Site Plan
Village of East Troy, Wisconsin

The Village of East Troy

Version: March 27, 2018

Village of East Troy
2015 Energy Drive
East Troy, WI 53120

Overview: The site plan review process ensures that proposed land uses and development activity complies with the requirements of the Village's zoning regulations. This review must occur before any building, occupancy, and building permits can be issued; except that development activity associated with an approved final plat of subdivision or certified survey map, and development activity associated with and approved final development plan of a planned development, is exempt from this requirement.

Governing regulations: The procedures and standards governing the review of this application are found in § 510-160 of the Village's zoning code.

General instructions: Complete this application and submit one copies to the Village Clerk at the mailing address shown above. Before you formally submit your application, you are encouraged to meet with the zoning administrator who can answer any questions you may have. If you have any questions, do not hesitate to contact the zoning administrator at (920) 728-2814 or via email at tim.schwecke@civitekconsulting.com. You may download this form at http://villageofeasttroy.zoninghub/highlights/procedures/procedure.aspx.

When you fill out this application, you should think about how your business operation may expand or be different in the future. For example, if your business will have 5 employees to start and you hope to have 25, tell us. Also, if you foresee an expansion to a building or a parking lot, your site plan should show that. If you invest time to do this now, you will end up with a more thoughtful plan. Not only that, you will save time and the expense of having to submit a new site plan sometime in the future. So, think ahead.

Application fee: none

Application submittal deadline: Applications must be submitted by the second Monday of the month by 12:00 pm at the Village Hall.

1. Applicant and property owner information

	Applicant	Property owner
Name	MP Systems, Inc.	Same
Street address	5477 S Westridge Ct	
City, state, zip code	New Berlin, WI 53151	
Daytime telephone number	414-788-0262	
Email	ken.phelps@mp-systemsinc.com	

2. Agent contact information. Include the names of those agents, if any, that helped prepare this application including the supplemental information. Agents may include surveyors, engineers, landscape architects, architects, planners, and attorneys.

	Agent 1	Agent 2
Name	Christopher Wenzler	Kyle Roadt
Company	Briohn Design Group, LLC.	Briohn Building Corporation
Street address	3885 N. Brookfield Road, Suite 200	3885 N. Brookfield Road, Suite 200
City, state, zip code	Brookfield, Wisconsin 53045	Brookfield, Wisconsin 53045
Daytime telephone number	(262) 790-0500 (Ext. 406)	(262) 790-0500
Email	cwenzler@briohn.com	kroadt@briohn.com

3. Type of application (select one)

- [x] New site plan
- [ ] An amendment of a previously approved site plan (i.e., revision and/or expansion)

4. Business information

Current business name	MP Systems, Inc.
Date business began	February 17, 1998
Previous name, if any	

5. Subject property information

Physical address: +/- 16 acres of land in the SW corner of RA314100001

Tax key number(s): RA314100001

Note: The tax key number can be found on the tax bill for the property or it may be obtained from the Village Clerk.

6. Zoning information (refer to the Village's current zoning map)

The subject property is located in the following base zoning district(s). (check all that apply)

☐	RH-35	Rural Holding	☐	TR-8	Two-Family Residential	☐	NB	Neighborhood Business
☐	SR-3	Estate Residential	☐	AR-9	Attached Residential	☐	HB	Highway Business
☐	SR-4	Suburban Residential	☐	MR-10	Multi-Family Residential	☐	CB	Central Business
☐	SR-5	Neighborhood Residential	☐	MHR-6	Mobile Home Residential	☐	BP	Business Park
☐	SR-6	Traditional-Front Residential				☐	LI	Light Industrial
☐	SR-7	Traditional-Rear Residential				■	GI	General Industrial

The subject property is also located in the following overlay zoning district(s). (check all that apply)

■	PD	Planned Development	☐	GP	Groundwater Protection	☐	FP	100-Year Floodplain
☐	DD	Downtown Design	☐	NFC	Natural Features Conservancy	☐	FP	500-Year Floodplain
						☐	SW	Shoreland-Wetland

7. Adjoining land uses and zoning

	Zoning district(s)	Current uses
North	GI	Industrial Park
South	Agricultural	Farm Land
East	Agricultural	Farm Land
West	Agricultural	Farm Land

Note: If the subject property abuts a property located in a different zoning district, a bufferyard may be required. You will need to submit a Landscaping and Bufferyard Worksheet if a bufferyard is required.

8. Current use. Describe the current use of the subject property.

Vacant industrial land for sale. Currently owned by East Troy

9. Proposed use. Describe the proposed use or the proposed amendment.

Exterior storage of construction vehicles and equipment. There will be a +/- 25k SF office and repair facility on the property as well

10. Hours of operation. Describe when the proposed use will be open for business (i.e., hours and days).

6am to 6PM

11. Employees. Describe number by type, number on largest works shift, etc.

40 maximum/ mechanics, office staff

12. Customers / patrons of business. Describe the customers and patrons, including peak loads.

non retail so few customer interactions

13. Miscellaneous

☐ Yes ■ No Has the Village approved a variance for the subject property?
If yes, provide the year of issuance and a short description for each one.

☐ Yes ■ No Is the subject property currently in violation of the Village's zoning code?
If yes, describe the nature of the violation and what is being done to bring the property into compliance.

☐ Yes ■ No Are there any nonconforming buildings on the subject property? A nonconforming building does not meet the dimensional requirements for the zoning district in which it is located.
If yes, describe what building is nonconforming and the nature of the nonconformity.

☐ Yes ■ No Will the proposed use create any detectable ground vibrations? (See § 510-99 of the zoning code.) If yes, describe.

☐ Yes ■ No Will the proposed use create any detectable noise beyond the property boundary lines? (See § 510-100 of the zoning code.)
If yes, describe.

☐ Yes ■ No Will the proposed use create any air pollution? (See § 510-101 of the zoning code.)
If yes, describe.

☐ Yes ■ No Will the proposed use create any detectable odor beyond the property boundary lines? (See § 510-102 of the zoning code.)
If yes, describe.

☐ Yes ■ No Will the proposed use create any detectable glare or heat beyond the property boundary lines? (See § 510-104 of the zoning code.)
If yes, describe.

☐ Yes ■ No Will the proposed use involve any materials which could detonate by any means? (See § 510-105 of the zoning code.)
If yes, describe.

☐ Yes ■ No Will the proposed use involve any materials that are toxic or noxious or that are considered waste materials? (See § 510-106 of the zoning code.)

If yes, describe.

☐ Yes ■ No Will the proposed use involve any outdoor storage of materials?

If yes, describe.

Outdoor storage of construction vehicles and equipment

☐ Yes ■ No If the proposed use involves processing or manufacturing of materials, will water be used in any of those processes?

If yes, describe the nature of the activity and anticipated water demand and sanitary loading

■ Yes ☐ No Is expansion of the proposed use or building anticipated?

If yes, describe the nature of the expansion and potential timeline for such expansion

Additional repair facility space of 30,000 square feet anticipated

14. Utilities

Water ■ Municipal ☐ Private well

If private well, when was the well installed and approved?

Sewer ■ Municipal ☐ On-site septic system

If septic system, when was the system installed and approved?

15. Licenses and permits

Required

☐ Beer ☐ Have ☐ To Get
☐ Liquor ☐ Have ☐ To Get
☐ Cigarette ☐ Have ☐ To Get
☐ Food service ☐ Have ☐ To Get
☐ Amusement Device ☐ Have ☐ To Get
☐ Other: _____ ☐ Have ☐ To Get
☐ Other: _____ ☐ Have ☐ To Get
☐ Other: _____ ☐ Have ☐ To Get

16. Property access (refer to § 510-91 of the zoning code for details)

	Current	New
Local street	0	2
County highway		
State highway		

17. On-site parking (refer to § 510-91.1 of the zoning code for details)

	Current	Required [1]	New
Standard spaces	0	28	38
Accessible spaces	0	2	2

Notes:

[1] On-site parking is not required in the Central Business (CB) zoning district

☐ Yes ■ No Are you proposing shared parking pursuant to § 510-93(G) of the zoning code?

If yes, attach a draft shared parking agreement.

18. Calculations for maximum building coverage and impervious surface coverage

a.	Area of subject property as determined by site survey	acres	17.19
b.	Land located within proposed rights-of-ways of roads and within proposed boundaries of public facilities that are designated within the Village's comprehensive plan and/or required for dedication per subdivision regulations	acres	0
c.	Land which, although part of the same parcel, is not contiguous to or is not accessible from the proposed road network serving the project	acres	0
d.	Land which is proposed for a different development option or a different zoning district	acres	0
e.	Navigable waters (lakes & streams not within a designated floodplain)	acres	0
f.	Designated floodplains	acres	0
g.	Wetlands	acres	0
h.	Lakeshores	acres	0
i.	Woodlands	acres	0
j.	Steep slopes (12 percent or greater)	acres	0
k.	Total of "b" through "j"	acres	0
l.	Net developable area (subtract "k" from "a")	acres	17.19
m.	Building coverage ratio (see the standard for the appropriate zoning district)	percent	0.75
n.	Impervious surface coverage ratio (see the standard for the appropriate zoning district)	percent	0.85
o.	Maximum building coverage on property (multiply "l" by "m")	acres	12.89
p.	Maximum impervious surface coverage on property (multiply "l" by "n")	acres	14.61

	Maximum (acres)	Proposed (acres)
Building coverage (For Maximum, enter calculated value for "o" from above table)	12.89	0.57
Impervious surface (For Maximum, enter calculated value for "p" from above table)	14.61	11.44

19. Supplemental materials. Attach each of the following as appropriate. Upon written petition, the Village Administrator, Village Engineer, Village Planner, or the Zoning Administrator may waive specific site plan requirements.

Site plan with the following information:

1. Title block showing the name, address, and phone of the current property owner and/or agent(s) (i.e. developer, architect, engineer, or planner) for project.
2. The date of the original plan and the latest date of revision to the plan.
3. A north arrow and a graphic scale (at a minimum scale of 1" = 100').
4. A legal description of the subject property.
5. All property lines and existing and proposed right-of-way lines with bearings and dimensions clearly labeled.
6. All existing and proposed easement lines and dimensions with a key provided and explained on the margins of the plan as to ownership and purpose.
7. Ground contours when any slope exceeds 12 percent
8. All required building setback lines.

9. All existing and proposed buildings, structures, and paved areas, including building entrances, walks, drives, decks, patios, fences, utility poles, drainage facilities, and walls.
10. If the project is designed to be completed in phases or allow expansion of the building and other features, indicate these.
11. The location and dimension (cross-section and entry throat) of all access points onto public streets.
12. The location and dimension of all on-site parking (and off-site parking provisions if they are to be employed), including a summary of the number of parking stalls provided versus required by this Chapter.
13. The location and dimension of all loading and service areas on the subject property and labels indicating the dimension of such areas.
14. The location of all outdoor storage areas and the design of all screening devices.
15. Floodplains, wetlands, lakeshores, woodlands, steep slopes, and other environmentally sensitive lands.
16. The location, type, height, size, and lighting of all signage on the subject property.
17. The location and type of any permanently protected green space areas.
18. The location of existing and proposed drainage facilities.
19. Environmental and manmade development constraints and hazards including brownfields, contaminated sites, unstable soils, high groundwater, bedrock, and high-pressure natural gas lines
20. In the legend, the following data for the subject property: lot area, building coverage, building coverage ratio, floor area ratio, impervious surface area, impervious surface ratio, and building height.
21. Any additional information as requested by the Plan Commission or Village Board.

Landscaping plan prepared at the same scale as the main plan showing the location of all required bufferyard and landscaping areas, and existing and proposed landscape point fencing and berm options for meeting said requirements. The landscaping plan shall demonstrate complete compliance with the requirements of Article XIV of Chapter 510 of the zoning code. Be sure to show the individual plant locations and species, fencing types and heights, and berm heights. In addition to the drawing, include the Worksheet for Landscaping and Bufferyards.

Grading and erosion control plan prepared at the same scale as the main plan, showing existing and proposed grades, including retention walls and related devices, and erosion control measures.

Outdoor lighting plan (photometric plan) prepared at the same scale as the main plan that shows all existing and proposed exterior light fixtures. Calculations for the photometric plan shall be rounded to the nearest 0.10 foot-candles. A legend must be included to show the following information for each type of fixture: (1) manufacturer name, (2) product number, (3) mounting height, and (4) any other pertinent information. Be sure that current and proposed lighting will not exceed the 0.50 foot-candles threshold at the property boundary line. See § 510-95 of the zoning code for more details.

Plat of survey prepared by a registered land surveyor if in the judgment of the Zoning Administrator such accuracy is needed to ensure compliance with all dimensional standards, including setback requirements. The survey shall depict property lines, easements, and other existing and proposed improvements, and other information as may be needed to establish compliance with zoning requirements.

Architectural review application for any new buildings or for remodeling of existing buildings. The application must include elevation drawings showing finished exterior treatment, with adequate labels to clearly depict exterior materials, texture, color, and overall appearance. Perspective renderings of the proposed project and/or photos of similar structures may be submitted, but not in lieu of adequate drawings showing the actual intended appearance of the buildings. (Refer to § 510-90 of the zoning code for additional details.)

20. Attachments. List any attachments included with your application.

SHEET INDEX:
- GENERAL: T1.0 TITLE SHEET
- CIVIL: C1.0 SITE DIMENSION AND PAVEMENT ID PLAN, C2.0 SITE GRADING PLAN, C3.0 SITE NOTES AND DETAILS, C3.1 SITE NOTES AND DETAILS
- LANDSCAPING : L1.0 LANDSCAPE PLAN, L1.1 LANDSCAPE PLAN ENLARGEMENTS, L2.0 LANDSCAPE NOTES AND DETAILS
- ARCHITECTURAL: A0.0 CODE PLAN, A0.2 ARCHITECTURAL SITE PLAN, A0.3 ENLARGED ARCHITECTURAL SITE PLAN, A1.1 OVERALL FLOOR PLAN, A1.2 ENLARGED OFFICE FLOOR PLAN, A4.1 ROOF PLAN, A5.1 EXTERIOR ELEVATIONS, A8.2 EXTERIOR PERSPECTIVES
-ELECTRICAL: E1.0 EXTERIOR LIGHTING AND PHOTOMETRIC PLAN, EXTERIOR LIGHTING CUT SHEETS

21. Other Information. You may provide any other information you feel is relevant to the review of your application.

22. Applicant certification

- I certify that all of the information in this application, along with any attachments, is true and correct to the best of my knowledge and belief.
- I understand that I may be charged additional fees (above and beyond the initial application fee) consistent with § 510-149 (D) of the Village's municipal code to pay for the services of independent consultants the Village elects to retain to help review this application. Depending on the nature of the proposed project, such independent consultants may include planners, engineers, architects, attorneys, environmental specialists, recreation specialists, and other experts. I further understand, the Village may delay acceptance of the application as complete, or may delay final approval of the proposal, until all outstanding fees have been paid. I further understand that such fees must be paid even if this application is withdrawn or denied. If the applicant or the property owner does not pay such fees upon request, such fees may be assigned to the property owner as a special assessment to the subject property.
- I understand that submission of this application authorizes Village officials and employees, Plan Commission members, Village Board members, and other designated agents, including those retained by the Village, to enter the property to conduct whatever site investigations are necessary

to review this application. This does not authorize any such individual to enter any building on the subject property, unless such inspection is specifically related to the review of this application and the property owner gives his or her permission to do so.

- I understand that this application and any written materials relating to this application will become a permanent public record and that by submitting this application I acknowledge that I have no right to confidentiality. Any person has the right to obtain copies of this application and related materials or view it online.
- I understand that the zoning administrator will review this application to determine if it contains all of the required information. If he or she determines that the application is incomplete, it will not be scheduled for review until it is deemed to be complete.

Property Owner:

Name – print	Name – Signature	Date
MP Systems, Inc.		9/23/2021
KENNETH M PHELPS		9/23/2021

Applicant (if different than Property Owner):

Name – print	Name – Signature	Date

PROPOSED NEW BUILDING FOR :

MP SYSTEMS, INC.

EAST TROY BUSINESS PARK II
VILLAGE OF EAST TROY, WISCONSIN

EXTERIOR PERSPECTIVE LOOKING SOUTHWEST

CODE CALCULATIONS AND ANALYSIS:

OCCUPANCY CALCULATION:

OCCUPANCY B BUSINESS (PRIMARY)
100 SQUARE FEET IS MAXIMUM FLOOR AREA ALLOWANCE PER OCCUPANT
8,117 SQUARE FEET GROSS / 100 SQUARE FEET PER PERSON = 82 PEOPLE

OCCUPANCY S-1 MOD HAZARD STORAGE (SECONDARY)
500 SQUARE FEET IS MAXIMUM FLOOR AREA ALLOWANCE PER OCCUPANT
16,858 SQUARE FEET GROSS / 500 SQUARE FEET PER PERSON = 34 PEOPLE

TOTAL OCCUPANCY = 116 PEOPLE MAXIMUM

PLUMBING FIXTURE CALCULATION:

BASED ON B BUSINESS OCCUPANCY = 82 PEOPLE
TOILET FIXTURES (WC) REQUIRED AND PROVIDED ARE AS FOLLOWS:
B 41 MEN = 2 FIXTURE (WC) REQUIRED
B 41 WOMEN = 2 FIXTURE (WC) REQUIRED

BASED ON S-1 STORAGE OCCUPANCY = 34 PEOPLE
TOILET FIXTURES (WC) REQUIRED AND PROVIDED ARE AS FOLLOWS:
S-1 17 MEN = 1 FIXTURE (WC) REQUIRED
S-1 17 WOMEN = 1 FIXTURE (WC) REQUIRED

TOTAL (WC) FIXTURES REQUIRED - MEN = 3 FIXTURES
TOTAL (WC) FIXTURES REQUIRED - WOMEN = 3 FIXTURES

MEN AND WOMEN FIXTURES (WC) REQUIRED 6 TOTAL AND PROVIDED 8 TOTAL OK

LAVATORY FIXTURES REQUIRED AND PROVIDED ARE AS FOLLOWS:

B MEN AND WOMEN 82 = 3 LAVATORY FIXTURE REQUIRED +
S-1 MEN AND WOMEN 34 = 1 LAVATORY FIXTURE REQUIRED

MEN AND WOMEN FIXTURES (LAV) REQUIRED 4 TOTAL AND PROVIDED 8 TOTAL OK

EXIT WIDTH REQUIRED AND EXIT ACCESS TRAVEL DISTANCE:

EXIT WIDTH REQUIRED 116 x .20 = 23.2 INCHES OR 32 INCHES EACH MINIMUM
CLEAR X (3) EXITS
EXIT WIDTH PROVIDED (6) 36" WIDE DOORS x 34" = 204" WIDTH
TOTAL EXIT WIDTH PROVIDED OF 204" EXCEEDS REQUIRED EXIT WIDTH
CALCULATED (23.2" OR 32" MIN CLEAR AT EACH EXIT)
TOTAL NUMBER OF EXISTING EXITS PROVIDED (6) EXCEEDS THE NUMBER OF EXITS
REQUIRED (3)
REFER TO SHEET A0.0 FOR ADDITIONAL INFORMATION

EXIT TRAVEL DISTANCE = LESS THAN 250'

AREA AND HEIGHT LIMITATION CALCULATIONS:

PER IBC TABLE 506.2
FOR OCCUPANCY GROUP S-1 (TYPE 2B CONSTRUCTION (INCLUDES
AUTOMATIC SPRINKLER INCREASE) 1 STORY IS 70,000 S.F.

THE ACTUAL SIZE IS 24,975 S.F. AND 1 (ONE) STORY.

THE BUILDING IS CLASSIFIED AS AN UNLIMITED AREA BUILDING PER SECTION
507.4

THE BUILDING AREA IS AT OR BELOW THE ALLOWABLE AREA LIMITS AND
STORY LIMITS PER TABLE 506.2 WITH AUTOMATIC SPRINKLER AND FRONTAGE
INCREASE. THE BUILDING IS BELOW ALLOWABLE HEIGHT LIMIT OF 75 FEET FOR
SPRINKLERED BUILDINGS. THE ACTUAL HEIGHT IS 32.5 FEET. PER TABLE 504.3

MULTIPLE OCCUPANCIES:

BUILDING DESIGN IS BASED ON NON-SEPARATED OCCUPANCIES PER IBC
508.3.
THE ALLOWABLE AREA AND HEIGHT BELOW IS THE MORE RESTRICTIVE
OCCUPANCY GROUP, WHICH IS S-1, REFER TO IBC TABLE 506.2

CONSTRUCTION CLASSIFICATION REQUIREMENTS:

PER IBC TABLE 601 AND TABLE 602:
TYPE IIB CONSTRUCTION:

PRIMARY STRUCTURAL FRAME	"0" RATING REQUIRED
INTERIOR BEARING WALLS	"0" RATING REQUIRED
EXTERIOR BEARING WALLS (PER TABLE 602 > 30 FEET	"0" RATING REQUIRED
NONBEARING WALLS AND PARTITIONS	"0" RATING REQUIRED
FLOOR CONSTRUCTION AND SECONDARY MEMBERS	"0" RATING REQUIRED
ROOF CONSTRUCTION AND SECONDARY MEMBERS	"0" RATING REQUIRED

EXTERIOR WALL OPENINGS ALLOWED:

PER IBC TABLE 705.8:
THE NEW WALLS OF THE PROPOSED ADDITION ARE GREATER THAN 30 FEET AWAY FROM THE PROPERTY LINE OR STREET; THEREFORE, THERE ARE NO RESTRICTIONS ON OPENINGS BOTH PROTECTED AND UNPROTECTED.

BUILDING ENVELOPE REQUIREMENTS:

BUILDING ENVELOPE REQUIREMENTS: PROPOSED TO USE PRECRIPTIVE METHOD. PER SPS 363.0402 BUILDING ENVELOPE REQUIREMENTS. (1) OPAQUE ASSEMBLIES, SUBSTITUE 2009 IECC TABLE 502.2 (1) PER SPS 363.5402 BUILDING ENVELOPE REQUIREMENTS. (1) INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT. REFER TO SHEET A5.1 EXTERIOR ELEVATIONS.

SHEET INDEX

Sheet Number	Sheet Name
0-GENERAL	
T1.0	TITLE SHEET
1-CIVIL	
C1.0	SITE DIMENSION AND PAVEMENT ID PLAN
C2.0	SITE GRADING, UTILITY, AND EROSION CONTROL PLAN
C3.0	SITE NOTES AND DETAILS
C3.1	SITE NOTES AND DETAILS
2-LANDSCAPING	
L1.0	LANDSCAPE PLAN
L1.1	LANDSCAPE PLAN ENLARGEMENTS
L2.0	LANDSCAPE NOTES & DETAILS
4-ARCHITECTURAL	
A0.2	ARCHITECTURAL SITE PLAN
A0.3	ENLARGED ARCHITECTURAL SITE PLAN
A1.1	OVERALL FLOOR PLAN
A1.2	ENLARGED OFFICE FLOOR PLAN
A4.1	ROOF PLAN
A5.1	EXTERIOR ELEVATIONS
A5.2	EXTERIOR PERSPECTIVES
7-ELECTRICAL	
E1.0	EXTERIOR PHOTOMETRIC LIGHTING PLAN

PLAN COMMISSION SET
SEPTEMBER 24, 2021

OWNER :

MP SYSTEMS, INC.
KEN PHELPS

5477 S. WESTRIDGE CT.
NEW BERLIN, WI 53151
(414) 788-0262 PHONE

GENERAL CONTRACTOR :

BRIOHN BUILDING CORPORATION
KYLE ROADT

3885 N. BROOKFIELD RD., SUITE 200
BROOKFIELD, WISCONSIN 53045
(262) 790-0500 PHONE
(262) 790-0505 FAX

ARCHITECT :

BRIOHN DESIGN GROUP LLC
CHRISTOPHER WENZLER, AIA
NATHAN SCHULZE

3885 N. BROOKFIELD RD., SUITE 200
BROOKFIELD, WISCONSIN 53045
(262) 790-0500 PHONE
(262) 790-0505 FAX

STRUCTURAL ENGINEER:

BRIOHN DESIGN GROUP LLC
KEVIN JANKOWSKI, PE

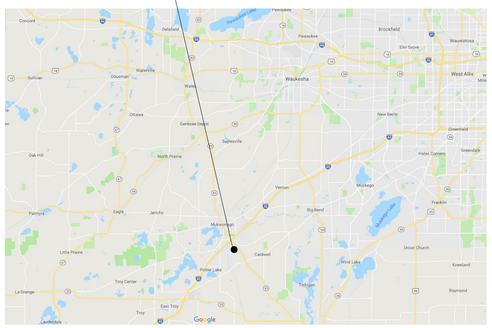
3885 N. BROOKFIELD RD., SUITE 200
BROOKFIELD, WISCONSIN 53045
(262) 790-0500 PHONE
(262) 790-0505 FAX

CIVIL ENGINEER:

JSD ENGINEERING, INC.
RIZ Iskandarsjach, P.E., P.L.S

N22 W22931 Nancy Ct., Suite 3
Waukesha, WI 53186
(414) 262.513.0666 PHONE
(414) 262.513.1232 FAX

PROJECT LOCATION:



NORTH

PROJECT INFORMATION:

CODE:	**SPS 360-366 WISCONSIN COMMERCIAL BUILDING CODE (IBC 2015, IECC 2015, IEBC 2015, IMC 2015 AND IFGC 2009)** **SPS 314 FIRE PREVENTION** **SPS 316 ELECTRICAL** **SPS 381-387 PLUMBING**
OCCUPANCY:	**PRIMARY B (OFFICE/BUSINESS)** **SECONDARY S-1 (MODERATE HAZARD STORAGE)**
CLASS OF CONSTRUCTION:	**TYPE 2B**
SPRINKLER SYSTEM:	**FULL - NFPA 13**
FLOOR LEVELS:	**1**
NUMBER OF STORIES	**1**
BUILDING AREA:	**FOOTPRINT 24,975 SF**

NOTE:
ALL MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SPRINKLER ENGINEERING BY DESIGN-BUILD CONTRACTORS

APPLICABLE TO ALL PLAN VIEWS

BRIOHN DESIGN GROUP
3885 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-0500 PHONE
(262) 790-0505 FAX

TITLE SHEET

SHEET TITLE

NEW BUILDING FOR:
MP SYSTEMS, INC.
EAST TROY BUSINESS PARK II
VILLAGE OF EAST TROY, WI 53120

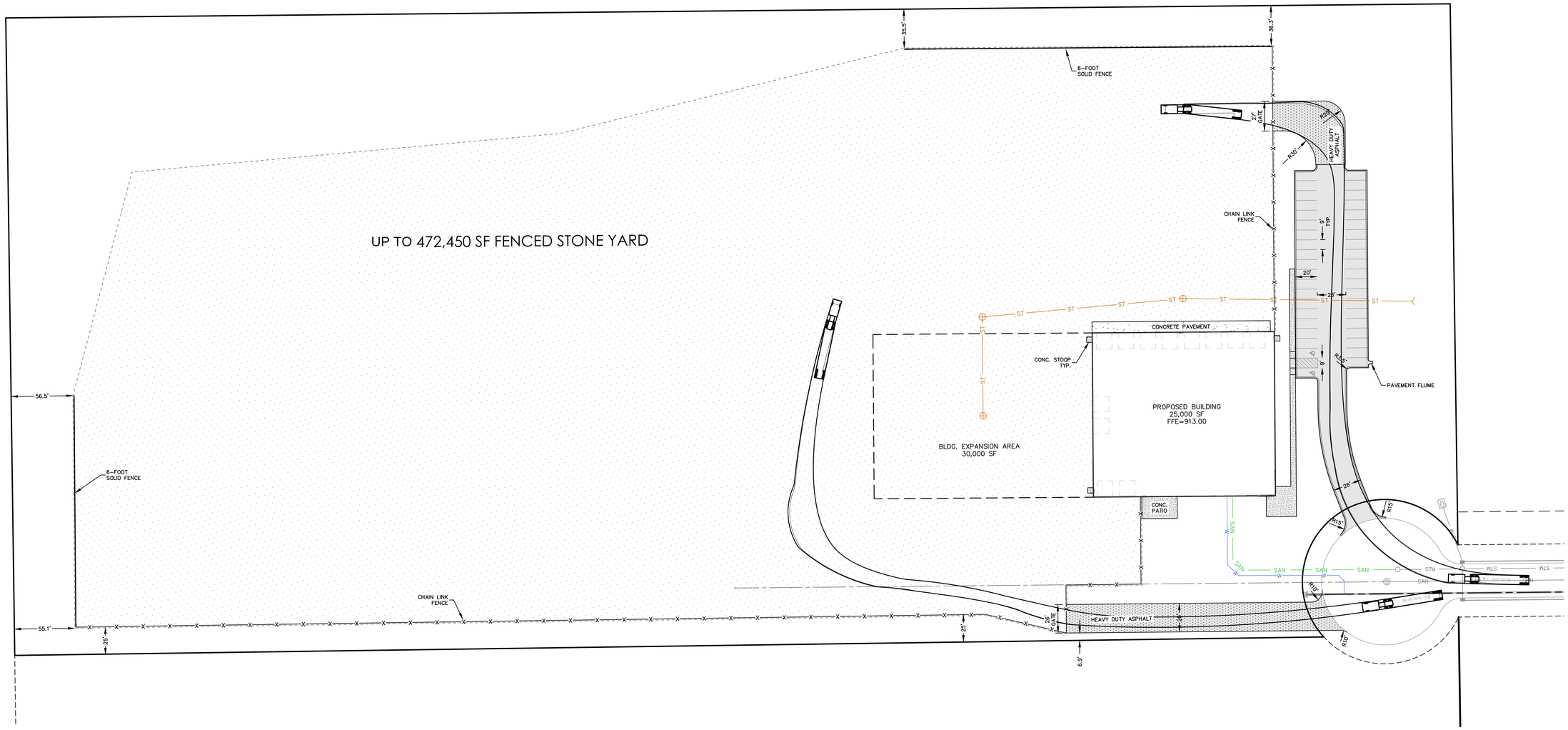
PROGRESS SET
NOT FOR CONSTRUCTION

Revision

Date

JOB:	3335
DRAWN:	NS
CHECKED:	CW
DATE:	09-24-2021

SHEET:
T1.0



GENERAL NOTES AND SPECIFICATIONS

1. THE INTENTION OF THE PLANS AND SPECIFICATIONS IS TO SET FORTH PERFORMANCE AND CONSTRUCTION MATERIAL STANDARDS FOR THE PROPER EXECUTION OF WORK. ALL WORKS CONTAINED WITHIN THE PLANS AND SPECIFICATIONS SHALL BE COMPLETED IN ACCORDANCE WITH ALL REQUIREMENTS FROM LOCAL, STATE, FEDERAL OR OTHER GOVERNING AGENCY'S LAWS, REGULATIONS, JURISDICTIONAL ORDINANCES/CODES/RULES/ETC., AND THE OWNER'S DIRECTION.
2. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ANY ADDITIONAL SOILS INVESTIGATIONS THEY FEEL IS NECESSARY FOR THE PROPER EVALUATION OF THE SITE FOR PURPOSES OF PLANNING, BIDDING, OR CONSTRUCTING THE PROJECT AT NO ADDITIONAL COST TO THE OWNER.
3. THE CONTRACTOR IS RESPONSIBLE TO REVIEW AND UNDERSTAND ALL COMPONENTS OF THE PLANS AND SPECIFICATIONS, INCLUDING FIELD VERIFYING SOIL CONDITIONS, PRIOR TO SUBMISSION OF A BID PROPOSAL.
4. THE CONTRACTOR SHALL PROMPTLY REPORT ANY ERRORS OR AMBIGUITIES DISCOVERED AS PART OF THEIR REVIEW OF PLANS, SPECIFICATIONS, REPORTS AND FIELD INVESTIGATIONS.
5. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE COMPUTATION OF QUANTITIES AND WORK REQUIRED TO COMPLETE THIS PROJECT. THE CONTRACTOR'S BID SHALL BE BASED ON THEIR OWN COMPUTATIONS AND UNDER NO CIRCUMSTANCES BE BASED ON THE ENGINEER'S ESTIMATE.
6. QUESTIONS/CLARIFICATIONS WILL BE INTERPRETED BY ENGINEER/OWNER PRIOR TO THE AWARD OF CONTRACT. ENGINEER/OWNER WILL SUBMIT OFFICIAL RESPONSES IN WRITING. INTERPRETATIONS PRESENTED IN OFFICIAL RESPONSES SHALL BE BINDING ON ALL PARTIES ASSOCIATED WITH THE CONTRACT. IN NO WAY SHALL WORD-OF-MOUTH DIALOG CONSTITUTE AN OFFICIAL RESPONSE.
7. PRIOR TO START OF WORK, CONTRACTOR SHALL BE COMPLETELY FAMILIAR WITH ALL CONDITIONS OF THE SITE, AND SHALL ACCOUNT FOR CONDITIONS THAT AFFECT, OR MAY AFFECT CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, LIMITATIONS OF WORK ACCESS, SPACE LIMITATIONS, OVERHEAD OBSTRUCTIONS, TRAFFIC PATTERNS, LOCAL REQUIREMENTS, ADJACENT ACTIVITIES, ETC. FAILURE TO CONSIDER SITE CONDITIONS SHALL NOT BE CAUSE FOR CLAIM OF JOB EXTRAS.
8. COMMENCEMENT OF CONSTRUCTION SHALL EXPLICITLY CONFIRM THAT THE CONTRACTOR HAS REVIEWED THE PLANS AND SPECIFICATIONS IN THEIR ENTIRETY AND CERTIFIES THAT THEIR SUBMITTED BID PROPOSAL CONTAINS PROVISIONS TO COMPLETE THE PROJECT, WITH THE EXCEPTION OF UNFORESEEN FIELD CONDITIONS; ALL APPLICABLE PERMITS HAVE BEEN OBTAINED; AND CONTRACTOR UNDERSTANDS ALL OF THE REQUIREMENTS OF THE PROJECT.
9. SHOULD ANY DISCREPANCIES OR CONFLICTS IN THE PLANS OR SPECIFICATIONS BE DISCOVERED AFTER THE AWARD OF CONTRACT, ENGINEER SHALL BE NOTIFIED IN WRITING IMMEDIATELY AND CONSTRUCTION OF ITEMS AFFECTED BY THE DISCREPANCIES/CONFLICTS SHALL NOT COMMENCE, OR CONTINUE, UNTIL A WRITTEN RESPONSE FROM ENGINEER/OWNER IS DISTRIBUTED. IN THE EVENT OF A CONFLICT BETWEEN REFERENCED CODES, STANDARDS, SPECIFICATIONS AND PLANS, THE ONE ESTABLISHING THE MOST STRINGENT REQUIREMENTS SHALL BE FOLLOWED.
10. THE CONTRACTOR SHALL, AT ITS OWN EXPENSE, OBTAIN ALL NECESSARY PERMITS AND LICENSES TO COMPLETE THE PROJECT. OBTAINING PERMITS, OR DELAYS IN OBTAINING PERMITS, IS NOT CAUSE FOR DELAY OF THE CONTRACT OR SCHEDULE. CONTRACTOR SHALL COMPLY WITH ALL PERMIT REQUIREMENTS.
11. THE CONTRACTOR SHALL NOTIFY ALL INTERESTED GOVERNING AGENCIES, UTILITY COMPANIES AFFECTED BY THIS CONSTRUCTION PROJECT, AND "DIGGER'S HOTLINE" IN ADVANCE OF CONSTRUCTION TO COMPLY WITH ALL JURISDICTIONAL ORDINANCES/CODES/RULES/ETC., PERMIT STIPULATIONS, AND OTHER APPLICABLE STANDARDS. CONTRACTOR IS RESPONSIBLE TO DETERMINE WHICH ORDINANCES/CODES/RULES/ETC. ARE APPLICABLE.
12. SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE TO INITIATE, INSTITUTE, ENFORCE, MAINTAIN, AND SUPERVISE ALL SAFETY PRECAUTIONS AND JOB SITE SAFETY PROGRAMS IN CONNECTION WITH THE WORK.
13. CONTRACTOR SHALL KEEP THE JOBSITE CLEAN AND ORDERLY AT ALL TIMES. ALL LOCATIONS OF THE SITE SHALL BE KEPT IN A WORKING MANNER SUCH THAT DEBRIS IS REMOVED CONTINUOUSLY AND ALL RESPECTIVE CONTRACTORS OPERATE UNDER GENERAL 'GOOD HOUSEKEEPING.'
14. THE CONTRACTOR SHALL INDEMNIFY THE OWNER, JSD, AND THEIR AGENTS FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, AND TESTING OF THE WORK ON THIS PROJECT.
15. ALL FIELD/DRAIN TILE ENCOUNTERED DURING CONSTRUCTION OPERATIONS SHALL BE IMMEDIATELY REPORTED TO ENGINEER/OWNER. TILES ORIGINATING OUTSIDE THE PROJECT LIMITS SHALL BE RECONNECTED OR REROUTED TO MAINTAIN DRAINAGE. ENGINEER/OWNER SHALL DETERMINE THE MOST FAVORABLE METHOD OF RE-ESTABLISHMENT OF OFFSITE DRAINAGE. IF TILE IS ENCOUNTERED DURING TRENCH EXCAVATIONS, RE-ESTABLISHING TILE FUNCTIONALITY SHALL BE CONSIDERED AN INCIDENTAL EXPENSE.

PAVING NOTES

1. ALL PAVING SHALL CONFORM TO "STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY & STRUCTURE CONSTRUCTION AND APPLICABLE VILLAGE OF EAST TROY ORDINANCES.
2. CONCRETE PAVING SPECIFICATIONS–

   CODES AND STANDARDS – THE PLACING, CONSTRUCTION AND COMPOSITION OF THE CONCRETE PAVEMENT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 415 AND 416 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, CURRENT EDITION. HEREAFTER, THIS PUBLICATION WILL BE REFERRED TO AS STATE HIGHWAY SPECIFICATIONS.

   CRUSHED AGGREGATE BASE COURSE – THE BASE COURSE SHALL CONFORM TO SECTIONS 301 AND 305, STATE HIGHWAY SPECIFICATIONS. CLEAN RECYCLED CRUSHED CONCRETE MAY BE USED IF APPROVED BY GEOTECH ENGINEER OF RECORD.

   SURFACE PREPARATION – NOTIFY CONTRACTOR OF UNSATISFACTORY CONDITIONS. DO NOT BEGIN PAVING WORK UNTIL DEFICIENT SUBBASE AREAS HAVE BEEN CORRECTED AND ARE READY TO RECEIVE PAVING.
3. ASPHALTIC CONCRETE PAVING SPECIFICATIONS–

   CODES AND STANDARDS – THE PLACING, CONSTRUCTION AND COMPOSITION OF THE ASPHALTIC BASE COURSE AND ASPHALTIC CONCRETE SURFACING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 450, 455, 460 AND 465 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, EDITION OF 2005. HEREAFTER, THIS PUBLICATION WILL BE REFERRED TO AS STATE HIGHWAY SPECIFICATIONS.

   WEATHER LIMITATIONS – APPLY TACK COATS WHEN AMBIENT TEMPERATURE IS ABOVE 50° F (10° C) AND WHEN TEMPERATURE HAS NOT BEEN BELOW 35° F (1° C) FOR 12 HOURS IMMEDIATELY PRIOR TO APPLICATION. DO NOT APPLY WHEN BASE IS WET OR CONTAINS EXCESS AMOUNTS OF MOISTURE. CONSTRUCT ASPHALTIC CONCRETE SURFACE COURSE WHEN ATMOSPHERIC TEMPERATURE IS ABOVE 40° F (4° C) AND WHEN BASE IS DRY AND WHEN WEATHER IS NOT RAINY. BASE COURSE MAY BE PLACED WHEN AIR TEMPERATURE IS ABOVE 30° F (–1° C).

   GRADE CONTROL – ESTABLISH AND MAINTAIN REQUIRED LINES AND ELEVATIONS FOR EACH COURSE DURING CONSTRUCTION.

   CRUSHED AGGREGATE BASE COURSE – THE TOP LAYER OF BASE COURSE SHALL CONFORM TO SECTIONS 301 AND 305, STATE HIGHWAY SPECIFICATIONS. CLEAN RECYCLED CRUSHED CONCRETE MAY BE USED IF APPROVED BY GEOTECH ENGINEER OF RECORD.

   BINDER COURSE AGGREGATE – THE AGGREGATE FOR THE BINDER COURSE SHALL CONFORM TO SECTIONS 460.2.7 AND 315, STATE HIGHWAY SPECIFICATIONS.

   SURFACE COURSE AGGREGATE – THE AGGREGATE FOR THE SURFACE COURSE SHALL CONFORM TO SECTIONS 460.2.7 AND 465, STATE HIGHWAY SPECIFICATIONS.

   ASPHALTIC MATERIALS – THE ASPHALTIC MATERIALS SHALL CONFORM TO SECTION 455 AND 460, STATE HIGHWAY SPECIFICATIONS.

   SURFACE PREPARATION – NOTIFY CONTRACTOR OF UNSATISFACTORY CONDITIONS. DO NOT BEGIN PAVING WORK UNTIL DEFICIENT SUBBASE AREAS HAVE BEEN CORRECTED AND ARE READY TO RECEIVE PAVING.

PAVEMENT STRIPING NOTES

1. CONTRACTOR SHALL CONSULT STRIPING COLOR WITH OWNER PRIOR TO CONSTRUCTION.
2. PROVIDE CONTRACTOR GRADE ACRYLIC, STRIPING PAINT FOR NEW ASPHALT OR COATED ASPHALT. ALL STRIPING SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. THOROUGHLY CLEAN SURFACES FREE OF DIRT, SAND, GRAVEL, OIL AND OTHER FOREIGN MATTER. CONTRACTOR RESPONSIBLE TO INSPECT PAVEMENT SURFACES FOR CONDITIONS AND DEFECTS THAT WILL ADVERSELY AFFECT QUALITY OF WORK, AND WHICH CANNOT BE PUT INTO AN ACCEPTABLE CONDITION THROUGH NORMAL PREPARATORY WORK AS SPECIFIED.
4. DO NOT PLACE MARKING OVER UNSOUND PAVEMENTS. IF THESE CONDITIONS EXIST, NOTIFY OWNER. STARTING INSTALLATION CONSTITUTES CONTRACTOR'S ACCEPTANCE OF SURFACE AS SUITABLE FOR INSTALLATION.
5. LAYOUT MARKINGS USING GUIDE LINES, TEMPLATES AND FORMS. STENCILS AND TEMPLATES SHALL BE PROFESSIONALLY MADE TO INDUSTRY STANDARDS. "FREE HAND" PAINTING OF ARROWS, SYMBOLS, OR WORDING SHALL NOT BE ALLOWED. APPLY STRIPES STRAIGHT AND EVEN.
6. PROTECT ADJACENT CURBS, WALKS, FENCES, AND OTHER ITEMS FROM RECEIVING PAINT.
7. APPLY MARKING PAINT AT A RATE OF ONE (1) GALLON PER THREE TO FOUR HUNDRED (300–400) LINEAL FEET OF FOUR (4) INCH WIDE STRIPES. (OR TO MFG. SPECIFICATIONS)
8. BARRICADE MARKED AREAS DURING INSTALLATION AND UNTIL THE MARKING PAINT IS DRIED AND READY FOR TRAFFIC.
9. ALL HANDICAPPED ACCESSIBLE PARKING SHALL BE LOCATED PER 2009 IBC 1106.6

PAVEMENT THICKNESS NOTES

ALL PAVING SHALL CONFORM TO "STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY & STRUCTURE CONSTRUCTION – CURRENT EDITION AND ADDENDUM, APPLICABLE VILLAGE OF EAST TROY ORDINANCES, AND THE GEOTECHNICAL ENGINEERING SERVICES REPORT PREPARED BY _____, DATED _____, 20 ___.

**** FINAL PAVEMENT DESIGN TO BE DETERMINED BY OWNER BASED ON GEOTECHNICAL ENGINEER OF RECORD RECOMMENDATIONS. ALL PAVING SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER OF RECORDS RECOMMENDATIONS AS SPECIFIED IN THE SAID GEOTECHNICAL REPORT.**

MINIMUM PAVEMENT STRUCTURE

CONCRETE PAVEMENT (TRUCK DOCK, DOLLY PAD, APRON DRIVE–IN ENTRANCE, TRASH PAD)
7" CONCRETE W/ MESH REINFORCEMENT
4" CRUSHED AGGREGATE BASE COURSE (1–1/4" DENSE GRADED LIMESTONE)
CLEAN RECYCLED CRUSHED CONCRETE MAY BE USED IF APPROVED BY GEOTECH ENGINEER OF RECORD.

HEAVY DUTY ASPHALT PAVEMENT
8" ASPHALTIC CONCRETE (2 LIFTS)
LOWER LAYER (4" BINDER, 4LT 58.28 S)
UPPER LAYER (2" SURFACE, 5LT 58.28 S)
13" CRUSHED AGGREGATE BASE COURSE (1–1/4" DENSE GRADED LIMESTONE)
CLEAN RECYCLED CRUSHED CONCRETE MAY BE USED IF APPROVED BY GEOTECH ENGINEER OF RECORD.

LIGHT DUTY ASPHALT PAVEMENT
3.5" ASPHALTIC CONCRETE (2 LIFTS)
LOWER LAYER (1.5" BINDER, 4LT 58.28 S)
UPPER LAYER (2" SURFACE, 5LT 58.28 S)
8" CRUSHED AGGREGATE BASE COURSE (1–1/4" DENSE GRADED LIMESTONE)
CLEAN RECYCLED CRUSHED CONCRETE MAY BE USED IF APPROVED BY GEOTECH ENGINEER OF RECORD.

CONCRETE SIDEWALK AND STOOPS
5" CONCRETE
4" CRUSHED AGGREGATE BASE COURSE
CLEAN RECYCLED CRUSHED CONCRETE MAY BE USED IF APPROVED BY GEOTECH ENGINEER OF RECORD.

SHEET INDEX

C1.0	SITE DIMENSION AND PAVEMENT ID PLAN
C2.0	SITE GRADING, UTILITY AND EROSION CONTROL PLAN
C3.0	SITE NOTES AND DETAILS
C3.1	SITE NOTES AND DETAILS

PRE–DEVELOPMENT (PROPERTY* LIMIT):

PERVIOUS – 748,784 SF (100% GREEN SPACE)

IMPERVIOUS – 0 SF

POST–DEVELOPMENT (PROPERTY* LIMIT):

PERVIOUS – 223,948 SF (29.9% GREEN SPACE)

IMPERVIOUS – 524,836 SF (25,000 SF BUILDING)

*PROPERTY BASED ON PROPOSED CERTIFIED SURVEY MAP (LAND DIVISION) BY OTHER.

THE PROPERTY IS ZONED LI, LIGHT INDUSTRIAL, PER THE VILLAGE OF EAST TROY, AND HAS THE FOLLOWING SETBACKS AND RESTRICTIONS:

BUILDING SETBACKS/RESTRICTIONS:

FRONT/STREET YARD SETBACK: 25'
SIDE/REAR YARD SETBACK: 25'
BUILDING MAX. HEIGHT: 45'
BUILDING MAX. AREA: 75% OF LOT AREA
IMPERVIOUS MAX. AREA: 85% OF LOT AREA

PARKING/PAVEMENT SETBACK: 5'
MINIMUM PARKING: 1/EMPLOYEE ON THE LARGEST WORK SHIFT

LEGEND

	SANITARY SEWER MANHOLE	SAN	SANITARY SEWER
	STORM MANHOLE	W	WATER MAIN
	CATCH BASIN ROUND	ST	STORM SEWER
	CATCH BASIN SQUARE	RD	ROOF DRAIN
	FIRE HYDRANT	G	UNDERGROUND GAS
	WATER VALVE	E	UNDERGROUND ELECTRIC
	GAS VALVE	T	UNDERGROUND TELEPHONE
	LIGHT POLE	FIB	UNDERGROUND FIBER OPTICS
	TELEPHONE PEDESTAL		OVERHEAD UTILITY
	ELECTRICAL MANHOLE	SF	SILT FENCE
	SIGN		CONIFEROUS TREE
	POWER POLE		DECIDUOUS TREE
	GUY WIRE		

SCALE IN FEET
40' 0 40'

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Call 811 or (800) 242-8511
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Hearing Impaired TDD (800) 542-2289
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(262) 790-0505 FAX

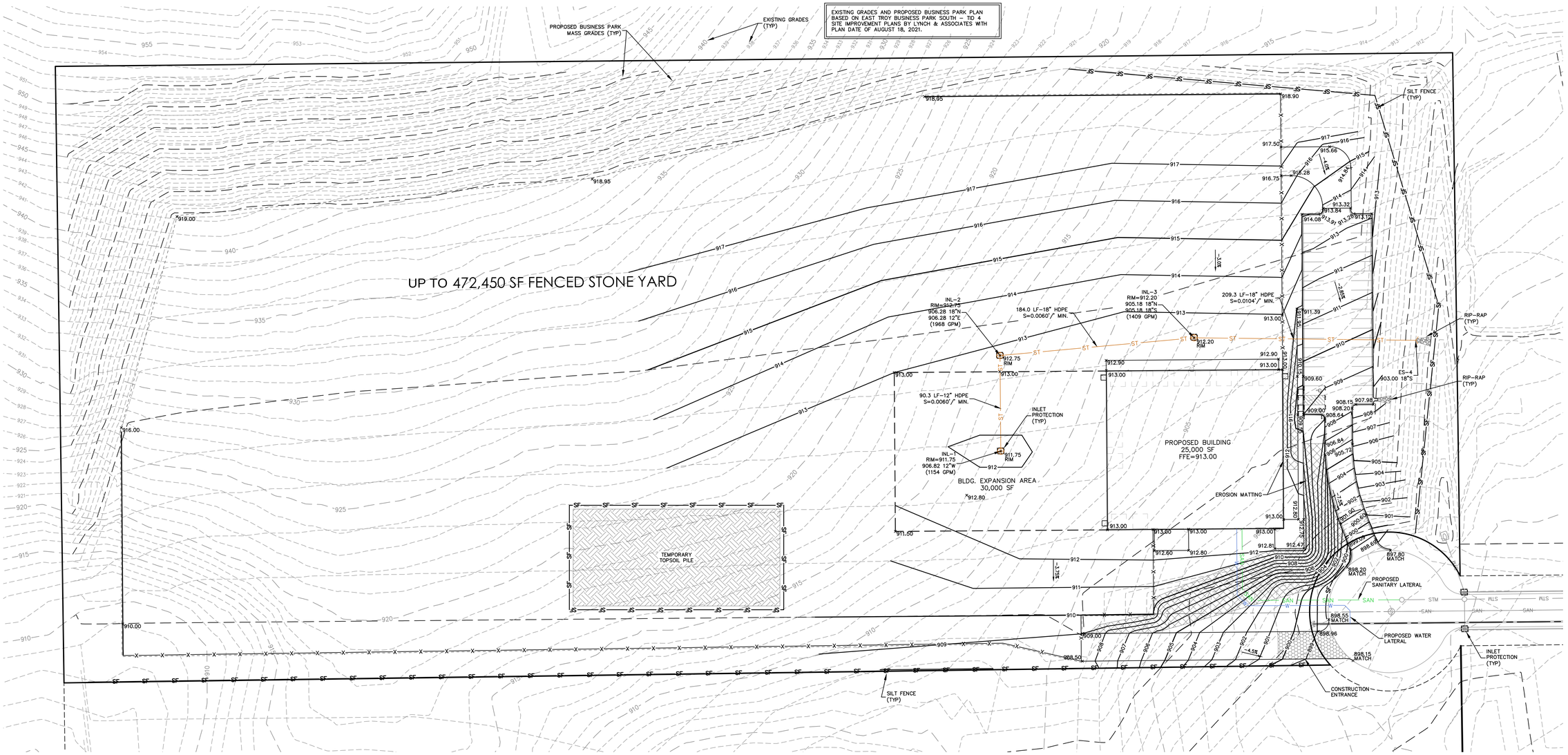
SHEET TITLE
SITE DIMENSION AND PAVEMENT ID PLAN

NEW BUILDING FOR:
MP SYSTEMS, INC.
EAST TROY BUSINESS PARK II
VILLAGE OF EAST TROY, WI

JOB:	3335
DRAWN:	SJK
CHECKED:	RWI
DATE:	09-20-21
SHEET:	C1.0

DRAFT - NOT FOR CONSTRUCTION

EXISTING GRADES AND PROPOSED BUSINESS PARK PLAN BASED ON EAST TROY BUSINESS PARK SOUTH – TID 4 SITE IMPROVEMENT PLANS BY LYNCH & ASSOCIATES WITH PLAN DATE OF AUGUST 18, 2021.



GRADING NOTES

1. CONTRACTOR SHALL VERIFY ALL GRADES, ENSURE ALL AREAS DRAIN PROPERLY AND REPORT ANY DISCREPANCIES TO JSD PROFESSIONAL SERVICES, INC. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES.
2. ALL EXISTING CONTOURS REPRESENT EXISTING SURFACE GRADES UNLESS OTHERWISE NOTED. ALL PROPOSED GRADES SHOWN ARE FINISH SURFACE GRADES UNLESS OTHERWISE NOTED.
3. ALL EXCAVATIONS AND MATERIAL PLACEMENT SHALL BE COMPLETED TO DESIGN ELEVATIONS AS DEPICTED IN THE PLANS.
   - CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR THE COMPUTATION(S) OF ALL GRADING QUANTITIES. WHILE JSD ATTEMPTS TO PROVIDE A COST EFFECTIVE APPROACH TO BALANCE EARTHWORK, GRADING DESIGN IS BASED ON MANY FACTORS, INCLUDING SAFETY, AESTHETICS, AND COMMON ENGINEERING STANDARD OF CARE, THEREFORE NO GUARANTEE CAN BE MADE FOR A BALANCED SITE.
   - THE CONTRACTOR MAY SOLICIT APPROVAL FROM ENGINEER/OWNER TO ADJUST FINAL GRADES FROM DESIGN GRADES TO PROVIDE AN OVERALL SITE BALANCE AS A RESULT OF FIELD CONDITIONS.
4. GRADING ACTIVITIES SHALL BE IN A MANNER TO ALLOW POSITIVE DRAINAGE ACROSS DISTURBED SOILS, WHICH MAY INCLUDE EXCAVATION OF TEMPORARY DITCHES TO PREVENT PONDING, AND IF NECESSARY PUMPING TO ALLEVIATE PONDING. CONTRACTOR SHALL PREVENT SURFACE WATER FROM ENTERING INTO EXCAVATIONS. IN NO WAY SHALL OWNER BE RESPONSIBLE FOR REMEDIATION OF UNSUITABLE SOILS CREATED/ORIGINATED AS A RESULT OF IMPROPER SITE GRADING OR SEQUENCING. CONTRACTOR SHALL SEQUENCE GRADING ACTIVITIES TO LIMIT EXPOSURE OF DISTURBED SOILS DUE TO WEATHER.
5. THE CONTRACTOR IS RESPONSIBLE FOR MEETING MINIMUM COMPACTION STANDARDS AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER. CONTRACTOR SHALL REFER TO THE GEOTECHNICAL ENGINEERING SERVICES REPORT PREPARED BY _____ AND DATED _____, 2021 FOR SITE COMPACTION REQUIREMENTS. THE CONTRACTOR SHALL NOTIFY ENGINEER/OWNER IF PROPER COMPACTION CANNOT BE OBTAINED. THE PROJECT'S GEOTECHNICAL CONSULTANT SHALL DETERMINE WHICH IN-SITU SOILS ARE TO BE CONSIDERED UNSUITABLE SOILS. THE ENGINEER/OWNER AND GEOTECHNICAL TESTING CONSULTANT WILL DETERMINE IF REMEDIAL MEASURES WILL BE NECESSARY.
6. IN THE EVENT THAT ANY MOISTURE-DENSITY TEST(S) FAIL TO MEET SPECIFICATION REQUIREMENTS, THE CONTRACTOR SHALL PERFORM CORRECTIVE WORK AS NECESSARY TO BRING THE MATERIAL INTO COMPLIANCE AND RETEST THE FAILED AREA AT NO COST TO THE OWNER.
7. WITH THE AUTHORIZATION OF THE ENGINEER/OWNER, MATERIAL THAT IS TOO WET TO PERMIT PROPER COMPACTION MAY BE SPREAD ON FILL AREAS IN AN EFFORT TO DRY. CONTRACTOR SHALL CLEARLY FIELD MARK THE EXTERIOR LIMITS OF SPREAD MATERIAL WITH PAINTED LATH AND SUBMIT A PLAN TO THE ENGINEER/OWNER THAT IDENTIFIES THE LIMITS. UNDER NO CONDITION SHALL THE SPREAD MATERIAL DEPTH EXCEED THE MORE RESTRICTIVE OF: THE EFFECTIVE TREATMENT DEPTH OF MACHINERY THAT WILL BE USED TO TURNOVER THE SPREAD MATERIAL; OR THE MAXIMUM COMPACTION LIFT DEPTH.
8. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER/OWNER IF GROUNDWATER IS ENCOUNTERED DURING EXCAVATION.
9. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF ADEQUATE AND SAFE TEMPORARY SHORING, BRACING, RETENTION STRUCTURES, AND EXCAVATIONS.
10. THE SITE SHALL BE COMPLETED TO WITHIN 0.10-FT (+/-) OF THE PROPOSED GRADES AS INDICATED WITHIN THE PLANS PRIOR TO PLACEMENT OF TOPSOIL OR STONE. CONTRACTOR IS ENCOURAGED TO SEQUENCE CONSTRUCTION SUCH THAT THE SITE IS DIVIDED INTO SMALLER AREAS TO ALLOW STABILIZATION OF DISTURBED SOILS IMMEDIATELY UPON COMPLETION OF INDIVIDUAL SMALLER AREAS.
11. CONTRACTOR SHALL CONTACT "DIGGER'S HOTLINE" FOR LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES AND SHALL BE RESPONSIBLE FOR PROTECTING SAID UTILITIES FROM ANY DAMAGE DURING CONSTRUCTION.
12. CONTRACTOR SHALL PROTECT INLETS AND ADJACENT PROPERTIES WITH SILT FENCING OR APPROVED EROSION CONTROL METHODS UNTIL CONSTRUCTION IS COMPLETED. CONTRACTOR SHALL PLACE SILT FENCING AT DOWN SLOPE SIDE OF GRADING LIMITS.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY EXISTING FACILITIES OR UTILITIES. ANY DAMAGE SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE EXPENSE OF THE CONTRACTOR.
14. WORK WITHIN ANY ROADWAY RIGHT-OF-WAY SHALL BE COORDINATED WITH THE APPROPRIATE MUNICIPAL OFFICIAL PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FEES. GRADING WITHIN RIGHT-OF-WAY IS SUBJECT TO APPROVAL BY SAID OFFICIALS. RESTORATION OF RIGHT-OF-WAY IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE COST OF GRADING. RESTORATION SHALL INCLUDE ALL ITEMS NECESSARY TO RESTORE RIGHT-OF-WAY IN-KIND INCLUDING LANDSCAPING.
15. CONTRACTOR SHALL COMPLY WITH ALL CITY AND/OR STATE CONSTRUCTION STANDARDS/ORDINANCES.

EROSION AND SEDIMENT CONTROL NOTES:

1. ALL CONSTRUCTION SHALL ADHERE TO THE REQUIREMENTS SET FORTH IN WISCONSIN'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER GENERAL PERMIT FOR CONSTRUCTION SITE LAND DISTURBANCE ACTIVITIES. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES (WDNR) TECHNICAL STANDARDS (REFERRED TO AS BMP'S) AND VILLAGE OF EAST TROY ORDINANCE. THESE PROCEDURES AND STANDARDS SHALL BE REFERRED TO AS BEST MANAGEMENT PRACTICES (BMP'S). IT IS THE RESPONSIBILITY OF ALL CONTRACTORS ASSOCIATED WITH THE PROJECT TO OBTAIN A COPY OF, AND UNDERSTAND, THE BMP'S PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.
2. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL CONTROL MEASURES AS DIRECTED BY JSD PROFESSIONAL SERVICES, INC. (JSD) OR GOVERNING AGENCIES SHALL BE INSTALLED WITHIN 24 HOURS OF REQUEST.
3. MODIFICATIONS TO THE APPROVED EROSION CONTROL PLAN IN ORDER TO MEET UNFORESEEN FIELD CONDITIONS ARE ALLOWED IF MODIFICATIONS CONFORM TO BMP'S. ALL MODIFICATIONS MUST BE APPROVED BY JSD/MUNICIPALITY PRIOR TO DEVIATION OF THE APPROVED PLAN.
4. INSTALL PERIMETER EROSION CONTROL MEASURES (SUCH AS CONSTRUCTION ENTRANCES, SILT FENCE AND EXISTING INLET PROTECTION) PRIOR TO ANY SITE WORK, INCLUDING GRADING OR DISTURBANCE OF EXISTING SURFACE COVER, AS SHOWN ON PLAN IN ORDER TO PROTECT ADJACENT PROPERTIES/STORM SEWER SYSTEMS FROM SEDIMENT TRANSPORT.
5. CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT ALL LOCATIONS OF VEHICLE INGRESS/EGRESS POINTS. CONTRACTOR IS RESPONSIBLE TO COORDINATE LOCATION(S) WITH THE PROPER AUTHORITIES, PROVIDE NECESSARY FEES AND OBTAIN ALL REQUIRED APPROVALS OR PERMITS. ADDITIONAL CONSTRUCTION ENTRANCES OTHER THAN AS SHOWN ON THE PLANS MUST BE PRIOR APPROVED BY THE APPLICABLE GOVERNING AGENCIES PRIOR TO INSTALLATION.
6. PAVED SURFACES ADJACENT TO CONSTRUCTION ENTRANCES SHALL BE SWEPT AND/OR SCRAPED TO REMOVE ACCUMULATED SOIL, DIRT AND/OR DUST AFTER THE END OF EACH WORK DAY AND AS REQUESTED BY THE GOVERNING AGENCIES.
7. ALL EXISTING STORM SEWER FACILITIES THAT WILL COLLECT RUNOFF FROM DISTURBED AREAS SHALL BE PROTECTED TO PREVENT SEDIMENT DEPOSITION WITHIN STORM SEWER SYSTEMS. INLET PROTECTION SHALL BE IMMEDIATELY FITTED AT THE INLET OF ALL INSTALLED STORM SEWER. ALL INLETS, STRUCTURES, PIPES, AND SWALES SHALL BE KEPT CLEAN AND FREE OF SEDIMENTATION AND DEBRIS.
8. EROSION CONTROL FOR UTILITY CONSTRUCTION (STORM SEWER, SANITARY SEWER, WATER MAIN, ETC.) OUTSIDE OF THE PERIMETER CONTROLS SHALL INCORPORATE THE FOLLOWING:
   - PLACE EXCAVATED TRENCH MATERIAL ON THE HIGH SIDE OF THE TRENCH.
   - BACKFILL, COMPACT, AND STABILIZE THE TRENCH IMMEDIATELY AFTER PIPE CONSTRUCTION.
   - DISCHARGE TRENCH WATER INTO A SEDIMENTATION BASIN OR FILTERING TANK IN ACCORDANCE WITH BMP'S PRIOR TO RELEASE INTO STORM SEWER OR DITCHES.
9. AT A MINIMUM, SEDIMENT BASINS AND NECESSARY TEMPORARY DRAINAGE PROVISIONS SHALL BE CONSTRUCTED AND OPERATIONAL BEFORE BEGINNING OF SIGNIFICANT MASS GRADING OPERATIONS TO PREVENT OFFSITE DISCHARGE OF UNTREATED RUNOFF.
10. ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES MUST BE MAINTAINED AND REPAIRED AS NEEDED. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR INSPECTION AND REPAIR DURING CONSTRUCTION. THE OWNER WILL BE RESPONSIBLE IF EROSION CONTROL IS REQUIRED AFTER THE CONTRACTOR HAS COMPLETED THE PROJECT.
11. TOPSOIL STOCKPILES SHALL HAVE A BERM OR TRENCH AROUND THE CIRCUMFERENCE AND PERIMETER SILT FENCE TO CONTROL SILT. IF TOPSOIL STOCKPILE REMAINS UNDISTURBED FOR MORE THAN SEVEN (7) DAYS, TEMPORARY SEEDING AND STABILIZATION IS REQUIRED.
12. EROSION CONTROL MEASURES TEMPORARILY REMOVED FOR UNAVOIDABLE CONSTRUCTION ACTIVITIES SHALL BE IN WORKING ORDER PRIOR TO THE COMPLETION OF EACH WORK DAY.
13. MAINTAIN SOIL EROSION CONTROL DEVICES THROUGH THE DURATION OF THIS PROJECT. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. DISTURBANCES ASSOCIATED WITH EROSION CONTROL REMOVAL SHALL BE IMMEDIATELY STABILIZED.
14. PUMPS MAY BE USED AS BYPASS DEVICES. IN NO CASE SHALL PUMPED WATER BE DIVERTED OUTSIDE THE PROJECT LIMITS.
15. GRADING EFFORTS SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. EROSION AND SEDIMENT CONTROL MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS, AND THE USE OF TEMPORARY OR PERMANENT MEASURES. ALL DISTURBED AREAS THAT WILL NOT BE WORKED FOR A PERIOD OF THIRTY (30) DAYS REQUIRE TEMPORARY SEEDING FOR EROSION CONTROL. SEEDING FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH TECHNICAL STANDARDS.
16. ALL DISTURBED SLOPES EXCEEDING 4:1 YET LESS THAN 3:1, SHALL BE STABILIZED WITH NORTH AMERICAN GREEN S75BN EROSION MATTING (OR APPROVED EQUAL) AND DISTURBED SLOPES EXCEEDING 3:1 YET LESS THAN 2:1 SHALL BE STABILIZED WITH NORTH AMERICAN GREEN C125BN (OR APPROVED EQUAL) OR APPLICATION OF AN APPROVED POLYMER SOIL STABILIZATION TREATMENT OR A COMBINATION THEREOF, AS REQUIRED. EROSION MATTING AND/OR NETTING USED ONSITE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES.
17. DURING PERIODS OF EXTENDED DRY WEATHER, THE CONTRACTOR SHALL KEEP A WATER TRUCK ON SITE FOR THE PURPOSE OF WATERING DOWN SOILS WHICH MAY OTHERWISE BECOME AIRBORNE. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING WIND EROSION (DUST) DURING CONSTRUCTION AT HIS/HER EXPENSE.
18. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE VISUALLY INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM ON A DAILY BASIS.
19. QUALIFIED PERSONNEL (PROVIDED BY THE GENERAL/PRIME CONTRACTOR) SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED AND EROSION AND SEDIMENT CONTROLS WITHIN 24 HOURS OF ALL 0.5-INCH, OR MORE, PRECIPITATION EVENTS WITH A MINIMUM INSPECTION INTERVAL OF ONCE EVERY SEVEN (7) CALENDAR DAYS IN THE ABSENCE OF A QUALIFYING RAIN OR SNOWFALL EVENT. REPORTING SHALL BE IN ACCORDANCE WITH PART IV D.4. (a-f). OF THE NPDES GENERAL PERMIT. CONTRACTOR SHALL IMMEDIATELY ARRANGE TO HAVE ANY DEFICIENT ITEMS REVEALED DURING INSPECTIONS REPAIRED/REPLACED.
20. THE FOLLOWING MAINTENANCE PRACTICES SHALL BE USED TO MAINTAIN, IN GOOD AND EFFECTIVE OPERATING CONDITIONS, VEGETATION, EROSION AND SEDIMENT CONTROL MEASURES, AND OTHER PROTECTIVE MEASURES IDENTIFIED IN THIS PLAN. UPON IDENTIFICATION, DEFICIENCIES IN STORMWATER CONTROLS SHALL BE ADDRESSED IMMEDIATELY. THE MAINTENANCE PROCEDURES FOR THIS DEVELOPMENT SHALL INCLUDE, BUT NOT BE LIMITED TO THE BELOW.
   - SILT FENCE – REPAIR OR REPLACE ANY DAMAGED FILTER FABRIC AND/OR STAKES. REMOVE ACCUMULATED SEDIMENT WHEN IT HAS REACHED ONE-HALF THE ABOVE GROUND HEIGHT OF THE FENCE.
   - CONSTRUCTION ENTRANCE – AS NEEDED, ADD STONE TO MAINTAIN CONSTRUCTION ENTRANCE DIMENSIONS AND EFFECTIVENESS.
   - DITCH CHECK (STRAW BALES) – RE-SECURE STAKES; ADJUST OR REPOSITION BALES TO ADDRESS PROPER FLOW OF STORMWATER; AND REMOVE ACCUMULATED SEDIMENT WHEN IT HAS REACHED ONE-HALF THE HEIGHT OF THE BALE.
   - EROSION CONTROL MATTING – REPAIR MATTING IMMEDIATELY IF INSPECTION REVEALS BREACHED OR FAILED CONDITIONS. REPAIR AND RE-GRADE SOIL WHERE CHANNELIZATION HAS OCCURRED.
   - DIVERSION BERM/SWALE – REPLACE OR RE-COMPACT THE CONSTRUCTION MATERIALS AS NECESSARY.
   - INLET PROTECTION – CLEAN, REPAIR OR REPLACE FILTER FABRIC AND/OR STONE WHEN CONTROL MEASURE IS CLOGGED. INLET FILTER BAGS SHALL BE REPLACED ONCE BAG BECOMES ONE-HALF FULL OF SEDIMENT.

   ADDITIONAL POLLUTANT CONTROL MEASURES TO BE IMPLEMENTED DURING CONSTRUCTION ACTIVITIES SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING.

   - CONSTRUCTION WASTE SHALL BE PROPERLY DISPOSED OF. THIS INCLUDES ALL CONSTRUCTION SITE WASTE MATERIAL, SANITARY WASTE, AND WASTE FROM VEHICLE TRACKING OF SEDIMENTS. THE CONTRACTOR SHALL ENSURE THAT NO MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, BURNED, OR DISCHARGED TO THE WATERS OF THE STATE. VEHICLES HAULING MATERIAL AWAY FROM THE SITE SHALL BE COVERED WITH A TARPAULIN TO PREVENT BLOWING DEBRIS.
   - DUST CONTROL SHALL BE ACCOMPLISHED BY ONE OR MORE OF THE FOLLOWING METHODS:
     A. COVERING 30% OR MORE OF THE SOIL SURFACE WITH A NON-ERODIBLE MATERIAL.
     B. ROUGHENING THE SOIL TO PRODUCE RIDGES PERPENDICULAR TO THE PREVAILING WIND. RIDGES SHALL BE AT LEAST SIX (6) INCHES IN HEIGHT.
     C. FREQUENT WATERING OF EXCAVATION AND FILL AREAS.
     D. PROVIDING GRAVEL OR PAVING AT ENTRANCE/EXIT DRIVES, PARKING AREAS AND TRANSIT PATHS.
   - STREET SWEEPING SHALL BE PERFORMED TO IMMEDIATELY REMOVE ANY SEDIMENT TRACKED ON PAVEMENTS.

CONSTRUCTION SITE SEQUENCING

1. INSTALL PERIMETER SILT FENCE, EXISTING INLET PROTECTION, AND TEMPORARY CONSTRUCTION ENTRANCE.
2. STRIP AND STOCKPILE TOPSOIL. INSTALL SILT FENCE AROUND PERIMETER OF STOCKPILE.
3. CONDUCT ROUGH GRADING EFFORTS.
4. INSTALL UTILITY PIPING AND STRUCTURES, IMMEDIATELY INSTALL INLET PROTECTION.
5. COMPLETE FINAL GRADING, INSTALLATION OF GRAVEL BASE COURSES, PLACEMENT OF CURBS, PAVEMENTS, WALKS, ETC.
6. PLACE TOPSOIL AND IMMEDIATELY STABILIZE DISTURBED AREAS WITH EROSION CONTROLS.
7. EROSION CONTROL MEASURES SHALL BE REMOVED ONLY AFTER SITE CONSTRUCTION IS COMPLETE WITH ALL SOIL SURFACES HAVING AN ESTABLISHED VEGETATIVE COVER THAT MEETS OR EXCEEDS THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES DEFINITION OF 'FINAL STABILIZATION'.

   CONTRACTOR MAY MODIFY SEQUENCING AFTER ITEM 1 AS NEEDED TO COMPLETE CONSTRUCTION IF EROSION CONTROLS ARE MAINTAINED IN ACCORDANCE WITH THE CONSTRUCTION SITE EROSION CONTROL REQUIREMENTS.

LEGEND

	SANITARY SEWER MANHOLE	SAN	SANITARY SEWER
	STORM MANHOLE	W	WATER MAIN
	CATCH BASIN ROUND	ST	STORM SEWER
	CATCH BASIN SQUARE	RD	ROOF DRAIN
	FIRE HYDRANT	G	UNDERGROUND GAS
	WATER VALVE	E	UNDERGROUND ELECTRIC
	GAS VALVE	T	UNDERGROUND TELEPHONE
	LIGHT POLE	FIB	UNDERGROUND FIBER OPTICS
	TELEPHONE PEDESTAL		OVERHEAD UTILITY
	ELECTRICAL MANHOLE	SF	SILT FENCE
	SIGN		CONIFEROUS TREE
	POWER POLE		DECIDUOUS TREE
	GUY WIRE		

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WAUKESHA, WISCONSIN 53188
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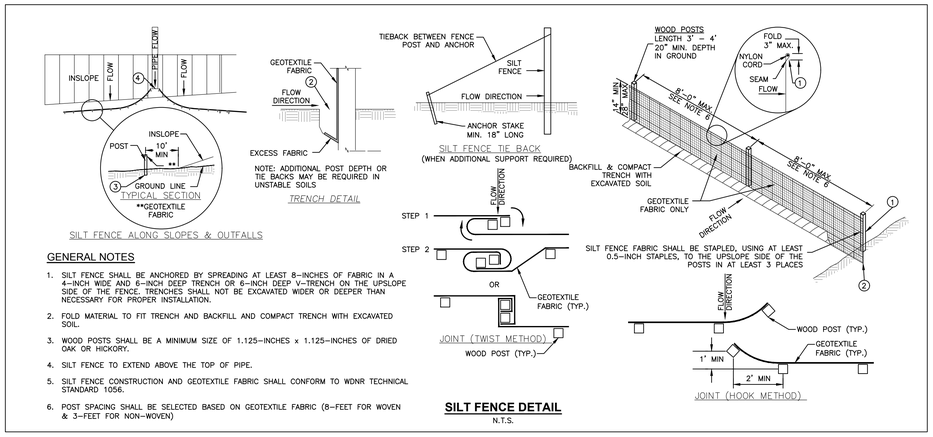
BRIOHN DESIGN GROUP
3885 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-0500 PHONE
(262) 790-0505 FAX

SHEET TITLE
SITE GRADING, UTILITY AND EROSION CONTROL PLAN

NEW BUILDING FOR:
MP SYSTEMS, INC.
EAST TROY BUSINESS PARK
VILLAGE OF EAST TROY, WI

JOB:	3335
DRAWN:	SJK
CHECKED:	RWI
DATE:	09-20-21
SHEET:	C2.0

DRAFT - NOT FOR CONSTRUCTION

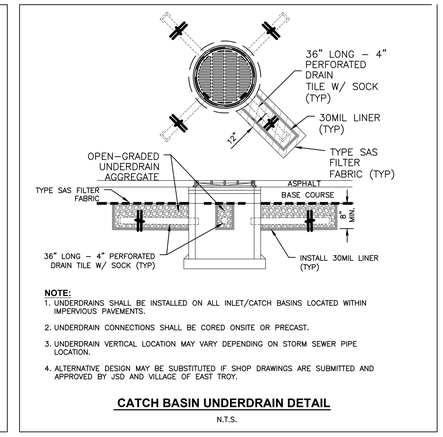


GENERAL NOTES

1. SILT FENCE SHALL BE ANCHORED BY SPREADING AT LEAST 8–INCHES OF FABRIC IN A 4–INCH WIDE AND 6–INCH DEEP TRENCH OR 6–INCH DEEP V–TRENCH ON THE UPSLOPE SIDE OF THE FENCE. TRENCHES SHALL NOT BE EXCAVATED WIDER OR DEEPER THAN NECESSARY FOR PROPER INSTALLATION.
2. FOLD MATERIAL TO FIT TRENCH AND BACKFILL AND COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1.125–INCHES x 1.125–INCHES OF DRIED OAK OR HICKORY.
4. SILT FENCE TO EXTEND ABOVE THE TOP OF PIPE.
5. SILT FENCE CONSTRUCTION AND GEOTEXTILE FABRIC SHALL CONFORM TO WDNR TECHNICAL STANDARD 1056.
6. POST SPACING SHALL BE SELECTED BASED ON GEOTEXTILE FABRIC (8–FEET FOR WOVEN & 3–FEET FOR NON–WOVEN)

SILT FENCE DETAIL

N.T.S.

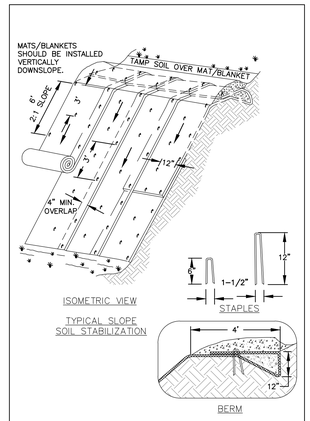


NOTE:

1. UNDERDRAINS SHALL BE INSTALLED ON ALL INLET/CATCH BASINS LOCATED WITHIN IMPERVIOUS PAVEMENTS.
2. UNDERDRAIN CONNECTIONS SHALL BE CORED ONSITE OR PRECAST.
3. UNDERDRAIN VERTICAL LOCATION MAY VARY DEPENDING ON STORM SEWER PIPE LOCATION.
4. ALTERNATIVE DESIGN MAY BE SUBSTITUTED IF SHOP DRAWINGS ARE SUBMITTED AND APPROVED BY JSD AND VILLAGE OF EAST TROY.

CATCH BASIN UNDERDRAIN DETAIL

N.T.S.

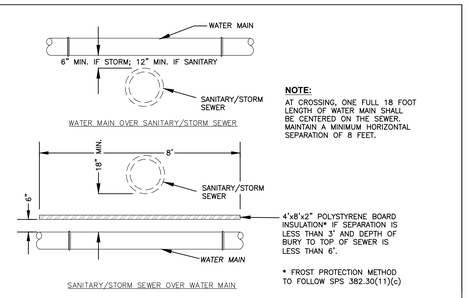


GENERAL NOTES:

1. EROSION MAT CONSTRUCTION SHALL BE IN ACCORDANCE WITH WISCONSIN DNR TECHNICAL STANDARD 1052 "NON–CHANNEL EROSION MAT".
2. ONLY WisDOT EROSION CONTROL PRODUCT ACCEPTABILITY LIST (PAL) APPROVED MATS SHALL BE ALLOWED. REFER TO EROSION CONTROL PLAN FOR EXACT MAT CLASSIFICATION.
3. APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
4. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
5. ONLY WisDOT EROSION CONTROL PRODUCT ACCEPTABILITY LIST (PAL) APPROVED MATS SHALL BE ALLOWED. REFER TO EROSION CONTROL PLAN FOR EXACT MAT CLASSIFICATION.

EROSION MATTING

N.T.S.



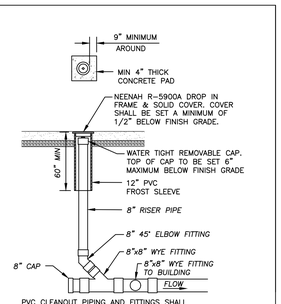
NOTE:

AT CROSSING, ONE FULL 18 FOOT LENGTH OF WATER MAIN SHALL BE CENTERED ON THE SEWER. MAINTAIN A MINIMUM HORIZONTAL SEPARATION OF 8 FEET.

* FROST PROTECTION METHOD TO FOLLOW SPS 382.30(11)(c)

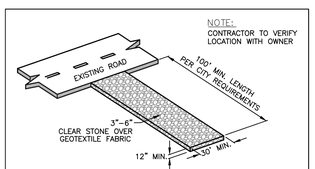
SEWER - WATER MAIN SEPARATION

N.T.S.



SANITARY SEWER CLEAN OUT DETAIL

N.T.S.



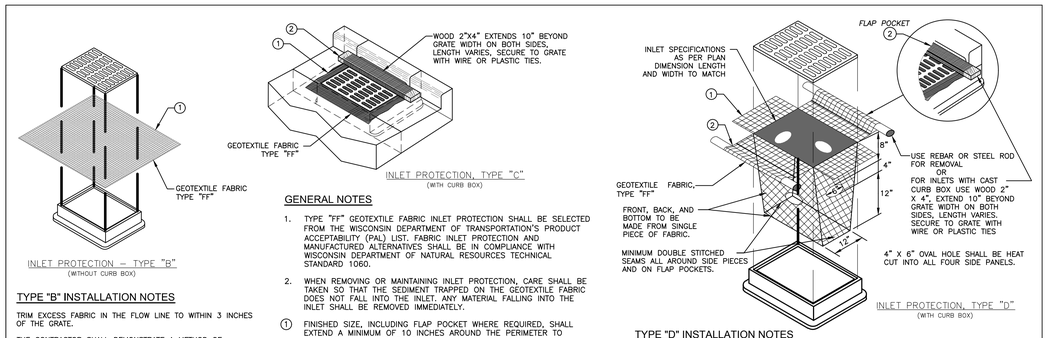
NOTE:
CONTRACTOR TO VERIFY LOCATION WITH OWNER

GENERAL NOTES

1. TRACKING PADS SHALL BE INSTALLED PRIOR TO ANY TRAFFIC LEAVING THE SITE.
2. THE AGGREGATE FOR TRACKING PADS SHALL BE 3 TO 6–INCH CLEAR OR WASHED STONE. ALL MATERIAL TO BE RETAINED ON A 3–INCH SIEVE.
3. THE AGGREGATE SHALL BE PLACED IN A LAYER AT LEAST 12–INCHES THICK. ON SITES WHERE SATURATED CONDITIONS ARE EXPECTED DURING THE LIFE OF THE PAD, THE PAD SHALL BE UNDERLAIN WITH WisDOT TYPE "R" GEOTEXTILE FABRIC TO PREVENT MIGRATION OF UNDERLYING SOILS INTO THE STONE LAYER.
4. THE TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT. THE TRACKING PAD SHALL BE A MINIMUM 100–FEET LONG.
5. ANY SEDIMENT TRACKED ONTO A PUBLIC OR PRIVATE ROAD SHOULD BE REMOVED BY STREET CLEANING, NOT FLUSHING, AT THE END OF EACH WORKING DAY.
6. TRACKING PADS SHALL, AT A MINIMUM, BE INSPECTED WEEKLY AND WITHIN 24–HOURS AFTER EVERY PRECIPITATION EVENT THAT PRODUCES 0.5–INCHES OF RAIN OR MORE DURING A 24–HOUR PERIOD.
7. THE TRACKING PAD PERFORMANCE SHALL BE MAINTAINED BY SCRAPING OR TOP–DRESSING WITH ADDITIONAL AGGREGATE.

CONSTRUCTION ENTRANCE

N.T.S.



TYPE "B" INSTALLATION NOTES

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3 INCHES OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHODS TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

GENERAL NOTES

1. TYPE "FF" GEOTEXTILE FABRIC INLET PROTECTION SHALL BE SELECTED FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION'S PRODUCT ACCEPTABILITY (PAL) LIST. FABRIC INLET PROTECTION AND MANUFACTURED ALTERNATIVES SHALL BE IN COMPLIANCE WITH WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARD 1060.
2. WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKET WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10 INCHES AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE "C" (WITH CURB BOX), AN ADDITIONAL 18 INCHES OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

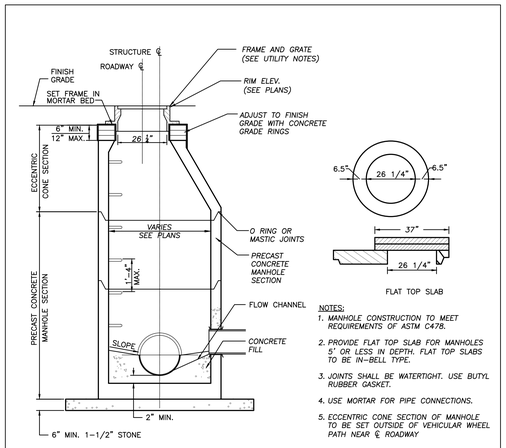
③ FOLD MATERIAL TO FIT TRENCH AND BACKFILL AND COMPACT TRENCH WITH EXCAVATED SOIL.

TYPE "D" INSTALLATION NOTES

1. DO NOT INSTALL INLET PROTECTION TYPE "D" IN INLETS SHALLOWER THAN 30 INCHES, MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.
2. TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3 INCHES OF THE GRATE.
3. THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3 INCHES. WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3 INCHES CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4 INCHES FROM THE BOTTOM OF THE BAG.

INLET PROTECTION

N.T.S.

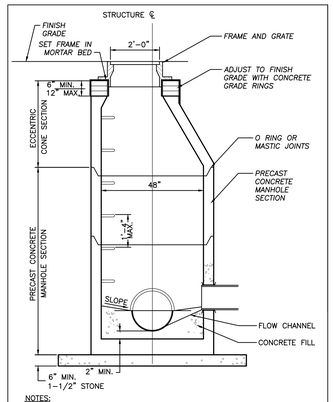


NOTES:

1. *MANHOLE CONSTRUCTION TO MEET REQUIREMENTS OF ASTM C478.*
2. *PROVIDE FLAT TOP SLAB FOR MANHOLES 5' OR LESS IN DEPTH. FLAT TOP SLABS TO BE IN–BELL TYPE.*
3. *JOINTS SHALL BE WATERTIGHT. USE BUTYL RUBBER GASKET.*
4. *USE MORTAR FOR PIPE CONNECTIONS.*
5. *ECCENTRIC CONE SECTION OF MANHOLE TO BE SET OUTSIDE OF VEHICULAR WHEEL PATH NEAR ℄ ROADWAY*

STANDARD STORM INLET/MH DETAIL

N.T.S.

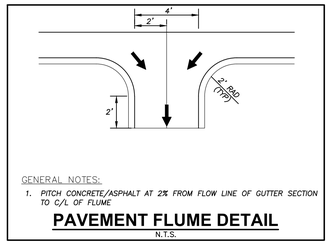


NOTES:

1. THE 48" SANITARY SAMPLING MANHOLES ARE TO MEET THE REQUIREMENTS OF FILE NO. 23 OF THE WISCONSIN STANDARD SPECIFICATIONS AND SHALL HAVE AN INTERNAL/EXTERNAL CHIMNEY SEAL BY ADAPTOR, INC.
2. MANHOLE CONSTRUCTION TO MEET REQUIREMENTS OF ASTM C478.
3. JOINTS SHALL BE WATERTIGHT. USE BUTYL RUBBER GASKET.
4. USE MORTAR FOR PIPE CONNECTIONS.

STANDARD SANITARY MH DETAIL

N.T.S.



GENERAL NOTES:

1. *PITCH CONCRETE/ASPHALT AT 2% FROM FLOW LINE OF GUTTER SECTION TO C/L OF FLUME*

PAVEMENT FLUME DETAIL

N.T.S.

DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES STORM SEWER CALCULATIONS

Project Name: MP SYSTEMS
Project Location: East Troy
Performed by: IRN
JSD Project Number: 21-10885
Date: 9/15/2021
#NUM!

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Structure abbreviations are as follows: ES - End Section, MH - Manhole, FI - Field Inlet, TD - Trench Drain, BC - Building Connection, RD - Roof Drain, STB - Stub

PIPE LOCATION		CONTRIBUTING AREA			PIPE FLOW			PIPE DATA				PIPE CAPACITY INFORMATION						DROP	ELEVATIONS			COVER TO CROWN (FT)
		ROOF	PAVED	GRASS	AREA RUNOFF	TOTAL FLOW					Manning's n PVC=0.011 HDPE=0.012 RCP=0.013	ACTUAL FLOW					FULL FLOW	THRU STRUCT				
UP STRUCT	DOWN STRUCT	(SQ FT)	(SQ FT)	(SQ FT)	(GPM)	(GPM)	(CFS)	LENGTH (FT)	DIA. (IN)	SLOPE (FT/FT)		REQD DROP	ACTUAL DROP	PARTS FULL	VEL (FPS)		(CFS)	(FT)	RIM/(F/L) UP	INVERT UP	INVERT DOWN	
INL 1	INL 2	30,000	0	0	1154	1154	2.57	90.3	12	0.0060	0.012	0.40	0.54	0.77	4.29	2.99	0.00	911.75	906.82	906.28	3.83	
INL 2	INL 3	0	63,976	0	1968	3122	6.96	184.0	18	0.0060	0.012	0.69	1.10	0.72	5.55	8.81	0.00	912.75	906.28	905.18	4.82	
INL 3	ES 4	0	45,777	0	1409	4531	10.10	209.3	18	0.0104	0.012	1.65	2.18	0.79	7.42	11.60	0.00	912.00	905.18	903.00	5.17	

UTILITY NOTES

1. ALL EXISTING UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATIONS OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. CONTRACTOR/OWNER SHALL CALL "DIGGER'S HOTLINE" PRIOR TO ANY CONSTRUCTION.

2. PRIOR TO CONSTRUCTION, THE PRIME CONTRACTOR IS RESPONSIBLE FOR:
EXAMINING ALL SITE CONDITIONS RELATIVE TO THE CONDITIONS INDICATED ON THE ENGINEERING DRAWINGS. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER AND RESOLVED PRIOR TO THE START OF CONSTRUCTION.
   - OBTAINING ALL PERMITS INCLUDING PERMIT COSTS, TAP FEES, METER DEPOSITS, BONDS, AND ALL OTHER FEES REQUIRED FOR PROPOSED WORK TO OBTAIN OCCUPANCY.
   - VERIFYING ALL ELEVATIONS, LOCATIONS AND SIZES OF SANITARY, WATER AND STORM LATERALS AND CHECK ALL UTILITY CROSSINGS FOR CONFLICTS. NOTIFY ENGINEER OF ANY DISCREPANCY. NO WORK SHALL BE PERFORMED UNTIL THE DISCREPANCY IS RESOLVED.
   - NOTIFYING ALL UTILITIES PRIOR TO INSTALLATION OF ANY UNDERGROUND IMPROVEMENTS.
   - NOTIFYING THE DESIGN ENGINEER AND MUNICIPALITY 48 HOURS PRIOR TO THE START OF CONSTRUCTION TO ARRANGE FOR APPROPRIATE CONSTRUCTION OBSERVATION.
   - COORDINATING ALL CONSTRUCTION WITH OTHER CONTRACTORS INVOLVED WITH CONSTRUCTION OF THE PROPOSED DEVELOPMENT AND FOR REPORTING ANY ERRORS OR DISCREPANCIES BETWEEN THESE PLANS AND PLANS PREPARED BY OTHERS.

3. ALL UTILITY WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN – AND ALL STATE AND LOCAL CODES AND SPECIFICATIONS. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE WHICH SPECIFICATIONS AND CODES APPLY, AND TO COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE APPROPRIATE LOCAL AND STATE AUTHORITIES.

4. SPECIFICATIONS SHALL COMPLY WITH THE VILLAGE OF EAST TRY SPECIAL PROVISIONS.

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

6. CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY DURING THE CONSTRUCTION OF IMPROVEMENTS.

7. CONTRACTOR SHALL INSTALL A PEDESTRIAN FENCE AROUND ALL EXCAVATIONS TO BE LEFT OPEN OVER NIGHT AS REQUIRED IN CONSTRUCTION SITES WHERE THE POTENTIAL FOR PEDESTRIAN INJURY EXISTS.

8. CONTRACTOR SHALL ADJUST AND/OR RECONSTRUCT ALL UTILITY COVERS (SUCH AS MANHOLE COVERS, VALVE BOX COVERS, ETC.) TO MATCH THE FINISHED GRADES OF THE AREAS EFFECTED BY THE CONSTRUCTION.

9. THE PRIME CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CONSTRUCTION WITH OTHER CONTRACTORS INVOLVED WITH CONSTRUCTION OF THE PROPOSED DEVELOPMENT AND FOR REPORTING ANY ERRORS OR DISCREPANCIES BETWEEN THESE PLANS AND PLANS PREPARED BY OTHERS.

10. ANY SANITARY SEWER, SANITARY SEWER SERVICES, WATER MAIN, WATER SERVICES, STORM SEWER, OR OTHER UTILITIES, WHICH ARE DAMAGED BY THE CONTRACTORS, SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.

11. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE ENGINEER WITH AS–BUILT CONDITIONS OF THE DESIGNATED IMPROVEMENTS IN ORDER THAT THE APPROPRIATE DRAWINGS CAN BE PREPARED, IF REQUIRED. ANY CHANGES TO THE DRAWINGS OR ADDITIONAL ITEMS MUST BE REPORTED TO THE ENGINEER AS WORK PROGRESSES.

12. STORM SEWER SPECIFICATIONS –

PIPE – REINFORCED CONCRETE PIPE (RCP) SHALL MEET THE REQUIREMENTS OF ASTM CLASS III (MINIMUM) C–76 WITH RUBBER GASKET JOINTS CONFORMING TO ASTM C–443. HIGH DENSITY DUAL–WALL POLYETHYLENE CORRUGATED PIPE SHALL BE AS MANUFACTURED BY ADS OR EQUAL WITH WATER TIGHT JOINTS, AND SHALL MEET THE REQUIREMENTS OF AASHTO DESIGNATION M–294 TYPE "S".

INLETS – INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH FILE. NO. 28 OF THE "STANDARD SPECIFICATIONS", OR APPROVED EQUAL WITH A 1'–8" X 2'–6" MAXIMUM OPENING. CURB FRAME & GRATE SHALL BE NEENAH R–3067 WITH TYPE R GRATE, OR EQUAL.

BACKFILL AND BEDDING – STORM SEWER SHALL BE CONSTRUCTED WITH GRAVEL BACKFILL AND CLASS "B" BEDDING IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS".

MANHOLE FRAMES AND COVERS – MANHOLE FRAMES AND COVERS SHALL BE NEENAH R–1642 WITH TYPE "B" SELF SEALING LIDS, NON–ROCKING OR EQUAL.

FIELD TILE CONNECTION – ALL FIELD TILE ENCOUNTERED DURING CONSTRUCTION SHALL BE INCLUDED IN THE UNIT PRICE(S) FOR STORM SEWER. TILE LINES CROSSED BY THE TRENCH SHALL BE REPLACED WITH THE SAME MATERIAL AS THE STORM SEWER.

13. WATER MAIN SPECIFICATIONS –

PIPE – DUCTILE IRON PIPE SHALL BE CLASS 52 CONFORMING TO AWWA C151 AND CHAPTER 8.18.0 OF THE "STANDARD SPECIFICATIONS". POLYVINYL CHLORIDE (PVC) PIPE SHALL MEET THE REQUIREMENTS OF AWWA STANDARD C–900, CLASS 150, DR–18, WITH CAST IRON O.D. AND INTEGRAL ELASTOMERIC BELL AND SPIGOT JOINTS. NON–METALLIC WATER MAINS SHALL BE INSTALLED WITH BLUE INSULATION TRACER WIRE AND CONFORM WITH SPS 382.30(11)(h).

VALVES AND VALVE BOXES – GATE VALVES SHALL BE AWWA GATE VALVES MEETING THE REQUIREMENTS OF AWWA C–500 AND CHAPTER 8.27.0 OF THE "STANDARD SPECIFICATIONS". GATE VALVES AND VALVE BOXES SHALL CONFORM TO LOCAL PLUMBING ORDINANCES.

HYDRANTS – HYDRANTS SHALL CONFORM TO THE SPECIFICATIONS OF THE VILLAGE OF EAST TRY. THE DISTANCE FROM THE GROUND LINE TO THE CENTERLINE OF THE LOWEST NOZZLE AND THE LOWEST CONNECTION OF THE FIRE DEPARTMENT SHALL BE NO LESS THAN 18–INCHES AND NO GREATER THAN 23–INCHES (SEE DETAIL).

BEDDING AND COVER MATERIAL – PIPE BEDDING AND COVER MATERIAL SHALL BE SAND, CRUSHED STONE CHIPS OR CRUSHED STONE SCREENINGS CONFORMING TO CHAPTER 8.43.2 OF THE "STANDARD SPECIFICATIONS".

BACKFILL – BACKFILL MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH CHAPTER 2.6.0 OF THE "STANDARD SPECIFICATIONS". GRAVEL BACKFILL IS REQUIRED IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS".

14. SANITARY SEWER SPECIFICATIONS –

PIPE – SANITARY SEWER PIPE MATERIAL SHALL BE POLYVINYL CHLORIDE (PVC) MEETING REQUIREMENTS OF ASTM D 3034, SDR–35, WITH INTEGRAL BELL TYPE FLEXIBLE ELASTOMERIC JOINTS, MEETING THE REQUIREMENTS OF ASTM D–3212.

BEDDING AND COVER MATERIAL – BEDDING AND COVER MATERIAL SHALL CONFORM TO THE APPROPRIATE SECTIONS OF THE "STANDARD SPECIFICATION" WITH THE FOLLOWING MODIFICATION: "COVER MATERIAL SHALL BE THE SAME AS USED FOR BEDDING AND SHALL CONFORM TO SECTION 8.43.2 (A). BEDDING AND COVER MATERIAL SHALL BE PLACED IN A MINIMUM OF THREE SEPARATE LIFTS, OR AS REQUIRED TO INSURE ADEQUATE COMPACTING OF THESE MATERIALS, WITH ONE LIFT OF BEDDING MATERIAL ENDING AT OR NEAR THE SPRINGLINE OF THE PIPE. THE CONTRACTOR SHALL TAKE CARE TO COMPLETELY WORK BEDDING MATERIAL UNDER THE HAUNCH OF THE PIPE TO PROVIDE ADEQUATE SIDE SUPPORT."

BACKFILL – BACKFILL MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE CHAPTER 2.6.0 OF THE "STANDARD SPECIFICATIONS." GRAVEL BACKFILL IS REQUIRED IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS."

MANHOLES – MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH FILE NOS. 12, 13 AND 15 OF THE "STANDARD SPECIFICATIONS" AND ALL SPECIAL PROVISIONS OF THE VILLAGE OF EAST TRY.

MANHOLE FRAMES AND COVERS – MANHOLE FRAMES AND COVERS SHALL BE NEENAH R–1642 WITH TYPE "B" SELF SEALING LIDS, NON–ROCKING OR EQUAL.

15. WATERMAIN AND SANITARY SEWER SHALL BE INSULATED WHEREVER THE DEPTH OF COVER IS LESS THAN 6 FEET. INSULATION AND INSTALATION OF INSULATION SHALL BE CONFORMING WITH CHAPTER 4.17.0 "INSULATION" OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN 6TH EDITION UPDATED WITH ITS LATEST ADDENDUM (TYP.).

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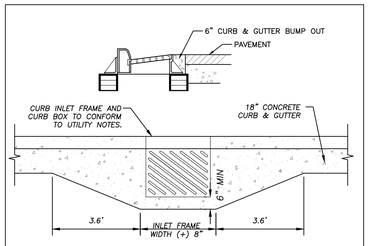
SHEET TITLE
SITE NOTES AND DETAILS

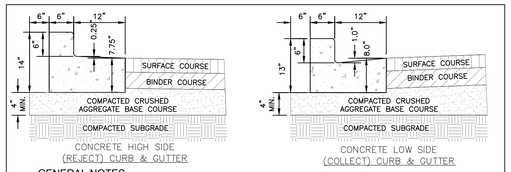
NEW BUILDING FOR:
MP SYSTEMS, INC.
EAST TROY BUSINESS PARK II
VILLAGE OF EAST TROY, WI

JOB:	3335
DRAWN:	PSM
CHECKED:	RWI
DATE:	09-20-21
SHEET:	C3.0

DRAFT - NOT FOR CONSTRUCTION



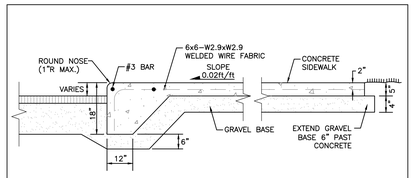
CURB INLET/CONCRETE CURB BUMP OUT
N.T.S.



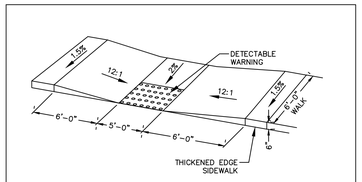
GENERAL NOTES

1. LATERAL CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 15 FEET NOR LESS THAN 6 FEET. THE JOINTS SHALL BE A MINIMUM OF 3 INCHES IN DEPTH
2. EXPANSION JOINTS SHALL BE PLACED TRANSVERSELY AT RADIUS POINTS ON CURVES OF RADIUS 200 FEET OR LESS, AND AT ANGLE POINTS, OR AS DIRECTED BY THE ENGINEER OF RECORD. THE EXPANSION JOINT FILLER SHALL BE A ONE PIECE FIBER BOARD OR THE APPROVED EQUIVALENT MATERIAL HAVING THE SAME DIMENSIONS AS CURB & GUTTER AT THAT STATION AND BE 0.5 INCH THICK.
3. IN ALL CASES, CONCRETE CURB & GUTTER SHALL BE PLACED ON THOROUGHLY COMPACTED CRUSHED STONE

18" STANDARD CURB & GUTTER
N.T.S.



INTEGRAL CONCRETE CURB & WALK
N.T.S.



REV. 11-20-2018

ADA ACCESSIBLE RAMP
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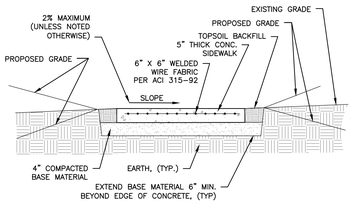
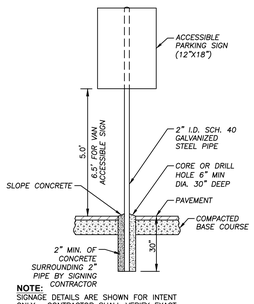
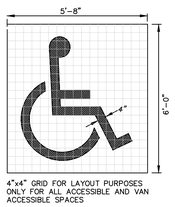


CONCRETE SIDEWALK
N.T.S.



NOTE:
SIGNAGE DETAILS ARE SHOWN FOR INTENT ONLY. CONTRACTOR SHALL VERIFY EXACT REQUIREMENTS PRIOR TO CONSTRUCTION.

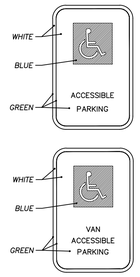
ACCESSIBLE PARKING SIGN AND POST INSTALLATION
N.T.S.



4"x4" GRID FOR LAYOUT PURPOSES ONLY FOR ALL ACCESSIBLE AND VAN ACCESSIBLE SPACES

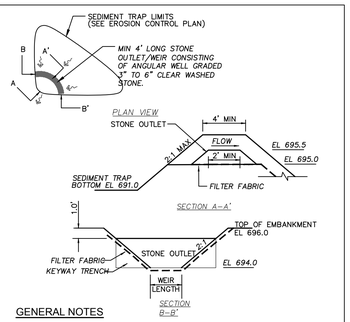
NOTE:
SYMBOL DETAILS ARE SHOWN FOR INTENT ONLY. CONTRACTOR SHALL VERIFY EXACT REQUIREMENTS PRIOR TO CONSTRUCTION.

PAINTED SYMBOL
N.T.S.



NOTE:
SIGNAGE AND SYMBOL DETAILS ARE SHOWN FOR INTENT ONLY. CONTRACTOR SHALL VERIFY EXACT REQUIREMENTS PRIOR TO CONSTRUCTION.

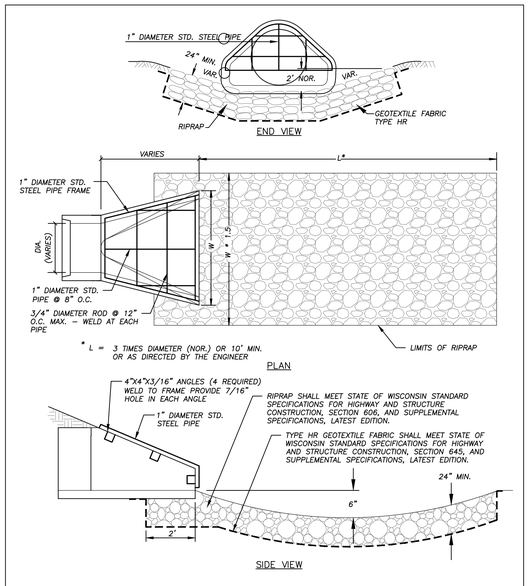
SIGN DETAILS
N.T.S.



GENERAL NOTES

1. SEDIMENT TRAP SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1063.
2. SIDE SLOPES SHALL BE STABILIZED AS SOON AS THEY ARE CONSTRUCTED.
3. IF THE OUTLET BECOMES CLOGGED IT SHALL BE CLEANED TO RESTORE FLOW CAPACITY.
4. THE DEPTH OF THE SEDIMENT TRAP FROM THE BOTTOM OF THE TRAP TO THE INVERT OF THE STONE OUTLET SHALL BE AT LEAST 3 FEET.
5. THE SEDIMENT TRAP SHALL HAVE A LENGTH TO WIDTH RATIO OF AT LEAST 2:1. SIDE SLOPES SHALL BE NO STEEPER THAN 2:1
6. MAINTENANCE SHALL BE COMPLETED AS SOON AS POSSIBLE WITH CONSIDERATION TO SITE CONDITIONS. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF ONE FOOT
7. FILTER FABRIC SHALL MEET THE REQUIREMENTS OF WDNR TS 1056.

SEDIMENT TRAP
N.T.S.



APRON ENDWALL WITH GRATE
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SHEET TITLE
SITE NOTES AND DETAILS

NEW BUILDING FOR:
MP SYSTEMS, INC.
EAST TROY BUSINESS PARK II
VILLAGE OF EAST TROY, WI

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DRAWN:	PSM
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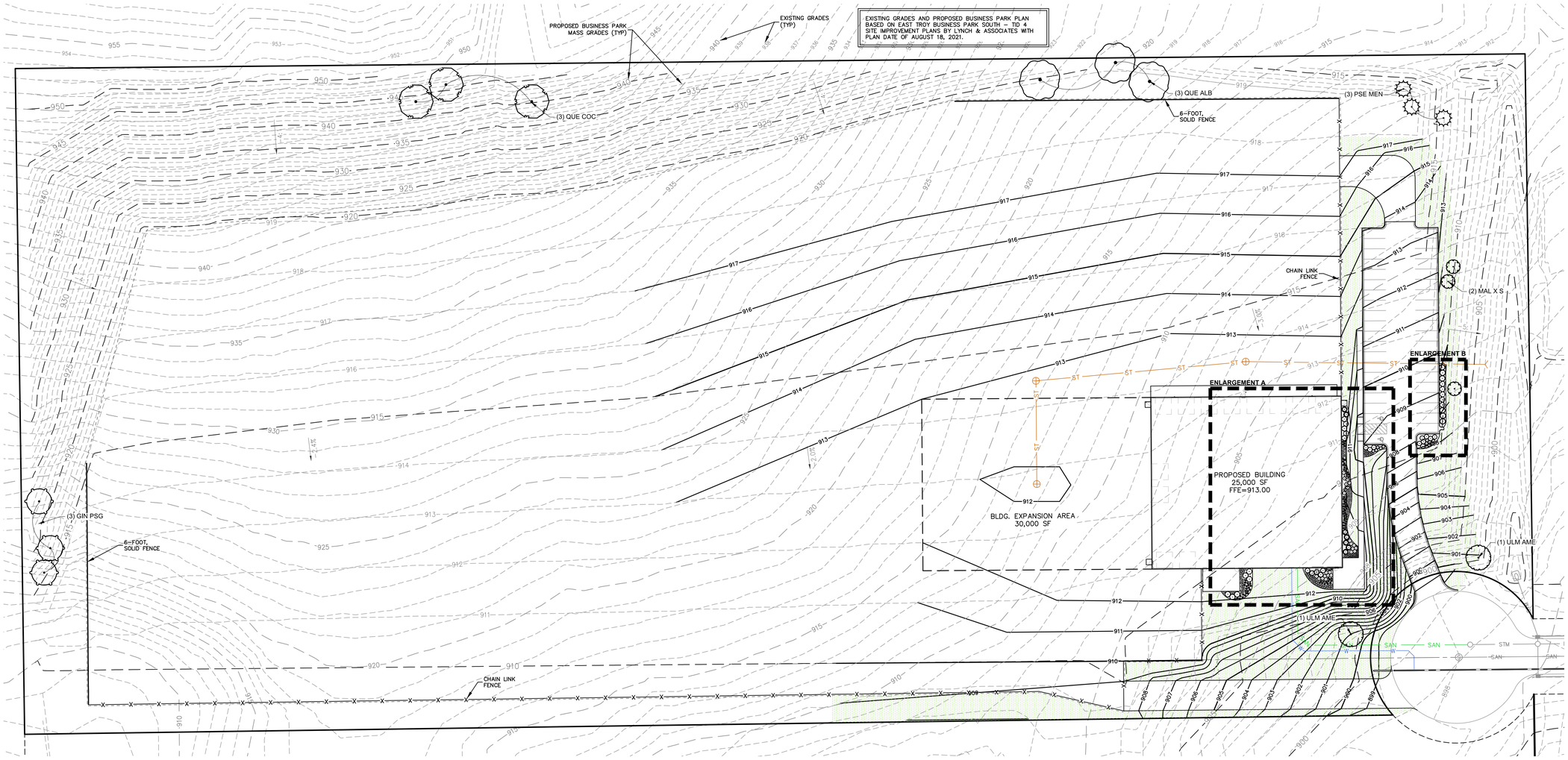

LANDSCAPE CALCULATIONS

	REQUIRED	PROVIDED	REQUIRED FOR FUTURE EXPANSION
FOUNDATION LANDSCAPING 20 POINTS PER 100 LF OF BUILDING PERIMETER (CLIMAX TREES AND TALL TREES SHALL NOT BE USED TO MEET THIS REQUIREMENT)	97 POINTS (483 LF/100=4.83, 20*4.831=96.6)	110 POINTS	30 POINTS 150 LF/100=1.50, 20*1.50=30)
6-FOOT SCREEN FOR ALL BUILDING APPURTENANCES (HVAC/UTILITIES, ETC.)	YES	YES	YES
STREET FRONTAGES LOCATED WITHIN 10-FEET OF THE ROW	YES		
20 POINTS PER 100 LF OF STREET FRONTAGE	51 POINTS (256 LF/100=2.56, 20*2.56=51.20)	60 POINTS	
50% OF POINTS SHALL BE CLIMAX OR TALL TREES	YES	YES	
30% OF POINTS SHALL BE MEDIUM TREES	YES	NO	
PAVED AREAS LOCATED WITHIN 10-FEET OF THE PAVED AREA	YES	YES	
CONTINUOUS VISUAL SCREEN OF PARKING AREAS FROM ROW AT A MINIMUM OF 40 INCHES	YES	YES	
360 SF OF LANDSCAPE AREA FOR EVERY 100 PAVED AREA LANDSCAPE POINTS	266 SF (74/100=0.74, 360 SF*0.74=266.40)	298 SF	
40 POINTS FOR EVERY 20 PARKING STALLS OR 10,000 SF OF PAVEMENT (WHICHEVER IS GREATER)	74 POINTS (18648 SF/10000=1.86, 40*1.86=74.40)	95 POINTS	
30% OF POINTS SHALL BE CLIMAX OR TALL TREES	22 POINTS	45 POINTS	
40% OF POINTS SHALL BE SHRUBS	30 POINTS	50 POINTS	
400 SF PARKING LOT ISLANDS AT AISLE ENDS	YES	YES	
1 LANDSCAPE ISLAND (400 SF MIN.) IN EACH PARKING AISLE FOR EVERY 20 CARS IN THAT AISLE	YES	YES	
DEVELOPED LOTS 5 POINTS PER 1,000 SF OF GFA	125 POINTS (25000 GFA/1000 SF=25, 25*5=125)	120 POINTS	150 POINTS (30000 GFA/1000=30, 30*5=150)
BUFFERYARD ABUTTING SR-4 (WEST & SOUTH) 0.60 OPACTIY, OPTION F-1	YES		
221 LANDSCAPE POINTS PER 100 LF	WEST: 2,915 POINTS (1,319 LF/100=13.19, 13.19*221=2914.99) SOUTH: 1,236 POINTS (582 LF/100=5.82, 5.82*221=1236.22)	490 POINTS (6 CLIMAX TREES=2850, 3 EVERGREEN TREES=40) 225 POINTS (3 CLIMAX TREES=1200)	
20+ FOOT BUFFERYARD	YES		
MINIMUM 6' SOLID FENCE	YES		

PLANT SCHEDULE

LOW DECIDUOUS SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME	CONT	SIZE AT PLANTING
	ARO MEL	9	Aronia melanocarpa 'Morton' TM / Iroquis Beauty Black Chokeberry	#03/3 gal.	
	FOT GAR	16	Fothergilla gardenii / Dwarf Fothergilla	#03/3 gal.	
	WEI X D	12	Weigela x 'Dark Horse' / Dark Horse Weigela	#03/3 gal.	
MEDIUM DECIDUOUS SHRUB	CODE	QTY	BOTANICAL / COMMON NAME	CONT	SIZE AT PLANTING
	HYD QUE	6	Hydrangea quercifolia 'Brenhill' TM / Gatsby Gal Oakleaf Hydrangea	#05/5 gal.	
MEDIUM EVERGREEN SHRUB	CODE	QTY	BOTANICAL / COMMON NAME	CONT	SIZE AT PLANTING
	EUO FOR	10	Euonymus fortunei 'Sarcoxie' / Wintercreeper	#05/5 gal.	
ORNAMENTAL GRASSES	CODE	QTY	BOTANICAL / COMMON NAME	CONT	SIZE AT PLANTING
	BOU BLO	85	Bouteloua gracilis 'Blonde Ambition' / Blonde Ambition Blue Grama	#01/1 gal.	
	FES X C	15	Festuca x 'Cool as Ice' / Cool as Ice Blue Fescue	#01/1 gal.	
PERENNIALS	CODE	QTY	BOTANICAL / COMMON NAME	CONT	SIZE AT PLANTING
	ACH BVN	29	Achillea millefolium 'Balvinolet' TM / New Vintage Violet Common Yarrow	#01/1 gal.	
	HEM X B	42	Hemerocallis x 'Bright Sunset' / Bright Sunset Daylily	#01/1 gal.	
	NEP RAC	89	Nepeta racemosa 'Walker's Low' / Catmint	#01/1 gal.	
TALL DECIDUOUS SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME	CONT	SIZE AT PLANTING
	SYR PDA	10	Syringa x 'Penda' TM / Bloomerang Purple Lilac	B & B	36" Min. Ht.
	VIB DEN	6	Viburnum dentatum deamii 'SMVDLS' TM / All That Glitters Viburnum	#05/5 gal.	
TALL-MEDIUM EVERGREEN SHRUB	CODE	QTY	BOTANICAL / COMMON NAME	CONT	SIZE AT PLANTING
	JUN CHI	7	Juniperus chinensis 'Sea Green' / Sea Green Juniper	B & B	30" Min. Ht.
	TAX X M	5	Taxus x media 'Tauntonii' / Taunton's Anglo-Japanese Yew	B & B	30" Min. Ht.

PLANT SCHEDULE

CLIMAX TREE	CODE	QTY	BOTANICAL / COMMON NAME	ROOT CONDITION	SIZE AT PLANTING
	GIN PSG	3	Ginkgo biloba 'Princeton Sentry' / Princeton Sentry Maidenhair Tree	B & B	3"Cal
	QUE ALB	3	Quercus alba / White Oak	B & B	3"Cal
	QUE COC	3	Quercus coccinea / Scarlet Oak	B & B	3"Cal
MEDIUM DECIDUOUS TREE	CODE	QTY	BOTANICAL / COMMON NAME	ROOT CONDITION	SIZE AT PLANTING
	MAL X S	3	Malus x 'Spring Snow' / Spring Snow Crabapple	B & B	2"Cal
TALL DECIDUOUS TREE	CODE	QTY	BOTANICAL / COMMON NAME	ROOT CONDITION	SIZE AT PLANTING
	ULM AME	2	Ulmus americana 'Princeton' / American Elm	B & B	2.5"Cal
TALL EVERGREEN TREE	CODE	QTY	BOTANICAL / COMMON NAME	ROOT CONDITION	SIZE AT PLANTING
	PSE MEN	3	Pseudotsuga menziesii / Douglas Fir	B & B	5' Ht.

GENERAL NOTES

1. REFER TO THE EXISTING CONDITIONS SURVEY FOR EXISTING CONDITIONS NOTES AND LEGEND.
2. ALL WORK IN THE ROW SHALL BE IN ACCORDANCE WITH THE MUNICIPAL STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
3. JSD SHALL BE HELD HARMLESS AND DOES NOT WARRANT ANY DEVIATIONS BY THE OWNER/CONTRACTOR FROM THE APPROVED CONSTRUCTION PLANS THAT MAY RESULT IN DISCIPLINARY ACTIONS BY ANY OR ALL REGULATORY AGENCIES.
4. DRAWING FOR REVIEW – NOT FOR CONSTRUCTION UNLESS OTHERWISE NOTED IN THE TITLE BLOCK.
5. THE LANDSCAPE CONTRACTOR SHALL COORDINATE ALL FINE GRADING AND TOPSOILING WITH GENERAL CONTRACTOR
6. REFER TO "LANDSCAPE DETAILS AND NOTES" SHEET FOR ADDITIONAL DETAILS, NOTES AND SPECIFICATION INFORMATION INCLUDING MATERIALS, GUARANTEE AND EXECUTION RELATED TO LANDSCAPE PLAN
7. CONTRACTOR SHALL REVIEW SITE CONDITIONS FOR UTILITY CONFLICTS, DRAINAGE ISSUES, SUBSURFACE ROCK, AND PLANT PLACEMENT CONFLICTS PRIOR TO PLANT INSTALLATION. REPORT ANY CONDITIONS THAT MAY HAVE ADVERSE IMPACT ON PLANTING OPERATIONS TO LANDSCAPE ARCHITECT
8. DO NOT COMMENCE PLANTING OPERATIONS UNTIL ALL ADJACENT SITE IMPROVEMENTS, IRRIGATION INSTALLATION (IF APPLICABLE), AND FINISH GRADING ARE COMPLETE

LEGEND

KENTUCKY BLUEGRASS BLEND (SEED)

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SHEET TITLE
LANDSCAPE PLAN

NEW BUILDING FOR:
MP SYSTEMS, INC.
EAST TROY BUSINESS PARK II
VILLAGE OF EAST TROY, WI

JOB:	3335
DRAWN:	SCD
CHECKED:	LMV
DATE:	09-20-21
SHEET:	L1.0

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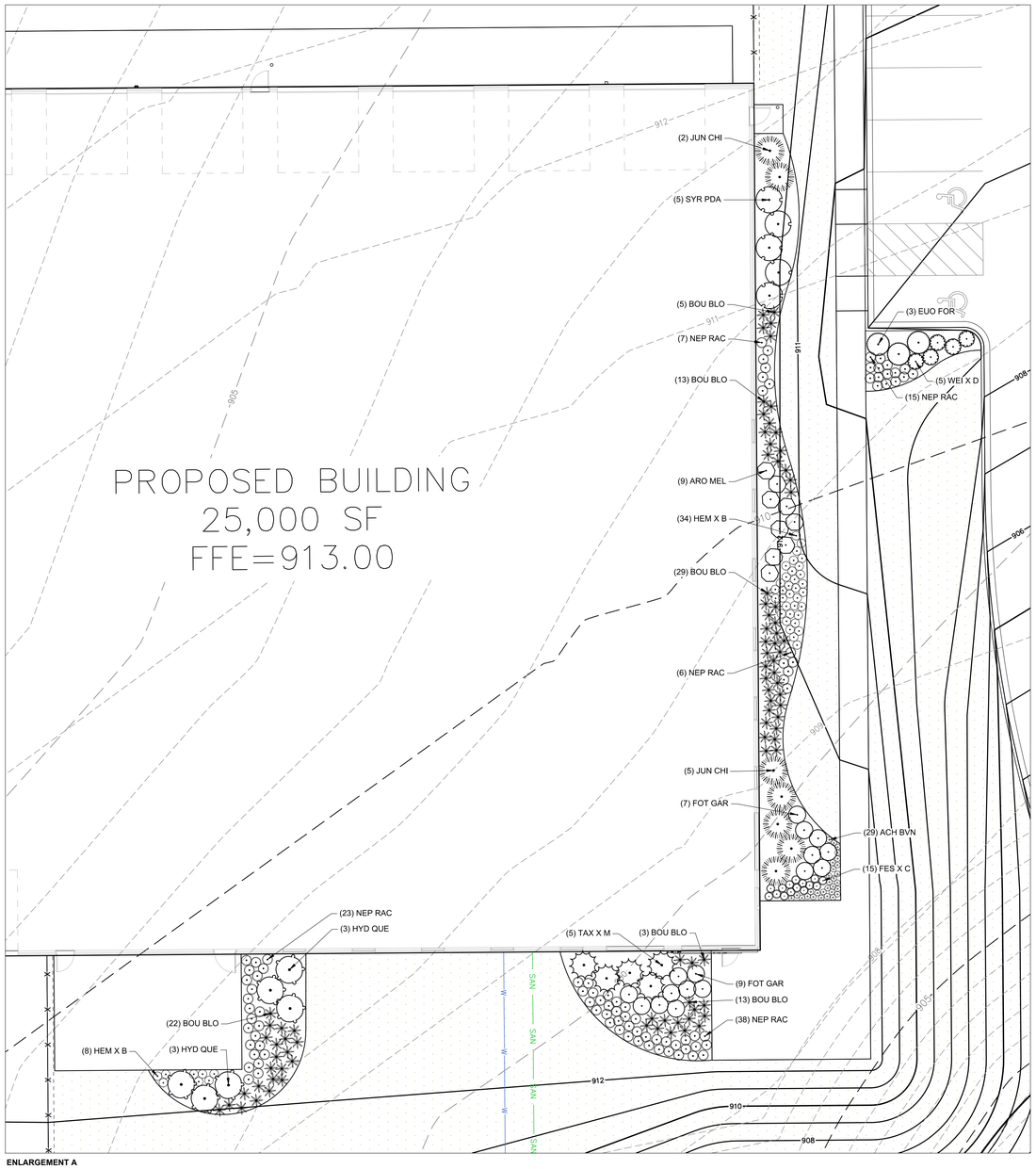
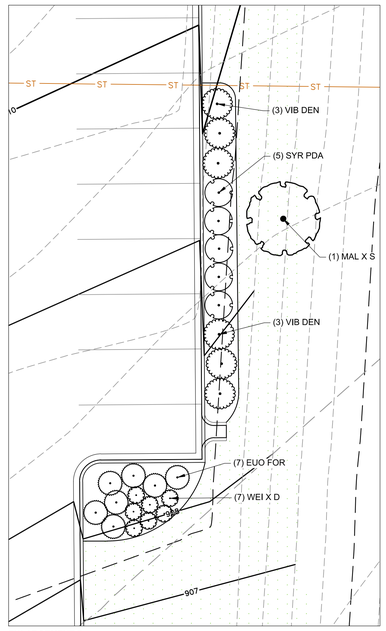


ENLARGEMENT A



ENLARGEMENT B

LEGEND

	SANITARY SEWER MANHOLE	SAN	SANITARY SEWER
	STORM MANHOLE	W	WATER MAIN
	CATCH BASIN ROUND	ST	STORM SEWER
	CATCH BASIN SQUARE	RD	ROOF DRAIN
	FIRE HYDRANT	G	UNDERGROUND GAS
	WATER VALVE	E	UNDERGROUND ELECTRIC
	GAS VALVE	T	UNDERGROUND TELEPHONE
	LIGHT POLE	FIB	UNDERGROUND FIBER OPTICS
	TELEPHONE PEDESTAL		OVERHEAD UTILITY
	ELECTRICAL MANHOLE	SF	SILT FENCE
	SIGN		CONIFEROUS TREE
	POWER POLE		DECIDUOUS TREE
	GUY WIRE		

SCALE IN FEET
10' 0 10'

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SHEET TITLE
LANDSCAPE PLAN ENLARGEMENTS

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MP SYSTEMS, INC.
EAST TROY BUSINESS PARK II
VILLAGE OF EAST TROY, WI

JOB:	3335
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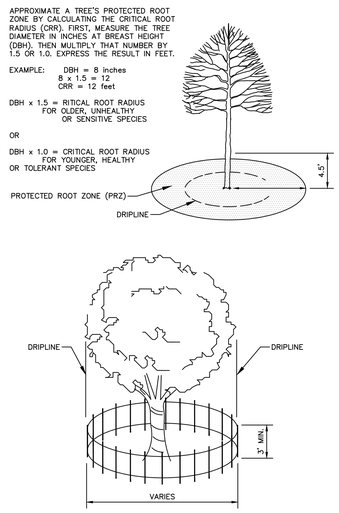
DATE:	09-20-21

SHEET:
L1.1

DRAFT - NOT FOR CONSTRUCTION

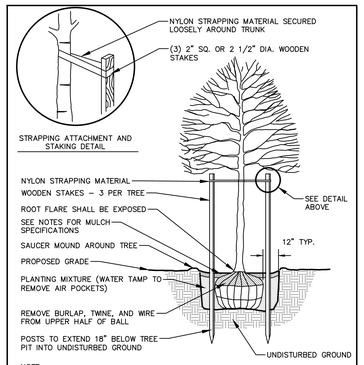


NOTE:
1. CONTRACTOR SHALL INSTALL TREE PROTECTION FENCING IN THE AREA SURROUNDING THE TREE WITHIN THE CRITICAL ROOT RADIUS
2. NO EXCAVATION IS PERMITTED WITHIN THE CRITICAL ROOT RADIUS
3. IF EXCAVATION WITHIN THE CRITICAL ROOT RADIUS OF ANY TREE IS NECESSARY, CONTRACTOR SHALL CONTACT CITY FORESTER PRIOR TO EXCAVATION TO ASSESS THE IMPACT TO THE TREE AND ROOT SYSTEM.

TREE PROTECTION DETAIL

N.T.S.

REV. 01-04-2019

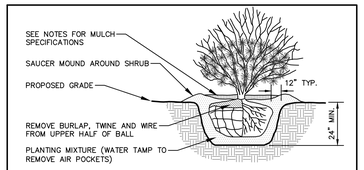


NOTE:
1. DIG HOLE NO DEEPER THAN BASE OF ROOT BALL TO FLARE. ROOT BALL TO BE SET ON UNDISTURBED SOIL UNLESS COMPACTED AGGREGATE STONE REMAINS FROM SITE EXCAVATOR. REMOVE REMAINING AGGREGATE STONE UNTIL SOIL LAYER IS REACHED.
2. REMOVE NYLON STRAPPING WITHIN 9–18 MONTHS FOLLOWING INSTALLATION

DECIDUOUS TREE PLANTING DETAIL

N.T.S.

REV. 01-04-2019

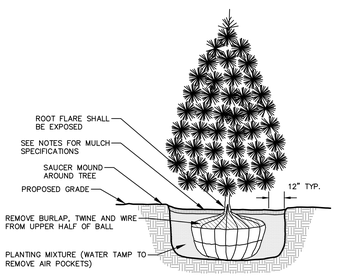


NOTE:
1. ROOT FLARE TO BE EXPOSED.

SHRUB PLANTING DETAIL

N.T.S.

REV. 01-03-2019

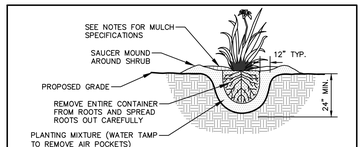


NOTE:
1. DIG HOLE NO DEEPER THAN BASE OF ROOT BALL TO FLARE. ROOT BALL TO BE SET ON UNDISTURBED SOIL UNLESS COMPACTED AGGREGATE STONE REMAINS FROM SITE EXCAVATOR. REMOVE REMAINING AGGREGATE STONE UNTIL SOIL LAYER IS REACHED

EVERGREEN TREE PLANTING DETAIL

N.T.S.

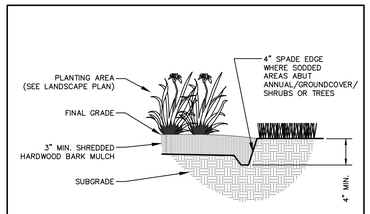
REV. 01-03-2019



PERENNIAL/ORNAMENTAL GRASS PLANTING DETAIL

N.T.S.

REV. 01-03-2019



NATURAL SPADE EDGE

N.T.S.

REV. 01-03-2019

GENERAL NOTES

1. GENERAL: ALL WORK IN THE R-O-W AND PUBLIC EASEMENTS SHALL BE IN ACCORDANCE WITH LOCAL MUNICIPAL REQUIREMENTS. JSD SHALL BE HELD HARMLESS AND DOES NOT WARRANT ANY DEVIATIONS BY THE OWNER/CONTRACTOR FROM THE APPROVED CONSTRUCTION PLANS THAT MAY RESULT IN DISCIPLINARY ACTIONS BY ANY OR ALL REGULATORY AGENCIES. LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE DONE TO UTILITIES. CONTRACTOR MUST CALL 1-800-242-8511 FOR UTILITY LOCATIONS AT LEAST THREE DAYS PRIOR TO DIGGING. HAND DIG AND INSTALL ALL PLANTS THAT ARE NEAR EXISTING UTILITIES. PROTECT PREVIOUSLY INSTALLED WORK OF OTHER TRADES. CONTRACTOR IS RESPONSIBLE FOR STAKING THE PLANT MATERIALS FOR REVIEW BY OWNER PRIOR TO DIGGING AND PLACEMENT AND SHALL COORDINATE ALL FINE GRADING AND RESTORATION WITH THE GRADING CONTRACTOR.
2. DELIVERY AND HANDLING: DO NOT DELIVER MORE PLANT MATERIALS THAN CAN BE PLANTED IN ONE DAY, UNLESS ADEQUATE, APPROPRIATE AND SECURE STORAGE IS PROVIDED AND APPROVED BY OWNER'S REPRESENTATIVE. AT ALL TIMES, PROTECT ALL PLANT MATERIALS FROM WIND AND DIRECT SUN. DELIVER PLANTS WITH LEGIBLE IDENTIFICATION LABELS. PROTECT PLANTS DURING DELIVERY AND DO NOT PRUNE PRIOR TO DELIVERY. ALL TREES AND SHRUBS SHALL BE PLANTED ON THE DAY OF DELIVERY; IF THIS IS NOT POSSIBLE, PROTECT THE PLANT MATERIALS NOT PLANTED BY STORING THEM IN A SHADED, SECURE AREA, PROTECTING THE ROOT MASS WITH WET SOIL, MULCH, HAY OR OTHER SUITABLE MEDIUM. CONTRACTOR TO KEEP ALL PLANT MATERIALS ADEQUATELY WATERED TO PREVENT ROOT DESICCATION. DO NOT REMOVE CONTAINER GROWN STOCK FROM CONTAINERS BEFORE TIME OF PLANTING. DO NOT PICK UP CONTAINER OR BALLED PLANTS BY STEM OR ROOTS. ALL PLANTS SHALL BE LIFTED AND HANDLED FROM THE BOTTOM OF THE CONTAINER OR BALL. PERFORM ACTUAL PLANTING ONLY WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE IN ACCORDANCE WITH LOCALLY ACCEPTED BEST HORTICULTURAL PRACTICES.
3. MATERIALS – PLANTS: ALL PLANTS SHALL CONFORM TO THE LATEST VERSION OF THE AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.1. PLANTS SHALL BE TRUE TO SPECIES AND VARIETY SPECIFIED AND NURSERY GROWN IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICES UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT FOR AT LEAST 2 YEARS. PLANTS SHALL BE FRESHLY DUG (DURING THE MOST RECENT FAVORABLE HARVEST SEASON). PLANTS SHALL BE SO TRAINED IN DEVELOPMENT AND APPEARANCE AS TO BE UNQUESTIONABLY SUPERIOR IN FORM, COMPACTNESS, AND SYMMETRY. PLANTS SHALL BE SOUND, HEALTHY, VIGOROUS, WELL BRANCHED AND DENSELY FOLIATED WHEN IN LEAF, AND FREE OF DISEASE AND INSECTS (ADULT EGGS, PUPAE OR LARVAE). THEY SHALL HAVE HEALTHY, WELL-DEVELOPED ROOT SYSTEMS AND SHALL BE FREE FROM PHYSICAL DAMAGE OR OTHER CONDITIONS THAT WOULD PREVENT THRIVING GROWTH OR PREMATURE MORTALITY. PLANTS SHALL BE OF THE HIGHEST QUALITY, POSSESS TYPICAL GROWTH HABITS AND FORM FOR THEIR SPECIES AND BE FREE OF INJURY. PARKWAY TREES AND PARKING LOT TREES SHALL HAVE A MINIMUM BRANCHING HEIGHT OF SIX (6) FEET ABOVE THE GROUND TO ALLOW ADEQUATE VISUAL AND PHYSICAL CLEARANCE.
4. PRUNING: THE CONTRACTOR SHALL PRUNE ALL TREES AND REPAIR ANY INJURIES THAT OCCURRED DURING THE PLANTING PROCESS. DOUBLE LEADERS, DEAD BRANCHES, AND LIMBS DAMAGED OR BROKEN DURING THE PLANTING PROCESS, SHALL BE PRUNED. THIS SHALL BE THE ONLY PRUNING ALLOWED AT PLANTING. PRUNING SHALL CONFORM TO THE LATEST VERSION OF THE AMERICAN STANDARD FOR TREE CARE OPERATIONS, ANSI A300. PRUNE TREES IN ACCORDANCE WITH NAA GUIDELINES. DO NOT TOP TREES. PRUNE SHRUBS ACCORDING TO STANDARD HORTICULTURAL PRACTICES. ON CUTS OVER 3/4" IN DIAMETER AND BRUISES OR SCARS ON BARK, TRACE THE INJURED CAMBIUM LAYER BACK TO LIVING TISSUE AND REMOVE. SMOOTH AND SHAPE WOUNDS SO AS NOT TO RETAIN WATER. TREAT THE AREA WITH AN APPROVED INCONSPICUOUS LATEX BASED ANTISEPTIC TREE PAINT, IF PRUNING OCCURS "IN SEASON". DO NOT PRUNE ANY OAK TREES DURING THE MONTHS FROM APRIL TO OCTOBER.
5. CLEANUP: THE WORK AREA SHALL BE KEPT SAFE AND NEAT AT ALL TIMES. DISPOSED OF EXCESS SOIL. REMOVE ALL CUTTINGS AND WASTE MATERIALS. SOIL AND BRANCHES, BIND AND WRAP THESE MATERIALS, ANY REJECTED PLANTS, AND ANY OTHER DEBRIS RESULTING FROM ALL PLANTING TASKS AND PROMPTLY CLEAN UP AND REMOVE FROM THE PROJECT SITE. UNDER NO CIRCUMSTANCES SHALL THE ACCUMULATION OF SOIL, BRANCHES OR OTHER DEBRIS BE ALLOWED UPON A PUBLIC PROPERTY IN SUCH A MANNER AS TO RESULT IN A PUBLIC SAFETY HAZARD OR DAMAGE. LIKEWISE, UNDER NO CIRCUMSTANCES SHALL ANY DEBRIS OR INCIDENTAL MATERIALS BE ALLOWED UPON ADJACENT PRIVATE PROPERTY.
6. ANY SUBSTITUTIONS IN PLANT TYPE, LOCATION, OR SIZE SHALL BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
7. CONTRACTOR TO VERIFY PLANT MATERIAL QUANTITIES AND SQUARE FOOTAGES. QUANTITIES SHOWN ON PLAN TAKE PRECEDENCE OVER THOSE ON SCHEDULE.

LANDSCAPE MATERIAL NOTES

1. MATERIALS – PLANTING MIXTURE: ALL HOLES EXCAVATED FOR TREES, SHRUBS, PERENNIALS AND ORNAMENTAL GRASSES SHALL BE BACKFILLED WITH TWO (2) PARTS TOPSOIL, ONE (1) PART SAND AND ONE (1) PART COMPOST. SOIL MIXTURE SHALL BE WELL BLENDED PRIOR TO INSTALLATION.
2. MATERIALS – TOPSOIL: TOPSOIL TO BE CLEAN, FRIABLE LOAM FROM A LOCAL SOURCE, FREE FROM STONES OR DEBRIS OVER 3/4" IN DIAMETER, AND FREE FROM TOXINS OR OTHER DELETERIOUS MATERIALS. TOPSOIL SHALL HAVE A pH VALUE BETWEEN 6 AND 7. TOPSOIL AND PLANTING SOIL SHALL BE TESTED TO ENSURE CONFORMANCE WITH THESE SPECIFICATIONS AND SHALL BE AMENDED TO MEET THESE SPECIFICATIONS. PROVIDE TEST RESULTS TO OWNER'S REPRESENTATIVE PRIOR TO PLACEMENT. DO NOT PLACE FROZEN OR MUDDY TOPSOIL. APPLY SOIL AMENDMENTS TO ALL LANDSCAPE AREAS PER SOIL TEST.
3. MATERIALS – SHREDDED HARDWOOD BARK MULCH: ALL PLANTING AREAS LABELED ON PLAN SHALL RECEIVE CERTIFIED WEED FREE SHREDDED HARDWOOD BARK MULCH INSTALLED TO A MINIMUM AND CONSISTENT DEPTH OF 3-INCHES. SHREDDED HARDWOOD BARK MULCH SIZE & COLOR TO BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. FERTILIZER SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL, COUNTY AND STATE REQUIREMENTS. SHREDDED HARDWOOD BARK MULCH AREAS SHALL NOT RECEIVE WOVEN WEED BARRIER FABRIC.
4. MATERIALS – TREE & SHRUB RINGS: ALL TREES AND/OR SHRUBS PLANTED IN SEEDED LAWN AREAS TO BE INSTALLED WITH A MINIMUM 4" DIAMETER SHREDDED HARDWOOD BARK MULCH TREE RING SPREAD TO A CONSISTENT DEPTH OF 3-INCHES. ALL TREE RINGS SHOULD BE INSTALLED WITH A 5" DEPTH SHOVEL CUT EDGE, ANGLED 45 DEGREES INTO SOIL AT A 5' DIAMETER ABOUT THE CENTER OF THE TREE PLANTING. A PRE-EMERGENT GRANULAR HERBICIDE WEED-PREVENTER SHOULD BE MIXED WITH MULCH USED TO INSTALL TREE RING AS WELL AS TOPICALLY APPLIED TO COMPLETED INSTALLATION OF TREE RING.
5. MATERIALS – TREE PROTECTION: ALL TREES TO BE INSTALLED WITH LDPE TREE GUARDS AS MANUFACTURED BY A.M. LEONARD HORTICULTURAL TOOL & SUPPLY CO., OR APPROVED EQUAL.

SEEDING

1. MATERIALS – TURFGRASS SEED: DISTURBED LAWN AREAS LABELED ON PLAN AS SUCH, SHALL RECEIVE 6" OF TOPSOIL AND EARTH CARPET'S "MADISON PARKS" GRASS SEED, OR EQUIVALENT AS APPROVED BY THE OWNER'S REPRESENTATIVE, INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. IN ADDITION TO TURFGRASS SEED, ANNUAL RYE SHALL BE APPLIED TO ALL DISTURBED AREAS AT A RATE OF 1 1/2 LBS PER 1000 SQUARE FEET. FERTILIZE AND MULCH PER MANUFACTURER'S RECOMMENDATIONS. MULCH SHALL BE CERTIFIED NOXIOUS WEED SEED-FREE

CONTRACTOR AND OWNER RESPONSIBILITY NOTES

1. GUARANTEE: THE CONTRACTOR SHALL GUARANTEE ALL PLANTS THROUGH ONE (1) YEAR AFTER ACCEPTANCE BY THE OWNER'S REPRESENTATIVE. PLANTS SHALL BE ALIVE AND IN HEALTHY AND FLOURISHING CONDITION AT THE END OF THE GUARANTEE PERIOD. THE CONTRACTOR SHALL REPLACE (AT NO COST TO OWNER) ANY PLANTS THAT ARE DEAD OR NOT IN A VIGOROUS THRIVING CONDITION. REPLACEMENT PLANTS SHALL BE OF THE SAME KIND AND SIZE AS ORIGINALLY SPECIFIED UNLESS OTHERWISE DIRECTED BY OWNER'S REPRESENTATIVE. RESTORE BEDS AS NECESSARY FOLLOWING PLANT REPLACEMENT, INCLUDING BUT NOT LIMITED TO BEDDING, EDGING, MULCH, ETC. REPLACE PLANTS DAMAGED AT TIME OF PLANTING. REPAIR AREAS DISTURBED IN ANY WAY DURING PLANT REPLACEMENT AT NO COST TO OWNER. CONTRACTOR SHALL PROVIDE A ONE (1)-YEAR STRAIGHTENING GUARANTEE FOR ALL TREES.
2. CONTRACTOR IS RESPONSIBLE FOR STAKING THE PLANT MATERIALS FOR REVIEW BY OWNER'S REPRESENTATIVE PRIOR TO DIGGING AND PLACEMENT AND SHALL COORDINATE ALL FINE GRADING AND RESTORATION WITH THE GRADING CONTRACTOR.
3. MAINTENANCE: (CONTRACTOR) FOR ALL PLANTINGS, SEEDED AND/OR SODDED LAWN AREAS: THE CONTRACTOR SHALL MAINTAIN ALL PLANTINGS AND LAWN AREAS FOR A MINIMUM TIME PERIOD OF 60 DAYS, UNTIL FINAL ACCEPTANCE BY OWNER'S REPRESENTATIVE. THE CONTRACTOR IS RESPONSIBLE FOR ADEQUATELY WATERING PLANTS AND LAWN/TURFGRASS DURING THIS 60 DAY ESTABLISHMENT PERIOD. CONTRACTOR IS RESPONSIBLE FOR THE ESTABLISHMENT OF HEALTHY VIGOROUS PLANT MATERIALS AND LAWN/TURFGRASS GROWTH. CONTRACTOR IS ALSO RESPONSIBLE FOR ANY PRUNING OF PLANT MATERIALS, AND SHAPING AND/OR REPLACEMENT OR SUPPLEMENT OF DEFICIENT SHREDDED HARDWOOD BARK MULCH DURING THIS PERIOD. LONG TERM PLANT MATERIALS AND LAWN/TURFGRASS MAINTENANCE AND ANY PROGRAM FOR SUCH IS THE RESPONSIBILITY OF THE OWNER. ALL PLANTINGS AND LAWN/TURFGRASS AREAS SHALL BE MAINTAINED IN A MANICURED CONDITION UNTIL THE TIME WHEN THE OWNER'S ACCEPTANCE IS GIVEN.
4. MAINTENANCE: (OWNER) THE OWNER IS RESPONSIBLE FOR THE CONTINUED MAINTENANCE, REPAIR AND REPLACEMENT OF ALL LANDSCAPING MATERIALS AND WEED BARRIER FABRIC AS NECESSARY FOLLOWING THE ONE (1) YEAR CONTRACTOR GUARANTEE PERIOD.

DIGGERS HOTLINE
Call 811 or (800) 242-8511
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Hearing Impaired TDD (800) 542-2289
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BRIOHN
DESIGN GROUP
3885 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-0500 PHONE
(262) 790-0505 FAX

SHEET TITLE
LANDSCAPE NOTES & DETAILS

NEW BUILDING FOR:
MP SYSTEMS, INC.
EAST TROY BUSINESS PARK II
VILLAGE OF EAST TROY, WI

JOB:	3335
DRAWN:	SCD
CHECKED:	LMV
DATE:	09-20-21
SHEET:	L2.0

DRAFT - NOT FOR CONSTRUCTION

1 SITE PLAN OVERALL OPTIONS
1" = 100'-0"

0 15 30 60 120

APPLICABLE TO ALL PLAN VIEWS

BRIOHN DESIGN GROUP
BRIOHN DESIGN GROUP, INC.
W233 N2840 ROSELAND DR. WAUKESHA, WI 53188
(262) 784-0500 FAX
(262) 784-0501

SHEET TITLE
ARCHITECTURAL SITE PLAN

NEW BUILDING FOR:
MP SYSTEMS, INC.
EAST TROY BUSINESS PARK II
VILLAGE OF EAST TROY, WI 53120

PROGRESS SET
NOT FOR CONSTRUCTION

Date	Revision

JOB: 3335
DRAWN: KS
CHECKED: CW
DATE: 09-24-2021
SHEET: A0.2

1 ENLARGED SITE PLAN
1" = 50'-0"

0' 15' 30' 60' 120'

APPLICABLE TO ALL PLAN VIEWS

BRIOHN DESIGN GROUP
3880 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-0500 PHONE
(262) 790-0505 FAX

SHEET TITLE
ENLARGED ARCHITECTURAL SITE PLAN

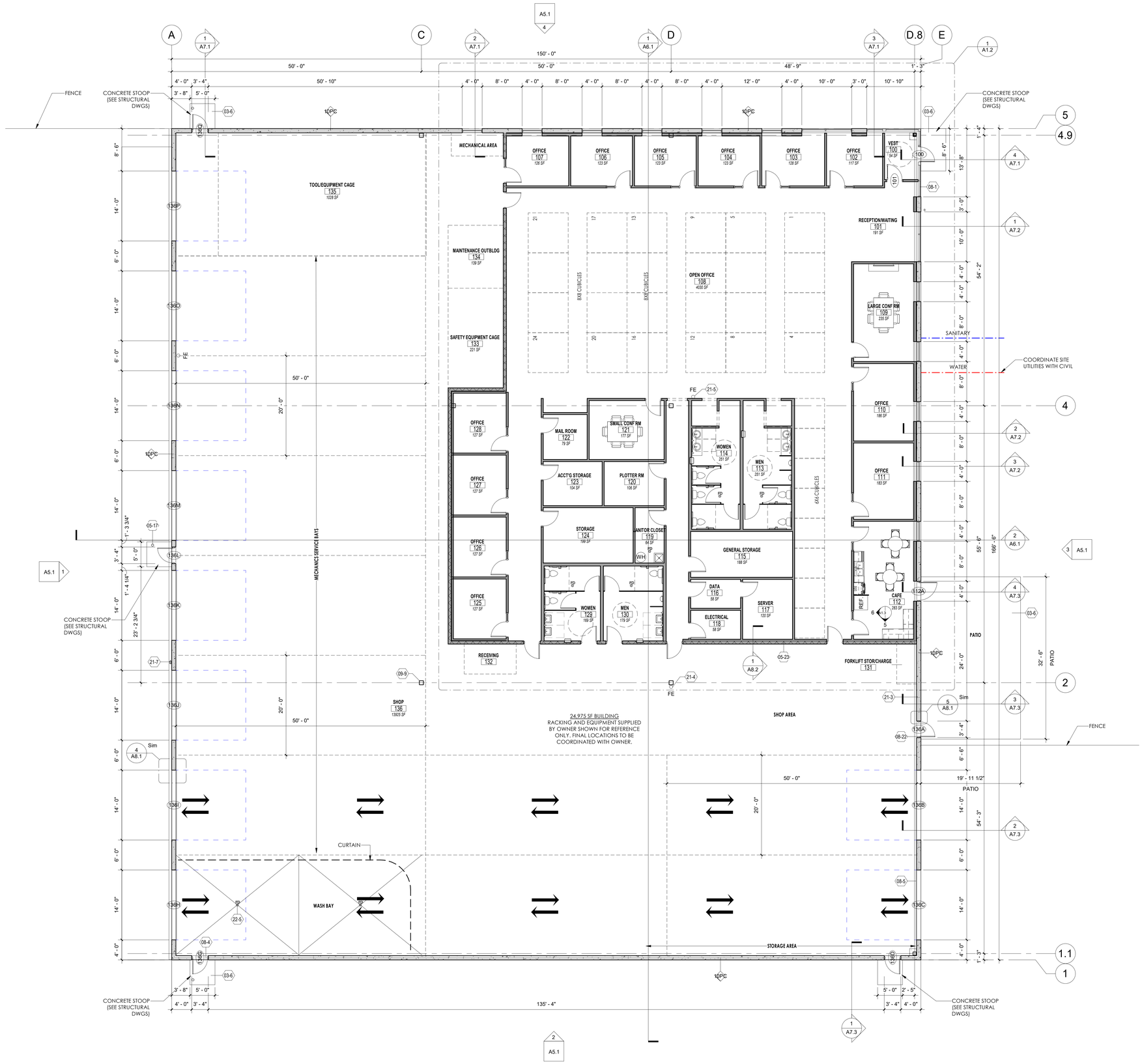
NEW BUILDING FOR:
MP SYSTEMS, INC.
EAST TROY BUSINESS PARK II
VILLAGE OF EAST TROY, WI 53120

PROGRESS SET
NOT FOR CONSTRUCTION

Revision	Date

JOB:	3335
DRAWN:	NS
CHECKED:	CW
DATE:	09-24-2021

SHEET:
A0.3



1 OVERALL FLOOR PLAN
1/8" = 1'-0"

GENERAL NOTES - NEW FLOOR PLAN

1	VERIFY ALL CONDITIONS, DIMENSIONS AND ALIGNMENT OF WALLS. BRING ANY DISCREPANCIES TO BRIOHN'S ATTENTION PRIOR TO FABRICATION/CONSTRUCTION BEGINS.
2	VERIFY LOCATION OF ACCESS PANELS WITH MECHANICAL AND ELECTRICAL DRAWINGS.
3	AREA SHALL BE KEPT BROOM CLEAN AND FREE OF DEBRIS DURING CONSTRUCTION.
4	SEE EXTERIOR ELEVATIONS FOR WINDOW TYPES.
5	SEE SHEET A0.1 FOR ADA REQUIREMENTS AND MOUNTING HEIGHTS.
6	SEE SHEET A1.2 FOR PARTITION TYPES AND FLOOR PLAN LEGEND.
7	EXTERIOR WALLS IN OFFICE AREA TO BE FURRED OUT WITH STUD HELD 1" OFF FACE OF EXTERIOR WALL. CAVITY FILLED WITH BATT INSULATION. SEE FLOOR PLAN FOR PARTITION TYPE.
8	FURNITURE AND APPLIANCES PROVIDED BY TENANT AND ARE SHOWN FOR REFERENCE ONLY.
9	ALL WALLS TO BE PAINTED PROVIDING FRP WAINSCOT WHERE CALLED FOR.
10	ALL FLOORS THROUGHOUT ARE TO BE SEALED CONCRETE WITH CAULKED CONTROL JOINTS.
11	EXPOSED STEEL DECKS, JOISTS, GIRDERS, AND COLUMNS ARE TO BE PRIME GREY.

KEYNOTE LEGEND	
VALUE	FLOOR PLAN CODED NOTES
03-6	CONCRETE STOOP
05-17	6" DIAMETER X 4'-0" TALL CONCRETE FILLED STEEL PIPE BOLLARDS, PAINTED SAFETY YELLOW.
05-23	OSHA COMPLIANT METAL ROOF ACCESS LADDER.
08-1	ALUMINUM STOREFRONT ENTRY SYSTEM
08-4	PAINTED HOLLOW METAL SERVICE DOOR AND FRAME WITH EMERGENCY EGRESS CODE REQUIRED LIGHTING (COLOR TO MATCH WALL COLOR).
08-5	INSULATED OH DOOR, FACTORY FINISHED WITH VISION WINDOWS. 6" DIAMETER X 4'-0" TALL CONCRETE FILLED STEEL PIPE BOLLARD(S), PAINTED SAFETY YELLOW
08-22	3'-0" X 7'-0" INSULATED AND PAINTED GALVANIZED HOLLOW METAL DOOR AND FRAME WITH ADA HARDWARE AND EMERGENCY EGRESS CODE REQUIRED LIGHTING - PAINTED TO MATCH ADJACENT WALL COLOR.
09-9	EXPOSED COLUMN(S) TO BE PAINTED
21-3	SPRINKLER RISER AND FIRE DEPARTMENT CONNECTION. INCLUDE CODE REQUIRED ALARMS. COORDINATE WITH FIRE MARSHAL.
21-4	PROVIDE COLUMN-MOUNTED FIRE EXTINGUISHERS. PROVIDE SAFETY STRIPING ON ALL COLUMNS WITH EXTINGUISHERS. COORDINATE FINAL QUANTITY AND LOCATIONS WITH FIRE MARSHAL.
21-5	PROVIDE WALL-MOUNTED FIRE EXTINGUISHERS. COORDINATE FINAL QUANTITY AND LOCATIONS WITH FIRE MARSHAL.
21-7	FIRE DEPARTMENT CONNECTION AND ALARM AS REQUIRED BY LOCAL GOVERNING MUNICIPALITY - REFER FLOOR PLAN.
22-5	FLOOR DRAIN (TO SANITARY) - SEE PLUMBING FOR RIM ELEVATIONS

FLOOR PLAN LEGEND

ROOM	ROOM NAME
100	ROOM NUMBER
100	DOOR NUMBER
A	PARTITION TYPE
1	PLAN NOTES
F.E.	SURFACE MOUNTED FIRE EXTINGUISHER
F.E.C.	RECESSED EXTINGUISHER CABINET & FIRE EXTINGUISHER
	EXIT LIGHT
	EXIT LIGHT (DIRECTIONAL)
	NEW PARTITION
	NEW MASONRY CONSTRUCTION
	NEW DOOR & FRAME

0' 4' 8' 16' 32'

APPLICABLE TO ALL PLAN VIEWS

BRIOHN DESIGN GROUP
3880 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-0500 PHONE
(262) 790-0505 FAX

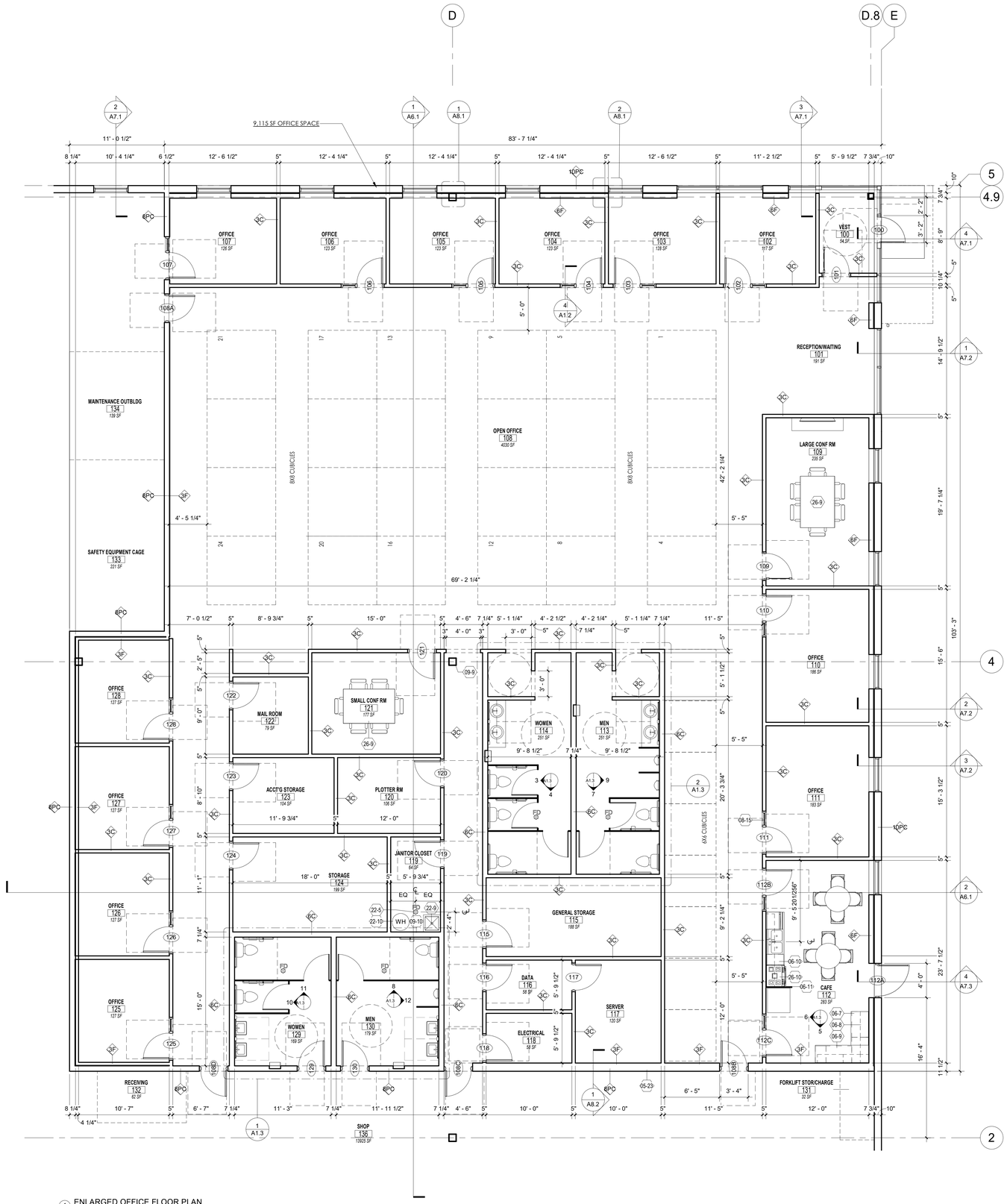
SHEET TITLE
OVERALL FLOOR PLAN

NEW BUILDING FOR:
MP SYSTEMS, INC.
EAST TROY BUSINESS PARK II
VILLAGE OF EAST TROY, WI 53120

PROGRESS SET
NOT FOR CONSTRUCTION

Revision
Date

JOB:	3335
DRAWN:	NS
CHECKED:	CW
DATE:	09-24-2021
SHEET:	A1.1



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

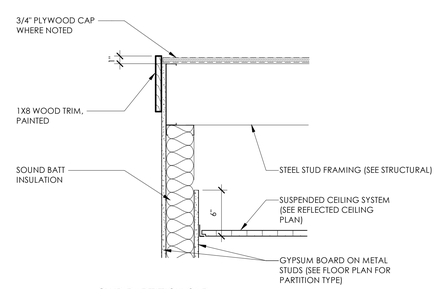
* ALL INTERIOR BORROWED LITES TO BE PAINTED HOLLOW METAL FRAMES EXCEPT FOR THE ALUMINUM STOREFRONT INTERIOR VESTIBULE
* ALL FURNITURE BY OWNER

FLOOR PLAN LEGEND

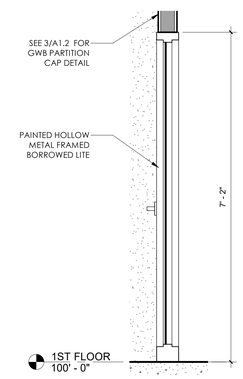
ROOM 100	ROOM NAME / ROOM NUMBER
100	DOOR NUMBER
A	PARTITION TYPE
1	PLAN NOTES
F.E.	SURFACE MOUNTED FIRE EXTINGUISHER
F.E.C.	RECESSED EXTINGUISHER CABINET & FIRE EXTINGUISHER
	EXIT LIGHT
	EXIT LIGHT (DIRECTIONAL)
	NEW PARTITION
	NEW MASONRY CONSTRUCTION
	NEW DOOR & FRAME

KEYNOTE LEGEND

05-23	OSHA COMPLIANT METAL ROOF ACCESS LADDER.
06-7	P.LAM. BASE CABINETS W/ADJ. SHELF
06-8	P.LAM. UPPER CABINEST W/ADJ. SHELVES AND APRON - PROVIDE LED STRIP LIGHTING
06-9	P.LAM. COUNTERTOP - NO BACKSPLASH
06-10	P.LAM. COUNTERTOP W/BACKSPLASH
06-11	Refrigerator divider panel
08-15	FULL HEIGHT TEMPERED BORROWED LITE WITH DOOR
09-9	EXPOSED COLUMN(S) TO BE PAINTED
09-10	FRP WALL FINISH TO 4'-0" A.F.F. BEHIND WALLS OF MOP SINK
22-5	FLOOR DRAIN (TO SANITARY) - SEE PLUMBING FOR RIM ELEVATIONS
22-9	FLOOR MOUNTED MOP BASIN. SEE PLUMBING DRAWINGS.
22-10	FLOOR MOUNTED WATER HEATER. W/ FRP ON WALLS BEHIND FIXTURE TO 48" AFF; EXTEND FRP 24" BEYOND FIXTURE WIDTHS. FLOOR MOUNTED WATER HEATER. SEE PLUMBING DRAWINGS.
26-9	CONTRACTOR TO PROVIDE CONDUIT IN WALL OR FLOOR FOR TENANT PROVIDED FURNITURE. TENANT TO PROVIDE VOICE/DATA CABLING.
26-10	PROVIDE POWER FOR ALL EQUIPMENT INCLUDING REFRIGERATOR, VENDING MACHINES, COFFEE MAKER, MICROWAVES AND OTHER KITCHEN EQUIPMENT PROVIDED BY TENANT.



3 GWB PARTITION CAP
1 1/2" = 1'-0"



4 SECTION THRU INTERIOR BORROWED LITE
3/4" = 1'-0"

PARTITION TYPES

TAG	STUD TYPE	STUD HEIGHT	INSULATION	VAPOR BARRIER	NOTED SIDE SURFACE MATERIAL	NOTED SIDE SURFACE HEIGHT	OPPOSITE SIDE SURFACE MATERIAL	OPPOSITE SIDE SURFACE HEIGHT	REMARKS
3C	4 5/8" STEEL STUDS	TO UNDERSIDE OF STRUCTURE (15' - 0" +/-)	4 1/2" SOUND BATT	----	5/8" TYPE "X" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE (15' - 0" +/-)	5/8" TYPE "X" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE (15' - 0" +/-)	----
3F	3 5/8" STEEL FURRING	TO UNDERSIDE OF STRUCTURE (15' - 0" +/-)	3 1/2" BATT	X	5/8" TYPE"X" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE (15' - 0" +/-)	----	----	HOLD STEEL STUDS 1" OFF INTERIOR FACE OF EXTERIOR PRECAST WALL U.N.O.
6C	6" STEEL STUDS	TO UNDERSIDE OF STRUCTURE (15' - 0" +/-)	6" SOUND BATT	----	5/8" TYPE "X" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE (15' - 0" +/-)	5/8" TYPE "X" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE (15' - 0" +/-)	----
6F	6" STEEL FURRING	TO UNDERSIDE OF STRUCTURE (15' - 0" +/-)	6" BATT	X	5/8" TYPE "X" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE (15' - 0" +/-)	----	----	HOLD STEEL STUDS 1" OFF INTERIOR FACE OF EXTERIOR PRECAST WALL U.N.O.
8PC	UNINSULATED PRECAST	TO UNDERSIDE OF STRUCTURE (15' - 0" +/-)	---	----	----	----	----	----	ALTERNATE: PROVIDE 8" CMU, PAINTED
10PC	UNINSULATED PRECAST	TO UNDERSIDE OF STRUCTURE (15' - 0" +/-)	---	----	----	----	----	----	----

1. ALL STEEL STUDS SHALL BE 25 GAUGE STUDS @ 16" O.C., (UNLESS NOTED OTHERWISE) - SEE STRUCTURAL FOR GAUGE AND SIZE
2. ALL EXPOSED GYPSUM WALL BOARD SHALL BE TAPED & COATED SMOOTH. READY FOR PAINT - LEVEL 4 FINISH
3. USE 6" METAL STUDS AND INSTALL MOISTURE RESISTANT GYPSUM WALL BOARD AT ALL "WET WALL" LOCATIONS - UNO
4. AT EXTERIOR WALLS, RETURN GYPSUM WALL BOARD INTO WINDOW JAMBS AND HEAD
5. STUDS EXTENDED TO DECK AND/OR JOIST SHALL HAVE A SLIP CONNECTION TO ALLOW FOR DEFLECTION
6. PROVIDE CONTROL JOINTS IN GYPSUM FINISHES SUCH THAT THE MAXIMUM CONTROL JOIST SPACING FOR WALLS AND CEILINGS WITHOUT PERIMETER RELIEF IS 30 FEET. WITH PERIMETER RELIEF, CONTROL JOINT SPACING TO BE 50 FEET.

NOTE : AT FURRING WALLS AT THE EXTERIOR PRECAST WALL PANELS, PROVIDE A 1" GAP BETWEEN PRECAST WALL INTERIOR SIDE AND STEEL STUD FURRING SUCH THAT THE FURRING WALL IS SUPPORTED INDEPENDANTLY WITH SLIP CONNECTIONS.

0' 15' 30' 60' 120'

APPLICABLE TO ALL PLAN VIEWS

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SHEET TITLE
ENLARGED OFFICE FLOOR PLAN

NEW BUILDING FOR:
MP SYSTEMS, INC.
EAST TROY BUSINESS PARK II
VILLAGE OF EAST TROY, WI 53120

PROGRESS SET
NOT FOR CONSTRUCTION

Date	Revision

JOB:	3335
DRAWN:	NS
CHECKED:	CW
DATE:	09-24-2021
SHEET:	A1.2

BUILDING SYSTEMS LEGEND

BALLASTED ROOF ASSEMBLY: BALLASTED 45 MIL. RUBBER ROOF MEMBRANE ON 5.75" DIRECT TO DECK APPROVED EPS INSULATION (R20 - TWO LAYERS, STAGGERED) ON METAL DECK (SEE STRUCTURAL DRAWINGS)

FULLY ADHERED CANOPY ROOF ASSEMBLY: FULLY ADHERED ROOF MEMBRANE ON TAPPERED INSULATION AS REQUIRED TO SLOPE TO SCUPPER, ON METAL DECK (SEE STRUCTURAL DRAWINGS)

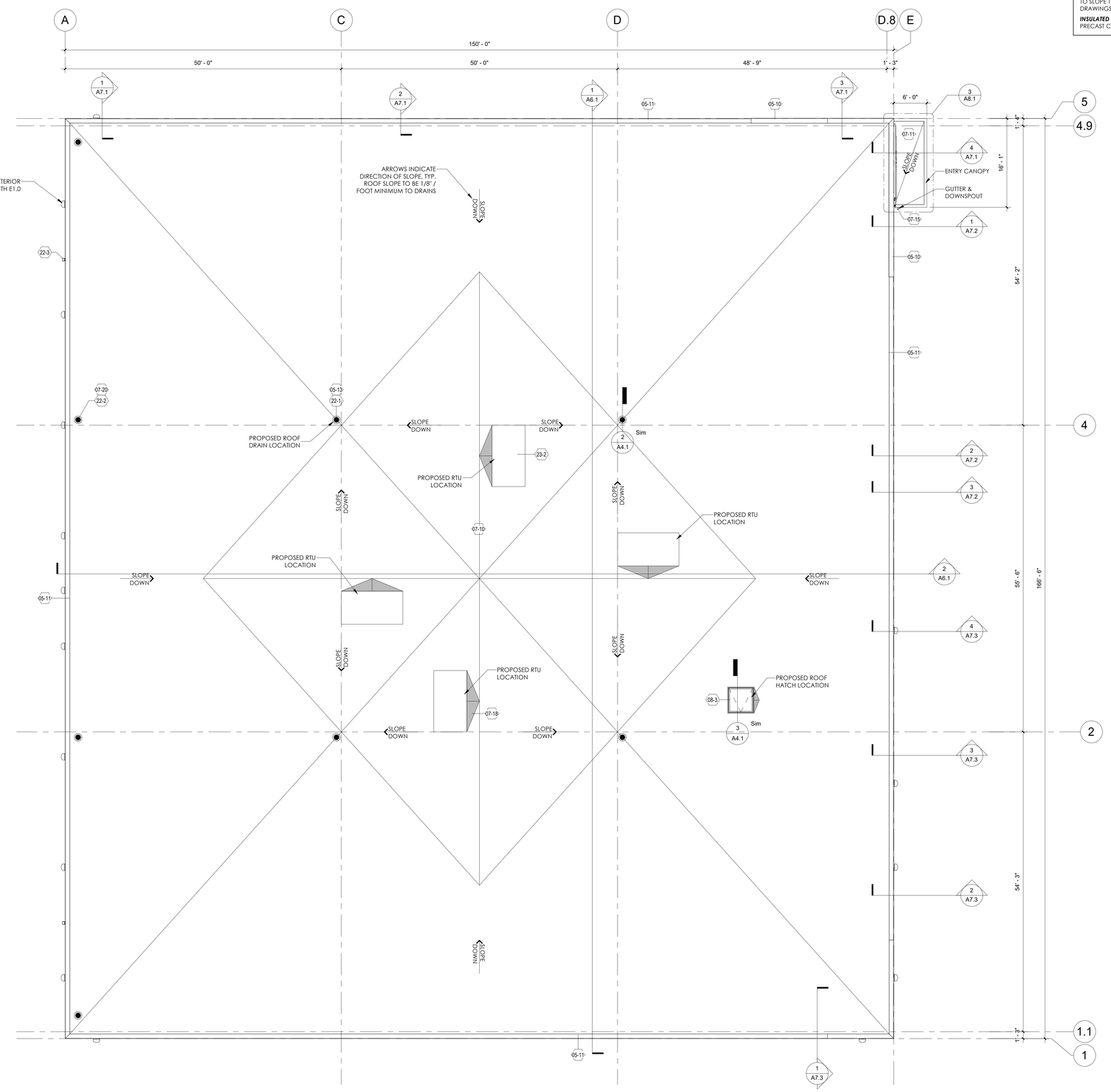
INSULATED PRECAST WALL PANEL SYSTEM: 10" INSULATED PRECAST CONCRETE WALL PANEL (R-14)

GENERAL NOTES - ROOF PLAN

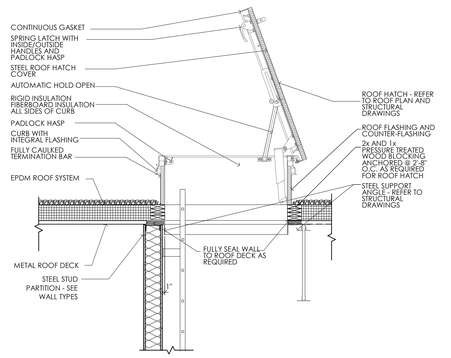
1	SEE STRUCTURAL DWGS FOR FURTHER STRUCTURAL INFORMATION.
2	COORDINATE ROOF SCREEN SIZE WITH MECHANICAL UNITS. SEE STUCTURAL DRAWINGS FOR FURTHER INFORMATION.
3	SEE SHEET A8.1 FOR OTHER CANOPY AND TUBE SUN SHADES PLANS.
4	PROVIDE ROOF PAVERS AT ROOF HATCH AND AT ALL ROOF TOP UNITS. REFER TO HVAC PLAN BY OTHERS FOR LOCATIONS.
5	SEE SHEET A2.1 REFLECTED CEILING PLAN FOR CLERESTORY WINDOW DIMENSIONS.
6	PROVIDE ROOF HATCH NOT LESS THATN 16 S.F. IN AREA AND HAVING A MINIMUM DIMENSION OF 24".
7	PROVIDE ALL REQUIRED FLASHING FOR HVAC ROOF TOP EQUIPMENT, INCLUDING ROOF TOP UNITS AND EXHAUST FANS.
8	PROVIDE FLASHING FOR PLUMBING VENTS.
9	PROVIDE AND INSTALL ALL REQUIRED FLASHING AND BOOTS FOR ROOF TOP AND PARAPET WALL ELECTRICAL PENETRATIONS AND HVAC EQUIPMENT.
10	PROVIDE 20 YEAR MANUFACTURERS LABOR AND MATERIAL WARRANTY.

KEYNOTE LEGEND

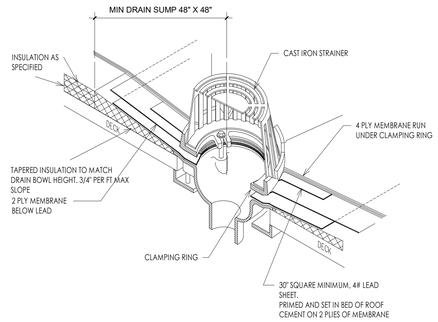
05-10	PRE-FINISHED METAL CAP/COPING ON SINGLE 2X PRESSURE TREATED WOOD BLOCKING. EXTEND RUBBER MEMBRANE FLASHING TO EXTEND UP AND OVER PT WOOD BLOCKING AND FULLY SEAL TO FACE OF PRE-CAST CONCRETE WALL PANEL.
05-11	PRE-FINISHED METAL 24 GA. GRAVEL STOP (COLOR TO BE 'CLEAR ANODIZED FINISH'). FASCIA AND RUBBER MEMBRANE FLASHING AND ROOFING.
05-13	ROOF DRAINS AND SUMP PANS - REFER TO STRUCTURAL. (SEE DETAIL "2" ON THIS SHEET)
07-10	ROOF ASSEMBLY A: BALLASTED ROOF MEMBRANE ON 5.75" DIRECT TO DECK APPROVED EPS INSULATION (R25 - TWO LAYERS, STAGGERED) ON METAL DECK & SLOPED STRUCTURAL FRAMING (SEE STRUCTURAL DRAWINGS)
07-11	ROOF ASSEMBLY C: FULLY ADHERED ROOF MEMBRANE ON TAPERED DIRECT TO DECK APPROVED EPS INSULATION, TAPER TO ROOF DRAIN (CANOPY ROOF)
07-15	PROVIDE PRE-FINISHED METAL DOWNSPOUT. COLOR AND FINISH TO MATCH CANOPY METAL. LOCATION SHOWN FOR REFERENCE ONLY - ROUTE DOWNSPOUT ALONG BUILDING FACE AS REQ.
07-18	PROVIDE TAPERED INSULATION CRICKETS ON HIGH SIDE OF RTU, ROOF HATCH, AND EQUIPMENT.
07-20	OVERFLOW ROOF DRAIN-SET 6" HIGHER THAN PRIMARY ROOF DRAIN
08-3	Roof hatch. Provide code-compliant hatch size, for use with osha-approved steel ladder access from floor below. Provide framing, curb, flashing, and tapered insulation for drainage around hatch as required. See detail 3/a4.1
22-1	PRIMARY ROOF DRAIN
22-2	OVERFLOW ROOF DRAIN-SET 2" HIGHER THAN PRIMARY ROOF DRAIN. EXTERIOR PIPE DISCHARGE THROUGH WALL. DO NOT PLACE PIPE OUTFALL DIRECTLY ABOVE EXTERIOR DOORS OR WINDOWS. COORD. PIPE SIZE WITH PLUMBING CONTRACTOR.
22-3	'LAMBS-TONGUE' ROOF DRAIN OVERFLOW NOZZLE. SEE ROOF PLAN FOR ADDITIONAL NOTES. COORDINATE WALL PENETRATION WITH PRECAST SUPPLIER.
23-2	RTU-REFER TO HVAC DRAWINGS. PROVIDE FRAMING, CURB, FLASHING, AND TAPERED INSULATION FOR DRAINAGE AROUND HATCH AS REQUIRED.



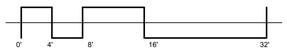
1 ROOF PLAN
1/8" = 1'-0"



3 ROOF HATCH DETAIL
1/2" = 1'-0"



2 ROOF DRAIN DETAIL
1/2" = 1'-0"



APPLICABLE TO ALL PLAN VIEWS

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SHEET TITLE
ROOF PLAN

NEW BUILDING FOR:
MP SYSTEMS, INC.
EAST TROY BUSINESS PARK II
VILLAGE OF EAST TROY, WI 53120

PROGRESS SET
NOT FOR CONSTRUCTION

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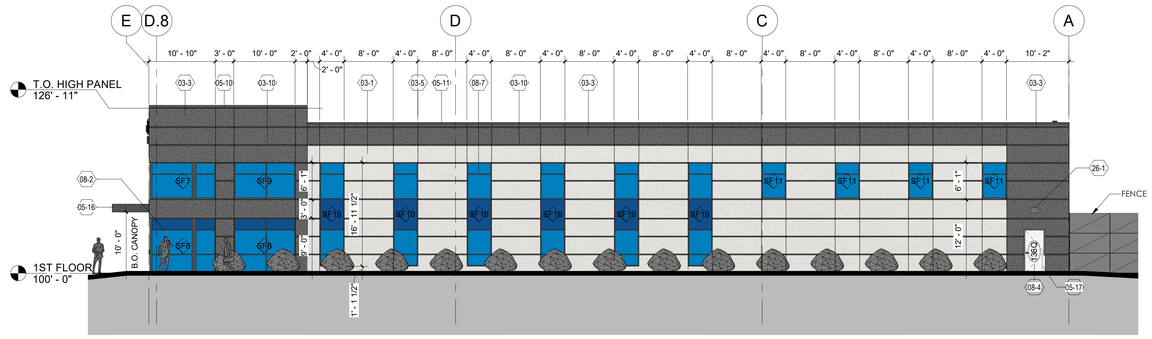
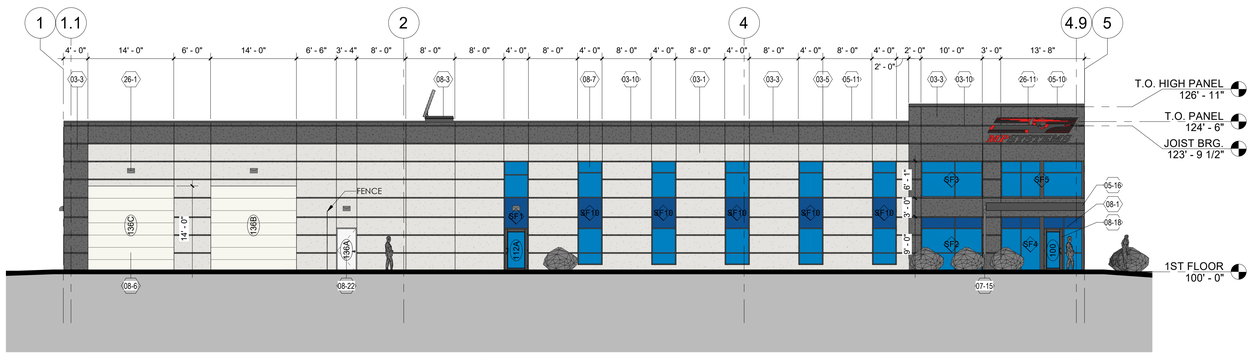
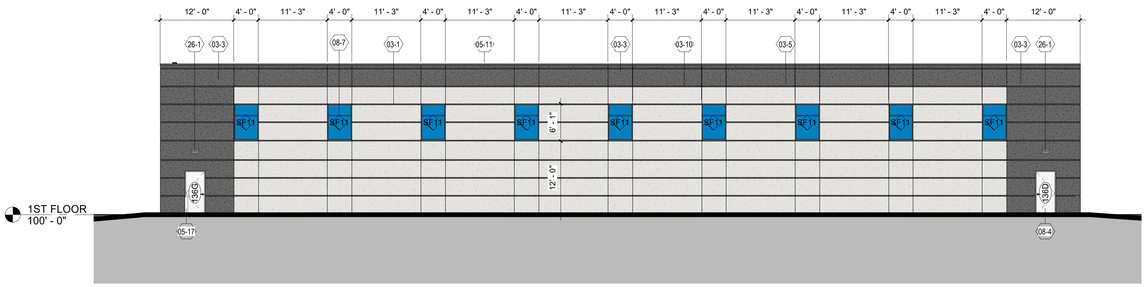


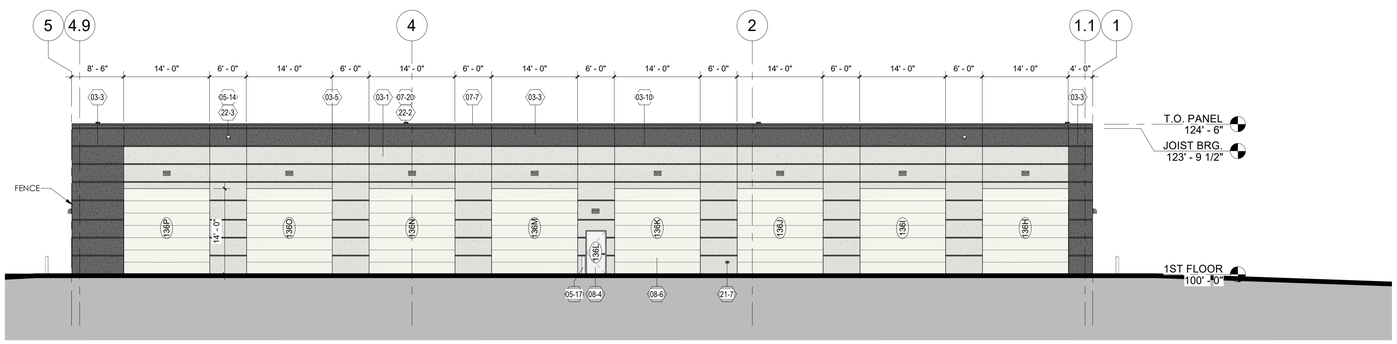
4 NORTH ELEVATION
1" = 10'-0"



3 EAST ELEVATION
1" = 10'-0"



2 SOUTH ELEVATION
1" = 10'-0"



1 WEST ELEVATION
1" = 10'-0"

PAINTERS NOTE:

PAINTING OF EXTERIOR PRECAST WALL PANELS: CHOOSE ONE SUPPLIER FOR BOTH BASE COLOR AND ACCENT COLORS. PRECAST WALL PANELS SHALL WEATHER FOR 90 DAYS PRIOR TO PAINT APPLICATION. PAINT SHALL NOT BE APPLIED WHEN SURFACE AND AIR TEMPERATURE IS UNDER 45 DEGREES FAHRENHEIT AND TEMPERATURES SHALL BE RISING.

1. **ACRYLIC CONCRETE STAIN (BASE COLOR):**
   A. (2) COATS OF HALLMAN LINDSAY #167 GRIP CRETE ACRYLIC STAIN OR
   B. (2) COATS SHERWIN WILLIAMS LOXON VERTICAL STAIN OR
   C. (2) COATS BENJAMIN MOORE TUFFCRETE WB CONCRETE STAIN.

2. **ACCENT COLOR:**
   A. (2) COATS OF HALLMAN LINDSAY #174 WEATHER GUARD SATIN 100% ACRYLIC HOUSE PAINT OR
   B. (2) COATS SHERWIN WILLIAMS SUPER PAINT SATIN HOUSE PAINT OR
   C. (2) COATS BENJAMIN AURA SATIN 100% ACRYLIC HOUSE PAINT.

BUILDING SYSTEMS LEGEND

BALLASTED ROOF ASSEMBLY: BALLASTED 45 MIL. RUBBER ROOF MEMBRANE ON 5.75" DIRECT TO DECK APPROVED EPS INSULATION (R20 - TWO LAYERS, STAGGERED) ON METAL DECK (SEE STRUCTURAL DRAWINGS)

FULLY ADHERED CANOPY ROOF ASSEMBLY: FULLY ADHERED ROOF MEMBRANE ON TAPPERED INSULATION AS REQUIRED TO SLOPE TO SCUPPER, ON METAL DECK (SEE STRUCTURAL DRAWINGS)

INSULATED PRECAST WALL PANEL SYSTEM: 10" INSULATED PRECAST CONCRETE WALL PANEL (R-14)

DOOR NOTE:
1. SEE DOOR TYPES ON SHEET A3.1 FOR INFORMATION ON SPECIFIED DOORS.
2. ALL EXTERIOR DOORS WHERE REQUIRED SHALL BE NUMBERED ON EXTERIOR SIDE AS REQUIRED BY THE FIRE DEPARTMENT.

WINDOW TYPE NOTES:
1. SEE WINDOW TYPES ON SHEET A5.3 FOR INFORMATION ON SPECIFIED WINDOWS.
2. PER IBC 2406.4 PROVIDE SAFETY GLAZING IN HAZARDOUS LOCATIONS AS REQUIRED DEFINED IN THIS CODE SECTION. GLAZING SHALL MEET CPSC SAFETY GLAZING TEST.

THE PROPOSED COMMERCIAL NON-RESIDENTIAL BUILDING TO BE LOCATED IN CLIMATE ZONE 6 (PER IECC SECTION 502) PER TABLE 502.2 (1) BUILDING ENVELOPE REQUIREMENTS - OPAQUE ASSEMBLIES.

ROOFS - PROPOSED ROOF INSULATION ENTIRELY ABOVE DECK R-20ci REQUIRED AND R-25ci PROVIDED MEETS OR EXCEEDS CODE MINIMUM.

WALLS ABOVE GRADE PROPOSED EXTERIOR WALL - MASS (PRECAST INSULATED CONCRETE) R-13.3ci REQUIRED AND R-16ci PROVIDED MEETS OR EXCEEDS CODE MINIMUM.

SLAB-ON-GRADE FLOORS - PROPOSED UNHEATED SLABS R-10 FOR 24 INCHES BELOW REQUIRED AND R-10 FOR 24 INCHES OR MORE PROVIDED MEETS OR EXCEEDS CODE MINIMUM.

PER TABLE 502.3 BUILDING ENVELOPE REQUIREMENTS: FENESTRATION
VERTICAL FENESTRATION (40% MAXIMUM ALLOWED ABOVE GRADE) 5% ACTUAL PROVIDE REQUIRED U - FACTOR .40 ACTUAL PROVIDED .29 AND SHGC .41

PER 2015 IECC:

C402.5 AIR LEAKAGE THERMAL ENVELOPE.
PROPOSED BUILDING COMPLIES.

C402.5.1 AIR BARRIER PER C402.5.1.2.1 MATERIALS SEE EXCEPTION 13 CAST-IN-PLACE AND PRECAST CONCRETE.
PROPOSED BUILDING COMPLIES.

C402.5.2 AIR LEAKAGE FENESTRATION SEE EXCEPTION 1. FIELD FABRICATED FENESTRATION ASSEMBLIES THAT ARE SEALED IN ACCORDANCE WITH SECTION C402.5.1.
PROPOSED BUILDING COMPLIES.

C402.5.3 ROOMS CONTAINING FUEL - BURNING APPLIANCES EXCEPTION 1. DIRECT VENT APPLIANCES WITH BOTH INTAKE AND EXHAUST PIPES INSTALLED CONTINUOUS TO OUTSIDE.
PROPOSED BUILDING COMPLIES.

C402.5.4 DOORS AND ACCESS OPENINGS TO SHAFTS, CHUTES, STAIRWAYS AND ELEVATOR LOBBIES.
NOT APPLICABLE TO PROPOSED BUILDING.

C402.5.5 AIR INTAKES, EXHAUST OPENINGS, STAIRWAYS AND SHAFTS. IF REQUIRED TO BE DAMPERED.
PROPOSED BUILDING COMPLIES.

C402.5.6 LOADING DOCK WEATHER SEALS TO BE PROVIDED FOR LOADING DOCK DOORS.
PROPOSED BUILDING COMPLIES.

C402.5.7 VESTIBULES EXCEPTION 2. DOORS NOT INTENDED TO BE USED BY THE PUBLIC, SUCH AS DOORS TO MECHANICAL OR ELECTRICAL EQUIPMENT ROOMS, ON INTENDED SOLELY FOR EMPLOYEE USE. EXCEPTION 4 DOORS THAT OPEN DIRECTLY FROM A SPACE LESS THAN 3,000 SQUARE FEET IN AREA. EXCEPTION 6 DOORS USED PRIMARILY TO FACILITATE VEHICULAR MOVEMENT OR MATERIAL HAND LINE AND ADJACENT PERSONAL DOORS.
PROPOSED BUILDING COMPLIES.

C402.5.8 RECESSED LIGHTING.
NOT APPLICABLE TO PROPOSED BUILDING.

KEYNOTE LEGEND

03-1	EXTERIOR PRE CAST CONCRETE WALL PANEL SHALL BE INSULATED WITH PAINTED FINISH - LIGHT (SW 7036 ACCESSIBLE BEIGE)
03-3	EXTERIOR PRE CAST CONCRETE WALL PANEL SHALL BE INSULATED WITH PAINTED FINISH - DARK (SW 7046 ANONYMOUS)
03-5	VERTICAL PANEL JOINT, SEALED
03-10	2" X 1/2" DEEP REVEAL (HORIZONTAL).
05-10	PRE-FINISHED METAL CAP/COPING ON SINGLE 2X PRESSURE TREATED WOOD BLOCKING. EXTEND RUBBER MEMBRANE FLASHING TO EXTEND UP AND OVER PT WOOD BLOCKING AND FULLY SEAL TO FACE OF PRE-CAST CONCRETE WALL PANEL.
05-11	PRE-FINISHED METAL 24 GA. GRAVEL STOP (COLOR TO BE 'CLEAR ANODIZED FINISH'). FASCIA AND RUBBER MEMBRANE FLASHING AND ROOFING.
05-14	PREFINISHED METAL LAMBS TONGUE SECONDARY DRAIN COVER
05-16	Pre finished metal 24 ga. Fascia on entry canopy. Color shall match adjacent wall color.
05-17	6" DIAMETER X 4'-0" TALL CONCRETE FILLED STEEL PIPE BOLLARDS. PAINTED SAFETY YELLOW.
07-7	PRE FINISHED METAL 24 GA. GRAVEL STOP COLOR SHALL BE "CLEAR ANODIZED FINISH".
07-15	PROVIDE PRE-FINISHED METAL DOWNSPOUT. COLOR AND FINISH TO MATCH CANOPY METAL. LOCATION SHOWN FOR REFERENCE ONLY - ROUTE DOWNSPOUT ALONG BUILDING FACE AS REQ.
07-20	OVERFLOW ROOF DRAIN-SET 6" HIGHER THAN PRIMARY ROOF DRAIN
08-1	ALUMINUM STOREFRONT ENTRY SYSTEM
08-2	ALUMINUM STOREFRONT
08-3	Roof hatch. Provide code-compliant hatch size, for use with osha-approved steel ladder access from floor below. Provide framing, curb, flashing, and tapered insulation for drainage around hatch as required. See detail 3/a4.1
08-4	PAINTED HOLLOW METAL SERVICE DOOR AND FRAME WITH EMERGENCY EGRESS CODE REQUIRED LIGHTING (COLOR TO MATCH WALL COLOR).
08-6	Insulated overhead door factory finished
08-7	Pre finished clear anodized aluminum framed (thermally broken) and 1" insulated low-e blue tinted window units with blue spandrel where noted.
08-18	Pre finished clear anodized aluminum framed (thermally broken) storefront entry door w/ 1" insulated low-e blue tinted glazing
08-22	3'-0" X 7'-0" INSULATED AND PAINTED GALVANIZED HOLLOW METAL DOOR AND FRAME WITH ADA HARDWARE AND EMERGENCY EGRESS CODE REQUIRED LIGHTING - PAINTED TO MATCH ADJACENT WALL COLOR.
21-7	FIRE DEPARTMENT CONNECTION AND ALARM AS REQUIRED BY LOCAL GOVERNING MUNICIPALITY - REFER FLOOR PLAN.
22-2	OVERFLOW ROOF DRAIN-SET 2" HIGHER THAN PRIMARY ROOF DRAIN. EXTERIOR PIPE DISCHARGE THROUGH WALL. DO NOT PLACE PIPE OUTFALL DIRECTLY ABOVE EXTERIOR DOORS OR WINDOWS. COORD. PIPE SIZE WITH PLUMBING CONTRACTOR.
22-3	LAMBS-TONGUE ROOF DRAIN OVERFLOW NOZZLE. SEE ROOF PLAN FOR ADDITIONAL NOTES. COORDINATE WALL PENETRATION WITH PRECAST SUPPLIER.
26-1	EXTERIOR LIGHT FIXTURE - CUT-OFF LED WALLPACK - SEE LIGHTING PLAN FOR FIXTURE TYPE AND MOUNTING HEIGHT
26-11	BACKLIT BUILDING SIGNAGE

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SHEET TITLE
EXTERIOR ELEVATIONS

NEW BUILDING FOR:
MP SYSTEMS, INC.
EAST TROY BUSINESS PARK II
VILLAGE OF EAST TROY, WI 53120

PROGRESS SET
NOT FOR CONSTRUCTION

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APPLICABLE TO ALL PLAN VIEWS

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SHEET TITLE
EXTERIOR PERSPECTIVES

NEW BUILDING FOR:
MP SYSTEMS, INC.
EAST TROY BUSINESS PARK II
VILLAGE OF EAST TROY, WI 53120

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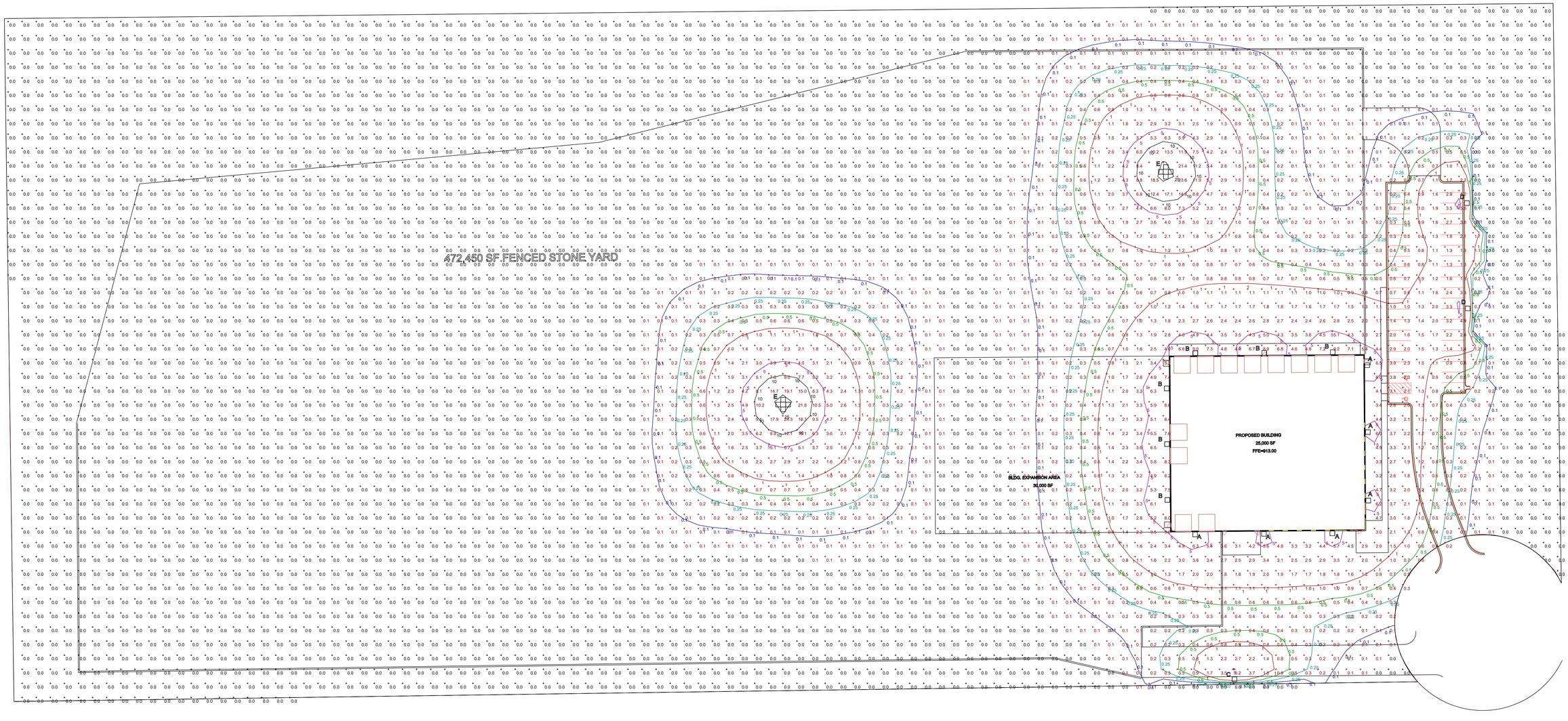
A5.2

Schedule

Symbol	Label	QTY	Manufacturer	Catalog Number	Description	Filename	Lumens per Lamp	Wattage
	A	6	RAB Lighting Inc.	A17-4T100	Wall pack mounted at 22'	a17-4t100.ies	13928	97.56
	B	6	RAB Lighting Inc.	A17-4T150	Wall pack mounted at 22'	a17-4t150.ies	21378	149.17
	C	1	RAB Lighting Inc.	A17-3T70	1-Head Pole 20' pole mounted on a 2' base with back-light shield	a17-3t70.ies	10234	69.84
	D	2	RAB Lighting Inc.	A17-4T100	1-Head Pole 20' pole mounted on a 2' base with back-light shield	a17-4t100.ies	13928	97.56
	E	2	RAB Lighting Inc.	A17-4T150	4-Head Pole 20' pole mounted on a 3' base	a17-4t150.ies	21378	149.17

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #1	+	0.5 fc	30.5 fc	0.0 fc	N/A	N/A



HFR electric
ELECTRICAL CONTRACTOR
RESIDENTIAL · COMMERCIAL · INDUSTRIAL
262-644-6940

MP Systems

East Troy, WI

Exterior Photometric Lighting Plan

DATE: 9-24-2021

E1.0

HFR electric inc
RESIDENTIAL · COMMERCIAL · INDUSTRIAL
227 Weil Drive · Slinger, WI 53086
Phone(262)644-6940 · Fax(262)644-7647

MP Systems

Exterior Lighting Submittal 9-24-2021

A17-4T100

Type: A

Wall mounted: 22'

RAB

Color: Bronze

Weight: 11.2 lbs

Project:	Type:
Prepared By:	Date:

Driver Info

Type	Constant Current
120V	1.0A
208V	0.60A
240V	0.50A
277V	0.40A
Input Watts	97.56W

LED Info

Watts	100W
Color Temp	5000K (Cool)
Color Accuracy	70 CRI
L70 Lifespan	100,000 Hours
Lumens	13,928
Efficacy	142.8 lm/W

Technical Specifications

Compliance

UL Listed:

Suitable for wet locations

IESNA LM-79 & LM-80 Testing:

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

DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.
DLC Product Code: PLT122DDPWDU

Electrical

Driver:

Constant Current, Class 2, 120-277V, 50/60Hz, 120V: 1.50A, 208V: 0.70A, 240V: 0.70A, 277V: 0.60A

Dimming Driver:

Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims down to 10%.

THD:

3.5% at 120V, 10.8% at 277V

Power Factor:

99.9 % at 120V, 94.1 % at 277V

Surge Protection:

10kV

Performance

Lifespan:

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

Construction

IES Classification:

The Type IV distribution (also known as a Forward Throw) is especially suited for mounting on the sides of buildings and walls, and for illuminating the perimeter of parking areas. It produces a semicircular distribution with essentially the same candlepower at lateral angles from 90° to 270°.

Cold Weather Starting:

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

Maximum Ambient Temperature:

Suitable for use in up to 40°C (104°F)

Lens:

Polycarbonate lens

Housing:

Die-cast aluminum housing, lens frame and mounting arm

Copyright © 2021 RAB Lighting All Rights Reserved Note: Specifications are subject to change at any time without notice

Technical Specifications (continued)

Construction

IP Rating:

Ingress protection rating of IP65 for dust and water

Vibration Rating:

3G vibration rating per ANSI C136.31

EPA:

1 Fixture: 0.46
2 Fixtures at 90°: 0.60
2 Fixtures at 180°: 0.93
3 Fixtures at 90°: 0.93
4 Fixtures at 90°: 0.93

EPA with Slipfitter & Adjustable Arm Mounting Accessories (Sold Separately)
1 Fixture: 0.66
2 Fixtures at 90°: 0.80
2 Fixtures at 180°: 1.32
3 Fixtures at 90°: 1.32
4 Fixtures at 90°: 1.32

Mounting:

Universal mounting arm compatible for hole spacing patterns from 1" to 5 1/2" center to center. Round Pole Adaptor plate included as a standard. Easy slide and lock to mount fixture with ease. Round pole diameter must be >4" to mount fixtures at 90° orientation.

Finish:

Formulated for high durability and long-lasting color

Green Technology:

Mercury and UV free. RoHS-compliant components.

LED Characteristics

LEDs:

Long-life, high-efficiency, surface-mount LEDs

Color Uniformity:

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

Other

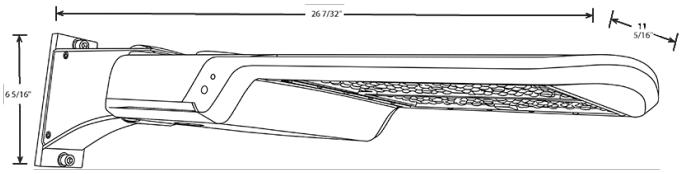
5 Yr Limited Warranty:

The RAB 5-year, limited warranty covers light output, driver performance and paint finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Buy American Act Compliance:

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

Dimensions



Features

- 0-10V Dimming, standard
- 100,000-hour LED lifespan
- 5-Year, Limited Warranty

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A17-4T100

RAB

Ordering Matrix

Family		Distribution	Wattage/Lumens	Mounting	Color Temp	Driver	Options
A17	–	4T	100				
		3T = Type III **4T =** Type IV **5T =** Type V	**70 =** 70W/10,000LM **100 =** 100W/15,000LM **150 =** 150W/22,500LM **200 =** 200W/30,000LM **240 =** 240W/36,000LM **300 =** 300W/45,000LM **375 =** 375W/51,800LM	**Blank =** Universal Pole Mount **SF =** Slipfitter (Factory installed SF available in 150W)	**Blank =** 5000K (Cool) **N =** 4000K (Neutral)	**Blank =** 120-277V, 0-10V Dimming **/480 =** 480V, 0-10V Dimming [1]	**Blank =** No Option **/3PRS =** 3-pin Receptacle and Shorting Cap **/7PRS =** 7-pin Receptacle and Shorting Cap **/MVS =** Microwave Motion Sensor **/LC =** Lightcloud® Controller

[1] 480V driver available standard on 150W and 300W. All other models are special order.
Type II distribution available as special order
Wall mount and adjustable universal pole mount available as optional field-installed accessories

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A17-4T150

Type: B

Wall Mounted: 22'

RAB

Color: Bronze

Weight: 13.2 lbs

Project:	Type:
Prepared By:	Date:

Driver Info

Type	Constant Current
120V	1.50A
208V	0.80A
240V	0.70A
277V	0.06A
Input Watts	149.17W

LED Info

Watts	150W
Color Temp	5000K (Cool)
Color Accuracy	70 CRI
L70 Lifespan	100,000 Hours
Lumens	21,378
Efficacy	143.3 lm/W

Technical Specifications

Compliance

UL Listed:

Suitable for wet locations

IESNA LM-79 & LM-80 Testing:

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

DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.
DLC Product Code: PLA17VEV0J4H

Electrical

Driver:

Constant Current, Class 2, 120-277V, 50/60Hz, 120V: 1.50A, 208V: 0.70A, 240V: 0.70A, 277V: 0.60A

Dimming Driver:

Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims down to 10%.

THD:

3.54% at 120V, 9.1% at 277V

Power Factor:

99.7% at 120V, 93.2% at 277V

Surge Protection:

10kV

Performance

Lifespan:

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

Construction

IES Classification:

The Type IV distribution (also known as a Forward Throw) is especially suited for mounting on the sides of buildings and walls, and for illuminating the perimeter of parking areas. It produces a semicircular distribution with essentially the same candlepower at lateral angles from 90° to 270°.

Cold Weather Starting:

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

Maximum Ambient Temperature:

Suitable for use in up to 40°C (104°F)

Lens:

Polycarbonate lens

Housing:

Die-cast aluminum housing, lens frame and mounting arm

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Technical Specifications (continued)

Construction

IP Rating:

Ingress protection rating of IP65 for dust and water

Vibration Rating:

3G vibration rating per ANSI C136.31

EPA:

1 Fixture: 0.46
2 Fixtures at 90°: 0.60
2 Fixtures at 180°: 0.93
3 Fixtures at 90°: 0.93
4 Fixtures at 90°: 0.93

EPA with Slipfitter & Adjustable Arm Mounting Accessories (Sold Separately)
1 Fixture: 0.66
2 Fixtures at 90°: 0.80
2 Fixtures at 180°: 1.32
3 Fixtures at 90°: 1.32
4 Fixtures at 90°: 1.32

Mounting:

Universal mounting arm compatible for hole spacing patterns from 1" to 5 1/2" center to center. Round Pole Adaptor plate included as a standard. Easy slide and lock to mount fixture with ease. Round pole diameter must be >4" to mount fixtures at 90° orientation.

Finish:

Formulated for high durability and long-lasting color

Green Technology:

Mercury and UV free. RoHS-compliant components.

LED Characteristics

LEDs:

Long-life, high-efficiency, surface-mount LEDs

Color Uniformity:

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

Other

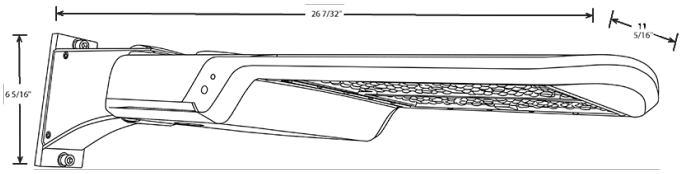
5 Yr Limited Warranty:

The RAB 5-year, limited warranty covers light output, driver performance and paint finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Buy American Act Compliance:

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

Dimensions



Features

- 0-10V Dimming, standard
- 100,000-hour LED lifespan
- 5-Year, Limited Warranty

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A17-4T150

RAB

Ordering Matrix

Family		Distribution	Wattage/Lumens	Mounting	Color Temp	Driver	Options
A17	–	4T	150				
		3T = Type III **4T =** Type IV **5T =** Type V	**70 =** 70W/10,000LM **100 =** 100W/15,000LM **150 =** 150W/22,500LM **200 =** 200W/30,000LM **240 =** 240W/36,000LM **300 =** 300W/45,000LM **375 =** 375W/51,800LM	**Blank =** Universal Pole Mount **SF =** Slipfitter (Factory installed SF available in 150W)	**Blank =** 5000K (Cool) **N =** 4000K (Neutral)	**Blank =** 120-277V, 0-10V Dimming **/480 =** 480V, 0-10V Dimming [1]	**Blank =** No Option **/3PRS =** 3-pin Receptacle and Shorting Cap **/7PRS =** 7-pin Receptacle and Shorting Cap **/MVS =** Microwave Motion Sensor **/LC =** Lightcloud® Controller

[1] 480V driver available standard on 150W and 300W. All other models are special order.
Type II distribution available as special order
Wall mount and adjustable universal pole mount available as optional field-installed accessories

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A17-3T70

Type: C

- 20' pole on a 2' base
- With back light shield

RAB

Color: Bronze

Weight: 10.8 lbs

Project:	Type:
Prepared By:	Date:

Driver Info

Type	Constant Current
120V	0.70A
208V	0.40A
240V	0.35A
277V	0.30A
Input Watts	69.84W

LED Info

Watts	70W
Color Temp	5000K (Cool)
Color Accuracy	72 CRI
L70 Lifespan	100,000 Hours
Lumens	10,234
Efficacy	146.5 lm/W

Technical Specifications

Compliance

UL Listed:

Suitable for wet locations

IESNA LM-79 & LM-80 Testing:

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

DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.
DLC Product Code: PLDHBT6T92Z4

Electrical

Driver:

Constant Current, Class 2, 120-277V, 50/60Hz, 120V: 0.70A, 208V: 0.40A, 240V: 0.35A, 277V: 0.30A

Dimming Driver:

Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims down to 10%.

THD:

3.24% at 120V, 13.52% at 277V

Power Factor:

99.6% at 120V, 91.7% at 277V

Surge Protection:

10kV

Performance

Lifespan:

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

Construction

IES Classification:

The Type III distribution is ideal for roadway, general parking and other area lighting applications where a larger pool of lighting is required. It is intended to be located near the side of the area, allowing the light to project outward and fill the area.

Cold Weather Starting:

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

Maximum Ambient Temperature:

Suitable for use in up to 40°C (104°F)

Lens:

Polycarbonate lens

Housing:

Die-cast aluminum housing, lens frame and mounting arm

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Technical Specifications (continued)

Construction

IP Rating:

Ingress protection rating of IP65 for dust and water

Vibration Rating:

3G vibration rating per ANSI C136.31

EPA:

1 Fixture: 0.46
2 Fixtures at 90°: 0.60
2 Fixtures at 180°: 0.93
3 Fixtures at 90°: 0.93
4 Fixtures at 90°: 0.93

EPA with Slipfitter & Adjustable Arm Mounting Accessories (Sold Separately)
1 Fixture: 0.66
2 Fixtures at 90°: 0.80
2 Fixtures at 180°: 1.32
3 Fixtures at 90°: 1.32
4 Fixtures at 90°: 1.32

Mounting:

Universal mounting arm compatible for hole spacing patterns from 1" to 5 1/2" center to center. Round Pole Adaptor plate included as a standard. Easy slide and lock to mount fixture with ease. Round pole diameter must be >4" to mount fixtures at 90° orientation.

Finish:

Formulated for high durability and long-lasting color

Green Technology:

Mercury and UV free. RoHS-compliant components.

LED Characteristics

LEDs:

Long-life, high-efficiency, surface-mount LEDs

Color Uniformity:

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

Other

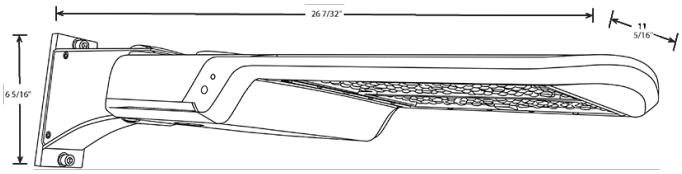
5 Yr Limited Warranty:

The RAB 5-year, limited warranty covers light output, driver performance and paint finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Buy American Act Compliance:

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

Dimensions



Features

- 0-10V Dimming, standard
- 100,000-hour LED lifespan
- 5-Year, Limited Warranty

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A17-3T70

RAB

Ordering Matrix

Family		Distribution	Wattage/Lumens	Mounting	Color Temp	Driver	Options
A17	–	3T	70				
		3T = Type III **4T =** Type IV **5T =** Type V	**70 =** 70W/10,000LM **100 =** 100W/15,000LM **150 =** 150W/22,500LM **200 =** 200W/30,000LM **240 =** 240W/36,000LM **300 =** 300W/45,000LM **375 =** 375W/51,800LM	**Blank =** Universal Pole Mount **SF =** Slipfitter (Factory installed SF available in 150W)	**Blank =** 5000K (Cool) **N =** 4000K (Neutral)	**Blank =** 120-277V, 0-10V Dimming **/480 =** 480V, 0-10V Dimming [1]	**Blank =** No Option **/3PRS =** 3-pin Receptacle and Shorting Cap **/7PRS =** 7-pin Receptacle and Shorting Cap **/MVS =** Microwave Motion Sensor **/LC =** Lightcloud® Controller

[1] 480V driver available standard on 150W and 300W. All other models are special order.
Type II distribution available as special order
Wall mount and adjustable universal pole mount available as optional field-installed accessories

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A17-4T100

Type: D

- 20' pole on a 2' base
- With back light shields

RAB

Color: Bronze

Weight: 11.2 lbs

Project:	Type:
Prepared By:	Date:

Driver Info

Type	Constant Current
120V	1.0A
208V	0.60A
240V	0.50A
277V	0.40A
Input Watts	97.56W

LED Info

Watts	100W
Color Temp	5000K (Cool)
Color Accuracy	70 CRI
L70 Lifespan	100,000 Hours
Lumens	13,928
Efficacy	142.8 lm/W

Technical Specifications

Compliance

UL Listed:

Suitable for wet locations

IESNA LM-79 & LM-80 Testing:

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

DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.
DLC Product Code: PLT122DDPWDU

Electrical

Driver:

Constant Current, Class 2, 120-277V, 50/60Hz, 120V: 1.50A, 208V: 0.70A, 240V: 0.70A, 277V: 0.60A

Dimming Driver:

Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims down to 10%.

THD:

3.5% at 120V, 10.8% at 277V

Power Factor:

99.9 % at 120V, 94.1 % at 277V

Surge Protection:

10kV

Performance

Lifespan:

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

Construction

IES Classification:

The Type IV distribution (also known as a Forward Throw) is especially suited for mounting on the sides of buildings and walls, and for illuminating the perimeter of parking areas. It produces a semicircular distribution with essentially the same candlepower at lateral angles from 90° to 270°.

Cold Weather Starting:

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

Maximum Ambient Temperature:

Suitable for use in up to 40°C (104°F)

Lens:

Polycarbonate lens

Housing:

Die-cast aluminum housing, lens frame and mounting arm

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Technical Specifications (continued)

Construction

IP Rating:

Ingress protection rating of IP65 for dust and water

Vibration Rating:

3G vibration rating per ANSI C136.31

EPA:

1 Fixture: 0.46
2 Fixtures at 90°: 0.60
2 Fixtures at 180°: 0.93
3 Fixtures at 90°: 0.93
4 Fixtures at 90°: 0.93

EPA with Slipfitter & Adjustable Arm Mounting Accessories (Sold Separately)
1 Fixture: 0.66
2 Fixtures at 90°: 0.80
2 Fixtures at 180°: 1.32
3 Fixtures at 90°: 1.32
4 Fixtures at 90°: 1.32

Mounting:

Universal mounting arm compatible for hole spacing patterns from 1" to 5 1/2" center to center. Round Pole Adaptor plate included as a standard. Easy slide and lock to mount fixture with ease. Round pole diameter must be >4" to mount fixtures at 90° orientation.

Finish:

Formulated for high durability and long-lasting color

Green Technology:

Mercury and UV free. RoHS-compliant components.

LED Characteristics

LEDs:

Long-life, high-efficiency, surface-mount LEDs

Color Uniformity:

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

Other

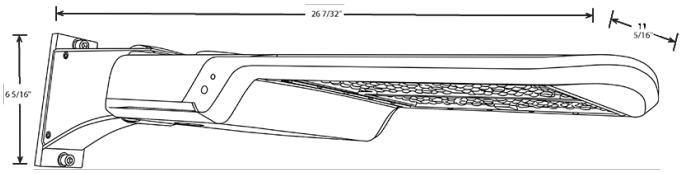
5 Yr Limited Warranty:

The RAB 5-year, limited warranty covers light output, driver performance and paint finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Buy American Act Compliance:

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

Dimensions



Features

- 0-10V Dimming, standard
- 100,000-hour LED lifespan
- 5-Year, Limited Warranty

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A17-4T100

RAB

Ordering Matrix

Family		Distribution	Wattage/Lumens	Mounting	Color Temp	Driver	Options
A17	–	4T	100				
		3T = Type III **4T =** Type IV **5T =** Type V	**70 =** 70W/10,000LM **100 =** 100W/15,000LM **150 =** 150W/22,500LM **200 =** 200W/30,000LM **240 =** 240W/36,000LM **300 =** 300W/45,000LM **375 =** 375W/51,800LM	**Blank =** Universal Pole Mount **SF =** Slipfitter (Factory installed SF available in 150W)	**Blank =** 5000K (Cool) **N =** 4000K (Neutral)	**Blank =** 120-277V, 0-10V Dimming **/480 =** 480V, 0-10V Dimming [1]	**Blank =** No Option **/3PRS =** 3-pin Receptacle and Shorting Cap **/7PRS =** 7-pin Receptacle and Shorting Cap **/MVS =** Microwave Motion Sensor **/LC =** Lightcloud® Controller

[1] 480V driver available standard on 150W and 300W. All other models are special order.
Type II distribution available as special order
Wall mount and adjustable universal pole mount available as optional field-installed accessories

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A17-4T150

Type: E

- 4 head 20' pole on a 3' base

RAB

Color: Bronze

Weight: 13.2 lbs

Project:	Type:
Prepared By:	Date:

Driver Info

Type	Constant Current
120V	1.50A
208V	0.80A
240V	0.70A
277V	0.06A
Input Watts	149.17W

LED Info

Watts	150W
Color Temp	5000K (Cool)
Color Accuracy	70 CRI
L70 Lifespan	100,000 Hours
Lumens	21,378
Efficacy	143.3 lm/W

Technical Specifications

Compliance

UL Listed:

Suitable for wet locations

IESNA LM-79 & LM-80 Testing:

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

DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.
DLC Product Code: PLA17VEV0J4H

Electrical

Driver:

Constant Current, Class 2, 120-277V, 50/60Hz, 120V: 1.50A, 208V: 0.70A, 240V: 0.70A, 277V: 0.60A

Dimming Driver:

Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims down to 10%.

THD:

3.54% at 120V, 9.1% at 277V

Power Factor:

99.7% at 120V, 93.2% at 277V

Surge Protection:

10kV

Performance

Lifespan:

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

Construction

IES Classification:

The Type IV distribution (also known as a Forward Throw) is especially suited for mounting on the sides of buildings and walls, and for illuminating the perimeter of parking areas. It produces a semicircular distribution with essentially the same candlepower at lateral angles from 90° to 270°.

Cold Weather Starting:

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

Maximum Ambient Temperature:

Suitable for use in up to 40°C (104°F)

Lens:

Polycarbonate lens

Housing:

Die-cast aluminum housing, lens frame and mounting arm

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Technical Specifications (continued)

Construction

IP Rating:

Ingress protection rating of IP65 for dust and water

Vibration Rating:

3G vibration rating per ANSI C136.31

EPA:

1 Fixture: 0.46
2 Fixtures at 90°: 0.60
2 Fixtures at 180°: 0.93
3 Fixtures at 90°: 0.93
4 Fixtures at 90°: 0.93

EPA with Slipfitter & Adjustable Arm Mounting Accessories (Sold Separately)
1 Fixture: 0.66
2 Fixtures at 90°: 0.80
2 Fixtures at 180°: 1.32
3 Fixtures at 90°: 1.32
4 Fixtures at 90°: 1.32

Mounting:

Universal mounting arm compatible for hole spacing patterns from 1" to 5 1/2" center to center. Round Pole Adaptor plate included as a standard. Easy slide and lock to mount fixture with ease. Round pole diameter must be >4" to mount fixtures at 90° orientation.

Finish:

Formulated for high durability and long-lasting color

Green Technology:

Mercury and UV free. RoHS-compliant components.

LED Characteristics

LEDs:

Long-life, high-efficiency, surface-mount LEDs

Color Uniformity:

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

Other

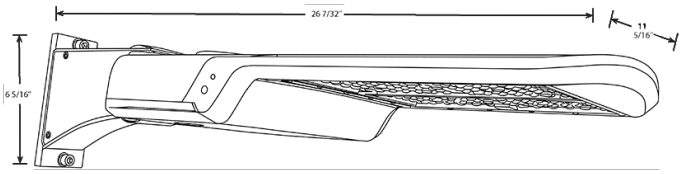
5 Yr Limited Warranty:

The RAB 5-year, limited warranty covers light output, driver performance and paint finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Buy American Act Compliance:

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

Dimensions



Features

- 0-10V Dimming, standard
- 100,000-hour LED lifespan
- 5-Year, Limited Warranty

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A17-4T150

RAB

Ordering Matrix

Family		Distribution	Wattage/Lumens	Mounting	Color Temp	Driver	Options
A17	–	4T	150				
		3T = Type III **4T =** Type IV **5T =** Type V	**70 =** 70W/10,000LM **100 =** 100W/15,000LM **150 =** 150W/22,500LM **200 =** 200W/30,000LM **240 =** 240W/36,000LM **300 =** 300W/45,000LM **375 =** 375W/51,800LM	**Blank =** Universal Pole Mount **SF =** Slipfitter (Factory installed SF available in 150W)	**Blank =** 5000K (Cool) **N =** 4000K (Neutral)	**Blank =** 120-277V, 0-10V Dimming **/480 =** 480V, 0-10V Dimming [1]	**Blank =** No Option **/3PRS =** 3-pin Receptacle and Shorting Cap **/7PRS =** 7-pin Receptacle and Shorting Cap **/MVS =** Microwave Motion Sensor **/LC =** Lightcloud® Controller

[1] 480V driver available standard on 150W and 300W. All other models are special order.
Type II distribution available as special order
Wall mount and adjustable universal pole mount available as optional field-installed accessories

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20' Pole

PS4-11-20D2

RAB

Square steel poles drilled for 2 Area Lights at 180°. Designed for ground mounting. Poles are stocked nationwide for quick shipment. Protective packaging ensures poles arrive at the job site good as new.

Color: Bronze

Weight: 136.7 lbs

Project:	Type:
Prepared By:	Date:

Technical Specifications

Compliance

CSA Listed:

Suitable for wet locations

Construction

Shaft:

46,000 p.s.i. minimum yield.

Hand Holes:

Reinforced with grounding lug and removable cover

Base Plates:

Slotted base plates 36,000 p.s.i.

Shipping Protection:

All poles are shipped in individual corrugated cartons to prevent finish damage

Color:

Bronze powder coating

Height:

20 FT

Weight:

137 lbs

Gauge:

11

Wall Thickness:

1/8"

Shaft Size:

4"

Hand Hole Dimensions:

3" x 5"

Bolt Circle:

8 1/2"

Base Dimension:

8"

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Technical Specifications (continued)

Construction

Anchor Bolt:

Galvanized anchor bolts and galvanized hardware and anchor bolt template. All bolts have a 3" hook.

Anchor Bolt Templates:

WARNING Template must be printed on 11" x 17" sheet for actual size. CHECK SCALE BEFORE USING. Templates shipped with anchor bolts and available online.

Pre-Shipped Anchor Bolts:

Bolts can be pre-shipped upon request for additional freight charge

Max EPA's/Max Weights:

70MPH 10.7 ft./360 lb.
80MPH 7.0 ft./350 lb.
90MPH 4.3 ft./350 lb.
100MPH 2.5 ft./350 lb.
110MPH 1.1 ft./350 lb.
120MPH 0.1 ft./340lb

Other

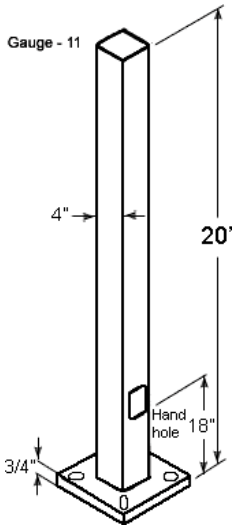
Terms of Sale:

Pole Terms of Sale is available online.

Buy American Act Compliance:

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

Dimensions



Features

- Designed for ground mounting
- Heavy duty TGIC polyester coating
- Reinforced hand holes with grounding lug and removable cover for easy wiring access
- Pole caps, base covers & bolts are sold separately
- Custom manufactured for each application

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