DESIGN 21 CONSTRUCT
DEVELOPMENT CORPORATION

N173 W21010
Northwest Passage Way

Jackson, WI 53037

Tel: 262.677-9933

Fax: 262.677.9934

Planning Commission
City of Waukesha
201 Delafield Street
Waukesha, WI 53188

January 17, 2020

Re: Project Narrative:

Introduction:

Attached to this project narrative you will find the graphical information regarding the business development located to the east of Corporate Drive and Venture Court. The specific site is at the southeast end of Venture Court. The proposed business development consists of a new 49,935 SF building and supporting site/ infrastructure.

Site Description:

The site is approximately 17 acres. The site development includes parking lots, loading docks, a stormwater easement and approximately 11.33 acres of wetlands. The site frontage is along Venture Court northwest side of the site. The site is zoned M3 – Limited Business and Industrial Park. All adjacent properties are also zoned M3.

New Site Proposal:

This proposal is to provide new single-story facility with 30,000 SF to initially be utilized by ZT Distribution (ZT) and 20,000 SF that will be leased to a tenant until ZT has a need to grow into that space. Of the 30,000 SF that will be occupied by ZT approximately 4,800 SF will be office space and the remainder of the facility will be warehouse storage with a 28’ clear height.

Access to the site will be on the northwest side of the site off Venture Court. Once on-site parking for office staff will be between Venture Court and the building. An access drive to the rear of the site will run along the west side of the building and will also serve as an access easement for the stormwater pond. The rear (south) portion of the site will be used for truck circulation and loading as well as additional parking for warehouse staff.

Storm water management for this site will be accomplished utilizing the existing pond on the south side of the site and be connected to the existing stormwater sewer that drains into that pond.

Landscaping for the site will follow all City of Waukesha guidelines as outlined in the City ordinances.

New Building:

The new addition will be of precast concrete exterior wall structure. Most of the building will be of building will be of a standard gray concrete color however around the office and main building entrance the panels will be painted white and an accent red color that matches the corporate identity of ZT Distribution. The office will have a significant amount of aluminum storefront and decorative metal panels. The precast walls will be 33' in height for most of the perimeter the building but portions of the office area will have 35' high panels that will stand proud of the main building by one foot in effort make the entry and office areas stand out from the rest of the building. The front elevation will also have portions of the panels that have a different finish or scoring pattern, up higher above the windows, that are painted a slightly darker grey.

Plan of Operation:

The plan of operation for the new development is an office that includes workspace for 17 people. The existing Office staff includes 5 executives, 3 administrative staff, 3 sales team members and 2 logistics managers. The logistics/warehouse team has a total of 20 staff members. Expected growth of 2-3 administrative staff and 1-2 additional drivers is expected over the next 2 years.
The days and hours of general business operations is currently Monday - Friday 3:30am to 6:00pm
The site sees 4 or 5 semi-trailer deliveries per day and they own 8 straight box trucks and a Metro Van that run delivery routes, so throughout the day they are on the road. They expect to have a 9th Straight Box Truck within 2 years. Small carrier deliveries such as UPS and FedEx are in addition to the semi deliveries and the box truck traffic. After hours the box trucks and van will be parked behind the building out of site from the road.

We do not believe this new development will negatively impact or be a nuisance to the surrounding neighborhood.

If you have any questions or concerns regarding this proposed development please feel free to contact my office.

Sincerely,

Doug Forton

Design 2 Construct

City of Waukesha
Application for Development Review

Last Revision Date: 6/18/2018

City of Waukesha Community Development Department - 201 Delafield Street, Suite 200, Waukesha, WI 53188 262-524-3750
City of Waukesha Department of Public Works Engineering Division—130 Delafield Street, Waukesha, WI 53188 262-524-3600
www.waukesha-wi.gov

APPLICANT INFORMATION

Applicant Name: Scot Trojanowski
Applicant Company Name: ZT Distribution
Address: 5441 S 9th Street
City, State: Milwaukee, WI Zip: 53221
Phone: 414-483-7733
E-Mail: scot@ztdist.com

PROPERTY OWNER INFORMATION

Applicant Name: Scot Trojanowski
Applicant Company Name: ZT Distribution
Address: 5441 S 9th Street
City, State: Milwaukee, WI Zip: 53221
Phone: 414-483-7733
E-Mail: scot@ztdist.com

ARCHITECT/ENGINEER/SURVEYOR INFORMATION

Name: Doug Forton
Company Name: Design 2 Construct
Address: N173W21010 Northwest Passage
City, State: Jackson, WI Zip: 53037
Phone: 262-677-9933
E-Mail: dforton@design2construct.com

PROJECT & PROPERTY INFORMATION

Project Name: ZT Distribution
Property Address Corporate Drive and Venture Court
Tax Key Number(s):
Zoning: M-3
Total Acreage: 15.05 Existing Building Square Footage n/a
Proposed Building/Addition Square Footage: 49,935
Current Use of Property: n/a

PROJECT SUMMARY (please provide a brief project description)

A new 49,935 sf warehouse facility 30,000 of which will be used for ZT Distribution operations 4,800 SF of office and 25,200 of warehouse and the other 20,000 sf will be used by a Tenant Loading docks (8) and overhead doors (2) are located at the back of the building and will be accessed via a drive down the west side of the site and building. Parking in front and rear.

All submittals require a complete scaled set of digital plans (Adobe PDF) and shall include a project location map showing a 1/2 mile radius, a COLOR landscape plan, COLOR building elevation plans, and exterior lighting photometric maps and cut sheets. A pre-application meeting is required prior to submittal of any applications for Subdivisions, Planned Unit Developments, and Site and Architectural Plan Review. **The deadline for all applications requiring Plan Commission Reviews is at 4:00 P.M, 30 days prior to the meeting date. The Plan Commission meets the Second and Fourth Wednesday of each month.**

APPLICATION ACKNOWLEDGEMENT AND SIGNATURES

I hereby certify that I have reviewed the City of Waukesha Development Handbook, City Ordinances, Submittal Requirements and Checklists and have provided one PDF of all required information. Any missing or incomplete information may result in a delay of the review of your application. By signing this I also authorize The City of Waukesha or its agents to enter upon the property for the purpose of reviewing this application.

Applicant Signature Doug Forton
Applicant Name (Please Print) Doug Forton (Agent of occupant)
Date: 1/27/2020

For Internal Use Only:

Amount Due (total from page 2): Amount Paid: Check #:
Trakit ID(s) Date Paid:

City of Waukesha Application for Development Review

TYPE OF APPLICATION & FEES (CHECK ALL THAT APPLY) **Fees**

Please note that each application type has different submittal requirements. Detailed submittal checklists can be found in Appendix A of the Development Handbook.

☐Plan Commission Consultation **$200** _____

☐Traffic Impact Analysis _____

- ☐Commercial, Industrial, Institutional, and Other Non-Residential **$480**
- ☐Residential Subdivision or Multi-Family **$480**
- ☐Resubmittal (3rd and all subsequent submittals **$480**

☒Preliminary Site Plan Review $2,440

- ☐Level 1: Buildings/additions less than 10,000 sq.ft. or sites less than 1 acre **$2,200**
- ☐Level 2: Buildings/additions between 10,001-50,000 sq.ft. or sites between 1.01 and 10 acres **$2,320**
- ☒Level 3: Buildings/additions between 50,001-100,000 sq.ft. or sites between10.01 and 25 acres **$2,440**
- ☐Level 4: Buildings/additions over 100,001sq.ft. or sites greater than 25.01 acres. **$2,560**
- ☐Resubmittal Fees (after 2 permitted reviews) **$750**

☐Final Site Plan Review _____

- ☐Level 1: Buildings/additions less than 10,000 sq.ft. or sites less than 1 acre **$1,320**
- ☐Level 2: Buildings/additions between 10,001-50,000 sq.ft. or sites between 1.01 and 10 acres **$1,440**
- ☐Level 3: Buildings/additions between 50,001-100,000 sq.ft. or sites between10.01 and 25 acres **$1,560**
- ☐Level 4: Buildings/additions over 100,001sq.ft. or sites greater than 25.01 acres. **$1,680**
- ☐Resubmittal Fees (3rd and all subsequent submittals) **$750**

☐Minor Site or Architectural Plans (total site disturbance UNDER 3,000 total square feet) _____

- ☐Projects that do not require site development plans **$330**
- ☐Resubmittal Fees (3rd and all subsequent submittals) **$330**

☐Certified Survey Map (CSM) _____

- ☐1-3 Lots **$500**
- ☐4 lots or more **$560**
- ☐Resubmittal (3rd and all subsequent submittals) **$180**
- ☐Extra-territorial CSM **$260**

☐Preliminary Subdivision Plat _____

- ☐Up to 12 lots **$1,270**
- ☐13 to 32 lots **$1,390**
- ☐36 lots or more **$1,510**
- ☐Resubmittal (3rd and all subsequent submittals) **$630**

☐Final Subdivision Plat _____

- ☐Up to 12 lots **$660**
- ☐13 to 32 lots **$780**
- ☐36 lots or more **$900**
- ☐Resubmittal (3rd and all subsequent submittals) **$480**
- ☐Extra-territorial Plat **$540**

☐Rezoning and/or Land Use Plan Amendment _____

- ☐Rezoning **$630**
- ☐Land Use Plan Amendment: **$630**

☐Conditional Use Permit

- ☐Conditional Use Permit with no site plan changes **$480**
- ☐Conditional Use Permit with site plan changes **$480** plus applicable preliminary and final site plan fees above _____

☐Planned Unit Development or Developer's Agreement (Site Plan Review is also required) _____

- ☐New Planned Unit Development or Developer's Agreement **$1,760**
- ☐Planned Unit Development or Developer's Agreement Amendment **$610**

☐Annexation **NO CHARGE**

☐House/Building Move **$150**

☐Street or Alley Vacations **$150**

TOTAL APPLICATION FEES: $2,440

City of Waukesha
Development Review Submittal Requirements

PLAN COMMISSION CONSULTATION SUBMITTAL REQUIREMENTS AND ADDITIONAL INFORMATION

A Plan Commission Consultation my be submitted for review and comment for the owner/developer to ascertain the feasibility of a proposed project. A consultation is not required but may be submitted in advance of an actual submittal for a preliminary plat, CSM, Planned Unit Development, rezoning, conditional use or site plan. The Plan Commission will only provide feedback, no approvals will be given. Prior to applying for a Plan Commission Consultation you must discuss your project with the Planning Division to determine if a Plan Commission Consultation is recommended.

Review Time: Approximately 30 days

Reviewing Departments: Community Development Planning Division, Public Works Engineering Division, Fire Department, Water Utility.

Reviewing Boards: Plan Commission (optional)

In addition to this application and corresponding application fee you will also need:

☐One (1) digital (PDF) copy of the plans you want conceptual review of

☐Attachment A: Development Review Checklist . You should also review all other corresponding checklists that relate to the project that you are seeking conceptual review of and include as much information as possible.

☐ Cover letter outlining project details.

TRAFFIC IMPACT ANALYSIS SUBMITTAL REQUIREMENTS AND ADDITIONAL INFORMATION

A Traffic Impact Analysis is required for projects that meet certain criteria. Please refer to the Developer's Handbook Section 4.4 to determine if your project requires a Traffic Impact Analysis

Review Time: Approximately 30 days

Reviewing Departments: Public Works Engineering Division

Reviewing Boards: None, however the Plan Commission may require a copy as part of site plan review process.

In addition to this application and corresponding application fee you will also need:

☐One (1) digital (PDF) copy of the Traffic Impact Analysis

PRELIMINARY SITE AND ARCHITECTURAL PLAN SUBMITTAL REQUIREMENTS AND ADDITIONAL INFORMATION

Preliminary site and architectural plans are required for any new residential development with 4 or more units and all non-residential developments. Preliminary site plan approval is also required for additions or modifications to existing developments and projects where a stormwater management plan is needed. Preliminary approval is required unless it is determined by City staff in the Pre-Application meeting that the project only needs Final Site and Architectural Review.

Review Time: Approximately 30 days (45 if Common Council review is needed)

Reviewing Departments: Community Development Planning Division, Public Works Engineering Division, Fire Department, Water Utility.

Reviewing Boards: Plan Commission. Common Council and Board of Public Works review may be required for certain projects.

In addition to this application and corresponding application fee you will also need:

☒ One (1) digital (PDF) that includes of items listed below

- ☒ Cover letter outlining project details.
- ☒ Color architectural elevations of all sides of the building and color perspective renderings
- ☒ Conceptual Landscape Plan
- ☒ Attachment A: Development Review Checklist
- ☒ Site Plan (see Attachment B: Engineering Plan Checklist)
- ☒ Grading Plan (see Attachment C: Site Grading and Drainage Plan Checklist)
- ☒ Stormwater Management Plan (see Attachment D: Stormwater Management Plan Checklist)
- ☒ Utility Plans (see Attachment H: Sewer Plan Review Checklist)
- ☒ Any other attachments as applicable.

FINAL SITE AND ARCHITECTURAL PLAN SUBMITTAL REQUIREMENTS AND ADDITIONAL INFORMATION

Final site and architectural plans are submitted only after the Plan Commission has approved Preliminary Site Plans for any new residential development with 4 or more units and all non-residential developments, including modifications to existing developments. Some projects may bypass Preliminary approval but only if it is determined by City staff in the Pre-Application meeting.

Review Time: Approximately 30 days (45 if Common Council review is needed)

Reviewing Departments: Community Development Planning Division, Public Works Engineering Division, Fire Department, Water Utility.

Reviewing Boards: Plan Commission. Common Council and Board of Public Works review may be required for certain projects.

In addition to this application and corresponding application fee you will also need:

☐ One (1) digital (PDF) that includes of items listed below

Included everything required for preliminary and final approvals

- ☒ Cover letter outlining project details.
- ☒ Color architectural elevations of all sides of the building and color perspective renderings
- ☒ Landscape Plan (see Attachment I: Landscape Plan Checklist)
- ☒ Attachment A: Development Review Checklist
- ☒ Site Plan (see Attachment B: Engineering Plan Checklist)
- ☒ Grading Plan (see Attachment C: Site Grading and Drainage Plan Checklist)
- ☒ Stormwater Management Plan (see Attachment D: Stormwater Management Plan Checklist)
- ☒ Utility Plans (see Attachment H: Sewer Plan Review Checklist)

MINOR SITE AND ARCHITECTURAL PLAN SUBMITTAL REQUIREMENTS AND ADDITIONAL INFORMATION

Minor Site and Architectural review is intended for projects that may not need the extensive submittal requirements for Preliminary and Final Site Plan approval. Projects that qualify for Minor Site Plan submittal may include landscape, façade and building changes or minor site modifications that don't result in the addition of impervious surface.

Review Time: Approximately 30 days (45 if Common Council review is needed)

Reviewing Departments: Community Development Planning Division, Public Works Engineering Division, Fire Department, Water Utility.

Reviewing Boards: Plan Commission. Common Council and Board of Public Works review may be required for certain projects.

In addition to this application and corresponding application fee you will also need:

☐ One (1) digital (PDF) that includes of items listed below

- ☐ Cover letter outlining project details.
- ☐ Architectural elevations of all sides of the building being modified

☐ In addition, depending on the type of project, you may also need the following items:

- ☐ Site Plan (see Attachment B: Engineering Plan Checklist)
- ☐ Landscape Plan (see Attachment I: Landscape Plan Checklist)

CERTIFIED SURVEY MAP SUBMITTAL REQUIREMENTS AND ADDITIONAL INFORMATION

A Certified Survey Map may be used to divide up to eight (8) lots in Commercial, Industrial, and Mixed Use zoning districts and up to four (4) lots in all other zoning districts.

Review Time: Approximately 45-60 days. An extension letter will be required if the approval process will take more than 90 days.

Reviewing Departments: Community Development Planning Division, Public Works Engineering Division, Fire Department, Water Utility.

Reviewing Boards: Plan Commission. Common Council and Board of Public Works review may be required for certain projects.

In addition to this application and corresponding application fee you will also need:

☐ One (1) digital (PDF) that includes of items listed below

- ☐ Attachment E: Certified Survey Map Checklist
- ☐ Attachment A: Development Review Checklist and other attachments as applicable.

**Please note If any exterior architectural, landscape, or site plan changes are required you must also go through Site Plan Review and meet all of those submittal requirements.*

PRELIMINARY PLAT SUBMITTAL REQUIREMENTS AND ADDITIONAL INFORMATION

A Preliminary Plat shall be used to subdivide land in the City. The applicant is responsible for submitting the Preliminary Plat to Waukesha County and the State of Wisconsin for review.

Review Time: Approximately 45-60 days. An extension letter will be required if the approval process will take more than 90 days.

Reviewing Departments: Community Development Planning Division, Public Works Engineering Division, Fire Department, Water Utility.

Reviewing Boards: Plan Commission. Common Council and Board of Public Works review may be required for certain projects.

In addition to this application and corresponding application fee you will also need:

☐ One (1) digital (PDF) that includes of items listed below

- ☐ Attachment F: Preliminary Plat Checklist
- ☐ Cover letter outlining project details.
- ☐ Attachment A: Development Review Checklist and other attachments as applicable
- ☐ Stormwater Management Plan (see Attachment D: Stormwater Management Plan Checklist)

FINAL PLAT SUBMITTAL REQUIREMENTS AND ADDITIONAL INFORMATION

A Final plat shall be used to subdivide land in the City. The applicant is responsible for submitting the Final Plat to Waukesha County and the State of Wisconsin for review.

Review Time: Approximately 45-60 days. An extension letter will be required if the approval process will take more than 90 days.

Reviewing Departments: Community Development Planning Division, Public Works Engineering Division, Fire Department, Water Utility.

Reviewing Boards: Plan Commission. Common Council and Board of Public Works review may be required for certain projects.

In addition to this application and corresponding application fee you will also need:

☐ One (1) digital (PDF) that includes of items listed below

- ☐ Attachment G: Final Plat Checklist
- ☐ Cover letter outlining project details.
- ☐ Attachment A: Development Review Checklist and other attachments as applicable.
- ☐ Stormwater Management Plan (see Attachment D: Stormwater Management Plan Checklist)

REZONING & COMPREHENSIVE PLAN AMENDMENT SUBMITTAL REQUIREMENTS AND ADDITIONAL INFORMATION

This review is for any requests to rezone land or amend the City's Comprehensive Master Plan. For rezonings all property owners within 300 feet of the property will be notified of your request.

Review Time: 45-60 Days

Reviewing Departments: Community Development Planning & Building Inspection Divisions, Public Works Engineering Division, Fire Department, Water Utility.

Reviewing Boards: Plan Commission, Common Council

Additional Information: Rezonings must be done in accordance with the Comprehensive Plan. Please consult with Planning staff to determine if a Comprehensive Plan Amendment is also required prior to submitting a rezoning application.

In addition to this application and corresponding application fee you will also need:

☐ One (1) digital (PDF) that includes of items listed below

- ☐ Cover letter outlining project details and rationale for rezoning
- ☐ Rezoning Form including legal description and notarized owner(s) signatures (rezoning applications only)
- ☐ Conceptual Plan (if applicable)

**Please note this application fee only covers the rezoning and/or Comprehensive Plan Amendment. If you are proposing site plan changes or are subdividing land you will also need to meet the applicable submittal requirements for those proposals.*

CONDITIONAL USE PERMIT SUBMITTAL REQUIREMENTS AND ADDITIONAL INFORMATION

Any use listed as a Conditional Use in Chapter 22 (Zoning Code) requires a Public Hearing in front of the Plan Commission prior to building or occupancy permits being issued. All property owners within 300 feet of the property will be notified of your request.

Review Time: 30-45 days

Reviewing Departments: Community Development Planning & Building Inspection Divisions, Public Works Engineering Division, Fire Department, Water Utility.

Reviewing Boards: Plan Commission

In addition to this application and corresponding application fee you will also need:

☐ One (1) digital (PDF) that includes of items listed below

- ☐ Conditional Use Permit Application

**Please note If any exterior architectural, landscape, or site plan changes are required you must also go through Site Plan Review and meet all of those submittal requirements.*

PLANNED UNIT DEVELOPMENT OR DEVELOPER'S AGREEMENT SUBMITTAL REQUIREMENTS AND ADDITIONAL INFORMATION

The PUD Overlay District is intended to permit development that will, over a period of time, be enhanced by coordinated area site planning, diversified location of structures, diversified building heights and types, and/or mixing of compatible uses. The PUD Overlay District under this Chapter will allow for flexibility of overall development design with benefits from such design flexibility intended to be derived by both the developer and the community, while at the same time maintaining insofar as possible the standards or use requirements set forth in the underlying basic zoning district.

Developer's Agreements are used for any project that require public infrastructure improvements (sewer, storm sewer, sidewalks, etc) and other off-site improvements such as median openings, traffic signals, street widening, etc..

Review Time: 45-60 days

Reviewing Departments: Community Development Planning & Building Inspection Divisions, Public Works Engineering Division, Fire Department, Water Utility.

Reviewing Boards: Plan Commission, Common Council. Some projects will also require Board of Public Works review.

In addition to this application and corresponding application fee you will also need:

☐ One (1) digital (PDF) that includes of items listed below

- ☐ Cover letter/statement that outlining project details and all of the required information set forth in the Zoning Ordinance Section 22.52 (4)(a)
- ☐ Rezoning Form including legal description and notarized owner(s) signatures (rezoning applications only)
- ☐ General Development Plan
- ☐ Proposed Supplemental Design Elements (required for all PUDs under the minimum required acreage)

**Please note in addition to the PUD submittal requirements your project will also need additional application fees and submittal materials based on the project type. This may include Preliminary and Final Plats, Preliminary and Final Site and Architectural Plans, Certified Survey Maps, Traffic Impact Analysis. Staff will inform you of any additional submittal requirements at the Pre-Application meeting, which is required prior to submitting your application.*

ANNEXATION SUBMITTAL REQUIREMENTS AND ADDITIONAL INFORMATION

Requests for annexation as permitted under Section 66.0217 Wisconsin Statutes.

Review Time: 45-60 days

Reviewing Departments: Community Development Planning & Building Inspection Divisions, Public Works Engineering Division, Fire Department, Water Utility.

Reviewing Boards: Plan Commission, Common Council

In addition to this application and corresponding application fee you will also need:

☐ One (1) digital (PDF) that includes of items listed below

- ☐ Copy of your State of Wisconsin Request for Annexation Review Application
- ☐ Signed City of Waukesha Direct Annexation Petition
- ☐ Map of property of property to be annexed.
- ☐ A boundary description (legal description of property to be annexed)
- ☐ Any additional information on the annexation.

HOUSE/BUILDING MOVE SUBMITTAL REQUIREMENTS AND ADDITIONAL INFORMATION

Any application to move a home or building from one location to another in the City requires review by staff and the Plan Commission.

Review Time: 30-45 days

Reviewing Departments: Community Development Planning & Building Inspection Divisions, Public Works Engineering Division, Fire Department, Water Utility, Police Department, Any affected Public Utilities

Reviewing Boards: Plan Commission

In addition to this application and corresponding application fee you will also need:

☐ One (1) digital (PDF) that includes of items listed below

- ☐ Address of existing structure and address of final destination for structure
- ☐ Site Plan showing location of house/building at the new location
- ☐ Proposed route for moving structure. Should also include any overhead wires, mailboxes, or other obstructions that will need to be tem porarily relocated to allow for the house/building to get to the new site.

STREET VACATIONS

Street Vacations must be reviewed and approved by the Plan Commission.

Review Time: 45-60 days

Reviewing Departments: Community Development Planning & Building Inspection Divisions, Public Works Engineering Division, Fire Department, Water Utility.

Reviewing Boards: Plan Commission, Common Council

In addition to this application and corresponding application fee you will also need:

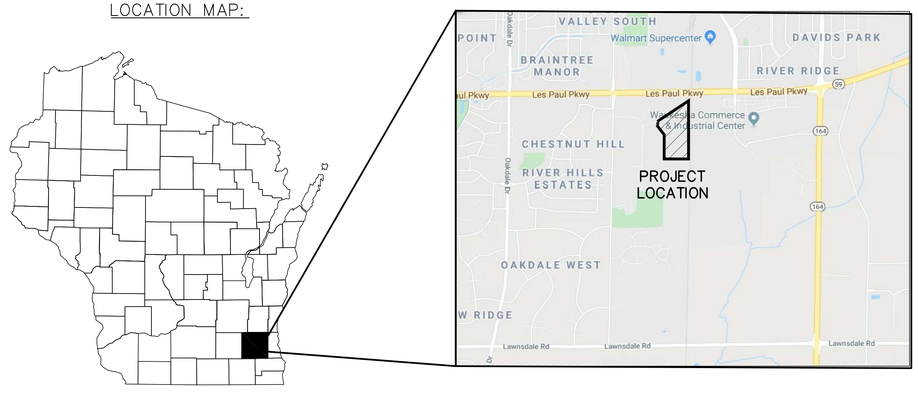
☐ One (1) digital (PDF) that includes a map and legal description of the areas to be vacated.

ZT DISTRIBUTION - VENTURE COURT

BUILDING, PARKING LOT, & UTILITY CONSTRUCTION

CITY OF WAUKESHA, WISCONSIN

LOCATION MAP:



WISCONSIN PROFESSIONAL ENGINEER
JONATHAN WORDEN
E-46479
CUDAHY
WI
1/27/20

CIVIL SHEET INDEX:	
SHEET	SHEET TITLE
C-100	COVER
C-101	EXISTING SITE PLAN
C-102	GRADING AND EROSION CONTROL PLAN
C-103	UTILITY PLAN
C-104	CONSTRUCTION DETAILS AND GENERAL NOTES

QUAM ENGINEERING, LLC
Residential and Commercial Site Design Consultants
122 Wisconsin Street; West Bend, Wisconsin 53095
Phone (262) 338-6641; www.quamengineering.com

PROJECT CONTACTS:

OWNER:
SCOT TROJANOWSKI
5441 S 9TH STREET
MILWAUKEE, WI 53221

CIVIL:
QUAM ENGINEERING, LLC
ATTN: KEVIN PARISH
122 WISCONSIN STREET
WEST BEND, WI 53095

DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com

BENCHMARK:

SITE BENCHMARK:
RIM OF SANITARY MANHOLE, CUL-DE-SAC VENTURE COURT ELEV=825.15

LOCATION:
LOT 1 WAUKESHA CORPORATE CENTER
SW 1/4 OF SEC 15, T6N, R7E.

NOTES:
THE CONTRACTOR SHALL REFER TO THE MUNICIPAL STANDARD SPECIFICATIONS, WATER SPECIFICATIONS, WISDOT, AND STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN WISCONSIN.

01-27-2020 PLAN SUBMITTAL

QUAM ENGINEERING, LLC 122 Wisconsin Street, West Bend, WI 53095 (262) 338-6641

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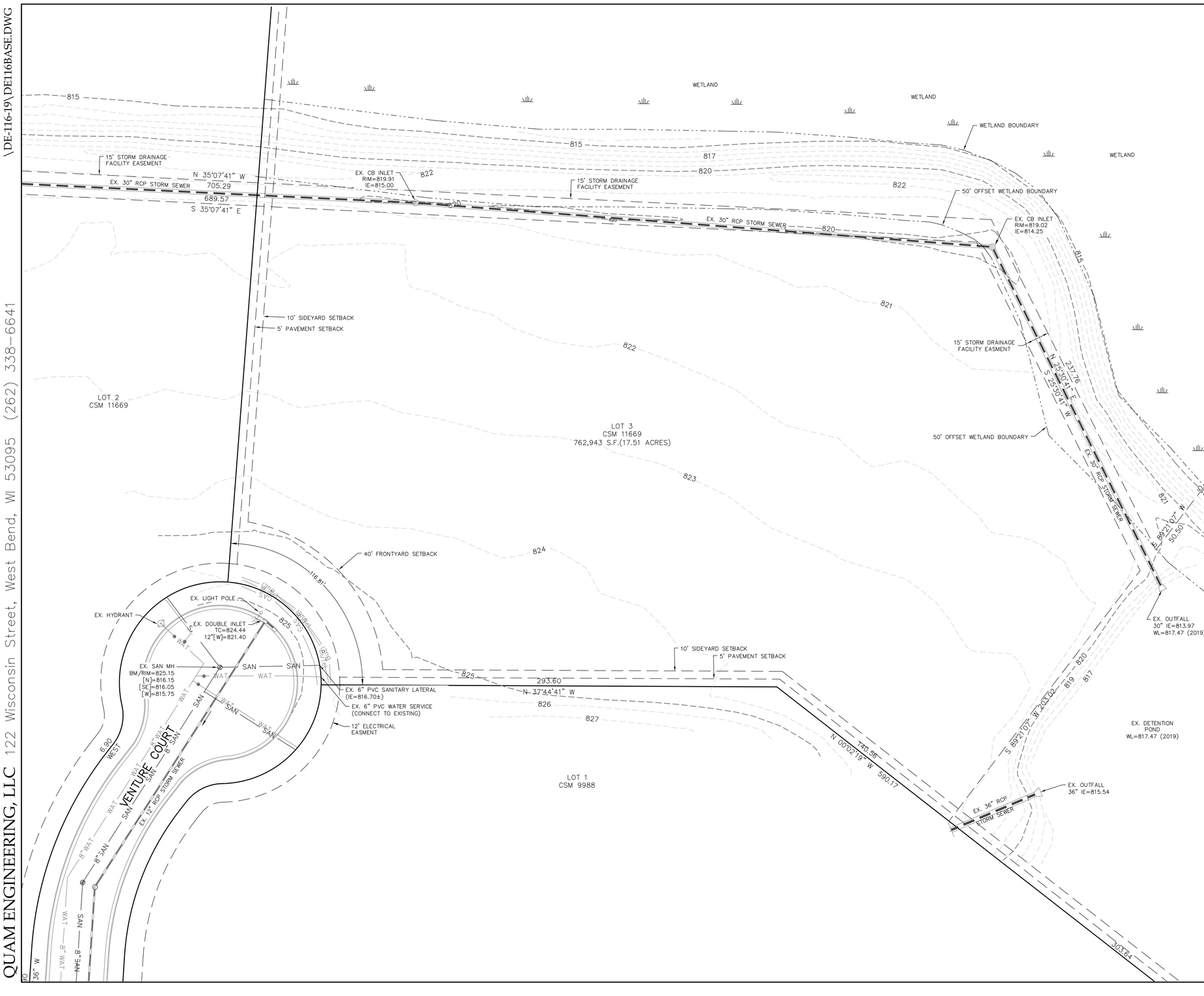
QUAM ENGINEERING, LLC 122 Wisconsin Street, West Bend, WI 53095 (262) 338-6641



LEGEND:

- 702 – EXISTING MINOR CONTOUR.
- 700 – EXISTING MAJOR CONTOUR.
- OHEL – OVERHEAD ELECTRIC LINE.
- BuEl – BURIED ELECTRIC LINE.
- BuTel – BURIED TELEPHONE LINE.
- FO – FIBER OPTIC LINE.
- GAS – GAS LINE.
- SAN – SANITARY SEWER MAIN OR LATERAL.
- WAT – WATER MAIN OR SERVICE.
- – STORM SEWER LINE.
- ELEC – ELECTRIC METER.
- GAS – GAS METER.
- – GAS VALVE.
- – FIRE HYDRANT.
- E – POWER POLE.
- SN – SANITARY SEWER MANHOLE.
- ST – STORM SEWER MANHOLE.
- – STORM SEWER INLET.
- T – TELEPHONE PEDESTAL.
- TRAN – TRANSFORMER.
- – WATER VALVE.
- – EXISTING ITEM (TO BE REMOVED)

ZT DISTRIBUTION – VENTURE COURT
EXISTING CONDITIONS PLAN
DATED: JANUARY 27, 2020

C–101

QUAM ENGINEERING, LLC
Residential and Commercial Site Design Consultants
122 Wisconsin Street; West Bend, Wisconsin 53095
Phone (262) 338-6641; www.quamengineering.com

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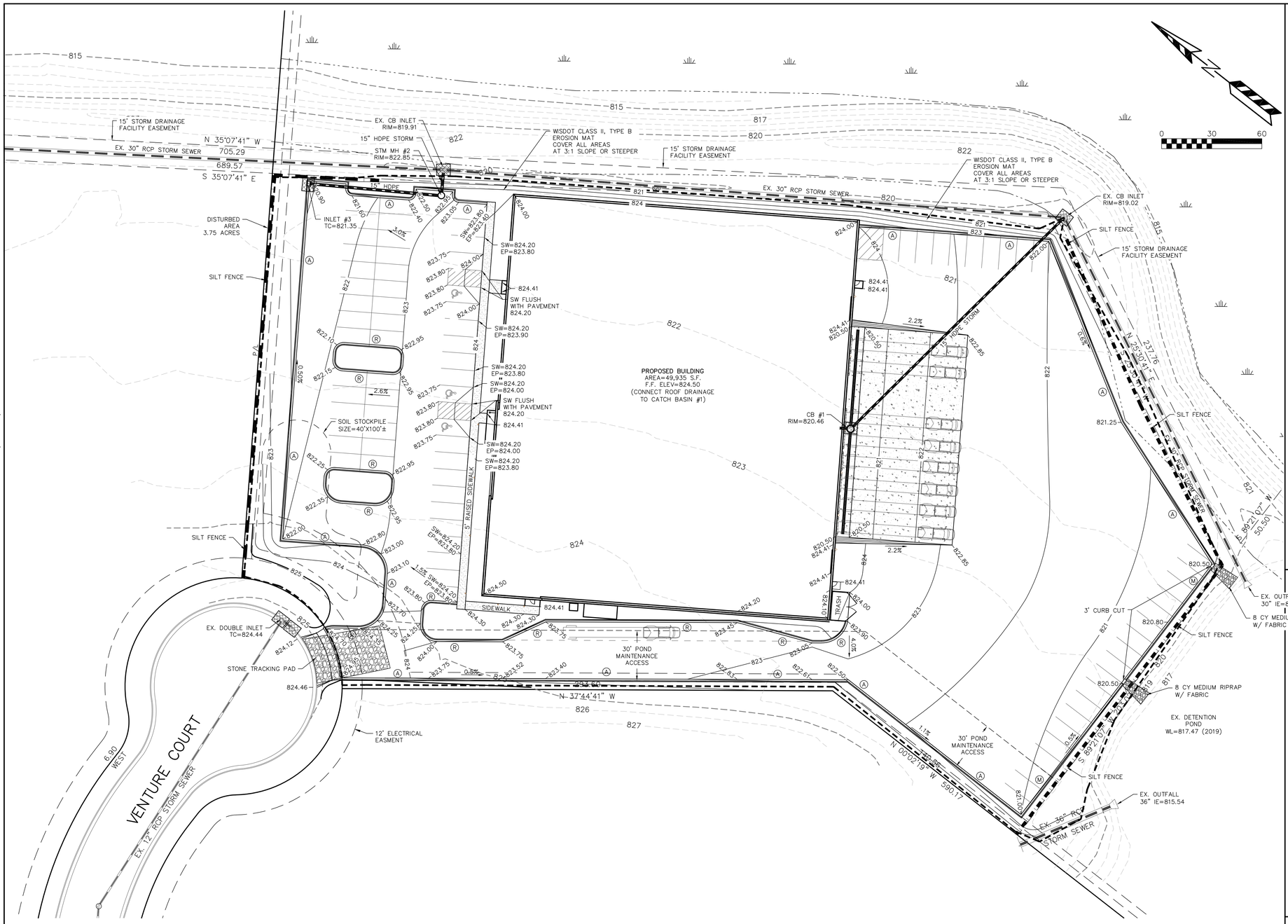


EROSION NOTES:

THE STONE TRACKING PAD 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.

SOIL STOCKPILES SHALL BE LOCATED A MINIMUM OF 75 FEET FROM LAKES, STREAMS, WETLANDS, DITCHES, DRAINAGE WAYS, CURBS AND GUTTERS OR OTHER STORMWATER CONVEYANCE SYSTEM, UNLESS OTHERWISE APPROVED BY THE ENGINEER. MEASURES SHALL BE TAKEN TO MINIMIZE EROSION AND RUNOFF FROM ANY SOIL STOCKPILES THAT WILL LIKELY REMAIN FOR MORE THAN FIVE WORKING DAYS. ANY STOCKPILE THAT REMAINS FOR MORE THAN 30 DAYS SHALL BE COVERED OR TREATED WITH STABILIZATION PRACTICES SUCH AS TEMPORARY OR PERMANENT SEEDING AND MULCHING.

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.

CUT AND FILL SLOPES GREATER THAN 3:1 SHALL HAVE WISDOT CLASS II, TYPE B EROSION MAT.

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.

ALL DISTURBED SLOPES OF 4:1 OR GREATER AND DRAINAGE SWALES SHALL BE STABILIZED WITH CURLEX EROSION CONTROL FABRIC (INSTALL PER MANUFACTURER'S SPECIFICATIONS).

TIME SCHEDULE:

MARCH 1,2020	INSTALL INITIAL EROSION CONTROL DEVICES.
MARCH 15, 2020 – SEPT. 1, 2020	CONSTRUCT PROPOSED BUILDING, PARKING LOT, AND UTILITIES.
SEPT. 1 – OCT. 15, 2020	COMPLETE FINAL LANDSCAPING AND RESTORE ALL PERVIOUS DISTURBED AREAS.

RESTORATION NOTES:

ALL DISTURBED AREAS, EXCEPT STREET PAVEMENT AND SIDEWALK AREAS, SHALL RECEIVE A MINIMUM OF FOUR (4) INCHES OF TOPSOIL, FERTILIZER, SEED AND MULCH. RESTORATION WILL OCCUR AS SOON AFTER THE DISTURBANCE AS PRACTICAL. LAWN AREAS WITH SLOPES GREATER THAN 4:1 SHALL BE SEEDED WITH OLDS "NOMOW" MIX OR EQUAL. ALL OTHER DISTURBED AREAS SHALL BE SEEDED WITH MADISON PARKS MIX OR EQUAL. 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%.

ALL FINISH GRADED AREAS SHALL BE SEEDED AND MULCHED BY SEPTEMBER 15TH. IF THE SITE DOES NOT HAVE FINISH GRADED AREAS COMPLETED BY OCTOBER 15TH, ALL DISTURBED AREAS SHALL BE RESTORED WITH TEMPORARY SEEDING (COVER CROP). AREAS NEEDING PROTECTION DURING PERIODS WHEN PERMANENT SEEDING IS NOT APPLIED SHALL BE SEEDED WITH ANNUAL SPECIES FOR TEMPORARY PROTECTION. SEE TABLE 1 OF THE WISCONSIN DNR CONSERVATION PRACTICE STANDARD 1059, FOR SEEDING RATES OF COMMONLY USED SPECIES. THE RESIDUE FROM THIS CROP MAY EITHER BE INCORPORATED INTO THE SOIL DURING SEEDBED PREPARATION AT THE NEXT PERMANENT SEEDING PERIOD OR LEFT ON THE SOIL SURFACE AND THE PLANTING MADE AS A NO-TILL SEEDING.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR A SATISFACTORY STAND OF GRASS ON ALL SEEDED AREAS FOR ONE YEAR AFTER THE PROJECT'S FINAL ACCEPTANCE.

OWNER:

SCOT TROJANOWSKI
5441 S 9TH STREET
MILWAUKEE, WI 53221

ENGINEER:

QUAM ENGINEERING, LLC
ATTN: KEVIN PARISH
122 WISCONSIN STREET
WEST BEND, WI 53095

LEGEND:

822	– EXISTING MINOR CONTOUR.
825	– EXISTING MAJOR CONTOUR.
822	– PROPOSED MINOR CONTOUR.
825	– PROPOSED MAJOR CONTOUR.
–825.00	– PROPOSED SPOT ELEVATION (EDGE OF PAVEMENT)
FF=826.00	– FIRST FLOOR ELEVATION.
EXP=822.50	– BUILDING EXPOSURE ELEVATION.
	– INSTALL WDOT TYPE B INLET PROTECTION.
–EX=702.40	– EXISTING SPOT ELEVATION
–705.00	– PROPOSED SPOT ELEVATION
–SW=705.00	– SIDEWALK ELEVATION
–EP=705.00	– EDGE OF PAVEMENT ELEVATION
–TC=705.00	– TOP OF CURB ELEVATION
	– SILT FENCE
Ⓡ	– INDICATES REJECT CURB
Ⓜ	– INDICATES MOUNTABLE CURB
Ⓐ	– INDICATES ACCEPT CURB

NOTE:
ALL ELEVATIONS ARE BASED ON NAVD 88 DATUM
SUBTRACT 780.56 TO LOCAL CITY OF WAUKESHA DATUM

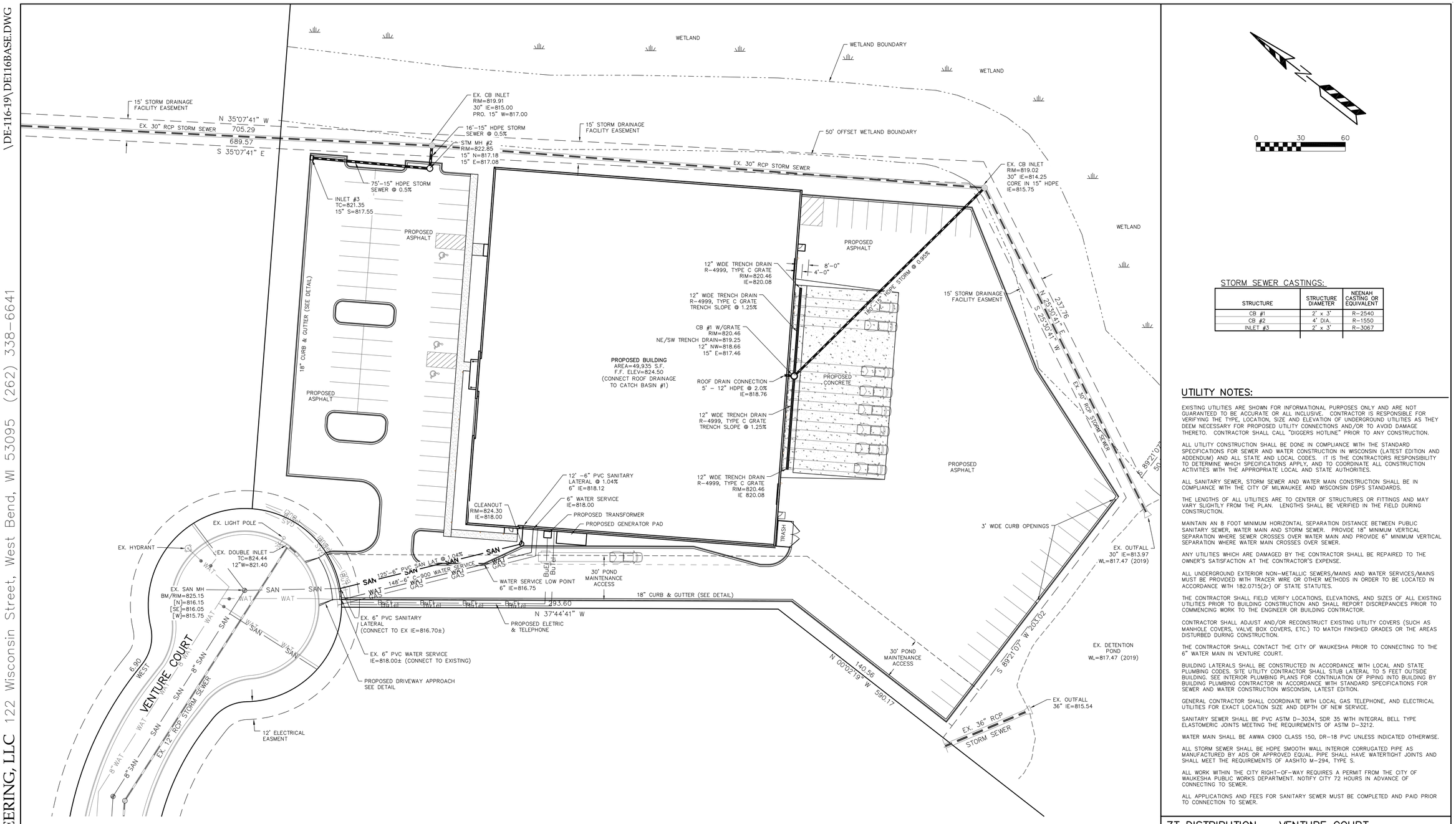
ASSUMED 100 YEAR FLOOD = 819.50

ZT DISTRIBUTION – VENTURE COURT
GRADING & EROSION CONTROL PLAN
DATED: JANUARY 27, 2020

C–102

QUAM ENGINEERING, LLC
Residential and Commercial Site Design Consultants
122 Wisconsin Street; West Bend, Wisconsin 53095
Phone (262) 338-6641; www.quamengineering.com

QUAM ENGINEERING, LLC 122 Wisconsin Street, West Bend, WI 53095 (262) 338-6641



STORM SEWER CASTINGS:

STRUCTURE	STRUCTURE DIAMETER	NEENAH CASTING OR EQUIVALENT
CB #1	2' x 3'	R-2540
CB #2	4' DIA.	R-1550
INLET #3	2' x 3'	R-3067

UTILITY NOTES:

EXISTING UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE TYPE, LOCATION, SIZE AND ELEVATION OF UNDERGROUND UTILITIES AS THEY DEEM NECESSARY FOR PROPOSED UTILITY CONNECTIONS AND/OR TO AVOID DAMAGE THERETO. CONTRACTOR SHALL CALL "DIGGERS HOTLINE" PRIOR TO ANY CONSTRUCTION.

ALL UTILITY CONSTRUCTION SHALL BE DONE IN COMPLIANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN (LATEST EDITION AND ADDENDUM) AND ALL STATE AND LOCAL CODES. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE WHICH SPECIFICATIONS APPLY, AND TO COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE APPROPRIATE LOCAL AND STATE AUTHORITIES.

ALL SANITARY SEWER, STORM SEWER AND WATER MAIN CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE CITY OF MILWAUKEE AND WISCONSIN DSPS STANDARDS.

THE LENGTHS OF ALL UTILITIES ARE TO CENTER OF STRUCTURES OR FITTINGS AND MAY VARY SLIGHTLY FROM THE PLAN. LENGTHS SHALL BE VERIFIED IN THE FIELD DURING CONSTRUCTION.

MAINTAIN AN 8 FOOT MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN PUBLIC SANITARY SEWER, WATER MAIN AND STORM SEWER. PROVIDE 18" MINIMUM VERTICAL SEPARATION WHERE SEWER CROSSES OVER WATER MAIN AND PROVIDE 6" MINIMUM VERTICAL SEPARATION WHERE WATER MAIN CROSSES OVER SEWER.

ANY UTILITIES WHICH ARE DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.

ALL UNDERGROUND EXTERIOR NON-METALLIC SEWERS/MAINS AND WATER SERVICES/MAINS MUST BE PROVIDED WITH TRACER WIRE OR OTHER METHODS IN ORDER TO BE LOCATED IN ACCORDANCE WITH 182.0715(2r) OF STATE STATUTES.

THE CONTRACTOR SHALL FIELD VERIFY LOCATIONS, ELEVATIONS, AND SIZES OF ALL EXISTING UTILITIES PRIOR TO BUILDING CONSTRUCTION AND SHALL REPORT DISCREPANCIES PRIOR TO COMMENCING WORK TO THE ENGINEER OR BUILDING CONTRACTOR.

CONTRACTOR SHALL ADJUST AND/OR RECONSTRUCT EXISTING UTILITY COVERS (SUCH AS MANHOLE COVERS, VALVE BOX COVERS, ETC.) TO MATCH FINISHED GRADES OR THE AREAS DISTURBED DURING CONSTRUCTION.

THE CONTRACTOR SHALL CONTACT THE CITY OF WAUKESHA PRIOR TO CONNECTING TO THE 6" WATER MAIN IN VENTURE COURT.

BUILDING LATERALS SHALL BE CONSTRUCTED IN ACCORDANCE WITH LOCAL AND STATE PLUMBING CODES. SITE UTILITY CONTRACTOR SHALL STUB LATERAL TO 5 FEET OUTSIDE BUILDING. SEE INTERIOR PLUMBING PLANS FOR CONTINUATION OF PIPING INTO BUILDING BY BUILDING PLUMBING CONTRACTOR IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION WISCONSIN, LATEST EDITION.

GENERAL CONTRACTOR SHALL COORDINATE WITH LOCAL GAS TELEPHONE, AND ELECTRICAL UTILITIES FOR EXACT LOCATION SIZE AND DEPTH OF NEW SERVICE.

SANITARY SEWER SHALL BE PVC ASTM D-3034, SDR 35 WITH INTEGRAL BELL TYPE ELASTOMERIC JOINTS MEETING THE REQUIREMENTS OF ASTM D-3212.

WATER MAIN SHALL BE AWWA C900 CLASS 150, DR-18 PVC UNLESS INDICATED OTHERWISE.

ALL STORM SEWER SHALL BE HDPE SMOOTH WALL INTERIOR CORRUGATED PIPE AS MANUFACTURED BY ADS OR APPROVED EQUAL. PIPE SHALL HAVE WATERTIGHT JOINTS AND SHALL MEET THE REQUIREMENTS OF AASHTO M-294, TYPE S.

ALL WORK WITHIN THE CITY RIGHT-OF-WAY REQUIRES A PERMIT FROM THE CITY OF WAUKESHA PUBLIC WORKS DEPARTMENT. NOTIFY CITY 72 HOURS IN ADVANCE OF CONNECTING TO SEWER.

ALL APPLICATIONS AND FEES FOR SANITARY SEWER MUST BE COMPLETED AND PAID PRIOR TO CONNECTION TO SEWER.

DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com

ZT DISTRIBUTION – VENTURE COURT
UTILITY PLAN
DATED: JANUARY 27, 2020

C-103

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QUAM ENGINEERING, LLC 122 Wisconsin Street, West Bend, WI 53095 (262) 338-6641

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QUAM ENGINEERING, LLC 122 Wisconsin Street, West Bend, WI 53095 (262) 338-6641

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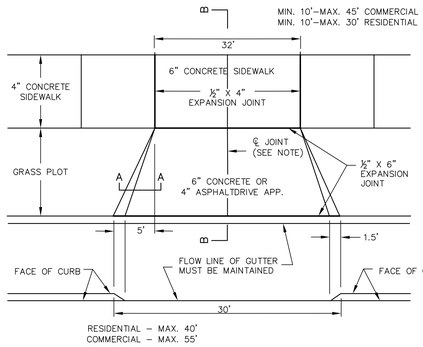
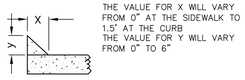
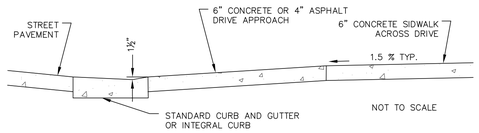




SECTION A-A



SECTION B-B

NOTE: DRIVEWAYS 10' TO 20' WIDE SHALL HAVE ONE ℄ JOINT. DRIVEWAYS 21' TO 30' WIDE SHALL HAVE TWO ℄ JOINTS EQUALLY SPACED.

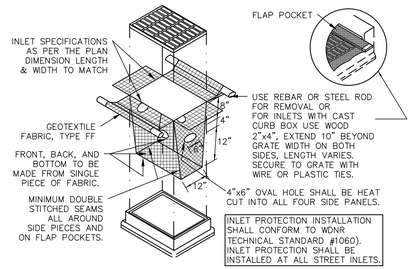
1/2"X 6" EXPANSION JOINT AT THE FACE OF WALK AND BACK OF CURB IS REQUIRED ONLY FOR CONCREETE DRIVE APPROACH

FLARE WIDTH, 3' MIN. TO 5' MAX. (CAN BE WIDER WITH APPROVAL OF THE CITY(ENGINEER)

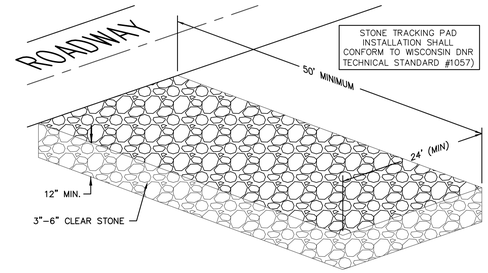
8" CONCRETE ALLOWED FOR APPROACH AND SIDEWALK FOR HEAVY TRAFFIC.

±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS-SLOPE. CROSS-SLOPE SHALL NOT EXCEED 2%

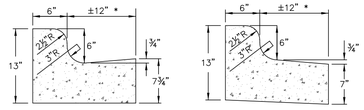
TYPICAL DETAIL OF STANDARD DRIVE APPROACH



TYPE D INLET PROTECTION DETAIL



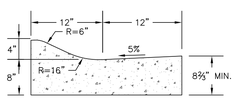
STONE TRACKING PAD DETAIL



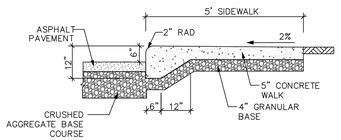
GENERAL NOTES:

1. LATERAL CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 15' NOR LESS THAN 6' IN LENGTH. THE JOINTS SHALL BE A MINIMUM OF 3" IN DEPTH. EXPANSION JOINTS SHALL BE PLACED TRANSVERSLY AT RADIUS POINTS ON CURVES OF RADIUS 200' OR LESS, AND AT ANGLE POINTS, OR AS DIRECTED BY THE ENGINEER. THE EXPANSION JOINT SHALL BE A ONE PIECE ASPHALTIC MATERIAL HAVING THE SAME DIMENSIONS AS CURB & GUTTER AT THAT STATION AND BE 1/2" THICK. IN ALL CASES, CONCRETE CURB & GUTTER SHALL BE PLACED ON THOROUGHLY COMPACTED CRUSHED STONE.
2. * CURB APRON ±12" TO FIT STANDARD CURB MACHINE

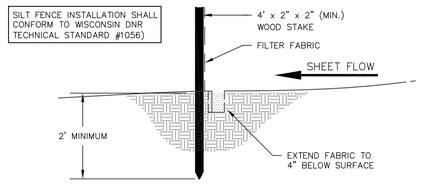
18" CURB AND GUTTER DETAILS



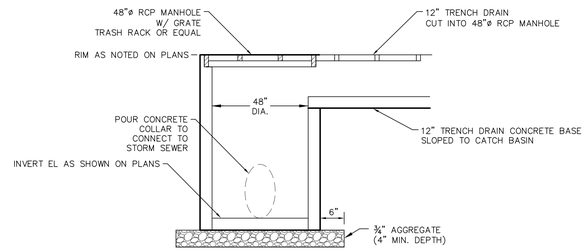
TYPICAL MOUNTABLE CURB SECTION DETAIL



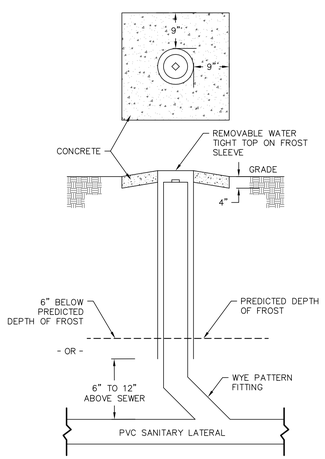
RAISED SIDEWALK DETAIL



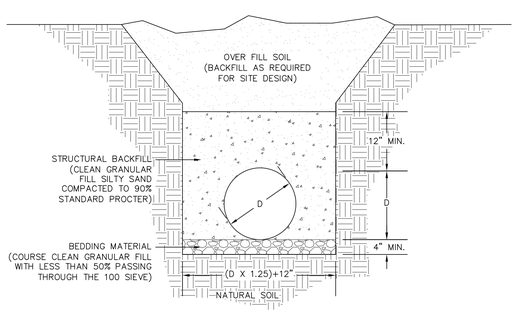
SILT FENCE CONSTRUCTION



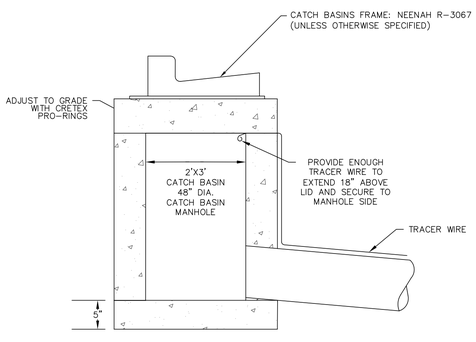
48" CATCH BASIN W/ GRATE & TRENCH DRAIN CONNECTION DETAIL



CLEAN OUT WITH FROST SLEEVE DETAIL



HDPE PIPE BEDDING DETAIL



INLET/CATCH BASIN DETAIL

ZT DISTRIBUTION - VENTURE COURT
DETAILS
DATED: JANUARY 27, 2020

C-104

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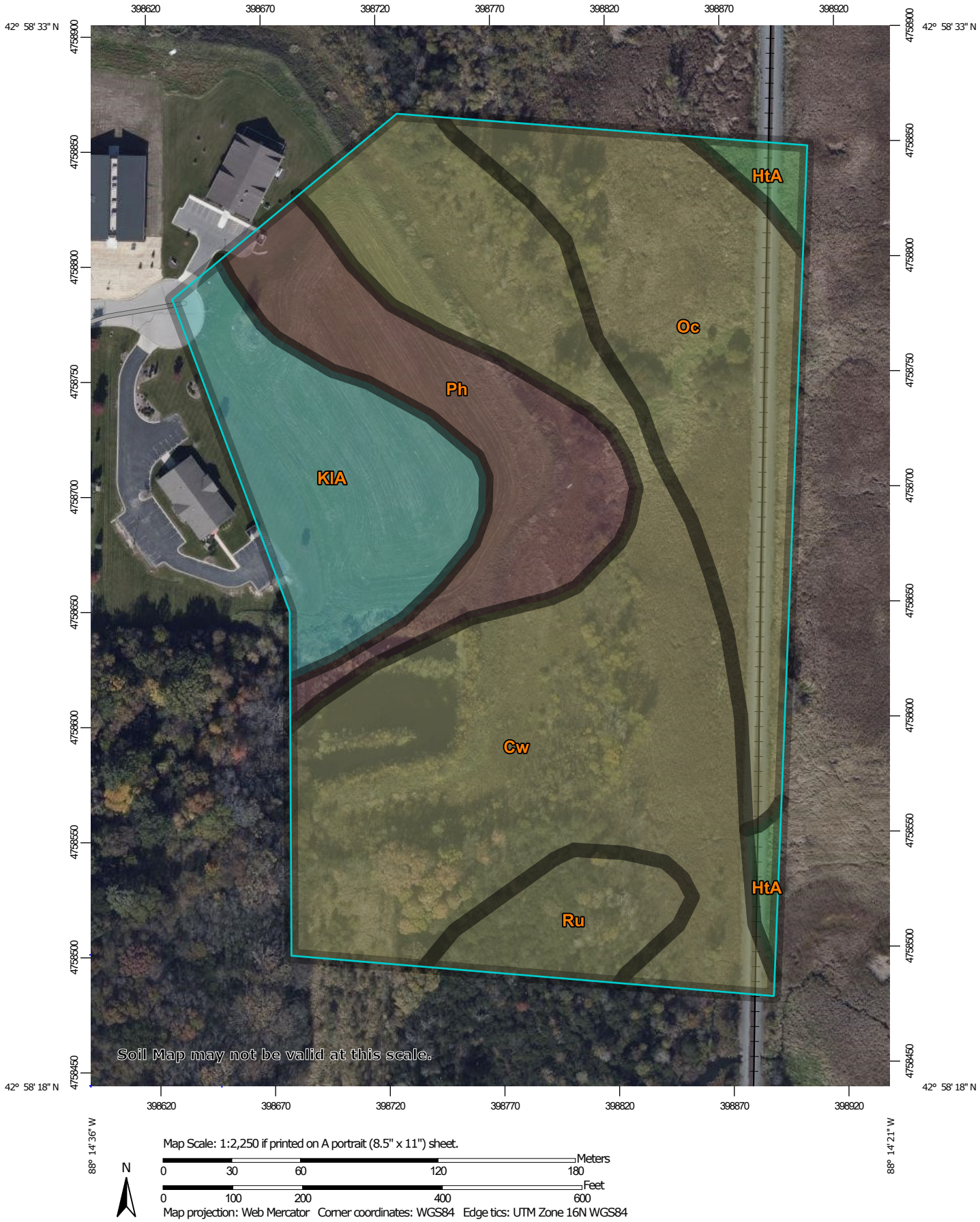
Residential and Commercial Site Design Consultants
122 Wisconsin Street; West Bend, Wisconsin 53095
Phone (262) 338-6641; www.quamengineering.com


88° 14' 36" W
88° 14' 21" W
42° 58' 33" N
42° 58' 18" N
398620
398670
398720
398770
398820
398870
398920
4759900
4759850
4759800
4759750
4759700
4759650
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4759550
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4759450
HtA
Oc
Ph
KIA
Cw
Ru
HtA
Soil Map may not be valid at this scale.
Map Scale: 1:2,250 if printed on A portrait (8.5" x 11") sheet.
N
Meters
0 30 60 120 180
Feet
0 100 200 400 600
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Milwaukee and Waukesha Counties, Wisconsin
Survey Area Data: Version 15, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 1, 2019—Oct 20, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Cw	Colwood silt loam, 0 to 2 percent slopes	C/D	9.2	43.9%
HtA	Houghton muck, 0 to 2 percent slopes	A/D	0.4	2.1%
KlA	Kendall silt loam, 1 to 3 percent slopes	C	2.9	13.9%
Oc	Ogden muck	C/D	4.3	20.8%
Ph	Pella silt loam, 0 to 2 percent slopes	B/D	3.0	14.2%
Ru	Edwards muck, 0 to 2 percent slopes	C/D	1.1	5.1%
Totals for Area of Interest			**20.9**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

WORK SHEET FOR STORM SEWER DESIGN

PROJECT: **ZT DISTRIBUTION - VENTURE COURT**
DATE: **1/15/2020**

Computed by: wayne & Jonathan Worden
Checked by: Kevin Parish

LOCATION		BASIN		RAINFALL - RUNOFF						SEWER			
Upstream Structure	Downstream Structure	Runoff Coeff.	Area	Design Storm	Rain Intensity	Direct Runoff	Other Runoff	Design Runoff		Sewer Size	Slope of Sewer	Capacity Flowing Full	
		(C)	(A) Acres	Yr.	(I) In./Hr.	Q=C*I*A CFS	CFS	CFS	GPM	In.	Ft./Ft.	CFS	GPM
BLDG	exinlet	SPS 382.36 "Area Method"				4.28	0.00	4.28	1921	12	0.0200	5.1	2267
Inlet #1	Ex Inlet	0.89	0.21	100	10.60	1.97	0.00	6.25	2804	15	0.0095	6.3	2833
Inlet #3	CB #2	0.72	0.79	10	7.10	4.04	0.00	4.04	1812	15	0.0050	4.6	2055
CB #2	Ex CB	0.72	0.00	10	7.10	0.00	4.04	4.04	1812	15	0.0050	4.6	2055

* C_{10}= 0.72 = Commercial Soil C, Slope 2-6% from the FDM Procedure 13-10-5 Figure 2.

* C_{100}= 0.89 = Commercial Soil C, Slope 2-6% from the FDM Procedure 13-10-5 Figure 2.

A = Drainage area to structure.

I = rainfall intensity for West Bend, Wisconsin from NOAA Atlas 14, Vol. 8, Ver. 2

Manning's Roughness Coefficient	
n=	0.013
10 Year Storm	100 Year Storm
7.10	10.6

City of Waukesha

Department of Public Works
130 Delafield Street
Waukesha, WI 53188
Waukesha-wi.gov

Site, Grading and Drainage Plan Conditional Use Permit Checklist

Attachment C
(Rev 04/18)

Project Name: ZT Distribution - Venture Court

Engineering & Design Firm: Quam Engineering, LLC

General Requirements

YES	NO	N/A	
☒	☐	☐	Applicant's name
☒	☐	☐	Name and location of development
☒	☐	☐	Scale and north arrow
☒	☐	☐	Date of original and revisions noted
☒	☐	☐	License number and seal (if applicable)
☒	☐	☐	CAD format submission of the site layout & building plan layout
☒	☐	☐	Pay impact fees

Building Plans

YES	NO	N/A	
☐	☐	☒	Contact Community Development Department

Site Plans

YES	NO	N/A	
☒	☐	☐	Dimensions of development site
☒	☐	☐	Location, footprint, and outside dimensions
☒	☐	☐	Existing and proposed pedestrian access points
☒	☐	☐	Existing and proposed vehicular access points
☒	☐	☐	Parking lots, driveways shown
☒	☐	☐	Front, side and rear yard setbacks shown and labeled
☒	☐	☐	Location and dimensions of all existing or planned easements (if applicable)
☐	☐	☒	Identification of all land to be dedicated (if applicable)
☒	☐	☐	Location, elevation, and dimensions of walls and fences
☐	☐	☒	Location, elevation, and dimensions of outdoor lighting
☐	☐	☐	Sign complies with City Code Book
☐	☐	☒	Location of existing and proposed signs

Site Access

YES	NO	N/A	
☒	☐	☐	Legal description or certified survey of property
☒	☐	☐	Development compatible with its zoning district
☒	☐	☐	Sidewalks to be shown
☒	☐	☐	Site entrance drive dimensions
☐	☒	☐	Individual development vehicular entrances at least 125 feet apart
☐	☐	☒	Adjacent development share driveway where possible
☐	☐	☒	At least one vehicular and pedestrian access point to each adjoining site granted by cross easements
☐	☐	☒	Cross access to be provided with minimum paved width of 24 feet
☐	☐	☒	Design detail for all new public streets

Parking/Traffic

YES	NO	N/A	
☒	☐	☐	5-foot-wide paved walkway to building entrance
☒	☐	☐	7-foot parking separation from front building
☒	☐	☐	Minimum parking spaces provided
☒	☐	☐	Service truck parking in designated service areas
☒	☐	☐	Parking spaces and layout dimensioned
☒	☐	☐	Lot paved with bituminous concrete or Portland cement concrete
☒	☐	☐	Handicap parking provided
☒	☐	☐	Minimum required stacking distance
☒	☐	☐	Concrete curb and gutter around parking lot

Grading and Drainage Plans

YES	NO	N/A	
☒	☐	☐	Show existing tree lines and any obstructions (fences, structures, power poles, etc.) within the project limits.
☒	☐	☐	All proposed lot lines and lot numbers or addresses
☒	☐	☐	Lot line dimensions
☐	☐	☒	Outline of buildable areas for each lot
☒	☐	☐	Typical setbacks of buildable area to front, side and back lot lines
☒	☐	☐	All existing buildings, structures and foundations
☒	☐	☐	All existing drainage channels and watercourses
☒	☐	☐	Emergency overflow routes
☒	☐	☐	Drainage clarified by flow arrows, high points, sags, ridges, and valley gutters
☐	☐	☒	Proposed retaining wall locations with top and bottom of wall elevations at key locations
☐	☒	☐	100-year flood plain limit (both pre-and post-project)
☐	☒	☐	100-year storm water surface elevation
☒	☐	☐	Wetlands. Wetland limits labeled with bearings and distances and dimensioned to lot lines. Bearings and distances may be shown in tabulated format.

☒	☐	☐	All environmental corridors, & or environmentally sensitive areas as required by DNR
☒	☐	☐	All existing and proposed easements.
☒	☐	☐	Existing topography of the site and all areas within 50 feet of the site shown at a one foot contour interval using City of Waukesha datum. Existing contours shown as thin, dashed screened or grey lines with a readily discernable heavier line used for the 5-foot contour intervals.
☒	☐	☐	Proposed grading shown at a contour interval of 1 foot using City of Waukesha datum. Proposed contour lines shown as solid medium lines, with a discernible heavier line use for the 5-foot contour intervals.
☐	☐	☒	The yard grade and first floor elevation of proposed building and any existing buildings located within 150 feet of the parcel boundary.
☒	☐	☐	Proposed road(s), curb and gutter, all storm sewer grates and storm sewer manholes (or cross-culverts for open ditches). Show any off-road storm inlets and discharge locations with surface entry elevations.
☒	☐	☐	Spot grades as necessary to ensure proper drainage and compliant ADA slopes and routing where applicable.
☐	☐	☒	At front setback line show a typical house shell on each lot and the proposed yard grade to the nearest tenth of a foot (assumed to be 0.7' below the top of block) for each building. Show proposed finished elevations to the nearest tenth of a foot at all lot corners and alongside lot lines adjacent to the front and back corners of the typical house. Show proposed finished elevations to the nearest tenth of a foot at high and low points along any side or back lot lines, and at high and low points if roads to demonstrate proposed drainage.
☐	☐	☒	The grading plan for any house that will require special design due to topography, clearly show separate grades for the garage and yard grade if extra steps are needed. Separate spot finish elevations shown for rear or side exposure or walkout.
☐	☐	☒	Indicate minimum finished floor elevations adjacent to floodplains, ponds, creeks/channels, etc.
☒	☐	☐	Proposed storm inlets shown on each grading plan. Each plan also includes specific details on all applicable retention/detention basins, ponds, overflows, etc. Separate sheets or notes as required.
☒	☐	☐	Locations of existing and proposed streets, drives, alleys, easements, right-of-way, parking as required, vehicular and pedestrian access points, and sidewalks
☐	☐	☒	Outline of any development stages
☐	☐	☒	Location and details on any required emergency access roads
☐	☒	☐	Soil characteristics, where applicable
☒	☐	☐	Existing and proposed topography shown for the site and or adjacent properties
☒	☐	☐	Floodplain, shore land, environmental and wetlands shown
☒	☐	☐	Location and dimensions of on-site storm water drainage facilities
☐	☐	☒	Location and footprint of all existing buildings
☐	☐	☒	Locations and names of existing trees
☐	☐	☒	Berm detail
☒	☐	☐	Lot grades and swales shown
☒	☐	☐	Drainage calculations provided

Erosion Control

YES	NO	N/A	
☒	☐	☐	Location Map
☐	☐	☐	Soils Survey Map
☐	☐	☐	Existing Land Use Mapping
☒	☐	☐	Predeveloped Site Conditions
☒	☐	☐	• Existing contours
☒	☐	☐	• Property lines
☒	☐	☐	• Existing flow paths and direction
☒	☐	☐	• Outlet locations
☒	☐	☐	• Drainage basin divides and subdivides
☒	☐	☐	• Existing drainage structures on and adjacent to the site
☒	☐	☐	• Nearby watercourses
☒	☐	☐	• Lakes, streams, wetlands, channels, ditches, etc.
☐	☐	☒	• Limits of the 100-year floodplain
☐	☐	☒	Practice location/layout/cross sections
☒	☐	☐	Construction Details
☒	☐	☐	Name of receiving waters
☒	☐	☐	Site description/Nature of construction activity
☒	☐	☐	Sequence of construction
☒	☐	☐	Estimate of site area and disturbance area
☐	☐	☒	Pre- and post-developed runoff coefficients
☒	☐	☐	Description of proposed controls, including
☒	☐	☐	• Interim and permanent stabilization practices
☒	☐	☐	• Practices to divert flow from exposed soils
☐	☐	☒	• Practices to store flows or trap sediment
☒	☐	☐	• Any other practices proposed to meet ordinance
☒	☐	☐	Existing topography of the site and all areas within 50 feet of the site shown at a one foot contour interval using City of Waukesha datum. Existing contours shown as thin, dashed screened or grey lines with a readily discernable heavier line used for the 5-foot contour intervals.
☒	☐	☐	Proposed grading shown at a contour interval of 1 foot using City of Waukesha datum. Proposed contour lines shown as solid medium lines, with a discernible heavier line use for the 5-foot contour intervals.
☒	☐	☐	List the total disturbed acreage including offsite areas.
☐	☐	☒	Provide free survey in accordance with City Erosion Control Ordinance
☒	☐	☐	Proposed limits of disturbance including proposed tree cutting areas.
☒	☐	☐	Location and dimensions of all temporary topsoil and dirt stockpiles.
☒	☐	☐	Location and dimensions of all appropriate best management practices (BMP).
☒	☐	☐	Phasing of BMP's with the construction activities listed / described.
☒	☐	☐	Schedule of anticipated starting and completion date of each land disturbing and land developing activity, including the installation of the BMP measures that are needed.
☒	☐	☐	Location of all channels, pipes, basins or other conveyances proposed to carry runoff to the nearest adequate outlet, including applicable design assumptions and computations.

☒	☐	☐	Areas to be sodded or seeded and mulched or otherwise stabilized with vegetation, describing the type of final vegetative cover.
☐	☐	☒	Areas of permanent erosion control (other than vegetation).
☒	☐	☐	Boundaries of the construction site
☒	☐	☐	Drainage patterns/slopes after grading activities
☒	☐	☐	Areas of land disturbance
☒	☐	☐	Locations of structural and nonstructural controls
☒	☐	☐	Drainage basin delineations and outfall locations

Optional Submittals as Determined by Review Authority

YES	NO	N/A	
☐	☐	☒	Traffic impact analysis
☐	☐	☒	Environmental impact statement
☐	☐	☒	Plot of effect of exterior illumination on site and adjacent properties
☐	☐	☒	Description of any unusual characteristics
☐	☐	☒	Street perspectives showing view corridors
☐	☐	☒	Historic site
☐	☐	☒	Economic feasibility study
☐	☐	☒	Contaminated Waste Site

I hereby certify that I have reviewed the City ordinances and provided one (1) full-sized set of all required information along with all the required reduced copies of plans.

Applicant's Signature: _____

City of Waukesha
Department of Public Works
130 Delafield Street
Waukesha, WI 53188
Waukesha-wi.gov

Sewer Plan Review Checklist

Attachment H
(Rev 04/18)

Project Name: ZT Distribution - Venture Court

Engineering & Design Firm: Quam Engineering, LLC

Sanitary System

YES	NO	N/A	
☒	☐	☐	Minimum 4" sanitary sewer lateral from the main to the property line, PVC SDR 26 or 35 conforming to ASTM standards D 3034 with rubber gasket joints
☒	☐	☐	Sanitary sewer laterals shall have a green #12 locater wire installed along the entire length. Locater wire shall be brought to the surface at the edge of the building and enclosed in a curb box with "sewer" on the cover.
☐	☐	☒	Sampling manhole required for all food service developments (or developments with the potential to become food service) and industrial/manufacturing facilities.
☐	☐	☒	Industrial facilities must complete an industrial discharge form.
☐	☐	☒	Outside drop manhole connection required where drop is greater than 24 inches.
Sanitary Plan View			
YES	**NO**	**N/A**	
☒	☐	☐	Ghost existing utilities and lateral locations in screened format. Pipe size of existing utilities labeled.
☒	☐	☐	Proposed sewer and laterals with length, size, and material type clearly labeled
☒	☐	☐	Material and size of the existing sanitary sewer being connected to.
☒	☐	☐	Stub-outs labeled with length, size, slope, and invert elevations (if not profiled).
☒	☐	☐	Dimensions showing offset from right-of-way to the sewer and separation distance between other utilities.
☐	☐	☒	Type and size of encasement where needed
☒	☐	☐	Flow directions of all proposed mains.
☒	☐	☐	Length of each sewer lateral and height of any lateral risers. Label proposed invert elevations at right-of-way lines.
☐	☐	☒	Distance from downstream manhole to each upstream sewer lateral.
☐	☒	☐	Proposed manholes and cleanouts labeled with a design plan number. Existing manholes labeled with numbers obtained from City records.
☒	☐	☐	Rim and invert elevations at each manhole, based on City of Waukesha datum (for private sewer if not profiled)
☒	☐	☐	Show and label all easements
Sanitary Profile View			
YES	**NO**	**N/A**	
☐	☐	☒	Stationing.
☐	☐	☒	Existing and proposed surface profiles and elevations over the sewer.
☐	☐	☒	All utility crossings. Label elevations if known.

☐	☐	☒	Pipe material / class, size, length, and percent grade to two (2) decimal places.
☐	☐	☒	Material and size of the existing sanitary sewer being connected to.
☐	☐	☒	Length, type, and size of encasement as needed.
☐	☐	☒	Proposed manholes. Indicate type and diameter.
☐	☐	☒	Label station, rim, and invert elevations, based on City of Waukesha datum, and design plan number for each manhole and cleanout. Existing manholes to be labeled with numbers obtained from City records.
☐	☐	☒	Limits of gravel and/or slurry backfill.
Sanitary for Subdivisions/Large Developments			
(Complete copies of City specifications for sanitary sewer are available upon request.)			
YES	**NO**	**N/A**	
☐	☐	☒	Each parcel should have a separate sanitary sewer lateral.
☐	☐	☒	Sanitary sewer – 8 ft. horizontal separation from water main per DNR requirements. 8" diameter minimum size, PVC SDR 26 for depths up to 25 ft.
☐	☐	☒	Sanitary sewer manhole at every change of direction and a maximum distance of 400 ft.
☐	☐	☒	A chimney seal shall be required on all manholes.
☐	☐	☒	Provide copies of all approved WDNR/WDOC submittals, including sewer sizing calculation worksheet and the area served.

Storm System

Storm Plan View			
YES	**NO**	**N/A**	
☒	☐	☐	Ghost existing utilities and lateral locations in screened format. Pipe size of existing utilities labeled.
☒	☐	☐	Proposed sewer and laterals with length, size, and material type clearly labeled.
☒	☐	☐	Material and size of the existing storm sewer being connected to.
☒	☐	☐	Stub-outs labeled with length, size, slope, and invert elevations (if not profiled).
☒	☐	☐	Dimensions showing offset from right-of-way to the sewer and separation distance between other utilities.
☐	☐	☒	Type and size of encasement where needed
☐	☐	☒	Length of any sewer lateral. Label proposed invert elevations at right-of-way lines.
☒	☐	☐	Proposed inlets, manholes, and other drainage structures.
☒	☐	☐	Proposed drainage structures labeled with a design plan number. Existing drainage structures labeled with numbers obtained from City records.
☒	☐	☐	Details of outfall or ditch inlet protection requirements such as rip-rap, end sections or headwalls as needed.
☐	☐	☒	Details of detention facilities, outfall, overflow and control structures as needed.
Storm Profile View			
YES	**NO**	**N/A**	
☐	☐	☒	Stationing.
☐	☐	☒	Existing and proposed surface profiles and elevations over the sewer.
☐	☐	☒	All utility crossings. Label elevations if known.
☐	☐	☒	Pipe material / class, size, length, and percent grade to two (2) decimal places.
☐	☐	☒	Material and size of the existing storm sewer being connected to
☐	☐	☒	Length, type, and size of encasement as needed.
☐	☐	☒	Proposed inlets, manholes, and other drainage structures. Label type and size.
☐	☐	☒	Label station, rim, and invert elevations, based on City of Waukesha datum, at each manhole, catch basin, inlet, and detention control structure.

☐	☐	☒	Proposed drainage structures labeled with a design plan number. Existing drainage structures to be labeled with numbers obtained from City records.
☐	☐	☒	Cross-section of open channels and detention facilities, including outfall, overflow, and control structures.
☐	☐	☒	Limits of gravel and/or slurry backfill.

General System

YES	NO	N/A	
☒	☐	☐	Show all easements, public or private.
☐	☐	☒	No structures allowed within a public easement.
☐	☐	☒	Plantings or signs within public easements, if permitted by City, shall be at least 5 feet from the utilities.
General for Subdivisions/Large Developments			
YES	**NO**	**N/A**	
☐	☐	☒	Provide plans sealed by Registered Professional Engineer
☐	☐	☒	Show benchmark, north arrow and scale.
☐	☐	☒	Show existing/proposed sewer and water utilities.
☐	☐	☒	All sewer to be installed by the developer under the terms of a Development Agreement.
Utility Plans			
YES	**NO**	**N/A**	
☒	☐	☐	Location of all utilities: storm and sanitary sewers, water mains, fire hydrants, electrical, natural gas, and communication (cable television, telephone, etc.) lines
☐	☐	☒	Exterior lighting for parking and other outdoor areas, outdoor signs, and building exteriors.
☒	☐	☐	Location of waste and trash collection, and indicate plans for snow removal.
☒	☐	☐	Location and footprint of any and all buildings
☒	☐	☐	Location and names of existing and proposed streets
☒	☐	☐	Location and size of existing and proposed storm sewer, sanitary sewer, and water utility systems shown
☒	☐	☐	Electric, gas, telephone, and cable lines shown
☒	☐	☐	All new utilities are underground
☐	☐	☒	Exterior lighting detail provided
☒	☐	☐	Location of all utility and private fire hydrants
☐	☐	☒	Sampling manhole shown (if applicable)
☐	☐	☒	Grease interceptor shown (if applicable)
☐	☐	☒	Location and size of existing and proposed water meters
Include the following notes on the Utility Plan:			
YES	**NO**	**N/A**	
☒	☐	☐	All sanitary sewer to be installed in accordance with City of Waukesha standards.
☒	☐	☐	All applications and fees for sanitary sewer must be completed and paid prior to connection to sewer systems.
☒	☐	☐	Any utility work in the right-of-way and all sanitary sewer connections to be inspected by City. Notify City 72 hours in advance of connecting to sewer.
The above list contains items that are commonly missed on Utility Plans. For subdivisions or other large or complex projects, a complete plan review includes many more checks too numerous to list here. Please call (262) 524-3600 for additional information. City typical sewer details can be provided upon request.			
Note: For water main, contact Waukesha Water Utility at (262) 521-5272			

SITE GENERAL NOTES:

1. PROPOSED BUILDING IS ONE STORY.
2. MAXIMUM % GRADE AT RIGHT-OF-WAY TO BE 8%.
3. DUMPSTER ENCLOSURE TO BE LOCATED AS SHOWN ON PLAN. EXACT SIZE OF DUMPSTER ENCLOSURE TO BE DETERMINED PER OWNER'S REQUIREMENTS.
4. SEE GRADING PLAN FOR ALL PROPOSED AND EXISTING CONTOURS AND STORM WATER DRAINAGE PATTERNS.
5. ALL ROOF TOP MECHANICAL UNITS TO BE PAINTED TO MATCH BUILDING.
6. SEE LANDSCAPE PLAN FOR ALL PLANTING LOCATIONS.
7. ALL EXTERIOR LIGHTING FIXTURES TO BE CUT-OFF TYPE.
8. ALL SITE UTILITIES TO BE VERIFIED W/ PROPER AGENCIES PRIOR TO CONSTRUCTION.
9. ALL APPROACHES & CULVERTS IN RIGHT-OF-WAY TO BE VERIFIED W/ LOCAL MUNICIPALITY PRIOR TO CONSTRUCTION.

MODIFY NOTES AS REQUIRED FOR ACTUAL PROJECT

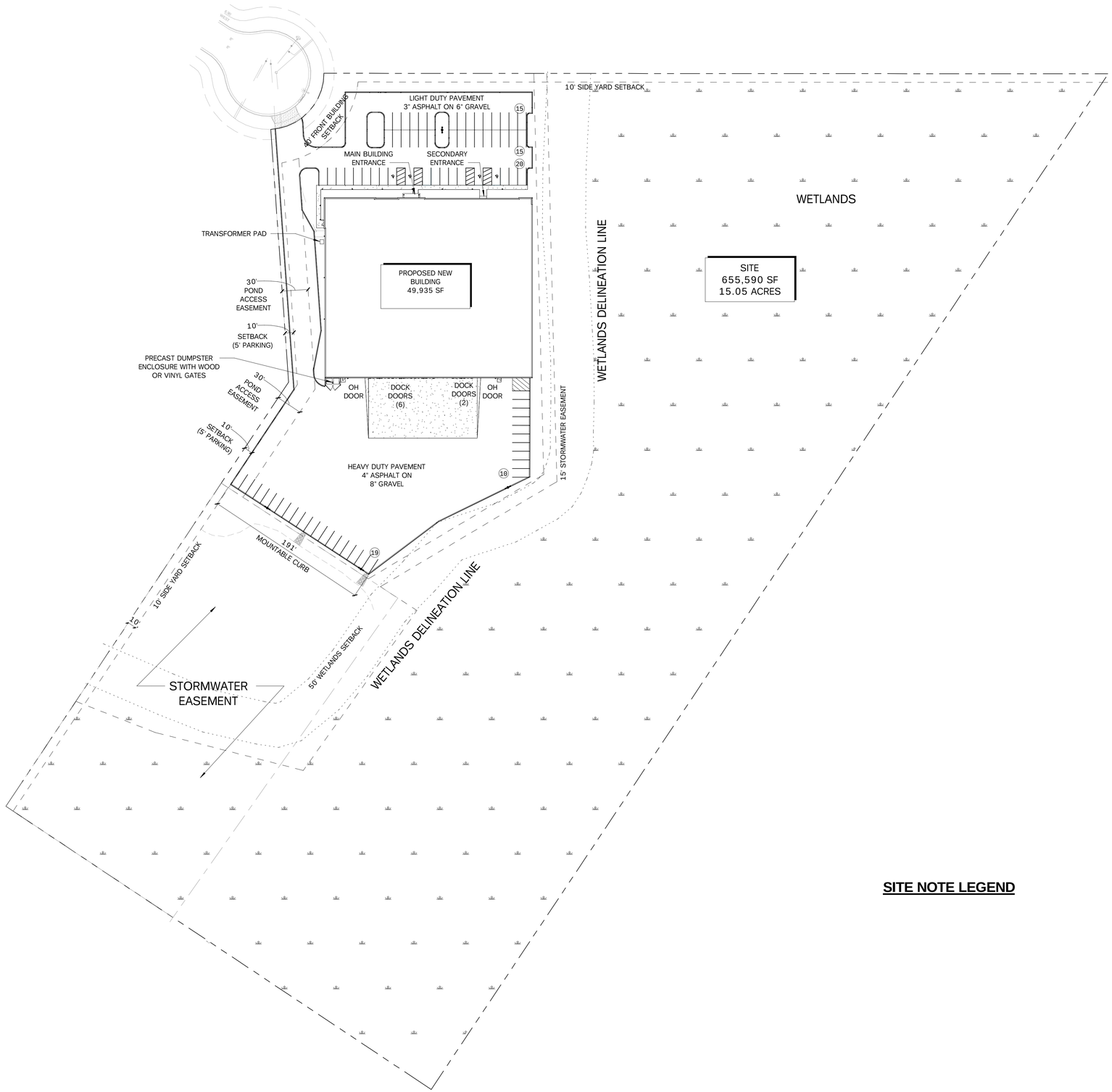
(REFER TO UNDERLINED AND NUMBERED AREAS) AND DELETE EXTRA NOTES

SITE DATA:

SITE AREA:	762,943 SF 17.51 ACRES
AREA OF PROPOSED BUILDING:	49,920 SF
TOTAL BUILDING FOOTPRINT:	49,920 SF
TOTAL HARD SURFACE AREA:	82,390 SF
CONCRETE AREA:	1,350 SF
HEAVY DUTY PAVING:	65,318 SF
LIGHT DUTY PAVING:	15,722 SF
TOTAL GREEN SPACE AREA:	630,633 SF (82.7% OF SITE)
ZONING DISTRICT:	C-1 (LOWLAND CONSERVANCY, M-3 (LIMITED BUSINESS AND INDUSTRIAL PARK)
ALLOWABLE BUILDING HEIGHT:	50'-0"
BUILDING HEIGHT:	33'-0"
FRONT YARD SETBACK:	40'-0"
SIDE YARD SETBACK:	10'-0"
REAR YARD SETBACK:	10'-0"
PARKING STALL REQUIREMENTS:	
OFFICE: ***/1,000 SF	***
FACTORY: ***/1,000 SF	***
TOTAL # OF STALLS REQ'D:	***
TOTAL PARKING PROVIDED:	**73** (INCL. H.C. STALLS)
HANDICAP PARKING REQUIRED:	***
HANDICAP PARKING PROVIDED:	3
FUTURE PARKING STALLS:	17

MODIFY NOTES AS REQUIRED FOR ACTUAL PROJECT

(REFER TO UNDERLINED AND NUMBERED AREAS) AND DELETE EXTRA NOTES



SITE NOTE LEGEND

1 ARCHITECTURAL SITE PLAN - OVERALL
SCALE: 1" = 60'-0"

N

DESIGN 2 CONSTRUCT
DEVELOPMENT CORPORATION

N173 W21010
NORTHWEST PASSAGE WAY
JACKSON, WI 53037

PHONE 262.677.9933
FAX 262.677.9934

info@design2construct.com

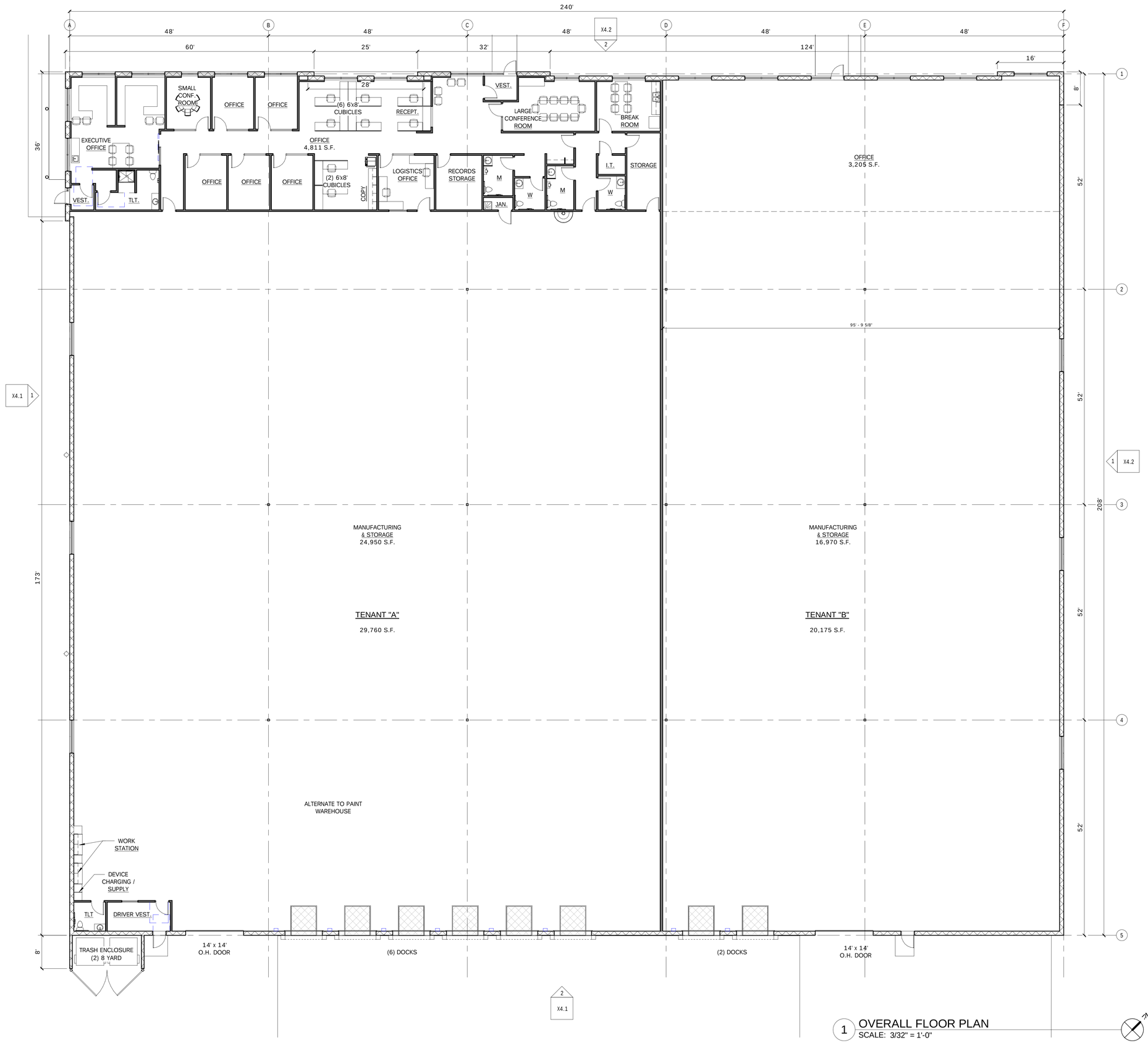
BUILDING DESIGN FOR:
PROPOSAL 19-00201

SHEET TITLE
ARCHITECTURAL SITE PLAN

REVISIONS

PROJECT DATA

DATE	11.19.2019
JOB NO.	19-00201
SET USE	PRELIMINARY
DRAWN BY	JMH
SHEET NO.	A1.0



1 OVERALL FLOOR PLAN
SCALE: 3/32" = 1'-0"

DESIGN 2 CONSTRUCT
DEVELOPMENT CORPORATION

N173 W21010
NORTHWEST PASSAGE WAY
JACKSON, WI 53037

PHONE 262.677.9933
FAX 262.677.9934

info@design2construct.com

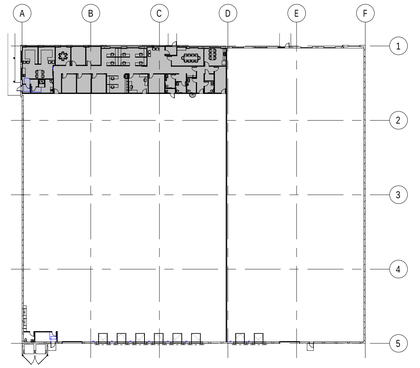
BUILDING DESIGN FOR:
PROPOSAL 19-00201

SHEET TITLE
OVERALL FLOOR PLAN

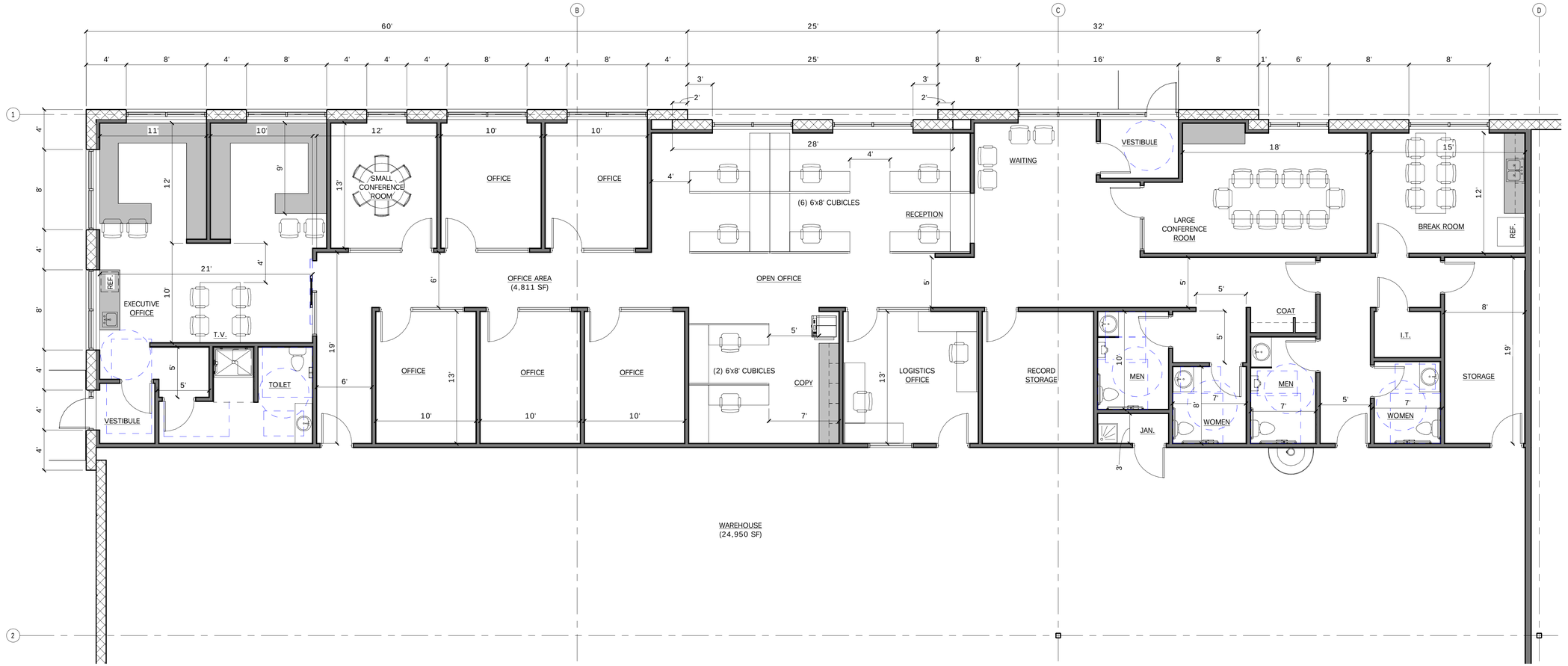
REVISIONS

PROJECT DATA

DATE	01.24.2020
JOB NO.	19-00210
SET USE	PRELIMINARY
DRAWN BY	DLH
SHEET NO.	A2.0



KEY PLAN



1 ENLARGED OFFICE PLAN
SCALE: 3/16" = 1'-0"

DESIGN 2 CONSTRUCT
DEVELOPMENT CORPORATION

N173 W21010
NORTHWEST PASSAGE WAY
JACKSON, WI 53037

PHONE 262.677.9933
FAX 262.677.9934

info@design2construct.com

BUILDING DESIGN FOR:
PROPOSAL 19-00201

SHEET TITLE
ENLARGED OFFICE PLAN

REVISIONS

PROJECT DATA

DATE
01.24.2020

JOB NO.
19-00210

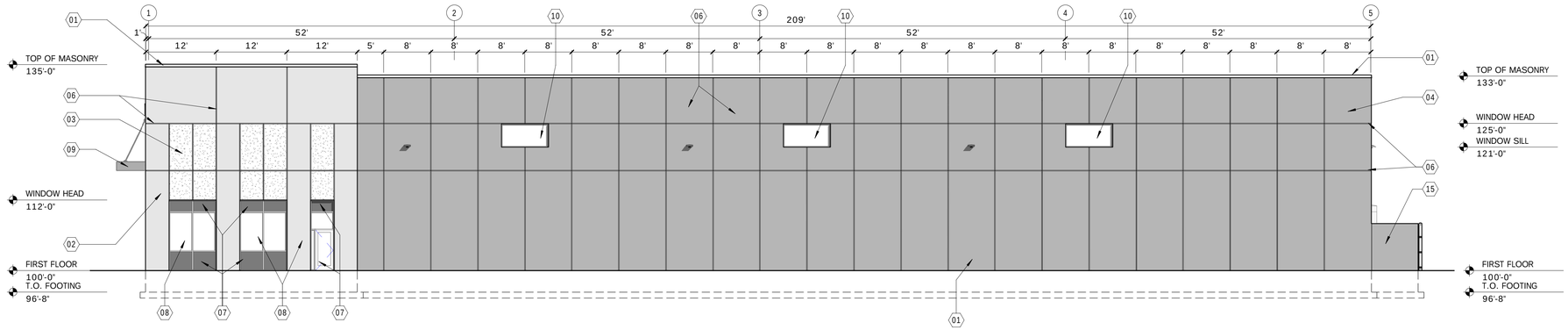
SET USE
PRELIMINARY

DRAWN BY
JMH

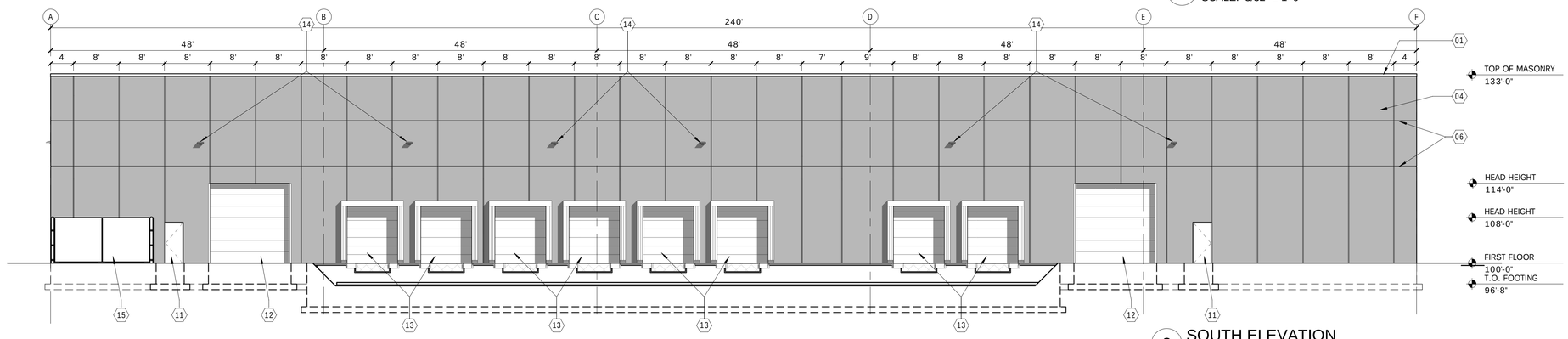
SHEET NO.
A2.1

ELEVATION NOTE LEGEND

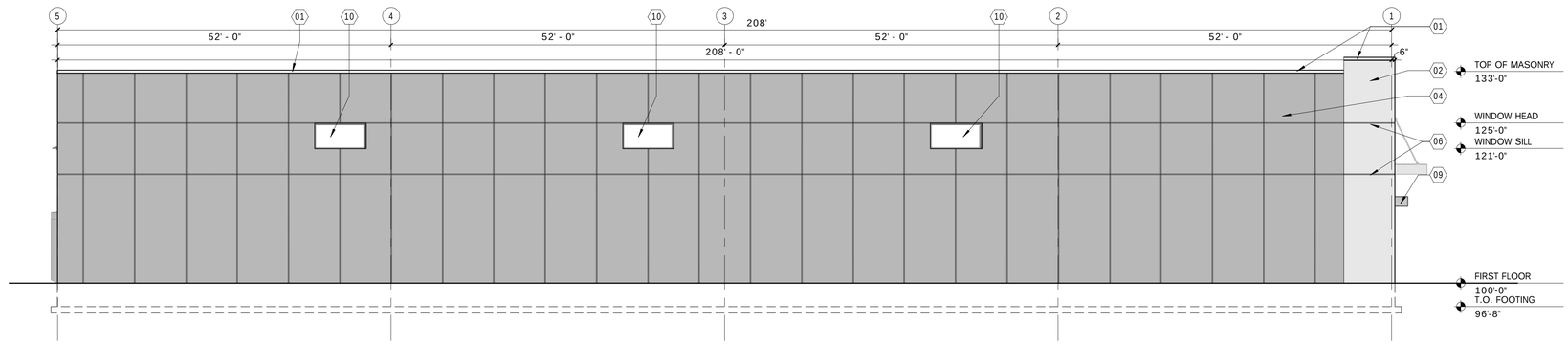
01	PREFINISHED METAL COPING
02	PAINTED PRECAST CONCRETE WALL PANEL - WHITE
03	PAINTED PRECAST CONCRETE WALL PANEL - RED
04	PAINTED PRECAST CONCRETE WALL PANEL - LIGHT GREY
05	PAINTED PRECAST CONCRETE WALL PANEL - DARK GREY
06	PRECASE CONCRETE WALL PANEL REVEAL
07	SPANDREL GLAZING
08	PREFINISHED THERMALLY BROKEN STOREFRONT SYSTEM w/ INSULATED GLASS
09	PREFINISHED METAL CANOPY
10	PREFINISHED THERMALLY BROKEN ALUMINUM FRAME w/ INSULATED GLASS
11	INSULATED HOLLOW METAL DOOR AND FRAME (PAINTED)
12	14' x 14' PREFINISHED STEEL INSULATED OVERHEAD DOOR
13	9' x 10" PREFINISHED STEEL INSULATED OVERHEAD DOOR w/ DOCK SEAL
14	LED WALL-PAK LIGHT FIXTURE
15	TRASH ENCLOSURE - PRECAST WALLS WITH WOOD OR VINYL GATE



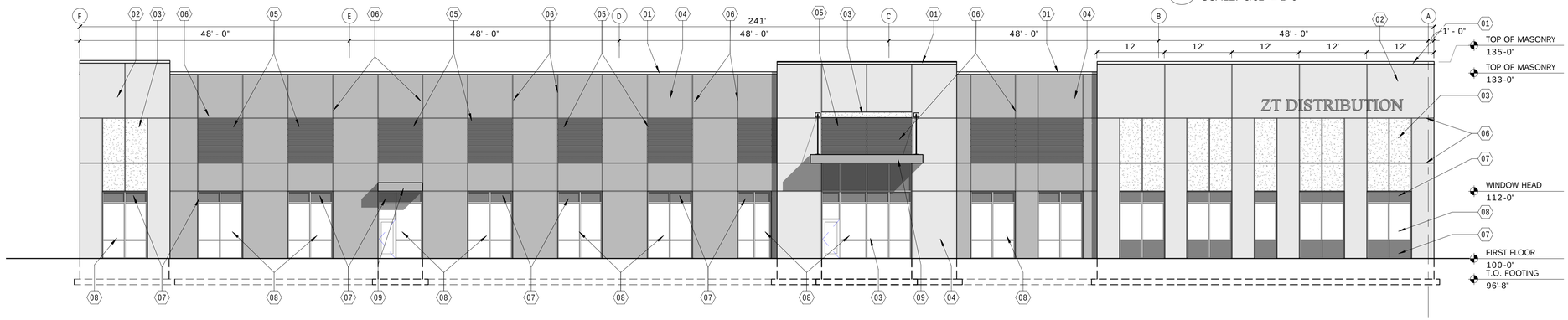
4 WEST ELEVATION
SCALE: 3/32" = 1'-0"



3 SOUTH ELEVATION
SCALE: 3/32" = 1'-0"



2 EAST ELEVATION
SCALE: 3/32" = 1'-0"



1 NORTH ELEVATION
SCALE: 3/32" = 1'-0"

DESIGN 2 CONSTRUCT
DEVELOPMENT CORPORATION

N173 W21010
NORTHWEST PASSAGE WAY
JACKSON, WI 53037

PHONE 262.677.9933
FAX 262.677.9934

info@design2construct.com

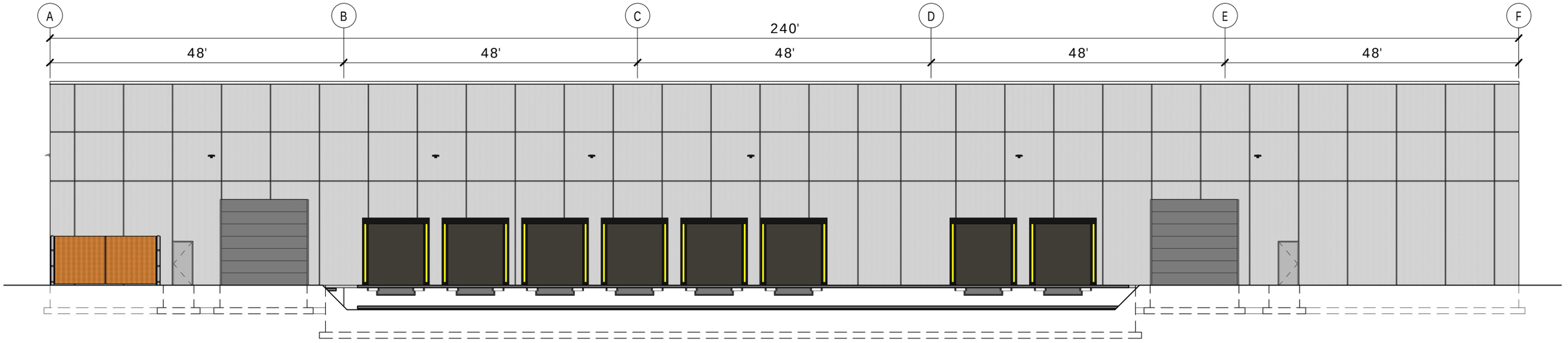
BUILDING DESIGN FOR:
PROPOSAL 19-00201

SHEET TITLE
EXTERIOR ELEVATIONS

REVISIONS

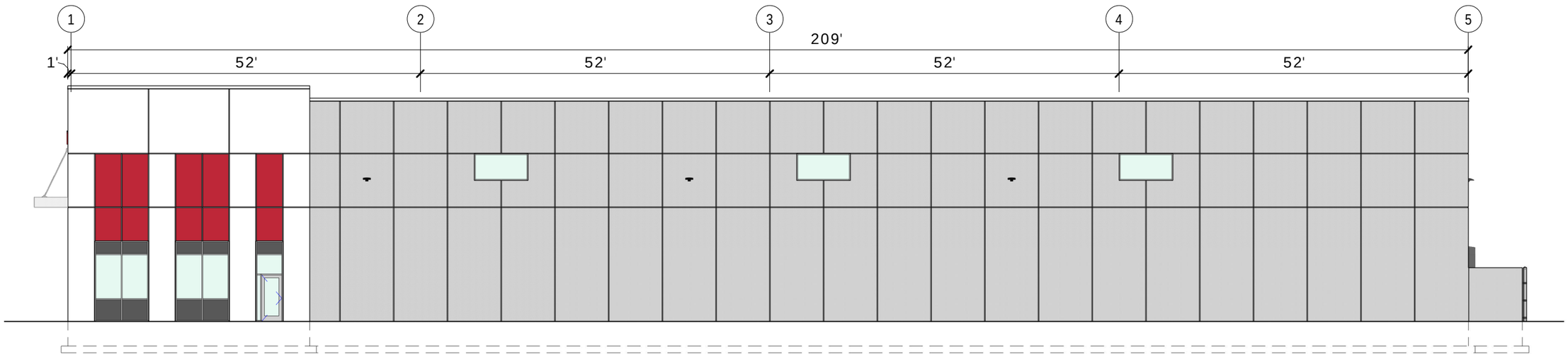
PROJECT DATA

DATE	01.24.2020
JOB NO.	19-00210
SET USE	PRELIMINARY
DRAWN BY	JMH
SHEET NO.	A4.1



SOUTH ELEVATION

SCALE: 1/16" = 1'-0"



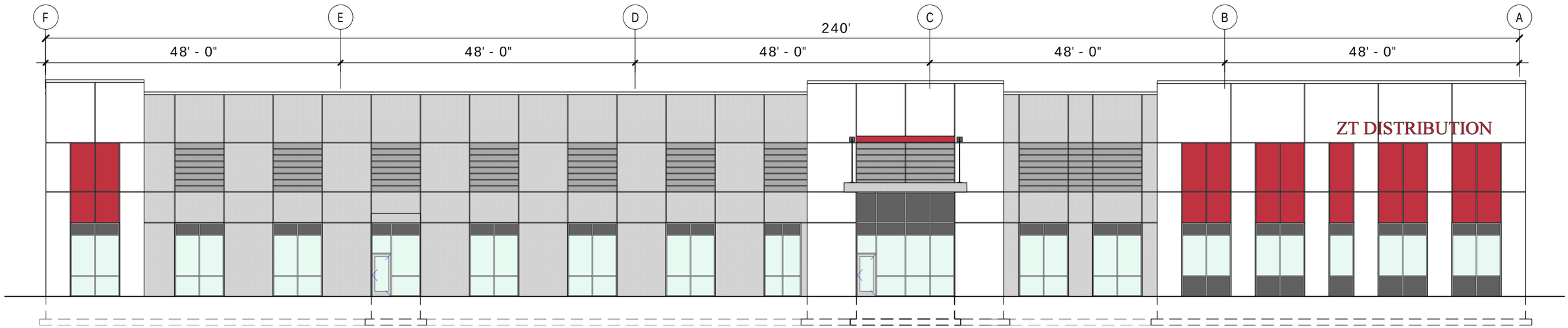
WEST ELEVATION

SCALE: 1/16" = 1'-0"

DESIGN 2 CONSTRUCT DEVELOPMENT CORPORATION

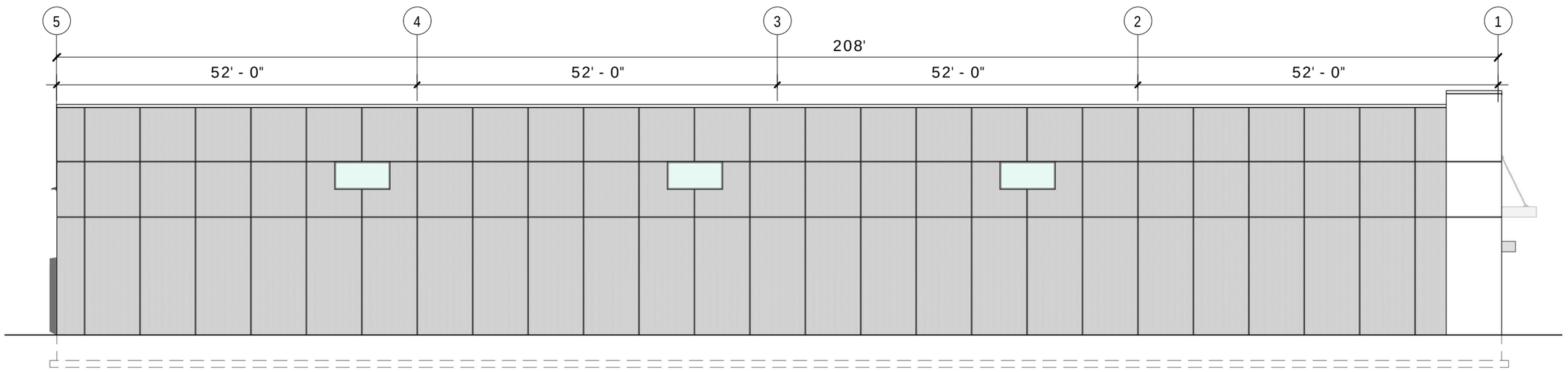
DESIGN 2 CONSTRUCT N173 W21010 Northwest Passage, Jackson, WI 53037 PHONE: 262.677.9933 FAX: 262.677.9934

PROPOSAL 19-00201



NORTH ELEVATION

SCALE: 1/16" = 1'-0"



EAST ELEVATION

SCALE: 1/16" = 1'-0"

DESIGN 2 CONSTRUCT

N173 W21010 Northwest Passage, Jackson, WI 53037

PHONE: 262.677.9933 FAX: 262.677.9934

PROPOSAL 19-00201

VIEW FROM NORTHWEST CORNER

DESIGN 2 CONSTRUCT

N173 W21010 Northwest Passage, Jackson, WI 53037

PHONE: 262.677.9933 FAX: 262.677.9934

PROPOSAL 19-00201

VIEW FROM SOUTHWEST CORNER

DESIGN 2 CONSTRUCT

N173 W21010 Northwest Passage, Jackson, WI 53037

PHONE: 262.677.9933 FAX: 262.677.9934

PROPOSAL 19-00201

VIEW FROM SOUTHEAST CORNER

VIEW FROM NORTHEAST CORNER

DESIGN 2 CONSTRUCT

N173 W21010 Northwest Passage, Jackson, WI 53037

PHONE: 262.677.9933 FAX: 262.677.9934

PROPOSAL 19-00201

PLANT SCHEDULE

CANOPY TREES (INSTALL IN ACCORDANCE WITH DETAIL 1/L2.0)

CODE	SCIENTIFIC NAME	COMMON NAME	QTY.	PLANTING SIZE	MATURE SIZE
ACFAF	Acer x freemanii 'Autumn Fantasy'	Autumn Fantasy Maple	3	2.5" Cal. B4B	H-50', W-30'
ACMSS	Acer miyabei 'State Street'	State Street Miyabe Maple	3	2.5" Cal. B4B	H-50', W-40'
GIBAG	Ginko biloba 'Autumn Gold'	Autumn Gold Ginko (male)	2	2.5" Cal. B4B	H-50', W-30'
GLTIS	Gleditsia triacanthos inermis 'Shademaster'	Shademaster Honeylocust	3	2.5" Cal. B4B	H-50', W-35'
QUBI	Quercus bicolor	Swamp White Oak	1	2.5" Cal. B4B	H-60', W-60'
TADSB	Taxodium distichum 'Mickelson'	Shawnee Brave Bald Cypress	1	2.5" Cal. B4B	H-60', W-20'

ORNAMENTAL TREES (INSTALL IN ACCORDANCE WITH DETAIL 3/L2.0)

CODE	SCIENTIFIC NAME	COMMON NAME	QTY.	PLANTING SIZE	MATURE SIZE
SYRISM	Syringa reticulata 'Ivory Silk'	Ivory Silk Japanese Tree Lilac	1	8" B4B, multi-stem	H-25', W-15'

EVERGREEN TREES (INSTALL IN ACCORDANCE WITH DETAIL 2/L2.0)

CODE	SCIENTIFIC NAME	COMMON NAME	QTY.	PLANTING SIZE	MATURE SIZE
PIPFA	Picea pungens 'Fat Albert'	Fat Albert Spruce	3	6' Tall B4B	H-20', W-15'
THON	Thuja occidentalis 'Nigra'	Dark Green Arborvitae	13	6' Tall B4B	H-25', W-10'

EVERGREENS / BROADLEAF EVERGREEN SHRUBS (INSTALL IN ACCORDANCE WITH DETAIL 4/L2.0)

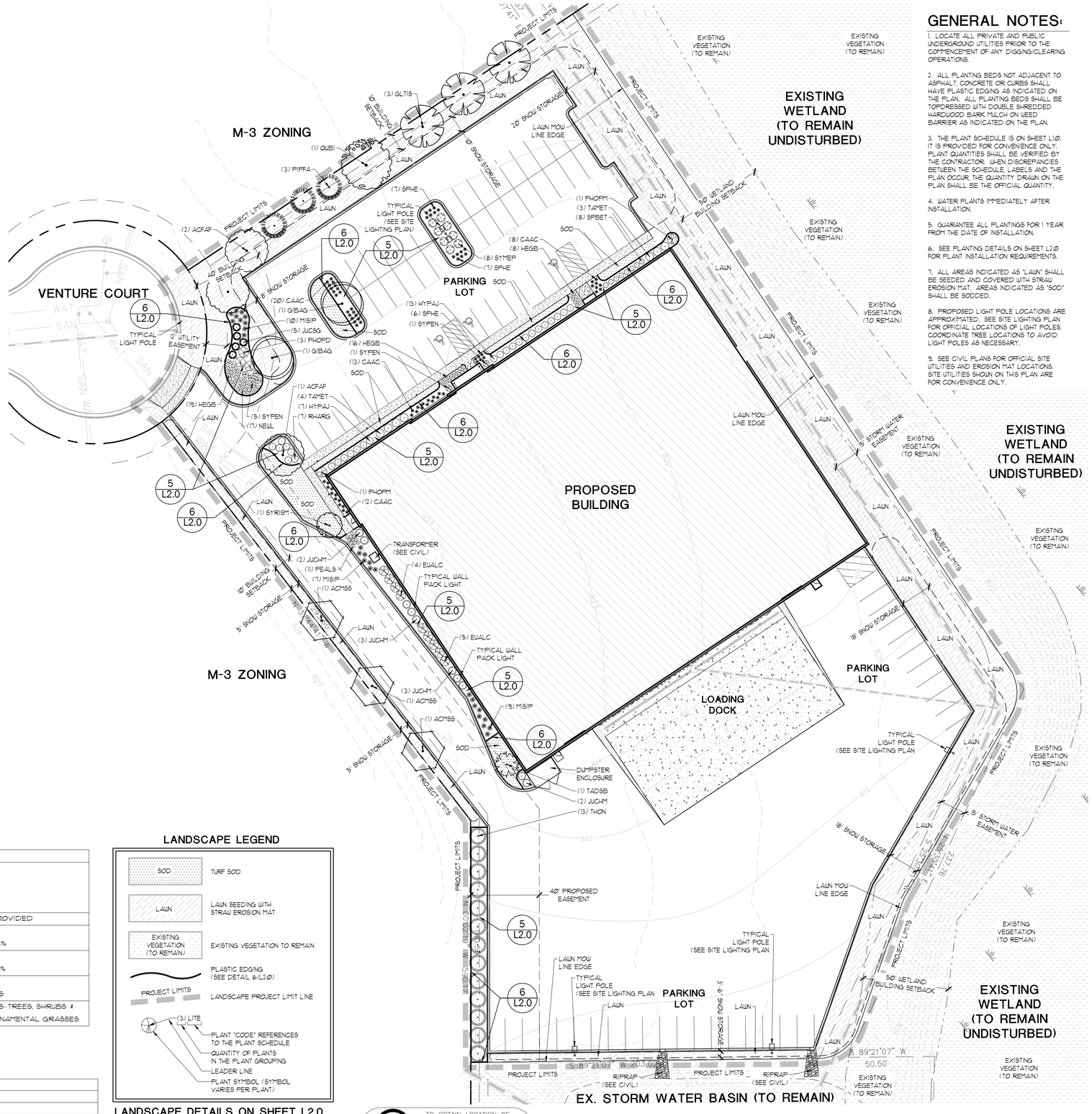
CODE	SCIENTIFIC NAME	COMMON NAME	QTY.	PLANTING SIZE	MATURE SIZE
JUCHM	Juniperus chinensis 'Mountbatten'	Mountbatten Chinese Juniper	10	4' Tall B4B	H-12', W-5'
JUCSG	Juniperus chinensis 'Sea Green'	Sea Green Juniper	5	18" Spread Pot	H-4', W-6'
TAMET	Taxus x media 'Tauntonii' Yew	Tauntonii Yew	7	24" Spread B4B	H-4', W-5'

DECIDUOUS SHRUBS (INSTALL IN ACCORDANCE WITH DETAIL 4/L2.0)

CODE	SCIENTIFIC NAME	COMMON NAME	QTY.	PLANTING SIZE	MATURE SIZE
EUALC	Euonymus alatus 'Compactus'	Dwarf Burning Bush	9	24" Tall B4B	H-5', W-7'
HYPAJ	Hydrangea paniculata 'Jane'	Little Lime Hydrangea	20	18" Tall Pot	H-4', W-4'
PHOPD	Physocarpus opulifolius 'Dart's Golden'	Dart's Golden Ninebark	3	36" Tall B4B	H-6', W-7'
PHOPM	Physocarpus opulifolius 'Monlo'	Purple Leaf Ninebark	2	36" Tall B4B	H-7', W-8'
RHARG	Rhus aromatica 'Gro-low'	Grow Low Sumac	7	18" Spread Pot	H-2', W-5'
SPBET	Spiraea betulifolia 'Tor'	Tor Birchleaf Spirea	8	18" Tall Pot	H-3', W-3'
SYMEP	Syringa meyeri 'Palibin'	Dwarf Korean Lilac	8	2' Tall B4B	H-5', W-7'
SYPEN	Syringa x 'Penda'	Bloomerang Purple Lilac	7	24" Tall Pot	H-5', W-5'

PERENNIALS / GRASSES / VINES

CODE	SCIENTIFIC NAME	COMMON NAME	QTY.	PLANTING SIZE	SPACING
CAAC	Calamagrostis acutiflora 'Karl Foerster'	Karl Foerster Feather Reed Grass	43	#1 Pot	24" O.C.
HEGB	Hemerocallis 'Going Bananas'	Going Bananas Daylily	43	#1 Pot	18" O.C.
MISIP	Miscanthus sinensis purpurascens	Flamegrass	26	#1 Pot	36" O.C.
NEWL	Nepeta x 'Walker's Low'	Walker's Low Catmint	17	#1 Pot	24" O.C.
PEALS	Perovskia atriplicifolia 'Little Spire'	Little Spire Russian Sage	11	#1 Pot	18" O.C.
SPHE	Sporobolus heterolepsis	Prairie Dropseed	20	#1 Pot	18" O.C.



LANDSCAPE CALCULATIONS - WAUKESHA

LANDSCAPE REQUIREMENTS		
SITE ZONING = M-3		
LOT AREA = 763,479 SF		
GREENSPACE AREA = 621,256 SF		
NORTH PARKING LOT PAVED AREA = 23,455 SF		
NORTH PARKING LOT INTERIOR LANDSCAPE AREA = 1183 SF	REQUIRED	PROVIDED
GREENSPACE REQUIREMENTS - MINIMUM 25% GREENSPACE 621,256 SF GREENSPACE / 763,479 SF LOT AREA= 0.814	25%	81.4%
PARKING LOT INTERIOR LANDSCAPE REQUIREMENTS - MINIMUM 5% 1183 SF INTERIOR LANDSCAPE / 23,455 SF PARKING AREA= 0.0504	5%	5.0%
PARKING LOT INTERIOR LANDSCAPE ISLANDS TO BE PLANTED WITH TREES, SHRUBS, FLOWERS AND SIMILAR PLANTINGS	YES	YES
PARKING LOT SCREENING FROM RIGHT-OF-WAY REQUIRED	YES	YES- TREES, SHRUBS & ORNAMENTAL GRASSES

LANDSCAPE LEGEND

LANDSCAPE DETAILS ON SHEET L2.0.

GRASS SEED MIX

GRASS SEED SHALL CONSIST OF THE FOLLOWING VARIETIES (OR APPROVED EQUAL):-

20% KENTUCKY BLUEGRASS (SOD QUALITY)
10% MERCURY KENTUCKY BLUEGRASS
20% KENBLUE KENTUCKY BLUEGRASS
25% CREEPING RED FESCUE
5% WICKED PERENNIAL RYEGRASS
10% FIESTA 4 PERENNIAL RYEGRASS

SEEDING RATE SHALL BE 4-1/2 POUNDS PER 1000 SQUARE FEET

SEEDS SHALL BE INSTALLED ¼" TO ½" BELOW FINISH GRADE.

ABBREVIATIONS

ABBREVIATION	FULL WORDS
B4B	Balled and burlapped
CAL.	Caliper
DBH	Diameter at breast height (Measured 4'-6" above finish grade)
DIA.	Diameter
EX.	Existing
HT/T	Height to tip
O.C.	On center
SQ. FT. -or- SF	Square feet
TR	Tree

INDEX OF SHEETS

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN
CALL DIGGERS HOTLINE
1-800-242-8511
TOLL FREE
WIS. STATUE 182.0175(1974) REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.

INFORMATION SHOWN ON THIS DRAWING IS BASED ON A SITE PLAN DEVELOPED BY DESIGN 2 CONSTRUCT, TOPOGRAPHIC SURVEY AND CIVIL DRAWINGS COMPLETED BY OTHERS. THE LANDSCAPE ARCHITECT MAKES NO WARRANTIES OR REPRESENTATIONS AS TO THE ACCURACY AND COMPLETENESS OF THE SITE PLAN, SURVEY AND CIVIL DRAWINGS. ALL INFORMATION SHOWN ON THE DRAWINGS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.

0' 30' 60' 90'
SCALE 1" = 30'-0"
NORTH

GENERAL NOTES:

1. LOCATE ALL PRIVATE AND PUBLIC UNDERGROUND UTILITIES PRIOR TO THE COMMENCEMENT OF ANY DIGGING/CLEARING OPERATIONS.

2. ALL PLANTING BEDS NOT ADJACENT TO ASPHALT, CONCRETE OR CURBS SHALL HAVE PLASTIC EDGING AS INDICATED ON THE PLAN. ALL PLANTING BEDS SHALL BE TOPDRESSED WITH DOUBLE SHREDDED HARDWOOD BARK MULCH ON WEED BARRIER AS INDICATED ON THE PLAN.

3. THE PLANT SCHEDULE IS ON SHEET L1.0. IT IS PROVIDED FOR CONVENIENCE ONLY. PLANT QUANTITIES SHALL BE VERIFIED BY THE CONTRACTOR. WHEN DISCREPANCIES BETWEEN THE SCHEDULE, LABELS AND THE PLAN OCCUR, THE QUANTITY DRAWN ON THE PLAN SHALL BE THE OFFICIAL QUANTITY.

4. WATER PLANTS IMMEDIATELY AFTER INSTALLATION.

5. GUARANTEE ALL PLANTINGS FOR 1 YEAR FROM THE DATE OF INSTALLATION.

6. SEE PLANTING DETAILS ON SHEET L2.0 FOR PLANT INSTALLATION REQUIREMENTS.

7. ALL AREAS INDICATED AS "LAWN" SHALL BE SEEDED AND COVERED WITH STRAW EROSION MAT. AREAS INDICATED AS "SOD" SHALL BE SODDED.

8. PROPOSED LIGHT POLE LOCATIONS ARE APPROXIMATED. SEE SITE LIGHTING PLAN FOR OFFICIAL LOCATIONS OF LIGHT POLES. COORDINATE TREE LOCATIONS TO AVOID LIGHT POLES AS NECESSARY.

9. SEE CIVIL PLANS FOR OFFICIAL SITE UTILITIES AND EROSION MAT LOCATIONS. SITE UTILITIES SHOWN ON THIS PLAN ARE FOR CONVENIENCE ONLY.

PARAGON DESIGN GROUP, LLC
• SITE DESIGN •
• LANDSCAPE ARCHITECTURE •
• PLANNING •
2776 North Sholes Avenue
Milwaukee, WI 53210
Tel: 414.449.1555
Fax: 414.449.2425
www.paragondg.com

PROJECT NAME
ZT DISTRIBUTION

PROJECT LOCATION
VENTURE COURT
WAUKESHA, WI 53189

CLIENT NAME & ADDRESS

SHEET TITLE
LANDSCAPE PLAN

REVISIONS
Date By

PROFESSIONAL SEAL
WISCONSIN BRIAN J. BOEDING No. 401 MILWAUKEE, WIS. LANDSCAPE ARCHITECT
1-27-2020
Signature Date

USE OF INFORMATION

PLAN COMMISSION SUBMITTAL - NOT FOR CONSTRUCTION

FILE NAME	ZT Distr LA
DRAWN BY	BJB
CHECKED BY	BJB
PDG PROJECT #	19-808
DATE	1-27-2020
SHEET NO.	L1.0

PARAGON
DESIGN GROUP, LLC

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• LANDSCAPE ARCHITECTURE •
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CLIENT NAME & ADDRESS

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LANDSCAPE DETAILS

REVISIONS

Date	By

PROFESSIONAL SEAL

WISCONSIN
BRIAN J. BOEDING
No. 401
MILWAUKEE, WIS.
LANDSCAPE ARCHITECT

1-27-2020

Signature Date

USE OF INFORMATION

PLAN COMMISSION SUBMITTAL - NOT FOR CONSTRUCTION

FILE NAME	ZT Distr LA
DRAWN BY	BJB
CHECKED BY	BJB
PDG PROJECT #	19-808
DATE	1-27-2020
SHEET NO.	L2.0

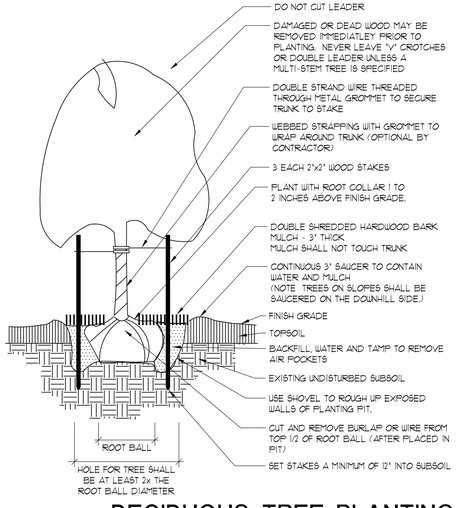
TREE STAKING AND PLANTING NOTES

1. STAKING - ONLY TREES THAT ARE UNABLE TO REMAIN UPRIGHT AFTER PLANTING SHALL BE STAKED. TREES WILL BECOME STRONGER FASTER WHEN THE TOP 2/3 OF THE TREE IS FREE TO SWAY. TIE WEBBED STRAPPING TO THE TREE 1/3 UP THE TRUNK AND WIRE TO THREE STAKES POSITIONED EVENLY AROUND THE TREE. STAKES SHOULD BE DRIVEN DEEPLY INTO THE GROUND TO PREVENT DISLODGING. CHECK AT LEAST EVERY THREE MONTHS FOR BINDING OR OTHER PROBLEMS. STAKES AND TIES SHOULD BE REMOVED SIX MONTHS TO ONE YEAR AFTER PLANTING.

2. PRUNING - CLEANLY PRUNE DAMAGED BRANCHES AND ROOTS AT THIS TIME. ADDITIONAL PRUNING SHOULD BE ONLY FOR SHAPING PURPOSES.

3. PLANTING - ALL SYNTHETIC MATERIAL SHOULD BE REMOVED FROM THE ROOTS, TRUNK, OR CROWN OF PLANT. SET THE PLANT SO IT WILL BE AT ITS ORIGINAL DEPTH SLIGHTLY ABOVE EXISTING GRADE. BACKFILL WITH SPECIFIED SOIL MIX.

4. WATERING - THE BACKFILL AND ROOTS OF ALL NEWLY SET PLANT MATERIAL SHOULD BE WATERED AS BACKFILLING IS DONE SO THE SOIL AND ROOTS ARE THOROUGHLY SOAKED.



1 L2.0 **DECIDUOUS TREE PLANTING**

SCALE: NOT TO SCALE

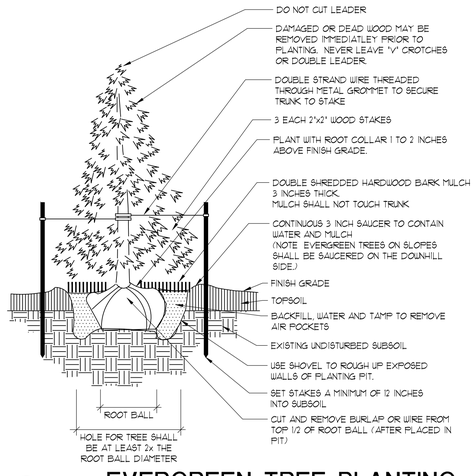
EVERGREEN TREE STAKING AND PLANTING NOTES

1. STAKING - ONLY EVERGREEN TREES THAT ARE UNABLE TO REMAIN UPRIGHT AFTER PLANTING SHALL BE STAKED. EVERGREEN TREES WILL BECOME STRONGER FASTER WHEN THE TOP 2/3 OF THE EVERGREEN TREE IS FREE TO SWAY. TIE WEBBED STRAPPING TO THE TREE 1/3 UP THE TRUNK AND WIRE TO THREE STAKES POSITIONED EVENLY AROUND THE EVERGREEN TREE. STAKES SHOULD BE DRIVEN DEEPLY INTO THE GROUND TO PREVENT DISLODGING. CHECK AT LEAST EVERY THREE MONTHS FOR BINDING OR OTHER PROBLEMS. STAKES AND TIES SHOULD BE REMOVED SIX MONTHS TO ONE YEAR AFTER PLANTING.

2. PRUNING - CLEANLY PRUNE ONLY DAMAGED BRANCHES AND ROOTS AT THIS TIME. ADDITIONAL PRUNING SHOULD BE ONLY FOR SHAPING PURPOSES.

3. PLANTING - ALL SYNTHETIC MATERIAL SHOULD BE REMOVED FROM THE ROOTS, TRUNK, OR CROWN OF PLANT. SET THE PLANT SO IT WILL BE AT ITS ORIGINAL DEPTH SLIGHTLY ABOVE EXISTING GRADE. BACKFILL WITH SPECIFIED SOIL MIX.

4. WATERING - THE BACKFILL AND ROOTS OF ALL NEWLY SET PLANT MATERIAL SHOULD BE WATERED AS BACKFILLING IS DONE SO THE SOIL AND ROOTS ARE THOROUGHLY SOAKED.



2 L2.0 **EVERGREEN TREE PLANTING**

SCALE: NOT TO SCALE

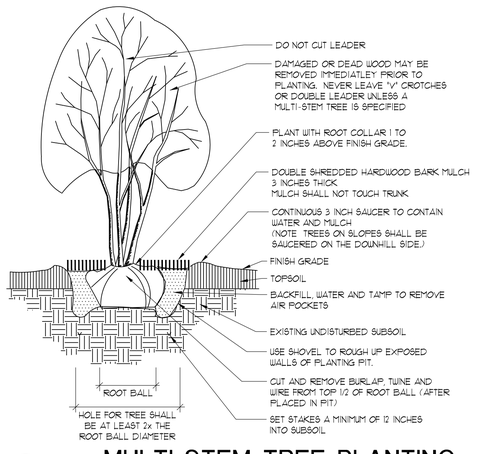
MULTI-STEM TREE STAKING AND PLANTING NOTES

1. STAKING - MULTI-STEM TREES SHALL NOT BE STAKED. TREES WILL BECOME STRONGER FASTER WHEN THE TOP 2/3 OF THE TREE IS FREE TO SWAY.

2. PRUNING - CLEANLY PRUNE DAMAGED BRANCHES AND ROOTS AT THIS TIME. ADDITIONAL PRUNING SHOULD BE ONLY FOR SHAPING PURPOSES.

3. PLANTING - ALL SYNTHETIC MATERIAL SHOULD BE REMOVED FROM THE ROOTS, TRUNK, OR CROWN OF PLANT. SET THE PLANT SO IT WILL BE AT ITS ORIGINAL DEPTH SLIGHTLY ABOVE EXISTING GRADE. BACKFILL WITH SPECIFIED SOIL MIX.

4. WATERING - THE BACKFILL AND ROOTS OF ALL NEWLY SET PLANT MATERIAL SHOULD BE WATERED AS BACKFILLING IS DONE SO THE SOIL AND ROOTS ARE THOROUGHLY SOAKED.



3 L2.0 **MULTI-STEM TREE PLANTING**

SCALE: NOT TO SCALE

SHRUB PLANTING NOTES

1. PRUNING - CLEANLY PRUNE DAMAGED BRANCHES AND ROOTS AT THIS TIME. ADDITIONAL PRUNING SHOULD BE ONLY FOR SHAPING PURPOSES.

2. PLANTING - ALL SYNTHETIC MATERIAL SHOULD BE REMOVED FROM THE ROOTS, TRUNK, OR CROWN OF PLANT. SET THE PLANT SO IT WILL BE AT ITS ORIGINAL DEPTH SLIGHTLY ABOVE EXISTING GRADE. BACKFILL WITH SPECIFIED SOIL MIX.

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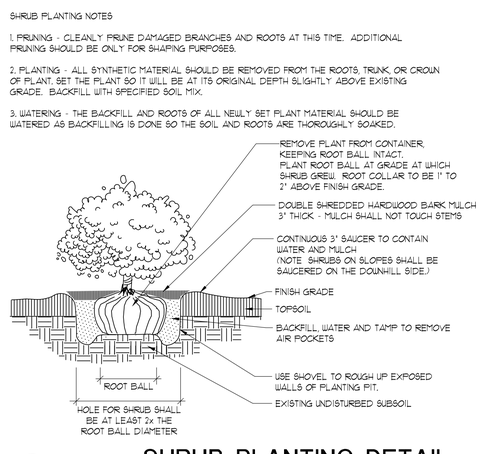
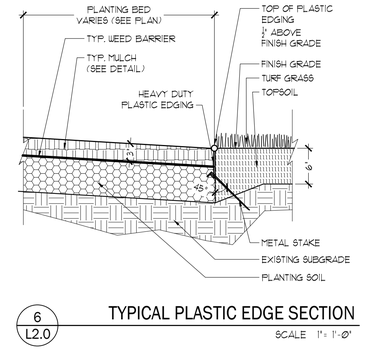


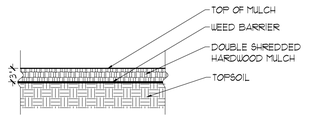
4 L2.0 **SHRUB PLANTING DETAIL**

SCALE: NOT TO SCALE



6 L2.0 **TYPICAL PLASTIC EDGE SECTION**

SCALE 1"= 1'-0"



5 L2.0 **TYPICAL SHREDDED HARDWOOD MULCH SECTION**

SCALE 3/4"= 1'-0"

PLANT PALETTE

DECIDUOUS TREES


Autumn Fantasy Maple (Fall)


Shademaster Honeylocust (Fall)


State Street Miyabe Maple (Fall)


Shawnee Brave Bald Cypress (Summer)


Autumn Gold Ginko (Fall)

Swamp White Oak (Summer)

ORNAMENTAL TREES


Ivory Silk Japanese Tree Lilac (Spring)

EVERGREEN TREES


Fat Albert Spruce


Dark Green Arborvitae

EVERGREEN SHRUBS


Mountbatten Juniper


Sea Green Juniper


Tauntonii Yew

DECIDUOUS SHRUBS


Dwarf Burning Bush (Fall)


Grow Low Sumac (Fall)


Little Lime Hydrangea (Summer)


Tor Birchleaf Spirea (Summer)


Dart's Golden Ninebark (Summer)


Bloomerang Lilac (Spring)


Purple Leaf Ninebark (Summer)


Dwarf Korean Lilac (Spring)

PERENNIALS/GRASSES


Karl Foerster Feather Reed Grass


Walker's Low Catmint


Going Bananas Daylily


Little Spire Russian Sage


Flamegrass (Fall)


Prairie Dropseed

ZT DISTRIBUTION

VENTURE COURT, WAUKESHA, WI 53189

PLANT PALETTE

DATE: 1-27-2020

WISCONSIN BRIAN J. BOEDING No. 401 MILWAUKEE, WIS. LANDSCAPE ARCHITECT 1-27-2020

PREPARED BY:

PARAGON DESIGN GROUP, LLC

LANDSCAPE ARCHITECT:
PARAGON DESIGN GROUP, LLC
2776 North Sholes Avenue
Milwaukee, WI 53210
Tel: 414.449.1555
Fax: 414.449.2425

PREPARED FOR:

ARCHITECT:
DESIGN 2 CONSTRUCT DEVELOPMENT CORP.
N173 W21010 Northwest Passage
Jackson, WI 53037
Tel: 262.677.9933
Fax: 262.677.9934

ZT DISTRIBUTION

VENTURE COURT, WAUKESHA, WI

LANDSCAPE PLAN RENDERING

0' 40' 80' 120'

SCALE: 1"=40'-0"

DATE: 1-27-2020

NORTH

PREPARED BY:

LANDSCAPE ARCHITECT:
PARAGON DESIGN GROUP, LLC
2776 North Sholes Avenue
Milwaukee, WI 53210
Tel: 414.449.1555
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N173 W21010 Northwest Passage
Jackson, WI 53037
Tel: 262.677.9933
Fax: 262.677.9934

City of Waukesha
Department of Public Works
130 Delafield Street
Waukesha, WI 53188
Waukesha-wi.gov

Landscape Plan Checklist

Attachment I
(Rev 04/18)

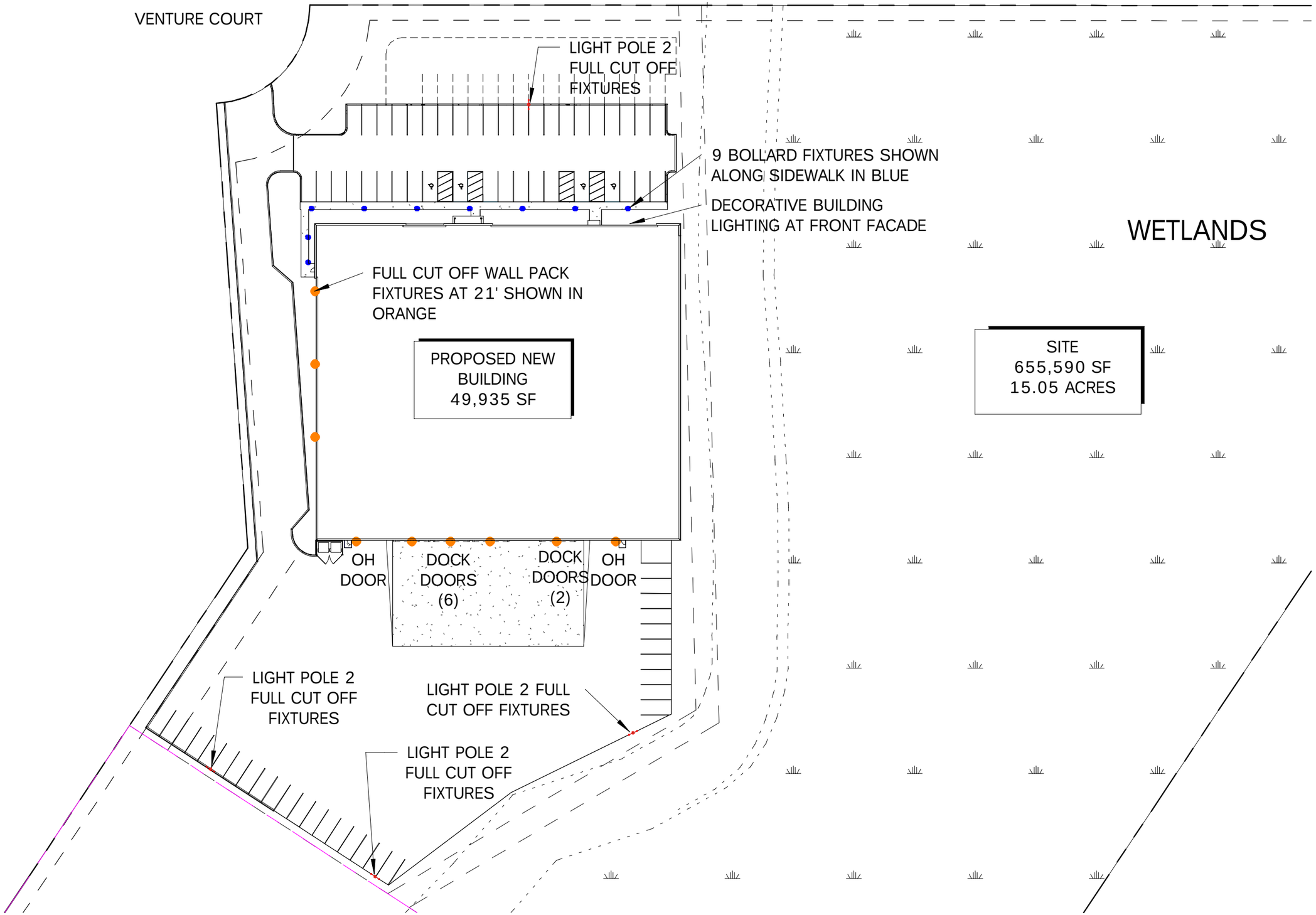
Project Name: ZT DISTRIBUTION

Engineering & Design Firm: PARAGON DESIGN GROUP, LLC

☐ Contact Community Development Department for Requirements

Listed below are general design considerations only:

YES	NO	N/A	
☒	☐	☐	Show easements
☒	☐	☐	Location and footprint of any and all buildings
☒	☐	☐	Dimensions of development site along property line
☒	☐	☐	Existing and proposed streets
☒	☐	☐	Pedestrian and vehicular access points
☒	☐	☐	Location and dimensions of parking lots, etc. DIMENSIONS ON SITE PLAN
☒	☐	☐	Location and dimensions of all existing or planned easements
☒	☐	☐	Location and dimensions of snow removal and storage areas
☒	☐	☐	Location and dimensions of outdoor lighting fixtures
☐	☐	☒	Interior parkway provided
☐	☐	☒	Parkway provided
☒	☐	☐	Buffer strip provided
☐	☐	☒	Dumpster enclosure details SEE ARCHITECTURAL PLANS
☒	☐	☐	Parking lot landscaping
☒	☐	☐	Utility/mechanical equipment screened
☒	☐	☐	Service area screened
☐	☐	☒	Location of freestanding signs NO GROUND SIGNS
☐	☐	☒	Walls and fences shown
☒	☐	☐	Location of utilities
☒	☐	☐	Existing and proposed contours and grades, including berm elevations
☒	☐	☐	Location, name and size of proposed plant materials
☒	☐	☐	Specifications of all types of all proposed ground cover, i.e., seed, sod, etc.
☐	☐	☒	Location, species, and size of existing trees
☐	☐	☒	Clear identification of trees to be removed
☒	☐	☐	Square footage of parking lot area
☐	☐	☒	Tree protection plan


VENTURE COURT
LIGHT POLE 2
FULL CUT OFF
FIXTURES
9 BOLLARD FIXTURES SHOWN
ALONG SIDEWALK IN BLUE
DECORATIVE BUILDING
LIGHTING AT FRONT FACADE
WETLANDS
FULL CUT OFF WALL PACK
FIXTURES AT 21' SHOWN IN
ORANGE
PROPOSED NEW
BUILDING
49,935 SF
SITE
655,590 SF
15.05 ACRES
OH
DOOR
DOCK
DOORS
(6)
DOCK
DOORS
(2)
OH
DOOR
LIGHT POLE 2
FULL CUT OFF
FIXTURES
LIGHT POLE 2 FULL
CUT OFF FIXTURES
LIGHT POLE 2
FULL CUT OFF
FIXTURES

Scale: 1 inch= 30 Ft.

Luminaire Schedule

Symbol	Label	Quantity	Manufacturer	Catalog Number	Lumens	LLF	Watts
	OB	9	EATON - LUMIERE (FORMER COOPER LIGHTING)	303-B1-LEDB2-4000-UNV-T2-DIM10-BK	1433	1.000	15.5
	OF	6	Visionaire Lighting LLC	VMF-1-FM-64LC-10-4K-UNV-KM-XX (2 FIXT. PER POLE ON BULLHORN)	26296	0.900	219
	OP1	1	Visionaire Lighting LLC	VSX-1-T3-25L-4K-UNV	23865	0.900	167
	OW1	3	Visionaire Lighting LLC	VSX-1-T4-25L-4K-UNV-WM-XX-BAWP	23518	0.900	167
	OW2	3	Visionaire Lighting LLC	VSX-1-T2-10L-4K-UNV-WM-XX-BAWP	9620	0.900	70
	OW3	2	Visionaire Lighting LLC	VSC-1-T3-16LC-3-4K-UNV-WM	2355	0.900	18

Calculation Summary

Label	Avg	Max	Min	Avg/Min	Max/Min	Units
SITE	1.42	10.3	0.0	N.A.	N.A.	Fc
PARKING-DRIVE	2.23	10.3	0.0	N.A.	N.A.	Fc

elan LIGHTING SYSTEMS
Milwaukee Main Office
16350 W. Glendale Dr.
New Berlin, WI 53151
Phone: 262-785-0144
layouts@elanlighting.com

THESE CALCULATIONS ARE ESTIMATES BASED ON INFORMATION AVAILABLE AT TIME OF LAYOUT REQUEST AND DO NOT REPRESENT ON-SITE CONDITIONS WITH 100% ACCURACY.

Date:1/23/2020

Paper Size: ARCH E1 - 30x42

ZT DISTRIBUTION SITE

VSC-II LED Specifications

Project Name:

Catalog Number:

Type:

The **VSC-II LED** wall mount Series continues the unique contemporary design that is inspired by the V-Collection light series. It combines LED performance and advanced LED thermal management technology and provides lighting that is energy efficient and aesthetically pleasing.

The LED performance and the driver's life are maximized by enclosing them in two separate cast aluminum housings. Easy access for mounting and maintenance.

The LED light assemblies come with 16, 32, or 48 LEDs.

Choose between 3000, 4000 or 5000 Kelvin temperature for the LEDs.

A durable polyester powder coat finish is guaranteed for five years; and is available in standard or custom colors.

The **VSC-II LED** Series is an exceptional choice for office complexes, schools, commercial buildings, and many architectural projects.

Ordering Information

MODEL	OPTICS	SOURCE	CURRENT	KELVIN	VOLTAGE	MOUNTING	FINISH	OPTIONS
VSC-II	**T1**	**16LC**	**3** 350mA	**3K** 3000K	**UNV** *120-277V	**WM** Wall Mount	**BZ** Bronze	**PC-120** Button Type Photocell
	T2	**32LC**					**BK** Black	**PC-208** Button Type Photocell
	T3	**48LC**	**5** 530mA	**4K** 4000K	**8** 347V	**VCB** Conduit Box Mounting Plate with (2) 1/2" Threaded Conduit Holes	**SBK** Smooth Black	**PC-240** Button Type Photocell
	T4		**7** 700mA	**5K** 5000K	**5** 480V		**WH** White	**PC-277** Button Type Photocell
	FM						**SWH** Smooth White	**WSC-8** Motion Sensor 8' Mounting Height
	FN		**10** 1050mA Not Available in 48LC				**GP** Graphite	**WSC-20** Motion Sensor 9-20' Mounting Height
							GY Grey	**WSC-40** Motion Sensor 21-40' Mounting Height The WSC option will require (1) FSIR 100 remote for programming
							SL Silver Metallic	**DIM** 0-10v Dimming Driver
							CC Custom Color	**EBPL** Emergency Battery Pack *Universal Voltage only *Not available in Up Light Orientation
								BP Back Plate
								CLS Back Side Cutoff Louver Shield

Heatsink
Cast aluminum heatsink with integral cooling fins for thermal management.

Mounting/Driver Compartment
Durable two-piece cast aluminum driver compartment utilizes a quick mount/set screw mounting for ease of maintenance and sealed with a one-piece gasket.

Thermal Management
· The VSC-II series provides excellent thermal management by mounting the LEDs to the substantial heat sink of the housing. This enables the Luminaire to withstand higher ambient temperatures and driver currents without degrading LED life.
· The L70 test determines the point in an LEDs life when it reaches 70 percent of its initial output. The VSC-II series LEDs have been determined to last 100,000+ hours in 25° C environments when driven at 350 mA.

Optical System
· The highest lumen output LEDs are utilized in the VSC-II series. Six IES distribution Types are available. The optical system qualifies as IES full cutoff to restrict light trespass, glare and light pollution.
· CRI values are 70.

Quali-Guard® Finish
· The finish is a Quali-Guard® textured, chemically pretreated through a multiple-stage washer, electrostatically applied, thermoset polyester powder coat finish, with a minimum of 3-5 millimeter thickness. Finish is oven-baked at 400º F to promote maximum adherence and finish hardness. All finishes are available in standard and custom colors.
· Finish is guaranteed for five (5) years.

Electrical Assembly
· The VSC-II LED series is supplied with a choice of 350, 530, 700, 1050 mA high-performance LED drivers that accept 120v thru 480v, 50 Hz to 60 Hz, input.
· Rated for -50°C operations.
· Power factor of 90%.
· THD less than or equal to 20%
· 10 kV surge protector supplied as standard.

Warranty
Five (5) year Limited Warranty on electrical components, Five (5) year on finish. For full warranty information, please visit visionairelighting.com

Options
· Button Type Photocell
· Motion Sensor
· 0-10 Volt Dimming Driver
· Back Plate
· Cut-Off Louver Shield
· Diffused Lens
· Up-Light Orientation

Listings
· The VSC-II is cUL listed, suitable for wet locations.
· IP65 Rated
· Powder Coated Tough
· DLC Listed
· IDA Certification

DesignLights Consortium (DLC) qualified Product. Some configurations of this product family may not be DesignLights Consortium (DLC) listed, please refer to the DLC qualified products list to confirm listed configurations. http://www.designlights.org/
3000K must be selected for IDA certification.

Motion Sensor Default Setting									
Type	High Mode	Low Mode	Time Delay	Cut off Delay	Sensitivity	Hold Off Setpoint	Photocell On/Off	Ramp Up Time	Fade Down Time
WSC - Default	10V	1V	5 Min	1 Hour	Max	Disabled	Disabled	Disabled	Disabled
WSC Range	0 -10V	0 - 9.8V	5 - 30 Min	1 - 5 Hours	Low, Med, Max	1 - 250FC	1 - 250FC	1 - 60 Dec	1-60 Dec

VSC-II LED Specifications

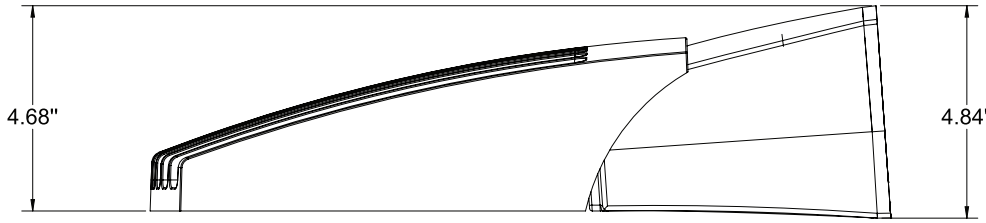
Photometric Optical Summary

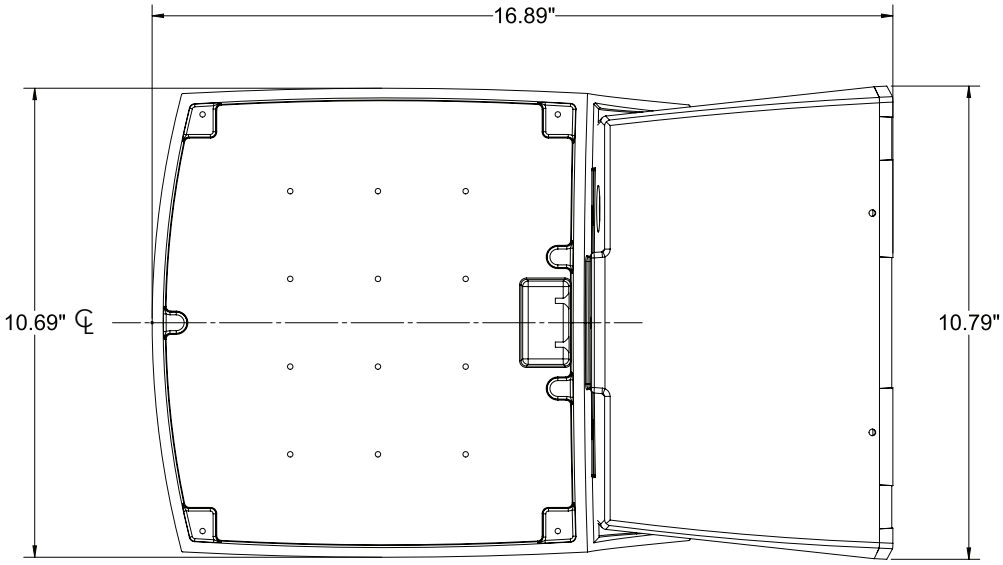
Not all optics are available on all fixtures. Check ordering chart for availability

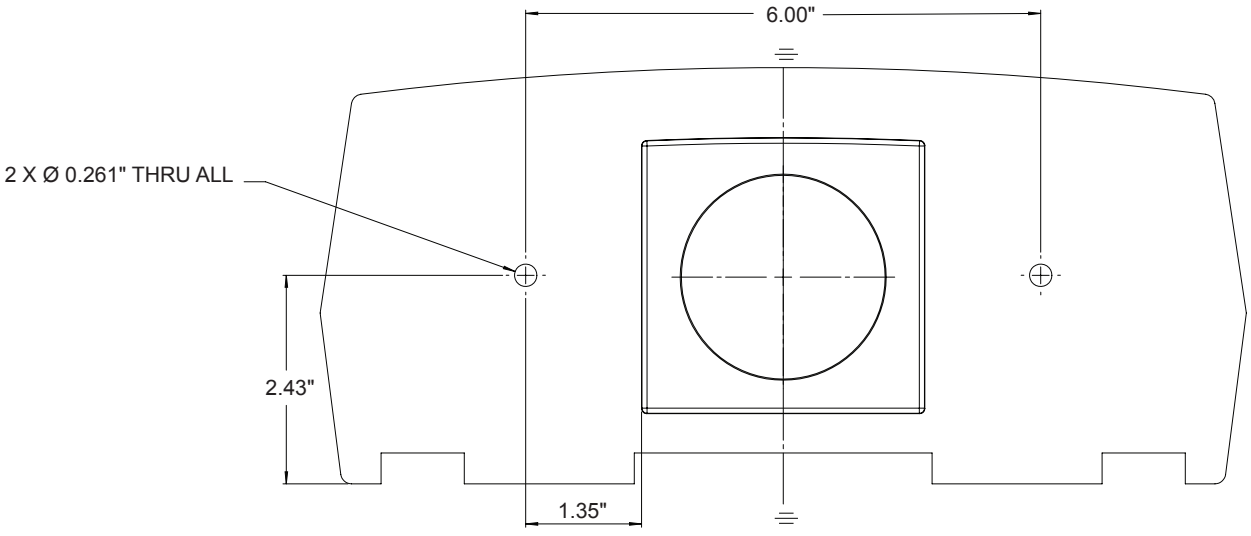
T1	T2	T3	T4	FN	FM
Type 1	Type 2	Type 3	Type 4	Flood Narrow	Flood Medium

Dimensions

Width:	VSC-II 10.8”
Depth:	VSC-II 17”
Height:	VSC-II 5”
Weight:	20 LBS







#LED	mA	Type 1	B	U	G	Type 2	B	U	G	Type 3	B	U	G	Type 4	B	U	G	FN	B	U	G	FM	B	U	G	Watts
3K Lumen Data *Lumen data updated 11.21.17																										
16	350	2413	1	0	1	2220	1	0	1	2238	0	0	1	2190	1	0	1	2443	2	0	0	2481	2	0	1	18
	530	3237	2	0	2	2978	1	0	1	3002	1	0	1	2938	1	0	1	3278	3	0	0	3329	3	0	1	26
	700	4273	2	0	2	3931	1	0	2	3963	1	0	1	3878	1	0	1	4326	3	0	0	4395	3	0	1	37
	1000	6049	3	0	3	5565	1	0	2	5610	1	0	1	5490	1	0	2	6124	3	0	1	6221	3	0	1	56
32	350	4859	2	0	2	4470	1	0	2	4506	1	0	1	4410	1	0	1	4919	3	0	0	4997	3	0	1	37
	530	6519	3	0	3	5997	1	0	2	6046	1	0	2	5916	1	0	2	6600	4	0	0	6704	4	0	1	52
	700	8604	3	0	3	7916	2	0	2	7980	1	0	2	7809	2	0	2	8711	4	0	0	8849	4	0	1	74
	1000	12097	3	0	3	11130	2	0	3	11219	2	0	2	10980	2	0	3	12248	4	0	1	12441	4	0	1	112
48	350	7288	3	0	3	6705	1	0	2	6759	1	0	2	6615	1	0	2	7379	4	0	0	7495	4	0	1	55
	530	9778	3	0	3	8996	2	0	3	9069	1	0	2	8875	2	0	2	9900	4	0	0	10057	4	0	1	78
	700	12906	3	0	3	11874	2	0	3	11970	2	0	2	11714	2	0	3	13067	5	0	0	13274	5	0	1	105
4K Lumen Data																										
16	350	2540	1	0	1	2337	1	0	1	2355	1	0	1	2305	1	0	1	2571	3	0	0	2612	3	0	0	18
	530	3408	2	0	2	3135	1	0	1	3160	1	0	1	3093	1	0	1	3450	3	0	1	3505	3	0	1	26
	700	4498	2	0	2	4138	1	0	2	4171	1	0	1	4082	1	0	1	4554	3	0	1	4626	3	0	1	37
	1000	6367	3	0	3	5858	1	0	2	5905	1	0	2	5779	1	0	2	6446	4	0	1	6548	4	0	1	56
32	350	5114	2	0	2	4705	1	0	2	4743	1	0	1	4642	1	0	1	5178	3	0	1	5260	3	0	1	37
	530	6862	3	0	3	6313	2	0	2	6364	1	0	2	6228	1	0	2	6947	4	0	1	7057	4	0	1	52
	700	9057	3	0	3	8333	2	0	3	8400	1	0	2	8221	2	0	2	9170	4	0	1	9315	4	0	1	74
	1000	12734	3	0	3	11715	2	0	3	11810	2	0	2	11558	2	0	3	12892	5	0	1	13096	5	0	1	112
48	350	7671	3	0	3	7058	2	0	2	7115	1	0	2	6963	1	0	2	7767	4	0	1	7890	4	0	1	55
	530	10293	3	0	3	9470	2	0	3	9546	1	0	2	9342	2	0	2	10421	4	0	1	10586	4	0	1	78
	700	13586	3	0	3	12499	3	0	3	12600	2	0	2	12331	2	0	3	13755	5	0	1	13972	5	0	1	105
5K Lumen Data																										
16	350	2437	1	0	1	2242	1	0	1	2260	1	0	1	2212	1	0	1	2468	2	0	0	2507	2	0	1	18
	530	3270	2	0	2	3008	1	0	1	3033	1	0	1	2968	1	0	1	3311	3	0	1	3363	3	0	1	26
	700	4316	2	0	2	3971	1	0	2	4003	1	0	1	3918	1	0	1	4370	3	0	1	4439	3	0	1	37
	1000	6110	3	0	3	5621	1	0	2	5666	1	0	2	5545	1	0	2	6186	3	0	1	6284	3	0	1	56
32	350	4908	2	0	2	4515	1	0	2	4552	1	0	1	4454	1	0	1	4969	3	0	1	5047	3	0	1	37
	530	6585	3	0	3	6058	2	0	2	6107	1	0	2	5977	1	0	2	6667	4	0	1	6772	4	0	1	52
	700	8691	3	0	3	7996	2	0	3	8061	1	0	2	7889	2	0	2	8799	4	0	1	8939	4	0	1	74
	1000	12219	3	0	3	11242	2	0	3	11333	2	0	2	11091	2	0	3	12371	4	0	1	12567	4	0	1	112
48	350	7362	3	0	3	6773	2	0	2	6827	1	0	2	6682	1	0	2	7453	4	0	1	7571	4	0	1	55
	530	9877	3	0	3	9087	2	0	3	9160	1	0	2	8965	2	0	2	10000	4	0	1	10158	4	0	1	78
	700	13037	4	0	4	11994	3	0	3	12091	2	0	2	11833	2	0	3	13199	5	0	1	13408	5	0	1	105

Visit www.VisionaireLighting.com for up-to-the-minute chart information, including types not listed here.

Ordering Nomenclature	System Watts	120V	208V	240V	277V	347V	480V
Electrical Load							
VSC-II-T3-16LC-3-4K	18	0.15	0.09	0.08	0.06	0.05	0.04
VSC-II-T3-16LC-5-4K	26	0.22	0.13	0.11	0.09	0.07	0.05
VSC-II-T3-16LC-7-4K	37	0.31	0.18	0.15	0.13	0.11	0.08
VSC-II-T3-16LC-10-4K	56	0.47	0.27	0.23	0.20	0.16	0.12
VSC-II-T3-32LC-3-4K	37	0.31	0.18	0.15	0.13	0.11	0.08
VSC-II-T3-32LC-5-4K	52	0.43	0.25	0.22	0.19	0.15	0.11
VSC-II-T3-32LC-7-4K	74	0.62	0.36	0.31	0.27	0.21	0.15
VSC-II-T3-32LC-10-4K	112	0.93	0.54	0.47	0.40	0.32	0.23
VSC-II-T3-48LC-3-4K	55	0.46	0.26	0.23	0.20	0.16	0.11
VSC-II-T3-48LC-5-4K	78	0.65	0.38	0.33	0.28	0.22	0.16
VSC-II-T3-48LC-7-4K	105	0.88	0.50	0.44	0.38	0.30	0.22

VSX Array LED Specifications

Project Name:

Catalog Number:

Type:

The new **VSX Array LED** Series offers clean, functional styling that is defined by its sleek low profile design and rugged construction. It combines the latest LED Array technology, advanced LED thermal management and provides outdoor lighting that is both energy efficient and aesthetically pleasing.

The LED's performance and the driver's life are maximized by enclosing them in two separate die cast aluminum housings. Easy tool-less access for mounting and maintenance.

The VSX Array LED fixture is offered with lumen packages ranging from 5,000 - 25,000. Choose between 3000, 4000 or 5000 Kelvin temperature of the LEDs.

A durable polyester powder coat finish is guaranteed for five years; and is available in standard or custom colors.

The **VSX Array LED** series is an exceptional choice for commercial parking lots, office complexes, architectural projects, and other general lighting projects.

Ordering Information

MODEL	OPTICS	LUMENS	KELVIN	VOLTAGE	MOUNTING	FINISH	OPTIONS	OPTIONS	OPTIONS
VSX-1	**T1** Type 1 **T2** Type 2 **T3** Type 3 **T3L** Type 3 Long **T4** Type 4 **T4L** Type 4 Long **T4A** Type 4 Automotive **T5SR** Type 5 Short Round **T5LR** Type 5 Long Round **T5LS** Type Long Square	**5L** **10L** **15L** **20L** **25L**	**3K** 3000K **4K** 4000K **5K** 5000K	**UNV** 120-277V **8** 347V **5** 480V	**AM** Arm Mount Round Pole Plate Adaptors (RPP) are to be ordered separately. BAWP to be ordered separately. **WM** Wall Mount *Requires BAWP	**BZ** Bronze **BK** Black **SBK** Smooth Black **WH** White **SWH** Smooth White **GP** Graphite **GY** Grey **SL** Silver Metallic **CC** Custom Color	**PCR-120** Photocell & Receptacle **PCR-208** Photocell & Receptacle **PCR-240** Photocell & Receptacle **PCR-277** Photocell & Receptacle **PCR-347** Photocell & Receptacle **PCR-480** Photocell & Receptacle **PER** 3 Pin Photo Receptacle w/shorting cap **5PINPER** 5 Pin Photo Receptacle w/shorting cap Requires Dimming Driver **7PINPER** 7 Pin Photo Receptacle w/shorting cap Requires Dimming Driver **DIM** 0-10v Dimming Driver	**WSC-8** Motion Sensor 8' Mounting Height **WSC-20** Motion Sensor 9-20' Mounting Height **WSC-40** Motion Sensor 21-40' Mounting Height *The WSC option will require (1) FSIR 100 remote for programing **VWC** Visionaire Wireless Controls *Consult Factory **RPP3** For 3"Ø Pole - Round Pole Plate Adaptor **RPP4** For 4"Ø Pole - Round Pole Plate Adaptor **RPP5** For 5"Ø Pole - Round Pole Plate Adaptor	**UPMA-S** Universal Square Pole Mount Adaptor **UPMA-R** Universal Round Pole Mount Adaptor **BAWP** Cast Wall Plate **ROT-R** Rotated Optics Right Side **ROT-L** Rotated Optics Left Side **CLS** Backside cutoff shield *CLS option available up to 45L only **RCLS** Rightside cutoff shield **LCLS** Leftside cutoff shield *CLS options not offered in 50L or 55L **HS** House shield

Housing
Cast aluminum LED housing with integral cooling fins for thermal management.

Mounting Arm/Driver Compartment
Durable two-piece cast aluminum driver compartment utilizes a captive screw for ease of maintenance and sealed with a one-piece silicone gasket.

Thermal Management
· The VSX Array LED series provides excellent thermal management by mounting the LED Arrays to the substantial heat sink of the housing. This enables the Luminaire to withstand higher ambient temperatures and driver currents without degrading LED life.
· The L70 test determines the point in an LEDs life when it reaches 70 percent of its initial output. The VSX Array series LEDs have been determined to last 100,000+ hours in 25° C environments when driven at 1400 mA.

Optical System
· The highest lumen output LED Arrays are utilized in the VSX series. IES distribution Types I, II, III, IIIL, IV, IVL, IVA, VSR, VLR and VLS are available. The optical system qualifies as IES full cutoff to restrict light trespass, glare and light pollution.
· CRI values are 70.

New LED Array Technology
· 4 Diodes now replace a single Led chip and operate at 25% of the drive current allowing for higher efficiency, less heat and longer life. (10 Year Warranty)
· More LEDs at a lower drive current provides a more comfortable visual effect.

Quali-Guard® Finish
· The finish is a Quali-Guard® textured, chemically pretreated through a multiple-stage washer, electrostatically applied, thermoset polyester powder coat finish, with a minimum of 3-5 millimeter thickness. Finish is oven-baked at 400º F to promote maximum adherence and finish hardness. All finishes are available in standard and custom colors.
· Finish is guaranteed for five (5) years.

Electrical Assembly
· The VSX Array LED series is supplied with a choice of 350, 530, 700,1050, 1200 or 1400 mA high-performance LED drivers that accept 120v thru 480v, 50 Hz to 60 Hz, input. Power factor of 90%. Rated for -40°C operations.
· 10 kV surge protector supplied as standard.
· Terminal block supplied as standard.

Warranty
Ten (10) year Limited Warranty on electrical components (Driver & LED Boards), Five (5) year on finish. For full warranty information, please visit visionairelighting.com.

Options
· Photocell & receptacle
· Photo receptacle
· 0-10v Dimming Driver
· Motion Sensor
· Wireless Control
· Round pole plate adapter
· Universal Pole Mount Adaptor
· Cast Wall Plate
· Rotated Optics

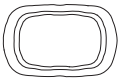
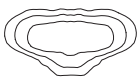
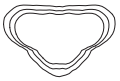
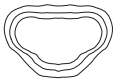
Listings
· The VSX Series is cUL Listed
· IP65 Rated Housing
· ANSI Certification
· Powder Coated Tough
· DLC Listed
· DLC Premium Listed
· IDA Certification

DesignLights Consortium (DLC) qualified Product. Some configurations of this product family may not be DesignLights Consortium (DLC) listed, please refer to the DLC qualified products list to confirm listed configurations. http://www.designlights.org/
3000K must be selected with a fixed mount for IDA certification.

VSX ARRAY - ELECTRICAL LOAD (A)							
Ordering Nomenclature	**System Watts**	**120**	**208**	**240**	**277**	**347**	**480**
VSX-1-T5LS-5L	34	0.28	0.16	0.14	0.12	0.10	0.07
VSX-1-T5LS-10L	70	0.58	0.34	0.29	0.25	0.20	0.15
VSX-1-T5LS-15L	102	0.85	0.49	0.43	0.37	0.29	0.21
VSX-1-T5LS-20L	134	1.12	0.64	0.56	0.48	0.39	0.28
VSX-1-T5LS-25L	167	1.39	0.80	0.70	0.60	0.48	0.35

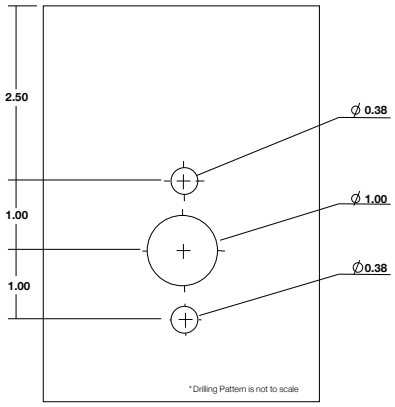
VSX Array LED Specifications

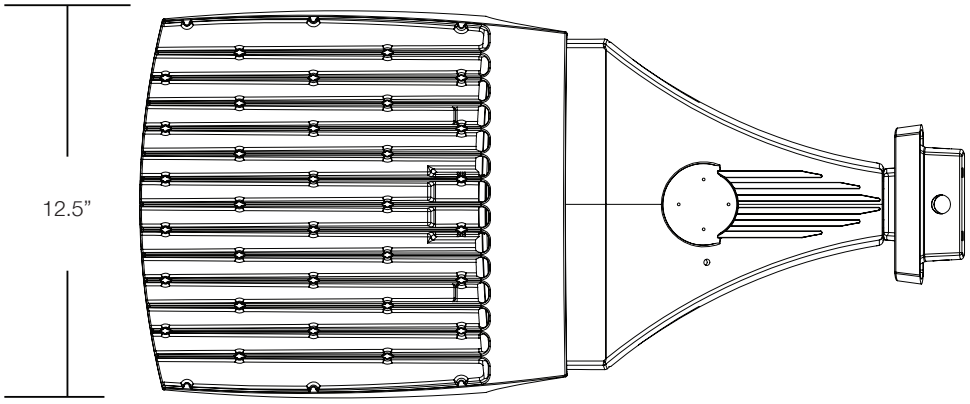
Photometric Optical Summary

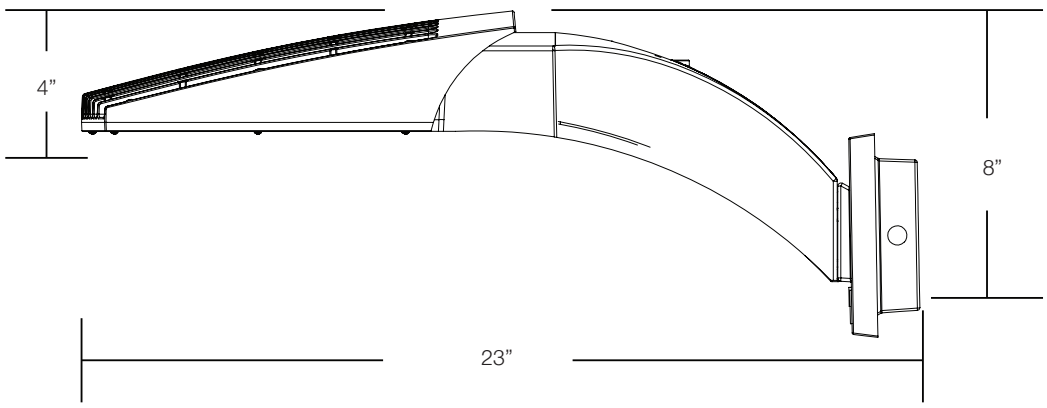
T1 Type 1	T2 Type 2	T3 Type 3	T3L Type 3 Long	T4 Type 4	T4L Type 4 Long	T4A Type 4 Automotive	T5SR Type 5 Short Round	T5LR Type 5 Long Round	T5LS Type 5 Long Square
									
VSX EPA Data	0.58	.92	1.16	1.45	1.40	1.48			

Dimensions

Width:	VSX-1	12.5”
Depth:	VSX-1	23”
Height:	VSX-1	4”
Overall Height:	VSX-1	8”
Weight:	25 LBS	







VSX ARRAY - 3K LUMEN DATA

LUMENS	mA	# LEDs	T1	T2	T3	T3L	T4	T4L	T4A	T5SR	T5LR	T5LS	Watts
5L	700	16	4533	4513	4477	4213	4412	4170	4504	4616	4389	4582	34
10L	1400		8725	8687	8618	8110	8493	8026	8668	8884	8448	8819	70
15L	1050	32	13694	13634	13526	12730	13329	12597	13605	13943	13260	13841	102
20L	1400		17648	17571	17431	16404	17178	16234	17533	17969	17088	17837	134
25L	1200	48	21818	21723	21550	20281	21237	20070	21676	22215	21126	22052	167

VSX ARRAY - 4K LUMEN DATA

LUMENS	mA	# LEDs	T1	T2	T3	T3L	T4	T4L	T4A	T5SR	T5LR	T5LS	Watts
5L	700	16	5020	4998	4958	4667	4886	4618	4987	5111	4861	5074	34
10L	1400		9662	9620	9544	8982	9405	8888	9599	9838	9356	9766	70
15L	1050	32	15165	15099	14979	14097	14761	13950	15066	15441	14684	15328	102
20L	1400		19544	19458	19304	18167	19023	17978	19416	19899	18924	19753	134
25L	1200	48	24162	24056	23865	22459	23518	22225	24004	24601	23395	24421	167

VSX ARRAY - 5K LUMEN DATA

LUMENS	mA	# LEDs	T1	T2	T3	T3L	T4	T4L	T4A	T5SR	T5LR	T5LS	Watts
5L	700	16	5020	4998	4958	4667	4886	4618	4987	5111	4861	5074	34
10L	1400		9662	9620	9544	8982	9405	8888	9599	9838	9356	9766	70
15L	1050	32	15165	15099	14979	14097	14761	13950	15066	15441	14684	15328	102
20L	1400		19544	19458	19304	18167	19023	17978	19416	19899	18924	19753	134
25L	1200	48	24162	24056	23865	22459	23518	22225	24004	24601	23395	24421	167

VSX ARRAY - 3K PER WATT LUMEN DATA

LUMENS	mA	# LEDs	T1	T2	T3	T3L	T4	T4L	T4A	T5SR	T5LR	T5LS	Watts
5L	700	16	133	133	132	124	130	123	132	136	129	135	34
10L	1400		125	124	123	116	121	115	124	127	121	126	70
15L	1050	32	135	134	133	125	131	124	134	137	130	136	102
20L	1400		132	131	130	122	128	121	131	134	128	133	134
25L	1200	48	131	130	129	121	127	120	130	133	126	132	167

VSX ARRAY - 4K LUMEN PER WATT DATA

LUMENS	mA	# LEDs	T1	T2	T3	T3L	T4	T4L	T4A	T5SR	T5LR	T5LS	Watts
5L	700	16	148	147	146	137	144	136	147	150	143	149	34
10L	1400		138	137	136	128	134	127	137	141	134	140	70
15L	1050	32	149	148	147	139	145	137	148	152	144	151	102
20L	1400		146	145	144	136	142	134	145	149	141	147	134
25L	1200	48	145	144	143	134	141	133	144	147	140	146	167

VSX ARRAY - 5K LUMEN PER WATT DATA

LUMENS	mA	# LEDs	T1	T2	T3	T3L	T4	T4L	T4A	T5SR	T5LR	T5LS	Watts
5L	700	16	148	147	146	137	144	136	147	150	143	149	34
10L	1400		138	137	136	128	134	127	137	141	134	140	70
15L	1050	32	149	148	147	139	145	137	148	152	144	151	102
20L	1400		146	145	144	136	142	134	145	149	141	147	134
25L	1200	48	145	144	143	134	141	133	144	147	140	146	167

VSX ARRAY - 3K BUG DATA

LUMENS	mA	# LEDs	T1			T2			T3			T3L			T4			T4L			T4A			T5SR			T5LR			T5LS			Watts
			B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	
5L	700	16	2	0	2	1	0	1	1	0	1	2	0	2	1	0	1	2	0	3	1	0	1	2	0	1	3	0	2	3	0	1	34
10L	1400		3	0	3	2	0	2	2	0	2	3	0	3	2	0	2	3	0	3	2	0	2	3	0	1	3	0	2	3	0	2	70
15L	1050	32	4	0	4	3	0	3	3	0	3	3	0	3	3	0	3	3	0	3	2	0	2	4	0	2	4	0	3	4	0	2	102
20L	1400		4	0	4	3	0	3	3	0	3	3	0	4	3	0	3	3	0	3	3	0	3	4	0	2	4	0	3	4	0	2	134
25L	1200	48	4	0	4	3	0	3	3	0	3	4	0	4	3	0	3	3	0	3	3	0	3	4	0	2	5	0	4	5	0	3	167

VSX ARRAY - 3K BUG DATA

LUMENS	mA	# LEDs	T1			T2			T3			T3L			T4			T4L			T4A			T5SR			T5LR			T5LS			Watts
			B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	
5L	700	16	2	0	2	1	0	1	1	0	1	2	0	2	1	0	1	2	0	3	1	0	1	2	0	1	3	0	2	3	0	1	34
10L	1400		3	0	3	2	0	2	2	0	2	3	0	3	2	0	2	3	0	3	2	0	2	3	0	1	3	0	2	3	0	2	70
15L	1050	32	4	0	4	3	0	3	3	0	3	3	0	3	3	0	3	3	0	3	2	0	2	4	0	2	4	0	3	4	0	2	102
20L	1400		4	0	4	3	0	3	3	0	3	3	0	4	3	0	3	3	0	3	3	0	3	4	0	2	4	0	3	4	0	2	134
25L	1200	48	4	0	4	3	0	3	3	0	3	4	0	4	3	0	3	3	0	3	3	0	3	4	0	2	5	0	4	5	0	3	167

VSX ARRAY - 3K BUG DATA

LUMENS	mA	# LEDs	T1			T2			T3			T3L			T4			T4L			T4A			T5SR			T5LR			T5LS			Watts
			B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	
5L	700	16	2	0	2	1	0	1	1	0	1	2	0	2	1	0	1	2	0	3	1	0	1	2	0	1	3	0	2	3	0	1	34
10L	1400		3	0	3	2	0	2	2	0	2	3	0	3	2	0	2	3	0	3	2	0	2	3	0	1	3	0	2	3	0	2	70
15L	1050	32	4	0	4	3	0	3	3	0	3	3	0	3	3	0	3	3	0	3	2	0	2	4	0	2	4	0	3	4	0	2	102
20L	1400		4	0	4	3	0	3	3	0	3	3	0	4	3	0	3	3	0	3	3	0	3	4	0	2	4	0	3	4	0	2	134
25L	1200	48	4	0	4	3	0	3	3	0	3	4	0	4	3	0	3	3	0	3	3	0	3	4	0	2	5	0	4	5	0	3	167

VSX ARRAY LED Specifications

VSX ARRAY - HOUSE SHIELD 3K LUMEN DATA													
# LEDs	Current (mA)	Lumens	T1	T2	T3	T3L	T4	T4L	T4A	T5SR	T5LR	T5LS	Watts
16	700	5L	1096	1477	1444	1385	1704	1387	1517	1264	1538	1171	34
	1400	10L	2110	2844	2780	2665	3280	2669	2919	2433	2961	2253	70
32	1050	15L	3312	4463	4363	4183	5148	4190	4581	3819	4647	3537	102
	1400	20L	4268	5752	5623	5391	6635	5399	5903	4921	5988	4558	134
48	1200	25L	5276	7112	6952	6665	8203	6675	7298	6084	7404	5635	167
VSX ARRAY - HOUSE SHIELD 4K LUMEN DATA													
# LEDs	Current (mA)	Lumens	T1	T2	T3	T3L	T4	T4L	T4A	T5SR	T5LR	T5LS	Watts
16	700	5L	1214	1636	1599	1534	1887	1536	1679	1400	1704	1296	34
	1400	10L	2337	3149	3079	2952	3633	2669	3232	2694	3279	2495	70
32	1050	15L	3667	4943	4832	4633	5701	4640	5073	4229	5146	3917	102
	1400	20L	4727	6370	6227	5970	7348	5979	6537	5450	6632	5047	134
48	1200	25L	5843	7875	7699	7381	9084	7392	8082	6738	8199	6240	167
VSX ARRAY - HOUSE SHIELD 5K LUMEN DATA													
# LEDs	Current (mA)	Lumens	T1	T2	T3	T3L	T4	T4L	T4A	T5SR	T5LR	T5LS	Watts
16	700	5L	1214	1636	1599	1534	1887	1536	1679	1400	1704	1296	34
	1400	10L	2337	3149	3079	2952	3633	2669	3232	2694	3279	2495	70
32	1050	15L	3667	4943	4832	4633	5701	4640	5073	4229	5146	3917	102
	1400	20L	4727	6370	6227	5970	7348	5979	6537	5450	6632	5047	134
48	1200	25L	5843	7875	7699	7381	9084	7392	8082	6738	8199	6240	167
VSX ARRAY - CUTOFF LOUVER SHIELD 3K LUMEN DATA													
# LEDs	Current (mA)	Lumens	T1	T2	T3	T3L	T4	T4L	T4A	T5SR	T5LR	T5LS	Watts
16	700	5L	3576	3639	3730	3506	3463	3469	3747	3631	3298	3489	34
	1400	10L	6883	7004	7179	6748	6667	6677	7211	6988	6347	6715	70
32	1050	15L	10803	10992	11268	10591	10463	10481	11317	10967	9962	10539	102
	1400	20L	13923	14167	14521	13649	13484	13507	14585	14134	12838	13582	134
48	1200	25L	17212	17514	17952	16874	16670	16698	18031	17474	15872	16792	167
VSX ARRAY - CUTOFF LOUVER SHIELD 4K LUMEN DATA													
# LEDs	Current (mA)	Lumens	T1	T2	T3	T3L	T4	T4L	T4A	T5SR	T5LR	T5LS	Watts
16	700	5L	3960	4030	4130	3883	3835	3842	4148	4020	3652	3864	34
	1400	10L	7622	7756	7951	7473	7383	7395	7985	7738	7029	7436	70
32	1050	15L	11964	12174	12478	11729	11587	11606	12533	12145	11032	11672	102
	1400	20L	15418	15688	16081	15115	14932	14958	16151	15652	14218	15041	134
48	1200	25L	19061	19395	19881	18686	18461	18492	19968	19351	17577	18596	167
VSX ARRAY - CUTOFF LOUVER SHIELD 5K LUMEN DATA													
# LEDs	Current (mA)	Lumens	T1	T2	T3	T3L	T4	T4L	T4A	T5SR	T5LR	T5LS	Watts
16	700	5L	3960	4030	4130	3883	3835	3842	4148	4020	3652	3864	34
	1400	10L	7622	7756	7951	7473	7383	7395	7985	7738	7029	7436	70
32	1050	15L	11964	12174	12478	11729	11587	11606	12533	12145	11032	11672	102
	1400	20L	15418	15688	16081	15115	14932	14958	16151	15652	14218	15041	134
48	1200	25L	19061	19395	19881	18686	18461	18492	19968	19351	17577	18596	167

VSX ARRAY - HOUSE SHIELD 3K LPW DATA													
# LEDs	Current (mA)	Lumens	T1	T2	T3	T3L	T4	T4L	T4A	T5SR	T5LR	T5LS	Watts
16	700	5L	32	43	42	41	50	41	45	37	45	34	34
	1400	10L	30	41	40	38	47	38	42	35	42	32	70
32	1050	15L	33	44	43	41	51	41	45	38	46	35	102
	1400	20L	32	43	42	40	50	40	44	37	45	34	134
48	1200	25L	32	43	42	40	49	40	44	36	44	34	167
VSX ARRAY - HOUSE SHIELD 4K LPW DATA													
# LEDs	Current (mA)	Lumens	T1	T2	T3	T3L	T4	T4L	T4A	T5SR	T5LR	T5LS	Watts
16	700	5L	36	48	47	45	56	45	49	41	50	38	34
	1400	10L	33	45	44	42	52	42	46	38	47	36	70
32	1050	15L	36	49	48	46	56	46	50	42	51	39	102
	1400	20L	35	48	46	45	55	45	49	41	49	38	134
48	1200	25L	35	47	46	44	54	44	48	40	49	37	167
VSX ARRAY - HOUSE SHIELD 5K LPW DATA													
# LEDs	Current (mA)	Lumens	T1	T2	T3	T3L	T4	T4L	T4A	T5SR	T5LR	T5LS	Watts
16	700	5L	36	48	47	45	56	45	49	41	50	38	34
	1400	10L	33	45	44	42	52	42	46	38	47	36	70
32	1050	15L	36	49	48	46	56	46	50	42	51	39	102
	1400	20L	35	48	46	45	55	45	49	41	49	38	134
48	1200	25L	35	47	46	44	54	44	48	40	49	37	167
VSX ARRAY - CUTOFF LOUVER SHIELD 3K LPW DATA													
# LEDs	Current (mA)	Lumens	T1	T2	T3	T3L	T4	T4L	T4A	T5SR	T5LR	T5LS	Watts
16	700	5L	105	107	110	103	102	102	110	107	97	103	34
	1400	10L	98	100	103	96	95	95	103	100	91	96	70
32	1050	15L	106	108	111	104	103	103	111	108	98	104	102
	1400	20L	104	106	108	102	101	101	109	105	96	101	134
48	1200	25L	103	105	107	101	100	100	108	105	95	100	167
VSX ARRAY - CUTOFF LOUVER SHIELD 4K LPW DATA													
# LEDs	Current (mA)	Lumens	T1	T2	T3	T3L	T4	T4L	T4A	T5SR	T5LR	T5LS	Watts
16	700	5L	116	116	115	108	113	107	116	119	113	118	34
	1400	10L	109	108	108	101	106	100	108	111	105	110	70
32	1050	15L	118	117	116	109	115	108	117	120	114	119	102
	1400	20L	115	115	114	107	112	106	114	117	111	116	134
48	1200	25L	114	114	113	106	111	105	113	116	110	115	167
VSX ARRAY - CUTOFF LOUVER SHIELD 5K LPW DATA													
# LEDs	Current (mA)	Lumens	T1	T2	T3	T3L	T4	T4L	T4A	T5SR	T5LR	T5LS	Watts
16	700	5L	116	116	115	108	113	107	116	119	113	118	34
	1400	10L	109	108	108	101	106	100	108	111	105	110	70
32	1050	15L	118	117	116	109	115	108	117	120	114	119	102
	1400	20L	115	115	114	107	112	106	114	117	111	116	134
48	1200	25L	114	114	113	106	111	105	113	116	110	115	167

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VSX ARRAY LED Specifications

VSX ARRAY - HOUSE SHIELD 3K BUG DATA																															
# LEDs	Current (mA)	Lumens	T1			T2			T3			T3L			T4			T4L			T4A			T5SR			T5LR			T5LS			Watts
			B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	
16	700	5L	0	0	1	0	0	1	0	0	1	0	3	2	0	0	1	0	3	2	0	0	1	0	0	1	0	0	2	0	0	1	34
	1400	10L	0	0	1	0	0	1	0	0	1	0	3	2	0	0	1	0	3	2	0	0	1	0	0	1	0	0	3	0	0	1	70
32	1050	15L	0	0	1	1	0	1	0	0	1	0	3	3	1	0	2	0	3	3	1	0	1	0	0	1	0	0	3	0	0	1	102
	1400	20L	1	0	1	1	0	1	1	0	2	0	3	3	1	0	2	0	3	3	1	0	1	1	0	1	1	0	4	0	0	2	134
48	1200	25L	1	0	2	1	0	2	1	0	2	1	3	4	1	0	2	1	3	4	1	0	1	1	0	2	1	0	4	0	0	2	167
VSX ARRAY - HOUSE SHIELD 4K BUG DATA																															
# LEDs	Current (mA)	Lumens	T1			T2			T3			T3L			T4			T4L			T4A			T5SR			T5LR			T5LS			Watts
			B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	
16	700	5L	0	0	1	0	0	1	0	0	1	0	3	2	0	0	1	0	3	2	0	0	1	0	0	1	0	0	2	0	0	1	34
	1400	10L	0	0	1	0	0	1	0	0	1	0	3	3	0	0	1	0	3	3	0	0	1	0	0	1	0	0	3	0	0	1	70
32	1050	15L	1	0	1	1	0	1	0	0	1	0	3	3	1	0	2	0	3	3	1	0	1	0	0	1	0	0	4	0	0	1	102
	1400	20L	1	0	1	1	0	1	1	0	2	1	3	3	1	0	2	0	3	3	1	0	1	1	0	1	1	0	4	0	0	2	134
48	1200	25L	1	0	2	1	0	2	1	0	2	1	3	4	1	0	3	1	3	4	1	0	2	1	0	2	1	0	5	1	0	2	167
VSX ARRAY - HOUSE SHIELD 5K BUG DATA																															
# LEDs	Current (mA)	Lumens	T1			T2			T3			T3L			T4			T4L			T4A			T5SR			T5LR			T5LS			Watts
			B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	
16	700	5L	0	0	1	0	0	1	0	0	1	0	3	2	0	0	1	0	3	2	0	0	1	0	0	1	0	0	2	0	0	1	34
	1400	10L	0	0	1	0	0	1	0	0	1	0	3	3	0	0	1	0	3	3	0	0	1	0	0	1	0	0	3	0	0	1	70
32	1050	15L	1	0	1	1	0	1	0	0	1	0	3	3	1	0	2	0	3	3	1	0	1	0	0	1	0	0	4	0	0	1	102
	1400	20L	1	0	1	1	0	1	1	0	2	1	3	3	1	0	2	0	3	3	1	0	1	1	0	1	1	0	4	0	0	2	134
48	1200	25L	1	0	2	1	0	2	1	0	2	1	3	4	1	0	3	1	3	4	1	0	2	1	0	2	1	0	5	1	0	2	167

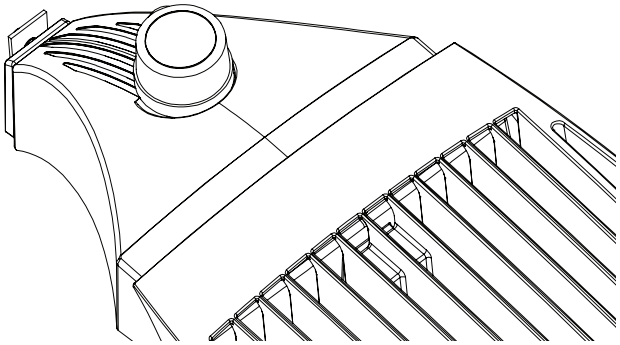
VSX ARRAY - CUTOFF LOUVER SHIELD SHIELD 3K BUG DATA																																			
# LEDs	Current (mA)	Lumens	T1			T2			T3			T3L			T4			T4L			T4A			T5SR			T5LR			T5LS			Watts
			B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	
16	700	5L	1	3	2	1	2	2	1	2	2	1	2	2	1	2	2	1	2	2	1	2	1	1	2	2	1	2	2	1	2	2	34
	1400	10L	2	3	3	1	2	3	1	3	2	1	3	3	1	2	3	1	3	3	1	2	2	1	3	3	1	3	3	1	3	3	70
32	1050	15L	2	3	3	2	3	3	2	3	3	2	3	3	2	3	3	2	3	3	2	3	3	2	3	3	2	3	3	2	3	3	102
	1400	20L	3	3	4	2	3	4	2	3	3	2	3	4	3	3	3	2	3	3	2	3	3	2	3	3	2	3	4	2	3	4	134
48	1200	25L	3	3	4	3	3	4	3	3	4	3	3	4	3	3	4	3	3	4	3	3	3	3	3	4	2	3	5	2	3	4	167

VSX ARRAY - CUTOFF LOUVER SHIELD 4K BUG DATA																																			
# LEDs	Current (mA)	Lumens	T1			T2			T3			T3L			T4			T4L			T4A			T5SR			T5LR			T5LS			Watts
			B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	
16	700	5L	1	3	2	1	2	2	1	2	2	1	3	2	1	2	2	1	2	2	1	2	1	1	2	2	1	2	2	1	2	2	34
	1400	10L	2	3	3	1	3	3	2	3	3	2	3	3	2	2	3	1	3	3	1	2	2	2	3	3	1	3	3	1	3	3	70
32	1050	15L	2	3	3	2	3	3	2	3	3	2	3	4	2	3	3	2	3	3	2	3	3	2	3	3	2	3	4	2	3	3	102
	1400	20L	3	3	4	2	3	4	3	3	3	3	3	4	3	3	4	2	3	4	2	3	3	3	3	4	2	3	4	2	3	4	134
48	1200	25L	3	3	4	3	3	5	3	3	4	3	3	5	3	3	4	3	3	4	3	3	3	3	3	4	3	3	5	3	3	5	167

VSX ARRAY - CUTOFF LOUVER SHIELD 5K BUG DATA																																			
# LEDs	Current (mA)	Lumens	T1			T2			T3			T3L			T4			T4L			T4A			T5SR			T5LR			T5LS			Watts
			B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	
16	700	5L	1	3	2	1	2	2	1	2	2	1	3	2	1	2	2	1	2	2	1	2	1	1	2	2	1	2	2	1	2	2	34
	1400	10L	2	3	3	1	3	3	2	3	3	2	3	3	2	2	3	1	3	3	1	2	2	2	3	3	1	3	3	1	3	3	70
32	1050	15L	2	3	3	2	3	3	2	3	3	2	3	4	2	3	3	2	3	3	2	3	3	2	3	3	2	3	4	2	3	3	102
	1400	20L	3	3	4	2	3	4	3	3	3	3	3	4	3	3	4	2	3	4	2	3	3	3	3	4	2	3	4	2	3	4	134
48	1200	25L	3	3	4	3	3	5	3	3	4	3	3	5	3	3	4	3	3	4	3	3	3	3	3	4	3	3	5	3	3	5	167

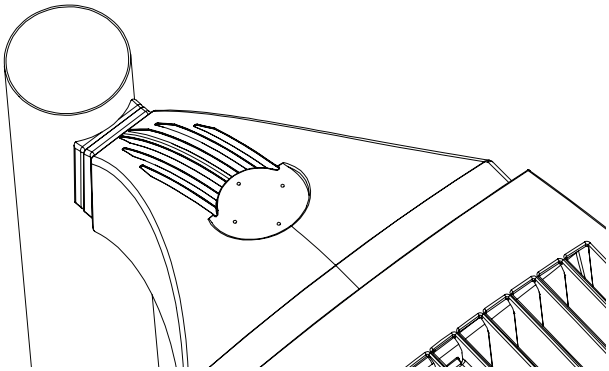
VSX ARRAY LED Specifications

Twist lock Photocell & Receptacle

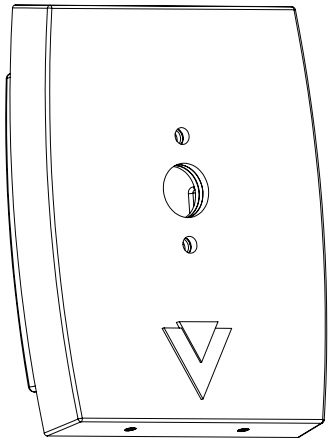


Dusk to dawn sensor.

Round Pole Plate Adaptor

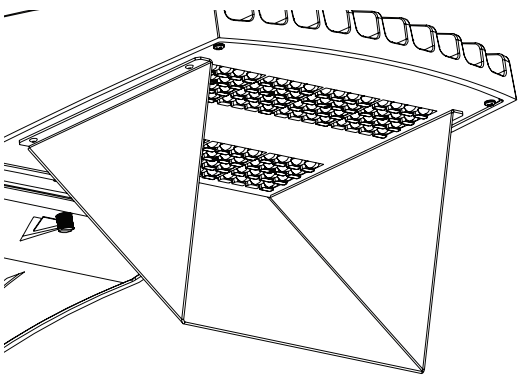


Round Pole Plate Adaptor to be used with round pole.



Arm mount wall plate is needed to wall mount the VMX.

House Shield



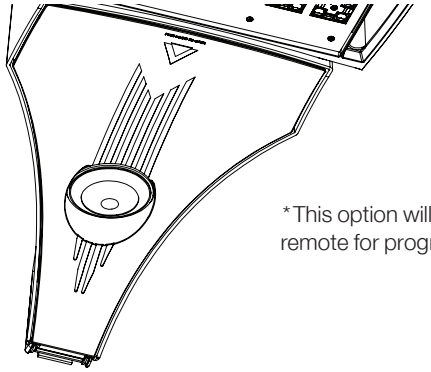
House Sied Shield, shields the house from light from the fixture

Motion Sensor

The FSP-211 by Legrand is integrated into the VMX housing and provides multi-level control based on motion and/or daylight contribution.
Lens Coverage Patterns:
WSC-8 - 360° lens, maximum coverage 48'; diameter from 8' height
WSC-20 - 360° lens, maximum coverage 48'; diameter from 20' height
WSC-40 -360° lens, maximum coverage 100'; diameter from 40' height

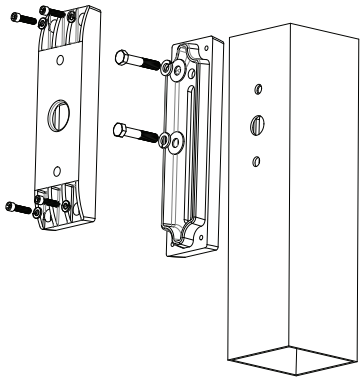
Default settings:

FACTORY DEFAULTS High Mode	0 Volts
Low Mode	1 Volts
Time Delay	5 Minutes
Cut Off	1 Hour
Sensitivity	Maximum
Hold Off Set point	4 Foot Candles
Ramp Up	None
Fade Down	None
Force Off Set point with Occupied	Disable



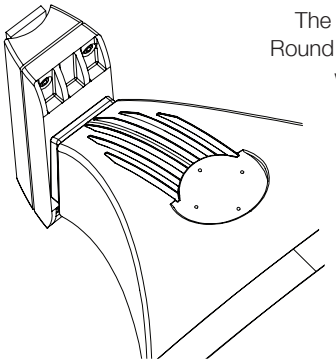
*This option will require one FSIR 100 remote for programing.

UPMA



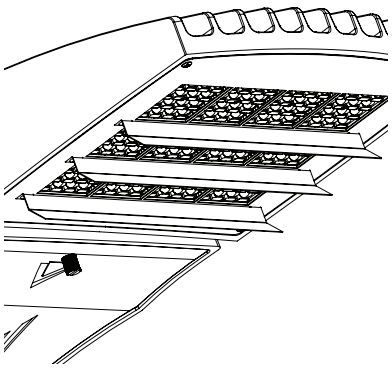
The Universal Pole Mount Adaptor is ideal for retrofit applications with existing square poles. This adaptor is slotted to fit any existing drilling pattern, up to 6 ½" bolt to bolt maximum.

UPMA-R



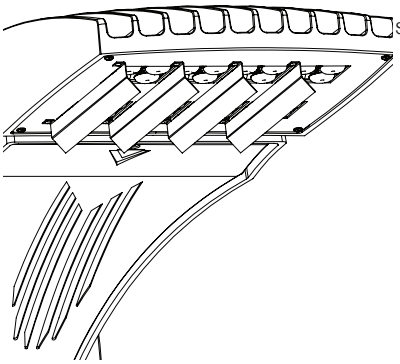
The Universal Pole Mount Adaptor Round is ideal for retrofit applications with existing round poles. This adaptor is slotted to fit any existing drilling pattern, up to 6 ½" bolt to bolt maximum.

CLS



The back side cutoff louver shield will reduce light output behind the fixture, all of the light will be focused in front of the VSX.

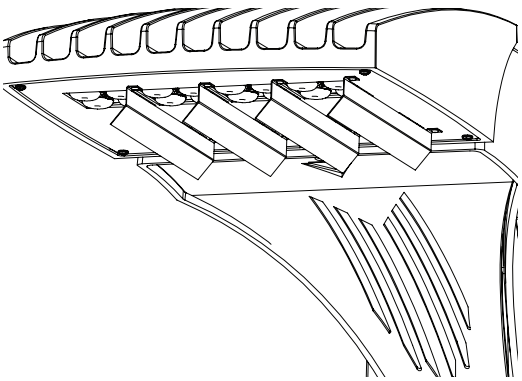
RCLS



The right side cutoff louver shield will reduce light output on the left side of the fixture, all of the light be focused on the right side of the VSX.

The left side cutoff louver shield will reduce light output on the right side of the fixture, all of the light be focused on the left side of the VSX.

LCLS



19645 Rancho Way · Rancho Dominguez, CA 900220 · Phone: 310 512 6480 Fax 310 512 6486
www.visionairelighting.com

VMF LED Specifications

Project Name:

Catalog Number:

Type:

The new **VMF LED** Series offers clean, functional styling that is defined by its sleek low profile design and rugged construction. It combines LED performance and advanced LED thermal management technology and provides outdoor lighting that is both energy efficient and aesthetically pleasing.

The LED's performance and the driver's life are maximized by enclosing them in two separate cast aluminum housings. Sturdy Knuckle or Trunnion mount options.

The LED light assemblies come with 48 to 96 LED's. Multiple optical distribution patterns are available. Choose between 3000, 4000 or 5000 Kelvin temperature of the LEDs.

A durable polyester powder coat finish is guaranteed for five years; and is available in standard or custom colors.

The **VMF LED** series is an exceptional choice for building lighting, sign lighting, and other flood lighting applications.

Ordering Information

MODEL	OPTICS	ARRAYS	CURRENT	KELVIN	VOLTAGE	MOUNTING	FINISH	OPTIONS	OPTIONS
VMF-1	**7x5**	**48LC**	**3** 350mA	**3K** 3000K	**UNV** 120-277V	**KM** Knuckle Mount Slips over 2 3/8" Tenon with adjustable Increments of 10˚	**BZ** Bronze	**PC-120** Button Type Photocell	**UMAP** Universal Mast Arm Fitter
	7x7	**64LC**	**5** 530mA	**4K** 4000K	**8** 347V		**BK** Black	**PC-208** Button Type Photocell	**ECLS** Egg Crate Light Shield
	FN Flood Narrow	**80LC**	**7** 700mA	**5K** 5000K	**5** 480V *347V & 480V not available in 32LC 350mA	**TM** Trunnion Mount adjustable up to 90˚ in 5˚ increments.	**SBK** Smooth Black	**PC-240** Button Type Photocell	**ADJLS** Adjustable louver light shield
	FM Flood Medium	**96LC**	**10** 1050mA *Not available in 80LC and 96LC			**NM** Nipple Mount slip threads over a ¾" NPT, allows for up to 90˚ of vertical adjustment in 10˚ increments from horizontal	**WH** White	**PC-277** Button Type Photocell	**BD** Barn Door Light Shield
						AWM Adjustable Wall Mount allows for up to 70˚ of vertical adjustment in 10˚ increments from horizontal	**SWH** Smooth White	**DIM** 0-10v Dimming Driver	
							GP Graphite		
							GY Grey		
							SL Silver Metallic		
							CC Custom Color		

Housing
Die cast aluminum LED housing with integral cooling fins for thermal management.

Mounting Arm/Driver Compartment
Durable cast aluminum driver compartment opens for easy access to removable driver(s) for ease of maintenance, and cooler driver operation; and are sealed with one-piece silicone gaskets.

Thermal Management
· The VMF series provides excellent thermal management by mounting the LED's to the substantial heat sink of the housing. This enables the Luminaire to withstand higher ambient temperatures and driver currents without degrading LED life.
· The L70 test determines the point in an LEDs life when it reaches 70 percent of its initial output. The V-Flood series LED's have been determined to last 90,000+ hours in 25° C environments when driven at 700 mA.

Optical System
· The highest lumen output LEDs are utilized in the VMF series. Multiple flood optical patterns are available.
· CRI values are 70.

Quali-Guard® Finish
· The finish is a Quali-Guard® textured, chemically pretreated through a multiple-stage washer, electrostatically applied, thermoset polyester powder coat finish, with a minimum of 3-5 millimeter thickness. Finish is oven-baked at 400º F to promote maximum adherence and finish hardness. All finishes are available in standard and custom colors.
· Finish is guaranteed for five (5) years.

Electrical Assembly
· The VMF series is supplied with a choice of 350, 530, 700 or 1000 mA high-performance LED drivers that accept 120v thru 480v, 50 Hz to 60 Hz, input. Power factor of 90%. Rated for -40 oC operations.
· 10 kV surge protector supplied as standard.

Warranty
Five (5) year Limited Warranty on entire system, including finish. For full warranty information, please visit VisionaireLighting.com.

Options
· Button Type Photocell
· 0-10v Dimming Driver
· UMAP
· Egg Crate Light Shield
· Adjustable Louver Light Shield
· Barn Door Shield

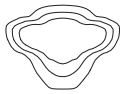
Listings
· The VMF Series is cUL Listed
· Powder Coated Tough
· DLC Listed
· IDA Certification
· IP66

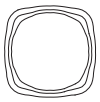
DesignLights Consortium (DLC) qualified Product. Some configurations of this product family may not be DesignLights Consortium (DLC) listed, please refer to the DLC qualified products list to confirm listed configurations. http://www.designlights.org/
3000K must be selected for IDA certification.

VMF - Electrical Load (A)							
Ordering Nomenclature	**System Watts**	**120V**	**208V**	**240V**	**277V**	**347V**	**480V**
VMF-1-FM-48LC-3-4K	**52**	0.43	0.25	0.22	0.19	0.15	0.11
VMF-1-FM-48LC-5-4K	**78**	0.65	0.38	0.32	0.28	0.22	0.16
VMF-1-FM-48LC-7-4K	**106**	0.88	0.51	0.44	0.38	0.31	0.22
VMF-1-FM-48LC-10-4K	**160**	1.33	0.77	0.67	0.58	0.46	0.33
VMF-1-FM-64LC-3-4K	**73**	0.61	0.35	0.30	0.26	0.21	0.15
VMF-1-FM-64LC-5-4K	**106**	0.88	0.51	0.44	0.38	0.31	0.22
VMF-1-FM-64LC-7-4K	**140**	1.17	0.67	0.58	0.51	0.40	0.29
VMF-1-FM-64LC-10-4K	**219**	1.82	1.05	0.91	0.79	0.63	0.46
VMF-1-FM-80LC-3-4K	**88**	0.73	0.42	0.37	0.32	0.25	0.18
VMF-1-FM-80LC-5-4K	**131**	1.09	0.63	0.55	0.47	0.38	0.27
VMF-1-FM-80LC-7-4K	**176**	1.47	0.85	0.73	0.64	0.51	0.37
VMF-1-FM-96LC-3-4K	**104**	0.87	0.50	0.43	0.38	0.30	0.22
VMF-1-FM-96LC-5-4K	**157**	1.31	0.75	0.65	0.57	0.45	0.33
VMF-1-FM-96LC-7-4K	**212**	1.77	1.02	0.88	0.77	0.61	0.44

VMF LED Specifications

Photometric Optical Summary



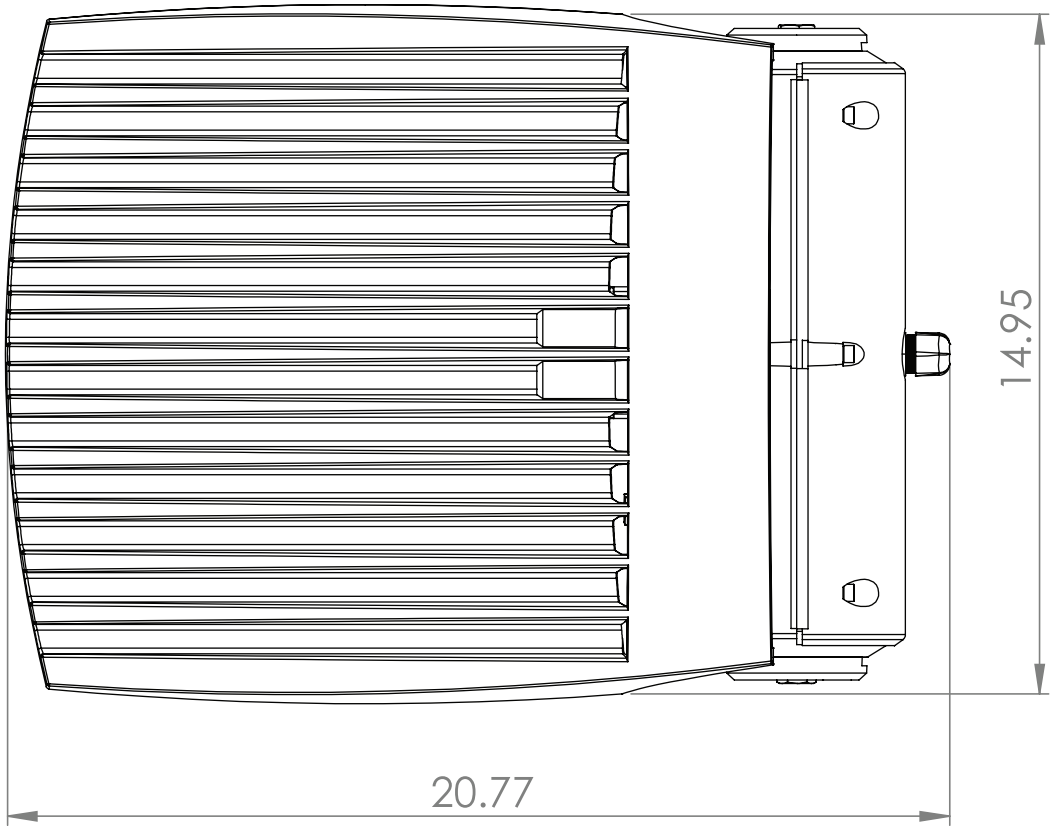


EPA Data

2.47

Dimensions

Width:	VMF-1 15.5”
Depth:	VMF-1 22”/30”
Height:	VMF-1 5.5”
Weight:	45 LBS



VMF 3K Lumen Data						
#LEDs	mA	7x5	7x7	FN	FM	Watts
48	350	7230	7333	7688	7420	52
	530	9700	9838	10314	9954	78
	700	12646	12826	13447	12977	106
	1050	17316	17563	18413	17770	160
64	350	9207	9338	9790	9448	73
	530	13612	13806	14474	13968	106
	700	16702	16940	17760	17140	140
	1050	22966	23293	24421	23568	219
80	350	11385	11547	12106	11684	88
	530	16457	16691	17499	16888	131
	700	20584	20878	21888	21124	176
96	350	13564	13757	14423	13919	104
	530	19301	19576	20524	19807	157
	700	24467	24815	26017	25108	212

VMF 3K LPW Data					
#LEDs	mA	7x5	7x7	FN	FM
48	350	139	141	139	141
	530	124	126	124	126
	700	119	121	119	121
	1050	108	110	108	110
64	350	126	128	126	128
	530	128	130	128	130
	700	119	121	119	121
	1050	105	106	105	106
80	350	129	131	129	131
	530	126	127	126	127
	700	117	119	117	119
96	350	131	133	131	133
	530	123	125	123	125
	700	115	117	115	117

VMF 4K Lumen Data						
#LEDs	mA	7x5	7x7	FN	FM	Watts
48	350	7611	7719	8093	7810	52
	530	10210	10356	10857	10478	78
	700	13311	13501	14154	13660	106
	1050	18227	18487	19382	18705	160
64	350	9692	9830	10305	9946	73
	530	14328	14532	15236	14704	106
	700	17581	17831	18695	18042	140
	1050	24175	24519	25706	24808	219
80	350	11985	12155	12744	12299	88
	530	17323	17569	18420	17777	131
	700	21668	21977	23040	22236	176
96	350	14277	14481	15182	14652	104
	530	20317	20607	21604	20850	157
	700	25755	26122	27386	26429	212

VMF 4K LPW Data					
#LEDs	mA	7x5	7x7	FN	FM
48	350	146	148	146	148
	530	131	133	131	133
	700	126	127	126	127
	1050	114	116	114	116
64	350	133	135	133	135
	530	135	137	135	137
	700	126	127	126	127
	1050	110	112	110	112
80	350	136	138	136	138
	530	132	134	132	134
	700	123	125	123	125
96	350	138	140	138	140
	530	130	132	130	132
	700	121	123	121	123

VMF 5K Lumen Data						
#LEDs	mA	7x5	7x7	FN	FM	Watts
48	350	7303	7407	7766	7495	52
	530	9798	9937	10418	10054	78
	700	12773	12955	13583	13108	106
	1050	17491	17740	18599	17949	160
64	350	9300	9433	9889	9544	73
	530	13749	13945	14620	14109	106
	700	16871	17111	17939	17313	140
	1050	23198	23529	24668	23806	219
80	350	11500	11664	12229	11802	88
	530	16623	16860	17676	17058	131
	700	20792	21089	22109	21337	176
96	350	13701	13896	14568	14060	104
	530	19496	19774	20731	20007	157
	700	24714	25066	26280	25362	212

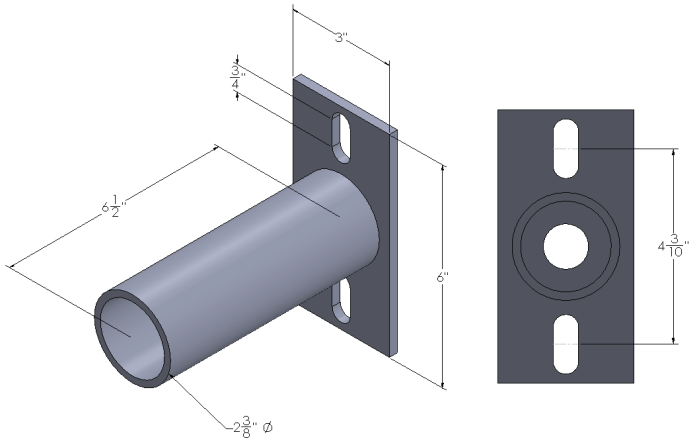
VMF 5K LPW Data					
#LEDs	mA	7x5	7x7	FN	FM
48	350	140	142	140	142
	530	126	127	126	127
	700	121	122	121	122
	1050	109	111	109	111
64	350	128	130	128	130
	530	129	131	129	131
	700	121	122	121	122
	1050	106	107	106	107
80	350	131	133	131	133
	530	127	129	127	129
	700	118	120	118	120
96	350	132	134	132	134
	530	124	126	124	126
	700	117	118	117	118

VMF LED Specifications

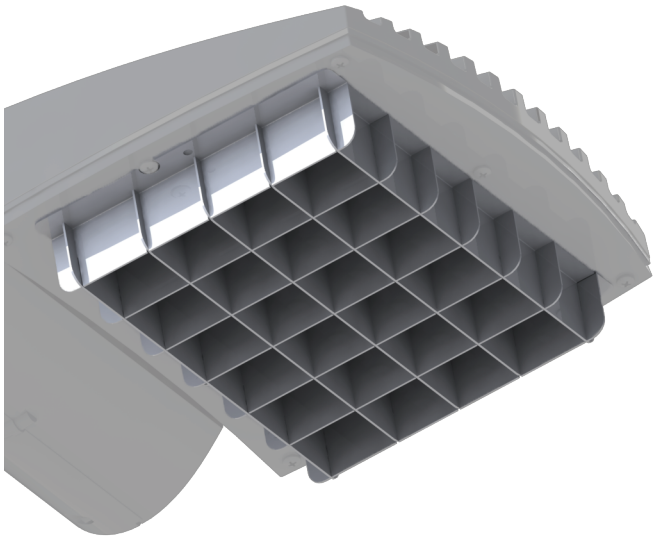
VMF Options

Universal Mast Arm Fitter

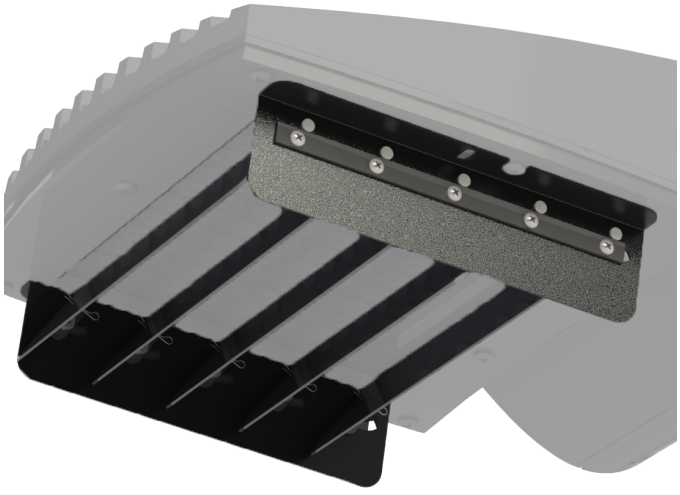
UMAP – The Universal Mast Arm Fitter is a simple solution for retrofit applications where a fixture needs to mount to an existing pole, the UMAP is meant to be use to with knuckle mounts and also Mast Arm Fitters. The UMAP has a bolt slot ranging from 7" all the way down to 3.5". The UMAP also has a Round Pole Plate Adaptor (RPP) for mounting to round poles.



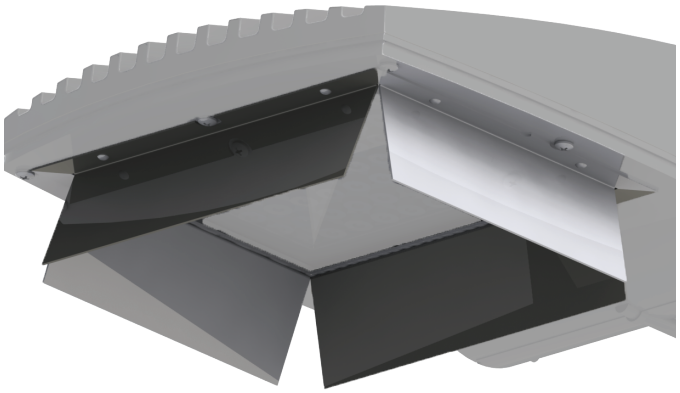
Egg Crate Light Shield



Adjustable Louver Light Shield

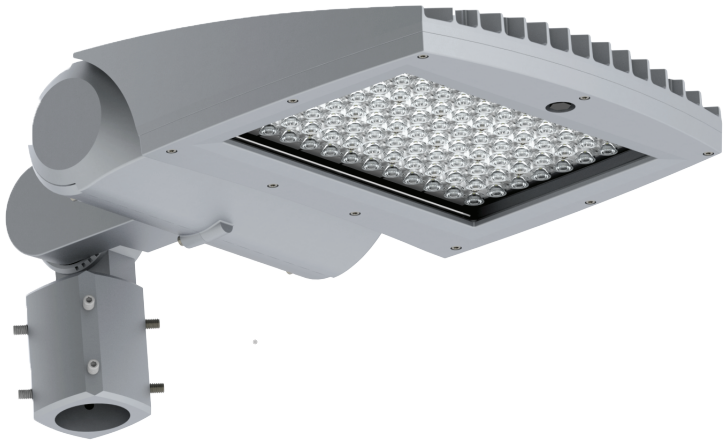


Barn Door Light Shield



VMF Mounting Options

Knuckle Mount

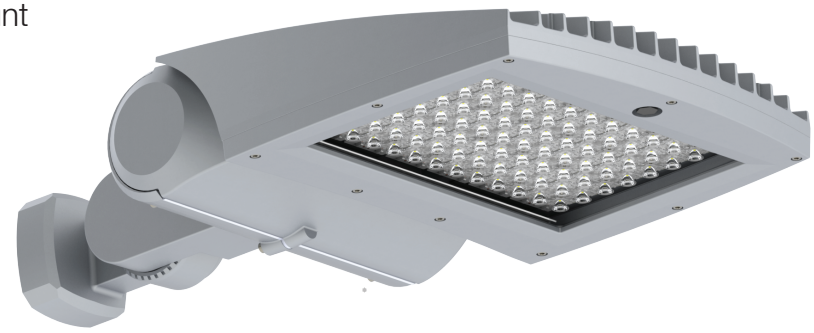


An adjustable knuckle slip fits over a 2-3/8" Tenon, and allows for up to 90 degrees of vertical adjustment in 10 degree increments from horizontal, as well as full side to side adjustment with the knuckle mount.

Trunnion Mount

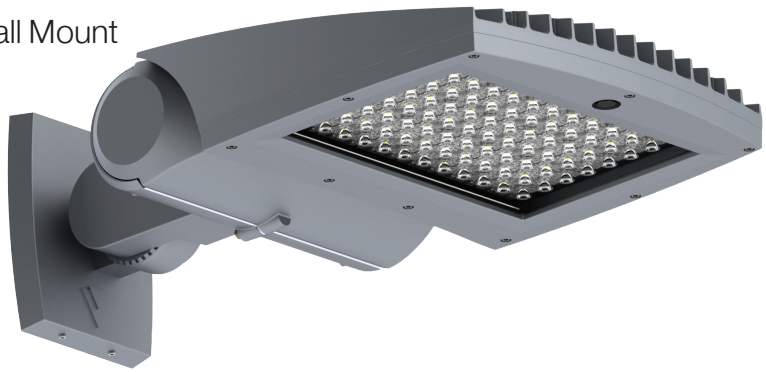
Trunnion Mount is adjustable up to 90 degrees in 5 degree increments.

Nipple Mount



An adjustable knuckle that threads onto a ¾" NPT, and allows for up to 90 degrees of vertical adjustment in 10 degree increments from horizontal.

Adjustable Wall Mount



A Wall Mount that allows for up to 70 degrees of vertical adjustment in 10 degree increments from horizontal.

Lumière

DESCRIPTION

Eon 303-B1-LEDB2 is a compact, low profile, dimmable, LED bollard that provides downlight only via a fixed head. 303-B1-LEDB2 has a single head on one side of the luminaire. The bollard comes standard with universal input LED drivers (120-277V, 50/60 Hz). Dimming is achieved with a standard ELV, reverse phase dimming driver or an optional 0-10V dimming driver. Eon fixtures may be used indoors or outdoors and carry an IP66 rating. The patented LumaLevelTM leveling systemprovides quick installation, easy adjustment, secure mounting and protection from vibration.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

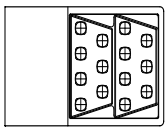
Construction
The head of the 303-B1-LEDB2 is precision machined from corrosion-resistant 6061-T6 aluminum. Body is extruded aluminum and adjustable mounting base is cast from corrosion resistant aluminum alloy. Stainless steel hardware is included. Four (4) 3/8" x 12" galvanized anchor bolts and a galvanized steel anchor bolt template are standard. Specify option -LAB and order the anchor bolt/template kit seperately (Catalog: 7581-01PK).

Optical
LightBAR™ and optical assembly are sealed by a clear, impact resistant tempered glass lens. The optical assembly is available in three distributions: T2 (lateral throw), T4 (forward throw) and T5X (Flood). Available in several color temperatures: 2700K, 3000K, 3500K, 4000K and TSAM (Amber). Both color temperature and distribution must be specified when ordering – see catalog logic for details. An edge-lit option is available.

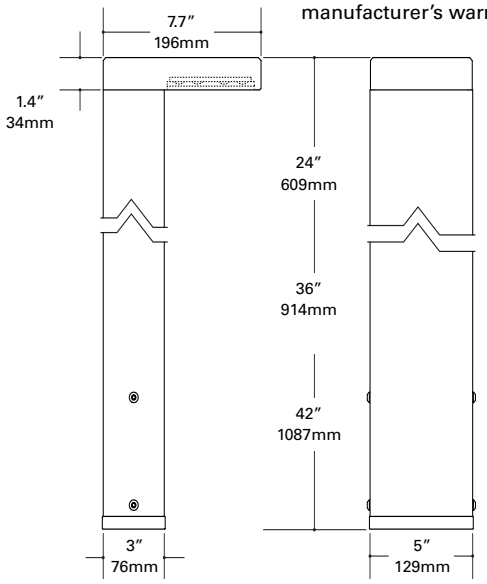
Electrical
The bollard is standard with an ELV trailing edge phase dimmable driver that accepts a universal input (120-277, 50/60Hz). The standard driver is ELV trailing edge phase dimable. An optional 0-10V dimming driver is also available. Both driver options incorporate surge protection. The receptacle option incorporates a specification grade, 120V, 15A tamper proof and weather resistant duplex GFCI. The photocell option comes in either a 120V or 277V. Please see Option section for more detail.

Finish
Luminaire and mounting base are double protected by a RoHS compliant chemical film undercoating and polyester powdercoat paint finish. The mounting base is painted black. The luminaire housing and head are available in a variety of standard colors. RAL and custom color matches are available upon request. As an option, the Eon bollards are also available in colors to match other outdoor Eaton product lines, such as Invue. See the Finish section in the ordering detail for more detail. The LightBAR™ cover plates are standard white.

Warranty
Lumiere warrants the EON series of fixtures against defects in material and workmanship for five (5) years. Auxiliary equipment such as LED drivers carries the original manufacturer's warranty.



Under side profile view



303-B1-LEDB2

EON LED

APPLICATIONS:
BOLLARD

CERTIFICATION DATA
UL and cUL Wet Location Listed
LM79 / LM80 Compliant
ROHS Compliant
IP66 Ingressed Protection Rated

TECHNICAL DATA
50°C Maximum Temperature Rating
External Supply Wiring 90°C Minimum

ORDERING INFORMATION

Sample Number: 303-B1-LEDB2-2700-120-T2-DIM10-BK-42-EDGE-PC1-RFL-LAB

Series [8]	Color Temperature	Input Voltage	Optics	Dimming	Finish [3]	Height [4]	Options [5]
303-B1-LEDB2 Head contains two (2) Mini LightBAR™	**2700**=2700K **3000**=3000K **3500**=3500K **4000**= 4000K **TSAM**=Turtle Safe Amber (585-595nm)	**UNV**=120-277V [1] **120**=120V **277**=277V [2]	**T2** =Type II, Lateral Throw **T4** =Type IV, Forward Throw **T5X** =Type V, Extra Wide Flood	**DIMELV**=Trailing Edge Phase Dimming Driver **DIM10**=0-10V Dimming Driver	**Painted** **BK**=Black **BZ**=Bronze **CS**=City Silver **WT**=White **Premium Paint** **AP**=Grey **DP**=Dark Platinum **GM**=Graphite Metallic	**24**=24" **36**=36" **42**=42"	**EDGE**=Edge lit glass lens **PC1**=Photocontrol 120V [6] **PC2**=Photocontrol 208-277V [6] **RIU**=Receptacle - In Use (120V Only) [6] **RFL**=Receptacle - Flip-Lid (120V Only) [6] **LAB**=Less Anchor Bolts & Template [7]

NOTES: 1 Universal Voltage (UNV) is standard unless specifying Photocontrol or Receptacle (RIU or RFL - 120V) options. **2** Specify for PC2 option only. **3** Custom and RAL color matching available upon request. Consult factory for further information. **4** Bollard heights are nominal (shown in inches). **5** Add suffix in the order shown. **6** Must specify voltage when ordering. **7** When specifying LAB option the anchor bolts and template need to be ordered seperately 7581-01PK. **8** DesignLights Consortium™ Qualified and classified for DLC Standard. Refer to www.designlights.org for details on exact qualified EON 303-B1-LEDB2 product as not all configurations are DLC classified.

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (72,000 Hours)	TM-21 Reported L70(10k) (Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 60,000	365,000
40°C			
50°C			

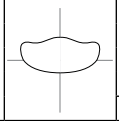
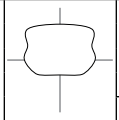
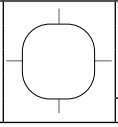
CURRENT DRAW

Model	Line Voltage	Current Draw
303-B1-LEDB2	120-277V, 50/60Hz	0.13A

MAX LOAD RATING

Options	Line Voltage	Max Load Rating
PC1	120V, 50/60Hz	1000VA, 8.3A
PC2	208-277V, 50/60Hz	
RIU or RFL	120V, 50/60Hz	1800VA, 15A

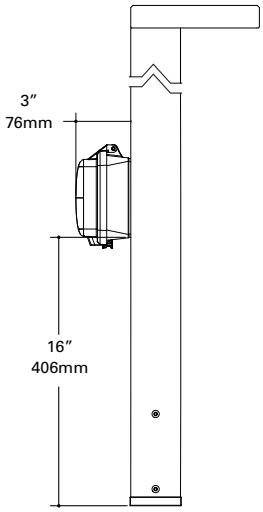
LUMENS - CRI/CCT TABLE

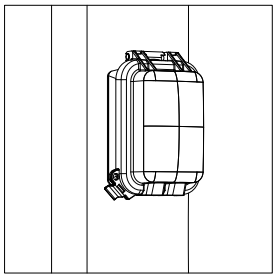
Optic Type	Distribution	Watts	Delivered Lumens	LPW	CCT (K) / Color	CRI nom./ Wavelength	B-U-G Rating
T2 (Lateral Throw)		15.5	783	51	2700	95	B1-U0-G1
			1300	84	3000	75	
			909	59	3500	85	
			1433	93	4000	75	
		12.1	398	31	TSAM (Amber)	585-595nm	
T4 (Forward Throw)		15.5	747	48	2700	95	B0-U0-G0
			1241	80	3000	75	
			868	56	3500	85	
			1368	88	4000	75	
		12.1	380	29	TSAM (Amber)	585-595nm	
T5X (Extra Wide Flood)		15.5	682	44	2700	95	B1-U0-G0
			1132	73	3000	75	
			792	51	3500	85	
			1248	81	4000	75	
		12.1	347	27	TSAM (Amber)	585-595nm	

OPTIONS

Receptacle Options (120V Only)

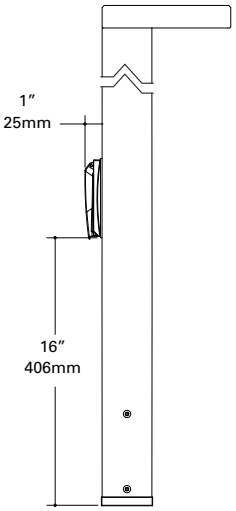
RIU - Receptacle In-Use

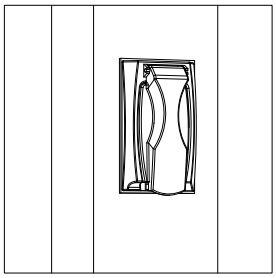




Rugged UV-resistant polycarbonate clear cover and gray body protects GFCI without cracking or breaking and is non- corrosive. Note: Cover is weatherproof with the cord plugged in and the receptacle is not required to be attended while in use. The receptacle incorporates a specification grade, 120V, 15A tamper proof and weather resistant duplex GFCI. Available on 24″, 36″ and 42″ hieghts.

RFL - Receptacle Flip Lid

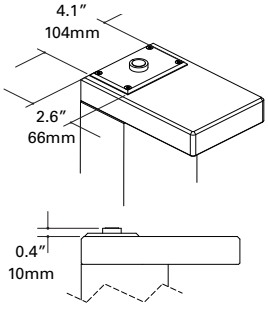




Cover is contructed of a durable, die-cast zinc-alloy and is painted to match fixture. Cover is only weatherproof without the cord plugged in and the cover closed. The receptacle will need to be attended while in use. The receptacle incorporates a specification grade, 120V, 15A tamper proof and weather resistant duplex GFCI. Available on 24″, 36″ and 42″ hieghts.

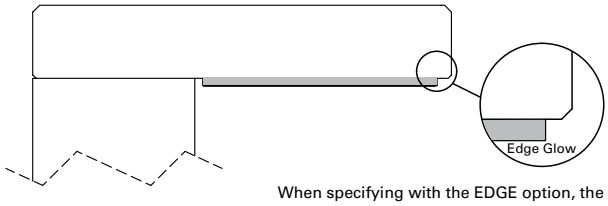
Photocontrol

PC1 (120V) or PC2 (277V)



Photocontrol cover is precision machined from corrosion-resistant 6061-T6 aluminum and is secured to bollard head with tamper resistant stainless steel hardware. The photocontrol option is available in dedicated 120V or 208-277V. When specifying a photocontrol option make sure to designate the appropriate voltage within the catalog logic.

Edge



When specifying with the EDGE option, the diffused glass becomes thicker adding a visible line of light around the edge accentuating the luminaries' aesthetics and styling.

TECHNICAL NOTES:

1. Adjustable mounting base - Cast aluminum mounting base is equipped with the patented LumaLevel" leveling system that includes mounting base, 70 shore neoprene base, stainless steel hardware and a slot to accommodate two inbound and outbound 3/4" conduits. It provides quick installation, easy adjustment, secure mounting and protection from vibration.