUAL RYEGRASS SHALL BE ADDED TO THE MIX.SEED MIXTURES SHALL BE APPLIED AT THE RATE OF FOUR (4) POUNDS PER 1,000 SQUARE FEET. FERTILIZER SHALL BE APPLIED AT THE RATE OF FOUR (4) POUNDS PER 1,000 SQUARE FEET. FERTILIZER SHALL MEET THE MINIMUM REQUIREMENTS THAT FOLLOW. NITROGEN, NOT LESS THAN 16%; PHOSPHORIC ACID, NOT LESS THAN 6%; POTASH, NOT LESS THAN 6%.

OWNER:
UW CREDIT UNION
3500 UNIVERSITY AVENUE
MADISON, WI 53711

ENGINEER:
QUAM ENGINEERING, LLC
ATTN: RYAN QUAM
4604 SIGGELKOW ROAD
MCFARLAND, WI 53558

QUAM ENGINEERING, LLC
Residential and Commercial Site Design Consultants
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ARCHITECTURAL DESIGN REVIEW

8/21/18

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Fish Hatchery
2885 Fish Hatchery Rd
Fitchburg, WI

ZC04E

KEE architecture
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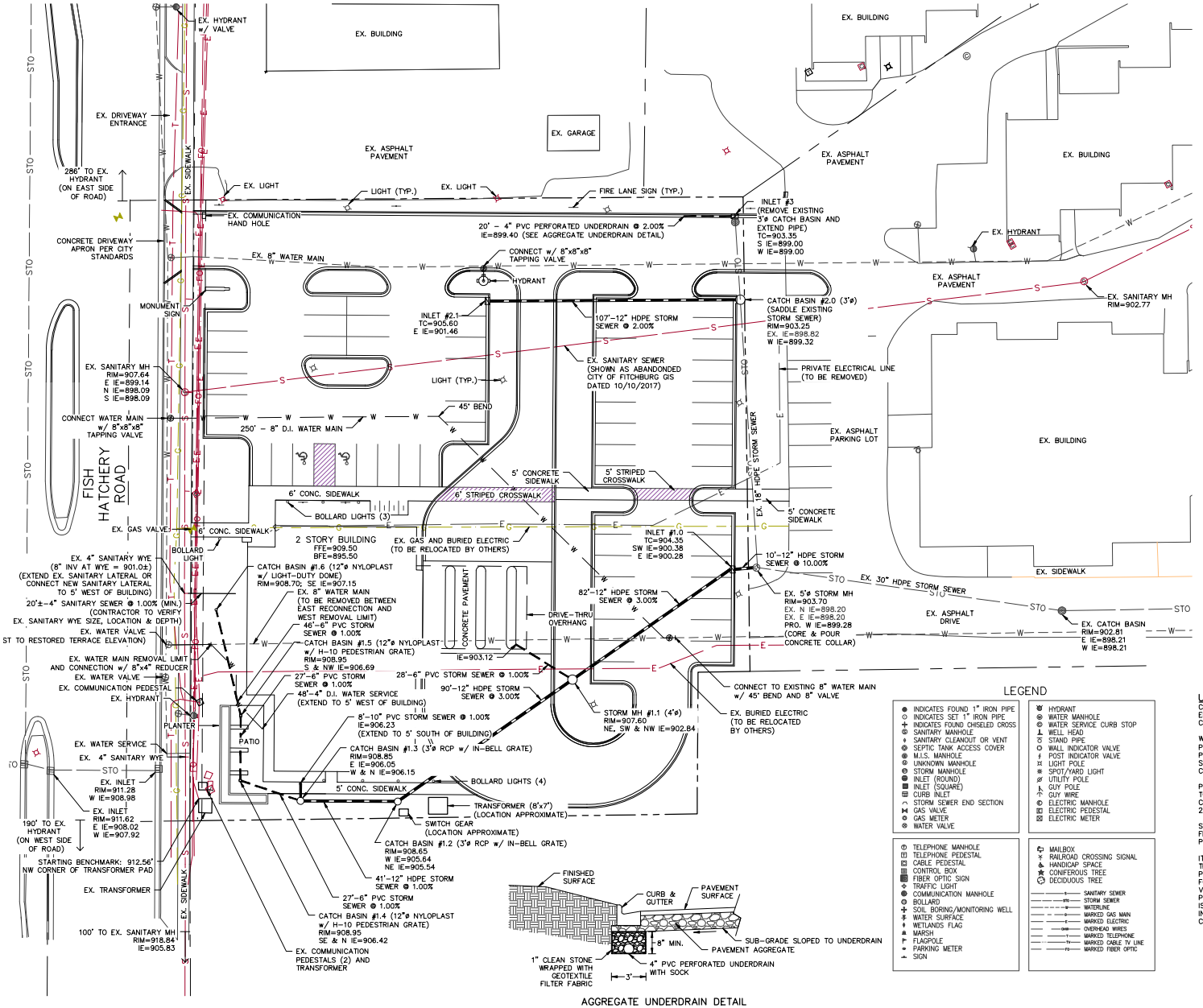
C04 GRADING PLAN



AGGREGATE UNDERDRAIN DETAIL
(NTS)

LEGEND

- INDICATES FOUND 1" IRON PIPE
- INDICATES SET 1" IRON PIPE
- INDICATES FOUND CHISELED CROSS
- SANITARY MANHOLE
- SANITARY CLEANOUT OR VENT
- SEPTIC TANK ACCESS COVER
- M.I.S. MANHOLE
- UNKNOWN MANHOLE
- STORM MANHOLE
- INLET (ROUND)
- INLET (SQUARE)
- CURB INLET
- STORM SEWER END SECTION
- GAS VALVE
- GAS METER
- WATER VALVE
- HYDRANT
- WATER MANHOLE
- WATER SERVICE CURB STOP
- WELL HEAD
- STAND PIPE
- WALL INDICATOR VALVE
- POST INDICATOR VALVE
- LIGHT POLE
- SPOT/YARD LIGHT
- UTILITY POLE
- GUY POLE
- GUY WIRE
- ELECTRIC MANHOLE
- ELECTRIC PEDESTAL
- ELECTRIC METER
- TELEPHONE MANHOLE
- TELEPHONE PEDESTAL
- CABLE PEDESTAL
- CONTROL BOX
- FIBER OPTIC SIGN
- TRAFFIC LIGHT
- COMMUNICATION MANHOLE
- BOLLARD
- SOIL BORING/MONITORING WELL
- WATER SURFACE
- WETLANDS FLAG
- MARSH
- FLAGPOLE
- PARKING METER
- SIGN
- MAILBOX
- RAILROAD CROSSING SIGNAL
- HANDICAP SPACE
- CONIFEROUS TREE
- DECIDUOUS TREE
- SANITARY SEWER
- STORM SEWER
- WATERLINE
- MARKED GAS MAIN
- MARKED ELECTRIC
- OVERHEAD WIRES
- MARKED TELEPHONE
- MARKED CABLE TV LINE
- MARKED FIBER OPTIC

UTILITY NOTES:

CONTRACTOR SHALL VERIFY UTILITY LOCATIONS, ELEVATIONS, SIZES, AND MATERIALS PRIOR TO CONSTRUCTION.

WATER MAINS AND SERVICES UP TO AND INCLUDING PRIVATE HYDRANTS SHALL BE 8" DIAMETER AND INSTALLED PER LATEST EDITION OF THE CITY OF FITCHBURG STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.

PER CITY ORDINANCE, CONTRACTORS ARE NOT ALLOWED TO OPERATE CITY OWNED WATER VALVES. THE CONTRACTOR SHALL CALL THE FITCHBURG UTILITY AT 270-4270 FOR OPERATION OF THESE VALVES.

SAFE SAMPLE RESULTS NEED TO BE PROVIDED TO THE FITCHBURG UTILITY PRIOR TO PRESSURE TESTING THE PRIVATE WATER MAINS.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT THE EXISTING VALVES WILL HOLD THE PRESSURE TEST PRIOR TO CONNECTION. THE CITY IS NOT RESPONSIBLE FOR ANY COSTS INCURRED DUE TO THE CONTRACTOR NOT VERIFYING THAT THE EXISTING VALVE WILL HOLD THE PRESSURE TEST PRIOR TO CONNECTION. IF A NEW VALVE IS REQUIRED, THE APPLICANT WILL BE REQUIRED TO INSTALL ONE AT THEIR EXPENSE AT THE POINT OF CONNECTION.

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Fish Hatchery

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Fitchburg, WI

ZCD4E

KEE architecture
621 WILLIAMSON ST | MADISON WI 53703
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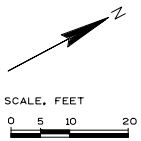
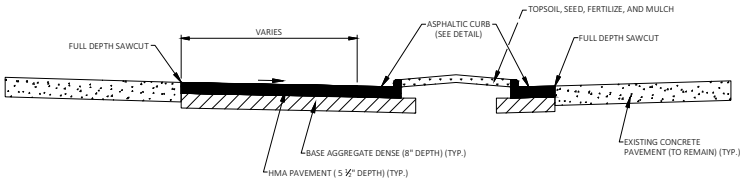
C05 UTILITY PLAN

No.	Northing	Easting	Description
1	466291.285	814114.37	MATCH PT
2	466418.885	814182.899	MATCH PT
3	466468.655	814199.618	MATCH PT
4	466297.871	814101.996	MATCH PT
5	466360.096	814135.116	MATCH PT
6	466364.672	814126.516	MATCH PT
7	466512.15	814204.914	MATCH PT
8	466320.305	814124.423	2.5' RAD
9	466292.327	814140.96	35' RAD
10	466372.21	814152.867	2.5' RAD
11	466372.174	814180.367	30' RAD
12	466408.347	814165.615	FOC
13	466419.72	814181.069	FOC

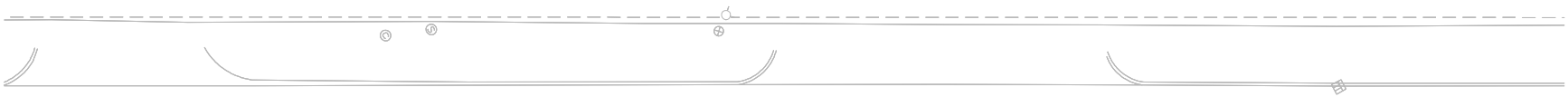


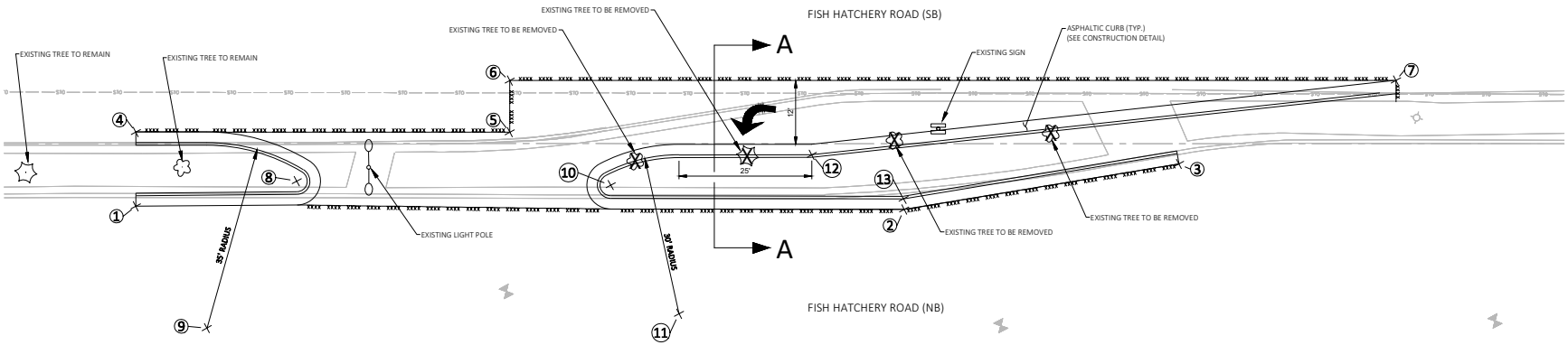
LEGEND

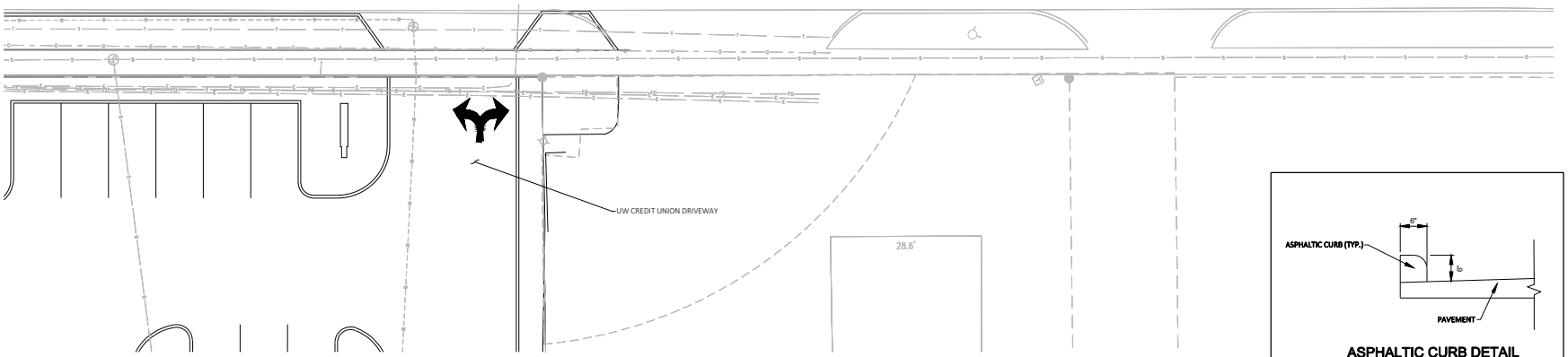
SAWING PAVEMENT



SECTION A-A







ASPHALTIC CURB DETAIL

KL Engineering

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0	BID PACKAGE 1	09/04/2018

UW Credit Union

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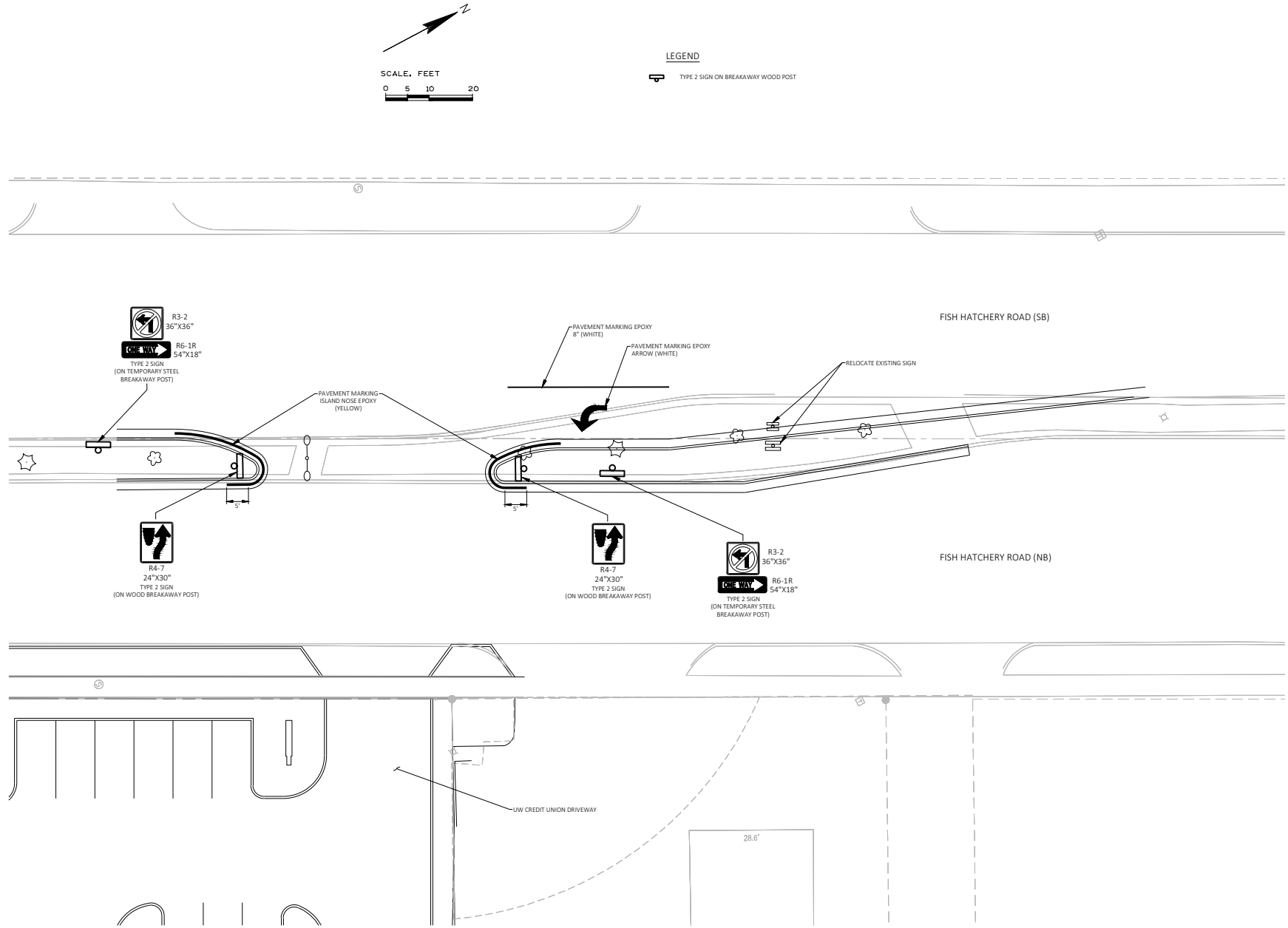
C11

MEDIAN MODIFICATION PLAN



KL Engineering

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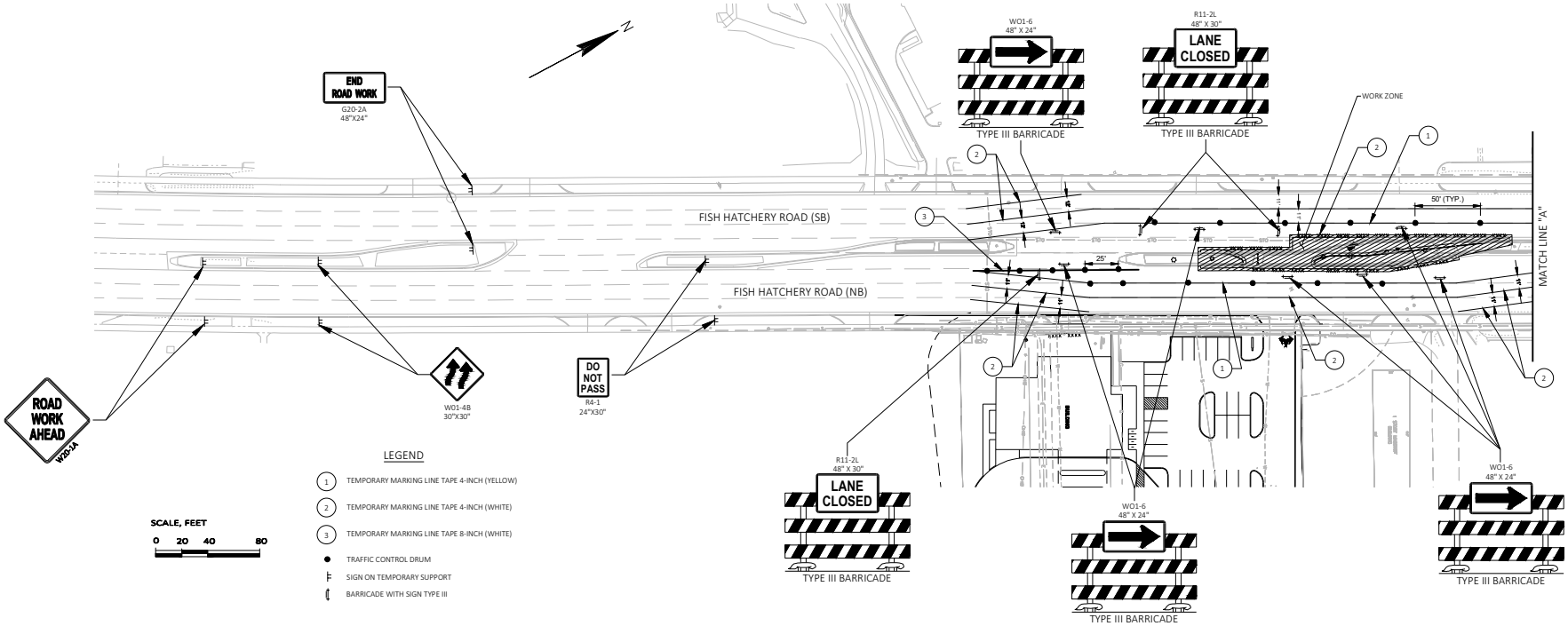
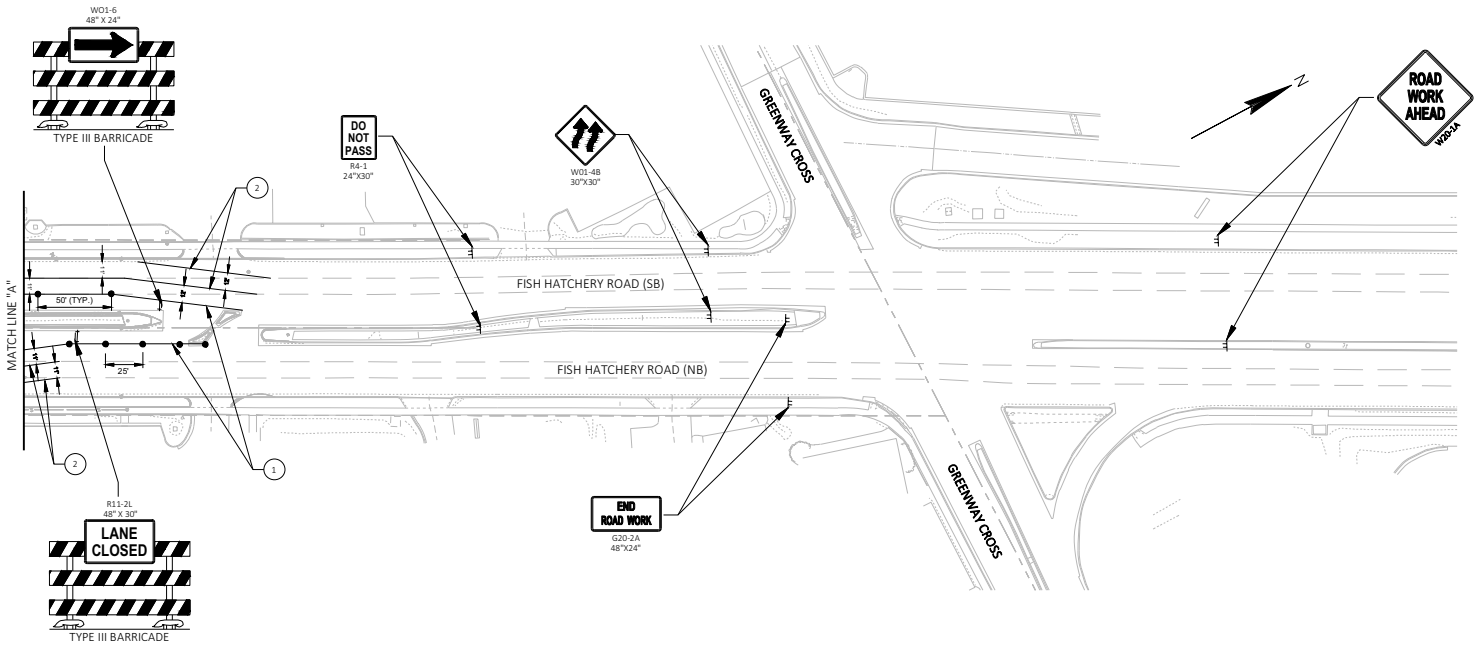
MEDIAN SIGNING AND PAVEMENT MARKING PLAN





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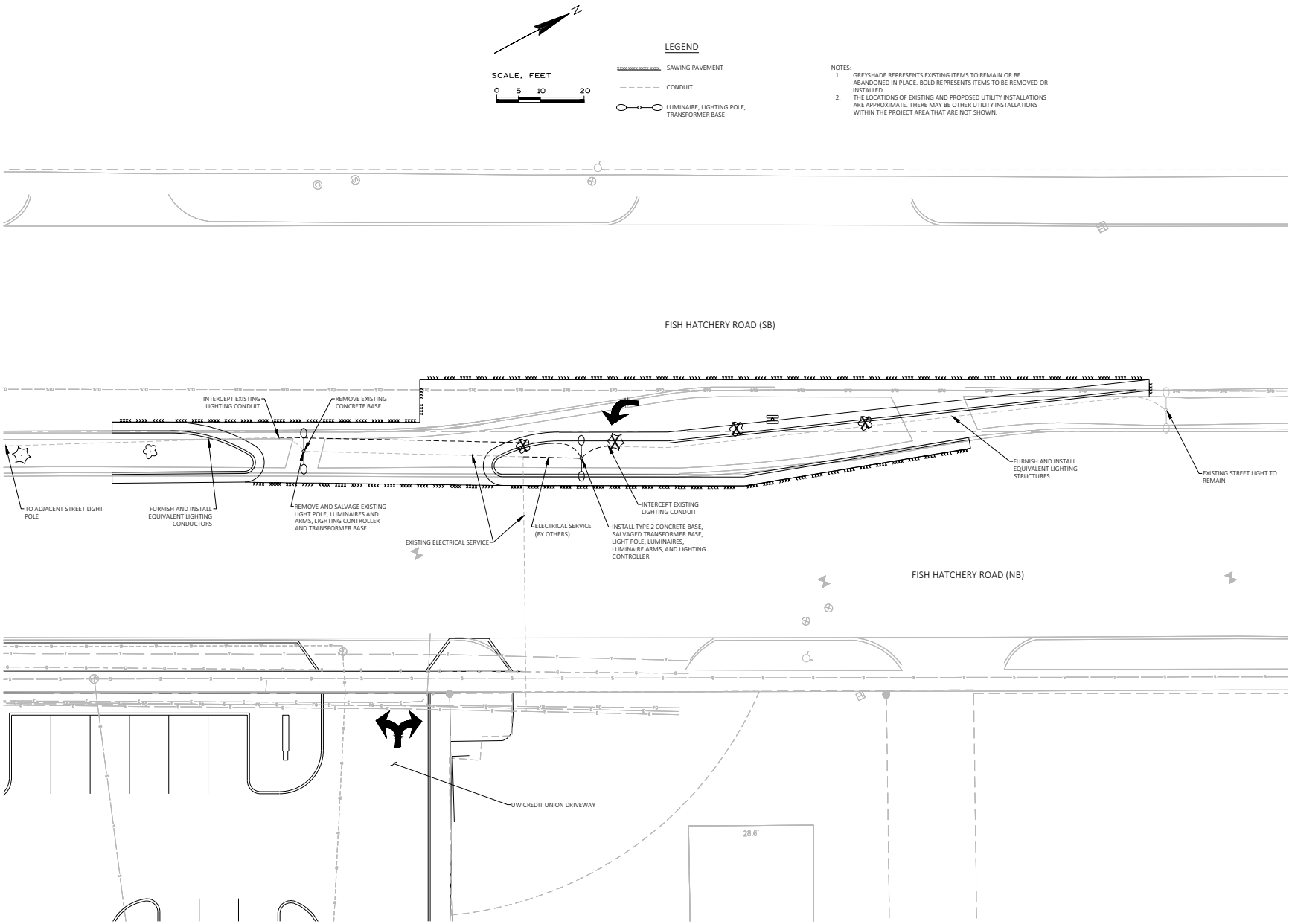
C13

MEDIAN WORK TRAFFIC CONTROL PLAN



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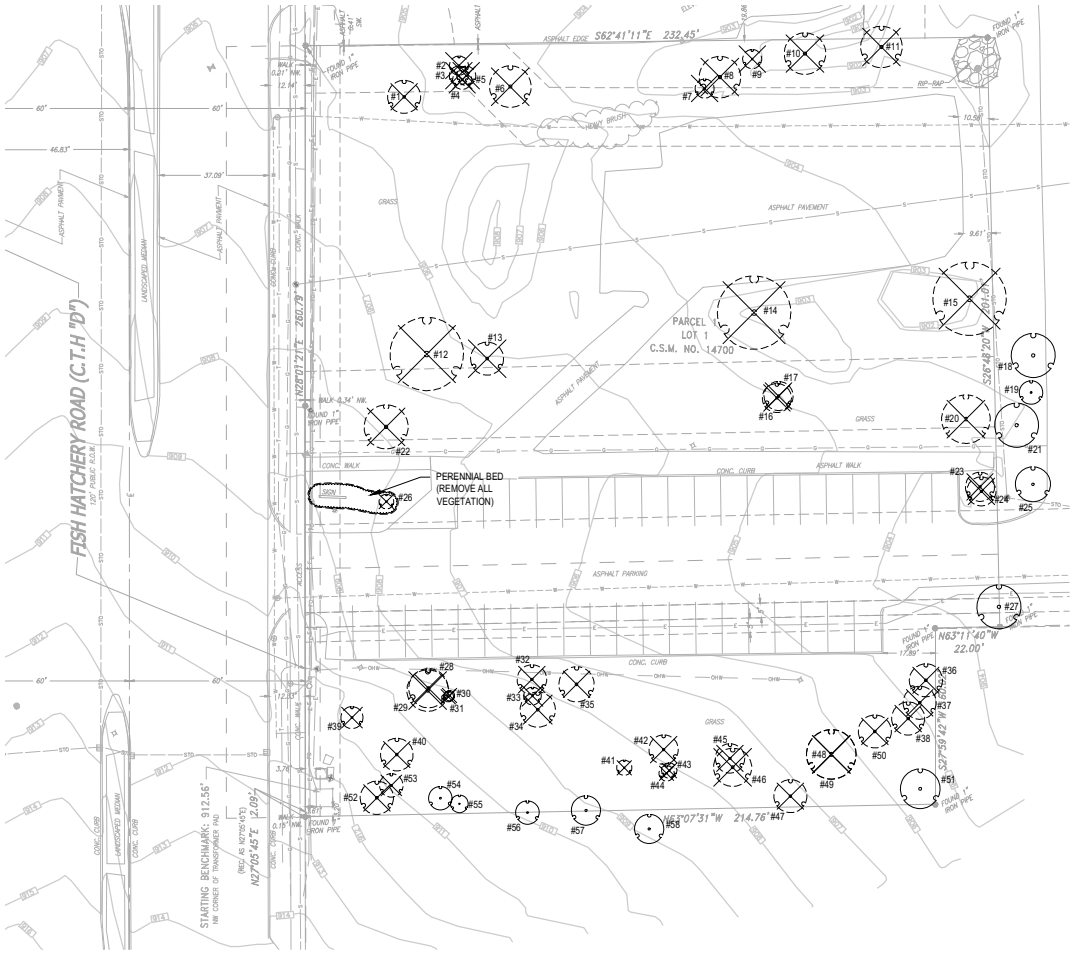
C14

MEDIAN STREET LIGHT POLE RELOCATION DETAIL



KEY

- DECIDUOUS TREE TO BE REMOVED
- DECIDUOUS TREE TO REMAIN
- PERENNIAL BED

1 Existing Vegetation Plan
SCALE: 1" = 20'

0 20' 40'
1" = 20'-0"

NORTH

UWCU - Fish Hatchery Branch
Tree Disposition Schedule

Survey Date: October 27, 2017

Iden.	Botanical Name	Common Name	Disposition	Size
1	*Acer sp.*	Maple	Remove	18" cal.
2	*Acer sp.*	Maple	Remove	11" cal.
3	*Acer sp.*	Maple	Remove	11" cal.
4	*Acer sp.*	Maple	Remove	11" cal.
5	*Acer sp.*	Maple	Remove	11" cal.
6	*Acer sp.*	Maple	Remove	24" cal.
7	*Acer sp.*	Maple	Remove	12" cal.
8	*Acer sp.*	Maple	Remove	24" cal.
9	*Acer sp.*	Maple	Remove	8" cal.
10	*Acer sp.*	Maple	Remove	26" cal.
11	*Acer sp.*	Maple	Remove	24" cal.
12	*Juglans nigra*	Black Walnut	Remove	36" cal.
13	*Juglans nigra*	Black Walnut	Remove	16" cal.
14	*Fraxinus sp.*	Ash	Remove	40" cal.
15	*Fraxinus sp.*	Ash	Remove	40" cal.
16	*Fraxinus sp.*	Ash	Remove	15" cal.
17	*Fraxinus sp.*	Ash	Remove	15" cal.
18	*Fraxinus sp.*	Ash	Remain	16" cal.
19	*Fraxinus sp.*	Ash	Remain	13" cal.
20	*Fraxinus sp.*	Ash	Remove	26" cal.
21	*Fraxinus sp.*	Ash	Remain	18" cal.
22	*Ginkgo biloba*	Ginkgo	Remove	24" cal.
23	*Fraxinus sp.*	Ash	Remove	18" cal.
24	*Fraxinus sp.*	Ash	Remove	18" cal.
25	*Fraxinus sp.*	Ash	Remain	24" cal.
26	*Malus sp.*	Crabapple	Remove	8" cal.
27	*Acer sp.*	Maple	Remain	24" cal.
28	*Acer sp.*	Maple	Remove	19" cal.
29	*Acer sp.*	Maple	Remove	24" cal.
30	*Acer sp.*	Maple	Remove	6" cal.
31	*Acer sp.*	Maple	Remove	6" cal.
32	*Juglans nigra*	Black Walnut	Remove	16" cal.
33	*Acer sp.*	Maple	Remove	10" cal.
34	*Juglans nigra*	Black Walnut	Remove	19" cal.
35	*Morus nigra*	Black Mulberry	Remove	18" cal.
36	*Acer sp.*	Maple	Remove	18" cal.
37	*Acer sp.*	Maple	Remove	18" cal.
38	*Acer sp.*	Maple	Remove	15" cal.
39	*Juglans nigra*	Black Walnut	Remove	12" cal.
40	*Juglans nigra*	Black Walnut	Remove	18" cal.
41	*Acer sp.*	Maple	Remove	8" cal.
42	*Juglans nigra*	Black Walnut	Remove	16" cal.
43	*Juglans nigra*	Black Walnut	Remove	8" cal.
44	*Juglans nigra*	Black Walnut	Remove	8" cal.
45	*Juglans nigra*	Black Walnut	Remove	15" cal.
46	*Juglans nigra*	Black Walnut	Remove	21" cal.
47	*Juglans nigra*	Black Walnut	Remove	18" cal.
48	*Acer sp.*	Maple	Remove	27" cal.
49	*Acer sp.*	Maple	Remove	24" cal.
50	*Acer sp.*	Maple	Remove	14" cal.
51	*Acer sp.*	Maple	Remain	22" cal.
52	*Juglans nigra*	Black Walnut	Remove	18" cal.
53	*Juglans nigra*	Black Walnut	Remove	13" cal.
54	*Acer sp.*	Maple	Remain	13" cal.
55	*Acer sp.*	Maple	Remain	10" cal.
56	*Juglans nigra*	Black Walnut	Remain	13" cal.
57	*Juglans nigra*	Black Walnut	Remain	15" cal.
58	*Juglans nigra*	Black Walnut	Remain	15" cal.

2 Tree Disposition Schedule
SCALE: NTS

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ARCHITECTURAL DESIGN REVIEW

08/2/2018

REV	DESCRIPTION	DATE
0	BID PACKAGE 1	8/21/2018

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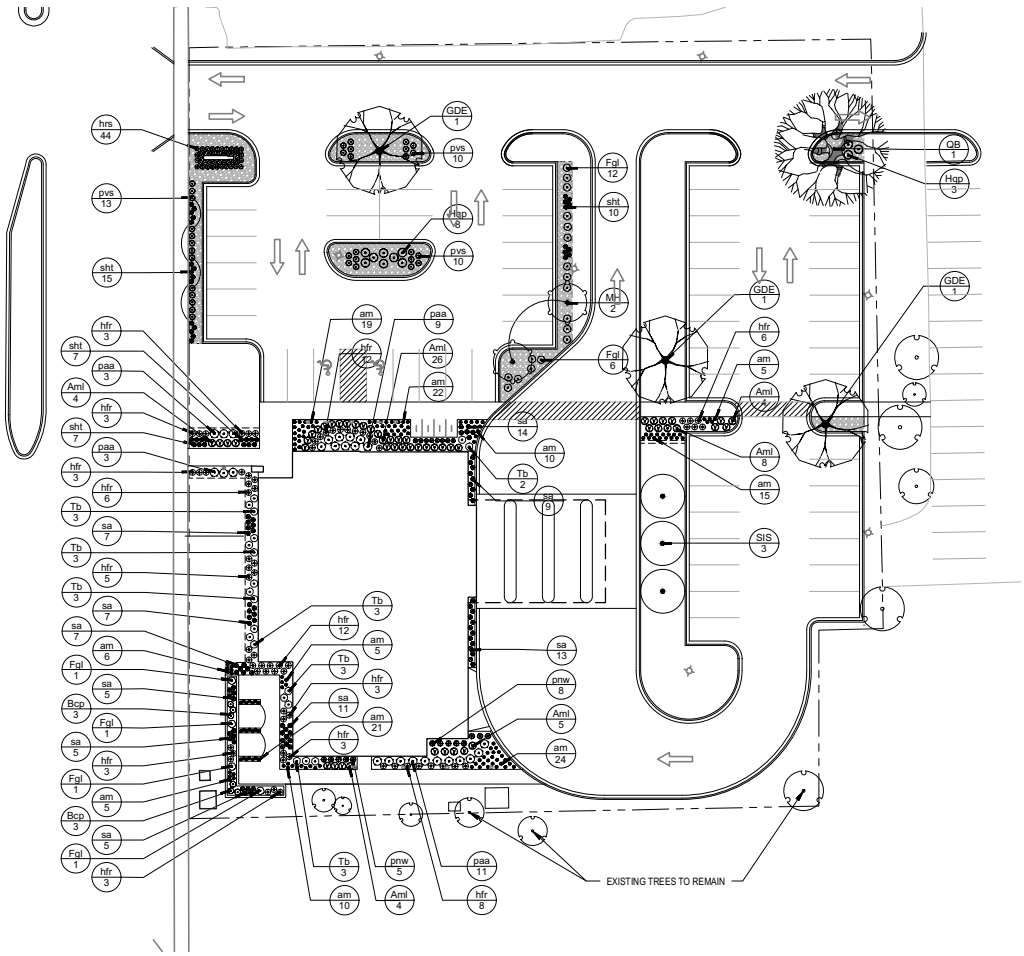
EXISTING VEGETATION PLAN



1 Planting Plan
SCALE: 1" = 20'

0 20' 40'
1" = 20'-0"

NORTH

KEY

- SODDED LAWN
- STONE MULCH
- ALUMINUM EDGING
- BARK MULCH

PLANT SCHEDULE

ORNAMENTAL TREES	CODE	BOTANICAL NAME / COMMON NAME	CONT	SIZE	QTY
	MH	Malus x 'Harvest Gold' / Crab Apple	15 gal	4" HT. (MIN.)	2
	SIS	Syringa reticulata 'Ivory Silk' / Ivory Silk Japanese Tree Lilac	B & B	4" HT. (MIN.)	3
SHADE TREES	**CODE**	**BOTANICAL NAME / COMMON NAME**	**CONT**	**SIZE**	**QTY**
	GDE	Gymnocladus dioica 'Espresso' / Espresso Coffeetree	B & B	2"Cal	3
	QB	Quercus bicolor / Swamp White Oak	B & B	2"Cal	1
DECIDUOUS SHRUBS	**CODE**	**BOTANICAL NAME / COMMON NAME**	**CONT**	**SIZE**	**QTY**
	Aml	Aronia melanocarpa Low Scape Mound / Low Scape Mound Aronia	5 gal		51
	Bcp	Berberis thunbergii 'Crimson Pygmy' / Crimson Pygmy Barberry	5 gal		6
	Fgl	Fothergilla gardenii / Dwarf Fothergilla	5 gal		22
	Hqp	Hydrangea quercifolia 'Pee Wee' / Oakleaf Hydrangea	5 gal		11
EVERGREEN SHRUBS	**CODE**	**BOTANICAL NAME / COMMON NAME**	**CONT**	**SIZE**	**QTY**
	Tb	Thuja occidentalis 'Bobozam' / Mr. Bowling Ball™ Arborvitae	3 gal	18" HT (MIN.)	20
HERBACEOUS PERENNIALS	**CODE**	**BOTANICAL NAME / COMMON NAME**	**CONT**	**SIZE**	**QTY**
	am	Allium x 'Millenium' / Millenium Ornamental Chive	1 gal		142
	hfr	Hemerocallis x 'Fragrant Returns' / Fragrant Returns Daylily	1 gal		70
	hrs	Hemerocallis x 'Ruby Stella' / Ruby Stella Daylily	1 gal		44
	paa	Perovskia atriplicifolia / Russian Sage	1 gal		26
ORNAMENTAL GRASSES	**CODE**	**BOTANICAL NAME / COMMON NAME**	**CONT**	**SIZE**	**QTY**
	pnw	Panicum virgatum 'North Wind' / Northwind Switch Grass	1 gal		13
	pvs	Panicum virgatum 'Shenandoah' / Shenandoah Switch Grass	1 gal		33
	ss	Sesleria autumnalis / Autumn Moor Grass	1 gal		83
	sht	Sporobolus heterolepis 'Tara' / Prairie Dropseed	1 gal		39

2 Plant Schedule
SCALE: NTS

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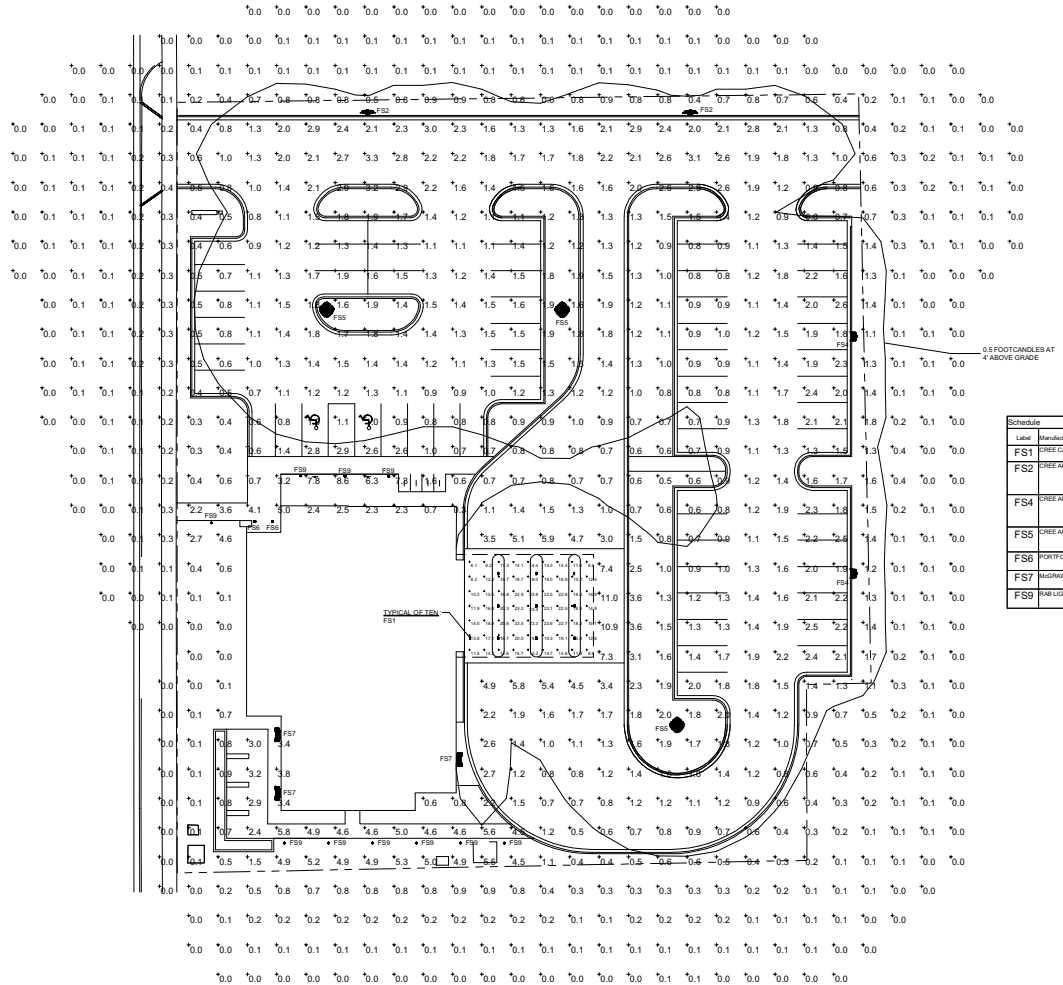
L102 LANDSCAPE PLAN AND PLANT LIST



Schedule

Label	Manufacturer	Description	Lumens	Wattage
FS1	CREE CAN-EDG-PS	CANOPY MOUNTED AREA LIGHT, SYMMETRIC DISTRIBUTION	5109	46
FS2	CREE ARE-EDG-2MB	AREA LIGHT, TYPE II DISTRIBUTION WITH BACKLIGHT SHIELDING, MOUNT ON A 20' SQUARE STEEL POLE INSTALLED ON A 30" HIGH EXTENDED CONCRETE BASE	9291	110
FS4	CREE ARE-EDG-4MB	AREA LIGHT, TYPE IV DISTRIBUTION WITH BACKLIGHT SHIELDING, MOUNT ON A 20' SQUARE STEEL POLE INSTALLED ON A 30" HIGH EXTENDED CONCRETE BASE	9291	110
FS5	CREE ARE-EDG-5M	AREA LIGHT, TYPE V DISTRIBUTION, MOUNT ON A 20' SQUARE STEEL POLE INSTALLED ON A 30" HIGH EXTENDED CONCRETE BASE	12975	110
FS6	PORTFOLIO LDIA	RECESSED CAN, OPEN	1000	15
FS7	McGRAW-EDISON ISC	WALL MOUNTED AREA LIGHT, TYPE III DISTRIBUTION	2385	21
FS9	RAB LIGHTING BLED2R	9" DIAMETER x 42" HIGH BOLLARD, TYPE V DISTRIBUTION	2577	24

NORTH

1 SITE LIGHTING CALCULATIONS

1" = 20'-0"

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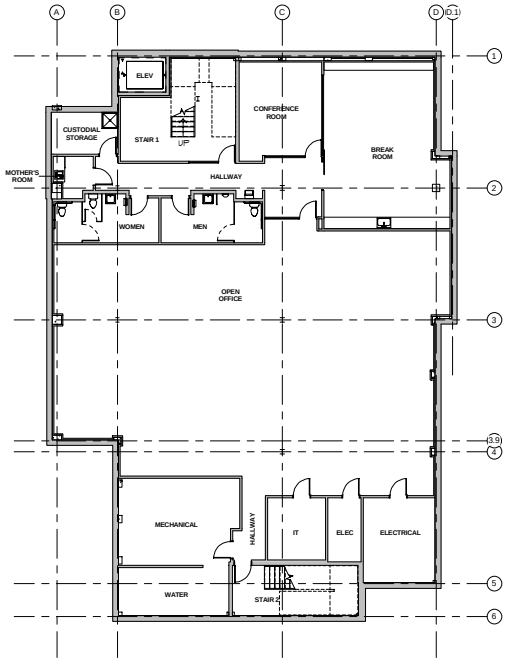
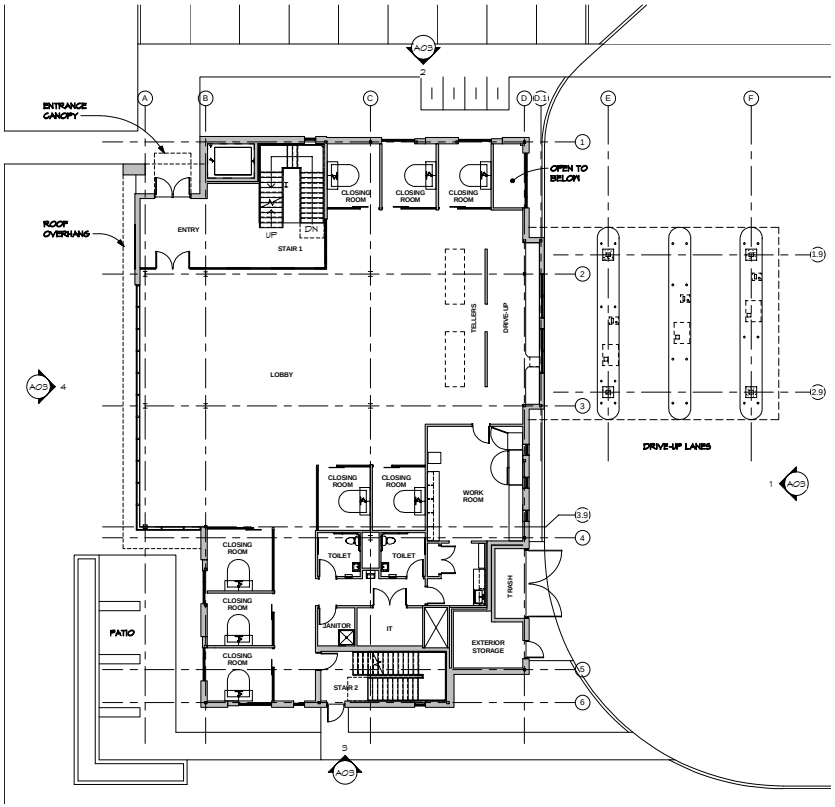
E01

SITE LIGHTING CALCS



1 / A01 LOWER LEVEL PLAN
3/32" = 1'-0"



2 / A01 LEVEL 1 PLAN
3/32" = 1'-0"

ARCHITECTURAL DESIGN REVIEW

08/21/18

REV	DESCRIPTION	DATE

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A01 FLOOR PLANS

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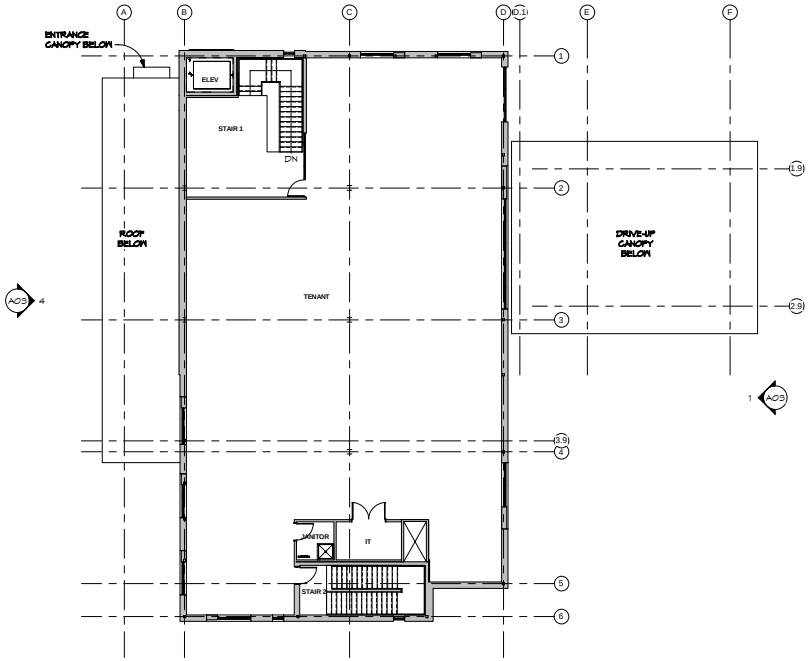
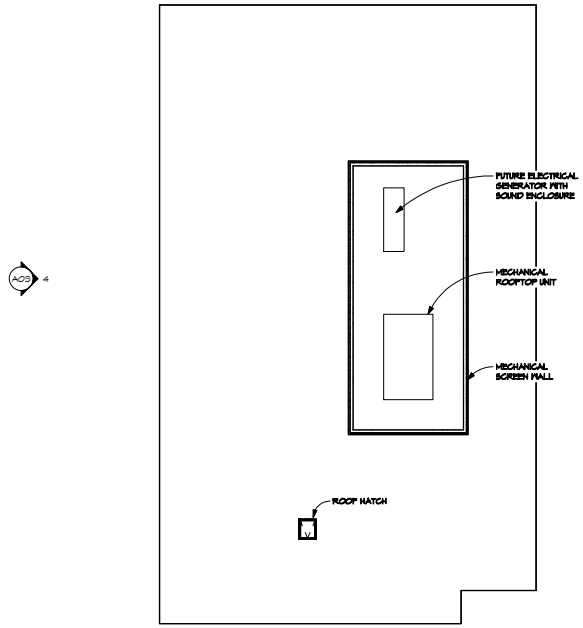


1 A02 LEVEL 2 PLAN
3/32" = 1'-0"



2 A02 ROOF PLAN
3/32" = 1'-0"

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08/21/18

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A02 FLOOR PLANS

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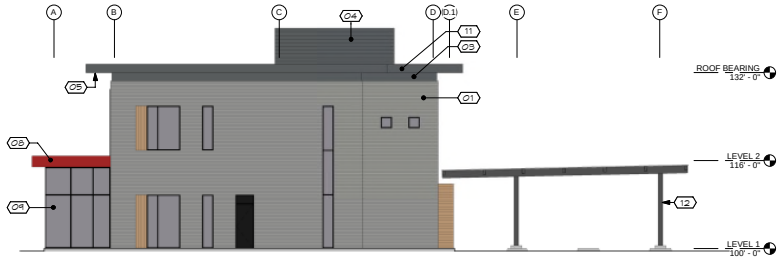
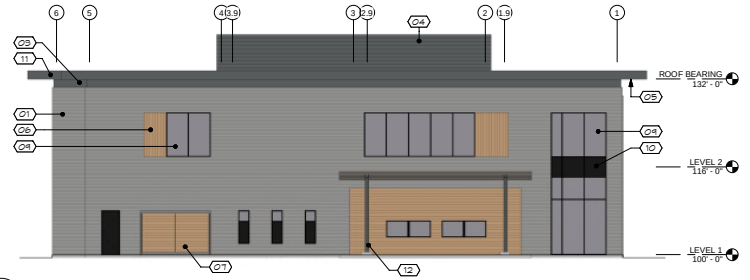
KEYNOTES	
01	FACEBRICK
02	STONE MASONRY
03	FLAT METAL PANEL
04	MECHANICAL SCREEN WALL - STANDING SEAM METAL PANEL
05	WOOD SOFFIT (NOT SHOWN)
06	WOOD SIDING
07	GATE - SLATS OVER PAINTED STEEL FRAME
08	RED COMPOSITE PANEL
09	GLAZING IN BLACK ANODIZED ALUMINUM STOREFRONT/CURTAINWALL FRAMING
10	METAL PANEL TO MATCH STOREFRONT FRAMING
11	METAL FASCIA ROOF EDGE
12	PAINTED STRUCTURAL STEEL
13	BUILDING SIGNAGE (FOR REFERENCE - TO BE SUBMITTED SEPARATELY)

4 A03 WEST ELEVATION
3/32" = 1'-0"



3 A03 SOUTH ELEVATION
3/32" = 1'-0"

2 A03 NORTH ELEVATION
3/32" = 1'-0"



1 A03 EAST ELEVATION
3/32" = 1'-0"

ARCHITECTURAL DESIGN REVIEW

08/21/18

REV	DESCRIPTION	DATE

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A03 ELEVATIONS

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Cree Edge™ Series

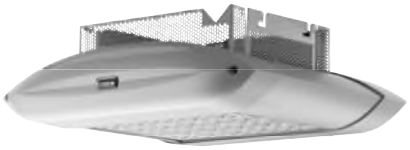
LED Canopy Luminaire

IMEG FS1

Product Description

The Cree Edge Canopy Luminaire provides a slim, low profile solution for easily mounting below the canopy deck. Built with rugged cast aluminum, integral weathertight LED driver compartment and high performance heat sinks specifically designed for LED applications, this luminaire is available with direct or pendant mount. The Adaptor Plate Kit accessory (XA-CLSB16) is required when mounting to solid surfaces. Includes leaf/debris guard.

Applications: Petroleum canopies, medium-high bay general lighting and soffits

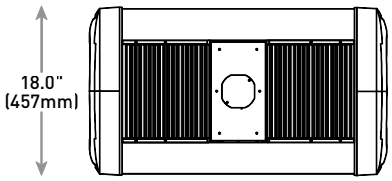


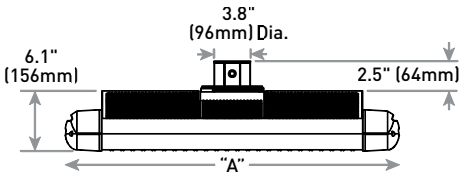
Performance Summary

- Patented NanoOptic® Product Technology
- Made in the U.S.A. of U.S. and imported parts
- **CRI:** Minimum 70 CRI
- **CCT:** 4000K (+/- 300K), 5700K (+/- 500K) standard
- **Limited Warranty†:** 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

† See http://lighting.cree.com/warranty for warranty terms

DM Mount





LED Count (x10)	Dim. "A"	Weight
04	16.1" (408mm)	32 lbs. (14.5kg)
06	18.1" (459mm)	34 lbs. (15.4kg)
08	16.1" (408mm)	35 lbs. (15.9kg)
10	18.1" (459mm)	39 lbs. (17.7kg)
12	20.1" (510mm)	40 lbs. (18.1kg)
14	22.1" (560mm)	45 lbs. (20.4kg)
16	24.1" (611mm)	46 lbs. (20.9kg)
20	28.1" (713mm)	52 lbs. (23.6kg)
24	32.1" (814mm)	55 lbs. (24.9kg)

Accessories

Field-Installed

Bird Spikes
XA-BRDSPK

Hand-Held Remote
XA-SENSREM
- For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required

Direct Mount Luminaires

Adaptor Plate Kit
XA-CLSB16**
- For use when mounting luminaire to solid surfaces

Pendant Mount Luminaires

Leveler
XA-PNDTLVL**
- For 0-13˚ sloped ceilings

Fitting
XA-PSFTG

Pendant Mount Kits
XA-CL12KIT** – 12" (305mm)
XA-CL18KIT** – 18" (457mm)
XA-CL22KIT** – 22" (559mm)
- Pendant height from ceiling surface to bottom of the luminaire; mounting accessories or surface boxes will add to overall height

3/4" Hook Adaptor
XA-CLHOOK**

** Must specify color

Ordering Information

Example: CAN-EDG-1S-DM-04-E-UL-WH-350

CAN-EDG				E				
Product	**Optic**	**Mounting**	**LED Count (x10)**	**Series**	**Voltage**	**Color Options**	**Drive Current**	**Options**
CAN-EDG	**1S** Type I Short **3M** Type III Medium **5M** Type V Medium **5S** Type V Short **PS** Petroleum Symmetric **SL** Sparkle Petroleum **15** 15˚ Flood **25** 25˚ Flood **40** 40˚ Flood **70** 70˚ Flood	**DM** Direct **PD** Pendant	**04*** **06**** **08** **10** **12** **14** **16** **20** **24**	E	**UL** Universal 120-277V **UH** Universal 347-480V **34** 347V	**BK** Black **BZ** Bronze **SV** Silver **WH** White	**350** 350mA **525** 525mA -Available with 40-160 LEDs **700** 700mA -Available with 40-60 LEDs	**40K** **4000K Color Temperature** - Minimum 70 CRI - Color temperature per luminaire **DIM** **0-10V Dimming** - Control by others - Refer to Dimming spec sheet for details - Can't exceed specified drive current **F** **Fuse** - Available with DM mount only - Refer to ML spec sheet for availability with ML options - Available for U.S. applications only - When code dictates fusing, use time delay fuse **HL** **Hi/Low (Dual Circuit Input)** - Refer to HL spec sheet for details - Sensor not included **ML** **Multi-Level** - Refer to ML spec sheet for details **P** **Photocell** - Refer to ML spec sheet for availability with ML options - Must specify UL or 34 voltage **PML** **Programmable Multi-Level** - Refer to PML spec sheet for details

* Uses 80 LED size with two blanks in outside positions
** Uses 100 LED size with two blanks in outside positions

Product Specifications

CONSTRUCTION & MATERIALS

- Slim, low profile, easy mounting below deck design
- Luminaire sides are rugged die cast aluminum with integral, weathertight LED driver compartment and high performance heat sinks specifically designed for LED applications
- Direct mount J-Box sized to fit through existing 4" (102mm) diameter mount holes and designed for through-wiring and wet location installations. Mounts directly to canopy with lag bolts (by others). XA-CLSB16 accessory kit required when mounting to solid surfaces. Mating surface is gasketed to prevent water leak through. Includes leaf/debris guard
- Pendant mount luminaire is supplied with a 3/4" (19mm) NPT stainless steel pendant connection and single 5' (1.5m) cord out of the top of the pendant. Longer cords available; consult factory. Includes leaf/debris guard
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, silver, and white are available
- **Weight:** See Dimension and Weight Charts on pages 1 and 13

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V or 347-480V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- **Maximum Source Current:** 40-80 LED: 0.15mA; 100-240 LED: 0.30mA

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Enclosure rated IP66 per IEC 60529 when ordered without P or ML options
- Consult factory for CE Certified products
- 10kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A standards for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Meets Buy American requirements within ARRA
- DLC qualified with select SKUs. Refer to https://www.designlights.org/search/ for most current informationn

Electrical Data*

LED Count (x10)	System Watts 120-480V	Total Current (A)					
		120V	208V	240V	277V	347V	480V
350mA							
04	46	0.36	0.23	0.21	0.20	0.15	0.12
06	66	0.52	0.31	0.28	0.26	0.20	0.15
08	90	0.75	0.44	0.38	0.34	0.26	0.20
10	110	0.92	0.53	0.47	0.41	0.32	0.24
12	130	1.10	0.63	0.55	0.48	0.38	0.28
14	158	1.32	0.77	0.68	0.62	0.47	0.35
16	179	1.49	0.87	0.77	0.68	0.53	0.39
20	220	1.84	1.06	0.93	0.83	0.64	0.47
24	261	2.19	1.26	1.10	0.97	0.76	0.56
525mA							
04	70	0.58	0.34	0.31	0.28	0.21	0.16
06	101	0.84	0.49	0.43	0.38	0.30	0.22
08	133	1.13	0.66	0.58	0.51	0.39	0.28
10	171	1.43	0.83	0.74	0.66	0.50	0.38
12	202	1.69	0.98	0.86	0.77	0.59	0.44
14	232	1.94	1.12	0.98	0.87	0.68	0.50
16	263	2.21	1.27	1.11	0.97	0.77	0.56
700mA							
04	93	0.78	0.46	0.40	0.36	0.27	0.20
06	134	1.14	0.65	0.57	0.50	0.39	0.29

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-480V +/- 10%

Recommended Cree Edge™ Series Lumen Maintenance Factors (LMF)[1]

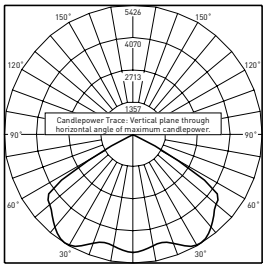
Ambient	Initial LMF	25K hr Projected[2] LMF	50K hr Projected[2] LMF	75K hr Calculated[3] LMF	100K hr Calculated[3] LMF
5°C (41°F)	1.04	1.01	0.99	0.98	0.96
10°C (50°F)	1.03	1.00	0.98	0.97	0.95
15°C (59°F)	1.02	0.99	0.97	0.96	0.94
20°C (68°F)	1.01	0.98	0.96	0.95	0.93
25°C (77°F)	1.00	0.97	0.95	0.94	0.92

[1] Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing
[2] In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ([DUT] i.e. the packaged LED chip)
[3] In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ([DUT] i.e. the packaged LED chip)

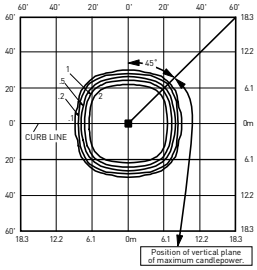
Photometry

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP accredited laboratory. To obtain an IES file specific to your project consult: http://lighting.cree.com/products/outdoor/canopy-and-soffit/cree-edge-series-2

PS



ITL Test Report #: 76940
CAN-304-PS-**-06-E-UL-700-40K
Initial Delivered Lumens: 13,581



CAN-EDG-PS-**-06-E-UL-700-40K
Mounting Height: 15' (4.6m) A.F.G.
Initial Delivered Lumens: 12,954
Initial FC at grade

Petroleum Symmetric Distribution				
LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
04	5,109	B2 U0 G0	5,305	B2 U0 G0
06	7,575	B3 U0 G0	7,867	B3 U0 G0
08	10,101	B3 U0 G0	10,489	B3 U0 G0
10	12,595	B3 U0 G0	13,080	B3 U0 G0
12	15,115	B4 U0 G0	15,696	B4 U0 G0
14	17,522	B4 U0 G0	18,196	B4 U0 G0
16	20,025	B4 U0 G0	20,795	B4 U0 G0
20	25,031	B4 U0 G0	25,994	B5 U0 G0
24	30,038	B5 U0 G0	31,193	B5 U0 G0
525mA				
04	7,152	B3 U0 G0	7,427	B3 U0 G0
06	10,606	B3 U0 G0	11,013	B3 U0 G0
08	14,141	B3 U0 G0	14,685	B3 U0 G0
10	17,634	B4 U0 G0	18,312	B4 U0 G0
12	21,160	B4 U0 G0	21,974	B4 U0 G0
14	24,531	B4 U0 G0	25,474	B4 U0 G0
16	28,035	B5 U0 G0	29,113	B5 U0 G0
700mA				
04	8,736	B3 U0 G0	9,072	B3 U0 G0
06	12,954	B3 U0 G0	13,452	B3 U0 G0

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

Cree Edge™ Series

LED Area/Flood Luminaire

IMEG FS2

Product Description

The Cree Edge™ Series has a slim, low profile design. Its rugged cast aluminum housing minimizes wind load requirements and features an integral, weathertight LED driver compartment and high performance aluminum heat sinks. Various mounting choices: Adjustable Arm, Direct Arm, Direct Arm Long, or Side Arm (details on page 2). Includes a leaf/debris guard.

Applications: Parking lots, walkways, campuses, car dealerships, office complexes, and internal roadways

Performance Summary

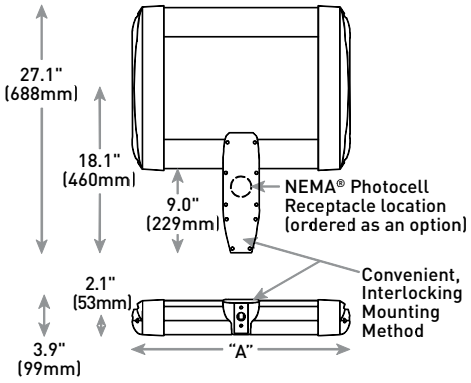
- Patented NanoOptic® Product Technology
- Made in the U.S.A. of U.S. and imported parts
- **CRI:** Minimum 70 CRI
- **CCT:** 4000K (+/- 300K), 5700K (+/- 500K) standard
- **Limited Warranty†:** 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

† See http://lighting.cree.com/warranty for warranty terms

Accessories

Field-Installed	
Bird Spikes XA-BRDSPK **Hand-Held Remote** XA-SENSREM - For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required	**Backlight Control Shields** XA-20BLS-4 - Four-pack - Unpainted stainless steel

DA Mount



LED Count (x10)	Dim. "A"	Weight
02	12.1" (306mm)	21 lbs. (10kg)
04	12.1" (306mm)	24 lbs. (11kg)
06	14.1" (357mm)	27 lbs. (12kg)
08	16.1" (408mm)	28 lbs. (13kg)
10	18.1" (459mm)	32 lbs. (15kg)
12	20.1" (510mm)	34 lbs. (15kg)
14	22.1" (560mm)	37 lbs. (17kg)
16	24.1" (611mm)	41 lbs. (19kg)

AA/DL/SA Mount - see page 22 for weight & dimensions

Ordering Information

Example: ARE-EDG-2M-AA-12-E-UL-SV-350

					E				
Product	**Optic**			**Mounting***	**LED Count (x10)**	**Series**	**Voltage**	**Color Options**	**Drive Current**	**Options**
ARE-EDG	**2M** Type II Medium **2MB** Type II Medium w/BLS **2MP** Type II Medium w/Partial BLS **3M** Type III Medium	**3MB** Type III Medium w/BLS **3MP** Type III Medium w/Partial BLS **4M** Type IV Medium **4MB** Type IV Medium w/BLS	**4MP** Type IV Medium w/Partial BLS **5M** Type V Medium **5S** Type V Short	**AA** Adjustable Arm **DA** Direct Arm **DL** Direct Long Arm	**02** **04** **06** **08** **10** **12** **14** **16**	**E**	**UL** Universal 120-277V **UH** Universal 347-480V	**BK** Black **BZ** Bronze **SV** Silver **WH** White	**350** 350mA **525** 525mA **700** 700mA - Available with 20-60 LEDs	**DIM 0-10V Dimming** - Control by others - Refer to Dimming spec sheet for details - Can't exceed specified drive current **F Fuse** - Refer to ML spec sheet for availability with ML options - Available with UL voltage only - Available for U.S. applications only - When code dictates fusing, use time delay fuse **HL Hi/Low (Dual Circuit Input)** - Refer to HL spec sheet for details - Sensor not included **ML Multi-Level** - Refer to ML spec sheet for details - Intended for downlight applications at 0° tilt **P Photocell** - Refer to ML spec sheet for availability with ML options - Available with UL voltage only **PML Programmable Multi-Level, 20-40' Mounting Height** - Refer to PML spec sheet for details - Intended for downlight applications at 0° tilt **PML2 Programmable Multi-Level, 10-30' Mounting Height** - Refer to PML spec sheet for details - Intended for downlight applications at 0° tilt **R NEMA® Photocell Receptacle** - Intended for downlight applications with maximum 45° tilt - Photocell by others - Refer to ML spec sheet for availability with ML options **40K 4000K Color Temperature** - Minimum 70 CRI - Color temperature per luminaire
FLD-EDG	**25** 25° Flood **40** 40° Flood	**70** 70° Flood **SN** Sign	**N6** NEMA® 6	**AA** Adjustable Arm **SA** Side Arm - Available with 20-60 LEDs						

* Reference EPA and pole configuration suitability data beginning on page 19

NOTE: Price adder may apply depending on configuration

Product Specifications

CONSTRUCTION & MATERIALS

- Slim, low profile, minimizing wind load requirements
- Luminaire sides are rugged die cast aluminum with integral, weathertight LED driver compartment and high performance heat sinks
- DA and DL mount utilizes convenient interlocking mounting method. Mounting is rugged die cast aluminum, mounts to 3-6" (76-152mm) square or round pole and secures to pole with 5/16-18 UNC bolts spaced on 2" (51mm) centers
- AA and SA mounts are rugged die cast aluminum and mount to 2" (51mm) IP, 2.375" (60mm) O.D. tenons
- Includes leaf/debris guard
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, silver, and white are available
- **Weight:** See Dimensions and Weight Charts on pages 1 and 22

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V or 347-480V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- DA and DL mounts designed with integral weathertight electrical box with terminal strips (12Ga–20Ga) for easy power hookup
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- **Maximum 10V Source Current:** 20 LED (350mA): 10mA; 20 LED (525 & 700mA) and 40-80 LED: 0.15mA; 100-160 LED: 0.30mA

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Enclosure rated IP66 per IEC 60529 when ordered without P or R options
- Consult factory for CE Certified products
- Certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards when ordered with AA, DA and DL mounts
- 10kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A standards for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- DLC qualified with select SKUs. Refer to https://www.designlights.org/search/ for most current information
- Meets Buy American requirements within ARRA

Electrical Data*

LED Count (x10)	System Watts 120-480V	Total Current (A)					
		120V	208V	240V	277V	347V	480V
350mA							
02	25	0.21	0.13	0.11	0.10	0.08	0.07
04	46	0.36	0.23	0.21	0.20	0.15	0.12
06	66	0.52	0.31	0.28	0.26	0.20	0.15
08	90	0.75	0.44	0.38	0.34	0.26	0.20
10	110	0.92	0.53	0.47	0.41	0.32	0.24
12	130	1.10	0.63	0.55	0.48	0.38	0.28
14	158	1.32	0.77	0.68	0.62	0.47	0.35
16	179	1.49	0.87	0.77	0.68	0.53	0.39
525mA							
02	37	0.30	0.19	0.17	0.16	0.12	0.10
04	70	0.58	0.34	0.31	0.28	0.21	0.16
06	101	0.84	0.49	0.43	0.38	0.30	0.22
08	133	1.13	0.66	0.58	0.51	0.39	0.28
10	171	1.43	0.83	0.74	0.66	0.50	0.38
12	202	1.69	0.98	0.86	0.77	0.59	0.44
14	232	1.94	1.12	0.98	0.87	0.68	0.50
16	263	2.21	1.27	1.11	0.97	0.77	0.56
700mA							
02	50	0.41	0.25	0.22	0.20	0.15	0.12
04	93	0.78	0.46	0.40	0.36	0.27	0.20
06	134	1.14	0.65	0.57	0.50	0.39	0.29

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-480V +/- 10%

Recommended Cree Edge™ Series Lumen Maintenance Factors (LMF)[1]

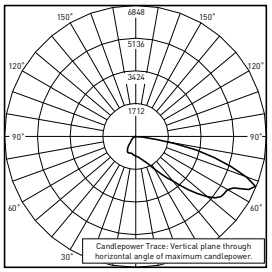
Ambient	Initial LMF	25K hr Projected[2] LMF	50K hr Projected[2] LMF	75K hr Calculated[3] LMF	100K hr Calculated[3] LMF
5°C (41°F)	1.04	1.01	0.99	0.98	0.96
10°C (50°F)	1.03	1.00	0.98	0.97	0.95
15°C (59°F)	1.02	0.99	0.97	0.96	0.94
20°C (68°F)	1.01	0.98	0.96	0.95	0.93
25°C (77°F)	1.00	0.97	0.95	0.94	0.92

[1] Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing
[2] In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)
[3] In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)

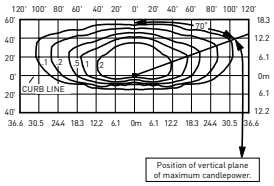
Photometry

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP accredited laboratory. To obtain an IES file specific to your project consult: http://lighting.cree.com/products/outdoor/area/cree-edge-series-1

2MB



CSA Test Report #: 6447
ARE-EDG-2MB-**-06-E-UL-700-40K
Initial Delivered Lumens: 7,953



ARE-EDG-2MB-**-10-E-UL-525-40K
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 13,185
Initial FC at grade

Type II Medium Distribution w/BLS				
LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
02	1,884	B0 U0 G1	1,921	B0 U0 G1
04	3,768	B1 U0 G1	3,843	B1 U0 G1
06	5,588	B1 U0 G1	5,698	B1 U0 G1
08	7,450	B1 U0 G2	7,598	B1 U0 G2
10	9,291	B1 U0 G2	9,475	B1 U0 G2
12	11,149	B1 U0 G2	11,370	B1 U0 G2
14	12,924	B1 U0 G2	13,181	B1 U0 G2
16	14,771	B1 U0 G2	15,063	B1 U0 G2
525mA				
02	2,674	B0 U0 G1	2,730	B0 U0 G1
04	5,348	B1 U0 G1	5,460	B1 U0 G1
06	7,930	B1 U0 G2	8,096	B1 U0 G2
08	10,573	B1 U0 G2	10,794	B1 U0 G2
10	13,185	B1 U0 G2	13,461	B1 U0 G2
12	15,821	B2 U0 G2	16,153	B2 U0 G3
14	18,341	B2 U0 G3	18,726	B2 U0 G3
16	20,962	B2 U0 G3	21,401	B2 U0 G3
700mA				
02	3,156	B0 U0 G1	3,220	B0 U0 G1
04	6,311	B1 U0 G1	6,440	B1 U0 G1
06	9,359	B1 U0 G2	9,549	B1 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf

Luminaire EPA

Fixed Arm Mount – ARE-EDG-DA						
LED Count (x10)	Single	2 @ 90˚	2 @ 180˚	3 @ 90˚	3 @ 120˚	4 @ 90˚
						
02	0.60	0.87	1.20	1.47	1.47	1.75
04	0.60	0.87	1.20	1.47	1.47	1.75
06	0.60	0.92	1.20	1.51	1.51	1.83
08	0.60	0.96 N/A with 3" poles	1.20	1.55 N/A with 3" poles	1.55	1.91 N/A with 3" poles
10	0.60	1.00 N/A with 3" poles	1.20	1.60 N/A with 3" poles	1.60	2.00 N/A with 3" poles
12	0.60	1.04 N/A with 3" poles	1.20	1.64 N/A with 3" poles	1.64	2.08 N/A with 3" poles
14	0.60	1.08 N/A with 3" or 4" poles	1.20	1.68 N/A with 3" or 4" poles	1.68	2.16 N/A with 3" or 4" poles
16	0.60	1.12 N/A with 3" or 4" poles	1.20	1.72 N/A with 3" or 4" poles	1.72	2.24 N/A with 3" or 4" poles
Fixed Arm Mount – ARE-EDG-DL						
02	0.75	1.02	1.50	1.77	1.77	1.91
04	0.75	1.02	1.50	1.77	1.77	1.91
06	0.75	1.07	1.50	1.82	1.82	1.98
08	0.75	1.11	1.50	1.86	1.86	2.04
10	0.75	1.15	1.50	1.90	1.90	2.10
12	0.75	1.19	1.50	1.94	1.94	2.16
14	0.75	1.23	1.50	1.98	1.98	2.22
16	0.75	1.27	1.50	2.02	2.02	2.28

Adjustable Arm Mount – ARE-EDG-AA/FLD-EDG-AA/SA									
LED Count (x10)	Single	2 @ 90˚	2 @ 180˚	In-Line 2 @ 180˚	3 @ 90˚	3 @ 120˚	In-Line 3 @ 180˚	4 @ 90˚	In-Line 4 @ 180˚
Tenon Configuration If used with Cree tenons, please add tenon EPA with Luminaire EPA									
									
	Vertical: PB-1A*; PT-1; PW-1A3** Horizontal: By others	Vertical: PB-2A*; PB-2R2.375; PW-2A3** Horizontal: PD-2A4(90); PT-2(90)	Vertical: PB-2A*; PB-2R2.375; PW-2A3** Horizontal: PD-2A4(180); PT-2(180)	Vertical: PB-2A*; PB-2R2.375	Vertical: PB-3A*; PB-3R2.375 Horizontal: PD-3A4(90); PT-3(90)	Vertical: PB-3A*; PB-3R2.375 Horizontal: PT-3(120)	Vertical: PB-3A*; PB-3R2.375	Vertical: PB-4A*(90); PB-4R2.375 Horizontal: PD-4A4(90) PT-4(90)	Vertical: PB-4A*(180); PB-4R2.375
0˚ Tilt									
02	0.66	0.98	1.32	1.32	1.77	1.64	1.98	1.91	2.64
04	0.66	0.98	1.32	1.32	1.64	1.64	1.98	1.97	2.64
06	0.66	1.02	1.32	1.32	1.68	1.68	1.98	2.05	2.64
08	0.66	1.07	1.32	1.32	1.80	1.72	1.98	2.29	2.64
10	0.66	1.11	1.32	1.32	1.76	1.76	1.98	2.21	2.64
12	0.66	1.15	1.32	1.32	1.80	1.80	1.98	2.29	2.64
14	0.66	1.19	1.32	1.32	1.84	1.84	1.98	2.38	2.64
16	0.66	1.23	1.32	N/A	1.89	1.89	N/A	2.46	N/A

* Specify pole size: 3 (3"), 4 (4"), 5 (5"), or 6 (6") for single, double or triple luminaire orientation or 4 (4"), 5 (5"), or 6 (6") for quad luminaire orientation
** These EPA values must be multiplied by the following ratio: Fixture Mounting Height/Total Pole Height. Specify pole size: 3 (3"), 4 (4"), 5 (5"), or 6 (6")

Cree Edge™ Series

LED Area/Flood Luminaire

IMEG

FS4

Product Description

The Cree Edge™ Series has a slim, low profile design. Its rugged cast aluminum housing minimizes wind load requirements and features an integral, weathertight LED driver compartment and high performance aluminum heat sinks. Various mounting choices: Adjustable Arm, Direct Arm, Direct Arm Long, or Side Arm (details on page 2). Includes a leaf/debris guard.

Applications: Parking lots, walkways, campuses, car dealerships, office complexes, and internal roadways

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- Made in the U.S.A. of U.S. and imported parts
- **CRI:** Minimum 70 CRI
- **CCT:** 4000K (+/- 300K), 5700K (+/- 500K) standard
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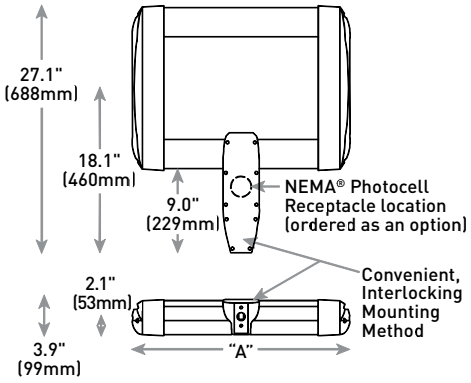
† See http://lighting.cree.com/warranty for warranty terms

Accessories

Field-Installed	
Bird Spikes XA-BRDSPK **Hand-Held Remote** XA-SENSREM - For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required	**Backlight Control Shields** XA-20BLS-4 - Four-pack - Unpainted stainless steel

DA Mount



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AA/DL/SA Mount - see page 22 for weight & dimensions

Ordering Information

Example: ARE-EDG-2M-AA-12-E-UL-SV-350

					E				
Product	**Optic**			**Mounting***	**LED Count (x10)**	**Series**	**Voltage**	**Color Options**	**Drive Current**	**Options**
ARE-EDG	**2M** Type II Medium **2MB** Type II Medium w/BLS **2MP** Type II Medium w/Partial BLS **3M** Type III Medium	**3MB** Type III Medium w/BLS **3MP** Type III Medium w/Partial BLS **4M** Type IV Medium **4MB** Type IV Medium w/BLS	**4MP** Type IV Medium w/Partial BLS **5M** Type V Medium **5S** Type V Short	**AA** Adjustable Arm **DA** Direct Arm **DL** Direct Long Arm	**02** **04** **06** **08** **10** **12** **14** **16**	**E**	**UL** Universal 120-277V **UH** Universal 347-480V	**BK** Black **BZ** Bronze **SV** Silver **WH** White	**350** 350mA **525** 525mA **700** 700mA - Available with 20-60 LEDs	**DIM** 0-10V Dimming - Control by others - Refer to Dimming spec sheet for details - Can't exceed specified drive current **F** Fuse - Refer to ML spec sheet for availability with ML options - Available with UL voltage only - Available for U.S. applications only - When code dictates fusing, use time delay fuse **HL** Hi/Low (Dual Circuit Input) - Refer to HL spec sheet for details - Sensor not included **ML** Multi-Level - Refer to ML spec sheet for details - Intended for downlight applications at 0° tilt **P** Photocell - Refer to ML spec sheet for availability with ML options - Available with UL voltage only **PML** Programmable Multi-Level, 20-40' Mounting Height - Refer to PML spec sheet for details - Intended for downlight applications at 0° tilt **PML2** Programmable Multi-Level, 10-30' Mounting Height - Refer to PML spec sheet for details - Intended for downlight applications at 0° tilt **R** NEMA® Photocell Receptacle - Intended for downlight applications with maximum 45° tilt - Photocell by others - Refer to ML spec sheet for availability with ML options **40K** 4000K Color Temperature - Minimum 70 CRI - Color temperature per luminaire
FLD-EDG	**25** 25° Flood **40** 40° Flood	**70** 70° Flood **SN** Sign	**N6** NEMA® 6	**AA** Adjustable Arm **SA** Side Arm - Available with 20-60 LEDs						

* Reference EPA and pole configuration suitability data beginning on page 19

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Product Specifications

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- Luminaire sides are rugged die cast aluminum with integral, weathertight LED driver compartment and high performance heat sinks
- DA and DL mount utilizes convenient interlocking mounting method. Mounting is rugged die cast aluminum, mounts to 3-6" (76-152mm) square or round pole and secures to pole with 5/16-18 UNC bolts spaced on 2" (51mm) centers
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- Includes leaf/debris guard
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, silver, and white are available
- **Weight:** See Dimensions and Weight Charts on pages 1 and 22

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V or 347-480V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- DA and DL mounts designed with integral weathertight electrical box with terminal strips (12Ga–20Ga) for easy power hookup
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- **Maximum 10V Source Current:** 20 LED (350mA): 10mA; 20 LED (525 & 700mA) and 40-80 LED: 0.15mA; 100-160 LED: 0.30mA

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Enclosure rated IP66 per IEC 60529 when ordered without P or R options
- Consult factory for CE Certified products
- Certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards when ordered with AA, DA and DL mounts
- 10kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A standards for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- DLC qualified with select SKUs. Refer to https://www.designlights.org/search/ for most current information
- Meets Buy American requirements within ARRA

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04	46	0.36	0.23	0.21	0.20	0.15	0.12
06	66	0.52	0.31	0.28	0.26	0.20	0.15
08	90	0.75	0.44	0.38	0.34	0.26	0.20
10	110	0.92	0.53	0.47	0.41	0.32	0.24
12	130	1.10	0.63	0.55	0.48	0.38	0.28
14	158	1.32	0.77	0.68	0.62	0.47	0.35
16	179	1.49	0.87	0.77	0.68	0.53	0.39
525mA							
02	37	0.30	0.19	0.17	0.16	0.12	0.10
04	70	0.58	0.34	0.31	0.28	0.21	0.16
06	101	0.84	0.49	0.43	0.38	0.30	0.22
08	133	1.13	0.66	0.58	0.51	0.39	0.28
10	171	1.43	0.83	0.74	0.66	0.50	0.38
12	202	1.69	0.98	0.86	0.77	0.59	0.44
14	232	1.94	1.12	0.98	0.87	0.68	0.50
16	263	2.21	1.27	1.11	0.97	0.77	0.56
700mA							
02	50	0.41	0.25	0.22	0.20	0.15	0.12
04	93	0.78	0.46	0.40	0.36	0.27	0.20
06	134	1.14	0.65	0.57	0.50	0.39	0.29

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-480V +/- 10%

Recommended Cree Edge™ Series Lumen Maintenance Factors (LMF)[1]

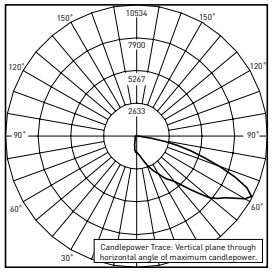
Ambient	Initial LMF	25K hr Projected[2] LMF	50K hr Projected[2] LMF	75K hr Calculated[3] LMF	100K hr Calculated[3] LMF
5°C (41°F)	1.04	1.01	0.99	0.98	0.96
10°C (50°F)	1.03	1.00	0.98	0.97	0.95
15°C (59°F)	1.02	0.99	0.97	0.96	0.94
20°C (68°F)	1.01	0.98	0.96	0.95	0.93
25°C (77°F)	1.00	0.97	0.95	0.94	0.92

[1] Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing
[2] In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)
[3] In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)

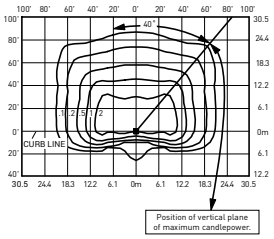
Photometry

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP accredited laboratory. To obtain an IES file specific to your project consult: http://lighting.cree.com/products/outdoor/area/cree-edge-series-1

4MB



CSA Test Report #: 6449
ARE-EDG-4MB-**-12-E-UL-525-40K
Initial Delivered Lumens: 13,155



ARE-EDG-4MB-**-10-E-UL-525-40K
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 13,185
Initial FC at grade

Type IV Medium Distribution w/BLS				
LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
02	1,884	B0 U0 G1	1,921	B0 U0 G1
04	3,768	B1 U0 G1	3,843	B1 U0 G1
06	5,588	B1 U0 G1	5,698	B1 U0 G2
08	7,450	B1 U0 G2	7,598	B1 U0 G2
10	9,291	B1 U0 G2	9,475	B1 U0 G2
12	11,149	B1 U0 G2	11,370	B1 U0 G2
14	12,924	B1 U0 G2	13,181	B1 U0 G2
16	14,771	B2 U0 G2	15,063	B2 U0 G2
525mA				
02	2,674	B0 U0 G1	2,730	B0 U0 G1
04	5,348	B1 U0 G1	5,460	B1 U0 G1
06	7,930	B1 U0 G2	8,096	B1 U0 G2
08	10,573	B1 U0 G2	10,794	B1 U0 G2
10	13,185	B1 U0 G2	13,461	B1 U0 G2
12	15,821	B2 U0 G3	16,153	B2 U0 G3
14	18,341	B2 U0 G3	18,726	B2 U0 G3
16	20,962	B2 U0 G3	21,401	B2 U0 G3
700mA				
02	3,156	B1 U0 G1	3,220	B1 U0 G1
04	6,311	B1 U0 G2	6,440	B1 U0 G2
06	9,359	B1 U0 G2	9,549	B1 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf

Luminaire EPA

Fixed Arm Mount – ARE-EDG-DA						
LED Count (x10)	Single	2 @ 90˚	2 @ 180˚	3 @ 90˚	3 @ 120˚	4 @ 90˚
						
02	0.60	0.87	1.20	1.47	1.47	1.75
04	0.60	0.87	1.20	1.47	1.47	1.75
06	0.60	0.92	1.20	1.51	1.51	1.83
08	0.60	0.96 N/A with 3" poles	1.20	1.55 N/A with 3" poles	1.55	1.91 N/A with 3" poles
10	0.60	1.00 N/A with 3" poles	1.20	1.60 N/A with 3" poles	1.60	2.00 N/A with 3" poles
12	0.60	1.04 N/A with 3" poles	1.20	1.64 N/A with 3" poles	1.64	2.08 N/A with 3" poles
14	0.60	1.08 N/A with 3" or 4" poles	1.20	1.68 N/A with 3" or 4" poles	1.68	2.16 N/A with 3" or 4" poles
16	0.60	1.12 N/A with 3" or 4" poles	1.20	1.72 N/A with 3" or 4" poles	1.72	2.24 N/A with 3" or 4" poles
Fixed Arm Mount – ARE-EDG-DL						
02	0.75	1.02	1.50	1.77	1.77	1.91
04	0.75	1.02	1.50	1.77	1.77	1.91
06	0.75	1.07	1.50	1.82	1.82	1.98
08	0.75	1.11	1.50	1.86	1.86	2.04
10	0.75	1.15	1.50	1.90	1.90	2.10
12	0.75	1.19	1.50	1.94	1.94	2.16
14	0.75	1.23	1.50	1.98	1.98	2.22
16	0.75	1.27	1.50	2.02	2.02	2.28

Adjustable Arm Mount – ARE-EDG-AA/FLD-EDG-AA/SA									
LED Count (x10)	Single	2 @ 90˚	2 @ 180˚	In-Line 2 @ 180˚	3 @ 90˚	3 @ 120˚	In-Line 3 @ 180˚	4 @ 90˚	In-Line 4 @ 180˚
Tenon Configuration If used with Cree tenons, please add tenon EPA with Luminaire EPA									
									
	Vertical: PB-1A*; PT-1; PW-1A3** Horizontal: By others	Vertical: PB-2A*; PB-2R2.375; PW-2A3** Horizontal: PD-2A4(90); PT-2(90)	Vertical: PB-2A*; PB-2R2.375; PW-2A3** Horizontal: PD-2A4(180); PT-2(180)	Vertical: PB-2A*; PB-2R2.375	Vertical: PB-3A*; PB-3R2.375 Horizontal: PD-3A4(90); PT-3(90)	Vertical: PB-3A*; PB-3R2.375 Horizontal: PT-3(120)	Vertical: PB-3A*; PB-3R2.375	Vertical: PB-4A*(90); PB-4R2.375 Horizontal: PD-4A4(90) PT-4(90)	Vertical: PB-4A*(180); PB-4R2.375
0˚ Tilt									
02	0.66	0.98	1.32	1.32	1.77	1.64	1.98	1.91	2.64
04	0.66	0.98	1.32	1.32	1.64	1.64	1.98	1.97	2.64
06	0.66	1.02	1.32	1.32	1.68	1.68	1.98	2.05	2.64
08	0.66	1.07	1.32	1.32	1.80	1.72	1.98	2.29	2.64
10	0.66	1.11	1.32	1.32	1.76	1.76	1.98	2.21	2.64
12	0.66	1.15	1.32	1.32	1.80	1.80	1.98	2.29	2.64
14	0.66	1.19	1.32	1.32	1.84	1.84	1.98	2.38	2.64
16	0.66	1.23	1.32	N/A	1.89	1.89	N/A	2.46	N/A

* Specify pole size: 3 (3"), 4 (4"), 5 (5"), or 6 (6") for single, double or triple luminaire orientation or 4 (4"), 5 (5"), or 6 (6") for quad luminaire orientation
** These EPA values must be multiplied by the following ratio: Fixture Mounting Height/Total Pole Height. Specify pole size: 3 (3"), 4 (4"), 5 (5"), or 6 (6")

Cree Edge™ Series

LED Area/Flood Luminaire

IMEG FS5

Product Description

The Cree Edge™ Series has a slim, low profile design. Its rugged cast aluminum housing minimizes wind load requirements and features an integral, weathertight LED driver compartment and high performance aluminum heat sinks. Various mounting choices: Adjustable Arm, Direct Arm, Direct Arm Long, or Side Arm (details on page 2). Includes a leaf/debris guard.

Applications: Parking lots, walkways, campuses, car dealerships, office complexes, and internal roadways

Performance Summary

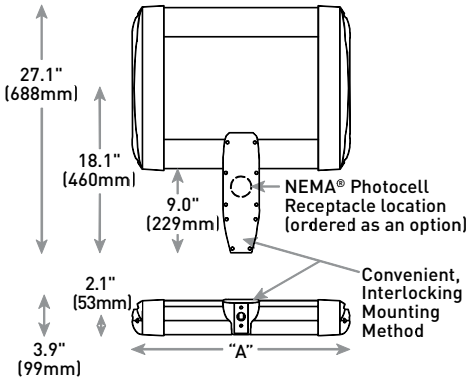
- Patented NanoOptic® Product Technology
- Made in the U.S.A. of U.S. and imported parts
- **CRI:** Minimum 70 CRI
- **CCT:** 4000K (+/- 300K), 5700K (+/- 500K) standard
- **Limited Warranty†:** 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

† See http://lighting.cree.com/warranty for warranty terms

Accessories

Field-Installed	
Bird Spikes XA-BRDSPK **Hand-Held Remote** XA-SENSREM - For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required	**Backlight Control Shields** XA-20BLS-4 - Four-pack - Unpainted stainless steel

DA Mount



LED Count (x10)	Dim. "A"	Weight
02	12.1" (306mm)	21 lbs. (10kg)
04	12.1" (306mm)	24 lbs. (11kg)
06	14.1" (357mm)	27 lbs. (12kg)
08	16.1" (408mm)	28 lbs. (13kg)
10	18.1" (459mm)	32 lbs. (15kg)
12	20.1" (510mm)	34 lbs. (15kg)
14	22.1" (560mm)	37 lbs. (17kg)
16	24.1" (611mm)	41 lbs. (19kg)

AA/DL/SA Mount - see page 22 for weight & dimensions

Ordering Information

Example: ARE-EDG-2M-AA-12-E-UL-SV-350

					E				
Product	**Optic**			**Mounting***	**LED Count (x10)**	**Series**	**Voltage**	**Color Options**	**Drive Current**	**Options**
ARE-EDG	**2M** Type II Medium **2MB** Type II Medium w/BLS **2MP** Type II Medium w/Partial BLS **3M** Type III Medium	**3MB** Type III Medium w/BLS **3MP** Type III Medium w/Partial BLS **4M** Type IV Medium **4MB** Type IV Medium w/BLS	**4MP** Type IV Medium w/Partial BLS **5M** Type V Medium **5S** Type V Short	**AA** Adjustable Arm **DA** Direct Arm **DL** Direct Long Arm	**02** **04** **06** **08** **10** **12** **14** **16**	**E**	**UL** Universal 120-277V **UH** Universal 347-480V	**BK** Black **BZ** Bronze **SV** Silver **WH** White	**350** 350mA **525** 525mA **700** 700mA - Available with 20-60 LEDs	**DIM 0-10V Dimming** - Control by others - Refer to Dimming spec sheet for details - Can't exceed specified drive current **F Fuse** - Refer to ML spec sheet for availability with ML options - Available with UL voltage only - Available for U.S. applications only - When code dictates fusing, use time delay fuse **HL Hi/Low (Dual Circuit Input)** - Refer to HL spec sheet for details - Sensor not included **ML Multi-Level** - Refer to ML spec sheet for details - Intended for downlight applications at 0° tilt **P Photocell** - Refer to ML spec sheet for availability with ML options - Available with UL voltage only **PML Programmable Multi-Level, 20-40' Mounting Height** - Refer to PML spec sheet for details - Intended for downlight applications at 0° tilt **PML2 Programmable Multi-Level, 10-30' Mounting Height** - Refer to PML spec sheet for details - Intended for downlight applications at 0° tilt **R NEMA® Photocell Receptacle** - Intended for downlight applications with maximum 45° tilt - Photocell by others - Refer to ML spec sheet for availability with ML options **40K 4000K Color Temperature** - Minimum 70 CRI - Color temperature per luminaire
FLD-EDG	**25** 25° Flood **40** 40° Flood	**70** 70° Flood **SN** Sign	**N6** NEMA® 6	**AA** Adjustable Arm **SA** Side Arm - Available with 20-60 LEDs						

* Reference EPA and pole configuration suitability data beginning on page 19

NOTE: Price adder may apply depending on configuration

Product Specifications

CONSTRUCTION & MATERIALS

- Slim, low profile, minimizing wind load requirements
- Luminaire sides are rugged die cast aluminum with integral, weathertight LED driver compartment and high performance heat sinks
- DA and DL mount utilizes convenient interlocking mounting method. Mounting is rugged die cast aluminum, mounts to 3-6" (76-152mm) square or round pole and secures to pole with 5/16-18 UNC bolts spaced on 2" (51mm) centers
- AA and SA mounts are rugged die cast aluminum and mount to 2" (51mm) IP, 2.375" (60mm) O.D. tenons
- Includes leaf/debris guard
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, silver, and white are available
- **Weight:** See Dimensions and Weight Charts on pages 1 and 22

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V or 347-480V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- DA and DL mounts designed with integral weathertight electrical box with terminal strips (12Ga–20Ga) for easy power hookup
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- **Maximum 10V Source Current:** 20 LED (350mA): 10mA; 20 LED (525 & 700mA) and 40-80 LED: 0.15mA; 100-160 LED: 0.30mA

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Enclosure rated IP66 per IEC 60529 when ordered without P or R options
- Consult factory for CE Certified products
- Certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards when ordered with AA, DA and DL mounts
- 10kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A standards for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- DLC qualified with select SKUs. Refer to https://www.designlights.org/search/ for most current information
- Meets Buy American requirements within ARRA

Electrical Data*

LED Count (x10)	System Watts 120-480V	Total Current (A)					
		120V	208V	240V	277V	347V	480V
350mA							
02	25	0.21	0.13	0.11	0.10	0.08	0.07
04	46	0.36	0.23	0.21	0.20	0.15	0.12
06	66	0.52	0.31	0.28	0.26	0.20	0.15
08	90	0.75	0.44	0.38	0.34	0.26	0.20
10	110	0.92	0.53	0.47	0.41	0.32	0.24
12	130	1.10	0.63	0.55	0.48	0.38	0.28
14	158	1.32	0.77	0.68	0.62	0.47	0.35
16	179	1.49	0.87	0.77	0.68	0.53	0.39
525mA							
02	37	0.30	0.19	0.17	0.16	0.12	0.10
04	70	0.58	0.34	0.31	0.28	0.21	0.16
06	101	0.84	0.49	0.43	0.38	0.30	0.22
08	133	1.13	0.66	0.58	0.51	0.39	0.28
10	171	1.43	0.83	0.74	0.66	0.50	0.38
12	202	1.69	0.98	0.86	0.77	0.59	0.44
14	232	1.94	1.12	0.98	0.87	0.68	0.50
16	263	2.21	1.27	1.11	0.97	0.77	0.56
700mA							
02	50	0.41	0.25	0.22	0.20	0.15	0.12
04	93	0.78	0.46	0.40	0.36	0.27	0.20
06	134	1.14	0.65	0.57	0.50	0.39	0.29

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-480V +/- 10%

Recommended Cree Edge™ Series Lumen Maintenance Factors (LMF)[1]

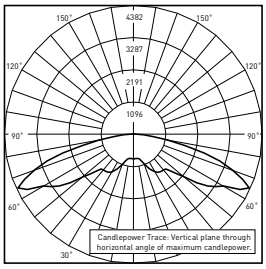
Ambient	Initial LMF	25K hr Projected[2] LMF	50K hr Projected[2] LMF	75K hr Calculated[3] LMF	100K hr Calculated[3] LMF
5°C (41°F)	1.04	1.01	0.99	0.98	0.96
10°C (50°F)	1.03	1.00	0.98	0.97	0.95
15°C (59°F)	1.02	0.99	0.97	0.96	0.94
20°C (68°F)	1.01	0.98	0.96	0.95	0.93
25°C (77°F)	1.00	0.97	0.95	0.94	0.92

[1] Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing
[2] In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)
[3] In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)

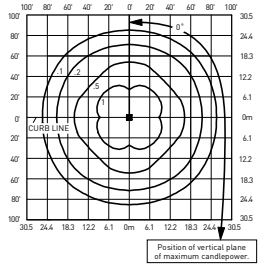
Photometry

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP accredited laboratory. To obtain an IES file specific to your project consult: http://lighting.cree.com/products/outdoor/area/cree-edge-series-1

5M



RESTLTest Report #: PL09285-001
ARE-EDG-5M-**-06-E-UL-700-40K
Initial Delivered Lumens: 13,136



ARE-EDG-5M-**-06-E-UL-700-40K
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 13,070
Initial FC at grade

Type V Medium Distribution				
LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
02	2,631	B2 U0 G1	2,683	B2 U0 G1
04	5,262	B3 U0 G1	5,367	B3 U0 G1
06	7,804	B3 U0 G2	7,958	B3 U0 G2
08	10,405	B4 U0 G2	10,611	B4 U0 G2
10	12,975	B4 U0 G2	13,232	B4 U0 G2
12	15,570	B4 U0 G3	15,878	B4 U0 G3
14	18,049	B4 U0 G3	18,407	B4 U0 G3
16	20,628	B5 U0 G3	21,037	B5 U0 G3
525mA				
02	3,734	B2 U0 G1	3,812	B2 U0 G1
04	7,468	B3 U0 G2	7,625	B3 U0 G2
06	11,074	B4 U0 G2	11,306	B4 U0 G2
08	14,766	B4 U0 G2	15,075	B4 U0 G3
10	18,413	B4 U0 G3	18,799	B4 U0 G3
12	22,096	B5 U0 G3	22,558	B5 U0 G3
14	25,615	B5 U0 G3	26,151	B5 U0 G3
16	29,274	B5 U0 G3	29,887	B5 U0 G3
700mA				
02	4,407	B3 U0 G1	4,497	B3 U0 G1
04	8,814	B3 U0 G2	8,993	B3 U0 G2
06	13,070	B4 U0 G2	13,336	B4 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf

Luminaire EPA

Fixed Arm Mount – ARE-EDG-DA						
LED Count (x10)	Single	2 @ 90˚	2 @ 180˚	3 @ 90˚	3 @ 120˚	4 @ 90˚
						
02	0.60	0.87	1.20	1.47	1.47	1.75
04	0.60	0.87	1.20	1.47	1.47	1.75
06	0.60	0.92	1.20	1.51	1.51	1.83
08	0.60	0.96 N/A with 3" poles	1.20	1.55 N/A with 3" poles	1.55	1.91 N/A with 3" poles
10	0.60	1.00 N/A with 3" poles	1.20	1.60 N/A with 3" poles	1.60	2.00 N/A with 3" poles
12	0.60	1.04 N/A with 3" poles	1.20	1.64 N/A with 3" poles	1.64	2.08 N/A with 3" poles
14	0.60	1.08 N/A with 3" or 4" poles	1.20	1.68 N/A with 3" or 4" poles	1.68	2.16 N/A with 3" or 4" poles
16	0.60	1.12 N/A with 3" or 4" poles	1.20	1.72 N/A with 3" or 4" poles	1.72	2.24 N/A with 3" or 4" poles
Fixed Arm Mount – ARE-EDG-DL						
02	0.75	1.02	1.50	1.77	1.77	1.91
04	0.75	1.02	1.50	1.77	1.77	1.91
06	0.75	1.07	1.50	1.82	1.82	1.98
08	0.75	1.11	1.50	1.86	1.86	2.04
10	0.75	1.15	1.50	1.90	1.90	2.10
12	0.75	1.19	1.50	1.94	1.94	2.16
14	0.75	1.23	1.50	1.98	1.98	2.22
16	0.75	1.27	1.50	2.02	2.02	2.28

Adjustable Arm Mount – ARE-EDG-AA/FLD-EDG-AA/SA									
LED Count (x10)	Single	2 @ 90˚	2 @ 180˚	In-Line 2 @ 180˚	3 @ 90˚	3 @ 120˚	In-Line 3 @ 180˚	4 @ 90˚	In-Line 4 @ 180˚
Tenon Configuration If used with Cree tenons, please add tenon EPA with Luminaire EPA									
									
	Vertical: PB-1A*; PT-1; PW-1A3** Horizontal: By others	Vertical: PB-2A*; PB-2R2.375; PW-2A3** Horizontal: PD-2A4(90); PT-2(90)	Vertical: PB-2A*; PB-2R2.375; PW-2A3** Horizontal: PD-2A4(180); PT-2(180)	Vertical: PB-2A*; PB-2R2.375	Vertical: PB-3A*; PB-3R2.375 Horizontal: PD-3A4(90); PT-3(90)	Vertical: PB-3A*; PB-3R2.375 Horizontal: PT-3(120)	Vertical: PB-3A*; PB-3R2.375	Vertical: PB-4A*(90); PB-4R2.375 Horizontal: PD-4A4(90) PT-4(90)	Vertical: PB-4A*(180); PB-4R2.375
0˚ Tilt									
02	0.66	0.98	1.32	1.32	1.77	1.64	1.98	1.91	2.64
04	0.66	0.98	1.32	1.32	1.64	1.64	1.98	1.97	2.64
06	0.66	1.02	1.32	1.32	1.68	1.68	1.98	2.05	2.64
08	0.66	1.07	1.32	1.32	1.80	1.72	1.98	2.29	2.64
10	0.66	1.11	1.32	1.32	1.76	1.76	1.98	2.21	2.64
12	0.66	1.15	1.32	1.32	1.80	1.80	1.98	2.29	2.64
14	0.66	1.19	1.32	1.32	1.84	1.84	1.98	2.38	2.64
16	0.66	1.23	1.32	N/A	1.89	1.89	N/A	2.46	N/A

* Specify pole size: 3 (3"), 4 (4"), 5 (5"), or 6 (6") for single, double or triple luminaire orientation or 4 (4"), 5 (5"), or 6 (6") for quad luminaire orientation
** These EPA values must be multiplied by the following ratio: Fixture Mounting Height/Total Pole Height. Specify pole size: 3 (3"), 4 (4"), 5 (5"), or 6 (6")

IMEG FS6

Portfolio

DESCRIPTION

8-inch LED recessed narrow, medium, or wide beam downlight specially designed for LED technology. Two-stage reflector system produces smooth distribution with excellent light control and low aperture brightness. Offered with 1000-15,000 lumens with color temperatures of 2700K, 3000K, 3500K, 4000K available in 80 or 90 CRI. Available with dim-to-warm technology – similar to halogen at full power, the 3000K LED warms smoothly as dimmed to 1850K creating a rich warm glow within the space.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Lower Shielding Reflector
Self-flanged, spun .060" thick aluminum lower reflector in combination with a lensed upper optical chamber provides superior lumen output with minimal source brightness. Available in all Portfolio Alzak® finishes.

Trim Retention
Lower reflector is retained with two torsion springs holding the flange tightly to the finished ceiling surface.

Plaster Frame / Collar
Die cast aluminum 1-1/2" deep collar accommodates ceiling materials up to 2".

Universal Mounting Bracket
Accepts 1/2" EMT, C channel and bar hangers and adjusts 5" vertically from above and below the ceiling.

Junction Box
(4) 1/2" and (2) 3/4" trade size pry outs positioned to allow straight conduit runs. Listed for (8) #12 AWG (four in, four out) 90°C conductors and feed thru branch wiring.

Thermal
Forged aluminum heat sink conducts heat away from the LED module for improved performance and longer life.

LED
LED system contains a plurality of high brightness white LED's combined with a high reflectance upper reflector and convex transitional lens producing even distribution with no pixilation. Rated for 50,000 hours at 70% lumen maintenance. Color variation within 3-step MacAdam ellipses. Flexible disconnect allows for tool-less replacement of LED engine from below ceiling. Available in 80 or 90 CRI. D2W™ – dim-to-warm shifts CCT from 3000K to 1850K as fixture dims mimicking halogen sources.

Driver
Combination 0-10V/trailing edge driver provides flicker free dimming from 100% to 10%. Optional 1% 0-10V, Fifth Light, DMX or Lutron® Ecosystem. Driver can be serviced from above or through the aperture. 1000 - 4000 lumen utilize one driver. 5000-10,000 utilize two drivers, 12,000-15,000 lumen utilizes three drivers.

Code Compliance
Thermally protected and cULus listed for protected wet locations. cCSAus certified. Optional City of Chicago environmental air (CCEA) marking for plenum applications. EMI/ RFI emissions per FCC 47CFR Part 18 Class B consumer limits. Non-IC rated - Insulation must be kept 3" from top and sides of housing. RoHS Compliant. Photometric testing completed in accordance with IES LM 79 standards. LED life testing completed in accordance with LM 80 standards. 8000 lumen and above are marked spacing and must follow spacing requirements.

Warranty
5-year warranty.

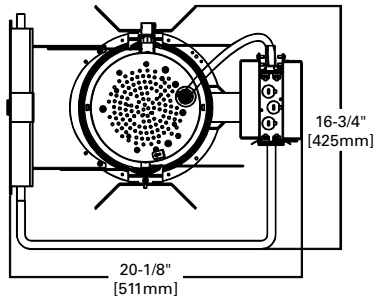
LD8A ER8A 8L

1,000-15,000 Lumen LED

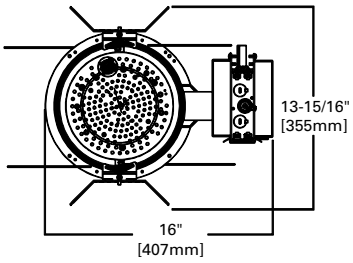
8-Inch Narrow, Medium, or Wide Downlight

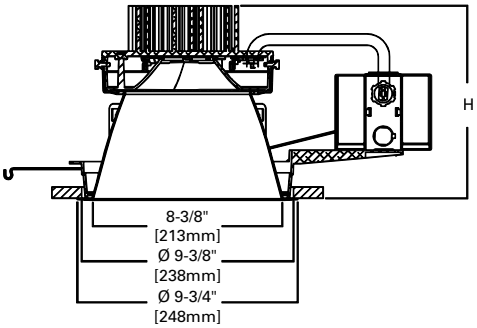
New Construction

with Battery

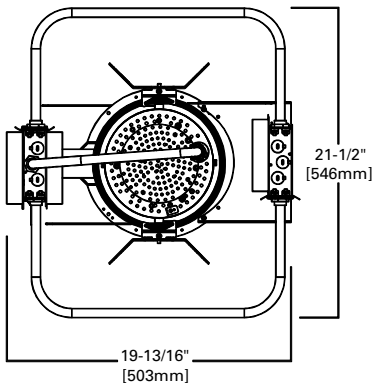


D2W™





12,000-15,000 Lumen



Distribution	Height
Narrow	9-1/16"
Medium	8-5/8"
Wide	7-7/8"

Shoebox light

ENERGY STAR RoHS Compliant

Refer to ENERGY STAR® Qualified Products List.

powered by fifthlight technology

EATON Powering Business Worldwide

ORDERING INFORMATION

EXAMPLE: LD8A501DE010 ER8A50835 8LW111LI= 8″ LED Wide Beam Reflector, 5000 Lumen, 3,500 K Color with Universal 120 - 277V, 0 - 10 Driver

Housing

LD8A=8″ Aperture
LD8ACP=8″ Aperture, Chicago Plenum

Lumens[1]

10=1000 Lumens
15=1500 Lumens
20=2000 Lumens
S30=3000 Lumens
S40=4000 Lumens
50=5000 Lumens
60=6000 Lumens
65=6500 Lumens
80=8000 Lumens [5]
90=9000 Lumens [5]
100=10000 Lumens [5]
120=12000 Lumens [5]
150=15000 Lumens [5]

Voltage

1=120V
2=277V
Blank=120-277V 1000 - 4000 lumen only

Driver

1000, 1500, 2000, 3000, 4000, 5000, 6000, 8000, 9000, 10,000 [6]
12,000 AND 15,000 LUMEN
D010TE=0-10V 10% Dimming or Trailing Edge Dimming [4]
1000, 1500, 2000, 3000, 4000, 5000, 6000 AND 8000 LUMEN
D5LT=Fifth Light® DALI 0% Dimming
DMX=DMX 0% Dimming
DE010=0-10V 0% Dimming
1000, 1500, 2000, 3000, 4000, 5000 AND 6000 LUMEN
DL3=1% Lutron® Hi-Lume 3-Wire or Ecosystem
D010TR=0-10V 10% Dimming or Leading Edge [4]
6500 LUMEN
D010=0-10V 10% Dimming
DE010=0-10V 1% Dimming

Options[2]

EM7=7W Emergency Module with Remote Test Switch [3]
EM14=14W Emergency Module with Remote Test Switch [3]
IEM7=7W Emergency Module with Integral Test Switch [3]
IEM14=14W Emergency Module with Integral Test Switch [3]
EMBOD=7W Bodine® Emergency Module with Remote Test Switch
IEMBOD=7W Bodine® Emergency Module with Integral Test Switch

Power Module

ER8A=8" Module
ER8ACP=8" Module, Chicago Plenum

Lumens

10=1000 Lumens
15=1500 Lumens
20=2000 Lumens
S30=3000 Lumens
S40=4000 Lumens
50=5000 Lumens
60=6000 Lumens
65=6500 Lumens
80=8000 Lumens [5]
90=9000 Lumens [5]
100=10000 Lumens [5]
120=12000 Lumens [5]
150=15000 Lumens [5]

CRI

8=80 CRI
9=90 CRI

Color

27=2700° K
30=3000° K
35=3500° K
40=4000° K
30D2W= Dim to warm 3000° K to 1850° K (2000 lumen and below, 90 CRI)

Reflector[7]

8LN0=8″ 25° Narrow Reflector, Polymer Trim Ring
8LN1=8″ 25° Narrow Reflector, Self-flanged
8LN0E=8″ 25° Narrow Reflector, Polymer Trim Ring for use with IEM Integral Emergency option
8LN1E=8″ 25° Narrow Reflector, Self-flanged Trim Ring for use with IEM Integral Emergency option
8LM0=8″ 50° Medium Reflector, Polymer Trim Ring
8LM1=8″ 50° Medium Reflector, Self-flanged
8LM0E=8″ 50° Medium Reflector, Polymer Trim Ring for use with IEM Integral Emergency option
8LM1E=8″ 50° Medium Reflector, Self-flanged Trim Ring for use with IEM Integral Emergency option
8LW0=8″ 75° Wide Reflector, Polymer Trim Ring
8LW1=8″ 75° Wide Reflector, Self-flanged
8LW0E=8″ 75° Wide Reflector, Polymer Trim Ring for use with IEM Integral Emergency option
8LW1E=8″ 75° Wide Reflector, Self-flanged Trim Ring for use with IEM Integral Emergency option

Finish

LI=Specular Clear
H=Semi-Specular Clear
WMH=Warm Haze
G=Specular Gold
WH=Wheat
WHH=Wheat Haze
GP=Graphite
GPH=Graphite Haze
B=Specular Black
W=Gloss White

8LM0 Only
BB=Black Baffle
WB=White Baffle

Options

Self-flanged Only
WF=White Painted Flange

Accessories

HB26=C-channel Bar Hanger, 26″ Long, Pair
HB50=C-channel Bar Hanger, 50″ Long, Pair
RMB22=Wood Joist Bar Hanger, 22″ Long, Pair
H347=347 to 120V Step Down Transformer, 75VA
H347200=347 to 120V Step Down Transformer, 200VA Housings, Specify Slope
HSA8=Slope Adapter for 8″ Aperture Housings, Specify Slope
LGSKT8IP65=IP65 Gasket Kit
PORLWTPD1=LumaWatt Pro Wireless Sensor Kit (0-10V only)

Notes:
1. Nominal Lumens will vary depending on selected color, driver and reflector finish.
2. Not available with Chicago Plenum.
3. Not CSA approved.
4. Trailing edge and leading edge 120V only.
5. Product is marked spacing and must be installed with the following minimum spacing:
   Center to Center of adjacent luminaires : 36″
   Center of Luminaire to Side of Building Member : 18″
   Minimum Overhead Clearance: 9″
6. 0-10V recommended
7. Distribution with LI finish.

ENERGY DATA

ENERGY DATA
Sound Rating: Class A standards
(Values at non-dimming line voltage)
Minimum Starting Temperature: -20°C (-4°F)
Power Factor: >0.90
Input Frequency: 50-60Hz

1000 Lumen D010TE	
120V Input Power: 15W	277V Input Power: 16W
120V Input Current: 0.13A	277V Input Current: 0.06A
Inrush 120 (Ap): 0.486	Inrush 277 (Ap): 0.848
Duration 120 (ms): 0.4	Duration 277 (ms): 0.182
THDi 120V: <13%	THDi 277V: <20%

1500 Lumen D010TE	
120V Input Power: 23W	277V Input Power: 24W
120V Input Current: 0.19A	277V Input Current: 0.09A
Inrush 120 (Ap): 0.717	Inrush 277 (Ap): 0.531
Duration 120 (ms): 1.58	Duration 277 (ms): 1.24
THDi 120V: <13%	THDi 277V: <20%

2000 Lumen D010TE	
120V Input Power: 31.5W	277V Input Power: 31.5W
120V Input Current: 0.27A	277V Input Current: 0.12A
Inrush 120 (Ap): 0.717	Inrush 277 (Ap): 0.531
Duration 120 (ms): 1.58	Duration 277 (ms): 1.24
THDi 120V: <13%	THDi 277V: <20%

3000 Lumen D010TE	
120V Input Power: 35W	277V Input Power: 34W
120V Input Current: .30A	277V Input Current: .13A
THD 120V: <10%	THD 277V: <20%

ENERGY DATA
Sound Rating: Class A standards
(Values at non-dimming line voltage)
Minimum Starting Temperature: -20°C (-4°F)
Power Factor: >0.90
Input Frequency: 50-60Hz

4000 Lumen D010TE	
120V Input Power: 46W	277V Input Power: 45W
120V Input Current: .39A	277V Input Current: .17A
THD 120V: <13%	THD 277V: <20%

5000 Lumen D010TE	
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)	
Input Power: 62W	THD: <17%
120V Input Current: .52A	277V Input Current: .22A
Inrush 120 (Ap): 0.787	Inrush 277 (Ap): 1.09
Duration 120 (ms): 1.16	Duration 277 (ms): 1.75

6000 Lumen D010TE	
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)	
Input Power: 77W	THD: <17%
120V Input Current: .64A	277V Input Current: .28A
Inrush 120 (Ap): 0.87	Inrush 277 (Ap): 0.96
Duration 120 (ms): 0.39	Duration 277 (ms): 0.31

6500 Lumen D010	
Input Power: 84W	THD: <17%
120V Input Current: .70A	277V Input Current: .30A
Inrush 120 (Ap): 2.88	Inrush 277 (Ap): 3.68
Duration 120 (ms): 0.815	Duration 277 (ms): 1.29

ENERGY DATA
Sound Rating: Class A standards
(Values at non-dimming line voltage)
Minimum Starting Temperature: -20°C (-4°F)
Power Factor: >0.90
Input Frequency: 50-60Hz

8000 Lumen D010TE	
120V Input Power: 96W	277V Input Power: 96W
120V Input Current: .79A	277V Input Current: .36A
Inrush 120 (Ap): 1.09	Inrush 277 (Ap): 1.23
Duration 120 (ms): 0.3	Duration 277 (ms): 0.294
THDi 120V: <13%	THDi 277V: <20%

9000 Lumen D010TE	
120V Input Power: 108W	277V Input Power: 107W
120V Input Current: .89A	277V Input Current: .39A
Inrush 120 (Ap): 0.48	Inrush 277 (Ap): 1.316
Duration 120 (ms): 0.1	Duration 277 (ms): 0.52
THDi 120V: <13%	THDi 277V: <20%

10,000 Lumen D010TE	
120V Input Power: 126W	277V Input Power: 123W
120V Input Current: 1.05A	277V Input Current: .47A
Inrush 120 (Ap): 1.312	Inrush 277 (Ap): 1.856
Duration 120 (ms): 0.05	Duration 277 (ms): 0.1
THDi 120V: <13%	THDi 277V: <20%

12,000 Lumen D010TE	
120V Input Power: 140W	277V Input Power: 141W
120V Input Current: 1.17A	277V Input Current: 0.51A
Inrush 120 (Ap): 1.09	Inrush 277 (Ap): 1.23
Duration 120 (ms): 0.3	Duration 277 (ms): 0.294
THDi 120V: <13%	THDi 277V: <20%

ENERGY DATA
Sound Rating: Class A standards
(Values at non-dimming line voltage)
Minimum Starting Temperature: -20°C (-4°F)
Power Factor: >0.90
Input Frequency: 50-60Hz

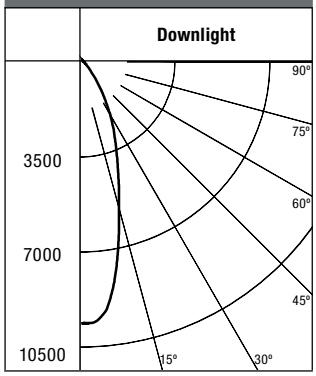
15,000 Lumen D010TE	
120V Input Power: 161W	277V Input Power: 159W
120V Input Current: 1.33A	277V Input Current: 0.58A
Inrush 120 (Ap): 0.48	Inrush 277 (Ap): 1.316
Duration 120 (ms): 0.1	Duration 277 (ms): 0.52
THDi 120V: <13%	THDi 277V: <20%

Eaton
1121 Highway 74 South
Peachtree City, GA 30269
P: 770-486-4800
www.eaton.com/lighting

Specifications and dimensions subject to change without notice.

PHOTOMETRICS

CANDLEPOWER DISTRIBUTION



Test Number	P112471
LD8A50D010TE ER8A50835 8LN0LI	
Lumens	4603 Lm
Efficacy	74 Lm/W
CCT	3500K
SC	0.6

CONE OF LIGHT

Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
12.5'	64	6
15'	45	8
20'	25	10
24'	17	13
28'	13	15

CANDELA TABLE

Degrees Vertical	Candela
0	10069
5	9738
15	5643
25	2940
35	1045
45	118
55	10
65	11
75	0
85	13
90	0

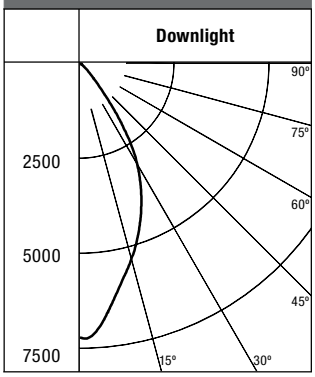
ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixture
0-30	3785	82
0-40	4441	96
0-60	4567	99
0-90	4603	100
90-180	0	0
0-180	4603	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
45	5157
55	524
65	812
75	0
85	4430

CANDLEPOWER DISTRIBUTION



Test Number	P112343
LD8A50D010TE ER8A50835 8LM0LI	
Lumens	4962 Lm
Efficacy	80 Lm/W
CCT	3500K
SC	0.8

CONE OF LIGHT

Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
12.5'	42	10
15'	29	12
20'	16	16
24'	11	19
28'	8	22

CANDELA TABLE

Degrees Vertical	Candela
0	6445
5	6573
15	5323
25	3488
35	1582
45	316
55	26
65	0
75	1
85	0
90	0

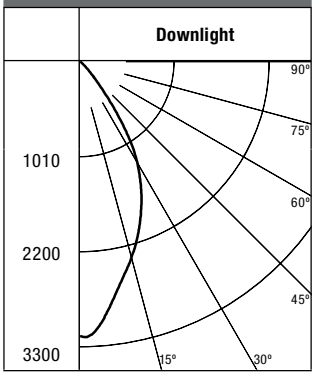
ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixture
0-30	3598	72
0-40	4641	93
0-60	4952	99
0-90	4962	100
90-180	0	0
0-180	4962	100

LUMINANCE

Average Candella Degrees	Average 0° Luminance
45	13773
55	1421
65	0
75	166
85	0

CANDLEPOWER DISTRIBUTION



Test Number	P110167
LD8A50D010TE ER8A50835 8LW0LI	
Lumens	5083 Lm
Efficacy	81.9 Lm/W
CCT	3500K
SC	1

CONE OF LIGHT

Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter
12.5'	22	15
15'	15	18
20'	8	24
24'	6	29
28'	4	34

CANDELA TABLE

Degrees Vertical	Candela
0	3304
5	3395
15	3658
25	3398
35	2268
45	967
55	203
65	18
75	1
85	0
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixture
0-30	2740	54
0-40	4147	81
0-60	5052	99
0-90	5083	100
90-180	0	0
0-180	5083	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
45	42170
55	10921
65	1320
75	166
85	0

EM MULTIPLIER DATA

LUMENS	EM MULTIPLIER	
	7	14
1000	0.47	0.93
1500	0.30	0.61
2000	0.30	0.61
3000	0.17	0.33
4000	0.12	0.24
5000	0.11	0.23
6000	0.09	0.18
6500		0.17
8000		0.15
9000		0.13
10000		0.11
120000		0.09
150000		0.08

MULTIPLIER FROM 5000 LUMENS	
3000	0.75
4000	0.82
5000	1.00
6000	1.20
6500	1.34
8000	1.58
9000	1.75
10000	1.97

LPW	NARROW	MEDIUM	WIDE
1000	70.6	76.1	77.9
1500	69.8	75.2	77.0
2000	60.3	65.0	66.5
3000	83.0	89.5	91.7
4000	64.3	72.7	75.4
5000	74.2	80.0	82.0
6000	71.6	77.2	79.1
6500	73.7	79.5	81.4
8000	75.6	81.5	83.5
9000	75.1	81.0	83.0
10000	71.9	77.5	79.4
12000	74.2	80.0	82.0
15000	88.1	95.0	97.3

IMEG FS7

McGraw-Edison

DESCRIPTION

The Impact Elite family of wall luminaires is the ideal complement to site design. Incorporating modular LightSquares technology, the Impact Elite luminaire provides outstanding uniformity and energy-conscious illumination. Combined with a rugged construction, the Impact Elite luminaire is the ideal facade and security luminaire for zones surrounding schools, office complexes, apartments and recreational facilities. UL/cUL listed for wet locations.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction
Heavy-wall, die-cast aluminum housing and removable hinged door frame for precise tolerance control and repeatability. Hinged door inset for clean mating with housing surface and secured via two captive fasteners. Optional tamper-resistant Torx™ head fasteners offer vandal resistant access to the electrical chamber.

Optics
Choice of 10 patented, high-efficiency AccuLED Optics™ distributions. Optics are precisely designed to shape the light output, maximizing efficiency and application spacing. AccuLED Optics technology creates consistent distributions with the scalability to meet customized application requirements. Offered Standard in 4000K (+/- 275K) CCT and minimum 70 CRI. Optional 3000K, 5000K and 5700K CCT.

Electrical
LED drivers mount to die-cast aluminum back housing for optimal heat sinking, operation efficacy, and prolonged life. Standard drivers feature electronic universal voltage (120-277V 50/60Hz), 347V 60Hz or 480V 60Hz operation, greater than 0.9 power factor, less than 20% harmonic distortion, and are suitable for operation in -40°C to 40°C ambient environments. All fixtures are shipped standard with 10kV/10kA common – and differential – mode surge protection. LightSquares feature an IP66 enclosure rating and maintain greater than 90% lumen maintenance at 60,000 hours per IESNA TM-21. Emergency egress options for -20°C ambient environments and occupancy sensor available.

Mounting
Gasketed and zinc plated rigid steel mounting attachment fits directly to 4" j-box or wall with the Impact Elite "Hook-N-Lock" mechanism for quick installation. Secured with two captive corrosion resistant black oxide coated allen head set screws concealed but accessible from bottom of fixture.

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

Warranty
Five-year warranty.

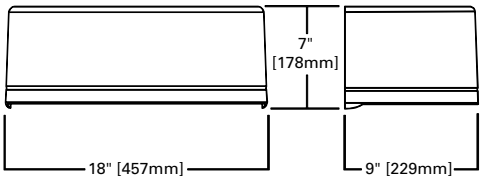
ISC/ISS/IST/ISW
IMPACT ELITE LED

1 LightSquare
Solid State LED

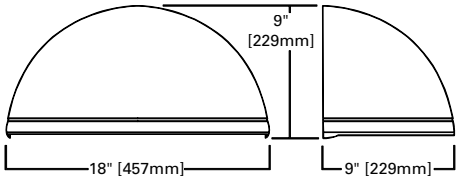
WALL MOUNT LUMINAIRE

DIMENSIONS

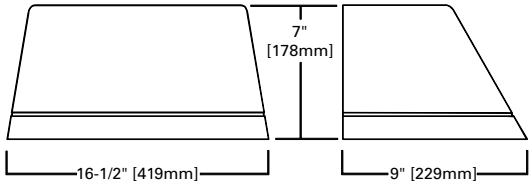
Cylinder



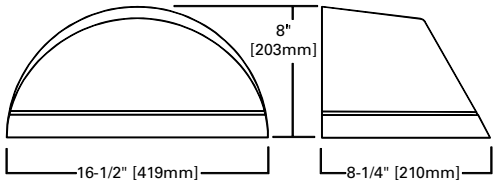
Quarter Sphere



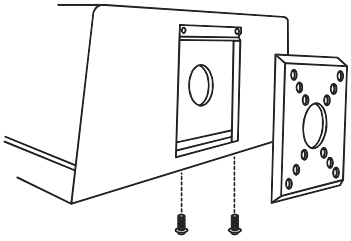
Trapezoid



Wedge



HOOK-N-LOCK MOUNTING



CERTIFICATION DATA
UL/cUL Listed
LM79 / LM80 Compliant
IP66 LightSquare
DesignLights Consortium® Qualified*
ISO 9001

ENERGY DATA
Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120-277V/50 & 60Hz, 347V/60Hz, 480V/60Hz
-40°C Minimum Temperature
40°C Ambient Temperature Rating

SHIPPING DATA
Approximate Net Weight:
18 lbs. (8 kgs.)

*www.designlights.org

Powering Business Worldwide

POWER AND LUMENS

1 LightSquare (AF)		Cylinder (ISC) and Quarter Sphere (ISS)						Trapezoid (IST) and Wedge (ISW)					
Drive Current (mA)		350	450	600	800	1000	1200	350	450	600	800	1000	1200
Power (Watts)	120-277V	20.3	25.5	33.4	43.9	55.1	66.2	20.3	25.5	33.4	43.9	55.1	66.2
Current (A)	120V	0.17	0.22	0.29	0.38	0.48	0.56	0.17	0.22	0.29	0.38	0.48	0.56
	277V	0.09	0.10	0.13	0.17	0.21	0.25	0.09	0.10	0.13	0.17	0.21	0.25
Power (Watts)	347V or 480V	23.3	28.7	36.6	49.5	60.7	70.1	23.3	28.7	36.6	49.5	60.7	70.1
Current (A)	347V	0.07	0.08	0.11	0.15	0.18	0.21	0.07	0.08	0.11	0.15	0.18	0.21
	480V	0.05	0.06	0.08	0.11	0.13	0.16	0.05	0.06	0.08	0.11	0.13	0.16
Optics													
T2	Lumens	2,336	2,934	3,827	4,791	5,663	6,444	2,498	3,136	4,091	5,122	6,054	6,889
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2
T3	Lumens	2,385	2,994	3,906	4,889	5,779	6,577	2,504	3,144	4,101	5,133	6,068	6,905
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2
T4FT	Lumens	2,360	2,963	3,866	4,839	5,720	6,509	2,530	3,177	4,145	5,188	6,133	6,979
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2
T4W	Lumens	2,386	2,996	3,908	4,892	5,783	6,581	2,500	3,139	4,095	5,126	6,059	6,895
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2
SL2	Lumens	2,257	2,834	3,697	4,628	5,470	6,225	2,413	3,030	3,953	4,948	5,849	6,656
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2
SL3	Lumens	2,220	2,787	3,636	4,552	5,380	6,122	2,365	2,970	3,874	4,849	5,732	6,523
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2
SL4	Lumens	2,110	2,649	3,456	4,326	5,113	5,818	2,234	2,805	3,660	4,581	5,415	6,162
	BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2
SLL/SLR	Lumens	1,990	2,498	3,259	4,080	4,823	5,488	2,154	2,705	3,529	4,418	5,222	5,942
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2
RW	Lumens	2,380	2,988	3,898	4,880	5,768	6,564	2,465	3,095	4,037	5,054	5,974	6,798
	BUG Rating	B2-U0-G0	B2-U0-G0	B2-U0-G0	B2-U0-G0	B2-U0-G0	B2-U0-G0	B3-U1-G1	B3-U1-G1	B3-U1-G1	B3-U1-G1	B3-U1-G1	B3-U1-G1

LUMEN MAINTENANCE

Current	Ambient Temperature	25000 Hours*	50000 Hours*	60000 Hours*	100000 Hours*	Theoretical L70 (Hours)*
Up to 1.2A	Up to 40°C	>95%	>91%	>90%	>83%	20,4000

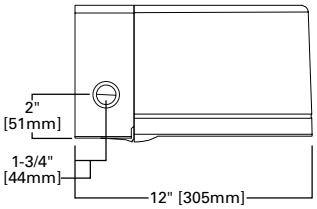
*Data calculated based on TM-21 calculator.

LUMEN MULTIPLIER

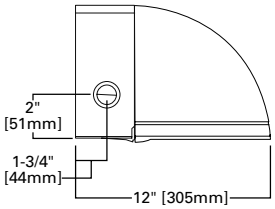
Ambient Temperature	Lumen Multiplier
10°C	1.02
15°C	1.01
25°C	1.00
40°C	0.99

THRUWAY BACK BOX

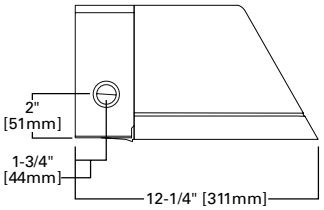
Cylinder



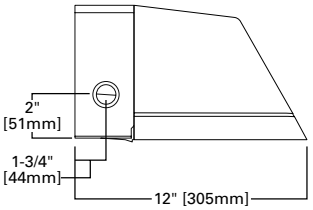
Quarter Sphere



Trapezoid



Wedge



ORDERING INFORMATION

Sample Number: ISC-AF-1200-LED-E1-T3-BZ

Product Family [1]	**Light Engine**	**Drive Current**	**Lamp Type**	**Voltage**	**Distribution**	**Color**
ISC=Impact Elite LED Small Cylinder **ISS**=Impact Elite LED Small Quarter Sphere **IST**=Impact Elite LED Small Trapezoid **ISW**=Impact Elite LED Small Wedge	**AF**=(1) LightSquare	**350**=Drive Current Factory Set to 350mA **450**=Drive Current Factory Set to 450mA **600**=Drive Current Factory Set to 600mA **800**=Drive Current Factory Set to 800mA **1000**=Drive Current Factory Set to 1000mA **1200**=Drive Current Factory Set to 1200mA [2]	**LED**=Solid State Light Emitting Diodes	**E1**=Electronic (120-277V) **347**=347V [2] **480**=480V [2, 3]	**T2**=Type II **T3**=Type III **T4FT**=Type IV Forward Throw **T4W**=Type IV Wide **SL2**=Type II w/Spill Control **SL3**=Type III w/Spill Control **SL4**=Type IV w/Spill Control **SLL**=90° Spill Light Eliminator Left **SLR**=90° Spill Light Eliminator Right **RW**=Rectangular Wide Type I	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White

Options (Add as Suffix)	**Accessories** (Order Separately) [17]
7030=70 CRI / 3000K CCT [4] **7050**=70 CRI / 5000K CCT [4] **7060**=70 CRI / 5700K CCT [4] **8030**=80 CRI / 3000K CCT [4] **PER7**=NEMA 7-PIN Twistlock Photocontrol Receptacle [2, 5, 6] **P**=Button Type Photocontrol (Available in 120, 208, 240 or 277V. Must Specify Voltage) [2, 6] **HA**=50°C High Ambient [7] **AHD145**=After Hours Dim, 5 Hours, 50% [8] **AHD245**=After Hours Dim, 6 Hours, 50% [8] **AHD255**=After Hours Dim, 7 Hours, 50% [8] **AHD355**=After Hours Dim, 8 Hours, 50% [8] **MS/DIM-LXX**=Motion Sensor for Dimming Operation [9, 10, 11] **LWR-LW**=LumaWatt Pro Wireless Sensor, Wide Lens for 8' - 16' Mounting Height [6, 11, 12] **LWR-LN**=LumaWatt Pro Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height [6, 11, 12] **BBB**=Battery Pack with Back Box (Specify 120V or 277V) [13] **CWB**=Cold Weather Battery Pack with Back Box (Specify 120V or 277V) [14] **LCF**=LightSquare Trim Plate Matches Housing Finish **HSS**=Factory Installed House Side Shield [15] **ULG**=Uplight Glow [5, 6] **TR**=Tamper Resistant Hardware **X**=Driver Surge Protection (6kV) Only [16]	**MA1253**=10kV Circuit Module Replacement **MA1254-XX**=Thruway Back Box - Impact Elite Trapezoid **MA1255-XX**=Thruway Back Box - Impact Elite Cylinder **MA1256-XX**=Thruway Back Box - Impact Elite Quarter Sphere **MA1257-XX**=Thruway Back Box - Impact Elite Wedge **FSIR-100**=Wireless Configuration Tool for Occupancy Sensor

NOTES:
1. Standard 4000K CCT and greater than 70 CRI.
2. Not available with ULG option.
3. Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
4. Exentended lead times apply.
5. Not available with ISS or ISW.
6. Not available with LWR-XX or MS/DIM-LXX.
7. Suitable for 50°C provided no options other than motion sensor are included and driver output set to 1.A or less.
8. Requires the use of P photocontrol or the PER7 photocontrol receptacle with photocontrol accessory. Not available with 350mA drive current. See After Hours Dim supplemental guide for additional information.
9. Specify lens in place of XX. Round to next highest option based on mounting height. Available options are 08, 20 and 40W.
10. The FSIR-100 configuration tool is required to adjust parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Eaton for more information.
11. Includes integral photocell.
12. LumaWatt Pro wireless sensors are factory installed and requiring network components in appropriate quantities. See www.eaton.com/lighting for LumaWatt Pro application information.
13. LED standard integral battery pack is rated for minimum operating temperature 32°F (0°C). Operates downlight for 90-minutes.
14. LED cold weather integral battery pack is rated for minimum operating temperature -4°F (-20°C). Operates downlight for 90-minutes.
15. Only for use with SL2, SL3 and SL4 distributions. The LightSquare trim plate is painted black when the HSS option is selected.
16. Removes additional surge module.
17. Specify color in place of XX.

BLEDR24N

IMEG FS9

RAB

LED bollard with architectural quality and strength at an affordable price point. Cylindrical post with round head. Available in 4 light pattern configurations including 360° (24W), 270°(18W), 180°(12W option) & 90°(12W standard).

Color: Bronze

Weight: 18.6 lbs

Project:	Type:
Prepared By:	Date:

Driver Info

Type:	Constant Current
120V:	0.26A
208V:	0.18A
240V:	0.15A
277V:	0.14A
Input Watts:	23W
Efficiency:	N/A

LED Info

Watts:	24W
Color Temp:	4000K
Color Accuracy:	72 CRI
L70 Lifespan:	100000
Lumens:	2577
Efficacy:	111 LPW

Technical Specifications

Listings

UL Listing:

Suitable for wet locations. Suitable for mounting within 4 ft. (1.2m) of the ground.

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.
DLC Product Code: PJXRFB8V

IESNA LM-79 & IESNA LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

LED Characteristics

LEDs:

Long-life, high-efficiency, surface mount LEDs

Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

Color Consistency:

5-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:

LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period

Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017

Electrical

Driver:

Constant Current, Class 2, 100-277V, 50/60 Hz, 4kV Surge Protection, 720mA, 120V: 0.26A, 208V: 0.18A, 240V: 0.15A, 277V: 0.14A

THD:

12.2% at 120V, 12.3% at 277V

Power Factor:

98.7% at 120V, 91.7% at 277V

Optical

BUG Rating:

B2 U3 G2

Construction

Cold Weather Starting:

Minimum starting temperature is -40°C (-40°F)

Thermal Management:

Cast aluminum Thermal Management system for optimal heat sinking. The BLED is designed for cool operation, maximum efficiency and long life by minimizing LED junction temperature.

Housing:

Die-cast aluminum with extruded aluminum post

Lens:

Frosted vandal resistant polycarbonate

Reflector:

Vacuum metalized polycarbonate

Mounting:

Four (4) anchor bolts provided for concrete pad mounting. Internal base support has leveling screws.

Gaskets:

High-temperature silicone gaskets seal out moisture gaskets seal out moisture

Anchor Bolt:

Anchor Bolt Dimension is available .

Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color

Green Technology:

Mercury and UV-free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOCs or toxic heavy metals.

Other

Patents:

The design of BLED is protected by patents in US, Canada & China

Replacement:

Replaces up to 50W Metal Halide

Warranty:

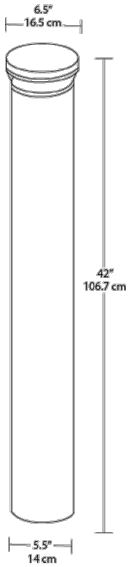
RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish.

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

BLEDR24N

Dimensions



Features

Patented base mount design for super sturdy installation

Durable construction and frosted vandal-resistant polycarbonate lens

4 configurations to provide 360°(24W), 270°(18W), 180°(12W) or 90°(12W) lighting pattern

Precision-engineered optics deliver maximum downward lighting without glare

Four leveling screws provided for easy installation

100,000-hour LED lifespan

Ordering Matrix

Family	Wattage	Color Temp	Finish	Distribution	Voltage	Dimming	Backup
BLEDR	24	N					
	24 = 24W **18** = 18W **12** = 12W	**Blank** = 5000K (Cool) **N** = 4000K (Neutral) **Y** = 3000K (Warm)	**Blank** = Bronze **W** = White	**Blank** = Standard **180** = 180 degrees (12W only)	**Blank** = No Option (120-277V) **/480** = 480V (24W only)	**Blank** = None (Standard) **/D10** = 0-10V Dimming	**Blank** = No Battery Backup **/E** = Battery Backup (24W only) **/EC** = Battery Backup Cold Weather (24W only)