#

VILLAGE OF GERMANTOWN
N112 W17001 MEQUON ROAD
GERMANTOWN, WI 53022

MEETING:	**PLAN COMMISSION**
DATE AND TIME:	**MONDAY, MAY 14, 2018 6:30 p.m.**
LOCATION:	**Germantown Village Hall Board Room**

I. **CALL TO ORDER:** This meeting has been given public notice in accordance with Wisconsin Statutes, Section 19.83 and 19.84 in such form that will apprise the general public and news media of subject matter that is intended for discussion and action.

II. **ROLL CALL**

III. **PUBLIC INPUT/PUBLIC APPEARANCE:** Please be advised per §19.84(2) that information will be received from the public, however, no action will be taken at this time.

IV. **APPROVAL OF MINUTES**: April 23, 2018

V. **NEW BUSINESS**

A. Daniel & Rosanne Tetzlaff, Property Owners, W197 N12525 Prairie Ridge Ct. Conditional Use Permit (CUP) to Raise Poultry.

B. Phylmack LLC, Agent for Speaker Properties LLC and the J.W. Speaker Corporation, Property Owners – N121 W19996 Dalebrook Drive (Tax Key 173-989) and Lot 1 & 2 in Block 5 of the Neuland Subdivision (Tax Key 173-032 & 173-033) on Josephine Drive; (1) Rezoning Application from Rs-3 & Rs-4: Residential Single-Family to the J.W. Speaker M-1/PDD; and (2) Planned Development District (PDD) Amendment for Revisions to the General Development Plan (GDP) and Conditions & Restrictions Resolution.

C. MSI General Corporation, Agent for Moldmakers Leasing & Investment LTD, Property Owner of MGS Mfg. Group, W190 N11701 Moldmakers Way. Site Plan Review (26,880 sqft Building Addition and 13,000 sqft Raised Roof Addition).

D. VJS Construction Services, Inc., Agent for PHW Germantown Inc., Property Owner of Fairway Knoll Senior Living Community, N112 W17500 Mequon Road. Sign Review.

VI. **ANNOUNCEMENTS**:

VII. **ADJOURNMENT**:

The next Plan Commission Meeting will be on June 11, 2018 at 6:30 p.m.

UPON REASONABLE NOTICE, efforts will be made to accommodate the needs of disabled individuals through appropriate aids and services. For additional information or to request this service please contact the Village Clerk at (262)250-4740 at least 2 days prior to the meeting. Notice is given that a majority of the Village Board may attend this meeting to gather information about an item over which they have decision making responsibility. This may constitute a meeting of the Village Board per State ex rel. Badke v. Greendale Village Board, even though the Village Board will not take formal action at this meeting.

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PLAN COMMISSION MINUTES
April 23, 2018

CALL TO ORDER: Chairman Wolter called the meeting to order at 6:30 p.m.

ROLL CALL: Chairman Dean Wolter, Commissioners Peter Nilles, Tony Laszewski, Bob Williams and Mary Ellen Gray were present. Trustee Baum and Commissioner Bill Shadid were absent and excused. Also present were Community Development Director/Village Planner Jeff Retzlaff and Planning Assistant Lori Johnson.

PUBLIC INPUT: None

APPROVAL OF MINUTES: ***MOTION Gray second Laszewski to Approve the minutes from 4-9-18. MOTION carried unanimously.***

Community Development Department-Discussion on Updating the 2020 Smart Growth Plan: Planner Retzlaff explained that the current comprehensive plan is approaching its expiration date and needs to be amended an updated. He said there have been 12 adopted amendments to the plan since it's been adopted including map and classification changes. The legal basis for comprehensive planning in the State of Wisconsin goes back to 1999 with the Smart Growth Law, Wis. Stats 66.1001 that establishes a minimum set of required plan elements and framework for adopting and implementing a comprehensive plan. There is no prescribed timeframe for a comprehensive plan. He said the new plan is being referred to as the 2050 plan, but that has not been determined yet. He reviewed 9 elements that are required to be addressed in a comprehensive plan including:

- issues and opportunities,
- housing, transportation,
- utilities and community facilities,
- agricultural, natural and cultural resources,
- economic development,
- intergovernmental cooperation,
- land use,
- implementation.

Planner Retzlaff feels more focus needs to be on land use and economic development than the other elements. The State Statute says what needs to be in the plan but not all elements need to be adopted as part of one document. He continued saying the most important component of any plan effort is public participation and involvement. Specific written procedures are adopted and include minimum requirements of:

- (1) public hearing with class 1 (30-day) notice
- Plan commission recommends adoption by resolution
- Village Board adoption by Ordinance

He said Plan Commission should decide what they feel should be included in public participation efforts saying there are many different things that can be done to get the information to the public and collect information. The Plan Commission is authorized under Wis. Stat. 62.23(2) to prepare the master plan. Legislation makes it clear the plan is required to be updated every 10 years. The procedures are the same whether it's a plan adoption or plan amendment. He anticipates the new

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plan taking less time than the 48 months it took for the previous plan. He hopes to have a consultant on board some time late spring early summer and envisions a similar plan for the 2050 plan.
He outlined the process as:

- Consultant services with staff oversight (RFP spring/summer 2018)
- 12-18 months (summer 2018 through fall 2019)
- Include 9 required elements with emphasis on: land use and economic development, and special areas and issues including 1) land use and economic development and 2) special areas and issues (Main Street, North Village, US/41 Holy Hill Road Interchange).
- Plan Commission direct oversight of consultant and staff
- Include Public Works Department, Park & Rec Department, School District Rep

The public participation methods and activities would include:

- Results from the Community Survey (completed in 2015), special workshops/informational meetings
- Special workshops or Informational Meetings including:
  - Plan Element specific (land use)
  - Geographic area specific (Main Street)
  - Issue specific (farm land & rural character preservation
  - Public Hearings to hear oral comments and respond to written comments
  - Create a separate planning page or website
  - Press Releases & Social Media

Planner Retzlaff said he would like to get some feedback as we continue the process. Discussion followed. He said a detailed map or plan of a specific area could be created and added to the plan as a separate chapter, similar to the preliminary Main Street Plan Trustee Baum had presented previously. Language could also be added to recommend creating a business improvement district. He said Plan Commission needs to give weight to public commentary and input and consider that in making their recommendations. How much weight is key because clearly, we will get a difference of opinion. He continued by asking Plan Commission members to consider what activities or strategies might be useful for public participation. Commissioner Laszewski said there needs to be a good start or awareness of what's happening so people know its time to engage. Chairman Wolter suggested a starting event or kickoff and information outlining what will happen going forward. He said he doesn't want anything less than 3 public hearings including some other listening sessions for areas where different alternative land use is being proposed.

Planner Retzlaff asked what other issues or areas Plan Commission feels need special attention to consider or prioritize. Chairman Wolter said the interstate corridor from north of Freistadt Road to Holy Hill Road. He also said we should pay attention to the urban infill areas and the continuation of roads that are stubbed. Commission Laszewski would like to develop more walking paths and bike trails. Commissioner Gray said some type of art connection, gallery. Planner Retzlaff informed the Commission to plan on meeting the 4th Monday of every month. He said he'd like to set up a separate website or drop box for reviewing files rather than distributing information. The next step is to hire a consultant.

ANNOUNCEMENTS: None

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ADJOURNMENT: There being no further business, the meeting was adjourned at 8:21 p.m.

Respectfully submitted,

Lori Johnson
Planning Assistant

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CONDITIONAL USE PERMIT APPLICATION

5/14/18 Plan Commission Meeting

Rosanne & Daniel Tetzlaff

Village Planner Report **Germantown, Wisconsin**

Summary

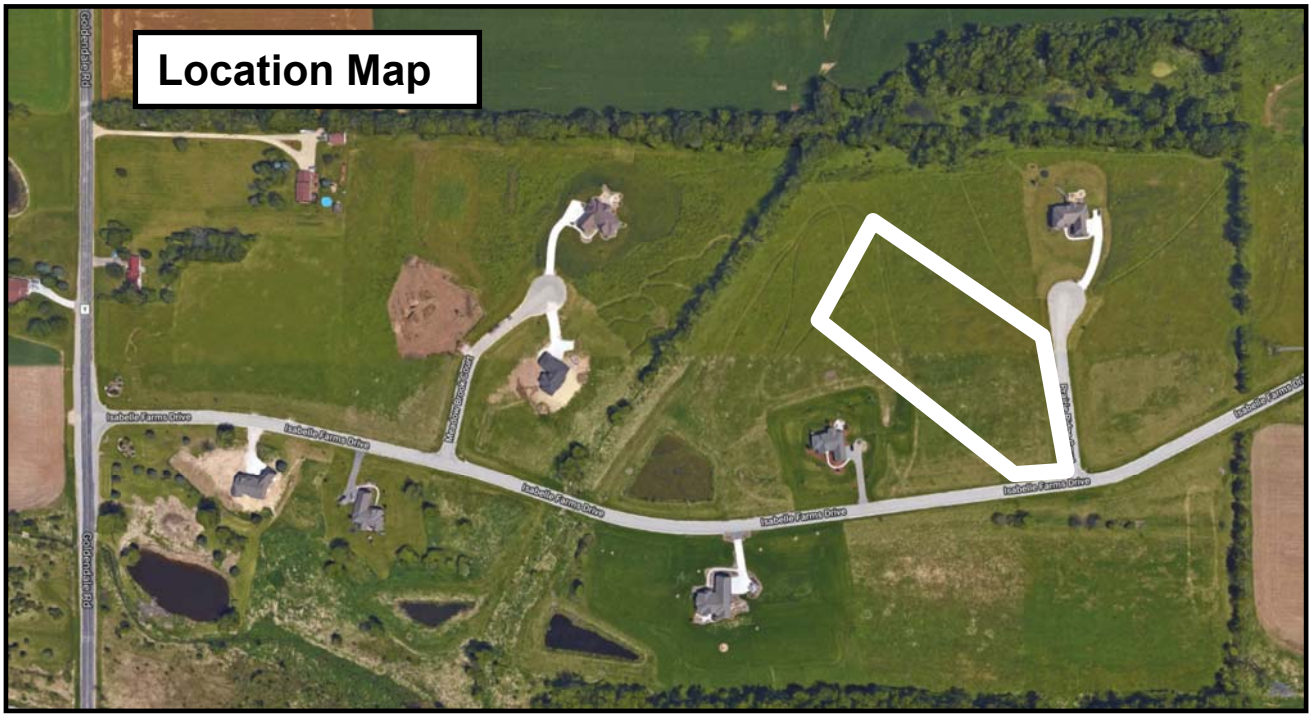
Rosanne & Daniel Tetzlaff, property owners of a 5-acre residential parcel located at W197 N12525 Prairie Ridge Court (Isabelle Farms Subdivision) are requesting approval of a Conditional Use Permit (CUP) to allow the "raising of poultry for family consumption" on their property in a Rs-1: Single-Family Zoning District.

Location: W197 N12525 Prairie Ridge Court

Applicant/
Property Owner: Rosanne & Daniel Tetzlaff
W197 N12525 Prairie Ridge Court
Germantown, WI

Current Zoning: Rs-1: Single-Family

Adjacent Land Uses		**Zoning**
North	Residential	Rs-1
South	Residential	Rs-1
East	Residential	Rs-1
West	Residential	Rs-1



Proposal

Rosanne & Daniel Tetzlaff, property owners of a 5-acre residential parcel located at W197 N12525 Prairie Ridge Court (Isabelle Farms Subdivision) are requesting approval of a Conditional Use Permit (CUP) to allow the "raising of poultry for family consumption" on their property in a Rs-1: Single-Family Zoning District.

As presented in Tetzlaff's application and supporting documentation (dated April 16, 2018), the Tetzlaff's intend to raise six to eight chickens (hens only no roosters) for non-commercial purposes. Highlights of the proposal include:

- 6-8 chickens (breed known to be tame, friendly and quiet)
- Construction of a small 4' tall, 16 sqft chicken coop with portable fenced-in runs to be placed in the side or rear yard
- Predator-proof coop construction w/ hardware cloth & galvanized roof
- Composted waste re-used on site for gardening purposes
- Use of odor-reducing bedding, neutralizers and regular cleaning

The coop will be located in the rear yard a min. of 50' from the nearest residential building and a min. of 100' from all property lines (required under 9.11 of the Village Code; Section 9: Public Peace and Good Order). In addition, the Isabelle Farms Homeowner's Association has adopted a specific set of allowances and restrictions that allow the raising of chickens (details provided in the April 16 support materials).

Staff Comments

Planning & Zoning

The Rs-1 Zoning District specifically provides for the raising of poultry "… for family consumption only" with a conditional use permit. As is the case with the HOA restrictions, this allowance has been interpreted to mean for non-commercial purposes. Which is not to say eggs and/or the chickens themselves cannot be sold for financial gain in a manner or on an occasional basis. If retail sales occur and evolve into an amount and/or on a regular basis that has the effect of changing the character of, the Village may require review of the operation under the Village's home-based business regulations. However, it's likely enforcement of the HOA restrictions would occur before Village enforcement would be necessary. With that said, the HOA needs to be aware that the Village will not/cannot enforce the private HOA restrictions.

Village Planner Recommendation

APPROVE a conditional use permit for Rosanne & Daniel Tetzlaff to allow the “raising of poultry for family consumption” on their property located at W197 N12525 Prairie Ridge Court subject to the following conditions:

1. The uses and activities allowed on the property shall be limited to those uses and activities and relative locations specified in the conditional use permit application (CUP) and supporting materials dated April 16, 2018. The physical facilities from which said uses and activities are permitted include the proposed coop and runs and shall be constructed and used as specified in the application and supporting materials.
2. If the use, activities and/or operation subject of this permit falls out of conformity with the conditions herein, or where there is a change in the nature, character, intensity or extent of the permitted conditional uses and activities which cause special problems or harmful effects associated with the permitted uses and activities that were not revealed or anticipated at the time this CUP was granted, or, where conditions imposed by this CUP that were anticipated to mitigate or eliminate harmful effects associated with the uses and activities but are subsequently insufficient to do so, or, for similar cause based upon consideration for the public comfort, safety, and welfare, this conditional use permit may be terminated or modified by the Village Board by the amendment to or addition of conditions after public hearing thereon.

Village of Germantown ...Willkommen

Fee must accompany application

☐ **$1460** Paid _____ Date_____

CONDITIONAL USE PERMIT APPLICATION

Pursuant to Section 17.42 of the Municipal Code

Please read and complete this application carefully. **All applications must be signed and dated.**

1 APPLICANT OR AGENT

Rosanne Tetzlaff
Daniel Tetzlaff

Phone (262) 313-8526
Fax ( )
E-Mail rotetzlaff@gmail.com

PROPERTY OWNER

Rosanne Tetzlaff
Daniel Tetzlaff

Phone (262) 313-8526

2 TO WHOM SHOULD THE PERMIT BE ISSUED?

Rosanne and Daniel Tetzlaff

3 PROPERTY ADDRESS

W197 N12525 Prairie Ridge Ct.

TAX KEY NUMBER

GTNV 172011

4 DESCRIPTION OF EXISTING OPERATION

Briefly describe the use as it exists today, including use, size, number of employees, hours of operation, etc. If this permit involves new construction, describe the current status of the property, e.g. "vacant." Use additional pages as necessary.

See Attachment

5 DESCRIPTION OF PROPOSED OPERATION

Write the name of the proposed conditional use exactly as it appears in the Municipal Code.

See Attachment

Describe the proposed use, including size, number of employees, hours of operation and extent of any new construction/alterations.

See Attachment

METES AND BOUNDS LEGAL DESCRIPTION OF PROPERTY — REQUIRED

6

Attach pages as necessary.

See Attachment

SUPPORTING DOCUMENTATION:

7

- ☐ Site plan and elevations for new construction (can be conceptual) N/A
- ☑ Photos of existing use and/or proposed use operating elsewhere
- ☑ Subdivision HOA Restrictions
- ☑ Detailed Proposal, including measures to address potential concerns

READ AND INITIAL THE FOLLOWING:

8

RT DT I understand that the Village is under no obligation to issue a Conditional Use Permit and will do so only if the applicant successfully demonstrates that the proposed use is harmonious with the neighborhood and the long range goals of the Village.

RT DT I will notify the Village if <u>any</u> aspect of the conditional use changes. I understand that failure to do so may result in the revocation of the CUP.

RT DT I understand that a Conditional Use Permit is valid only if the conditions and restrictions of the permit are met. I understand that failure to comply with any aspect of the permit may result in revocation.

SIGNATURES — ALL APPLICATIONS MUST BE SIGNED BY OWNER!

9

Applicant	Date	Owner	Date
Roann Tetzlaff	4/16/18	Roann Tetzlaff	4/16/18
	4/16/18		4/16/18

REV 1/99 U:\Planning\Wpdata\Applications\cupapp.wpd

CONDITIONAL USE PERMIT APPLICATION – ATTACHMENT (TETZLAFF, APRIL 16, 2018)

4. Description of Existing Operation

Briefly describe the use as it exists today, including use, size, number of employees, hours of operation, etc. If this permit involves new construction, describe the current status of the property, e.g. "vacant."

The current use of our property is that of a single-family dwelling that complies with the Rs-1 Zoning Code (17.14). There is no business, and thus, no employees or hours of operation. This Conditional Use would not involve any new construction of any kind with a foundation.

5a. Description of Proposed Operation

Write the name of the proposed conditional use exactly as it appears in the Municipal Code:

17.14.2 (a):

Chapter 17: CHAPTER 17 - ZONING CODE
17.14: Rs-1 SINGLE-FAMILY RESIDENTIAL DISTRICT
17.14.2: CONDITIONAL USES
17.14.2 (a): Raising of poultry, fowl, animals or fish for meat or by-products for family consumption only

Also see:

- **17.42:** CONDITIONAL USES
- **9.11:** KEEPING OF LIVESTOCK, POULTRY, WILD AND EXOTIC ANIMALS REGULATED

5b. Description of Proposed Operation

Describe the proposed use, including size, number of employees, hours of operation and extent of any new construction/alterations:

In brief, the Proposed Use would be the raising of a small number of female chickens for non-commercial purposes, further complying with all Village ordinances (including section 9.11) and state law. Our current plan is to raise approximately six to eight hens. (Our subdivision permanently restricts the quantity to 12.)

We live on a five acre lot in the center of the Isabelle Farms subdivision and believe that raising a small number of hens is congruent with the rural character of our subdivision as it exists within the Village. Further, we believe that this will help teach our boys (currently aged nine and four) about animals, the outdoors, sustainability, and responsibility.

As a private/family project, there will be no corporation, employees, or hours of operation. There will also be no new construction of any kind with a foundation; we will only assemble a small chicken coop (approximately 16 square feet) that can be located as needed. (See full details in section 7 of this application.)

6. Metes and Bounds Legal Description of Property:

Lot 11, Isabelle Farms, part of the Northwest 1/4, Northeast 1/4 and Southwest 1/4 of the Northeast 1/4 and part of the Southwest 1/4 and Southeast 1/4 of the Northwest 1/4 of Section 17, Township 9 North, Range 20 East, in the Village of Germantown, Washington County, Wisconsin.

7. Supporting Documentation:

Building & Setbacks:

This Conditional Use will not include the construction of any building with a foundation. We do plan to assemble one chicken coop for housing the hens. The coop that we plan on assembling is approximately 16 square feet and less than four feet tall. It will be styled and painted to match our primary residence. It will be located in our back yard (which is approximately three acres) where it will not be visible from the road, and well within compliance of the setback requirements delineated in Village ordinance 9.11 (4): Not less than 50 feet from our primary residence and not less than 100 feet from adjacent property lines.

Runs:

Our chickens will generally be confined to their coop, but will also be allowed at certain times to enter fenced-in runs. These runs are more restrictive than the fencing requirements of chapter 90 of the Wisconsin statutes (referenced in Village ordinance 9.11.3.1). See pictures at the end of this document.

Subdivision Restrictions:

In addition to complying with the terms set forth in the Conditional Use permit, village ordinance, and state law, we will also be bound further by the restrictions in place with the Isabelle Farm HOA bylaws. Note that on April 12, 2018, after garnering the support of 90% of the lot owners in the subdivision, our HOA approved an amendment to our declarations, explicitly allowing for the raising of chickens. Below is the actual language that was approved and recorded with Washington County:

> 3.13 Animals. No animals or livestock of any kind shall be raised, bred, or kept on any Lot, except that dogs, cats, or other small household pets (such as canaries or parakeets), chickens (subject to the conditions set forth in 3.13a), and horses (as allowed by the local zoning ordinances) may be kept in a manner which will not disturb the high type and quality of life and the environment of the Property, provided that no animals shall be kept, bred, or maintained for any commercial purposes.
>
> (a) Chickens
>
> i. Only females/hens are allowed; no males/roosters shall be allowed.
>
> ii. Total quantity per Lot shall not exceed:
>
> a. 12 hens per Lot for Lots 1-16 *(5 acre lots)*;
> b. 8 hens per Lot for Lots 17-21 *(2 acre lots)*.
>
> iii. Chicken coop restrictions:
>
> a. Only one chicken coop shall be allowed per Lot;
> b. Chicken coop interiors are not to exceed 36 square feet;
> c. Chicken coops shall be aesthetically harmonious with the primary dwelling and the rural character of the subdivision. Approval from the Architectural Committee is required.
> d. Chicken coops shall be maintained and cleaned as necessary as to prevent unpleasant sights and odors.
>
> iv. Chicken coop setback restrictions:
>
> a. Not less than 75 feet from Village road right-of-ways;
> b. Restricted to the side or rear of the primary dwelling; written approval from adjacent property owners is required.
> c. Any building or structure constructed or to be used for the keeping, maintaining and housing of poultry (chickens) shall be set back a minimum of 50 feet from any residential building and 100 feet from all adjacent property lines. (Complies with village ordnances.)

Subdivision Approval:

Note that for the purposes of our Subdivision HOA, we have already obtained written approval from our adjacent neighbors, and the chicken coop will be assembled and styled to meet approval of our Subdivision's Architectural Control Committee.

We understand that Village residents still have the right to voice their concerns, if desired, at a public hearing. We are committed to pleasing all of our neighbors, and as such, trying to propose our Conditional Use in such a manner to alleviate all potential concerns. The following sections of this document describe in detail some of our efforts to this end.

Noise Concerns:

As per our subdivision HOA, there will be no roosters; all of the chickens will be females. Further, the breeds that we are selecting from the hatchery are breeds that are specifically known to be quiet, tame, friendly, and docile.

Smell Concerns:

The chickens will be housed in a coop that is marketed as easy to clean; the chicken waste is easily accessible from the ground level and the waste can be raked out easily. The chicken waste will also be composted in a sealed container and used in our garden.

The bedding in the coop will be pine shavings (as opposed to straw or other bedding materials), which is optimal for absorbing odor and moisture. Odor neutralizers such as "Sweet PDZ" will be utilized during weekly cleaning of the coop to address ammonia byproduct of waste. Further, the coop will be deep cleaned three-to-four times per year.

Yard Maintenance:

The breeds that we are selecting from the hatchery are breeds that are not heavy foragers and are known to not dig to the extent that it would result in property destruction. Instead, they are marketed as homesteading, backyard, and pet breeds. In addition, the runs can be made portable to allow the chickens to graze in different areas of the property (so as to avoid grazing in the same area repeatedly), if desired.

Predators:

The chicken coop will be predator-proof from the top and sides (due to its galvanized roof and hardware cloth screens) as well as from the ground (to protect from digging predators)...

The coop will be placed on 12-inch paver stones that cover the entire perimeter of the coop and the runs, as evidence suggests that digging predators will typically dig for about three inches before giving up.

The runs will be protected with hardware cloth on all sides, including the top (to protect from predators from above such as hawks).

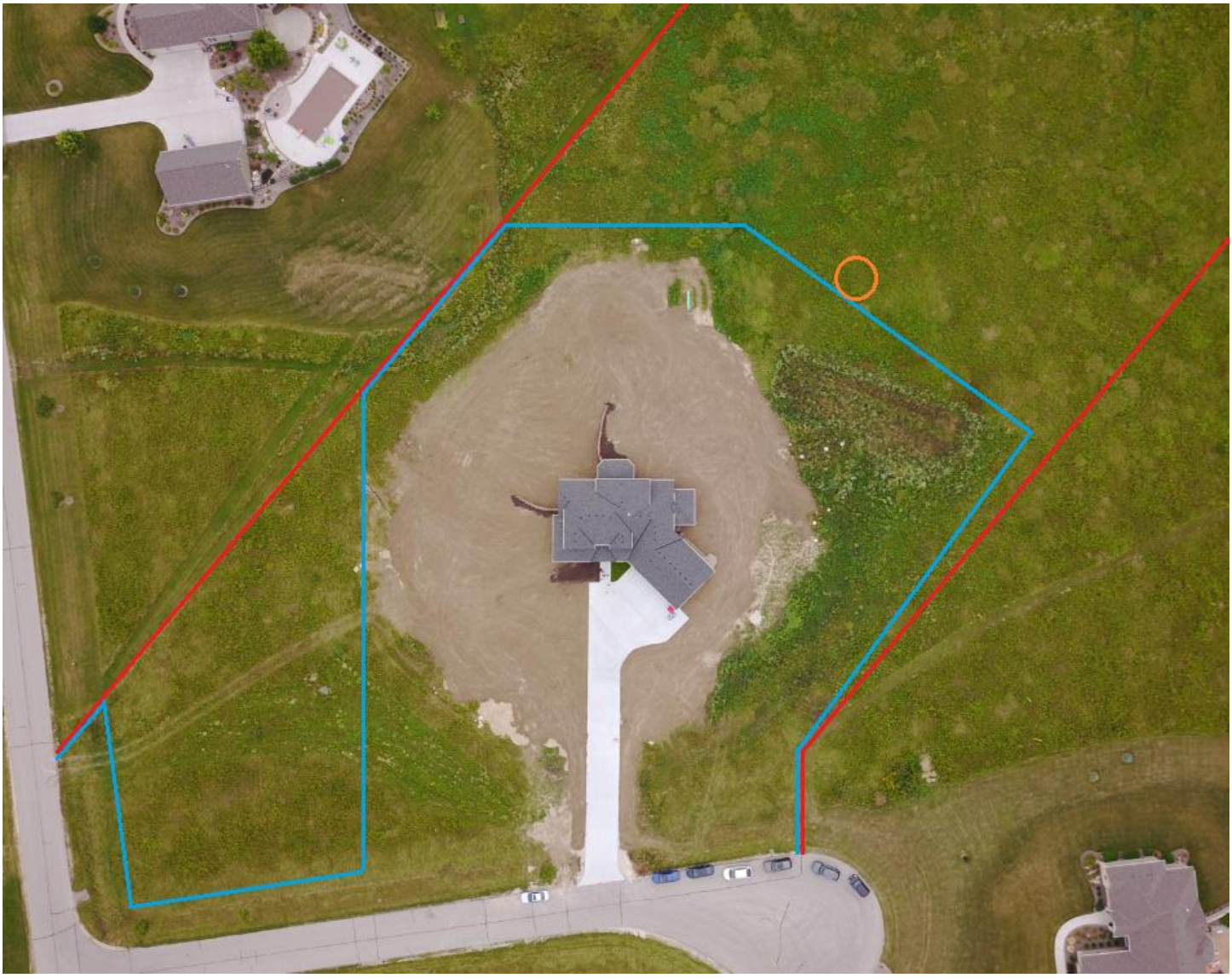
Photos of proposed use operating elsewhere:

Here are a few pictures of the coop that we plan to assemble with our sons. As a reminder, we will be painting the coop to match our primary residence:

The following two photos show examples of the coop and the runs; various styles and configurations are possible.

This picture shows our house and lot shortly after construction, before the lawn has been installed. North is to the right.

- Our lot boundary is shown in red lines; note that the lot extends to the upper-right (northwest) off the end of the picture.
- The lawn/grass outline is drawn in blue. The area outside of the blue line is prairie grass.
- The orange circle represents where we are thinking of placing the chicken coop.



PLANNED DEVELOPMENT DISTRICT (PDD) AMENDMENT & REZONING APPLICATION

5/14/18 Plan Commission Meeting

Speaker Corporation PDD / J.W. Speaker Corporation

Village Planner Report **Germantown, Wisconsin**

Summary

Phylmack LLC, agent for Speaker Properties LLC and the J.W. Speaker Corporation, property owners, has submitted a proposal to amend the Speaker Corporation PDD by adding additional land to the PDD, modifying the General Development Plan (GDP), and revising certain restrictions in the Conditions & Restrictions Resolution.

Location: East of Goldendale Road, north of the Neuland Subdivision and south of the Wisconsin & Southern (WSOR) Railroad

Agent/ Property Owner: George Lehnerer, CFO, J.W. Speaker Corporation
N120 W19434 Freistadt Road
Germantown, WI

Current Zoning: Rs-3: Single-Family & Rs-4: Single-Family
Proposed Zoning: M-1/PDD

Adjacent Land Uses		Zoning
North	Industrial	M-1/PDD
South	Residential	Rs-4
East	Industrial	M-1/PDD
West	Residential	Rs-4

Background
The 144-acre Speaker Corporation PDD was created in December 2017. The General Development Plan (GDP) dated December 11, 2017 established the general parameters guiding all future development within the PDD area, including the approximate size, location and orientation of buildings, overall density of development, location of access driveways and intersections, and the extent and location of landscaping and buffering relative to adjacent land uses.

Proposal
At this time, agents for the J.W. Speaker Corporation have submitted a proposal to amend the Speaker Corporation PDD by (1) amending the overall size and boundary of the PDD by rezoning and adding a small amount of adjacent land; (2) modifying the General Development Plan (GDP) by changing the relative location of two of the proposed buildings; and (3) modifying certain language in the Conditions & Restrictions Resolution (Res. No. 26-17) regarding the timing of landscape planning for the “future” development area.

The amendment includes a change to the “General Development Plan” (GDP) and is reflected in a revised GDP dated May 8, 2018 (see attached). When compared to the original/adopted GDP dated December 11, 2017 (copy also attached), the most significant changes are in the middle section of the area to be developed west of the existing facility.

As indicated in the original/adopted GDP, there is a 1.8-acre parcel located at the eastern end of Dalebrook Drive (previously owned by John Wagie), that is called out as a “Potential Acquisition”. This parcel was intended to be made part of the original PDD but the timing of Speaker acquiring this parcel did not coincide with creation of the PDD. Speaker is now in the process of acquiring the Wagie property and wants to proceed with adding it into the overall PDD. Speaker’s agreement with the previous owner is to allow residential use of the property until June, 2019.

In addition to the Wagie parcel, Speaker would also like to add the two (2) unbuildable lots located adjacent to the Wagie parcel on the east side of Josephine Drive to the Speaker PDD. As indicated in the proposed GDP, once these parcels are added to the PDD, the area will be combined into the overall Speaker property and eventually restored to natural open space.

As indicated in the original GDP, the proposed Design Center building is shown on the north side of the new east-west driveway and the proposed Surface Mount Technology (SMT) building is shown on the south side. Due to some topographical constraints affecting construction, and, a stronger desire to preserve as much of the existing wooded area north of the east-west driveway as possible, Speaker proposes to move the Design Center to the south side of the driveway and shift the SMT building slightly to the west. Parking areas that will serve the two buildings have also been reconfigured along the east-west driveway in the vicinity of the SMT and Design Center buildings. Additional berming and landscaping has been added immediately west of SMT building and westernmost parking area to enhance the buffer provided to the residents in the Neuland Subdivision.

Finally, Speaker proposes to defer the detailed landscape planning & installation of the proposed berming and landscaping originally proposed for the "Phase 4 Future" development adjacent to Goldendale Road until development is proposed (this area is shown as Lot 2 in the proposed GDP). Speaker has proposed modifying the language in Section 5 of the Conditions & Restrictions Resolution as noted below:

5. **PERIMETER LANDSCAPING & BUFFER PLAN REQUIRED.**

a. Notwithstanding the requirements in Section 4. above, the GDP indicates the approximate location, shape and size of landscape plantings to be designed-in-detail and installed at the north edge of the 'Mayer-Neu' property, directly south of the RR right of way, for the purposes of providing an adequate visual buffer between the surrounding residential areas to the north and any future development on the 'Mayer-Neu' parcel. Such landscape plantings to be designed and installed at the time of proposed future development. ~~a detailed landscaping and buffer plan for the north perimeter of Lot 1 adjacent to the WSOR railroad and south perimeter of Outlot 3 as shown on the GDP shall be prepared and submitted to the Plan Commission for review and approval prior to commencement of construction of the Goldendale Road access driveway and utility installation. Said landscaping and buffer plan shall take into consideration existing topography, existing vegetation, existing visibility and existing distance separation from the surrounding residential areas to the south (Neuland Subdivision) and to the north (Isabell Farms Subdivision) to determine the type, amount, density, height, and other characteristics of the undulating earth forms (berms) and tree plantings (where applicable) that will be necessary to provide an adequate visual buffer between said residential areas and the internal access driveway and future "Phase 4" development of Lot 1 (previously referred to as the "Mayer/Neu Property"). NOTE: the required "visual buffer" is not intended to be nor provide a 100 percent visual barrier of the view from all vantage points within the surrounding residential areas, but rather to provide an effective (albeit partial) obstructed view of the developed area, buildings and traffic traveling within the SC-PDD.~~

Staff Comments

Changes to a PDD go through the PDD amendment process requiring both Plan Commission and Village Board approval. As stated in Section 17.27 of the Zoning Code, the overall intent of the Planned Development (PD) overlay District is to *"…permit greater flexibility…more creative design…while providing a higher level of amenities…while providing the Village with assurances that the project will retain the character envisioned at the time of approval".*

As required under Section 17.27(9) of the Zoning Code, the Plan Commission must determine if the proposed amendments to the Speaker PDD are "minor", or, if the proposed amendments are significant enough to"…materially affect the intended design of the project and the impact of the project on neighboring uses". *(NOTE: A finding that*

the change is a "minor" change means that the Plan Commission recommendation can be considered by the Village Board without a public hearing; a "substantial" change requires a public hearing before the Village Board renders a decision on the proposed change).

With regard to the proposed amendments to the Speaker PDD, it is Staff's opinion and recommendation that the proposed amendments are significant changes to the PDD and warrant a public hearing as part of the Village Board's review of the Speaker Corporation amendment proposal.

Rezoning

The Wagie property was always intended to be acquired and included in the Speaker PDD. Issues regarding the actual timing of its acquisition conflicted with the timing for creating the PDD. Since the 1.8-acre parcel is/was not essential to overall PDD development plan, the PDD was created without this parcel being included, although it is noted on the adopted GDP that the parcel is a "Potential acquisition". The other two parcels east of Josephine Drive and adjacent to the Wagie property are heavily wooded, contain some wetland and have generally been considered unbuildable. To further enforce Speaker's commitment to not develop these parcels and further enhance the buffer between the residential area along the PDD perimeter, the parcels are proposed to be added to the PDD and eventually restored as open space. To accomplish this, the Wagie parcel and the two smaller lots east of Josephine Drive in the Neuland Subdivision will be rezoned into the Speaker PDD and eventually combined by certified survey map (CSM) into the overall property.

Speaker has indicated that their agreement with the previous owner provides that the Wagie property can continue to be used for residential purposes by the Wagie family through June, 2019. After that time, the existing buildings will be removed and the property restored to open space. Staff supports this amendment if language is added to the Conditions & Restrictions Resolution addressing the agreement and allowance to use the 1.8-acre property for residential by the current owner through June, 2019.

GDP Modifications

Staff supports the proposed changes to the GDP that modify the relative location of the SMT and Design Center buildings within the site. Because the buildings are shifted further west and south, opportunity is created to preserve a greater amount of the existing natural buffer of trees and vegetation on the site; further enhancing the buffer from the Isabelle Farms Subdivision to the north. Along with the building and parking lot location changes, additional berming along the south side of the east-west driveway is proposed. Staff supports these modifications provided that the existing tree line shown between the Neuland Subdivision and the west side of the proposed SMT building is enhanced with supplemental tree plantings.

Modifications to Certain Conditions & Restrictions

At the time the original PDD was created, there was significant discussion about the need to create and/or enhance the buffer between the area south of the railroad closest to the Isabelle Farms Subdivision. Although there was speculation that this area would eventually be developed, it is/was identified as “Phase 4” (of 4 phases of development) with no particular time table for development. It was widely viewed that, in the meantime, the buffer area along the railroad could be planned with trees installed so that by the time development of the area was proposed, there would already be some established buffering in place. Speaker is now asking that the requirement to pre-plan the landscaping and buffering, as well as, the installation of trees in this area immediately south of the railroad be deferred until the time when development is proposed.

While staff understands the potential problems associated with pre-planning the landscaping for a development site without knowing the type, amount and extent of development that might occur, the reasons for requiring not only the design of the type, amount and location of plantings but actually installing some of those trees to “get a head start” on the creation of a functional buffer have not changed. Further, the PDD Conditions & Restrictions already includes minimum setbacks of 100 feet and 50 feet between buildings and parking areas, respectively from the WSOR railroad. Since development will be prohibited within these 50 and 100 setback areas regardless of what type, amount and extent of development is eventually proposed, a lot can be done to design and create the required buffer within those setbacks and regardless of the timing of development.

With that understanding, staff could support deferring that portion of the requirement under Section 5 in the Conditions & Restrictions Resolution for 1-3 years from the current deadline, i.e. “…prior to commencement of construction of the Goldendale Road access driveway and utility installation”. Deferring this requirement would enable Speaker to focus its landscaping and buffering efforts along the south side of the east-west driveway closer to the Neuland Subdivision.

Village Planner Recommendation

FIND that the proposed PDD amendments are “significant” changes that require a public hearing concurrent with the Village Board’s consideration and action on the proposed amendments.

Village Planner Recommendation

APPROVE the proposed PDD amendments for the Speaker Corporation PDD, including: (1) amending the overall size and boundary of the PDD by rezoning and adding adjacent land; (2) modifying the General Development Plan (GDP) by changing the relative location of the SMT and Design Center buildings; and (3) modifying certain language in the Conditions & Restrictions Resolution (Res. No. 26-17) regarding the timing of landscape planning for the "future" development area subject to the following conditions:

1. The original General Development Plan (GDP) dated December 11, 2017 is replaced by the amendment GDP dated May 8, 2018.
2. The proposed amendments shall be codified into a revised Conditions & Restrictions resolution to be considered for approval by the Village Board, including language addressing the agreement between Speaker and John Wagie allowing the 1.8-acre property to be used for residential purposes through June, 2019.
3. The existing tree line between the Neuland Subdivision and the west side of the proposed SMT building shall be enhanced with supplemental tree plantings and/or berming. Said landscaping enhancements shall be reflected in the required landscape plan to be submitted concurrent with Phase I development (east-west driveway and SMT building construction).
4. That portion of the requirement under Section 5 in the original Conditions & Restrictions Resolution (Res. No. 26-17) that requires "… a detailed landscaping and buffer plan for the north perimeter of Lot 1 adjacent to the WSOR railroad and south perimeter of Outlot 3 as shown on the GDP shall be prepared and submitted to the Plan Commission for review and approval prior to commencement of construction of the Goldendale Road access driveway and utility installation" shall be deferred for a period of two (2) years after construction of the east-west driveway has commenced, or, July 1, 2020, whichever date occurs first.

Village of Germantown ...Willkommen

Fee Must Accompany Application

☒ $820 Paid ___ Date 5-9-18

☐ $200 PC Consultation Only

Paid _____ Date _____

PLANNED DEVELOPMENT DISTRICT (PDD) AMENDMENT APPLICATION

Applications NOT signed by the Property Owner(s) will not be accepted. Attach additional sheets and/or include supplemental information in support of your application.

APPLICANT OR AGENT:

Phylmack, LLC

Address: c/o J.W. Speaker Corporation

N120W19434 Freistadt Rd.

Germantown, WI 53022

Phone: (262) 532-2101

FAX: (262) 532-2121

E-Mail: lehnererg@jwspeaker.com

PROPERTY OWNER(S): SAME

Address: **Note that property will be owned by Phylmack, LLC by May 15, 2018 based on a contract currently in place.**

Phone:

FAX:

E-Mail:

PDD Name & Resolution No.: Speaker Corporation PDD

Legal Description of Property or Area (metes and bounds description):

See attached exhibits for the 1.8449 acres currently being purchased and lots 1 and 2 of block 5. The desire is to annex these into the current Speaker Corporation PDD.

Check all that apply:

- ☐ **REQUEST TO AMEND PDD ZONING**
- ☒ **REQUEST TO AMEND PDD GENERAL DEVELOPMENT PLAN**
- ☐ **REQUEST TO AMEND PDD CONDITIONS & RESTRICTIONS**

List of Proposed Amendment(s) (include Resolution # and Condition #):

Annex the 1.8449 acres currently being purchased and lots 1 and 2 of block 5 per the attached exhibits into the current Speaker Corporation PDD.

Detailed Explanation and Justification for Proposed Amendment(s):

Desire to annex the above mentioned properties into the existing Speaker Corporation PDD for development by J.W. Speaker Corporation and related entity expansion plans per the general site plan. The recent acquisition of the Dalebrook property enables this amendment which was contemplated when the PDD was originally developed, but was unable to be included since there was no contract to purchase the property. Note that Phylmack, LLC will own the property prior to May 15, 2018 based on a fully executed purchase contract for that property.

APPLICATION SUBMITTAL REQUIREMENTS (to be submitted at time of application):

All Amendment Applications:

- ☑ Complete Application Form (Affidavit of Understanding and signatures required)
- ☑ Application Fee
- ☑ Detailed explanation of and justification for proposed amendment(s)
- ☑ Detailed explanation of if and how the proposed amendment(s) will affect other aspects of the development included within the PDD

General Development Plan Amendment Only:

- ☑ Legal Description of the land subject of map amendment in electronic/digital file format (e.g. Microsoft Word)
- ☑ Revised or New General Development Plan at a scale of 1" = 50' or other suitable scale necessary to accurately present:
  - Exterior boundary of the land subject of the map amendment
  - All existing and/or proposed features to be included in the development

AFFIDAVIT OF UNDERSTANDING

Please read and indicate that you understand and agree to the following (initials in box):

☒ I understand that Village Staff, the Plan Commission and/or the Village Board may request additional information to properly evaluate this application and failure to provide such information may be sufficient justification to deny this application;

☒ I understand that, regardless of the justification and/or information provided in support of my application, the Village is not obligated to approve my application nor amend the PDD as requested;

☒ I am aware that the approval of an application to amend a PDD only amends the General Development Plan and/or conditions & Restrictions Resolution and does not otherwise revise or change the zoning of the land affected by the amendment(s), and, I may be required to obtain separate permits and/or approvals (e.g. site plan, building permits, etc.) from the Village or other agencies as a prerequisite to actual or continued development of such land.

ALL APPLICATIONS MUST BE SIGNED BY THE APPLICANT/AGENT AND PROPERTY OWNER(S)

5-9-18		5-9-18	
Applicant/Agent	Date	Property Owner	Date
Applicant/Agent	Date	Property Owner	Date

EXHIBIT

CLIENT

J.W. Speaker Corporation

LEGAL DESCRIPTION

Being a part of the Southwest One-quarter (1/4) of Section Seventeen (17), in Township Nine (9) North, Range Twenty (20) East, in the Village of Germantown, Washington County, Wisconsin, bounded and described as follows;

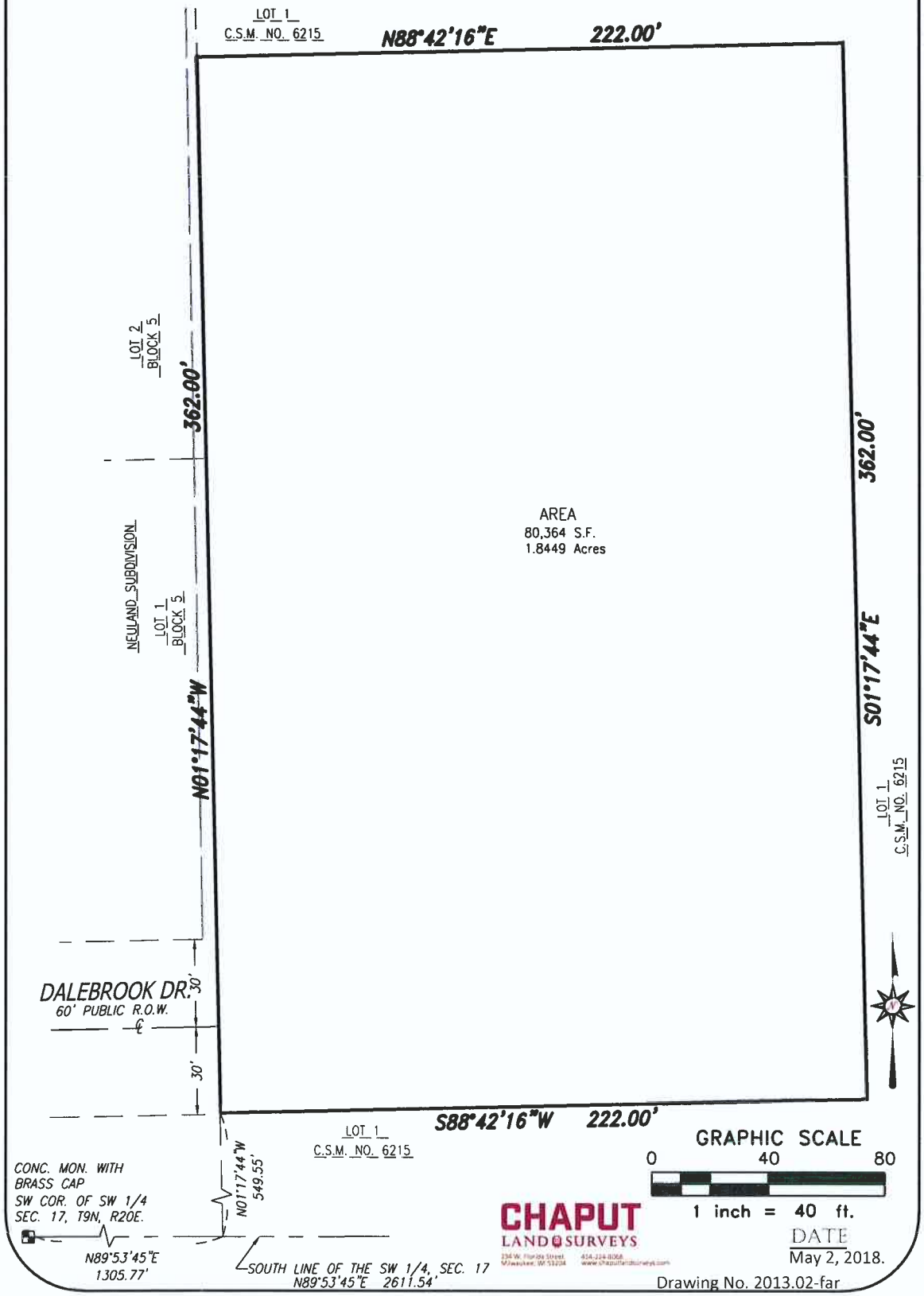
Commencing at the Southwest corner of said Section; thence North **89°53'45"** East along the South line of 1/4 Section 1305.77 feet to a point; thence North 01°17'44" West along the West line of Lot 1 of Certified Survey Map No. 6215 and its Southerly extension 549.55 feet to the point of beginning of lands descried hereinafter; thence continue North 01°17'44" West 362.00 feet to a point; thence North **88°42'16"** East 222.00 feet to a point on the West line of said Lot 1; thence South **01°17'44"** East along said West line 362.00 feet to a point; thence South **88°42'16" West 222.00 to the point of beginning.**

BASIS OF BEARINGS

Bearings are referenced to the Wisconsin State Plane Coordinate System **(South Zone), in which the South line of the SW 1 /4 bears N89°53'45"E.**

LAND AREA

The Land Area of the subject property is 80,364 square feet or 1.8449 acres.



CHAPUT LAND SURVEYS

DATE

May 2, 2018.

Drawing No. 2013.02-far

EXHIBIT

CLIENT

J.W. Speaker Corporation

LEGAL DESCRIPTION

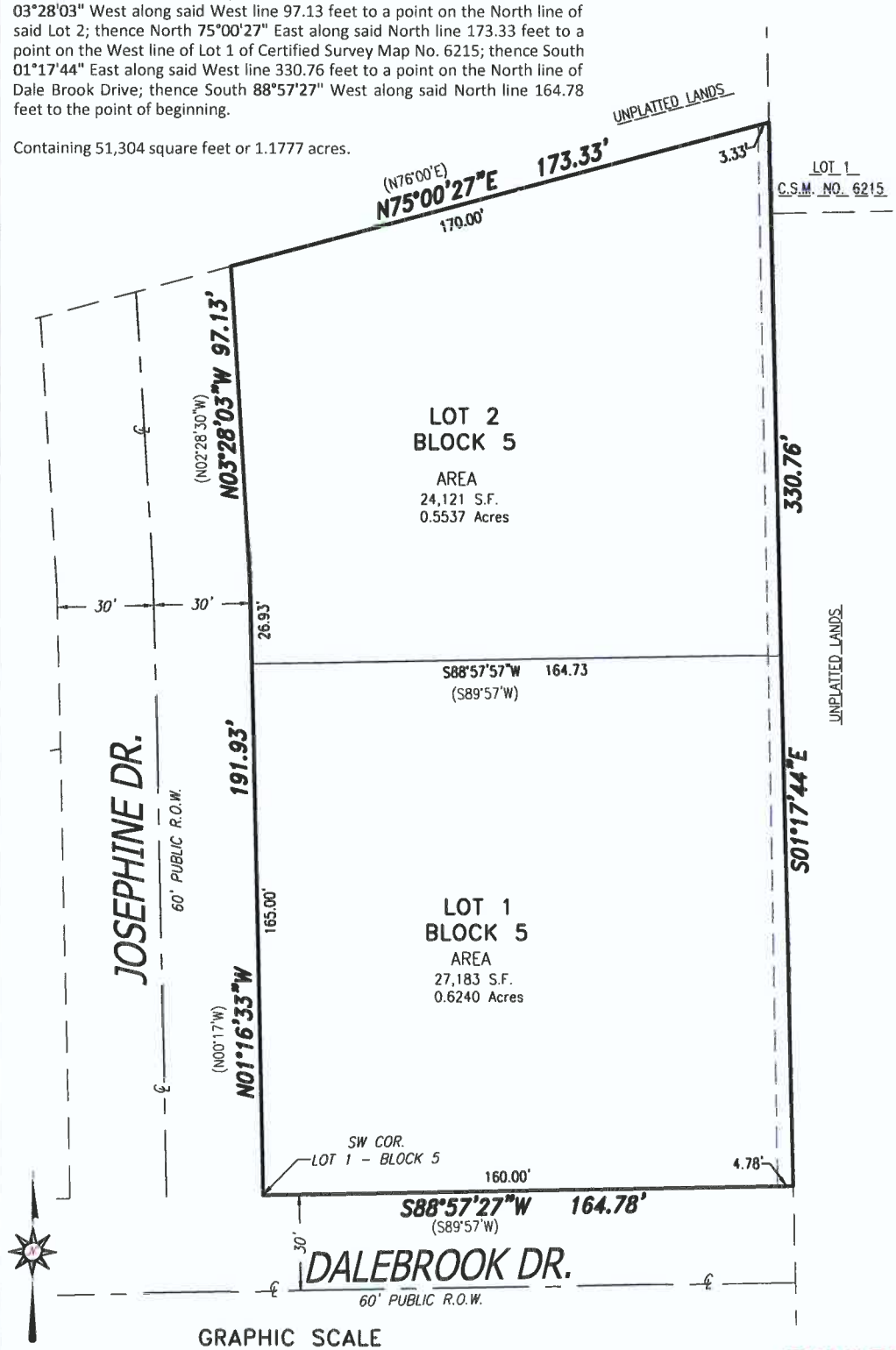
Lot One (1) and Two (2) of Block Five (5) in NEULAND Subdivision, and lands in the Southwest One-quarter (1/4) of Section Seventeen (17), in Township Nine (9) North, Range Twenty (20) East, in the Village of Germantown, Washington County, Wisconsin, bounded and described as follows;

Beginning at the Southwest corner of said Lot 1 and the easterly line of Josephine drive; thence North **01°16'33"** West along the West line of said Lot 1 a distance of 191.93 feet to a point on the West line of said Lot 2; thence North **03°28'03"** West along said West line 97.13 feet to a point on the North line of said Lot 2; thence North **75°00'27"** East along said North line 173.33 feet to a point on the West line of Lot 1 of Certified Survey Map No. 6215; thence South **01°17'44"** East along said West line 330.76 feet to a point on the North line of Dale Brook Drive; thence South **88°57'27"** West along said North line 164.78 feet to the point of beginning.

Containing 51,304 square feet or 1.1777 acres.

BASIS OF BEARINGS

Bearings are referenced to the Wisconsin State Plane Coordinate System (South Zone), in which **the South line of the SW 1 /4 bears N89°53'45"E.**



DATE
May 2, 2018.

CHAPUT LAND SURVEYS

Drawing No. 2013.02-far

RESOLUTION NO. 26-17

ADOPTING CONDITIONS AND RESTRICTIONS FOR THE SPEAKER CORPORATION PLANNED DEVELOPMENT DISTRICT ("SPEAKER CORPORATION PDD")

WHEREAS, Speaker Properties LLC, property owner (hereinafter the "Developer") has applied for an M-1: Limited Industrial Planned Development District (M-1/PDD) to be applied onto the subject parcels located in the Village of Germantown as generally described in Exhibit A attached hereto; and

WHEREAS, Section 17.27(4) of the Village of Germantown Municipal Code allows for the adoption of conditions and restrictions for Planned Development Districts (PDD) that modify the basic allowances, limitations, and bulk regulations of the underlying zoning district, as well as, allow for the establishment of specific uses, bulk regulations, density standards, yard setbacks, etc. to ensure proper development, operation and maintenance of the proposed development set forth in the General Development Plan; and

WHEREAS, the Village of Germantown Plan Commission on December 11, 2017, reviewed the M-1/PDD rezoning application and forwarded a positive recommendation regarding both the rezoning and General Development Plan to the Village Board;

NOW, THEREFORE BE IT RESOLVED that the Village Bard of the Village of Germantown hereby adopts the following specific conditions and restrictions that shall apply to all development on and the use of property within the PDD:

1. **PURPOSE AND INTENT.** The Speaker Corporation PDD (SC-PDD) is intended to provide for the orderly and attractive development and operation of a mix of professional office and light manufacturing and assembly uses where such activities are conducted within enclosed buildings developed within a low-density, campus-like setting. The SC-PDD will be comprised of stand-alone sites and buildings located within the SC-PDD that collectively support and serve the day-to-day office, research & design, manufacture and assembly, warehouse and distribution functions of the Speaker Corporation's overall business operation. The development sites and buildings will be designed, located and constructed with a consistent architectural theme, high-quality materials, generous landscaping, and in a manner that does not negatively impact surrounding properties and residents and that does protect and preserve the existing environmental features located within the SC-PDD. Further, it is intended that future development, land uses and activities within the SC-PDD be compatible with adjacent and surrounding residential and agricultural development, and, enhance the economic stability and quality of life in the Village of Germantown.

2. **GENERAL DEVELOPMENT PLAN (GDP)**. The General Development Plan (Exhibit B dated December 11, 2017) for the Speaker Corporation PDD establishes the basic parameters for all development within the PDD, including the approximate size and orientation of buildings, density of development, setbacks, location of access roadways and driveways, and the general location and extent of landscaping and buffering. While all future

development within the PDD shall be generally consistent with the GDP, the GDP does not grant specific site development or building approval. Detailed Site Development and Building Plans shall be prepared and submitted to the Village Plan Commission for review and approval prior to the issuance of any building permit(s) consistent with the requirements of Sections 17.27(5), (6) & (7) of the Zoning Code. Proposed modifications and/or revisions to the GDP shall be reviewed consistent with Section 17.27(9) of the Zoning Code.

a. PHASING.
   i. Future development within the SC-PDD is intended to occur in phases with the construction of the Goldendale access driveway and sanitary sewer and water utilities installed prior to or concurrent with Phase 1 site and building development. However, the phasing plan shown on the GDP is intended to be a general guideline for future development within the SC-PDD. The phasing plan is not intended to be a rigid restriction on or requirement for the timing or sequencing of development within the SC-PDD.
   ii. The general timing of and specific use, size, or relative location and orientation of Phase 4 “future development” on Lot 1 has not yet been determined. One potential development plan for Phase 4 that has been discussed is the potential relocation of the Speaker Corporation’s existing Whitney Drive facility to a new facility constructed on Lot 1.

b. OUTLOTS.
   i. The four (4) “Outlots” shown on the GDP are areas that cannot be developed given the existence of sensitive environmental features, e.g. wetland, floodplain, navigable stream, and the Speaker Corporation’s desire to preserve and protect these features.
   ii. Outlot #3 contains a small wetland area but will remain undeveloped to preserve and enhance the existing tree line along the common property line shared with the Neuland residential subdivision, and, within the open space buffer area south of the proposed Goldendale Road access driveway.

c. LOT 1 and OUTLOT #3 LANDSCAPING AND BUFFERING.
   i. The GDP indicates the approximate location, type, size and shape of undulating earth forms (berms), tree and other landscape plantings to be installed in those areas for purposes of providing an adequate visual buffer between the surrounding residential areas and the internal access driveway and future “Phase 4” development of Lot 1 (previously referred to as the “Mayer/Neu Property”).
   ii. The Speaker Corporation intends to construct and install said tree plantings along the north perimeter of Lot 1 and tree plantings and berms along the south side of the access driveway on Outlot #3 prior to or concurrent with Phase 1 and

Phase 2 development of Lot 2 and Lot 3 (as shown on the GDP). The specific time frame for implementation of the landscaping and buffer plan required herein shall be established in cooperation with the Plan Commission and as part of the plan landscaping and buffer approval.

iii. A detailed landscaping and buffer plan shall be prepared and submitted for Village approval as required herein.

iv. Additional landscaping to enhance the visual buffering, e.g. plantings, berms, fences, may be required as deemed necessary as part of a specific site development and building plan required at the time actual development occurs.

d. STORM WATER MANAGEMENT.

i. The GDP indicates the approximate and anticipated location, size and shape of storm water management ponds necessary to serve future access driveway construction and site development within the SC-PDD.

ii. The Speaker Corporation intends to construct and install said storm water management facilities as needed concurrent with Phase 1 and Phase 2 development of Lot 2 and Lot 3 (as shown on the GDP). Storm water management plans for the storm water facilities to be installed prior to or as part of construction of the internal driveway shall be presented to the Plan Commission for review. The specific time frame for implementation of storm water management shall be established in cooperation with the Plan Commission and as part of the plan approval. Supplemental storm water management plans and facilities will be required as part of each specific site development and building plan required at the time development occurs as required under Section 4.

3. **PERMITTED LAND USES**. Permitted Principal, Accessory, Conditional and Temporary Uses allowed within the SC-PDD are set forth below. Unless otherwise provided below, uses not specifically listed are prohibited.

a. PRINCIPAL USES

i. Light Manufacturing, Fabrication and Assembly Uses

ii. Professional Offices

iii. Research, Development and Testing Facilities

iv. Warehouse and Distribution Facilities ancillary to the primary function

v. Corporate Training, Meeting & Education Facilities

vi. Agricultural uses that involve crop production, cultivation and grazing (excluding large-scale livestock and poultry operations)

b. ACCESSORY USES

i. Off-street parking and loading areas

ii. Storage of vehicles, equipment, products or non-hazardous materials used in conjunction with a principal use within an attached or detached and completely enclosed building
iii. Auxiliary power generators (only to be run for exercise purposes between the hours of 9:00 a.m. and 5:00 p.m. and only be operated for functionality when there is a power outage)
iv. Land conservation practices

c. CONDITIONAL USES
   i. Child day care facilities licensed by and in compliance with all applicable State and local regulations
   ii. An unclassified or unspecified use not listed herein may be permitted provided that such use is similar in the operational characteristics as a principal use listed herein, and, is compatible with, directly supports, or is mutually beneficial to the operation of the existing uses within the SC-PDD. If the Plan Commission determines that an unclassified or unspecified use is similar in character to a principal use, the unclassified or unspecified use will only be allowed following review and approval by both the Plan Commission and the Village Board in accordance with the procedures established in Section 17.42 (Conditional Uses).

d. TEMPORARY USES
   i. See Section 17.07(2a).

4. **SITE PLAN APPROVAL REQUIRED.** Consistent with the requirements of Section 17.27(5) through (7), all development within the SC-PDD shall be subject of detailed site development and building plans submitted for review and approval by the Plan Commission in accordance with the requirements and procedures in Section 17.43 prior to issuance of a building permit.

5. **PERIMETER LANDSCAPING & BUFFER PLAN REQUIRED.**
   a. Notwithstanding the requirements in Section 4. above, a detailed landscaping and buffer plan for the north perimeter of Lot 1 adjacent to the WSOR railroad and south perimeter of Outlot 3 as shown on the GDP shall be prepared and submitted to the Plan Commission for review and approval prior to commencement of construction of the Goldendale Road access driveway and utility installation. Said landscaping and buffer plan shall take into consideration existing topography, existing vegetation, existing visibility and existing distance separation from the surrounding residential areas to the south (Neuland Subdivision) and to the north (Isabell Farms Subdivision) to determine the type, amount, density, height, and other characteristics of the undulating earth forms (berms) and tree plantings (where applicable) that will be necessary to provide an adequate visual buffer between said residential areas and the internal access driveway and future “Phase 4” development of Lot 1 (previously referred to as the “Mayer/Neu Property”). NOTE: the required “visual buffer” is not

intended to be nor provide a 100 percent visual barrier of the view from all vantage points within the surrounding residential areas, but rather to provide an effective (albeit partial) obstructed view of the developed area, buildings and traffic traveling within the SC-PDD.

b. The undulating earth forms (berms) should be designed consistent with the Village's berm regulations under Section 17.57.

6. **ACCESS**. Access to development within the SC-PDD shall be from the private access driveway shown on GDP. No other direct access to/from Goldendale Road, Freistadt Road, Josephine, etc. shall be permitted. Direct access to/from these public roads to any undeveloped lots or outlots for agricultural and land conservation/maintenance purposes is permitted if no other reasonable means of access to these areas is available.

7. **SITE DEVELOPMENT AND BUILDING REQUIREMENTS.** Unless otherwise set forth below, all site development and building shall be in accordance with the lot, building and other applicable bulk requirements set forth in the underlying M-1: Limited Industrial Zoning District and other applicable Zoning Code regulations.

a. LOT AND BUILDING REQUIREMENTS

i. Lot Area (minimum) 15 acres

ii. Lot Width (minimum) 300 feet

iii. Lot Frontage (minimum) 50 feet

iv. Principal & Accessory Building Setbacks (minimum)
1. Goldendale Road 100 feet
2. Freistadt Road 100 feet
3. WSOR Railroad 100 feet
4. Residential District 200 feet
5. Front/Street yard 50 feet (from internal access road)
6. Side yard 25 feet
7. Rear yard 25 feet

v. Building Height (maximum)
1. Principal Building 45 feet
2. Accessory building 25 feet

vi. Parking Setbacks (minimum)
1. Goldendale Road 50 feet
2. Freistadt Road 50 feet
3. WSOR Railroad 50 feet
4. Residential District 50 feet
5. Front/Street yard 25 feet
6. Side yard 25 feet
7. Rear yard 25 feet

vii. Lot Coverage (maximum) 50 percent impervious area maximum across the entire 144.2-acre PDD area and 70 percent maximum lot coverage of a single lot.

b. PARKING (see Section 17.45).
   i. Stall Area (minimum) 162 sqft
   ii. Stall Number not to exceed (1) stall/shift/employee

c. ARCHITECTURAL DESIGN AND BUILDING ORIENTATION.
   i. The relative location and orientation of a building on a site, building architecture and design, and the use and placement of windows and other functional and decorative architectural devices should be considered and used to minimize potential light trespass or any other potentially negative impact on adjacent and surrounding residential property.

d. BUILDING MATERIALS**.**
   ~~i.~~ The development sites and buildings will be designed, located and constructed with a consistent architectural theme, high-quality materials, landscaping, and in a manner that protects and preserves the existing environmental features consistent with current buildings located on the same site.

e. HVAC MECHANICALS.
   i. All electrical, heating, cooling and other mechanical structures, and air handling units, regardless of location and whether roof or ground-mounted, shall be concealed by landscaping and/or by decorative architectural screening materials which are an integral part of the building design. Roof-mounted units shall be screened from view from adjacent public roadways including Isabelle Farms Drive, Meadow Brook Court and Prairie Ridge Court.

f. WASTE AND RECYCLING FACILITIES & ENCLOSURES.
   i. All waste and recycling dumpsters shall be screened in the same architectural style and materials of the principal building on the property and include landscaping. Dumpsters should be screened from all residential areas, public rights-of-way or adjacent properties.

g. OUTSIDE STORAGE.
   i. Incidental and short-term storage of vehicles, trailers, materials and finished products visible from residential properties and public rights-of-way shall be screened. The type of screening shall be in the same architectural character of the building on the property.

h. EXTERIOR LIGHTING.
   i. All exterior site and building lighting shall utilize “dark sky compliant” fixtures and technology, and, be consistent with the Village’s “Outdoor Lighting Guidelines”. Lighting plans and equipment specifications are reviewed and approved by the Plan Commission as part of the Site Plan approval process.

8. **SIGNAGE.**
   a. One (1) monument sign shall be permitted to be installed at each access driveway intersection at Goldendale Road and Freistadt Road consistent with the Village’s sign regulations and reviewed and approved by the Plan Commission.
   b. Signage for each development site and building shall be permitted consistent with the Village’s sign regulations and reviewed and approved by the Plan Commission.

9. **APPLICABILITY OF MUNICIPAL CODE.** Unless otherwise set forth herein, all other applicable zoning and development regulations contained in the Germantown Municipal Code (e.g. Shoreland-Wetland Zoning, Floodplain Zoning, Subdivision) shall apply to development and land use within the SC-PDD. In the event a requirement, restriction or limitation set forth herein conflicts with a similar requirement, restriction or limitation found in another section of the Municipal Code, the most stringent requirement, restriction or limitation shall apply.

10. **EASEMENTS.**
In the event that the existing parcels that comprise the SC-PDD are not combined, storm water management facility, driveway cross-access and/or other easements regarding such facilities may be required.

11. **LAND DIVISIONS.**
The GDP indicates that specific lots upon which future development within the SC-PDD will occur, and, specific outlots that will remain undeveloped. If the creation of these lots and outlots into separate parcels is intended as shown (vs. being developed as separate "building sites" within one large property), the process of dividing the land into separate lots (or combining the parcels into one parcel) will be required prior to or concurrent with site plan approval for development. For example, prior to or concurrent with the submittal of detailed site plans for Phase 1 development on what is referred to as the "Roskopf Property", a certified survey map (CSM) land division application would be prepared and submitted to create Lot 2, Lot 3 and Outlot 4 as shown on the GDP dated December 11, 2017.

Introduced by: Trustee Baum

Adopted: December 18, 2017

Vote: Ayes: 5 Nays: 4

Dean M. Wolter, Village President

ATTEST:

Deanna L. Boldrey, WCMC/CMC
Village Clerk

EXHIBIT A

Speaker Corporation Planned Development District (PDD)
Boundary Legal Description

(Tax Key #173-992 and Tax Key #173-993; a.k.a. "Mayer/Neu Property")
Part of the Northwest 1/4 and Southwest 1/4 of the Southwest 1/4 of Section 17, Town 9 North, Range 20 East, in the Village of Germantown, Washington County, Wisconsin, bounded and described as follows:
Commencing at the Northwest corner of said 1/4 Section; thence South 01˚14'33" East along the West line of said 1/4 of said Section 123.85 feet to the South line of the Wisconsin & Southern Railroad lands and the point of beginning of the lands hereinafter described; thence: South 77°11'31" East along said South line 1343.65 feet to a point; thence South 01°17'44" East along the West line of Lot 1 of Certified Survey Map No 6215 a distance of 1283.76 feet to a point; thence South 75°00'27" West along the North line the of Neuland Subdivision 403.42 feet to a point, thence North 43°39'33" West along said North line 180.00 feet to a point; thence North 54°19'33" West along said North line 380.00 feet to a point; thence North 38°28'33" West along said North line 49.79 feet to a point; thence South 87°00'27" West along said North line 250.00 feet to a point; thence South 14°59'33" East along said North line 40.00 feet to a point; thence South 82°45'51" West along said North line 218.24 feet to a point on the West line of SW 1/4, Section 17; thence North 01°14'33" West along said West line 1374.37 feet to the point of beginning. Along with Part of the Northwest 1/4 and Southwest 1/4 of the Southwest 1/4 of Section 17, Town 9 North, Range 20 East, in the Village of Germantown, Washington County, Wisconsin, described as follows: Commencing at the Southwest corner of said 1/4 Section; thence North 89°53'45" East along the South line of said 1/4 of said Section 1301.98 feet to the point of beginning of the lands hereinafter described; thence North 01°04'33" West 217.16 feet to a point; thence South 89°57'33" West 3.57 feet to the Southeast corner of Lot 6, Block 1 of Neuland Subdivision; thence North 01°02'33" West along the East line of said Lot 392.27 feet to a point on the south line of Dalebrook Drive; thence North 88°57'27" East along said south line 5.05 feet to a point; thence South 01°17'44" East along the West line of Lot 1 of Certified Survey Map No. 6215 a distance of 549.55 feet to a point on aforesaid South line; thence South 89°53'45" West along said South line 3.78 feet to the point of beginning. Said lands containing 39.74 acres more or less.

(Lot 1 of CSM #6702 and Tax Key #173-987; a.k.a. "Roskopf Property")
Lot 1 of Certified Survey Map #6702 as recorded in Volume 51 on Page 221 of Certified Survey Maps of Washington County, Section 17, Town 9 North, Range 20 East, in the Village of Germantown, Washington County, Wisconsin. Said lands containing 47.43 acres more or less.

(Lot 2 of CSM #6702 Tax Key #174-985; Phylmack LLC Property)
Lot 2 of Certified Survey Map #6702 as recorded in Volume 51 on Page 221 of Certified Survey Maps of Washington County, Section 17, Town 9 North, Range 20 East, in the Village of Germantown, Washington County, Wisconsin. Said lands containing 57.08 acres more or less.

EXHIBIT B

Speaker Corporation Planned Development District (PDD)
General Development Plan

{Attach General Development Plan Dated December 11, 2017}

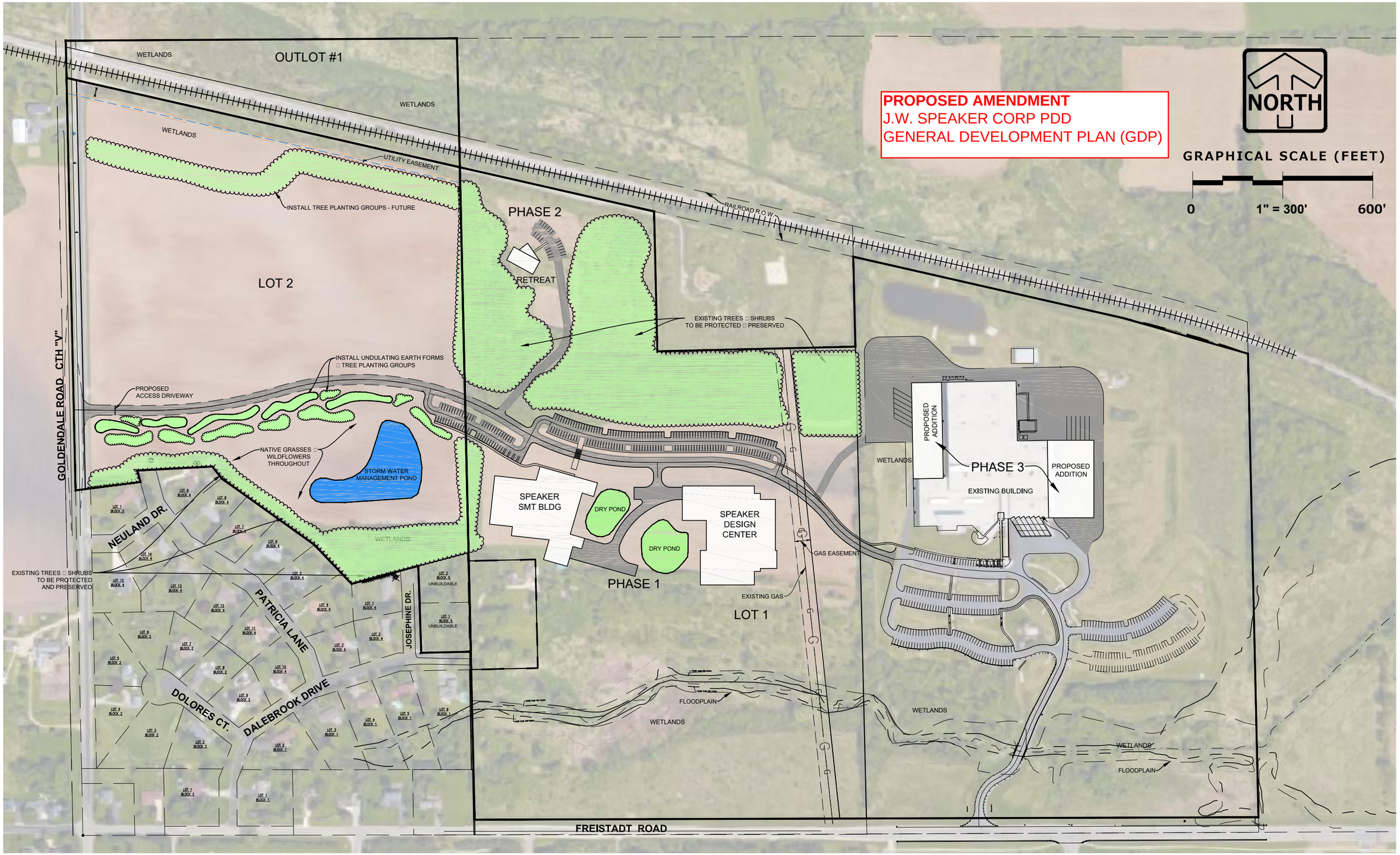


EXHIBIT 'B' VILLAGE OF GERMANTOWN, WI MAY 8, 2018

W SPEAKER PDD GENERAL DEVELOPMENT PLAN GDP REVISED FROM DEC 11, 2017

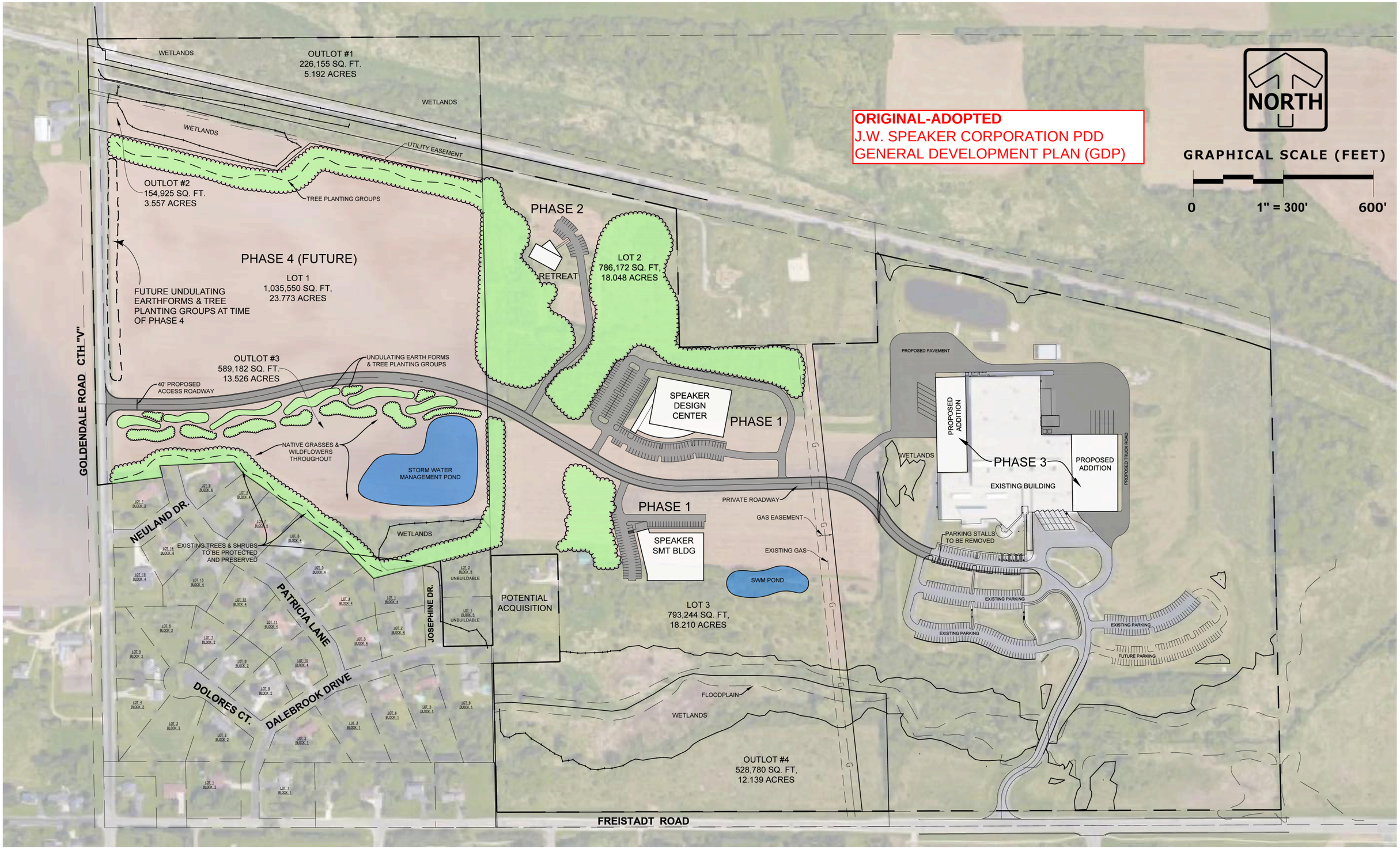


EXHIBIT 'B' VILLAGE OF GERMANTOWN, WI DEC 11, 2017

JW SPEAKER PDD GENERAL DEVELOPMENT PLAN (GDP)

SITE PLAN REVIEW

5/14/18 Plan Commission Meeting

MSI General Corp / MGS Manufacturing Group

Village Planner Report **Germantown, Wisconsin**

Summary

John Kutz, MSI General, agent for MGS Manufacturing Group, property owner, is seeking approval of site development & building plans for a 26,880 sqft building addition and partial raised roof expansion to the existing manufacturing facility located at W190 N11701 Moldmakers Way in the Germantown Industrial Park.

Location: W190 N11701 Moldmakers Way

Applicant/ Owner:

John Kutz MSI General Oconomowoc WI	MGS Mfg Group North W190 N11701 Moldmakers Way Germantown WI

Current Zoning: M-1: Limited Industrial

Adjacent Land Uses		Zoning
North	Industrial	M-1
South	Industrial	M-1
East	Industrial	M-1
West	Industrial	M-1

Background/Proposal

John Kutz, MSI General, agent for MGS Manufacturing Group, property owner, is seeking approval of site development & building plans for a 26,880 sqft building addition and partial raised roof expansion to the existing manufacturing facility located at W190 N11701 Moldmakers Way in the Germantown Industrial Park.

The subject parcel is 11.3 acres in area with an existing 170,630 sqft building. As presented in the site plans, the proposed 26,880 sqft addition (for a total building area of approximately 197,510 sqft) includes the following features:

- 12,875 sqft manufacturing w/ “clean room” environment
- 1,235 sqft mezzanine storage
- Office & support space, packing & shipping area w/ three (3) additional elevated docks and (1) additional at-grade overhead door
- Pre-cast concrete wall panels w/ corduroy & toweled textures to match existing building
- RTU’s w/ enclosures

The raised roof expansion project entails raising and replacing the existing roof 6 feet higher than the existing 129 feet to a maximum height of 135 feet over an area approximately 13,000 sqft in area. The internal space below will be remodeled into a separate “clean room” production and support area.

Access to the expanded facility will remain the same with one (1) access driveway on Fulton Drive and two (2) access driveways to Moldmakers Way. Approximately 137 existing parking stalls will be lost to the building addition; no new parking stalls are proposed to be constructed (the owner feels that the number of remaining stalls across the facility and on the adjacent building site will provide adequate parking).

As a result of the proposed building expansion, no net increase in impervious surfaces is expected given that the addition will be located on/over existing impervious area (parking lot). Storm water run-off from the site will be re-directed via grading and on-site storm sewer to the existing regional storm water basin located west of the MGS property. Public water and sanitary sewer currently serve the building and will remain unchanged subject to pipe replacement under the building addition.

Landscaping comprised of a deciduous, evergreen and ornamental trees and shrubs is proposed to be installed along Moldmakers Way with foundation plantings around the base of building addition and along the north and east elevations.

Additional exterior lighting is proposed, including: nine (9) 13-73W LED wall-mounted cut-off fixtures mounted on the building addition at 10’ and 20’ heights on the north and south elevations; and two (2) 70W LED cut-off type fixtures pole-mounted at a height of 20’ in the existing driveway area south of the addition.

Staff Analysis/Comments

The zoning for this parcel in the Industrial Park is M-1: Limited Industrial. Subject to the staff recommended conditions herein, the proposed development plans comply with the M-1: Limited Industrial Zoning district regulations.

The loss of approximately 137 parking stalls as a result of the addition appears to not be a significant concern. As discussed in the Plan of Operation information (dated April 11), MGS operates three shifts 24 hours 5 days/week. The maximum number of employees on site during 1st shift is as much as 179 employees. The number of parking stalls on the east side of the site after the addition will be 156 stalls. However, there are an additional 64 parking stalls combined along the south and west side of the property that were provided for as part of a previous building addition in 2002. Although these areas appear to not be used or maintained for vehicle parking (likely due to an over supply of stalls vs. employee needs at any given shift), additional space for parking is available on the site (albeit a bit inconvenient for employees given the distance from the entrances). Moreover, MGS has an additional facility on a separate parcel east of Moldmakers Way that has additional and under-utilized parking stalls that could be used for overflow parking as necessary.

Although shown in the renderings, no detail for the enclosures is provided for the roof-mounted mechanicals that appear on the roof plans for both the building addition and raised roof project. While the relative location of the potential RTU's adjacent to the raised roof addition do not appear to pose a visibility issue from the nearby public rights-of-way, the two potential RTU's along the east edge of the roof above the building addition do. As noted in the roof plan (Sheets A-104 for both the raised roof addition & building addition plan sets), the RTU's along the east side of the roof (building addition) and adjacent to the raised roof addition may be as tall as 82" high. All roof-mounted mechanicals should be screened with an enclosure comprised of materials and/or color that resembles the 6' high roof addition.

<u>Fire Department/Police Department</u>

The Fire Department has recommended approval of the addition and site improvements as proposed. The Police Department is requesting that all doors and docks be numbered with reflective numbers to aid emergency personnel access.

<u>Engineering/Public Works</u>

The Village Engineer has identified one issue that will need to be addressed prior to issuance of an occupancy permit (see copy of May 8, 2018 memo from Village Engineer Eric Nitschke) concerning needed improvements to the existing sampling manhole:

1. The sample manhole at MGS will need to be repaired per Village standards. Contact the Village Engineer for details and specifications.

<u>Inspection Services</u>

Inspection Services has indicated that state-approved plans will be required prior to issuing a building permit along with the required $20,000 occupancy bond.

Village Planner Recommendation

APPROVE the site development & building plans for the 26,880 sqft building addition and 13,000 sqft partial raised roof expansion to the existing MGS manufacturing facility located at W190 N11701 Moldmakers Way subject to the following conditions:

1. This approval is subject to all the conditions and requirements set forth herein and adopted by the Plan Commission. Approval is granted for the site development and building plans dated April 16, 2018 (architectural plans), March 30, 2018 (engineering) and landscaping plans dated March 29, 2018, unless superseded by subsequent plan sheets approved by the Village Planner pursuant to revisions required herein and/or by the Plan Commission.
2. All roof-mounted mechanicals should be screened with an enclosure comprised of materials and/or color that either resembles or is compatible with the existing 6' high roof addition. Detailed specifications and plan elevations for the final RTU's and enclosures shall be submitted to the Village Planner for review and approval prior to issuance of an occupancy permit with installation completed not less than (6) months after an occupancy permit has been issued.
3. All landscaping, screening, grading, and paving improvements shown on the approved site plans shall be installed as proposed prior to issuance of an occupancy permit unless a cash bond or letter of credit in an amount equal to 120 percent of the estimated installation and material costs reviewed and approved by the Village is submitted to the Village as necessary to ensure that installation of the proposed features and improvements will be completed within one (1) year after issuance of the occupancy permit.
4. The Owner shall enter into a Landscape Maintenance Agreement with the Village as required under 17.43(6a) of the Zoning Code. Said agreement shall be executed by the Owner and submitted to the Village for recording prior to issuance of an occupancy permit.
5. All exterior doors shall be clearly marked with reflective 5" or larger letters/numbers to aid emergency personnel access as required by the Police Department.
6. All technical issues identified by the Village Engineer in the May 8, 2018 review memo shall be addressed prior to issuance of an occupancy permit.
7. State approved plans and a $20,000 occupancy bond are required by the Building Inspection Department as part of the building permit application.

Engineering Department Memorandum

To : Larry Ratayczak, Public Works Director

From : Eric Nitschke, Village Engineer

Date : May 8, 2017

Re :Development Review for May 14 Plan Commission

Larry,

Included you will find the review comments pertaining to MGS from myself and staff:

MGS, W190 N11701 Moldmakers Way. Site Plan Review (roof alteration)

1. No comments from Sanitary, Water, Highway or Engineering.

MGS, W190 N11701 Moldmakers Way. Site Plan Review (building addition)

1. Sanitary comments
    a. Upgrade sample manhole to current standards. Manhole can be buried in 6 feet or more of snow and can't be inspected under current conditions.

2. No other comments from Water, Highway or Engineering.

Village of
Germantown
...Willkommen

Fee must accompany application

- ☐ $700 Minor Addition
- ☐ $1,240 Construction <10,000 SF
- ☒ $2,095 Construction 10,000 SF to 50,000
- ☐ $3,460 Industrial Construction >50,000 SF
- ☐ $3,460 Commercial Construction >50,000
- ☐ $200 Plan Commission Consultation
- ☒ $125 Fire Department Plan Review

PAID [illegible] DATE 4-16-18

Addition Project

SITE PLAN REVIEW APPLICATION

Pursuant to Section 17.43 of the Municipal Code

Please read and complete this application carefully. **All applications must be signed and dated.**

1

APPLICANT OR AGENT

MSI General Corporation
P.O. Box 7
Oconomowoc, WI 53066

Phone (262) 563-5338
E-Mail andrea@msigeneral.com

PROPERTY OWNER

MGS Group North
W190N11701 Moldmakers Way
Germantown, WI 53022

Phone ( )
E-Mail

2

PROPERTY ADDRESS

W190 N11701 Moldmakers Way
Germantown, WI

3

NEIGHBORING USES – Specify name and type of use, e.g. Enviro Tech – Industrial, Smith – Residential, etc.

North	South	East	West
Dynacast - Industrial	Ethoplex - Industrial	MGS - Industrial	Furey Filter & Pump - Industrial

4

READ AND INITIAL THE FOLLOWING:

_____ I am aware of the Village of Germantown ordinance requiring fire sprinklers in most new construction.

_____ I understand that all new development is subject to Impact and/or Connection Fees that must be paid before building permits will be issued.

_____ I understand that an incomplete application will be withdrawn from the Plan Commission agenda and that all resubmissions to the Plan Commission are subject to a new application fee.

5

SIGNATURES – ALL APPLICATION MUST BE SIGNED BY OWNER!

[signature] 4/14/18
Applicant Date

X [signature] 4/13/18
Owner Date

RECEIVED
APR 16 2018
OFFICE OF THE VILLAGE PLANNER
VILLAGE OF GERMANTOWN

MGS Manufacturing Group

Plan of Operations/Application Letter
Site Plan Review Submittal
April 11th, 2018

- Owner/Name of business:
  - MGS Manufacturing Group
    W190N11701 Moldmakers Way, Germantown, WI 53022
    Contact: Paul Manley, paul.manley@mgsmfg.com

- Project Manager:
  - MSI General
    P.O. Box 7, Oconomowoc, WI 53066
    414-550-9400
    Contact: John Kutz, john@msigeneral.com

- The proposed use of the land, building and/or structures:
  - Construction of an approximate 26,880 sf manufacturing addition to their existing manufacturing building including primarily a large clean room with support space.

- Plan of Operation:
  - Manufacturing business in an Industrial/Office zoned site

- Hours of Operation:
  - Operational hours of approximately 24 hours a day, Monday through Friday including 3 different shifts of employees, primarily 1st shift

- Total number of employees and number of employees during largest work shift:
  Total employees in the building: 350
  1st shift: 126 with a rotation of either an additional 50 or 53 (blue or red shift) = 179 max
  2nd shift: 15 with a rotation of either an additional 45 or 48 (blue or red shift) = 67 max
  3rd shift: 13 with a rotation of either an additional 45 or 48 (blue or red shift) = 67 max

- Number size and type of all vehicles associated with the use:
  - Existing loading doors/docks to large trucks located along the west elevation of the existing building with new loading docks proposed along the south elevation. Truck traffic will continue to enter the site off of Fulton Drive along the west property line and circulate around the building counter clock-wise while finally leaving the property along the east elevation onto Moldmakers Way. Employee and customer parking as shown on site plan of approximately 247 parking stalls.

- Expected starting and completion dates of construction:
  - Construction to commence summer 2018 and be completed in early 2019

- Proposed phasing of the project if appropriate
    - Project is not planned to be phased at this time, only done in different stages to keep the owner fully operational during construction

- Resolution or mitigation of any hazardous or adverse impacts
    - We are aware of no required mitigation or hazardous or adverse impacts that this project presents. We will be doing the standard testing for asbestos and phase I as necessary for remodeling of structures, however we do not view those activities as hazardous or having adverse impacts as they are common with most construction projects and we have no reason to believe that there are any issues to be addressed.

- Surrounding land uses
    - Industrial/Office use to the west, south, east and north

(Owner's Signature)

4/13/18
(Date)

Germantown Plan Commission Summary

Date: April 16, 2018

Project Address: MGS Manufacturing
W190 N11701 Moldmakers Way
Germantown, WI 53022

RE: Clean room addition

Narrative:

This project consists of a 26,880 square foot addition to an existing manufacturing building to allow for the client to have additional manufacturing space including primarily a 13,000 square foot clean room and support space. The addition will also include additional loading docks, an internal mezzanine, offices and restrooms.

The building addition aesthetics will match the existing building in materials and design. The exterior is primarily pre-cast panels, with aluminum framed windows and metal exterior doors. All materials will match existing in product and layout.

Existing parking will decrease due to the proposed addition, we have included a Plan of Operations for additional details regarding employee counts and facility need.

We have provided design drawings for the May 14th plan commission review, including preliminary civil engineering plans, exterior lighting plans, landscape plans, building elevations and floor plan.

Project Contacts:

John Kutz, Project Executive, MSI General Corporation
John@MSIGeneral.com

Andrea Hunley, Project Architect, MSI General Corporation
Andrea@MSIGeneral.com

Ken Krahe, Project Estimator, MSI General Corporation
KenK@MSIGeneral.com

MSI General
Corporation
P.O. Box 7
Oconomowoc
Wisconsin
53066
262.367.3661
Fax 262.367.7390
www.msigeneral.com

Single Source Responsibility™

Project Name

MGS Clean Room Addition

Project Address

W190 N11701 Moldmakers Way

Germantown, WI 53022

Project Data

Building

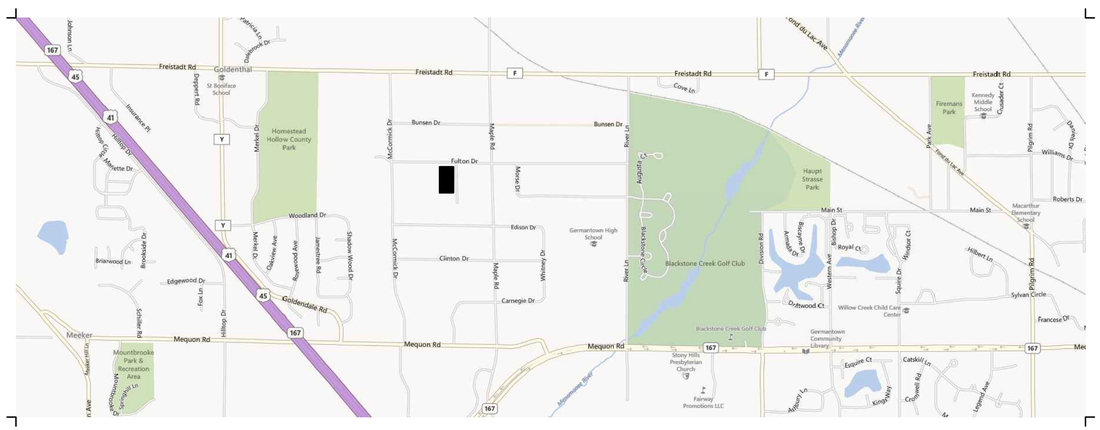
Construction Type	IIB
Occupancy	
Major	F-1 (Factory Moderate Hazard)
Minor	S-1 (Storage Moderate Hazard)
Office	B (Business)
Sprinkler System	Yes
Number of Stories	1 with mezzanine
Gross Building Area	170,627 s.f.
Existing First Floor Area	170,627 s.f.
Existing Mezzanine Area	8,607 s.f.
Proposed Project Addition	26,880 s.f.
Proposed Mezzanine Addition	1,250 s.f.
Total Proposed Building Area	**197,507 s.f**
Existing Building Height	29'-3 1/4"
Proposed Addition Height	32'-3 1/4"

Project Narrative and Design Intent

This project is an addition to an existing manufacturing building to allow for the client to have additional manufacturing space including primarily a large clean room and support space. The building addition will match the existing building in materials and design. Since parking is being decreased due to the proposed addition, please see Plan of Operations for additional details regarding employee counts.

Accessibility

This project already has an accessible route into the building & existing accessible parking stalls, no modifications required. The proposed building addition will also have an accessible route to the entrances, to all primary function spaces, and to new restrooms. New restrooms in the addition with be fully accessible.



Architects Seal

Engineers Seal

60 YEARS OF DESIGN EXCELLENCE

SHEET INDEX

REVISIONS

G-001	COVER SHEET
C-001	SITE SURVEY
C-002	EROSION CONTROL AND SITE PREPARATION PLAN
C-100	SITE PLAN
C-200	GRADING PLAN
C-300	UTILITY PLAN
C-400	DETAILS
C-401	DETAILS
C-500	SPECIFICATIONS
C-106	EXISTING LANDSCAPE PLAN
C-107	LANDSCAPE PLAN
E0.2	SITE LIGHTING PHOTOMETRIC PLAN
A-001	OVERALL FIRST FLOOR PLAN
A-100	DEMO FIRST FLOOR PLAN
A-101	FIRST FLOOR PLAN
A-102	REFLECTED CEILING PLAN
A-103	MEZZANINE FLOOR PLAN
A-104	ROOF PLAN
A-201	EXTERIOR ELEVATIONS
A-202	EXTERIOR MATERIALS

MSI GENERAL

MSI GENERAL CORPORATION
P.O. BOX. 7
OCONOMOWOC, WI 53066
PHONE: 262-367-3661

WWW.MSIGENERAL.COM
SINGLE SOURCE RESPONSIBILITY ™

ISSUE DATES:	
Village Site Plan Review Set:	04/16/18
Bid:	03/29/18
Contract:	
State Submittal / Permit:	
As-Built:	

REVISIONS:	
1	--
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PROJECT ADDRESS:

PROJECT NAME
MGS CLEAN ROOM BLDG ADDITION
STREET ADDRESS
W190N11701 MOLDMAKERS WAY
CITY/ STATE / ZIP
GERMANTOWN, WI 53022

ALL WORK TO BE COMPLETED AS SHOWN, AND IN ACCORDANCE WITH THE LATEST EDITION OF THE MSI GENERAL MASTER SPECIFICATION

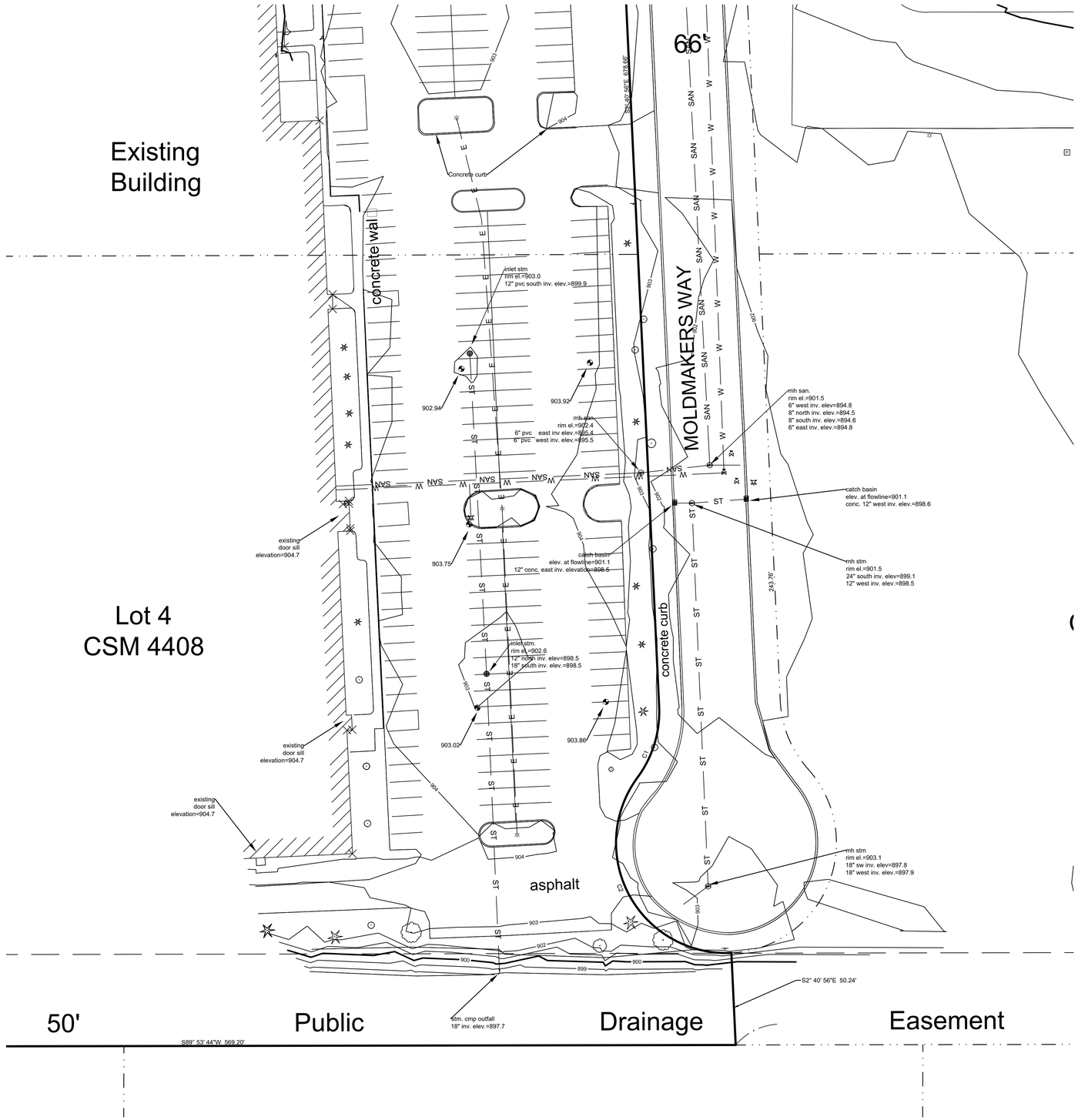
Architect:	Engineer:	Reviewed By:
AMH/BGK	PE	MSI

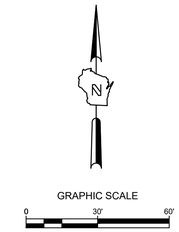
Sheet Title:
COVER SHEET

Sheet Number:
G-001

Project Number: -
P12087

MANAGERS . ENGINEERS . CONTRACTORS . ARCHITECTS





LEGEND:

	SECTION 1/4 SECTION LINE
	PROPERTY LINE
	EASEMENT
—x—x—x—	CHAIN LINK FENCE
	TREE LINE
OH	OVERHEAD UTILITY LINE
E	ELECTRIC
T	TELEPHONE
FO	FIBER OPTIC
CTV	CABLE TV
SAN	SANITARY SEWER
FM	FORCE MAIN
ST	STORM SEWER
W	WATER MAIN
G	GAS
870	EXISTING CONTOUR

MANHOLE	IRON PIPE FOUND/SET
CATCH BASIN	REBAR FOUND/SET
CATCH BASIN /ROUND	CHISELED CROSS FOUND/SET
ROOF DRAIN	PK NAIL FOUND/SET
HYDRANT	SPIKE/NAIL
WATER VALVE	MONUMENT
GAS VALVE	BENCHMARK
UTILITY POLE	SIGN
GUY WIRE	DECIDUOUS TREE
GAS METER	CONIFEROUS TREE
ELECTRIC METER	BUSH
UTILITY PEDESTAL	POST
TRAFFIC SIGNAL	
LIGHT POLE	
SOIL BORING	
MONITORING WELL	

GENERAL NOTES:

1. THE UNDERGROUND UTILITY INFORMATION SHOWN ON THIS DRAWING IS BASED ON FIELD LOCATIONS AND/OR RECORDS FURNISHED BY MUNICIPALITIES AND UTILITY COMPANIES. THE LOCATION AND ACCURACY OF WHICH CANNOT BE GUARANTEED. THERE MAY BE ADDITIONAL UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PRO/ECT AREA THAT ARE NOT SHOWN.
2. VERIFY ACTUAL LOCATIONS AND INVERTS IN THE FIELD. ANY POTENTIAL ERRORS, OMISSIONS, OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
3. DRAWING IS BASED ON FIELD SURVEY COMPLETED BY THE SIGMA GROUP, INC. ON 3/15/18.
4. DATUM FOR THE PRO/ECT SURVEY IS NGVD 29. BENCHMARK FOR THE PRO/ECT SURVEY IS CONCRETE MONUMENT WITH BRASS CAP MARKING THE SOUTHEAST CORNER OF THE NORTHEAST $\frac{1}{4}$ TOWN 9 NORTH RANGE 20 EAST, IN THE VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN.

TO OBTAIN LOCATIONS OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

CALL DIGGERS HOTLINE
1-800-242-8511
TOLL FREE

WIS STATUTE 182.0175(1974) REQUIRES MIN. 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE

MILW. AREA 259-1181

THE UNDERGROUND UTILITY INFORMATION SHOWN ON THIS MAP IS BASED ON FIELD MARKINGS AND INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED.

PRELIMINARY
NOT FOR CONSTRUCTION

THE SIGMA GROUP
Single Source. Sound Solutions.
www.thesigmagroup.com
1300 West Canal Street
Milwaukee, WI 53233
Phone: 414-643-4200
Fax: 414-643-4210

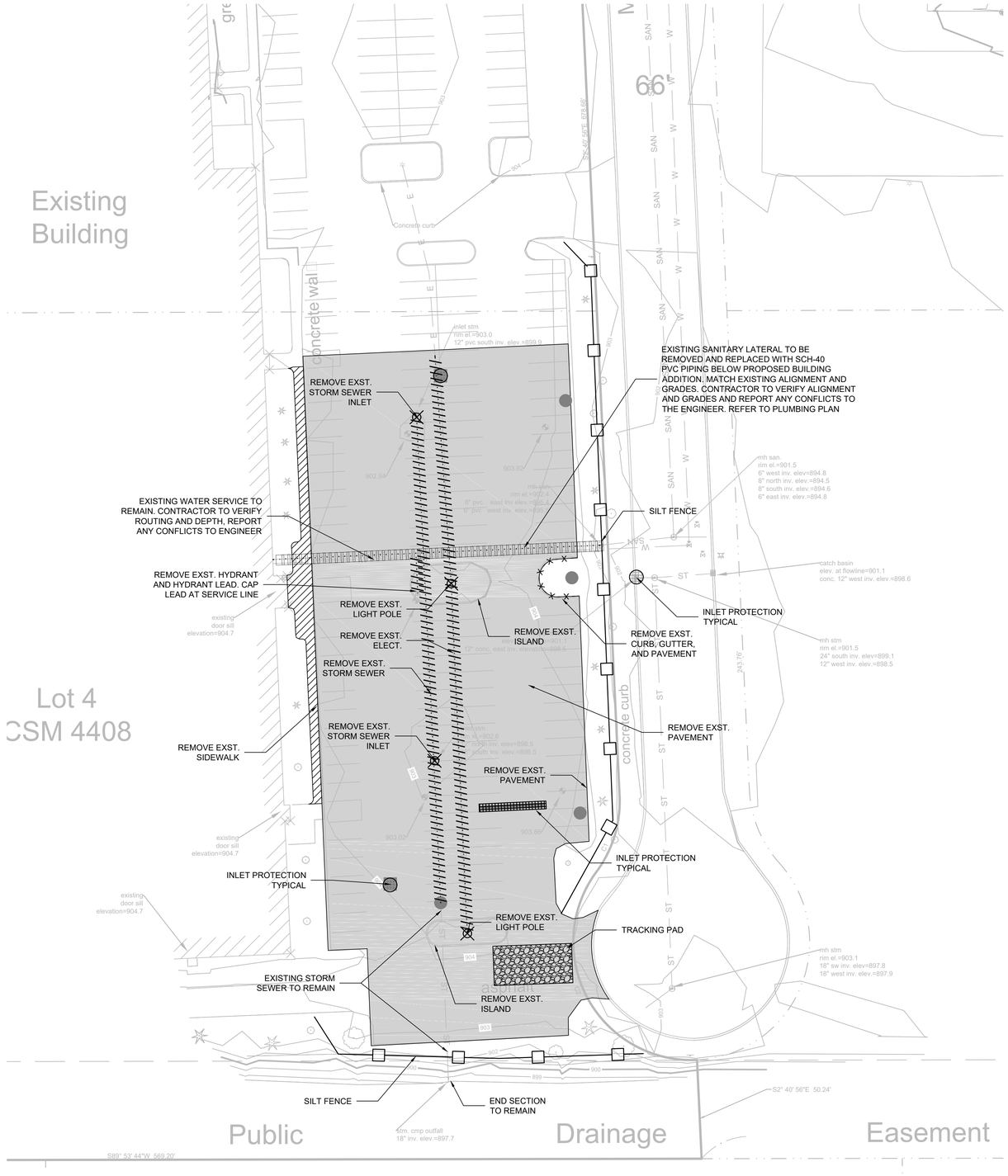
MSI GENERAL - MGS
W190N11701
GERMANTOWN, WISCONSIN

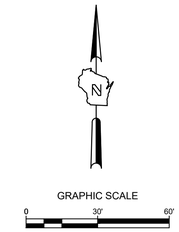
SITE SURVEY

NO.	REVISION	DATE	BY

DRAWING NO.	17537 survey plan.dwg
DRAWN BY:	SMM
DATE:	3/30/18
PRO/ECT NO:	17537
CHECKED BY:	- - -
APPROVED BY:	
SHEET NO.:	C 001

File: I:\MSI General\17537 MGS\060 CAD\C - Civil\500 Production - Civil Plans\500-Site Survey\17537 survey plan.dwg 4/12/2018 11:40 AM





LEGEND:

- PROPOSED SILT FENCE (B / C400)
- PROPOSED INLET PROTECTION (A / C400)
- PROPOSED TRACKING PAD (X / C400)
- 5 EXISTING CONTOUR
- 5 PROPOSED CONTOUR
- UTILITY REMOVAL
- STRUCTURE REMOVAL
- PAVEMENT REMOVAL
- SIDEWALK REMOVAL

GENERAL NOTES:

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2. VERIFY ACTUAL LOCATIONS AND INVERTS IN THE FIELD. ANY POTENTIAL ERRORS, OMISSIONS, OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
3. WORK TO BE COMPLETED IS INDICATED IN BOLD TYPE LINES AND EXISTING CONDITIONS ARE INDICATED BY LIGHT TYPE LINES.
4. ELECTRONIC CIVIL FILES ARE AVAILABLE UPON WRITTEN REQUEST. DO NOT USE ELECTRONIC CIVIL FILES TO LAYOUT FOUNDATIONS, COLUMN LINES, LIGHT POLES, OR OTHER NON CIVIL SITE WORK. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS OF BUILDING AND ARCHITECTURAL FEATURES.
5. SEE SHEET C400 FOR A COMPLETE LIST OF EROSION CONTROL NOTES AND DETAILS. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO START OF LAND DISTURBING ACTIVITIES.
6. DO NOT BEGIN LAND DISTURBING ACTIVITIES UNTIL AN EROSION CONTROL PERMIT IS OBTAINED FROM LOCAL JURISDICTION.

PRELIMINARY
NOT FOR CONSTRUCTION

TO OBTAIN LOCATIONS OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

CALL DIGGERS HOTLINE
1-800-242-8511
TOLL FREE

WIS STATUTE 182.0175(1974) REQUIRES MIN. 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE

MILW. AREA 259-1181

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Milwaukee, WI 53233
Phone: 414-643-4200
Fax: 414-643-4210

MSI GENERAL - MGS
W190N11701
GERMANTOWN, WISCONSIN

EROSION CONTROL AND SITE PREPARATION PLAN

NO.	REVISION	DATE	BY

DRAWING NO.	17537 demo and erosion plan.dwg
DRAWN BY:	SMM
DATE:	3:30:18
PROJECT NO:	17537
CHECKED BY:	- - -
APPROVED BY:	
SHEET NO.:	C 002

File: I:\MSI General\17537 MGS\060 CAD C - Civil\500 Production - Civil Plans\501-Site Preparation \ Erosion Control\17537 demo and erosion plan.dwg 4.12.2018 11:40 AM

SITE INFORMATION:

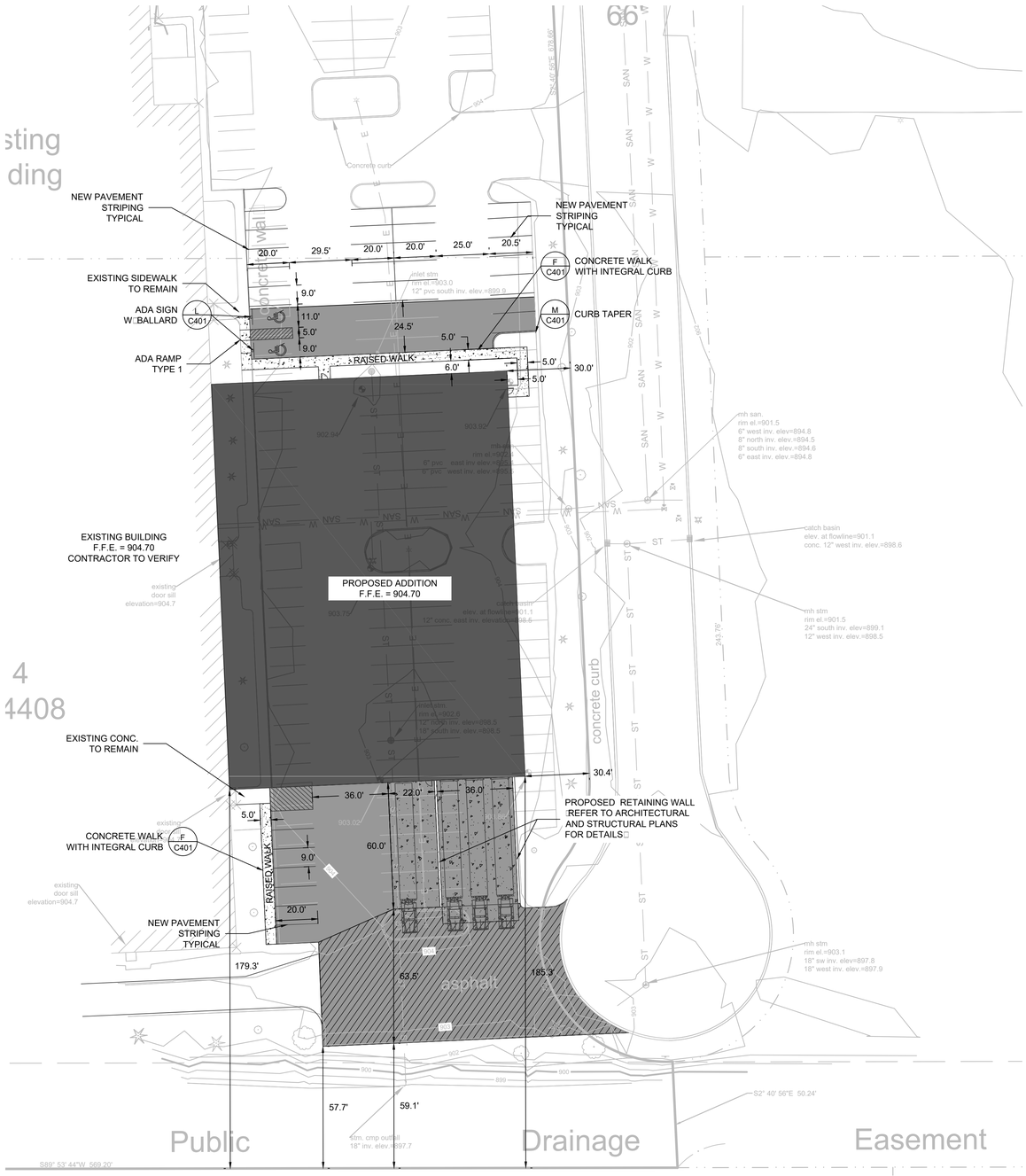
TOTAL SITE = 11.03 ACRES

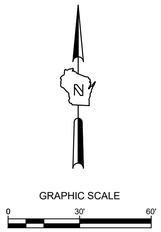
TOTAL DISTURBED AREA = 42,025 S.F.

PAVEMENT MAINTENANCE = 13,975 S.F.

EXISTING IMPERVIOUS AREA = 46,200 S.F.

PROPOSED IMPERVIOUS AREA = 46,200 S.F.





LEGEND:

- 5" THICK CONCRETE WALK (E / C401)
- CONCRETE PAVEMENT (D / C401)
- ASPHALT SURFACE (C / C401)
- HEAVY DUTY ASPHALT SURFACE (K / C401)

GENERAL NOTES:

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2. VERIFY ACTUAL LOCATIONS AND INVERTS IN THE FIELD. ANY POTENTIAL ERRORS, OMISSIONS, OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
3. WORK TO BE COMPLETED IS INDICATED IN BOLD TYPE LINES AND EXISTING CONDITIONS ARE INDICATED BY LIGHT TYPE LINES.
4. ELECTRONIC CIVIL FILES ARE AVAILABLE UPON WRITTEN REQUEST. DO NOT USE ELECTRONIC CIVIL FILES TO LAYOUT FOUNDATIONS, COLUMN LINES, LIGHT POLES, OR OTHER NON CIVIL SITE WORK. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS OF BUILDING AND ARCHITECTURAL FEATURES.
5. DIMENSIONS ARE FROM FACE OF CURB OR EDGE OF PAVEMENT.
6. WORK WITHIN THE PUBLIC RIGHT OF WAY, INCLUDING BUT NOT LIMITED TO DRIVEWAY OPENINGS, SIDEWALK AND RAMPS, PAVING, AND CURB AND GUTTER SHALL BE COMPLETED PER MUNICIPAL AND□OR COUNTY REQUIREMENTS AND STANDARDS.

TO OBTAIN LOCATIONS OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

CALL DIGGERS HOTLINE
1-800-242-8511
TOLL FREE

WIS STATUTE 182.0175(1974) REQUIRES MIN. 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE

MILW. AREA 259-1181

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Milwaukee, WI 53233
Phone: 414-643-4200
Fax: 414-643-4210

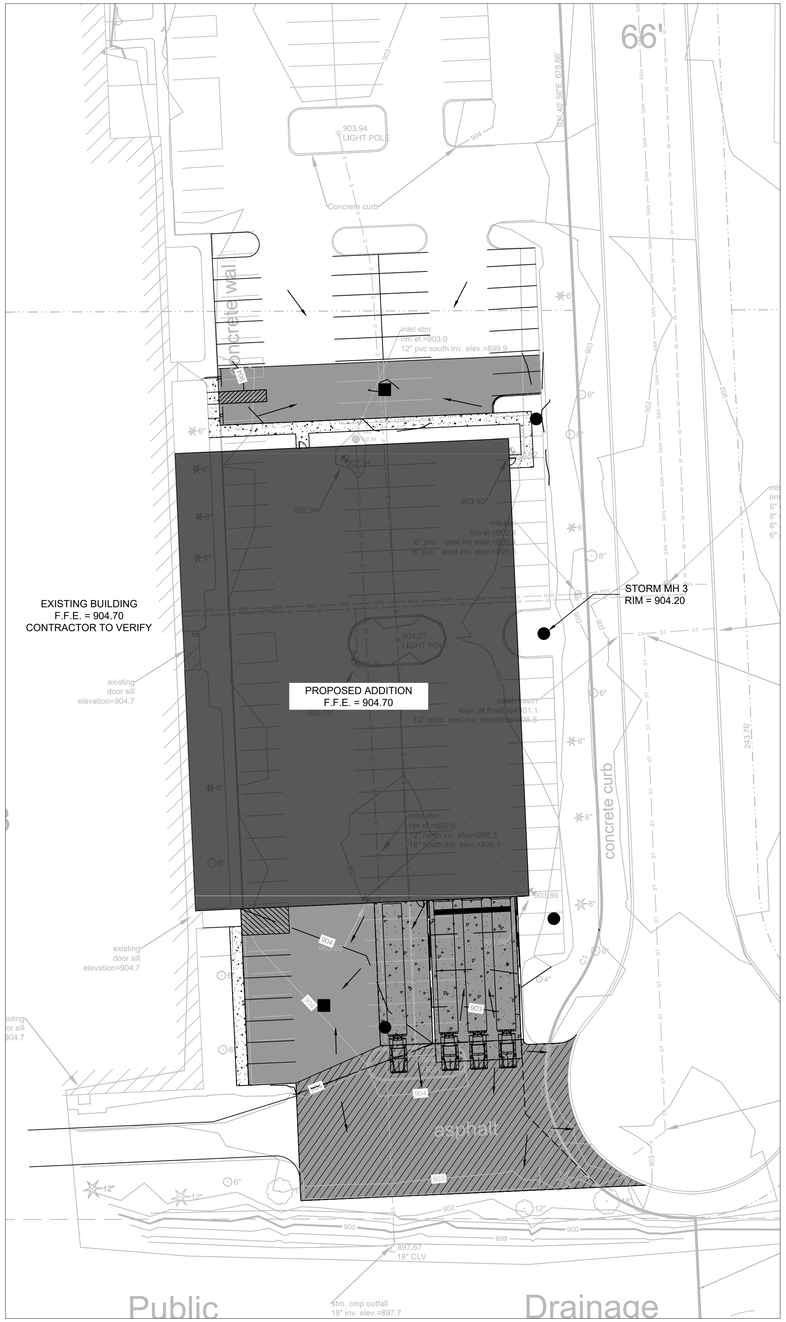
MSI GENERAL - MGS
W190N11701
GERMANTOWN, WISCONSIN

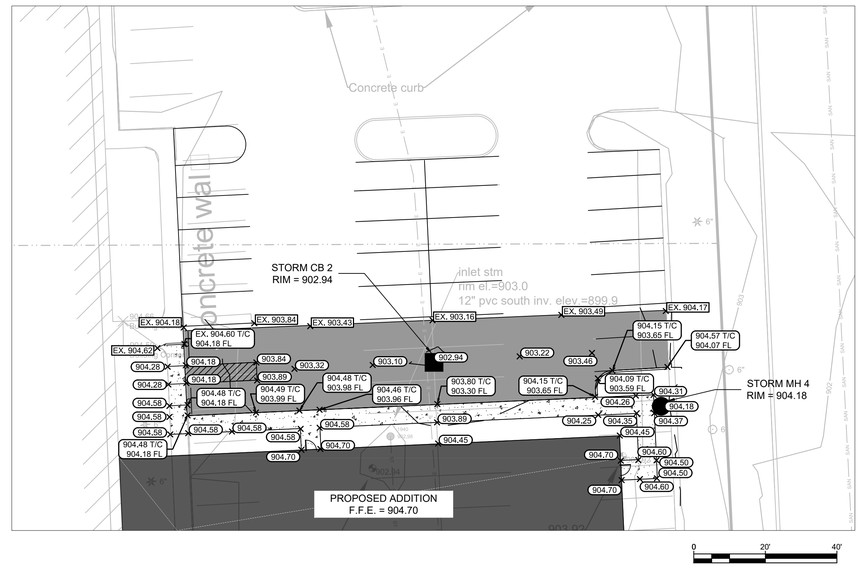
SITE PLAN

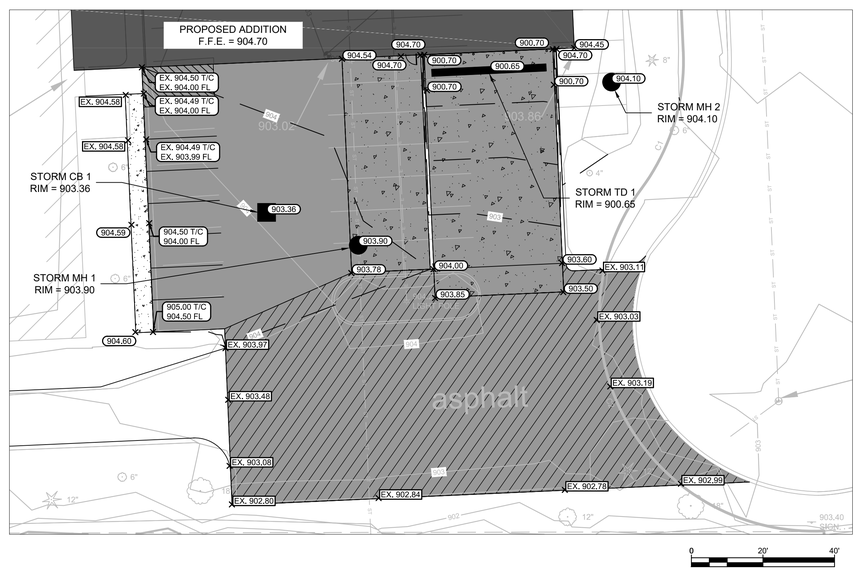
NO.	REVISION	DATE	BY

DRAWING NO.	17537 site plan.dwg
DRAWN BY:	SMM
DATE:	3:30□18
PRO□ECT NO:	17537
CHECKED BY:	- - -
APPROVED BY:	
SHEET NO.:	C 100

File: I:□MSI General□17537 MGS□060 CAD□C - Civil□500 Production - Civil Plans□503-Site Dimension Plan□17537 site plan.dwg 4□12□2018 11:40 AM







LEGEND:

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- CONCRETE PAVEMENT (D / C401)
- ASPHALT SURFACE (C / C401)
- HEAVY DUTY ASPHALT SURFACE (K / C401)
- 5 — EXISTING CONTOUR
- 5 — PROPOSED CONTOUR
- 100.50 T/C 100.00 FL — PROPOSED CURB □ GUTTER SPOT GRADE T/C: TOP OF CURB GRADE FL: FLOW LINE CURB GRADE
- 100.00 — PROPOSED ASPHALT SPOT GRADE

GENERAL NOTES:

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MILW. AREA 259-1181

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Fax: 414-643-4210

MSI GENERAL - MGS
W190N11701
GERMANTOWN, WISCONSIN

GRADING PLAN

NO.	REVISION	DATE	BY

DRAWING NO.	17537 grading plan.dwg
DRAWN BY:	SMM
DATE:	3:30:18
PRO□ECT NO:	17537
CHECKED BY:	- - -
APPROVED BY:	
SHEET NO.:	C 200

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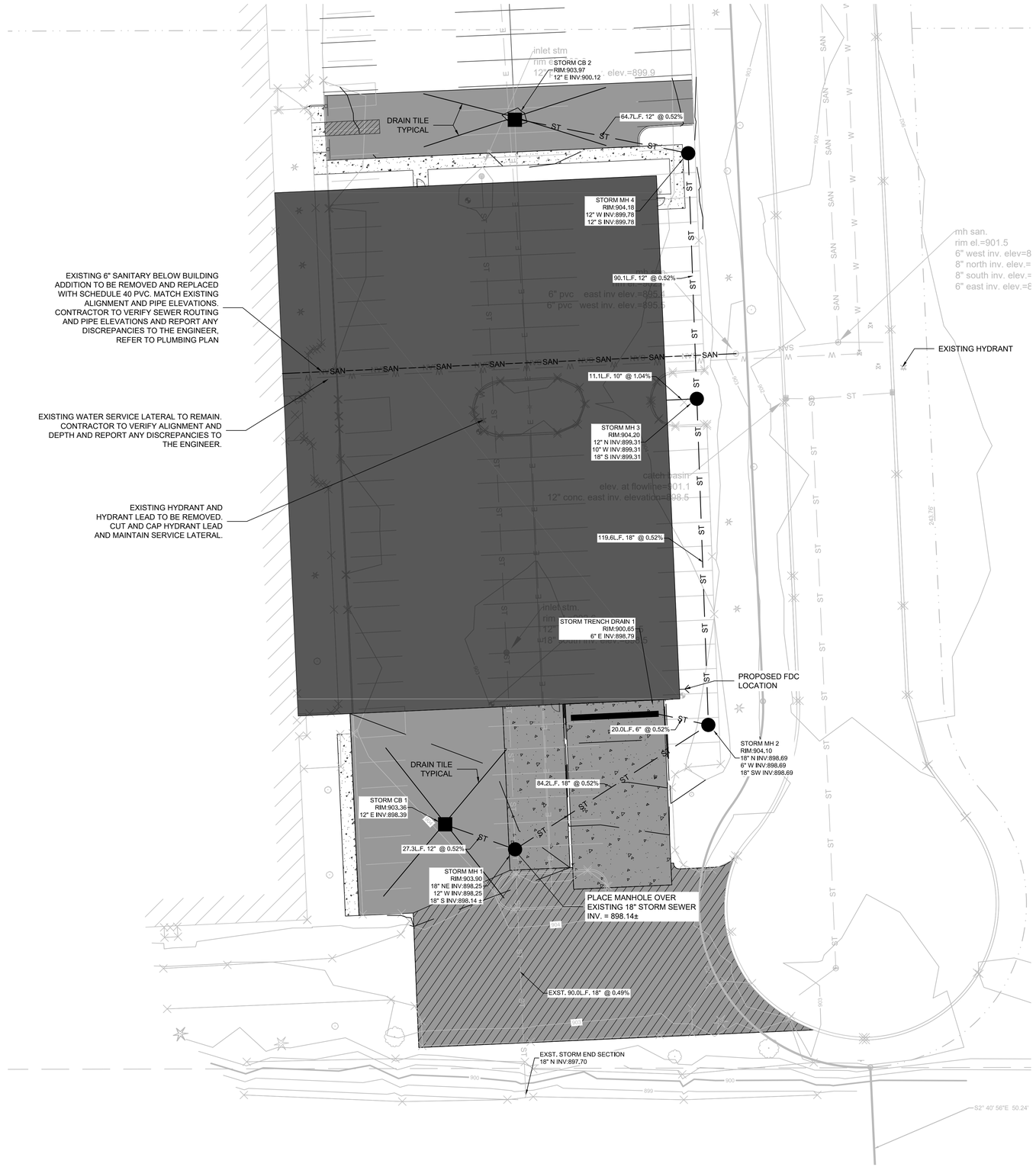

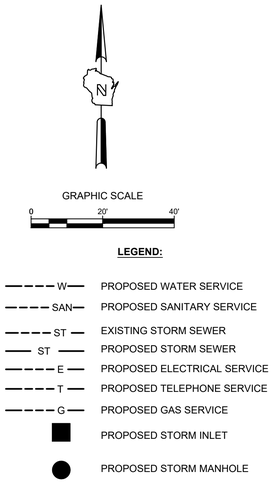

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5. ALL UTILITIES WITHIN 5 FEET OF PAVED AREAS SHALL REQUIRE GRANULAR BACKFILL. SLURRY BACKFILL IS REQUIRED FOR ALL WORK IN PUBLIC RIGHT OF WAY.
6. PRIVATE STORM INLETS IN PAVEMENT SHALL REQUIRE DRAIN TILE STUBS OF 10 FEET IN TWO DIRECTIONS FOR SUBDRAINAGE. RIM GRADE FOR STORM INLETS IN CURB AND GUTTER ARE FLOW LINE GRADES.
7. WORK IN PUBLIC RIGHT OF WAY SHALL FOLLOW MATERIAL AND INSTALLATION REQUIREMENTS PER MUNICIPAL AND/OR COUNTY.
8. PRIVATE STORM SEWER 12-INCH DIAMETER OR LARGER SHALL BE HDPE. BELOW 12-INCH DIAMETER SHALL BE PVC SDR-35 ASTM D3034. PRIVATE WATER MAIN SHALL BE CLASS 150 DR 18 PVC CONFORMING TO AWWA C-900. PRIVATE SANITARY SEWER SHALL BE PVC SDR-35 ASTM D3034.
9. COORDINATE FINAL LOCATION AND DESIGN OF PRIVATE UTILITY SERVICES (ELECTRIC, GAS, PHONE, CABLE) WITH UTILITY COMPANIES.
10. IF PROJECT IS DESIGN BUILD MEP, THE GENERAL CONTRACTOR IS REQUIRED TO PROVIDE FINAL SEWER AND WATER DESIGN SHOWING LOCATION, INVERTS AND SIZES TO THE ENGINEER FOR FINAL REVIEW AND VERIFICATION PRIOR TO STARTING UNDERGROUND UTILITY CONSTRUCTION.

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MSI GENERAL - MGS
W190N11701
GERMANTOWN, WISCONSIN

UTILITY PLAN

NO.	REVISION	DATE	BY

DRAWING NO.	17537 utility plan.dwg
DRAWN BY:	SMM
DATE:	3:30:18
PROJECT NO:	17537
CHECKED BY:	- - -
APPROVED BY:	
SHEET NO.:	C 300

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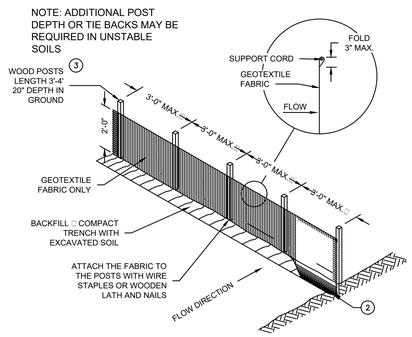
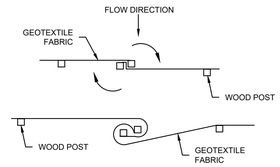
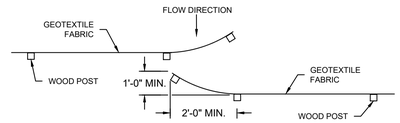


□NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

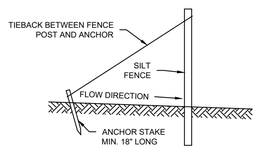


TWIST METHOD



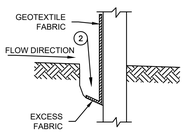
HOOK METHOD

□OINGING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

□WHEN ADDITIONAL SUPPORT REQUIRED□



TRENCH DETAIL

GENERAL NOTES
SILT FENCE SHALL CONFORM TO WDNR CONSERVATION PRACTICE STANDARD #1056

THIS DRAWING IS BASED ON WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD DETAIL DRAWING 8 E 9-6

GENERAL NOTES
1. HORIZONTAL BRACE REQUIRED WITH 2"X4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. TRENCH SHALL BE A MINIMUM OF 4" WIDE □ 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL □ COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1-1□32" X 1-1□32" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID □OINTS. IF A □OINT IS NECESSARY USE ON THE FOLLOWING TWO METHODS: A□OVERLAP THE END POSTS AND TWIST OR ROTATE, AT LEAST 180 DEGREES. B□HOOK THE END OF EACH SILT FENCE LENGTHS.

B **SILT FENCE: WDNR TS-1056**
NOT TO SCALE

THE SIGMA GROUP
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www.thesigmagroup.com
1300 West Canal Street
Milwaukee, WI 53233
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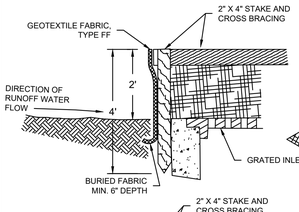
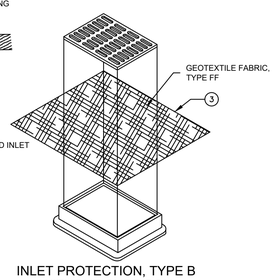
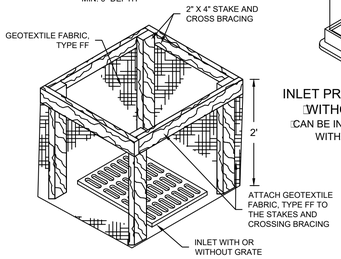
FIGURE #: STND-EROS-001
DATE REVISED: MARCH 2017
APPROVED BY: CTC

SILT FENCE: WDNR TS-1056



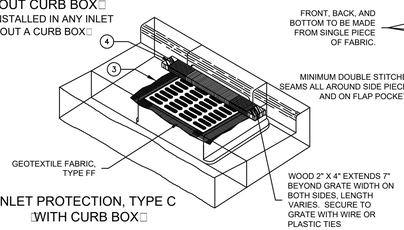


INLET PROTECTION, TYPE B
□WITHOUT CURB BOX□
□CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX□

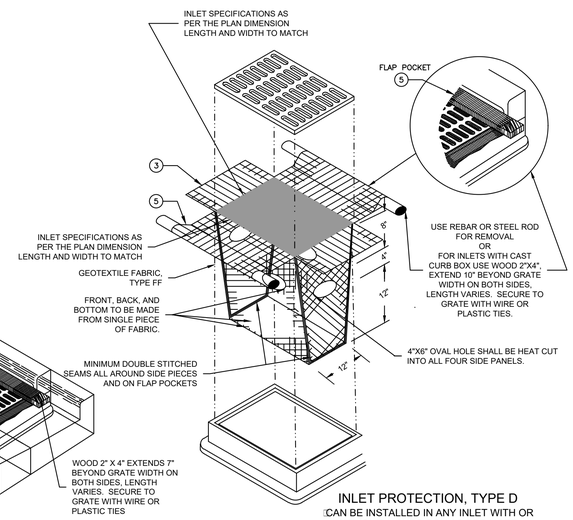


INLET PROTECTION, TYPE A

GENERAL NOTES
1. MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.
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.
3. FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
4. FOR INLET PROTECTION, TYPE C □WITH CURB BOX□ AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
5. FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



INLET PROTECTION, TYPE C
□WITH CURB BOX□



INLET PROTECTION, TYPE D
□CAN BE INSTALLED IN ANY INLET WITH OR WITHOUT A CURB BOX AS PER NOTE□4

INSTALLATION NOTES

TYPE B □C
TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE. THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

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

GENERAL NOTE:
INLET PROTECTION SHALL CONFORM TO WDNR CONSERVATION PRACTICE STANDARD #1060

THIS DRAWING IS BASED ON WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD DETAIL DRAWING 8 E 10-2

A **INLET PROTECTION TYPE A, B, C, AND D: WDNR TS-1060**
NOT TO SCALE

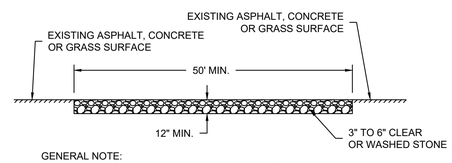
THE SIGMA GROUP
Single Source. Sound Solutions.
FIGURE #: STND-EROS-002
DATE REVISED: MARCH 2017
APPROVED BY: CTC
INLET PROTECTION TYPE A, B, C AND D: WDNR TS-1060

CONSTRUCTION SEQUENCE FOR EROSION CONTROL INCLUDES:

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE.
2. INSTALL SILT FENCING AND INLET PROTECTION.
3. SITE DEMO: REMOVE EXISTING PAVEMENT AND UTILITIES
4. INITIATE STOCKPILING OF IMPORTED MATERIAL. PLACE SILT FENCE AROUND STOCKPILE:S□
5. STRIP TOPSOIL FROM REMAINDER OF SITE IN A PROGRESSIVE MANNER, AND STOCKPILE.
6. PERFORM ROUGH SITE GRADING. STABILIZE FINISHED AREAS AS THE WORK PROGRESSES. USE EROSION MATTING WHERE CALLED FOR ON THE PLANS. PER WDNR TECHNICAL STANDARD 1059: AREAS THAT RECEIVE TEMPORARY SEEDING SHALL HAVE A MINIMUM TOPSOIL DEPTH OF 2 INCHES. AREAS THAT RECEIVE PERMANENT SEEDING SHALL HAVE A MINIMAL TOPSOIL DEPTH OF 4 INCHES.
7. PREPARE BUILDING PAD AND BEGIN FOUNDATIONS WORK FOR BUILDING.
8. INSTALL UTILITIES. INSTALL ANY ADDITIONAL INLET PROTECTION ON NEW STORM SEWER.
9. FINE GRADE SITE
10. INSTALL STONE BASE COURSE FOR PAVEMENT
11. INSTALL PAVEMENT AND FINALIZE GRADES
12. STABILIZE REMAINING AREAS WITHIN 7 DAYS OF COMPLETION OF FINAL GRADING AND TOP SOILING.
13. REMOVE EROSION CONTROL MEASURES ONLY WHEN SITE IS FULLY STABILIZED.

EROSION CONTROL NOTES:

1. CONSTRUCTION SITE EROSION CONTROL AND SEDIMENTATION CONTROL SHALL COMPLY WITH THE REQUIREMENTS OF THE LOCAL MUNICIPALITY AND SHALL EMPLOY EROSION CONTROL METHODS AS SHOWN AND SPECIFIED IN THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARDS.
2. ALL EROSION CONTROL MEASURES SHALL BE AD□USTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND SHALL BE INSTALLED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON THE SITE.
3. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED FOR STABILITY AND OPERATION AFTER A RAINFALL OF 0.5 INCHES OR MORE, BUT NO LESS THAN ONCE EVERY WEEK. MAINTENANCE OF ALL EROSION CONTROL STRUCTURES SHALL BE PROVIDED TO INSURE INTENDED PURPOSE IS ACCOMPLISHED. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANUP AND REMOVAL OF ALL SEDIMENT WHEN LEAVING PROPERTY. EROSION CONTROL MEASURES MUST BE IN WORKING CONDITION AT END OF EACH WORK DAY. DOCUMENT AND MAINTAIN RECORDS OF INSPECTIONS IN ACCORDANCE WITH WDNR NR216 REQUIREMENTS.
4. SILT FENCE SHALL BE INSTALLED IN THE LOCATIONS SHOWN ON THE CONSTRUCTION PLANS. SEDIMENT DEPOSITS SHALL BE REMOVED FROM BEHIND THE SILT FENCE WHEN DEPOSITS REACH A DEPTH OF 6 INCHES. THE SILT FENCE SHALL BE REPAIRED OR REPLACED AS NECESSARY TO MAINTAIN A BARRIER.
5. FILTER FABRIC SHALL BE INSTALLED BENEATH INLET COVERS TO TRAP SEDIMENT PER INLET PROTECTION DETAIL IN THE LOCATIONS SHOWN ON THE CONSTRUCTION PLANS.
6. EROSION CONTROL MEASURES SHALL BE MAINTAINED ON A CONTINUING BASIS UNTIL SITE IS FULLY STABILIZED.
7. PERIODIC STREET SWEEPING SHALL BE COMPLETED TO MAINTAIN AD□ACENT STREETS FREE OF DUST AND DIRT.
8. SILT FENCE SHALL BE INSTALLED IN HORSESHOE FASHION AROUND ANY TOPSOIL AND FILL STOCKPILES.
9. SITE DEWATERING. WATER PUMPED FROM THE SITE SHALL BE TREATED BY SEDIMENT BASINS OR OTHER APPROPRIATE MEASURES SPECIFIED IN THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARDS. WATER MAY NOT BE DISCHARGED IN A MANNER THAT CAUSES EROSION OF THE SITE, AD□ACENT SITES, OR RECEIVING CHANNELS.
10. WASTE AND MATERIAL DISPOSAL. ALL WASTE AND UNUSED BUILDING MATERIALS □INCLUDING GARBAGE, DEBRIS, CLEANING WASTES, WASTEWATER, TOXIC MATERIALS, OR HAZARDOUS MATERIALS□SHALL BE PROPERLY DISPOSED AND NOT ALLOWED TO BE CARRIED OFF-SITE BY RUNOFF OR WIND.
11. TRACKING. EACH SITE SHALL HAVE GRAVELED ROADS, ACCESS DRIVES AND PARKING AREAS OF SUFFICIENT WIDTH AND LENGTH TO PREVENT SEDIMENT FROM BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS. ANY SEDIMENT REACHING A PUBLIC OR PRIVATE ROAD SHALL BE REMOVED BY STREET CLEANING, TO THE SATISFACTION OF THE VILLAGE OF GERMANTOWN BEFORE THE END OF EACH WORKDAY. FLUSHING MAY NOT BE USED UNLESS SEDIMENT WILL BE CONTROLLED BY A SEDIMENT BASIN OR PRACTICE SPECIFIED IN THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARDS. NOTIFY MUNICIPALITY OF ANY CHANGES IN STABILIZED CONSTRUCTION ENTRANCE LOCATION.
12. SEDIMENT CLEANUP. ALL OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF A STORM EVENT SHALL BE CLEANED UP BY THE END OF THE NEXT WORKDAY. ALL OTHER OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE CLEANED UP BY THE END OF THE WORKDAY.
13. ALL DISTURBED GROUND LEFT INACTIVE FOR SEVEN OR MORE DAYS SHALL BE STABILIZED BY TEMPORARY OR PERMANENT SEEDING, MULCHING, SODDING, COVERING WITH TARPS, OR EQUIVALENT PRACTICE FOUND IN THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARD. IF TEMPORARY SEEDING IS USED, A PERMANENT COVER SHALL ALSO BE REQUIRED AS PART OF THE FINAL SITE STABILIZATION. SEEDING OR SODDING SHALL BE REQUIRED AS PART OF THE FINAL SITE STABILIZATION.
14. SOIL OR DIRT STORAGE PILES SHALL BE LOCATED A MINIMUM OF TWENTY-FIVE FEET FROM ANY DOWNSLOPE ROAD, LAKE, STREAM, WETLAND, OR DRAINAGE CHANNEL. STRAW BALE OR FILTER FABRIC FENCES SHALL BE PLACED ON THE DOWN SLOPE SIDE OF THE PILES. IF REMAINING FOR MORE THAN THIRTY DAYS, PILES SHALL BE STABILIZED BY MULCHING, VEGETATIVE COVER, TARPS OR OTHER MEANS.
15. WHEN THE DISTURBED AREA HAS BEEN STABILIZED BY PERMANENT VEGETATION OR OTHER MEANS, TEMPORARY PRACTICES, SUCH AS FILTER FABRIC FENCES, STRAW BALES, SEDIMENT AND SEDIMENT TRAPS, FOUND IN THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARDS SHALL BE REMOVED.
16. NOTIFY THE LOCAL MUNICIPALITY HAVING □URISDICTION WITHIN TWO WORKING DAYS OF COMMENCING ANY LAND DEVELOPMENT OR LAND DISTURBING ACTIVITY.
17. OBTAIN PERMISSION FROM THE LOCAL MUNICIPALITY HAVING □URISDICTION PRIOR TO MODIFYING THE EROSION CONTROL PLAN.
18. REPAIR ANY SILTATION OR EROSION DAMAGE TO AD□OINING SURFACES AND DRAINAGE WAYS RESULTING FROM LAND DEVELOPMENT OR LAND DISTURBING ACTIVITIES.
19. KEEP A COPY OF THE EROSION CONTROL PLAN ON SITE.
20. CONTRACTOR SHALL, TO THE EXTENT POSSIBLE, MINIMIZE DISTURBANCE OF EXISTING VEGETATION DURING CONSTRUCTION.
21. CONTRACTOR SHALL, TO THE EXTENT POSSIBLE, MINIMIZE COMPACTION OF TOPSOIL AND PRESERVE TOPSOIL IN GREENSPACE AREAS.
22. WASH WATER FROM VEHICLES AND WHEEL WASHING SHALL BE CONTAINED AND TREATED PRIOR TO DISCHARGE.
23. CONTRACTOR SHALL MAINTAIN SPILL KITS ON-SITE.
24. PERMAMENT TURF SEEDING OF DISTURBED AREA MUST OCCUR PRIOR TO SEPTEMBER 15TH. IF ADEQUATE TIME IS NOT AVAILABLE TO APPLY PERMANENT SEEDING PRIOR TO SEPTEMBER 15TH, THEN DISTURBED AREAS SHALL BE TEMPORARILY SEEDED WITH AN ANNUAL RYE GRASS PER WDNR TECHNICAL STANDARD 1059, WHERE THE TEMPORARY SEEDING MUST OCCUR PRIOR TO OCTOBER 15TH.
25. IF TEMPORARY SEEDING IS NOT COMPLETED BY OCTOBER 15TH, APPLY SOIL STABILIZERS AND DORMANT SEED TO DISTURBED AREA PER WDNR TECHNICAL STANDARD 1050. INSPECT ANIONIC PAM APPLICATION AT A MINIMUM FREQUENCY OF EVERY TWO MONTHS AND REAPPLY AS NECESSARY



GENERAL NOTE:
STONE TRACKING PAD SHALL CONFORM TO WDNR CONSERVATION PRACTICE STANDARD #1057

N **CONSTRUCTION ENTRANCE/ EXIT DETAIL: WDNR TS-1057**
NOT TO SCALE

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W190N11701
GERMANTOWN, WISCONSIN

DETAILS

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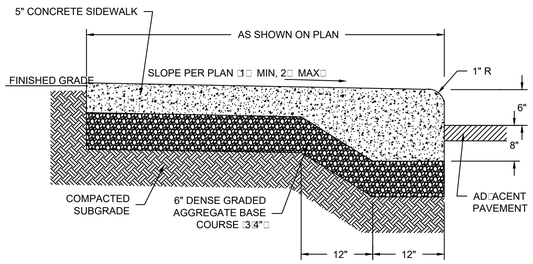
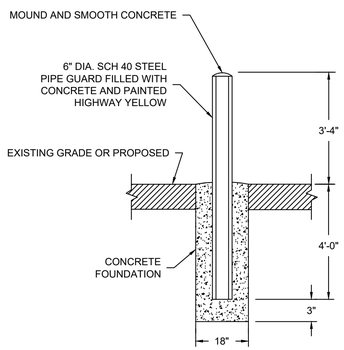


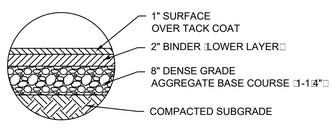
F CONCRETE WALK WITH INTEGRAL CURB

NOT TO SCALE



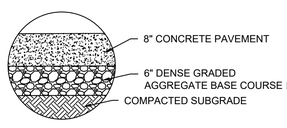
G BOLLARD

NOT TO SCALE



C ASPHALT PAVEMENT SECTION

NOT TO SCALE



D CONCRETE PAVEMENT SECTION

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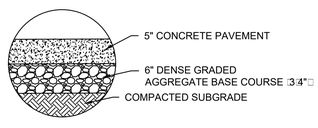

E CONCRETE SIDEWALK SECTION

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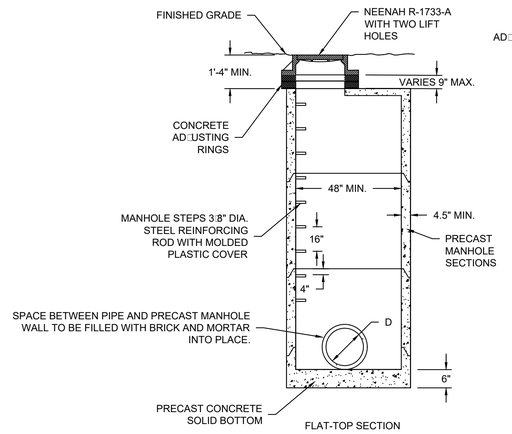
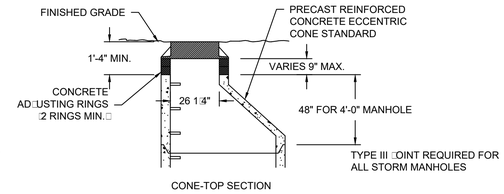




NOTES:

1. CONSTRUCT MANHOLE IN ACCORDANCE WITH FILE NO. 12 OF THE STATE STANDARD SPECIFICATIONS FOR SEWER AND WATER.

2. ADJUST FRAME TO GRADE WITH CONCRETE RINGS OF VARIABLE THICKNESS. MAXIMUM RING HEIGHT = 6". MINIMUM RING HEIGHT = 2". CONCRETE RINGS SHALL BE REINFORCED WITH ONE LINE OF STEEL CENTERED WITHIN THE RING. WHERE NECESSARY RINGS SHALL BE GROOVED TO RECEIVE STEP.

3. CONCRETE AND REINFORCEMENT STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM DESIGNATION C-478.

4. JOINTS SHALL BE WATERTIGHT AND SHALL BE MADE USING MORTAR, OR FLEXIBLE RUBBER TYPE GASKETS FOR STORM MANHOLES.

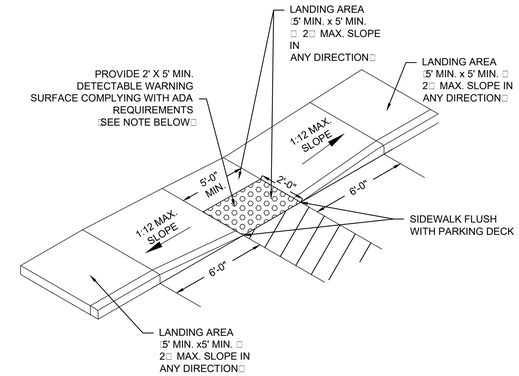
5. AREA OF CIRCUMFERENTIAL STEEL = 0.12 SQ. INCH PER LINEAL FOOT MIN.

6. 3" OF BEDDING STONE UNDER BASE.

7. UNLESS NOTED ON THE PLANS CONTRACTOR IS RESPONSIBLE FOR ALL MANHOLE SIZING AND SHALL PROVIDE A SHOP DRAWING TO THE SIGMA GROUP, INC. BEFORE THEY ARE RELEASED FOR PRODUCTION.

H PRECAST STORM MANHOLE

NOT TO SCALE

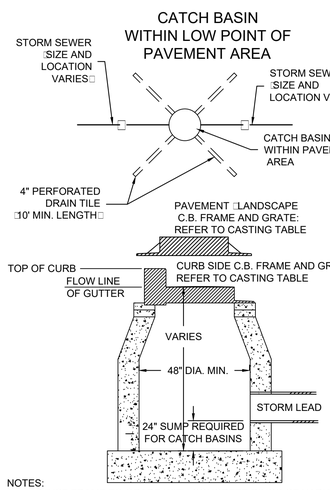


NOTES:

1. CONTRACTOR TO VERIFY ADA RAMP DETAIL WITH CITY AND ADJUST AS NEEDED.
2. PROVIDE DETECTABLE WARNING CONSISTING OF RAISED TRUNCATED DOMES OF SIZE, SPACING AND CONTRAST REQUIRED BY ADA GUIDELINES.
3. DETECTABLE WARNINGS SHALL BE PER CITY STANDARDS.

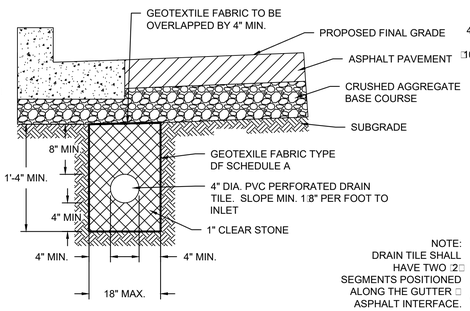
J ADA RAMP DETAIL (TYPE 1)

NOT TO SCALE

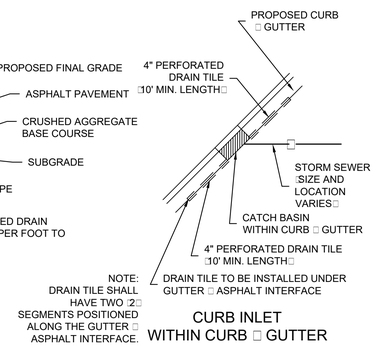


NOTES:

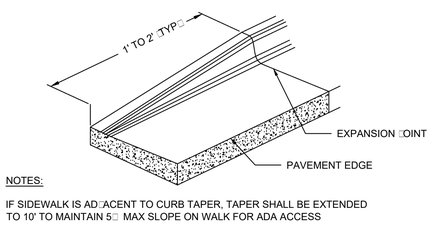
1. ADJUST FRAME TO GRADE WITH CONCRETE RINGS OF VARIABLE THICKNESS. MAXIMUM RING HEIGHT = 6". MINIMUM RING HEIGHT = 2". CONCRETE RINGS SHALL BE REINFORCED WITH ONE LINE OF STEEL CENTERED WITHIN THE RING.
2. CONCRETE AND REINFORCEMENT STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM DESIGNATION C-478.
3. 3" BEDDING OF STONE UNDER BASE REQUIRED ON WET SUB-GRADE.
4. UNLESS NOTED ON THE PLANS CONTRACTOR IS RESPONSIBLE FOR ALL CATCH BASIN SIZING AND SHALL PROVIDE A SHOP DRAWING TO THE SIGMA GROUP, INC. BEFORE THEY ARE RELEASED FOR PRODUCTION.



CURB INLET LOCATION SECTION



CURB INLET WITHIN CURB (GUTTER

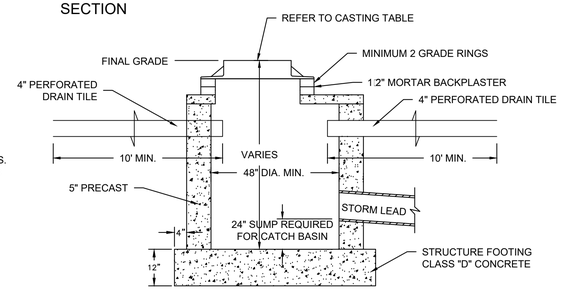


NOTES:

IF SIDEWALK IS ADJACENT TO CURB TAPER, TAPER SHALL BE EXTENDED TO 10' TO MAINTAIN 5% MAX SLOPE ON WALK FOR ADA ACCESS

M CURB TAPER

NOT TO SCALE



CATCH BASIN / INLET CASTING TABLE						
	IF 18" CURB (GUTTER		IF 24" CURB (GUTTER		IF 30" CURB AND GUTTER	
	CASTING	GRATE	CASTING	GRATE	CASTING	GRATE
CURB INLET	NEENAH R-3170	B	NEENAH R-3067	A	NEENAH R-3228H	C
AREA INLET	NEENAH R-2050	C				

I INLET AND CATCH BASIN

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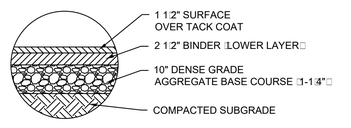

K HEAVY DUTY ASPHALT PAVEMENT SECTION

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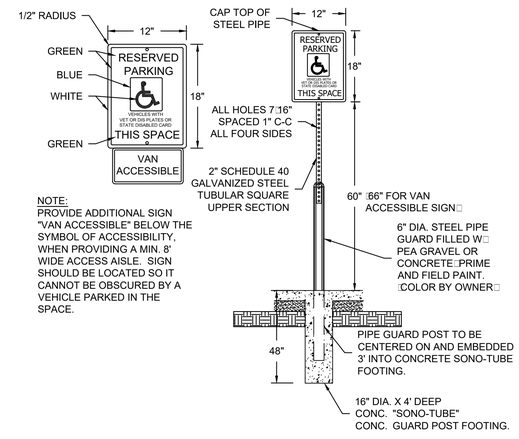

NOTE:
PROVIDE ADDITIONAL SIGN "VAN ACCESSIBLE" BELOW THE SYMBOL OF ACCESSIBILITY, WHEN PROVIDING A MIN. 8' WIDE ACCESS AISLE. SIGN SHOULD BE LOCATED SO IT CANNOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE.

L HANDICAP SIGN & BOLLARD POST

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MSI GENERAL - MGS
W190N11701
GERMANTOWN, WISCONSIN

DETAILS

NO.	REVISION	DATE	BY

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GENERAL:

1. EXISTING UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY, AND NO RESPONSIBILITY IS ASSUMED BY THE OWNER OR ENGINEER FOR THEIR ACCURACY OR COMPLETENESS.
2. CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. CONTRACTOR SHALL HAVE SITE MARKED BY DIGGER'S HOTLINE AND SHALL HAVE PRIVATE UTILITIES MARKED BY A PRIVATE UTILITY LOCATOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL VERIFY ALL ELEVATIONS, LOCATIONS, AND SIZES OF EXISTING UTILITIES AND SHALL CHECK ALL UTILITY CROSSINGS AND PROPOSED CONNECTIONS FOR CONFLICTS□DISCREPENCIES PRIOR TO INITIATING CONSTRUCTION. REPORT ANY CONFLICTS OR DISCREPECIES TO THE ENGINEER SO REDESIGN MAY OCCUR IF NEEDED.
3. LENGTHS OF ALL UTILITIES ARE TO CENTER OF STRUCTURES OR FITTINGS AND MAY VARY SLIGHTLY FROM PLANS. LENGTHS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR.

SITE CLEARING:

1. EXCEPT FOR STRIPPED TOPSOIL OR OTHER MATERIALS INDICATED TO REMAIN ON OWNER'S PROPERTY, CLEARED MATERIALS SHALL BECOME CONTRACTOR'S PROPERTY AND SHALL BE REMOVED FROM PRO□ECT SITE.
2. MINIMIZE INTERFERENCE WITH AD□OINING ROADS, STREETS, WALKS, AND OTHER AD□ACENT OCCUPIED OR USED FACILITIES DURING SITE-CLEARING OPERATIONS.
3. SALVABLE IMPROVEMENTS: CAREFULLY REMOVE ITEMS INDICATED TO BE SALVAGED AND STORE ON OWNER'S PREMISES WHERE INDICATED.
4. UTILITY LOCATOR SERVICE: NOTIFY UTILITY LOCATOR SERVICE FOR AREA WHERE PRO□ECT IS LOCATED BEFORE SITE CLEARING.
5. DO NOT COMMENCE SITE CLEARING OPERATIONS UNTIL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES ARE IN PLACE.
6. PROTECT AND MAINTAIN BENCHMARKS AND SURVEY CONTROL POINTS FROM DISTURBANCE DURING CONSTRUCTION.
7. LOCATE AND CLEARLY FLAG TREES AND VEGETATION TO REMAIN OR TO BE RELOCATED.
8. PROTECT EXISTING SITE IMPROVEMENTS TO REMAIN FROM DAMAGE DURING CONSTRUCTION□RESTORE DAMAGED IMPROVEMENTS TO THEIR ORIGINAL CONDITION, AS ACCEPTABLE TO OWNER.
9. LOCATE, IDENTIFY, DISCONNECT, AND SEAL OR CAP OFF UTILITIES INDICATED TO BE REMOVED□ARRANGE WITH UTILITY COMPANIES TO SHUT OFF INDICATED UTILITIES.
10. EXISTING UTILITIES: DO NOT INTERRUPT UTILITIES SERVING FACILITIES OCCUPIED BY OWNER OR OTHERS UNLESS PERMITTED BY THE OWNER AND THEN ONLY AFTER ARRANGING TO PROVIDE TEMPORARY UTILITY SERVICES.
11. FILL DEPRESSIONS CAUSED BY CLEARING AND GRUBBING OPERATIONS WITH SATISFACTORY SOIL MATERIAL UNLESS FURTHER EXCAVATION OR EARTHWORK IS INDICATED□PLACE FILL MATERIAL IN HORIZONTAL LAYERS NOT EXCEEDING A LOOSE DEPTH OF 8 INCHES, AND COMPACT EACH LAYER TO A DENSITY EQUAL TO AD□ACENT ORIGINAL GROUND.
12. REMOVE SOD AND GRASS BEFORE STRIPPING TOPSOIL.
13. STRIP TOPSOIL TO WHATEVER DEPTHS ARE ENCOUNTERED IN A MANNER TO PREVENT INTERMINGLING WITH UNDERLYING SUBSOIL OR OTHER WASTE MATERIALS.
14. STOCKPILE TOPSOIL MATERIALS AWAY FROM EDGE OF EXCAVATIONS WITHOUT INTERMIXING WITH SUBSOIL. GRADE AND SHAPE STOCKPILES TO DRAIN SURFACE WATER. COVER TO PREVENT WINDBLOWN DUST.
15. REMOVE EXISTING ABOVE- AND BELOW-GRADE IMPROVEMENTS AS INDICATED AND AS NECESSARY TO FACILITATE NEW CONSTRUCTION.
16. SAWCUT ALL PAVEMENTS FULL DEPTH PRIOR TO REMOVAL□SAWCUTS SHALL BE IN STRAIGHT LINES PERPENDICULAR AND□OR PARALLEL TO EXISTING PAVEMENT □OINTS AND PAVEMENT EDGES.
17. REMOVE SURPLUS SOIL MATERIAL, UNSUITABLE TOPSOIL, OBSTRUCTIONS, DEMOLISHED MATERIALS, AND WASTE MATERIALS INCLUDING TRASH AND DEBRIS, AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY.
18. SEPARATE RECYCLABLE MATERIALS PRODUCED DURING SITE CLEARING FROM OTHER NONRECYCLABLE MATERIALS. STORE OR STOCKPILE WITHOUT INTERMIXING WITH OTHER MATERIALS AND TRANSPORT THEM TO RECYCLING FACILITIES.

CONCRETE PAVING:

1. THE COMPOSITION, PLACING AND CONSTRUCTION OF CONCRETE PAVEMENTS SHALL BE IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF SECTIONS 415, 416, 501, 601, AND 602 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION □WISDOT STANDARD SPECIFICATIONS□AND LOCAL MUNICIPAL REQUIREMENTS AND SPECIFICATIONS.
2. CONTRACTOR SHALL PROVIDE PRODUCT DATA FOR EACH TYPE OF PRODUCT INDICATED - INCLUDE TECHNICAL DATA AND TESTED PHYSICAL AND PERFORMANCE PROPERTIES□□OB-MIX DESIGNS: CERTIFICATION THAT MIX MEETS OR EXCEEDS WISDOT STANDARD SPECIFICATIONS□AND MATERIAL CERTIFICATES CERTIFYING COMPLIANCE WITH WISDOT STANDARD SPECIFICATIONS.
3. MANUFACTURER QUALIFICATIONS: MANUFACTURER OF READY-MIXED CONCRETE PRODUCTS WHO COMPLIES WITH ASTM C 94/C 94M REQUIREMENTS FOR PRODUCTION FACILITIES AND EQUIPMENT AND APPROVED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.
4. CONCRETE GRADE: GRADE A OR GRADE A-2 CONFORMING TO SECTION 501.3.1.3 OF THE WISDOT STANDARD SPECIFICATIONS
5. AGGREGATES: CONFORM TO SECTION 501 OF THE WISDOT STANDARD SPECIFICATIONS. PROVIDE AGGREGATES FROM A SINGLE SOURCE.
6. WATER: ASTM C 94/C 94M AND SECTION 501 OF THE WISDOT STANDARD SPECIFICATIONS.
7. AIR-ENTRAINING ADMIXTURE: ASTM C 260 AND SECTION 501 OF THE WISDOT STANDARD SPECIFICATIONS.
8. CHEMICAL ADMIXTURES: PER SECTION 501 OF THE WISDOT STANDARD SPECIFICATIONS.
9. CURING MATERIALS IN ACCORDANCE WITH SECTION 415.3.12 OF THE WISDOT STANDARD SPECIFICATIONS.
10. EXPANSION □OINT MATERIAL: CONFORM TO SECTION 415.2.2 OF THE WISDOT STANDARD SPECIFICATIONS.
11. MEASURE, BATCH, AND MIX CONCRETE MATERIALS AND CONCRETE IN ACCORDANCE WITH SECTION 501 OF THE WISDOT STANDARD SPECIFICATIONS.
12. GENERAL EXECUTION: CONFORM TO SECTION 415 OF THE WISDOT STANDARD SPECIFICATIONS.
13. PROOFROLL SUBGRADE AND AGGREGATE BASE AS OUTLINED IN EARTH MOVING SPECIFICATION PRIOR TO PLACEMENT OF PAVEMENTS.
14. SET, BRACE, AND SECURE EDGE FORMS, BULKHEADS, AND INTERMEDIATE SCREED GUIDES FOR PAVEMENT TO REQUIRED LINES, GRADES, AND ELEVATIONS. INSTALL FORMS TO ALLOW CONTINUOUS PROGRESS OF WORK AND SO FORMS CAN REMAIN IN PLACE AT LEAST 24 HOURS AFTER CONCRETE PLACEMENT.
15. CLEAN FORMS AFTER EACH USE AND COAT WITH FORM-RELEASE AGENT TO ENSURE SEPARATION FROM CONCRETE WITHOUT DAMAGE.
16. □OINTS GENERAL: FORM CONSTRUCTION, ISOLATION, AND CONTRACTION □OINTS AND TOOL EDGINGS TRUE TO LINE WITH FACES PERPENDICULAR TO SURFACE PLANE OF CONCRETE. CONSTRUCT TRANSVERSE □OINTS AT RIGHT ANGLES TO CENTERLINE, UNLESS OTHERWISE INDICATED. CONFORM TO SECTION 415 OF THE WISDOT STANDARD SPECIFICATIONS
17. CONSTRUCTION □OINTS: SET CONSTRUCTION □OINTS AT SIDE AND END TERMINATIONS OF PAVEMENT AND AT LOCATIONS WHERE PAVEMENT OPERATIONS ARE STOPPED FOR MORE THAN ONE-HALF HOUR UNLESS PAVEMENT TERMINATES AT ISOLATION □OINTS.
18. ISOLATION □OINTS: FORM ISOLATION □OINTS OF PREFORMED □OINT-FILLER STRIPS ABUTTING CONCRETE CURBS, CATCH BASINS, MANHOLES, INLETS, STRUCTURES, WALKS, OTHER FIXED OB□ECTS, AND WHERE INDICATED.
19. CONTRACTION □OINTS: FORM WEAKENED-PLANE CONTRACTION □OINTS, SECTIONING CONCRETE INTO AREAS AS INDICATED. CONSTRUCT CONTRACTION JOINTS FOR A DEPTH EQUAL TO AT LEAST ONE-FOURTH OF THE CONCRETE THICKNESS TO MATCH JOINTING OF EXISTING ADJACENT CONCRETE PAVEMENT.
20. EDGING: TOOL EDGES OF PAVEMENT, GUTTERS, CURBS, AND □OINTS IN CONCRETE AFTER INITIAL FLOATING WITH AN EDGING TOOL TO A 1□4-INCH RADIUS. REPEAT TOOLING OF EDGES AFTER APPLYING SURFACE FINISHES. ELIMINATE TOOL MARKS ON CONCRETE SURFACES.
21. CURBING: COMPLY WITH SECTION 601 OF THE WISDOT STANDARD SPECIFICATIONS.
22. SIDEWALKS: COMPLY WITH SECTION 602 OF THE WISDOT STANDARD SPECIFICATIONS.
23. MOISTEN AGGREGATE TO PROVIDE A UNIFORM DAMPENED CONDITION AT TIME CONCRETE IS PLACED.
24. FINISH CURBING IN ACCORDANCE WITH SECTION 601.3.5 OF THE WISDOT STANDARD SPECIFICATIONS.
25. FINISH SIDEWALK AND PATIO IN ACCORDANCE WITH SECTION 602.3.2.3 OF THE WISDOT STANDARD SPECIFICATIONS □LIGHT BROOM FINISH□
26. FINISH CONCRETE VEHICULAR PAVEMENTS AND PADS IN ACCORDANCE WITH SECTION 415.3.8 OF THE WISDOT STANDARD SPECIFICATIONS □ARTIFICIAL TURF DRAG FINISH□
27. PROTECT AND CURE SIDEWALK IN ACCORDANCE WITH SECTION 602.3.2.6 OF THE WISDOT STANDARD SPECIFICATIONS.
28. PROTECT AND CURE CURBING IN ACCORDANCE WITH SECTION 601.3.7 OF THE WISDOT STANDARD SPECIFICATIONS.
29. PROTECT AND CURE VEHICULAR CONCRETE PAVING IN ACCORDANCE WITH SECTION 415.3.12 OF THE WISDOT STANDARD SPECIFICATIONS.
30. REMOVE AND REPLACE CONCRETE PAVEMENT THAT IS BROKEN, DAMAGED, OR DEFECTIVE OR THAT DOES NOT COMPLY WITH REQUIREMENTS IN THIS SECTION.
31. PROTECT CONCRETE FROM DAMAGE. EXCLUDE TRAFFIC FROM PAVEMENT FOR AT LEAST 7 DAYS AFTER PLACEMENT.
32. MAINTAIN CONCRETE PAVEMENT FREE OF STAINS, DISCOLORATION, DIRT, AND OTHER FOREIGN MATERIAL. SWEEP CONCRETE PAVEMENT NOT MORE THAN TWO DAYS BEFORE DATE SCHEDULED FOR SUBSTANTIAL COMPLETION INSPECTIONS.

ASPHALTIC PAVING:

1. THE COMPOSITION, PLACING AND CONSTRUCTION OF ASPHALTIC PAVEMENTS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 450, 455, 460, 465, AND 475 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION □WISDOT STANDARD SPECIFICATIONS□.
2. CONTRACTOR SHALL PROVIDE PRODUCT DATA FOR EACH TYPE OF PRODUCT INDICATED - INCLUDE TECHNICAL DATA AND TESTED PHYSICAL AND PERFORMANCE PROPERTIES□□OB-MIX DESIGNS: CERTIFICATION THAT MIX MEETS OR EXCEEDS WISDOT STANDARD SPECIFICATIONS□AND MATERIAL CERTIFICATES CERTIFYING COMPLIANCE WITH WISDOT STANDARD SPECIFICATIONS.
3. MANUFACTURER QUALIFICATIONS: MANUFACTURER SHALL BE REGISTERED WITH AND APPROVED BY THE DOT OF THE STATE IN WHICH PRO□ECT IS LOCATED.
4. ENVIRONMENTAL LIMITATIONS: DO NOT APPLY ASPHALT MATERIALS IF BASE COURSE IS WET OR EXCESSIVELY DAMP OR IF THE FOLLOWING CONDITIONS ARE NOT MET: APPLY TACK COAT WHEN AMBIENT TEMPERATURE IS ABOVE 50 DEGREES FAHRENHEIT AND WHEN TEMPERATURE HAS NOT BEEN BELOW 35 DEGREES FARENHEIGHT FOR 12 HOURS IMMEDIATELY PRIOR TO APPLICATION□PLACE ASPHALTIC CONCRETE SURFACE COURSE WHEN TEMPERATURE IS ABOVE 40 DEGREES FARENHEIGHT□BASE COURSE MAY BE PLACED WHEN AIR TEMPERATURE IS ABOVE 30 DEGREES FARENHEIGHT AND RISING. PROCEED WITH PAVEMENT MARKING ONLY ON CLEAN, DRY SURFACES. DO NOT APPLY BELOW THE MINIMUM PAVEMENT TEMPERATURE AS RECOMMENDED BY THE MANUFACTURER.
5. AGGREGATES SHALL BE IN ACCORDANCE WITH SECTION 460.2.2 OF THE WISDOT STANDARD SPECIFICATIONS.

ASPHALTIC PAVING CONT.:

6. ASPHALT MATERIALS SHALL BE IN ACCORDANCE WITH CHAPTER 455 OF THE WISDOT STANDARD SPECIFICATIONS.
7. PAVEMENT MARKING PAINT: PROVIDE PAINT FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION'S APPROVED PRODUCTS LIST. COLOR SHALL BE WHITE UNLESS INDICATED OTHERWISE ON PLANS.
8. HOT-MIX ASPHALT: ASPHALTIC BINDER COURSE AND SURFACE COURSE SHALL BE MIXTURE LT FOR REGULAR DUTY PAVEMENT AND MT FOR HEAVY DUTY PAVEMENT COMPLYING WITH THE WISDOT STANDARD SPECIFICATIONS.
9. AGGREGATE BASE COURSE BENEATH PAVEMENTS: SHALL BE 1-1/4" DENSE GRADED BASE COURSE CONFORMING TO SECTION 305 OF THE WISDOT STANDARD SPECIFICATIONS.
10. PAVEMENT PLACEMENT GENERAL: ASPHALT CONCRETE PAVING EQUIPMENT, WEATHER LIMITATIONS, □OB-MIX FORMULA, MIXING, CONSTRUCTION METHODS, COMPACTION, FINISHING, TOLERANCE AND PROTECTION SHALL CONFORM TO THE REQUIREMENTS OF THE APPROPRIATE SECTIONS OF THE WISDOT STANDARD SPECIFICATIONS.
11. PREPARE AND PROOFROLL SUBGRADES AND AGGREGATE BASE COURSE AS OUTLINED IN EARTH MOVING SPECIFICATIONS PRIOR TO PLACEMENT OF ASHPHALT PAVEMENTS.
12. SWEEP LOOSE GRANULAR PARTICLES FROM SURFACE OF AGGREGATE BASE COURSE PRIOR TO PAVEMENT PLACEMENT. DO NOT DISLODGE OR DISTURB AGGREGATE EMBEDDED IN COMPACTED SURFACE OF BASE COURSE.
13. SPREAD AND FINISH ASPHALTIC MIXTURE IN ACCORDANCE WITH SECTION 450.3.2.5 OF THE WISDOT STANDARD SPECIFICATIONS. PAVEMENT THICKNESSES SHALL BE AS INDICATED ON THE PLANS.
14. PROMPTLY CORRECT SURFACE IRREGULARITIES IN PAVING COURSE BEHIND PAVER. USE SUITABLE HAND TOOLS TO REMOVE EXCESS MATERIAL FORMING HIGH SPOTS. FILL DEPRESSIONS WITH HOT-MIX ASPHALT TO PREVENT SEGREGATION OF MIX□USE SUITABLE HAND TOOLS TO SMOOTH SURFACE.
15. COMPACT ASPHALTIC PAVEMENT IN ACCORDANCE WITH SECTION 450.3.2.6 OF THE WISDOT STANDARD SPECIFICATIONS.
16. PROTECTION: AFTER FINAL ROLLING, DO NOT PERMIT VEHICULAR TRAFFIC ON PAVEMENT UNTIL IT HAS COOLED AND HARDENED. ERECT BARRICADES TO PROTECT PAVING FROM TRAFFIC UNTIL MIXTURE HAS COOLED ENOUGH NOT TO BECOME MARKED.
17. THICKNESS TOLERANCE: COMPACT EACH COURSE TO PRODUCE THE THICKNESS INDICATED WITHIN PLUS/MINUS ¼ INCH FOR BINDER COURSE AND PLUS ¼ INCH FOR SURFACE COURSE, NO MINUS.
18. SURFACE SMOOTHNESS TOLERANCE: COMPACT EACH COURSE TO PRODUCE A SURFACE SMOOTHNESS WITHIN THE FOLLOWING TOLERANCES AS DETERMINED BY USING A 10-FOOT STRAIGHTEDGE APPLIED TRANSVERSELY OR LONGITUDINALLY TO PAVED AREAS: BINDER COURSE: ¼ INCH; SURFACE COURSE: 1□8 INCH. REMOVE AND REPLACE ALL HUMPS OR DEPRESSIONS EXCEEDING THE SPECIFIED TOLERANCES.
19. DO NOT APPLY PAVEMENT-MARKING PAINT UNTIL LAYOUT, COLORS, AND PLACEMENT HAVE BEEN VERIFIED WITH ENGINEER.
20. APPLY MARKINGS TO A DRY SURFACE FREE FROM FROST. REMOVE DUST, DIRT, OIL, GREASE, GRAVEL, DEBRIS OR OTHER MATERIAL THAT MAY PREVENT BONDING TO THE PAVEMENT.
21. APPLY PAINT AS THE MANUFACTURER SPECIFIES WITH MECHANICAL EQUIPMENT TO PRODUCE PAVEMENT MARKINGS, OF DIMENSIONS INDICATED, WITH UNIFORM, STRAIGHT EDGES. APPLY AT MANUFACTURER'S RECOMMENDED RATES AT A MINIMUM RATE OF 17.6 GALLONS□MILE FOR A CONTINUOUS 4" LINE.
22. TESTING AGENCY: CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO PERFORM FIELD TESTS AND INSPECTIONS AND TO PREPARE TEST REPORTS.

SANITARY SEWERAGE OUTSIDE OF BUILDING FOOTPRINT:

1. ALL PRIVATE SANITARY SEWER WORK SHALL BE IN ACCORDANCE WITH THE DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES □DSPS□ PLUMBING CODE - CHAPTERS SPS 382 AND SPS 384 AND LOCAL MUNICIPAL REQUIREMENTS.
2. ALL PUBLIC SANITARY SEWER WORK SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION □STANDARD SPECIFICATIONS□AND LOCAL MUNICIPAL REQUIREMENTS.
3. PVC SEWER PIPE AND FITTINGS: ASTM D 3034, SDR 35, WITH BELL-AND-SPIGOT ENDS WITH RUBBER GASKETED JOINTS IN ACCORDANCE WITH CHAPTER 8.10.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION. □OINTS SHALL CONFORM TO ASTM D-3212.
4. MANHOLES: STANDARD PRECAST REINFORCED CONCRETE MANHOLES CONFORMING TO ASTM C478, SECTION 8.39.0 OF THE STANDARD SPECIFICATIONS AND CONFORMING TO FILE NOS. 12, 13 AND 15 OF THE STANDARD SPECIFICATIONS. DIAMETER AND DEPTH AS INDICATED ON PLANS. MANHOLE SIZES TO BE VERIFIED BY CONTRACTOR AND SHOP DRAWINGS SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW PRIOR TO ORDERING STRUCTURES.
5. MANHOLES DEEPER THAN FOUR FEET SHALL BE PROVIDED WITH MANHOLE STEPS CONFORMING TO SECTION 8.40.0 OF THE STANDARD SPECIFICATIONS.
6. SEWERS SHALL BE INSTALLED IN CONFORMANCE WITH SECTION 3.2.0 OF THE STANDARD SPECIFICATIONS. INSTALL PROPER SIZE INCREASERS, REDUCERS AND COUPLINGS WHERE DIFFERENT SIZES OR MATERIALS OF PIPES AND FITTINGS ARE CONNECTED. INSTALL TRACER PIPE OVER NON-METALLIC PIPING IN ACCORANCE WITH SPS SECTION 382.30□11□H□AND 382.36□7□D□
7. PIPE □OINT CONSTRUCTION: FOLLOW PIPING MANUFACTURER'S RECOMMENDATIONS□□OIN PVC SEWER PIPE ACCORDING TO ASTM D2321 AND ASTM D 3212 FOR ELASTOMERIC GASKET □OINTS. □OIN DISSIMILAR PIPE MATERIALS WITH NONPRESSURE-TYPE, FLEXIBLE COUPLINGS
7. PROVIDE AND INSTALL CLEANOUTS IN ACCORDANCE WITH SPS CHAPTER 382.35. INSTALL CLEANOUTS AND RISER EXTENSIONS FORM SEWER PIPES TO PROPOSED GRADE. INSTALL PIPING SO CLEANOUTS OPEN IN DIRECTION OF FLOW IN SEWER PIPE. USE LIGHT DUTY, TOP LOADING CLASSIFICATION CLEANOUTS IN EARTH OR UNPAVED FOOT TRAFFIC AREAS□USE MEDIUM DUTY, TOP-LOADING CLASSIFICATION CLEANOUTS IN PAVED FOOT TRAFFIC AREAS□USE HEAVY DUTY, TOP-LOADING CLASSIFICATION CLEANOUTS IN VEHICULAR TRAFFIC AREAS. SET CLEANOUT FRAMES AND COVERS IN PAVEMENT AREAS FLUSH WITH PAVEMENT SURFACE.
8. CLASS B COMPACTED TRENCH SECTION □FILE NO. NO. 4 OF STANDARD SPECIFICATIONS□SHALL BE UTILIZED. BEDDING AND COVER MATERIAL SHALL BE IN ACCORDANCE WITH SECTION 8.43.0 OF THE STANDARD SPECIFICATIONS.
9. TRENCH BACKFILL MATERIAL SHALL BE GRANULAR BACKFILL IN ACCORDANCE WITH SECTION 8.43.4 OF THE STANDARD SPECIFICATIONS BENEATH AND WITHIN FIVE FEET OF PAVEMENT AREAS□COMPACTED SPOIL BACKFILL IN ACCORDANCE WITH SECTION 8.43.5 OF THE STANDARD SPECIFICATIONS MAY BE USED BENEATH LANDSCAPE AREAS.
10. MANHOLE INSTALLATION SHALL BE IN ACCORDANCE WITH SECTION 3.5.0 OF THE STANDARD SPECIFICATIONS. SET MANHOLE RIMS TO ELEVATIONS INDICATED ON PLANS.
11. AFTER INSTALLATION OF SEWER PIPE CLEAN ALL DEBRIS FROM SEWER AND INSPECT INTERIOR OF PIPING TO DETERMINE WHETHER LINE DISPLACEMENT OR OTHER DAMAGE HAS OCCURRED. CONDUCT DEFLECTION TESTING OF INSTALLED PIPE IN ACCORDANCE WITH SECTION 3.2.6□1□4 OF THE STANDARD SPECIFICATIONS□REPLACE ANY PIPE SECTION NOT PASSING THE DEFLECTION TESTING USING NEW PIPE MATERIALS. TEST NEW BUILDING SEWER IN ACCORDANCE WITH SECTION 5.4.0 OF THE STANDARD SPECIFICATIONS. REPLACE LEAKING PIPE USING NEW PIPE MATERIALS AAND REPEAT TESTING UNTIL LEAKAGE IS WITHIN ALLOWANCES SPECIFIED.

STORM DRAINAGE:

1. ALL PRIVATE STORM SEWER WORK SHALL BE IN ACCORDANCE WITH THE DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES □DSPS□PLUMBING CODE - CHAPTERS SPS 382 AND SPS 384 AND LOCAL MUNICIPAL REQUIREMENTS.
2. ALL PUBLIC STORM SEWER WORK SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION □STANDARD SPECIFICATIONS□AND LOCAL MUNICIPAL REQUIREMENTS.
3. PVC SEWER PIPE AND FITTINGS: ASTM D 3034, SDR 35, WITH BELL-AND-SPIGOT ENDS WITH RUBBER GASKETED □OINTS IN ACCORDANCE WITH CHAPTER 8.10.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION. □OINTS SHALL CONFORM TO ASTM D-3212.
4. REINFORCED CONCRETE PIPE: ASTM C76 WITH BELL AND SPIGOT ENDS AND GASKETED □OINTS WITH ASTM C443 RUBBER GASKETS IN ACCORDANCE WITH CHAPTER 8.6.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
5. HDPE PIPE: ADS N12 PIPE AS APPROVED ON THE DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES PLUMBING PRODUCT REGISTER.
6. CATCH BASINS: STANDARD PRECAST CONCRETE CATCH BASINS CONFORMING TO CHAPTER 3.6.0 OF THE STANDARD SPECIFICATIONS AND IN GENERAL CONFORMANCE WITH FILE NO. 26 OF THE STANDARD SPECIFICATIONS. DEPTH AND DIAMETER AS INDICATED ON PLANS. CATCH BASIN SIZES TO BE VERIFIED BY CONTRACTOR AND SHOP DRAWINGS SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW PRIOR TO ORDERING STRUCTURES.
7. FRAMES AND GRATES: AS INDICATED ON PLANS. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING SPECIFIED FRAME□GRATE IS COMAPATIBLE WITH STRUCTURE□IF NOT, NOTIFY ENGINEER.
8. MANHOLES: STANDARD PRECAST REINFORCED CONCRETE MANHOLES CONFORMING TO ASTM C478, SECTION 8.39.0 OF THE STANDARD SPECIFICATIONS AND CONFORMING TO FILE NOS. 12, 13 AND 15 OF THE STANDARD SPECIFICATIONS. DIAMETER AND DEPTH AS INDICATED ON PLANS. MANHOLE SIZES TO BE VERIFIED BY CONTRACTOR AND SHOP DRAWINGS SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW PRIOR TO ORDERING STRUCTURES.
9. MANHOLES AND CATCH BASINS DEEPER THAN FOUR FEET SHALL BE PROVIDED WITH MANHOLE STEPS CONFORMING TO SECTION 8.40.0 OF THE STANDARD SPECIFICATIONS.
10. SEWERS SHALL BE INSTALLED IN CONFORMANCE WITH SECTION 3.2.0 OF THE STANDARD SPECIFICATIONS. INSTALL PROPER SIZE INCREASERS, REDUCERS AND COUPLINGS WHERE DIFFERENT SIZES OR MATERIALS OF PIPES AND FITTINGS ARE CONNECTED. INSTALL TRACER PIPE OVER NON-METALLIC PIPING IN ACCORANCE WITH SPS SECTION 382.30□11□H□AND 382.36□7□D□
11. PROVIDE AND INSTALL CLEANOUTS IN ACCORDANCE WITH SPS CHAPTER 382.35. INSTALL CLEANOUTS AND RISER EXTENSIONS FORM SEWER PIPES TO PROPOSED GRADE. INSTALL PIPING SO CLEANOUTS OPEN IN DIRECTION OF FLOW IN SEWER PIPE. USE LIGHT DUTY, TOP LOADING CLASSIFICATION CLEANOUTS IN EARTH OR UNPAVED FOOT TRAFFIC AREAS□USE MEDIUM DUTY, TOP-LOADING CLASSIFICATION CLEANOUTS IN PAVED FOOT TRAFFIC AREAS□USE HEAVY DUTY, TOP-LOADING CLASSIFICATION CLEANOUTS IN VEHICULAR TRAFFIC AREAS. SET CLEANOUT FRAMES AND COVERS IN PAVEMENT AREAS FLUSH WITH PAVEMENT SURFACE.
12. CLASS B COMPACTED TRENCH SECTION □FILE NO. NO. 4 OF STANDARD SPECIFICATIONS□SHALL BE UTILIZED. BEDDING AND COVER MATERIAL SHALL BE IN ACCORDANCE WITH SECTION 8.43.0 OF THE STANDARD SPECIFICATIONS.
13. TRENCH BACKFILL MATERIAL SHALL BE GRANULAR BACKFILL IN ACCORDANCE WITH SECTION 8.43.4 OF THE STANDARD SPECIFICATIONS BENEATH AND WITHIN FIVE FEET OF PAVEMENT AREAS□ COMPACTED SPOIL BACKFILL IN ACCORDANCE WITH SECTION 8.43.5 OF THE STANDARD SPECIFICATIONS MAY BE USED BENEATH LANDSCAPE AREAS.
14. MANHOLE INSTALLATION SHALL BE IN ACCORDANCE WITH SECTION 3.5.0 OF THE STANDARD SPECIFICATIONS. SET MANHOLE RIMS TO ELEVATIONS INDICATED ON PLANS.
15. CATCH BASIN INSTALLATION SHALL BE IN ACCORDANCE WITH SECTION 3.6 OF THE STANDARD SPECIFICATIONS. CATCH BASIN EXCAVATION AND PREPARATION SHALL BE IN ACCORDANCE WITH SECTION 3.5.4□A□AND □B□OF THE STANDARD SPECFCIATIONS. FRAMES AND GRATES SHALL BE SET TO THE ELEVATIONS SHOWN ON THE PLANS.
16. AFTER INSTALLATION OF SEWER PIPE CLEAN ALL DEBRIS FROM SEWER AND INSPECT INTERIOR OF PIPING TO DETERMINE WHETHER LINE DISPLACEMENT OR OTHER DAMAGE HAS OCCURRED. CONDUCT DEFLECTION TESTING OF INSTALLED PIPE IN ACCORDANCE WITH SECTION 3.2.6□1□4 OF THE STANDARD SPECIFICATIONS□REPLACE ANY PIPE SECTION NOT PASSING THE DEFLECTION TESTING USING NEW PIPE MATERIALS.

EARTH MOVING:

1. ALL EARTH WORK SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER PRESENTED IN THE SITE GEOTECHNICAL REPORT, GEOTECHNICAL ENGINEER RECOMMENDATIONS MADE IN THE FIELD AND THESE SPECIFICATIONS. IN CASE OF CONFLICT BETWEEN THESE SPECIFICATIONS AND THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER, THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER SHALL GOVERN.
2. CONTRACTOR SHALL PROVIDE MATERIAL TEST REPORTS FROM A QUALIFIED TESTING AGENCY INDICATING TEST RESULTS FOR CLASSIFICATION ACCORDING TO ASTM D2487 AND LABORATORY COMPACTION CURVES ACCORDING TO ASTM D 1557 FOR EACH ON-SITE AND OFF-SITE SOIL MATERIAL PROPOSED FOR FILL AND BACKFILL.
3. CONTRACTOR SHALL PROVIDE PREEXCAVATION PHOTOS OR VIDEOS SHOWING EXISTING CONDITIONS OF AD□OINING STRUCTURES AND SITE IMPROVEMENTS THAT MIGHT BE MISCONSTRUED AS DAMAGE CAUSED BY EARTHWORK OPERATIONS.
4. OLD BUILDING FOUNDATIONS, BUILDING REMNANTS OR UNSUITABLE BACKFILL MATERIAL SHALL BE COMPLETELY REMOVED FROM WITHIN AND A MINIMUM OF 10 FEET BEYOND THE NEW BUILDING PAD AREAS. THE RESULTING EXCAVATION SHALL BE BACKFILLED WITH COMPACTED ENGINEERED FILL.
5. FOUNDATIONS, FOUNDATION WALLS OR CONCRETE FLOOR SLABS SHALL BE REMOVED TO A MINIMUM OF TWO FEET BELOW PROPOSED SUBGRADE WITHIN PROPOSED PARKING AND GREENSPACE AREAS. BASEMENT SLABS LOCATED BELOW 2 FEET FROM PLANNED SUBGRADE ELEVATION MAY BE LEFT IN PLACE BUT SHALL BE BROKEN INTO MAXIMUM 6 INCH PIECES TO FACILITATE DRAINAGE.
6. SATISFACTORY SOILS FOR FILL: ASTM D 2487 SOIL CLASSIFICATION GROUPS GW, GP, GM, SW, SP, AND SM OR A COMBINATION OF THESE GROUPS; FREE OF ROCK OR GRAVEL LARGER THAN 3 INCHES IN ANY DIMENSION, DEBRIS, WASTE, FROZEN MATERIALS, VEGETATION, AND OTHER DELETERIOUS MATTER OR ANY SOIL GROUP OR COMBINATION OF GROUPS APPROVED OF BY THE PRO□ECT GEOTECHNICAL ENGINEER.
7. UNSATISFACTORY SOILS FOR FILL: SOIL CLASSIFICATION GROUPS GC, SC, CL, ML, OL, CH, MH, OH, AND PT ACCORDING TO ASTM D 2487 OR A COMBINATION OF THESE GROUPS UNLESS DEEMED SATISFACTORY BY THE PRO□ECT GEOTECHNICAL ENGINEER. UNSATISFACTORY SOILS ALSO INCLUDE SOILS NOT MAINTAINED WITHIN 3 PERCENT OF OPTIMUM SOIL MOISTURE CONTENT AT THE TIME OF COMPACTION.
8. AGGREGATE BASE COURSE BENEATH PAVEMENTS: SHALL BE 1-1/4" DENSE GRADED BASE COURSE CONFORMING TO SECTION 305 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION.
9. ENGINEERED FILL: NATURALLY OR ARTIFICIALLY GRADED MIXTURE OF NATURAL OR CRUSHED GRAVEL, CRUSHED STONE, AND NATURAL OR CRUSHED SAND□ ASTM D 2940; WITH AT LEAST 90 PERCENT PASSING A 1-1/2-INCH □37.5-MM□SIEVE AND NOT MORE THAN 12 PERCENT PASSING A NO. 200 SIEVE OR ANY SOIL DEEMED ACCEPTABLE FOR ENGINEERED FILL BY THE PRO□ECT GEOTECHNICAL ENGINEER. ENGINEERED FILL SHALL BE FREE OF ORGANIC, FROZEN, OR OTHER DELETERIOUS MATERIAL AND HAVE A MAXIMUM PARTICLE SIZE LESS THAN 3 INCHES. CLAY FILLS SHALL HAVE A LIQUID LIMIT OF LESS THAN 49 AND PLASTICITY INDEX BETWEEN 11 AND 25.
10. BEDDING COURSE FOR SEWERS AND WATER SERVICE: NATURALLY OR ARTIFICIALLY GRADED MIXTURE OF NATURAL OR CRUSHED GRAVEL, CRUSHED STONE, AND NATURAL OR CRUSHED SAND CONFORMING TO THE REQUIREMENTS OF SECTION 8.43.2 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
11. DRAINAGE COURSE BENEATH BUILDING SLABS: NARROWLY GRADED MIXTURE OF WASHED, CRUSHED STONE, OR CRUSHED OR UNCRUSHED GRAVEL□ ASTM D 448; COARSE-AGGREGATE GRADING SIZE 57; WITH 100 PERCENT PASSING A 1-1/2-INCH □37.5-MM□SIEVE AND 0 TO 5 PERCENT PASSING A NO. 8 SIEVE.
12. TRENCH BACKFILL MATERIAL SHALL BE GRANULAR BACKFILL IN ACCORDANCE WITH SECTION 8.43.4 OF THE STANDARD SPECIFICATIONS BENEATH AND WITHIN FIVE FEET OF PAVEMENT AREAS□COMPACTED SPOIL BACKFILL IN ACCORDANCE WITH SECTION 8.43.5 OF THE STANDARD SPECIFICATIONS MAY BE USED BENEATH LANDSCAPE AREAS.
13. PIPE COVER MATERIAL: CONFORM TO SECTION 8.43.3 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
14. PREVENT SURFACE WATER AND GROUND WATER FROM ENTERING EXCAVATIONS, FROM PONDING ON PREPARED SUBGRADES, AND FROM FLOODING PRO□ECT SITE AND SURROUNDING AREA.
15. SHORING, SHEETING AND BRACING: SHORE, BRACE OR SLOPE BANKS OF EXCAVATION TO PROTECT WORKWEN, BANKS, AD□ACENT PAVING, STRUCTURES, AND UTILITIES TO MEET OSHA REQUIREMENTS. DESIGN OF TEMPORARY SUPPORT OF EXCAVATION IS THE RESPONSIBILITY OF THE CONTRACTOR.
16. EXCAVATE TO SUBGRADE ELEVATIONS REGARDLESS OF THE CHARACTER OF SURFACE AND SUBSURFACE CONDITIONS ENCOUNTERED. UNCLASSIFIED EXCAVATED MATERIALS MAY INCLUDE ROCK, SOIL MATERIALS, AND OBSTRUCTIONS. NO CHANGES IN THE CONTRACT SUM OR THE CONTRACT TIME WILL BE AUTHORIZED FOR ROCK EXCAVATION OR REMOVAL OF OBSTRUCTIONS.
17. PROOF-ROLL SUBGRADE BELOW THE BUILDING SLABS AND PAVEMENTS WITH FULLY LOADED TANDEM AXLE DUMP TRUCK OR RUBBER TIRED VEHICLE OF SIMILAR SIZE AND WEIGHT, TYPICALLY 9 TONS□AXLE, WHERE COHESIVE SOILS ARE ENCOUNTERED OR WITH A SMOOTH DRUMMED VIBRATORY ROLLER WHERE GRANULAR SOILS ARE PRESENT. DO NOT PROOF-ROLL WET OR SATURATED SUBGRADES AND PROOFROLL IN DRY WEATHER. PROOF ROLL IN PRESENCE OF PRO□ECT GEOTECHNICAL ENGINEER OR TECHNICIAN. SOILS THAT ARE OBSERVED TO RUT OR DEFLECT EXCESSIVELY UNDER THE MOVING LOAD (TYPICALLY >1") SHALL BE UNDERCUT AND REPLACED WITH PROPERLY COMPACTED ENGINEERED FILL. IN PAVEMENT AREAS WHERE UNDERCUTS ARE PERFORMED, THE EDGES OF THE OVEREXCAVATIONS SHALL BE FEATHERED INOT THE SURROUNDING SUITABLE SOIL SO THAT EDGE FAILURE OF THE OVEREXCAVATED AREA DOES NOT OCCUR.
18. DUE TO CLAYEY SOILS, IF UNDERCUTS OCCUR WITHIN PAVEMENT AREAS AND THEY ARE BACKFILLED WITH GRANULAR SOILS, THE BOTTOM OF THE OVEREXCAVATION SHALL BE SLOPED TO A DRAINTILE THAT IS IN KIND SLOPED TOWARD THE NEAREST STORM SEWER. MINIMUM SLOPES OF SUCH DRAINTILES SHALL BE 0.5□.
19. CONVENTIONAL DISKING AND AERATION TECHNIQUES SHALL BE USED TO DRY SOILS BEFORE PROOF ROLLING. ALLOT FOR PROPER DRYING TIME IN PRO□ECT SCHEDULE.
20. ENGINEERED FILL SHALL BE PLACED IN MAXIMUM LIFTS OF EIGHT INCHES OF LOOSE MATERIAL AND COMPACTED WITHIN 3□ OF OPTIMUM SOIL MOISTURE CONTENT VALUE AND A MINIMUM OF 95□ OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR TEST ASTM D1557. EACH LIFT OF COMPACTED ENGINEERED FILL SHALL BE OBSERVED AND TESTED BY A QUALIFIED GEOTECHNICAL ENGINEER OR TECHNICIAN.
21. EXISTING OLD FILL MATERIAL SHALL BE REMOVED BELOW FOOTINGS OR FOUNDATION SUPPORTING FILL. ENGINEERED FILL BELOW FOOTINGS SHOULD HAVE AN IN-PLACE DENSITY OF 95□ OF THE MAXIMUM DRY DENSITY AND A MOISTURE CONTENT WITHIN 3□ OF OPTIMUM AS DETERMINED BY ASTM D1557. ENGINEERED FILL BELOW FOOTINGS SHALL BE EVALUATED BY IN-FIELD DENSITY TESTS DURING CONSTRUCTION.
22. WHERE UNSUITABLE BEARING SOILS ARE ENCOUNTERED IN A FOOTING EXCAVATION, THE EXCAVATION SHALL BE DEEPENED TO COMPETENT BEARING SOIL AND THE FOOTING LOWERED OR AN OVEREXCAVATION AND BACKFILL PROCEDURE PERFORMED. OVEREXCATION AND BACKFILL TREATMENT REQUIRES WIDENING THE DEEPENED EXCAVATION IN ALL DIRECTIONS AT LEAST 6 INCHES BEYOND THE EDGE OF THE FOOTING FOR EACH 12 INCHES OF OVEREXCAVATION DEPTH. THE OVEREXCAVATION SHALL BE BACKFILLED UP TO FOOTING BASE ELEVATION IN MAXIMUM 8 INCH LOOSE LIFTS WITH SUITABLE GRANULAR FILL MATERIAL AND COMPACTED TO 95□ OF THE MAXIMUM DRY DENSITY AND A MOISTURE CONTENT WITHIN 3□ OF OPTIMUM AS DETERMINED BY ASTM D1557. SOILS AT FOUNDATION BEARING ELEVATION IN THE FOOTING EXCAVATIONS SHALL BE OBSERVED AND TESTED BY A QUALIFIED GEOTECHNICAL ENGINEER OR TECHNICIAN.
23. A MINIMUM OF FOUR INCHES OF DRAINAGE COURSE MAT SHALL BE PLACED BELOW BUILDING FLOOR SLABS. DRAINAGE COURSE SHALL BE COMPACTED TO A MINIMUM OF 95□ COMPACTION WITH RESPECT TO THE MODIFIED PROCTOR □ASTM D1557□
24. UTILITY TRENCHES FOR SEWER AND WATER SHALL CONFORM TO CLASS B COMPACTED TRENCH SECTION IN ACCORDANCE WITH FILE NO. 4 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
25. BACKFILL UTILITY TRENCHES IN 4 TO 6 INCH LOOSE LIFTS COMPACTED TO 95□ OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557. BACKFILL SHALL BE MOISTURE CONDITIONED TO BE WITH 3□ OF OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D1557.
26. UTILITY BEDDING PLACEMENT: CONFORM TO SECTION 3.2.6 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION. BEDDING MATEERIAL SHALL BE COMPACTED TO A MINIMUM OF 90□ COMPACTION WITH RESPECT TO THE MODIFIED PROCTOR □ASTM D1557□
27. COMPACTION TESTING OF UTILITY TRENCHES SHALL BE PERFORMED FOR EVERY 200 CUBIC YARDS OF BACKFILL PLACED OR EACH LIFT WITHIN 200 LINEAR FEET OF TRENCH, WHICHEVER IS LESS.
28. AGGREGATE BASE COURSE BENEATH PAVEMENTS SHALL BE PLACED AND COMPACTED TO 95□ OF THE MAXIMUM DRY DENSITY WITH A MOISTURE CONTENT WITHIN 3□ OF OPTIMUM AS DETERMINED BY ASTM D1557. AGGREGATE BASE SHALL BE OBSERVED AND TESTED BY A QUALIFIED GEOTECHNICAL ENGINEER OR TECHNICIAN.
29. GRADING GENERAL: UNIFORMLY GRADE AREAS TO A SMOOTH SURFACE, FREE OF IRREGULAR SURFACE CHANGES. COMPLY WITH COMPACTION REQUIREMENTS AND GRADE TO CROSS SECTIONS, LINES, AND ELEVATIONS INDICATED. SLOPE GRADES TO DIRECT WATER AWAY FROM BUILDINGS AND TO PREVENT PONDING.
30. TESTING AGENCY: CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT GEOTECHNICAL ENGINEERING TESTING AGENCY TO PERFORM FIELD QUALITY-CONTROL TESTING.
31. FOOTING SUBGRADE TESTING: EACH ISOLATED FOOTING SHALL INCLUDE AT LEAST ONE TEST PROBE. TEST PROBES SHALL BE PERFORMED EVERY 20 LINEAR FEET IN CONTINUOUS FOOTINGS.
32. BUILDING SLAB AREA TESTING: AT SUBGRADE AND AT EACH COMPACTED FILL AND BACKFILL LAYER, AT LEAST 1 TEST PER LIFT FOR EVERY 2500 SQ. FT. OR LESS OF BUILDING SLAB, BUT IN NO CASE FEWER THAN 3 TESTS.
33. PAVEMENT AREA TESTING: AT SUBGRADE AND AT EACH COMPACTED FILL AND BACKFILL LAYER, AT LEAST ONE TEST FOR EVERY LIFT FOR EVERY 2,500 SQUARE FEET OF PAVEMENT AREA, BUT IN NO CASES FEWER THAN 3 TESTS.
34. UTILITY TRENCH BACKFILL TESTING: ONE TEST FOR EACH 200 CUBIC YARDS OF FILL BACKFILL PLACED OR ONE TEST PER 200 LINEAR FEET OF TRENCH FOR EACH LIFT□WHICHEVER IS LESS.
35. FOUNDATION WALL BACKFILL: AT EACH COMPACTED BACKFILL LAYER, AT LEAST 1 TEST PER LIFT FOR EACH 50 FEET OR LESS OF WALL LENGTH, BUT NO FEWER THAN 2 TESTS.
36. WHEN TESTING AGENCY REPORTS THAT SUBGRADES, FILLS, OR BACKFILLS HAVE NOT ACHIEVED DEGREE OF COMPACTION SPECIFIED, SCARIFY AND MOISTEN OR AERATE, OR REMOVE AND REPLACE SOIL TO DEPTH REQUIRED□RECOMPACT AND RETEST UNTIL SPECIFIED COMPACTION IS OBTAINED.
37. DISPOSAL: REMOVE SURPLUS SOIL AND WASTE MATERIAL, INCLUDING UNSATISFACTORY SOIL, TRASH, AND DEBRIS, AND LEGALLY DISPOSE OF IT OFF OWNER'S PROPERTY.

PRELIMINARY
NOT FOR CONSTRUCTION

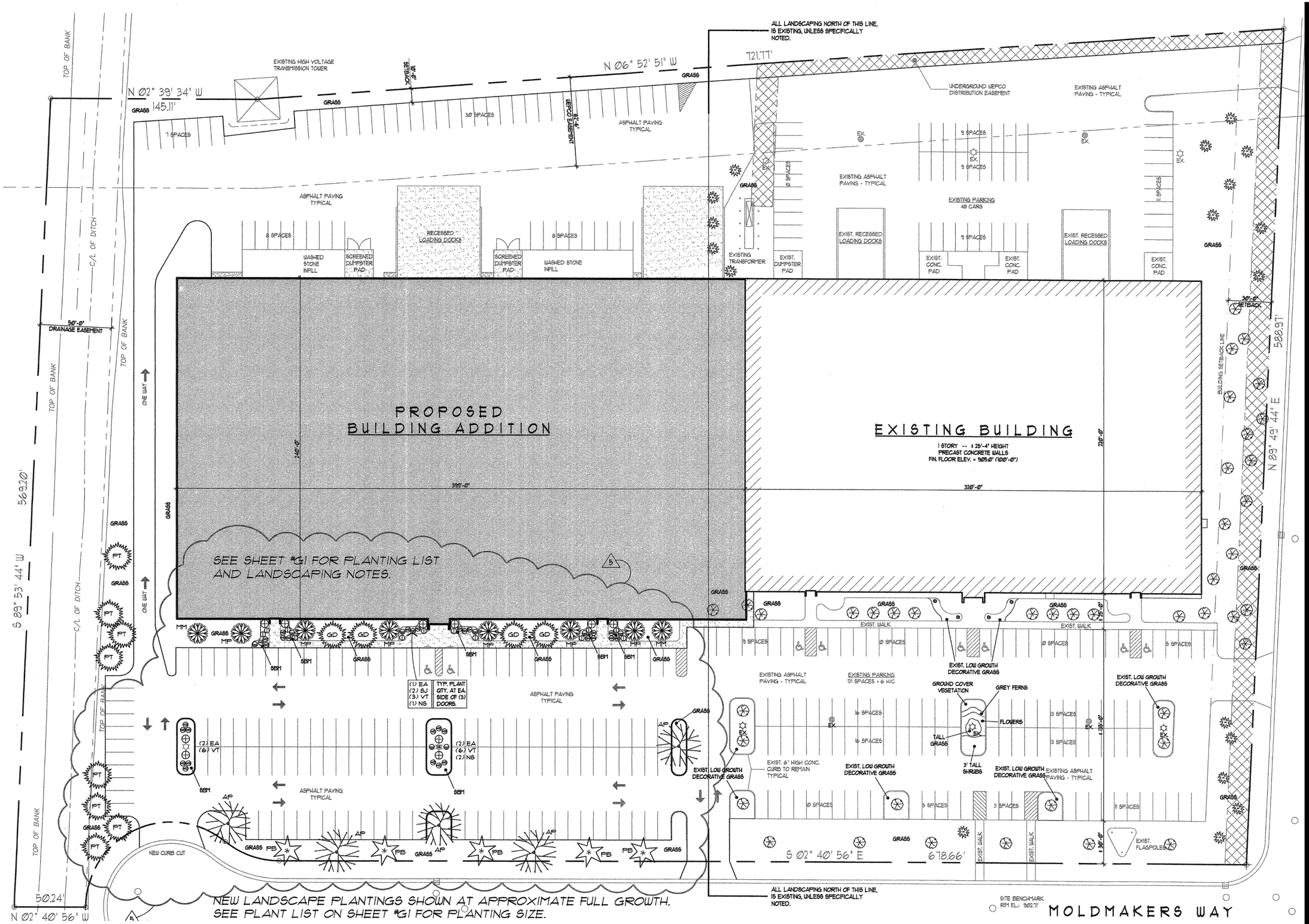
THE SIGMA GROUP
Single Source. Sound Solutions.
www.thesigmagroup.com
1300 West Canal Street
Milwaukee, WI 53233
Phone: 414-643-4200
Fax: 414-643-4210

MSI GENERAL - MGS
W190N11701
GERMANTOWN, WISCONSIN

SPECIFICATIONS

NO. REVISION DATE BY

DRAWING NO.	17537 specifications.dwg
DRAWN BY:	SMM
DATE:	3□30□18
PRO□ECT NO:	17537
CHECKED BY:	- - -
APPROVED BY:	
SHEET NO.:	C 500



EXISTING LANDSCAPE PLAN 1" = 30'-0"

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MANAGERS

MSI GENERAL CORPORATION
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ENGINEERS

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CONTRACTORS

PROJECT ADDRESS:

PROJECT NAME
MGS CLEAN ROOM BLDG ADDITION
STREET ADDRESS
W190N11701 MOLDMAKERS WAY
CITY/ STATE / ZIP
GERMANTOWN, WI 53022

ALL WORK TO BE COMPLETED AS SHOWN, AND IN ACCORDANCE WITH THE LATEST EDITION OF THE MSI GENERAL MASTER SPECIFICATION

ARCHITECTS

Architect:	Engineer:	Reviewed By:
AMH/BGK	PE	MSI

Sheet Title:
EXISTING LANDSCAPE PLAN

Sheet Number:
C-106

Project Number:
P12087

Plant Schedule

Key	Botanical Name	Common Name	Qty	Size	Root	Spacing
	Shade Trees					
AB	Acer x freemanii ' Autumn Blaze'	Autumn Blaze Maple	4	3" Cal.	B&B	as shown
	Evergreen Trees					
PA	Picea abies	Norway Spruce	2	6' High	B&B	as shown
TY	Thuja occidentalis 'Techny'	Techny Arborvitae	3	5' High	B&B	as shown
	Deciduous Shrubs					
CA	Clethra alnifolia 'Ruby Spice'	Ruby Spice Summersweet	5	20" High	Container	5' o.c.
DL	Diervilla lonicera	Dwarf Bush Honeysuckle	15	18" High	Container	48" o.c.
HB	Hydrangea paniculata 'Bobo'	Bobo Hydrangea	5	24" High	Container	6' o.c.
RA	Rhus aromatica 'Grow Low'	Grow Low Sumac	23	18" High	Container	4' o.c.
	Perennials and Grasses					
CK	Calamagrostis acutiflora 'Karl Foerster'	Feather Reed Grass	45	1 Gal.	Container	20" o.c.
HM	Hemerocallis 'Pardon Me'	Pardon Me Daylily	20	1 Gal.	Container	18" o.c.
HE	Hosta seiboldiana 'Elegans'	Blue Giant Hosta	12	1 Gal.	Container	36" o.c.

LANDSCAPE PLAN PREPARED BY TREES ON THE MOVE: 5611 S. CALHOUN ROAD: NEW BERLIN, WI 53151: 262-679-5200

TREES ON THE MOVE

WISCONSIN GERARD A. REWOLINSKI 251 GLENDALE, WI LANDSCAPE ARCHITECT

Gerard A. Rewolinski

1 LANDSCAPE PLAN 1" = 30'-0"

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AMH/BGK	PE	MSI

Sheet Title:
LANDSCAPE PLAN

Sheet Number:
C-107

Project Number: -
P12087

CONTRACTORS

ARCHITECTS

SITE LIGHTING PHOTOMETRIC PLAN

SCALE: 1" = 30'-0"

LIGHT FIXTURE SCHEDULE

FIXTURE ID	DESCRIPTION	MODEL NUMBER	LAMP TYPE	LAMP COLOR TEMPERATURE	LAMP QUANTITY	VOLTAGE	WATTAGE	MOUNTING	NOTES
W1	SMALL LED WALL PACK FIXTURE	LITHONIA LIGHTING DSXW1 LED 10C 350 50K T3M MVOLT DDBXD	LED	5000K	-	277V	13W	SURFACE	MOUNTED AT 10' AFF
W2	MEDIUM LED WALL PACK FIXTURE	LITHONIA LIGHTING DSXW1 LED 10C 700 50K TFTM MVOLT DDBXD	LED	5000K	-	277V	26W	SURFACE	MOUNTED AT 20' AFF
W3	LARGE LED WALL PACK FIXTURE	LITHONIA LIGHTING DSXW1 LED 20C 1000 50K TFTM MVOLT DDBXD	LED	5000K	-	277V	73W	SURFACE	MOUNTED AT 20' AFF
Z1	9,000 LUMEN LED POLE FIXTURE ON 20' POLE	LITHONIA LIGHTING DSX1 LED P2 50K TFTM MVOLT SPA DDBXD WITH SSS 20 4C DM19AS DDB POLE	LED	5000K	-	277V	70W	POLE	MOUNTED ON 20' POLE
Z2	EXISTING TYPE 5 METAL HALIDE FIXTURE ON 25' POLE	EXISTING-UNKNOWN PART NUMBER	METAL HALIDE	6500K	1	277V	465W	POLE	MOUNTED ON 25' POLE

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2323 Sylvan Way
West Bend, WI 53095

Revisions

No.	Description	Date

MGS MANUFACTURING GROUP
CLEAN ROOM #5 ADDITION
W190 N11701 MOLDMAKER WAY
GERMANTOWN, WI 53022

Sheet Title: SITE PHOTOMETRIC

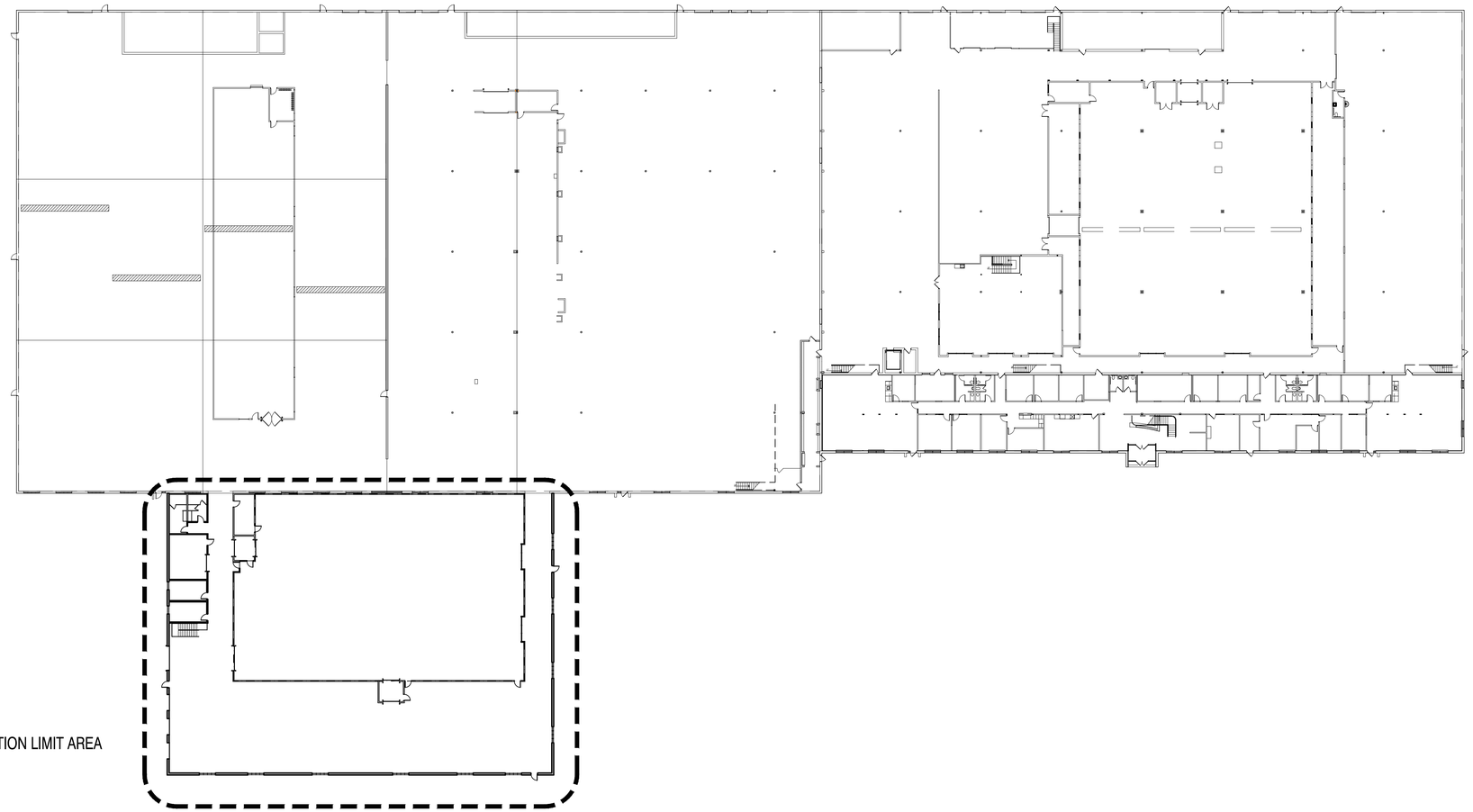
Drawn By: KMF

Date: 4-5-18

Appd By:

E Sheet: 1 of 1

Sheet: E0.2



OVERALL FIRST FLOOR PLAN 1/32"= 1'-0"

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AMH/BGK	PE	MSI

Sheet Title:
OVERALL FIRST FLOOR PLAN

Sheet Number:
A-001

Project Number: -
P12087

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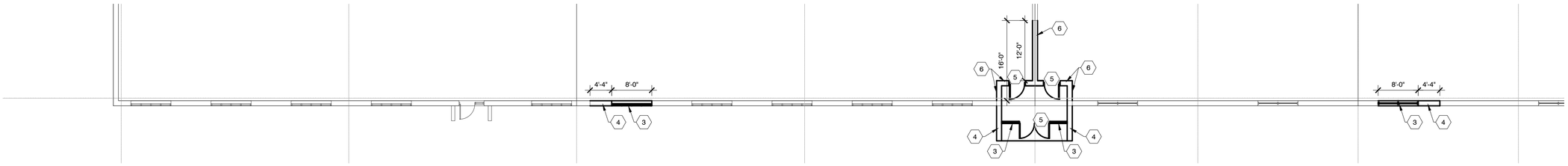

DEMOLITION NOTES

1. REMOVE AND DISPOSE OF EXISTING STEEL COLUMN AND STRUCTURE ABOVE
   -PROVIDE SHORING AS REQUIRED
2. REMOVE AND DISPOSE OF EXISTING STEEL STAIRS
   -VERIFY w/ OWNER IF MEZZANINE OFFICES TO REMAIN OR BE REMOVED
3. REMOVE AND DISPOSE OF EXISTING WINDOW UNIT
4. REMOVE AND DISPOSE PORTION OF EXISTING PRECAST WALL PANEL, FULL HEIGHT FOR NEW OPENINGS
5. REMOVE AND DISPOSE OF EXISTING DOOR AND FRAME
6. REMOVE AND DISPOSE OF EXISTING CMU WALL UP TO BOTTOM OF EXISTING STEEL BEAM
   -PROVIDE SHORING AS REQUIRED

DEMO FIRST FLOOR PLAN 3/32"= 1'-0"

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Architect:	Engineer:	Reviewed By:
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Sheet Title:
DEMO FIRST FLOOR PLAN
Sheet Number:
A-100
Project Number: -
P12087

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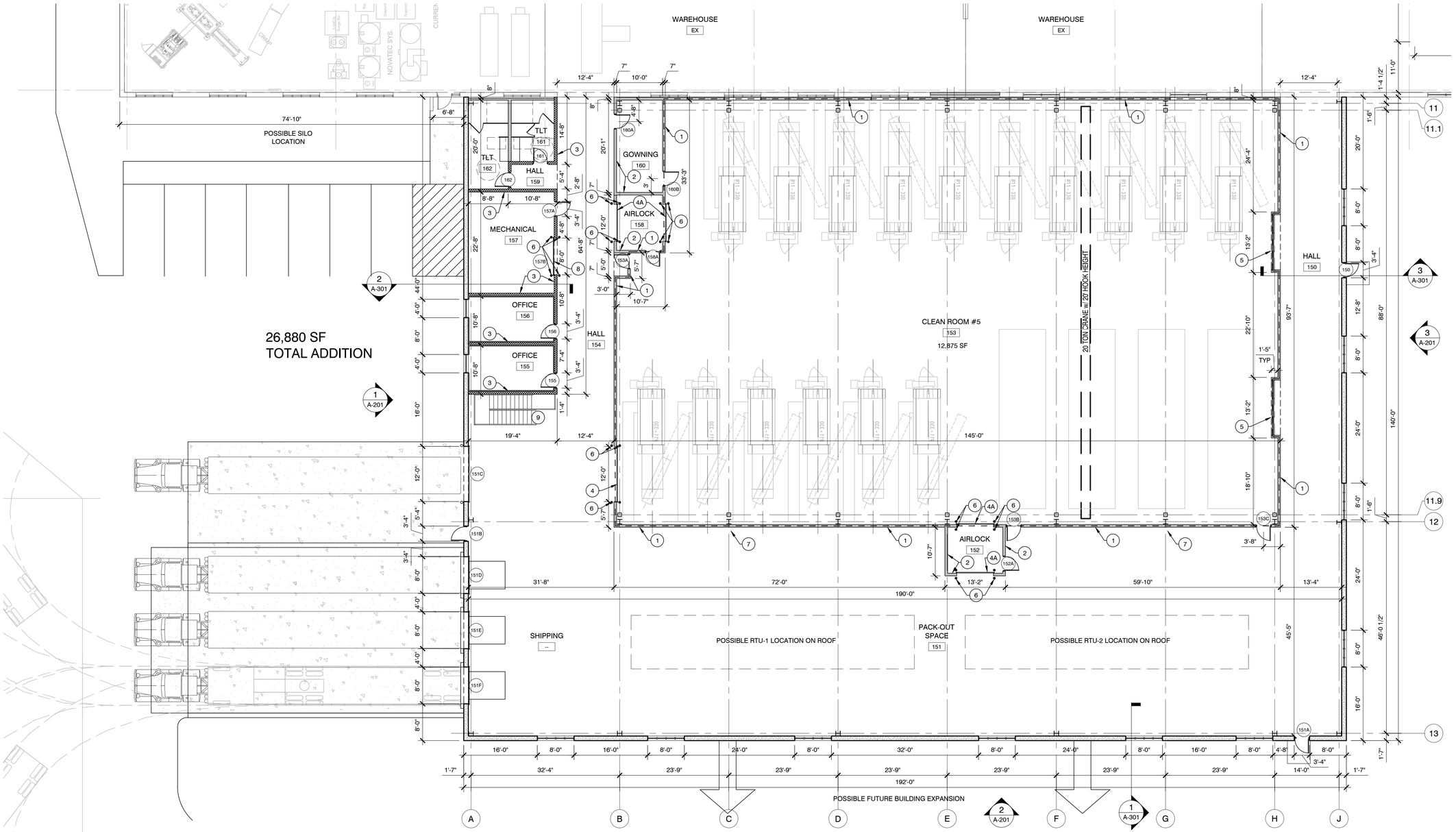


FLOOR PLAN NOTES

1. CLEAN ROOM WALLS:
MIN 18 GA 6" METAL STUDS, 16" O.C. UP TO BOTTOM OF ROOF DECK (PROVIDE SLIP JOINT AT ROOF DECK), VAPOR BARRIER, 5/8" GYP. BD. FULL HEIGHT BOTH SIDES
-PROVIDE SEALANT AT TOP AND BOTTOM OF WALL EACH SIDE

2. TYPICAL STUD WALLS:
MIN 18 GA 6" METAL STUDS, 16" O.C. UP TO BOTTOM OF ROOF DECK (PROVIDE SLIP JOINT AT ROOF DECK), 5/8" GYP. BD. FULL HEIGHT BOTH SIDES

3. 8" CMU WALL UP TO 10'-0" AFF
-MEZZANINE ABOVE

4. DYNACO CLEANROOM M2 COILING DOOR (12'W x 12'H). PROVIDE VISION PANEL, STAINLESS STEEL COVERS, AND DOOR SHALL BE BLUE 5001 OR APPROVED EQUAL.

4A. DYNACO CLEANROOM M2 COILING DOOR (8'W x 8'H). PROVIDE VISION PANEL, STAINLESS STEEL COVERS, AND DOOR SHALL BE BLUE 5001 OR APPROVED EQUAL.

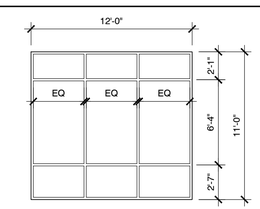
5. 12'-0"W x 11'-0"H CLEAR ANODIZED KAWNEER ANCORE OR "APPROVED EQUAL" ALUMINUM WINDOW SYSTEM w/ 1" INSULATED CLEAR SAFETY GLAZING. GLAZING SHALL BE ON THE CLEAN ROOM SIZE. PROVIDE AND INSTALL WOOD JAMB BLOCKING AS REQUIRED.
-REFER TO WINDOW ELEVATION ON THIS SHEET

6. STEEL PIPE BOLLARDS - PAINTED

7. ROOF DRAIN FROM ABOVE
-CONNECT TO EXISTING STORM

8. 8'W x 10'H OVERHEAD DOOR

9. STEEL STAIRS, RAILING & GUARDRAIL
-PAINTED



FIRST FLOOR PLAN 3/32"= 1'-0"

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PROJECT ADDRESS:

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MGS CLEAN ROOM BLDG ADDITION
STREET ADDRESS
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Architect:	Engineer:	Reviewed By:
AMH/BGK	PE	MSI

Sheet Title:
FIRST FLOOR PLAN

Sheet Number:
A-101

Project Number: -
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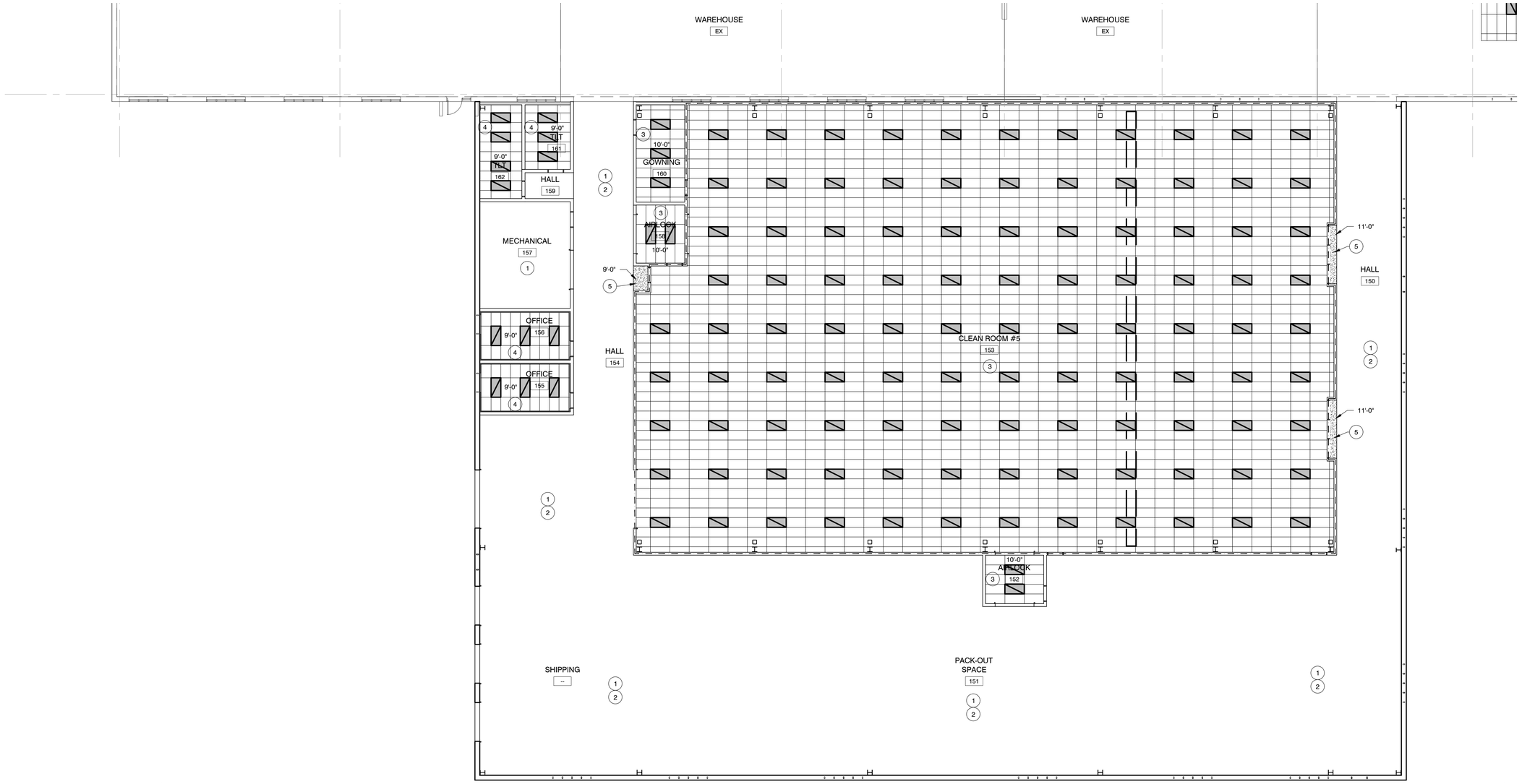
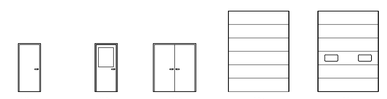
MANAGERS . ENGINEERS . CONTRACTORS . ARCHITECTS



DOOR SCHEDULE

DOOR AND FRAME SCHEDULE - AREA A

	DOOR							FRAME									
		SIZE							DETAIL								
DOOR #	TYPE	PR WxH	MATERIAL	SWING	GLASS SIZE	FINISH	Color	MATERIAL	JAMB	HEAD	FINISH	Color	LABEL	REMARKS	Door Keying	Door Hardware	DOOR #
150	HM 1	3'-0" x 7'-0"	H.M.	Left		PAINT	P-1	H.M.	2"	2"	PAINT	P-1	--	TRANSOM ABOVE	--	--	150
151A	HM 1	3'-0" x 7'-0"	H.M.	Left		PAINT	P-1	H.M.	2"	2"	PAINT	P-1	--	TRANSOM ABOVE	--	--	151A
151B	HM 1	3'-0" x 7'-0"	H.M.	Left		PAINT	P-1	H.M.	2"	2"	PAINT	P-1	--	TRANSOM ABOVE	--	--	151B
151C	M 4	12'-0" x 12'-0"	STND	NA	1-PANEL GLASS	--	--	MASONRY	STND	STND	--	--	--	--	--	--	151C
151D	M 4	8'-0" x 10'-0"	STND	NA	1-PANEL GLASS	--	--	MASONRY	STND	STND	--	--	--	--	--	--	151D
151E	M 4	8'-0" x 10'-0"	STND	NA	1-PANEL GLASS	--	--	MASONRY	STND	STND	--	--	--	--	--	--	151E
151F	M 4	8'-0" x 10'-0"	STND	NA	1-PANEL GLASS	--	--	MASONRY	STND	STND	--	--	--	--	--	--	151F
152A	HM 3	3'-0" x 7'-0"	H.M.	Right	1/2	PAINT	P-1	H.M.	2"	2"	PAINT	P-1	--	ELECTRIC STRIKE	--	HS2	152A
153A	HM 3	3'-0" x 7'-0"	H.M.	Right	1/2	PAINT	P-1	H.M.	2"	2"	PAINT	P-1	--	--	--	HS8	153A
153B	HM 3	3'-0" x 7'-0"	H.M.	Right	1/2	PAINT	P-1	H.M.	2"	2"	PAINT	P-1	--	--	--	HS8	153B
153C	HM 3	3'-0" x 7'-0"	H.M.	Left	1/2	PAINT	P-1	H.M.	2"	2"	PAINT	P-1	--	--	--	HS8	153C
155	HM 3	3'-0" x 7'-0"	H.M.	Left	1/2	PAINT	P-1	H.M.	2"	2"	PAINT	P-1	--	--	--	HS7	155
156	HM 3	3'-0" x 7'-0"	H.M.	Left	1/2	PAINT	P-1	H.M.	2"	2"	PAINT	P-1	--	--	--	HS7	156
157A	HM 1	3'-0" x 7'-0"	H.M.	Left		PAINT	P-1	H.M.	2"	2"	PAINT	P-1	--	--	--	HS5	157A
157B	M 3	8'-0" x 10'-0"	STND	NA		--	--	MASONRY	STND	STND	--	--	--	--	--	--	157B
158A	HM 3	3'-0" x 7'-0"	H.M.	Left	1/2	PAINT	P-1	H.M.	2"	2"	PAINT	P-1	--	ELECTRIC STRIKE	--	HS2	158A
160A	HM 3	3'-0" x 7'-0"	H.M.	Left	1/2	PAINT	P-1	H.M.	2"	2"	PAINT	P-1	--	ELECTRIC STRIKE	--	HS2	160A
160B	HM 3	3'-0" x 7'-0"	H.M.	Left	1/2	PAINT	P-1	H.M.	2"	2"	PAINT	P-1	--	ELECTRIC STRIKE	--	HS2	160B
161	HM 1	3'-0" x 7'-0"	H.M.	Left		PAINT	P-1	H.M.	2"	2"	PAINT	P-1	--	--	--	HS6	161
162	HM 1	3'-0" x 7'-0"	H.M.	Left		PAINT	P-1	H.M.	2"	2"	PAINT	P-1	--	--	--	HS6	162
250	HM 1	3'-0" x 7'-0"	H.M.	Left		PAINT	P-1	H.M.	2"	2"	PAINT	P-1	--	--	--	HS5	250



HM1
H.M. DOOR
H.M. FRAME
SOLID DOOR
2" JAMB
2" HEAD

HM3
H.M. DOOR
H.M. FRAME
1/2 GLASS
2" JAMB
2" HEAD

HM5
H.M. DOORS
H.M. FRAME
SOLID DOOR
2" JAMB
2" HEAD

M3
OVERHEAD
MASONRY FRAME
SOLID DOOR
STND JAMB
STND HEAD

M4
OVERHEAD
MASONRY FRAME
1 PNL. GLASS
STND JAMB
STND HEAD

HARDWARE SETS

HS1: (not used)
HS2: Butt hinges, push/pull, door closer, kick plates, wall mounted door stop, perimeter gasket, drop down door sweeps. Doors shall interlock with each other.
HS3: (not used)
HS4: Butt hinges, dummy trim, kick plates, astragal, perimeter gasket, drop down door sweeps, surface bolts
HS5: Butt hinges, storeroom lock, door closer, wall stop
HS6: Butt hinges, push/pull, door closer, kick plates
HS7: Butt hinges, passage set, wall stop
HS8: Butt hinges, exit only, door closer, wall stop, perimeter gasket, drop down door sweeps

CEILING PLAN NOTES

1. EXPOSED STRUCTURE - NO CEILING
2. DRYFALL PAINT EXPOSED STRUCTURE
3. 2'x4' USG CLEAN ROOM CLIMAPLUS CLASS 100 TILE w/ $\frac{15}{16}$" USG DONN CE GASKETED ACOUSTICAL SUSPENSION SYSTEM. PROVIDE HOLD DOWN CLIPS.
4. 2'x4' ARMSTRONG KITCHEN ZONE TILE w/ $\frac{15}{16}$" PRELUDE ACOUSTICAL SUSPENSION SYSTEM.
5. GYPSUM BOARD BULKHEAD

REFLECTED CEILING PLAN 3/32"= 1'-0"

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OCONOMOWOC, WI 53066
PHONE: 262-367-3661

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PROJECT ADDRESS:

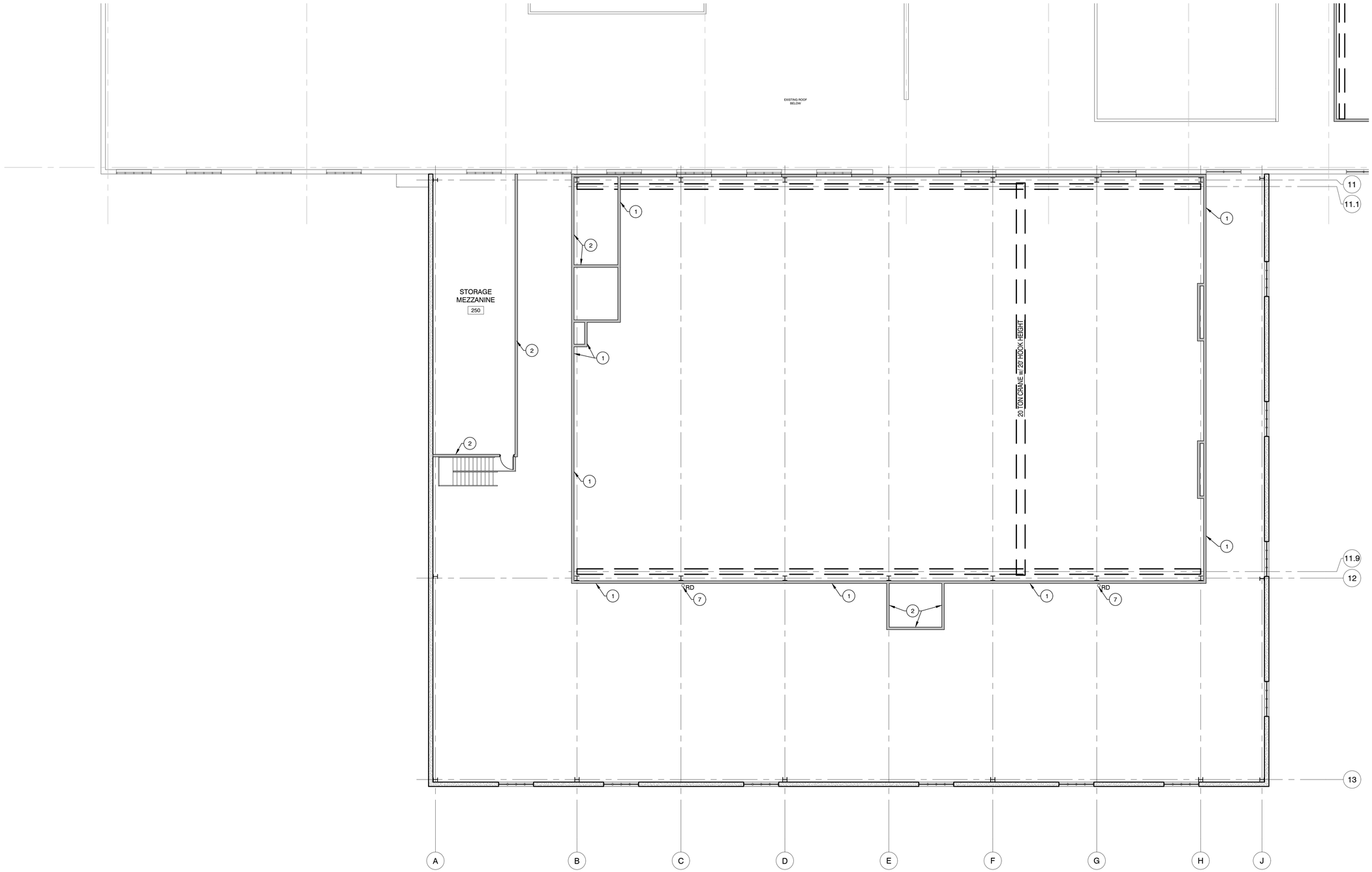
PROJECT NAME
MGS CLEAN ROOM BLDG ADDITION
STREET ADDRESS
W190N11701 MOLDMAKERS WAY
CITY/ STATE / ZIP
GERMANTOWN, WI 53022

ALL WORK TO BE COMPLETED AS SHOWN, AND IN ACCORDANCE WITH THE LATEST EDITION OF THE MSI GENERAL MASTER SPECIFICATION

Architect:	Engineer:	Reviewed By:
AMH/BGK	PE	MSI

Sheet Title:
REFLECTED CEILING PLAN
Sheet Number:
A-102
Project Number: -
P12087

MANAGERS . ENGINEERS . CONTRACTORS . ARCHITECTS



FLOOR PLAN NOTES

1. CLEAN ROOM WALLS:
MIN 18 GA 6" METAL STUDS, 16" O.C. UP TO BOTTOM OF ROOF DECK (PROVIDE SLIP JOINT AT ROOF DECK), VAPOR BARRIER, 5/8" GYP. BD. FULL HEIGHT BOTH SIDES
-PROVIDE SEALANT AT TOP AND BOTTOM OF WALL EACH SIDE

2. TYPICAL STUD WALLS:
MIN 18 GA 6" METAL STUDS, 16" O.C. UP TO BOTTOM OF ROOF DECK (PROVIDE SLIP JOINT AT ROOF DECK), 5/8" GYP. BD. FULL HEIGHT BOTH SIDES

3. 8" CMU WALL UP TO 10'-0" AFF
-MEZZANINE ABOVE

4. DYNACO CLEANROOM M2 COILING DOOR (12'W x 12'H). PROVIDE VISION PANEL, STAINLESS STEEL COVERS, AND DOOR SHALL BE BLUE 5001 OR APPROVED EQUAL.

4A. DYNACO CLEANROOM M2 COILING DOOR (8'W x 8'H). PROVIDE VISION PANEL, STAINLESS STEEL COVERS, AND DOOR SHALL BE BLUE 5001 OR APPROVED EQUAL.

5. 12'-0"W x 11'-0"H CLEAR ANODIZED KAWNEER ANCORE OR "APPROVED EQUAL" ALUMINUM WINDOW SYSTEM w/ 1" INSULATED CLEAR SAFETY GLAZING. GLAZING SHALL BE ON THE CLEAN ROOM SIZE. PROVIDE AND INSTALL WOOD JAMB BLOCKING AS REQUIRED.
-REFER TO WINDOW ELEVATION ON THIS SHEET

6. STEEL PIPE BOLLARDS - PAINTED

7. ROOF DRAIN FROM ABOVE
-CONNECT TO EXISTING STORM

8. 8'W x 10'H OVERHEAD DOOR

9. STEEL STAIRS, RAILING & GUARDRAIL
-PAINTED

1 MEZZANINE FLOOR PLAN 3/32"= 1'-0"

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Architect:	Engineer:	Reviewed By:
AMH/BGK	PE	MSI

Sheet Title:
MEZZANINE FLOOR PLAN
Sheet Number:
A-103
Project Number: -
P12087

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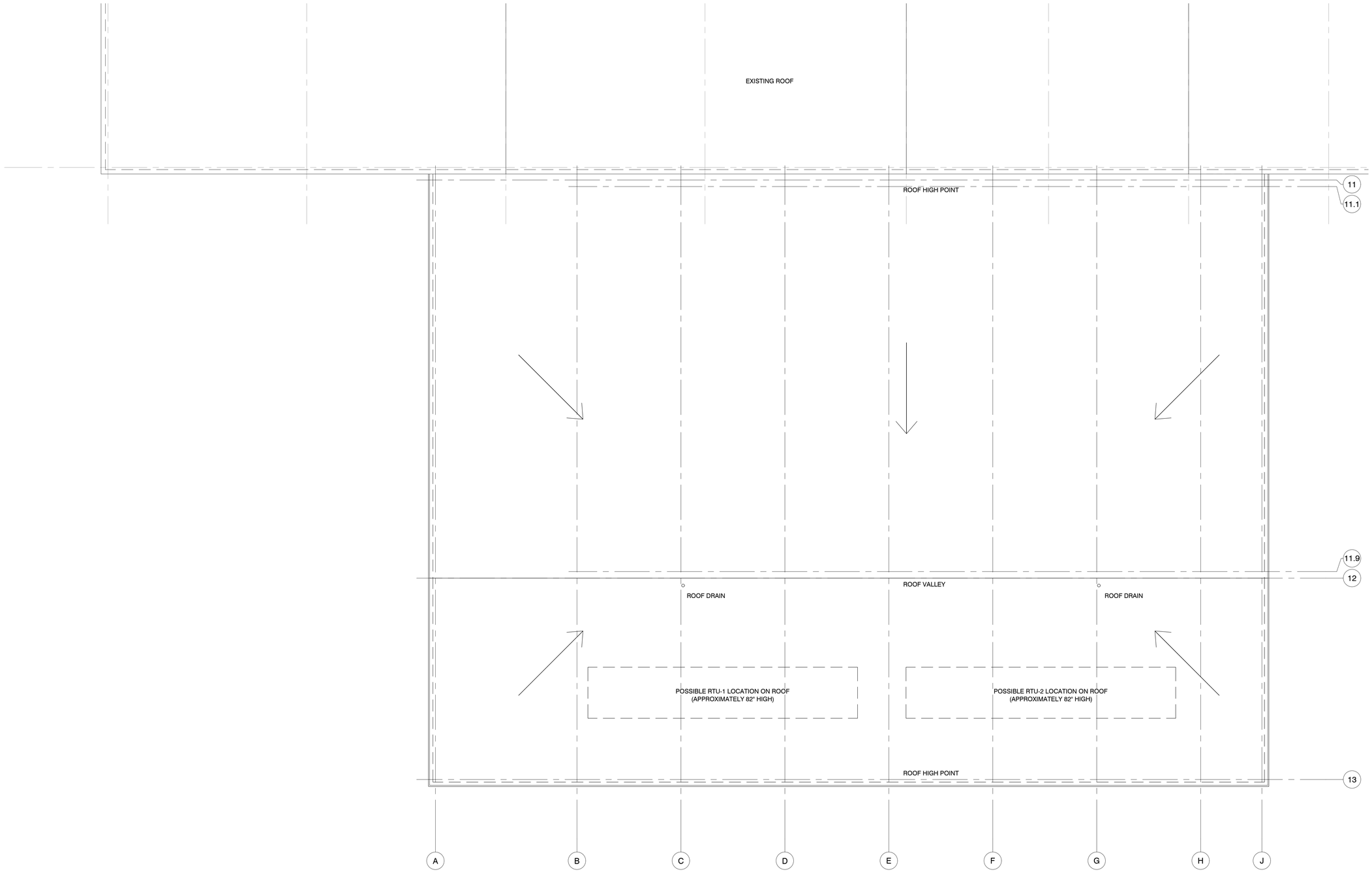

ROOF PLAN NOTES

1

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

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Architect:	Engineer:	Reviewed By:
AMH/BGK	PE	MSI

Sheet Title:
ROOF PLAN

Sheet Number:
A-104

Project Number: -
P12087

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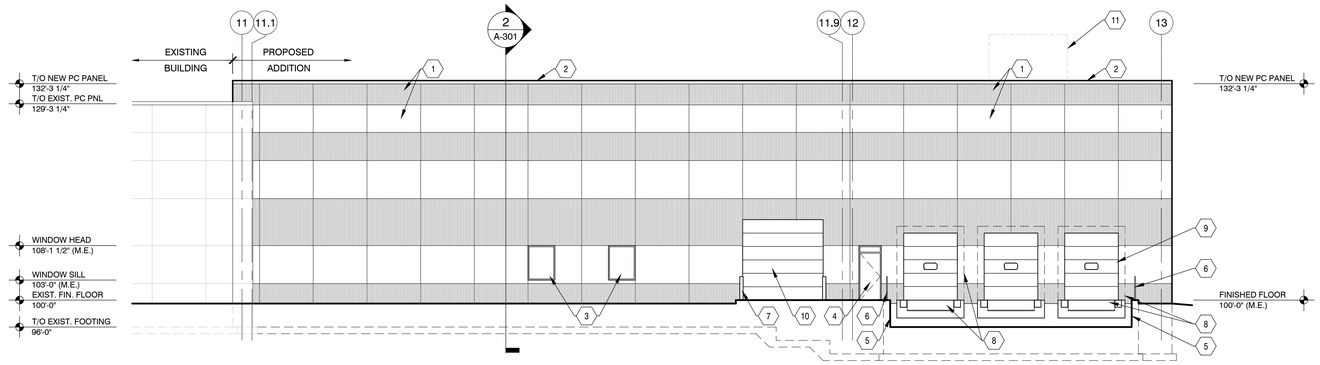
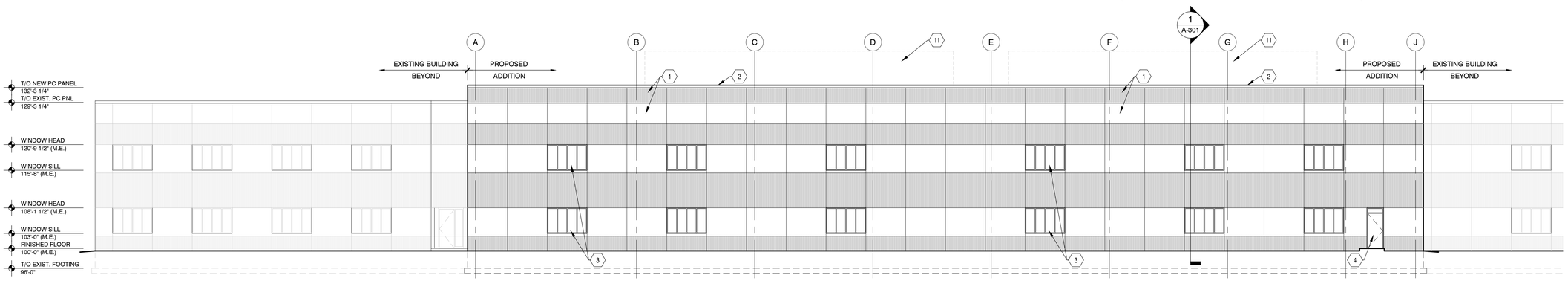
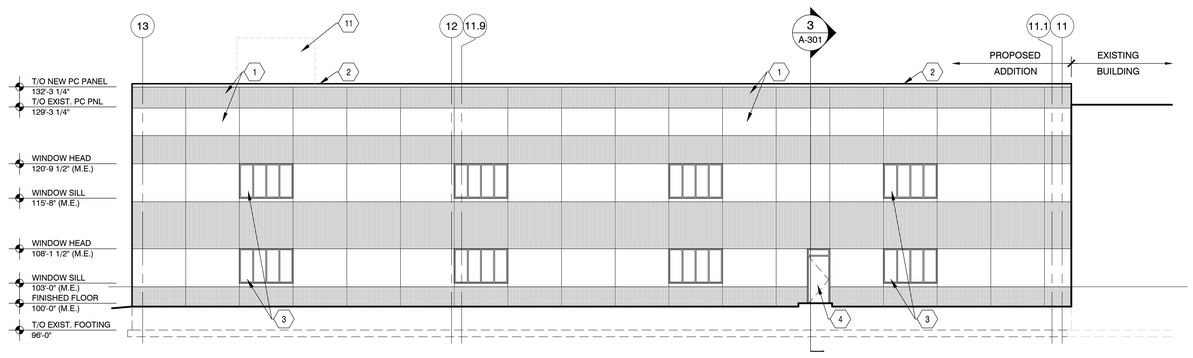


SOUTH ELEVATION



EAST ELEVATION



NORTH ELEVATION

EXTERIOR MATERIAL KEY NOTES

1. PRECAST CONCRETE WALL PANEL w/ CORDUROY TEXTURE & TOWELED TEXTURE -TO MATCH EXISTING
2. PRE-FINISHED METAL COPING CAP -MATCH EXISTING
3. PRE-FINISHED ALUMINUM FRAMED WINDOW w/ LOW-E INSULATED GLAZING -MATCH EXISTING
4. INSULATED HM DOOR & FRAME w/ INSULATED HM TRANSOM PANEL -MATCH EXISTING
5. 12" THICK RETAINING WALL AT RECESSED LOADING DOCK
6. 42" HIGH GUARDRAIL - PAINT
7. 6" DIA CONCRETE FILLED PIPE BOLLARD -PAINT
8. DOCK LEVELER AND DOCK SEALS
9. 8'W x 10'H OVERHEAD DOOR
10. 12'W x 12'H OVERHEAD DOOR
11. RTU LOCATION

ELEVATIONS 3/32" = 1'-0"

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PROJECT NAME
MGS CLEAN ROOM BLDG ADDITION
STREET ADDRESS
W190N11701 MOLDMAKERS WAY
CITY/ STATE / ZIP
GERMANTOWN, WI 53022

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Architect:	Engineer:	Reviewed By:
AMH/BGK	PE	MSI

Sheet Title:
EXTERIOR ELEVATIONS

Sheet Number:
A-201

Project Number: -
P12087

MANAGERS . ENGINEERS . CONTRACTORS . ARCHITECTS

EXTERIOR RENDERING

PHOTOS OF EXISTING

EXTERIOR MATERIAL KEY NOTES

1. PRECAST CONCRETE WALL PANEL w/ CORDUROY TEXTURE & TOWELED TEXTURE -TO MATCH EXISTING
2. PRE-FINISHED METAL COPING CAP -TO MATCH EXISTING
3. PRE-FINISHED DARK BRONZE ALUMINUM FRAMED WINDOW w/ LOW-E INSULATED GLAZING -TO MATCH EXISTING

EXTERIOR MATERIALS 3/32" = 1'-0"

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Architect:	Engineer:	Reviewed By:
AMH/BGK	PE	MSI

Sheet Title:
EXTERIOR MATERIALS

Sheet Number:
A-202

Project Number: -
P12087

MANAGERS . ENGINEERS . CONTRACTORS . ARCHITECTS

MGS Manufacturing Clean Room Addition

Submittal Package for:

Exterior Lighting

<u>Date Submitted: 4-5-18</u>

Electrical Contractor: Steiner Electric, Inc.
2323 Sylvan Way
West Bend, WI 53095
Phone: 262-334-5517
Fax: 262-334-7947
www.steiner-electric.com

D-Series Size 1
LED Wall Luminaire

d"series

Catalog Number	DSXW1 LED 10C 350 50K T3M MVOLT DDBXD
Notes	
Type	W1

Hit the Tab key or mouse over the page to see all interactive elements.

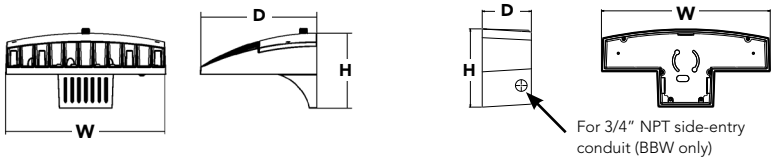
Specifications

Luminaire

Width:	13-3/4" (34.9 cm)	**Weight:**	12 lbs (5.4 kg)
Depth:	10" (25.4 cm)		
Height:	6-3/8" (16.2 cm)		

Back Box (BBW, ELCW)

Width:	13-3/4" (34.9 cm)	**BBW Weight:**	5 lbs (2.3 kg)
Depth:	4" (10.2 cm)	**ELCW Weight:**	10 lbs (4.5 kg)
Height:	6-3/8" (16.2 cm)		



Introduction

The D-Series Wall luminaire is a stylish, fully integrated LED solution for building-mount applications. It features a sleek, modern design and is carefully engineered to provide long-lasting, energy-efficient lighting with a variety of optical and control options for customized performance.

With an expected service life of over 20 years of nighttime use and up to 74% in energy savings over comparable 250W metal halide luminaires, the D-Series Wall is a reliable, low-maintenance lighting solution that produces sites that are exceptionally illuminated.

Ordering Information

EXAMPLE: DSXW1 LED 20C 1000 40K T3M MVOLT DDBTXD

DSXW1 LED

Series	LEDs	Drive Current	Color temperature	Distribution	Voltage	Mounting	Control Options
DSXW1 LED	10C 10 LEDs (one engine) 20C 20 LEDs (two engines) [1]	350 350 mA 530 530 mA 700 700 mA 1000 1000 mA (1 A) [1]	30K 3000 K 40K 4000 K 50K 5000 K AMBPC Amber phosphor converted	T2S Type II Short T2M Type II Medium T3S Type III Short T3M Type III Medium T4M Type IV Medium TFTM Forward Throw Medium ASYDF Asymmetric diffuse	MVOLT [2] 120 [3] 208 [3] 240 [3] 277 [3] 347 [3,4] 480 [3,4]	**Shipped included** (blank) Surface mounting bracket BBW Surface-mounted back box (for conduit entry) [5]	**Shipped installed** PE Photoelectric cell, button type [6] DMG 0-10V dimming driver (no controls; wires pulled outside fixture)) PIR 180° motion/ambient light sensor, <15' mtg ht [1,7] PIRH 180° motion/ambient light sensor, 15-30' mtg ht [1,7] PIR1FC3V Motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc [1,7] PIRH1FC3V Motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc [1,7] ELCW Emergency battery backup (includes external component enclosure), non CEC compliant [8]

Other Options

Shipped installed

SF	Single fuse (120, 277 or 347V) [3,9]
DF	Double fuse (208, 240 or 480V) [3,9]
HS	House-side shield [10]
SPD	Separate surge protection

Shipped separately [10]

BSW	Bird-deterrent spikes
WG	Wire guard
VG	Vandal guard
DDL	Diffused drop lens

Finish *(required)*

DDBXD	Dark bronze	DSSXD	Sandstone	DWHGXD	Textured white
DBLXD	Black	DDBTXD	Textured dark bronze	DSSTXD	Textured sandstone
DNAXD	Natural aluminum	DBLBXD	Textured black		
DWHXD	White	DNATXD	Textured natural aluminum		

Accessories

Ordered and shipped separately.

DSXWHS U	House-side shield (one per light engine)
DSXWBSW U	Bird-deterrent spikes
DSXW1WG U	Wire guard accessory
DSXW1VG U	Vandal guard accessory

NOTES

1. 20C 1000 is not available with PIR, PIRH, PIR1FC3V or PIRH1FC3V.
2. MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
3. Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
4. Only available with 20C, 700mA or 1000mA. Not available with PIR or PIRH.
5. Back box ships installed on fixture. Cannot be field installed. Cannot be ordered as an accessory.
6. Photocontrol (PE) requires 120, 208, 240, 277 or 347 voltage option. Not available with motion/ambient light sensors (PIR or PIRH).
7. Reference Motion Sensor table on page 3.
8. Cold weather (-20C) rated. Not compatible with conduit entry applications. Not available with BBW mounting option. Not available with fusing. Not available with 347 or 480 voltage options. Emergency components located in back box housing. Emergency mode IES files located on product page at www.lithonia.com
9. Not available with ELCW.
10. Also available as a separate accessory; see Accessories information.

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Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K (3000 K, 70CRI)					40K (4000 K, 70CRI)					50K (5000 K, 70CRI)					AMBPC (Amber Phosphor Converted)				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
10C (10 LEDs)	350mA	13W	T2S	1,415	0	0	1	109	1,520	0	0	1	117	1,530	0	0	1	118	894	0	0	1	69
			T2M	1,349	0	0	1	104	1,448	0	0	1	111	1,458	0	0	1	112	852	0	0	1	66
			T3S	1,399	0	0	1	108	1,503	0	0	1	116	1,512	0	0	1	116	884	0	0	1	68
			T3M	1,385	0	0	1	107	1,488	0	0	1	114	1,497	0	0	1	115	876	0	0	1	67
			T4M	1,357	0	0	1	104	1,458	0	0	1	112	1,467	0	0	1	113	858	0	0	1	66
			TFTM	1,411	0	0	1	109	1,515	0	0	1	117	1,525	0	0	1	117	892	0	0	1	69
			ASYDF	1,262	1	0	1	97	1,354	1	0	1	104	1,363	1	0	1	105	797	0	0	1	61
	530 mA	19W	T2S	2,053	1	0	1	108	2,205	1	0	1	116	2,220	1	0	1	117	1,264	0	0	1	67
			T2M	1,957	1	0	1	103	2,102	1	0	1	111	2,115	1	0	1	111	1,205	0	0	1	63
			T3S	2,031	1	0	1	107	2,181	1	0	1	115	2,194	1	0	1	115	1,250	0	0	1	66
			T3M	2,010	1	0	1	106	2,159	1	0	1	114	2,172	1	0	1	114	1,237	0	0	1	65
			T4M	1,970	1	0	1	104	2,115	1	0	1	111	2,129	1	0	1	112	1,212	0	0	1	64
			TFTM	2,047	0	0	1	108	2,198	1	0	1	116	2,212	1	0	1	116	1,260	0	0	1	66
			ASYDF	1,831	1	0	1	96	1,966	1	0	1	103	1,978	1	0	1	104	1,127	0	0	1	59
	700 mA	26W	T2S	2,623	1	0	1	101	2,816	1	0	1	108	2,834	1	0	1	109	1,544	0	0	1	59
			T2M	2,499	1	0	1	96	2,684	1	0	1	103	2,701	1	0	1	104	1,472	0	0	1	57
			T3S	2,593	1	0	1	100	2,785	1	0	1	107	2,802	1	0	1	108	1,527	0	0	1	59
			T3M	2,567	1	0	1	99	2,757	1	0	1	106	2,774	1	0	1	107	1,512	0	0	1	58
			T4M	2,515	1	0	1	97	2,701	1	0	1	104	2,718	1	0	1	105	1,481	0	0	1	57
			TFTM	2,614	1	0	1	101	2,808	1	0	1	108	2,825	1	0	1	109	1,539	0	0	1	59
			ASYDF	2,337	1	0	1	90	2,510	1	0	1	97	2,525	1	0	1	97	1,376	1	0	1	53
	1000 mA	39W	T2S	3,685	1	0	1	94	3,957	1	0	1	101	3,982	1	0	1	102	2,235	1	0	1	57
			T2M	3,512	1	0	1	90	3,771	1	0	1	97	3,794	1	0	1	97	2,130	1	0	1	55
			T3S	3,644	1	0	1	93	3,913	1	0	1	100	3,938	1	0	1	101	2,210	1	0	1	57
			T3M	3,607	1	0	1	92	3,873	1	0	1	99	3,898	1	0	1	100	2,187	1	0	1	56
			T4M	3,534	1	0	2	91	3,796	1	0	2	97	3,819	1	0	2	98	2,143	1	0	1	55
			TFTM	3,673	1	0	1	94	3,945	1	0	1	101	3,969	1	0	1	102	2,228	1	0	1	57
			ASYDF	3,284	1	0	2	84	3,527	1	0	2	90	3,549	1	0	2	91	1,992	1	0	1	51
20C (20 LEDs)	350mA	23W	T2S	2,820	1	0	1	123	3,028	1	0	1	132	3,047	1	0	1	132	1,777	1	0	1	77
			T2M	2,688	1	0	1	117	2,886	1	0	1	125	2,904	1	0	1	126	1,693	1	0	1	74
			T3S	2,789	1	0	1	121	2,994	1	0	1	130	3,014	1	0	1	131	1,757	0	0	1	76
			T3M	2,760	1	0	1	120	2,965	1	0	1	129	2,983	1	0	1	130	1,739	1	0	1	76
			T4M	2,704	1	0	1	118	2,905	1	0	1	126	2,922	1	0	1	127	1,704	1	0	1	74
			TFTM	2,811	1	0	1	122	3,019	1	0	1	131	3,038	1	0	1	132	1,771	0	0	1	77
			ASYDF	2,514	1	0	1	109	2,699	1	0	1	117	2,716	1	0	1	118	1,584	1	0	1	69
	530 mA	35W	T2S	4,079	1	0	1	117	4,380	1	0	1	125	4,407	1	0	1	126	2,504	1	0	1	72
			T2M	3,887	1	0	1	111	4,174	1	0	1	119	4,201	1	0	1	120	2,387	1	0	1	68
			T3S	4,033	1	0	1	115	4,331	1	0	1	124	4,359	1	0	1	125	2,477	1	0	1	71
			T3M	3,993	1	0	2	114	4,288	1	0	2	123	4,315	1	0	2	123	2,451	1	0	1	70
			T4M	3,912	1	0	2	112	4,201	1	0	2	120	4,227	1	0	2	121	2,402	1	0	1	69
			TFTM	4,066	1	0	2	116	4,366	1	0	2	125	4,394	1	0	2	126	2,496	1	0	1	71
			ASYDF	3,636	1	0	2	104	3,904	1	0	2	112	3,928	1	0	2	112	2,232	1	0	1	64
	700 mA	46W	T2S	5,188	1	0	1	113	5,572	1	0	1	121	5,607	1	0	1	122	3,065	1	0	1	67
			T2M	4,945	1	0	2	108	5,309	1	0	2	115	5,343	1	0	2	116	2,921	1	0	1	64
			T3S	5,131	1	0	2	112	5,510	1	0	2	120	5,544	1	0	2	121	3,031	1	0	1	66
			T3M	5,078	1	0	2	110	5,454	1	0	2	119	5,487	1	0	2	119	3,000	1	0	1	65
			T4M	4,975	1	0	2	108	5,343	1	0	2	116	5,376	1	0	2	117	2,939	1	0	1	64
			TFTM	5,172	1	0	2	112	5,554	1	0	2	121	5,589	1	0	2	122	3,055	1	0	1	66
			ASYDF	4,624	1	0	2	101	4,965	1	0	2	108	4,996	1	0	2	109	2,732	1	0	1	59
	1000 mA	73W	T2S	7,204	1	0	2	99	7,736	2	0	2	106	7,784	2	0	2	107	4,429	1	0	1	61
			T2M	6,865	1	0	2	94	7,373	2	0	2	101	7,419	2	0	2	102	4,221	1	0	1	58
			T3S	7,125	1	0	2	98	7,651	1	0	2	105	7,698	1	0	2	105	4,380	1	0	1	60
			T3M	7,052	1	0	2	97	7,573	2	0	2	104	7,620	2	0	2	104	4,335	1	0	2	59
			T4M	6,909	1	0	2	95	7,420	1	0	2	102	7,466	1	0	2	102	4,248	1	0	2	58
			TFTM	7,182	1	0	2	98	7,712	1	0	2	106	7,761	1	0	2	106	4,415	1	0	2	60
			ASYDF	6,421	2	0	2	88	6,896	2	0	3	94	6,938	2	0	3	95	3,947	1	0	2	54

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Performance Data

Lumen Ambient Temperature (LAT) Multipliers

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

Ambient		Lumen Multiplier
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	**77°F**	**1.00**
30°C	86°F	1.00
40°C	104°F	0.98

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the **DSXW1 LED 20C 1000** platform in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	0.95	0.93	0.88

Electrical Load

LEDs	Drive Current (mA)	System Watts	Current (A) 120V	208V	240V	277V	347V	480V
10C	350	14 W	0.13	0.07	0.06	0.06	-	-
	530	20 W	0.19	0.11	0.09	0.08	-	-
	700	27 W	0.25	0.14	0.13	0.11	-	-
	1000	40 W	0.37	0.21	0.19	0.16	-	-
20C	350	24 W	0.23	0.13	0.12	0.10	-	-
	530	36 W	0.33	0.19	0.17	0.14	-	-
	700	47 W	0.44	0.25	0.22	0.19	0.15	0.11
	1000	74 W	0.69	0.40	0.35	0.30	0.23	0.17

Motion Sensor Default Settings

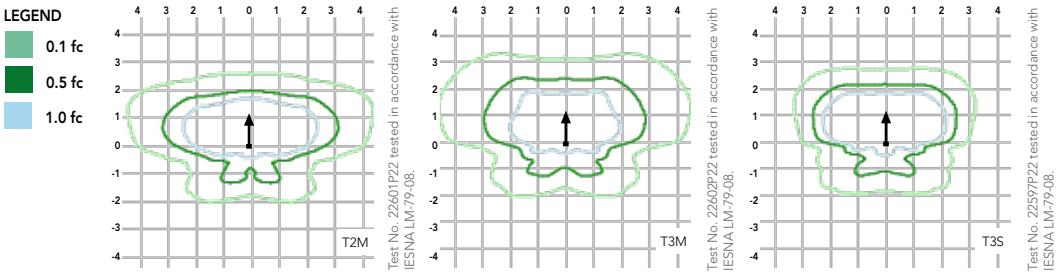
Option	Dimmed State	High Level (when triggered)	Photocell Operation	Dwell Time	Ramp-up Time	Ramp-down Time
*PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min
PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min

*for use with Inline Dusk to Dawn or timer

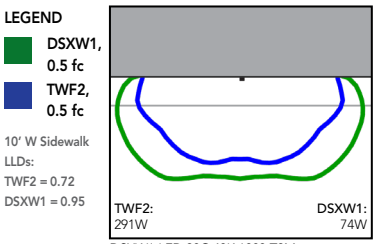
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Wall Size 1 homepage.

Isofootcandle plots for the DSXW1 LED 20C 1000 40K. Distances are in units of mounting height (15').



Distribution overlay comparison to 250W metal halide.



DSXW1 LED 20C 40K 1000 T3M, TWF2 250M Pulse, 15' Mounting Ht

Options and Accessories

T3M (left), ASYDF (right) lenses

HS - House-side shields

BSW - Bird-deterrent spikes

WG - Wire guard

VG - Vandal guard

DDL - Diffused drop lens

FEATURES & SPECIFICATIONS

INTENDED USE

The energy savings, long life and easy-to-install design of the D-Series Wall Size 1 make it the smart choice for building-mounted doorway and pathway illumination for nearly any facility.

CONSTRUCTION

Two-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance. The LED driver is mounted to the door to thermally isolate it from the light engines for low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65).

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in textured and non-textured finishes.

OPTICS

Precision-molded proprietary acrylic lenses provide multiple photometric distributions tailored specifically to building mounted applications. Light engines are available in 3000 K (70 min. CRI), 4000 K (70 min. CRI) or 5000 K (70 min. CRI) configurations.

ELECTRICAL

Light engine(s) consist of 10 high-efficacy LEDs mounted to a metal-core circuit board to maximize heat dissipation and promote long life (L88/100,000 hrs at 25°C). Class 1 electronic drivers have a power factor >90%, THD <20%, and a minimum 2.5KV surge rating. When ordering the SPD option, a separate surge protection device is installed within the luminaire which meets a minimum Category C Low (per ANSI/IEEE C62.41.2).

INSTALLATION

Included universal mounting bracket attaches securely to any 4" round or square outlet box for quick and easy installation. Luminaire has a slotted gasket wireway and attaches to the mounting bracket via corrosion-resistant screws.

LISTINGS

CSA certified to U.S. and Canadian standards. Rated for -40°C minimum ambient.

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org to confirm which versions are qualified.

WARRANTY

Five-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

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D-Series Size 1
LED Wall Luminaire

d"series

Catalog Number	DSXW1 LED 10C 700 50K TFTM MVOLT DDBXD
Notes	
Type	W2

Hit the Tab key or mouse over the page to see all interactive elements.

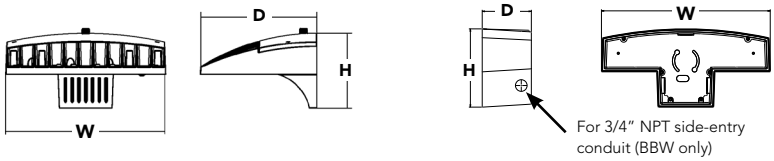
Specifications

Luminaire

Width:	13-3/4" (34.9 cm)	**Weight:**	12 lbs (5.4 kg)
Depth:	10" (25.4 cm)		
Height:	6-3/8" (16.2 cm)		

Back Box (BBW, ELCW)

Width:	13-3/4" (34.9 cm)	**BBW Weight:**	5 lbs (2.3 kg)
Depth:	4" (10.2 cm)	**ELCW Weight:**	10 lbs (4.5 kg)
Height:	6-3/8" (16.2 cm)		



Introduction

The D-Series Wall luminaire is a stylish, fully integrated LED solution for building-mount applications. It features a sleek, modern design and is carefully engineered to provide long-lasting, energy-efficient lighting with a variety of optical and control options for customized performance.

With an expected service life of over 20 years of nighttime use and up to 74% in energy savings over comparable 250W metal halide luminaires, the D-Series Wall is a reliable, low-maintenance lighting solution that produces sites that are exceptionally illuminated.

Ordering Information

EXAMPLE: DSXW1 LED 20C 1000 40K T3M MVOLT DDBTXD

DSXW1 LED

Series	LEDs	Drive Current	Color temperature	Distribution	Voltage	Mounting	Control Options
DSXW1 LED	10C 10 LEDs (one engine) 20C 20 LEDs (two engines) [1]	350 350 mA 530 530 mA 700 700 mA 1000 1000 mA (1 A) [1]	30K 3000 K 40K 4000 K 50K 5000 K AMBPC Amber phosphor converted	T2S Type II Short T2M Type II Medium T3S Type III Short T3M Type III Medium T4M Type IV Medium TFTM Forward Throw Medium ASYDF Asymmetric diffuse	MVOLT [2] 120 [3] 208 [3] 240 [3] 277 [3] 347 [3,4] 480 [3,4]	**Shipped included** (blank) Surface mounting bracket BBW Surface-mounted back box (for conduit entry) [5]	**Shipped installed** PE Photoelectric cell, button type [6] DMG 0-10V dimming driver (no controls; wires pulled outside fixture)) PIR 180° motion/ambient light sensor, <15' mtg ht [1,7] PIRH 180° motion/ambient light sensor, 15-30' mtg ht [1,7] PIR1FC3V Motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc [1,7] PIRH1FC3V Motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc [1,7] ELCW Emergency battery backup (includes external component enclosure), non CEC compliant [8]

Other Options			
Shipped installed		**Shipped separately** [10]	
SF	Single fuse (120, 277 or 347V) [3,9]	BSW	Bird-deterrent spikes
DF	Double fuse (208, 240 or 480V) [3,9]	WG	Wire guard
HS	House-side shield [10]	VG	Vandal guard
SPD	Separate surge protection	DDL	Diffused drop lens

Finish *(required)*					
DDBXD	Dark bronze	DSSXD	Sandstone	DWHGXD	Textured white
DBLXD	Black	DDBTXD	Textured dark bronze	DSSTXD	Textured sandstone
DNAXD	Natural aluminum	DBLBXD	Textured black		
DWHXD	White	DNATXD	Textured natural aluminum		

Accessories

Ordered and shipped separately.

DSXWHS U	House-side shield (one per light engine)
DSXWBSW U	Bird-deterrent spikes
DSXW1WG U	Wire guard accessory
DSXW1VG U	Vandal guard accessory

NOTES

1 20C 1000 is not available with PIR, PIRH, PIR1FC3V or PIRH1FC3V.
2 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
3 Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
4 Only available with 20C, 700mA or 1000mA. Not available with PIR or PIRH.
5 Back box ships installed on fixture. Cannot be field installed. Cannot be ordered as an accessory.
6 Photocontrol (PE) requires 120, 208, 240, 277 or 347 voltage option. Not available with motion/ambient light sensors (PIR or PIRH).
7 Reference Motion Sensor table on page 3.
8 Cold weather (-20C) rated. Not compatible with conduit entry applications. Not available with BBW mounting option. Not available with fusing. Not available with 347 or 480 voltage options. Emergency components located in back box housing. Emergency mode IES files located on product page at www.lithonia.com
9 Not available with ELCW.
10 Also available as a separate accessory; see Accessories information.

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Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K (3000 K, 70CRI)					40K (4000 K, 70CRI)					50K (5000 K, 70CRI)					AMBPC (Amber Phosphor Converted)				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
10C (10 LEDs)	350mA	13W	T2S	1,415	0	0	1	109	1,520	0	0	1	117	1,530	0	0	1	118	894	0	0	1	69
			T2M	1,349	0	0	1	104	1,448	0	0	1	111	1,458	0	0	1	112	852	0	0	1	66
			T3S	1,399	0	0	1	108	1,503	0	0	1	116	1,512	0	0	1	116	884	0	0	1	68
			T3M	1,385	0	0	1	107	1,488	0	0	1	114	1,497	0	0	1	115	876	0	0	1	67
			T4M	1,357	0	0	1	104	1,458	0	0	1	112	1,467	0	0	1	113	858	0	0	1	66
			TFTM	1,411	0	0	1	109	1,515	0	0	1	117	1,525	0	0	1	117	892	0	0	1	69
			ASYDF	1,262	1	0	1	97	1,354	1	0	1	104	1,363	1	0	1	105	797	0	0	1	61
	530 mA	19W	T2S	2,053	1	0	1	108	2,205	1	0	1	116	2,220	1	0	1	117	1,264	0	0	1	67
			T2M	1,957	1	0	1	103	2,102	1	0	1	111	2,115	1	0	1	111	1,205	0	0	1	63
			T3S	2,031	1	0	1	107	2,181	1	0	1	115	2,194	1	0	1	115	1,250	0	0	1	66
			T3M	2,010	1	0	1	106	2,159	1	0	1	114	2,172	1	0	1	114	1,237	0	0	1	65
			T4M	1,970	1	0	1	104	2,115	1	0	1	111	2,129	1	0	1	112	1,212	0	0	1	64
			TFTM	2,047	0	0	1	108	2,198	1	0	1	116	2,212	1	0	1	116	1,260	0	0	1	66
			ASYDF	1,831	1	0	1	96	1,966	1	0	1	103	1,978	1	0	1	104	1,127	0	0	1	59
	700 mA	26W	T2S	2,623	1	0	1	101	2,816	1	0	1	108	2,834	1	0	1	109	1,544	0	0	1	59
			T2M	2,499	1	0	1	96	2,684	1	0	1	103	2,701	1	0	1	104	1,472	0	0	1	57
			T3S	2,593	1	0	1	100	2,785	1	0	1	107	2,802	1	0	1	108	1,527	0	0	1	59
			T3M	2,567	1	0	1	99	2,757	1	0	1	106	2,774	1	0	1	107	1,512	0	0	1	58
			T4M	2,515	1	0	1	97	2,701	1	0	1	104	2,718	1	0	1	105	1,481	0	0	1	57
			TFTM	2,614	1	0	1	101	2,808	1	0	1	108	2,825	1	0	1	109	1,539	0	0	1	59
			ASYDF	2,337	1	0	1	90	2,510	1	0	1	97	2,525	1	0	1	97	1,376	1	0	1	53
	1000 mA	39W	T2S	3,685	1	0	1	94	3,957	1	0	1	101	3,982	1	0	1	102	2,235	1	0	1	57
			T2M	3,512	1	0	1	90	3,771	1	0	1	97	3,794	1	0	1	97	2,130	1	0	1	55
			T3S	3,644	1	0	1	93	3,913	1	0	1	100	3,938	1	0	1	101	2,210	1	0	1	57
			T3M	3,607	1	0	1	92	3,873	1	0	1	99	3,898	1	0	1	100	2,187	1	0	1	56
			T4M	3,534	1	0	2	91	3,796	1	0	2	97	3,819	1	0	2	98	2,143	1	0	1	55
			TFTM	3,673	1	0	1	94	3,945	1	0	1	101	3,969	1	0	1	102	2,228	1	0	1	57
			ASYDF	3,284	1	0	2	84	3,527	1	0	2	90	3,549	1	0	2	91	1,992	1	0	1	51
20C (20 LEDs)	350mA	23W	T2S	2,820	1	0	1	123	3,028	1	0	1	132	3,047	1	0	1	132	1,777	1	0	1	77
			T2M	2,688	1	0	1	117	2,886	1	0	1	125	2,904	1	0	1	126	1,693	1	0	1	74
			T3S	2,789	1	0	1	121	2,994	1	0	1	130	3,014	1	0	1	131	1,757	0	0	1	76
			T3M	2,760	1	0	1	120	2,965	1	0	1	129	2,983	1	0	1	130	1,739	1	0	1	76
			T4M	2,704	1	0	1	118	2,905	1	0	1	126	2,922	1	0	1	127	1,704	1	0	1	74
			TFTM	2,811	1	0	1	122	3,019	1	0	1	131	3,038	1	0	1	132	1,771	0	0	1	77
			ASYDF	2,514	1	0	1	109	2,699	1	0	1	117	2,716	1	0	1	118	1,584	1	0	1	69
	530 mA	35W	T2S	4,079	1	0	1	117	4,380	1	0	1	125	4,407	1	0	1	126	2,504	1	0	1	72
			T2M	3,887	1	0	1	111	4,174	1	0	1	119	4,201	1	0	1	120	2,387	1	0	1	68
			T3S	4,033	1	0	1	115	4,331	1	0	1	124	4,359	1	0	1	125	2,477	1	0	1	71
			T3M	3,993	1	0	2	114	4,288	1	0	2	123	4,315	1	0	2	123	2,451	1	0	1	70
			T4M	3,912	1	0	2	112	4,201	1	0	2	120	4,227	1	0	2	121	2,402	1	0	1	69
			TFTM	4,066	1	0	2	116	4,366	1	0	2	125	4,394	1	0	2	126	2,496	1	0	1	71
			ASYDF	3,636	1	0	2	104	3,904	1	0	2	112	3,928	1	0	2	112	2,232	1	0	1	64
	700 mA	46W	T2S	5,188	1	0	1	113	5,572	1	0	1	121	5,607	1	0	1	122	3,065	1	0	1	67
			T2M	4,945	1	0	2	108	5,309	1	0	2	115	5,343	1	0	2	116	2,921	1	0	1	64
			T3S	5,131	1	0	2	112	5,510	1	0	2	120	5,544	1	0	2	121	3,031	1	0	1	66
			T3M	5,078	1	0	2	110	5,454	1	0	2	119	5,487	1	0	2	119	3,000	1	0	1	65
			T4M	4,975	1	0	2	108	5,343	1	0	2	116	5,376	1	0	2	117	2,939	1	0	1	64
			TFTM	5,172	1	0	2	112	5,554	1	0	2	121	5,589	1	0	2	122	3,055	1	0	1	66
			ASYDF	4,624	1	0	2	101	4,965	1	0	2	108	4,996	1	0	2	109	2,732	1	0	1	59
	1000 mA	73W	T2S	7,204	1	0	2	99	7,736	2	0	2	106	7,784	2	0	2	107	4,429	1	0	1	61
			T2M	6,865	1	0	2	94	7,373	2	0	2	101	7,419	2	0	2	102	4,221	1	0	1	58
			T3S	7,125	1	0	2	98	7,651	1	0	2	105	7,698	1	0	2	105	4,380	1	0	1	60
			T3M	7,052	1	0	2	97	7,573	2	0	2	104	7,620	2	0	2	104	4,335	1	0	2	59
			T4M	6,909	1	0	2	95	7,420	1	0	2	102	7,466	1	0	2	102	4,248	1	0	2	58
			TFTM	7,182	1	0	2	98	7,712	1	0	2	106	7,761	1	0	2	106	4,415	1	0	2	60
			ASYDF	6,421	2	0	2	88	6,896	2	0	3	94	6,938	2	0	3	95	3,947	1	0	2	54

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Performance Data

Lumen Ambient Temperature (LAT) Multipliers

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

Ambient		Lumen Multiplier
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	**77°F**	**1.00**
30°C	86°F	1.00
40°C	104°F	0.98

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the **DSXW1 LED 20C 1000** platform in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	0.95	0.93	0.88

Electrical Load

LEDs	Drive Current (mA)	System Watts	Current (A) 120V	208V	240V	277V	347V	480V
10C	350	14 W	0.13	0.07	0.06	0.06	-	-
	530	20 W	0.19	0.11	0.09	0.08	-	-
	700	27 W	0.25	0.14	0.13	0.11	-	-
	1000	40 W	0.37	0.21	0.19	0.16	-	-
20C	350	24 W	0.23	0.13	0.12	0.10	-	-
	530	36 W	0.33	0.19	0.17	0.14	-	-
	700	47 W	0.44	0.25	0.22	0.19	0.15	0.11
	1000	74 W	0.69	0.40	0.35	0.30	0.23	0.17

Motion Sensor Default Settings

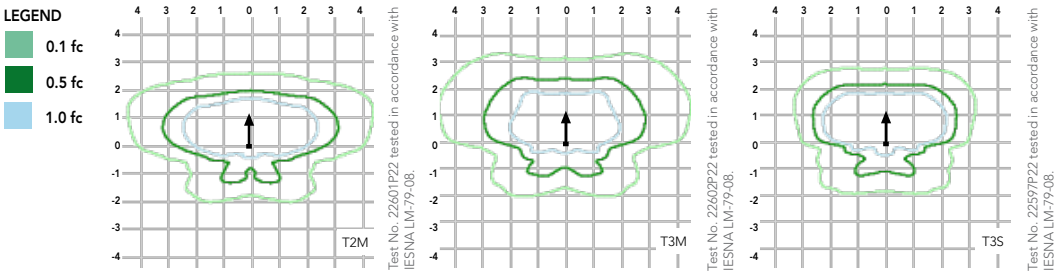
Option	Dimmed State	High Level (when triggered)	Photocell Operation	Dwell Time	Ramp-up Time	Ramp-down Time
*PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min
PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min

*for use with Inline Dusk to Dawn or timer

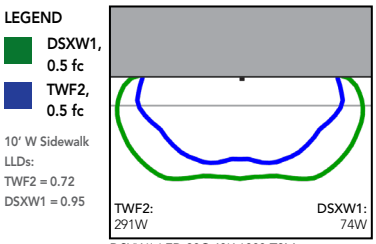
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Wall Size 1 homepage.

Isofootcandle plots for the DSXW1 LED 20C 1000 40K. Distances are in units of mounting height (15').



Distribution overlay comparison to 250W metal halide.



DSXW1 LED 20C 40K 1000 T3M, TWF2 250M Pulse, 15' Mounting Ht

Options and Accessories

T3M (left), ASYDF (right) lenses

HS - House-side shields

BSW - Bird-deterrent spikes

WG - Wire guard

VG - Vandal guard

DDL - Diffused drop lens

FEATURES & SPECIFICATIONS

INTENDED USE

The energy savings, long life and easy-to-install design of the D-Series Wall Size 1 make it the smart choice for building-mounted doorway and pathway illumination for nearly any facility.

CONSTRUCTION

Two-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance. The LED driver is mounted to the door to thermally isolate it from the light engines for low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65).

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in textured and non-textured finishes.

OPTICS

Precision-molded proprietary acrylic lenses provide multiple photometric distributions tailored specifically to building mounted applications. Light engines are available in 3000 K (70 min. CRI), 4000 K (70 min. CRI) or 5000 K (70 min. CRI) configurations.

ELECTRICAL

Light engine(s) consist of 10 high-efficacy LEDs mounted to a metal-core circuit board to maximize heat dissipation and promote long life (L88/100,000 hrs at 25°C). Class 1 electronic drivers have a power factor >90%, THD <20%, and a minimum 2.5KV surge rating. When ordering the SPD option, a separate surge protection device is installed within the luminaire which meets a minimum Category C Low (per ANSI/IEEE C62.41.2).

INSTALLATION

Included universal mounting bracket attaches securely to any 4" round or square outlet box for quick and easy installation. Luminaire has a slotted gasket wireway and attaches to the mounting bracket via corrosion-resistant screws.

LISTINGS

CSA certified to U.S. and Canadian standards. Rated for -40°C minimum ambient.

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org to confirm which versions are qualified.

WARRANTY

Five-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

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D-Series Size 1
LED Wall Luminaire

d"series

Catalog Number	DSXW1 LED 20C 1000 50K TFTM MVOLT DDBXD
Notes	
Type	W3

Hit the Tab key or mouse over the page to see all interactive elements.

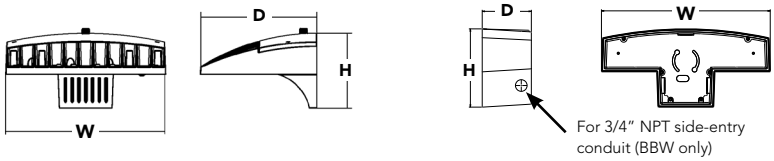
Specifications

Luminaire

Width:	13-3/4" (34.9 cm)	**Weight:**	12 lbs (5.4 kg)
Depth:	10" (25.4 cm)		
Height:	6-3/8" (16.2 cm)		

Back Box (BBW, ELCW)

Width:	13-3/4" (34.9 cm)	**BBW Weight:**	5 lbs (2.3 kg)
Depth:	4" (10.2 cm)	**ELCW Weight:**	10 lbs (4.5 kg)
Height:	6-3/8" (16.2 cm)		



Introduction

The D-Series Wall luminaire is a stylish, fully integrated LED solution for building-mount applications. It features a sleek, modern design and is carefully engineered to provide long-lasting, energy-efficient lighting with a variety of optical and control options for customized performance.

With an expected service life of over 20 years of nighttime use and up to 74% in energy savings over comparable 250W metal halide luminaires, the D-Series Wall is a reliable, low-maintenance lighting solution that produces sites that are exceptionally illuminated.

Ordering Information

EXAMPLE: DSXW1 LED 20C 1000 40K T3M MVOLT DDBTXD

DSXW1 LED

Series	LEDs	Drive Current	Color temperature	Distribution	Voltage	Mounting	Control Options
DSXW1 LED	10C 10 LEDs (one engine) 20C 20 LEDs (two engines) [1]	350 350 mA 530 530 mA 700 700 mA 1000 1000 mA (1 A) [1]	30K 3000 K 40K 4000 K 50K 5000 K AMBPC Amber phosphor converted	T2S Type II Short T2M Type II Medium T3S Type III Short T3M Type III Medium T4M Type IV Medium TFTM Forward Throw Medium ASYDF Asymmetric diffuse	MVOLT [2] 120 [3] 208 [3] 240 [3] 277 [3] 347 [3,4] 480 [3,4]	**Shipped included** (blank) Surface mounting bracket BBW Surface-mounted back box (for conduit entry) [5]	**Shipped installed** PE Photoelectric cell, button type [6] DMG 0-10V dimming driver (no controls; wires pulled outside fixture)) PIR 180° motion/ambient light sensor, <15' mtg ht [1,7] PIRH 180° motion/ambient light sensor, 15-30' mtg ht [1,7] PIR1FC3V Motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc [1,7] PIRH1FC3V Motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc [1,7] ELCW Emergency battery backup (includes external component enclosure), non CEC compliant [8]

Other Options			
Shipped installed		**Shipped separately** [10]	
SF	Single fuse (120, 277 or 347V) [3,9]	BSW	Bird-deterrent spikes
DF	Double fuse (208, 240 or 480V) [3,9]	WG	Wire guard
HS	House-side shield [10]	VG	Vandal guard
SPD	Separate surge protection	DDL	Diffused drop lens

Finish *(required)*					
DDBXD	Dark bronze	DSSXD	Sandstone	DWHGXD	Textured white
DBLXD	Black	DDBTXD	Textured dark bronze	DSSTXD	Textured sandstone
DNAXD	Natural aluminum	DBLBXD	Textured black		
DWHXD	White	DNATXD	Textured natural aluminum		

Accessories

Ordered and shipped separately.

DSXWHS U	House-side shield (one per light engine)
DSXWBSW U	Bird-deterrent spikes
DSXW1WG U	Wire guard accessory
DSXW1VG U	Vandal guard accessory

NOTES

1 20C 1000 is not available with PIR, PIRH, PIR1FC3V or PIRH1FC3V.
2 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
3 Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
4 Only available with 20C, 700mA or 1000mA. Not available with PIR or PIRH.
5 Back box ships installed on fixture. Cannot be field installed. Cannot be ordered as an accessory.
6 Photocontrol (PE) requires 120, 208, 240, 277 or 347 voltage option. Not available with motion/ambient light sensors (PIR or PIRH).
7 Reference Motion Sensor table on page 3.
8 Cold weather (-20C) rated. Not compatible with conduit entry applications. Not available with BBW mounting option. Not available with fusing. Not available with 347 or 480 voltage options. Emergency components located in back box housing. Emergency mode IES files located on product page at www.lithonia.com
9 Not available with ELCW.
10 Also available as a separate accessory; see Accessories information.

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Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K (3000 K, 70CRI)					40K (4000 K, 70CRI)					50K (5000 K, 70CRI)					AMBPC (Amber Phosphor Converted)				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
10C (10 LEDs)	350mA	13W	T2S	1,415	0	0	1	109	1,520	0	0	1	117	1,530	0	0	1	118	894	0	0	1	69
			T2M	1,349	0	0	1	104	1,448	0	0	1	111	1,458	0	0	1	112	852	0	0	1	66
			T3S	1,399	0	0	1	108	1,503	0	0	1	116	1,512	0	0	1	116	884	0	0	1	68
			T3M	1,385	0	0	1	107	1,488	0	0	1	114	1,497	0	0	1	115	876	0	0	1	67
			T4M	1,357	0	0	1	104	1,458	0	0	1	112	1,467	0	0	1	113	858	0	0	1	66
			TFTM	1,411	0	0	1	109	1,515	0	0	1	117	1,525	0	0	1	117	892	0	0	1	69
			ASYDF	1,262	1	0	1	97	1,354	1	0	1	104	1,363	1	0	1	105	797	0	0	1	61
	530 mA	19W	T2S	2,053	1	0	1	108	2,205	1	0	1	116	2,220	1	0	1	117	1,264	0	0	1	67
			T2M	1,957	1	0	1	103	2,102	1	0	1	111	2,115	1	0	1	111	1,205	0	0	1	63
			T3S	2,031	1	0	1	107	2,181	1	0	1	115	2,194	1	0	1	115	1,250	0	0	1	66
			T3M	2,010	1	0	1	106	2,159	1	0	1	114	2,172	1	0	1	114	1,237	0	0	1	65
			T4M	1,970	1	0	1	104	2,115	1	0	1	111	2,129	1	0	1	112	1,212	0	0	1	64
			TFTM	2,047	0	0	1	108	2,198	1	0	1	116	2,212	1	0	1	116	1,260	0	0	1	66
			ASYDF	1,831	1	0	1	96	1,966	1	0	1	103	1,978	1	0	1	104	1,127	0	0	1	59
	700 mA	26W	T2S	2,623	1	0	1	101	2,816	1	0	1	108	2,834	1	0	1	109	1,544	0	0	1	59
			T2M	2,499	1	0	1	96	2,684	1	0	1	103	2,701	1	0	1	104	1,472	0	0	1	57
			T3S	2,593	1	0	1	100	2,785	1	0	1	107	2,802	1	0	1	108	1,527	0	0	1	59
			T3M	2,567	1	0	1	99	2,757	1	0	1	106	2,774	1	0	1	107	1,512	0	0	1	58
			T4M	2,515	1	0	1	97	2,701	1	0	1	104	2,718	1	0	1	105	1,481	0	0	1	57
			TFTM	2,614	1	0	1	101	2,808	1	0	1	108	2,825	1	0	1	109	1,539	0	0	1	59
			ASYDF	2,337	1	0	1	90	2,510	1	0	1	97	2,525	1	0	1	97	1,376	1	0	1	53
	1000 mA	39W	T2S	3,685	1	0	1	94	3,957	1	0	1	101	3,982	1	0	1	102	2,235	1	0	1	57
			T2M	3,512	1	0	1	90	3,771	1	0	1	97	3,794	1	0	1	97	2,130	1	0	1	55
			T3S	3,644	1	0	1	93	3,913	1	0	1	100	3,938	1	0	1	101	2,210	1	0	1	57
			T3M	3,607	1	0	1	92	3,873	1	0	1	99	3,898	1	0	1	100	2,187	1	0	1	56
			T4M	3,534	1	0	2	91	3,796	1	0	2	97	3,819	1	0	2	98	2,143	1	0	1	55
			TFTM	3,673	1	0	1	94	3,945	1	0	1	101	3,969	1	0	1	102	2,228	1	0	1	57
			ASYDF	3,284	1	0	2	84	3,527	1	0	2	90	3,549	1	0	2	91	1,992	1	0	1	51
20C (20 LEDs)	350mA	23W	T2S	2,820	1	0	1	123	3,028	1	0	1	132	3,047	1	0	1	132	1,777	1	0	1	77
			T2M	2,688	1	0	1	117	2,886	1	0	1	125	2,904	1	0	1	126	1,693	1	0	1	74
			T3S	2,789	1	0	1	121	2,994	1	0	1	130	3,014	1	0	1	131	1,757	0	0	1	76
			T3M	2,760	1	0	1	120	2,965	1	0	1	129	2,983	1	0	1	130	1,739	1	0	1	76
			T4M	2,704	1	0	1	118	2,905	1	0	1	126	2,922	1	0	1	127	1,704	1	0	1	74
			TFTM	2,811	1	0	1	122	3,019	1	0	1	131	3,038	1	0	1	132	1,771	0	0	1	77
			ASYDF	2,514	1	0	1	109	2,699	1	0	1	117	2,716	1	0	1	118	1,584	1	0	1	69
	530 mA	35W	T2S	4,079	1	0	1	117	4,380	1	0	1	125	4,407	1	0	1	126	2,504	1	0	1	72
			T2M	3,887	1	0	1	111	4,174	1	0	1	119	4,201	1	0	1	120	2,387	1	0	1	68
			T3S	4,033	1	0	1	115	4,331	1	0	1	124	4,359	1	0	1	125	2,477	1	0	1	71
			T3M	3,993	1	0	2	114	4,288	1	0	2	123	4,315	1	0	2	123	2,451	1	0	1	70
			T4M	3,912	1	0	2	112	4,201	1	0	2	120	4,227	1	0	2	121	2,402	1	0	1	69
			TFTM	4,066	1	0	2	116	4,366	1	0	2	125	4,394	1	0	2	126	2,496	1	0	1	71
			ASYDF	3,636	1	0	2	104	3,904	1	0	2	112	3,928	1	0	2	112	2,232	1	0	1	64
	700 mA	46W	T2S	5,188	1	0	1	113	5,572	1	0	1	121	5,607	1	0	1	122	3,065	1	0	1	67
			T2M	4,945	1	0	2	108	5,309	1	0	2	115	5,343	1	0	2	116	2,921	1	0	1	64
			T3S	5,131	1	0	2	112	5,510	1	0	2	120	5,544	1	0	2	121	3,031	1	0	1	66
			T3M	5,078	1	0	2	110	5,454	1	0	2	119	5,487	1	0	2	119	3,000	1	0	1	65
			T4M	4,975	1	0	2	108	5,343	1	0	2	116	5,376	1	0	2	117	2,939	1	0	1	64
			TFTM	5,172	1	0	2	112	5,554	1	0	2	121	5,589	1	0	2	122	3,055	1	0	1	66
			ASYDF	4,624	1	0	2	101	4,965	1	0	2	108	4,996	1	0	2	109	2,732	1	0	1	59
	1000 mA	73W	T2S	7,204	1	0	2	99	7,736	2	0	2	106	7,784	2	0	2	107	4,429	1	0	1	61
			T2M	6,865	1	0	2	94	7,373	2	0	2	101	7,419	2	0	2	102	4,221	1	0	1	58
			T3S	7,125	1	0	2	98	7,651	1	0	2	105	7,698	1	0	2	105	4,380	1	0	1	60
			T3M	7,052	1	0	2	97	7,573	2	0	2	104	7,620	2	0	2	104	4,335	1	0	2	59
			T4M	6,909	1	0	2	95	7,420	1	0	2	102	7,466	1	0	2	102	4,248	1	0	2	58
			TFTM	7,182	1	0	2	98	7,712	1	0	2	106	7,761	1	0	2	106	4,415	1	0	2	60
			ASYDF	6,421	2	0	2	88	6,896	2	0	3	94	6,938	2	0	3	95	3,947	1	0	2	54

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Performance Data

Lumen Ambient Temperature (LAT) Multipliers

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

Ambient		Lumen Multiplier
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	**77°F**	**1.00**
30°C	86°F	1.00
40°C	104°F	0.98

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the **DSXW1 LED 20C 1000** platform in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	0.95	0.93	0.88

Electrical Load

LEDs	Drive Current (mA)	System Watts	Current (A) 120V	208V	240V	277V	347V	480V
10C	350	14 W	0.13	0.07	0.06	0.06	-	-
	530	20 W	0.19	0.11	0.09	0.08	-	-
	700	27 W	0.25	0.14	0.13	0.11	-	-
	1000	40 W	0.37	0.21	0.19	0.16	-	-
20C	350	24 W	0.23	0.13	0.12	0.10	-	-
	530	36 W	0.33	0.19	0.17	0.14	-	-
	700	47 W	0.44	0.25	0.22	0.19	0.15	0.11
	1000	74 W	0.69	0.40	0.35	0.30	0.23	0.17

Motion Sensor Default Settings

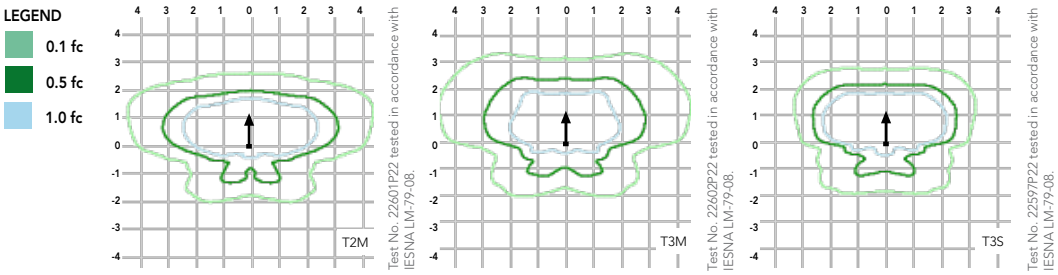
Option	Dimmed State	High Level (when triggered)	Photocell Operation	Dwell Time	Ramp-up Time	Ramp-down Time
*PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min
PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min

*for use with Inline Dusk to Dawn or timer

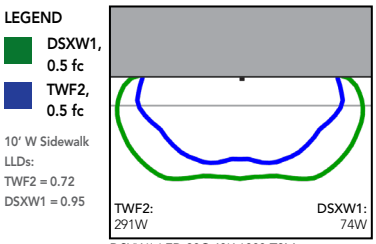
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Wall Size 1 homepage.

Isofootcandle plots for the DSXW1 LED 20C 1000 40K. Distances are in units of mounting height (15').



Distribution overlay comparison to 250W metal halide.



DSXW1 LED 20C 40K 1000 T3M, TWF2 250M Pulse, 15' Mounting Ht

Options and Accessories

T3M (left), ASYDF (right) lenses

HS - House-side shields

BSW - Bird-deterrent spikes

WG - Wire guard

VG - Vandal guard

DDL - Diffused drop lens

FEATURES & SPECIFICATIONS

INTENDED USE

The energy savings, long life and easy-to-install design of the D-Series Wall Size 1 make it the smart choice for building-mounted doorway and pathway illumination for nearly any facility.

CONSTRUCTION

Two-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance. The LED driver is mounted to the door to thermally isolate it from the light engines for low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65).

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in textured and non-textured finishes.

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Precision-molded proprietary acrylic lenses provide multiple photometric distributions tailored specifically to building mounted applications. Light engines are available in 3000 K (70 min. CRI), 4000 K (70 min. CRI) or 5000 K (70 min. CRI) configurations.

ELECTRICAL

Light engine(s) consist of 10 high-efficacy LEDs mounted to a metal-core circuit board to maximize heat dissipation and promote long life (L88/100,000 hrs at 25°C). Class 1 electronic drivers have a power factor >90%, THD <20%, and a minimum 2.5KV surge rating. When ordering the SPD option, a separate surge protection device is installed within the luminaire which meets a minimum Category C Low (per ANSI/IEEE C62.41.2).

INSTALLATION

Included universal mounting bracket attaches securely to any 4" round or square outlet box for quick and easy installation. Luminaire has a slotted gasket wireway and attaches to the mounting bracket via corrosion-resistant screws.

LISTINGS

CSA certified to U.S. and Canadian standards. Rated for -40°C minimum ambient.

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org to confirm which versions are qualified.

WARRANTY

Five-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

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D-Series Size 1

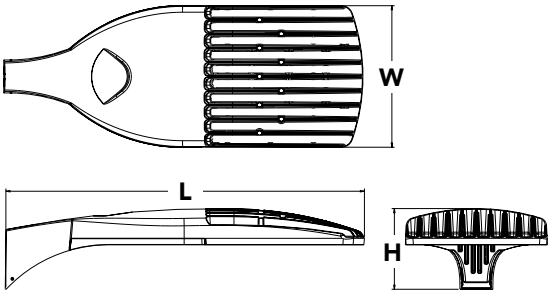
LED Area Luminaire

Catalog Number	DSX1 LED P2 50K TFTM MVOLT SPA DDBXD
Notes	
Type	Z1

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	1.01 ft² (0.09 m²)
Length:	33″ (83.8 cm)
Width:	13″ (33.0 cm)
Height:	7-1/2″ (19.0 cm)
Weight (max):	27 lbs (12.2 kg)



A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability1
- This luminaire is part of an A+ Certified solution for ROAM® or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background[1]

To learn more about A+, visit www.acuitybrands.com/aplus.

1. See ordering tree for details.
2. A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: Link to Roam; Link to DTL DLL

A+ Capable options indicated by this color background.

Ordering Information

EXAMPLE: DSX1 LED P7 40K T3M MVOLT SPA DDBXD

DSX1LED

Series

DSX1 LED

LEDs

Forward optics

P1	P4	P7
P2	P5	P8
P3	P6	P9

Rotated optics

P10[1]	P12[1]
P11[1]	P13[1]

Color temperature

30K	3000 K
40K	4000 K
50K	5000 K
AMBPC	Amber phosphor converted[2]

Distribution

T1S	Type I short	T5S	Type V short
T2S	Type II short	T5M	Type V medium
T2M	Type II medium	T5W	Type V wide
T3S	Type III short	BLC	Backlight control[2,3]
T3M	Type III medium	LCCO	Left corner cutoff[2,3]
T4M	Type IV medium	RCCO	Right corner cutoff[2,3]
TFTM	Forward throw medium		
T5VS	Type V very short		

Voltage

MVOLT[4,5]	
120[6]	
208[5,6]	
240[5,6]	
277[6]	
347[5,6,7]	
480[5,6,7]	

Mounting

Shipped included

SPA	Square pole mounting
RPA	Round pole mounting
WBA	Wall bracket
SPUMBA	Square pole universal mounting adaptor[8]
RPUMBA	Round pole universal mounting adaptor[8]

Shipped separately

KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish)[9]

Control options

Shipped installed

NLTAIR2	nLight AIR generation 2 enabled[10]
PER	NEMA twist-lock receptacle only (controls ordered separate)[11]
PER5	Five-wire receptacle only (controls ordered separate)[11,12]
PER7	Seven-wire receptacle only (controls ordered separate)[11,12]
DMG	0-10V dimming extend out back of honsing for external control (leads exit fixture)
DS	Dual switching[13,14]
PIR	Bi-level, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc[5,15,16]
PIRH	Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc[5,15,16]
PIRHN	Network, Bi-Level motion/ambient sensor[17]
PIR1FC3V	Bi-level, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc[5,15,16]
PIRH1FC3V	Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc[5,15,16]
BL30	Bi-level switched dimming, 30%[5,14,18]
BL50	Bi-level switched dimming, 50%[5,14,18]
PNMTDD3	Part night, dim till dawn[5,19]
PNMT5D3	Part night, dim 5 hrs[5,19]
PNMT6D3	Part night, dim 6 hrs[5,19]
PNMT7D3	Part night, dim 7 hrs[5,19]
FAO	Field adjustable output[20]

Other options

Shipped installed

HS	House-side shield[21]
SF	Single fuse (120, 277, 347V)[6]
DF	Double fuse (208, 240, 480V)[6]
L90	Left rotated optics[1]
R90	Right rotated optics[1]

Shipped separately

BS	Bird spikes[22]
EGS	External glare shield[22]

Finish *(required)*

DDBXD	Dark bronze
DBLXD	Black
DNAXD	Natural aluminum
DWHXD	White
DDBTXD	Textured dark bronze
DBLBXD	Textured black
DNATXD	Textured natural aluminum
DWHGXD	Textured white

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Ordering Information

Accessories

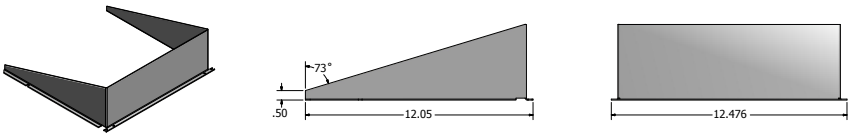
Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) [23]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) [23]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) [23]
DSHORT SBK U	Shorting cap [23]
DSX1HS 30C U	House-side shield for 30 LED unit[21]
DSX1HS 40C U	House-side shield for 40 LED unit[21]
DSX1HS 60C U	House-side shield for 60 LED unit[21]
PUMBA DDBXD U*	Square and round pole universal mounting bracket (specify finish)[24]
KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish) [8]

For more control options, visit DTL and ROAM online.

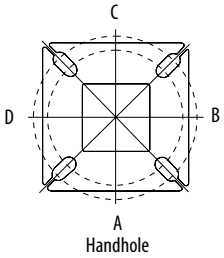
NOTES
1 P10, P11, P12 or P13 and rotated optics (L90, R90) only available together.
2 AMBPC is not available with BLC, LCCO, RCCO or P4, P7, P8, P9 or P13.
3 Not available with HS.
4 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
5 Any PIRx with BL30, BL50 or PNMT, is not available with 208V, 240V, 347V, 480V or MVOLT. It is only available in 120V or 277V specified.
6 Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
7 Not available in P1 or P10. Not available with BL30, BL50 or PNMT options.
8 Existing drilled pole only. Available as a separate combination accessory; for retrofit use only: PUMBA (finish) U; 1.5 G vibration load rating per ANCI C136.31.
9 Must order fixture with SPA option. Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8" mast arm (not included).
10 Must be ordered with PIRHN.
11 Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Not available with DS option. Shorting cap included.
12 If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Not available with DCR. Node with integral dimming. Shorting cap included.
13 Provides 50/50fixture operation via (2) independent drivers. Not available with PER, PER5, PER7, PIR or PIRH. Not available P1, P2, P3 or P4.
14 Requires (2) separately switched circuits.
15 Reference Motion Sensor table on page 3.
16 Reference PER table on page 3 to see functionality.
17 Must be ordered with NLTAIR2. For more information on nLight Air 2 visit this link.
18 Not available with 347V, 480V, PNMT, DS. For PER5 or PER7, see PER Table on page 3. Requires isolated neutral.
19 Not available with 347V, 480V, DS, BL30, BL50. For PER5 or PER7, see PER Table on page 3. Separate Dusk to Dawn required.
20 Not available with other dimming controls options
21 Not available with BLC, LCCO and RCCO distribution. Also available as a separate accessory; see Accessories information.
22 Must be ordered with fixture for factory pre-drilling.
23 Requires luminaire to be specified with PER, PER5 or PER7 option. See PER Table on page 3.
24 For retrofit use only.

External Glare Shield

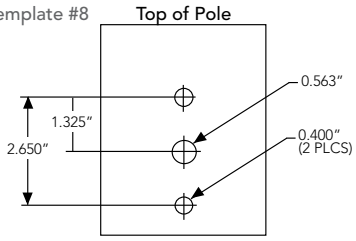


Drilling

HANDHOLE ORIENTATION



Template #8



Tenon Mounting Slipfitter **

Tenon O.D.	Single Unit	2 at 180°	2 at 90°	3 at 120°	3 at 90°	4 at 90°
2-3/8"	AST20-190	AST20-280	AST20-290	AST20-320	AST20-390	AST20-490
2-7/8"	AST25-190	AST25-280	AST25-290	AST25-320	AST25-390	AST25-490
4"	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490

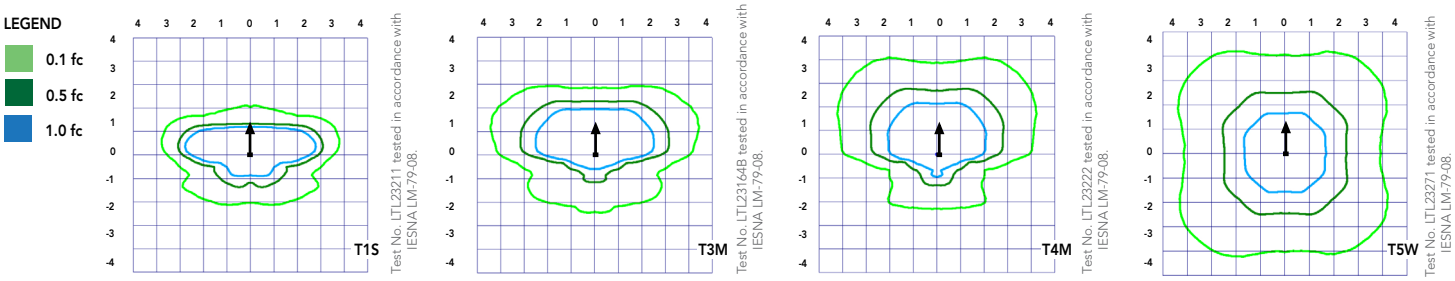
Pole drilling nomenclature: # of heads at degree from handhole (default side A)					
DM19AS	DM28AS	DM29AS	DM32AS	DM39AS	DM49AS
1 @ 90°	2 @ 280°	2 @ 90°	3 @ 120°	3 @ 90°	4 @ 90°
Side B	Side B & D	Side B & C	Round pole only	Side B, C, & D	Sides A, B, C, D
Note: Review luminaire spec sheet for specific nomenclature					

Pole top or tenon O.D.	4.5" @ 90°	4" @ 90°	3.5" @ 90°	3" @ 90°	4.5" @ 120°	4" @ 120°	3.5" @ 120°	3" @ 120°
DSX SPA	Y	Y	Y	N	-	-	-	-
DSX RPA	Y	Y	N	N	Y	Y	Y	Y
DSX SPUMBA	Y	N	N	N	-	-	-	-
DSX RPUMBA	N	N	N	N	Y	Y	Y	N
					*3 fixtures @120 require round pole top/tenon.			

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Area Size 1 homepage.

Isofootcandle plots for the DSX1 LED 60C 1000 40K. Distances are in units of mounting height (25').



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Lumen Ambient Temperature (LAT) Multipliers

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

Ambient		Lumen Multiplier
0°C	32°F	1.04
5°C	41°F	1.04
10°C	50°F	1.03
15°C	50°F	1.02
20°C	68°F	1.01
25°C	**77°F**	**1.00**
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25000	50000	100000
Lumen Maintenance Factor	1.00	0.96	0.92	0.85

Electrical Load

					Current (A)					
	Performance Package	LED Count	Drive Current	Wattage	120	208	240	277	347	480
Forward Optics (Non-Rotated)	P1	30	530	54	0.45	0.26	0.23	0.19	0.10	0.12
	P2	30	700	70	0.59	0.34	0.30	0.25	0.20	0.16
	P3	30	1050	102	0.86	0.50	0.44	0.38	0.30	0.22
	P4	30	1250	125	1.06	0.60	0.52	0.46	0.37	0.27
	P5	30	1400	138	1.16	0.67	0.58	0.51	0.40	0.29
	P6	40	1250	163	1.36	0.78	0.68	0.59	0.47	0.34
	P7	40	1400	183	1.53	0.88	0.76	0.66	0.53	0.38
	P8	60	1050	207	1.74	0.98	0.87	0.76	0.64	0.49
	P9	60	1250	241	2.01	1.16	1.01	0.89	0.70	0.51
Rotated Optics (Requires L90 or R90)	P10	60	530	106	0.90	0.52	0.47	0.43	0.33	0.27
	P11	60	700	137	1.15	0.67	0.60	0.53	0.42	0.32
	P12	60	1050	207	1.74	0.99	0.87	0.76	0.60	0.46
	P13	60	1250	231	1.93	1.12	0.97	0.86	0.67	0.49

Motion Sensor Default Settings						
Option	Dimmed State	High Level (when triggered)	Phototcell Operation	Dwell Time	Ramp-up Time	Ramp-down Time
PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min
*PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min
*for use with Inline Dusk to Dawn or timer.						

PER Table						
Control	PER (3 wire)	PER5 (5 wire)		PER7 (7 wire)		
			Wire 4/Wire5		Wire 4/Wire5	Wire 6/Wire7
Photocontrol Only (On/Off)	✔	⚠	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM	⊘	✔	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM with Motion (ROAM on/off only)	⊘	⚠	Wires Capped inside fixture	⚠	Wires Capped inside fixture	Wires Capped inside fixture
Future-proof*	⊘	⚠	Wired to dimming leads on driver	✔	Wired to dimming leads on driver	Wires Capped inside fixture
Future-proof* with Motion	⊘	⚠	Wires Capped inside fixture	✔	Wires Capped inside fixture	Wires Capped inside fixture

✔ Recommended
⊘ Will not work
⚠ Alternate

*Future-proof means: Ability to change controls in the future.

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Performance Data

Lumen Output

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Forward Optics

LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)					AMBPC (Amber Phosphor Converted)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
30	530	P1	54W	T1S	6,457	2	0	2	120	6,956	2	0	2	129	7,044	2	0	2	130	3,640	1	0	1	70
				T2S	6,450	2	0	2	119	6,949	2	0	2	129	7,037	2	0	2	130	3,813	1	0	1	73
				T2M	6,483	1	0	1	120	6,984	2	0	2	129	7,073	2	0	2	131	3,689	1	0	1	71
				T3S	6,279	2	0	2	116	6,764	2	0	2	125	6,850	2	0	2	127	3,770	1	0	1	73
				T3M	6,468	1	0	2	120	6,967	1	0	2	129	7,056	1	0	2	131	3,752	1	0	1	72
				T4M	6,327	1	0	2	117	6,816	1	0	2	126	6,902	1	0	2	128	3,758	1	0	1	72
				TFTM	6,464	1	0	2	120	6,963	1	0	2	129	7,051	1	0	2	131	3,701	1	0	1	71
				T5VS	6,722	2	0	0	124	7,242	3	0	0	134	7,334	3	0	0	136	3,928	2	0	0	76
				T5S	6,728	2	0	1	125	7,248	2	0	1	134	7,340	2	0	1	136	3,881	2	0	0	75
				T5M	6,711	3	0	1	124	7,229	3	0	1	134	7,321	3	0	2	136	3,930	2	0	1	76
				T5W	6,667	3	0	2	123	7,182	3	0	2	133	7,273	3	0	2	135	3,820	3	0	1	73
				BLC	5,299	1	0	1	98	5,709	1	0	2	106	5,781	1	0	2	107					
				LCCO	3,943	1	0	2	73	4,248	1	0	2	79	4,302	1	0	2	80					
				RCCO	3,943	1	0	2	73	4,248	1	0	2	79	4,302	1	0	2	80					
30	700	P2	70W	T1S	8,249	2	0	2	118	8,886	2	0	2	127	8,999	2	0	2	129	4,561	1	0	1	67
				T2S	8,240	2	0	2	118	8,877	2	0	2	127	8,989	2	0	2	128	4,777	1	0	1	70
				T2M	8,283	2	0	2	118	8,923	2	0	2	127	9,036	2	0	2	129	4,622	1	0	2	68
				T3S	8,021	2	0	2	115	8,641	2	0	2	123	8,751	2	0	2	125	4,724	1	0	1	69
				T3M	8,263	2	0	2	118	8,901	2	0	2	127	9,014	2	0	2	129	4,701	1	0	2	69
				T4M	8,083	2	0	2	115	8,708	2	0	2	124	8,818	2	0	2	126	4,709	1	0	2	69
				TFTM	8,257	2	0	2	118	8,896	2	0	2	127	9,008	2	0	2	129	4,638	1	0	2	68
				T5VS	8,588	3	0	0	123	9,252	3	0	0	132	9,369	3	0	0	134	4,922	2	0	0	72
				T5S	8,595	3	0	1	123	9,259	3	0	1	132	9,376	3	0	1	134	4,863	2	0	0	72
				T5M	8,573	3	0	2	122	9,236	3	0	2	132	9,353	3	0	2	134	4,924	3	0	1	72
				T5W	8,517	3	0	2	122	9,175	4	0	2	131	9,291	4	0	2	133	4,787	3	0	1	70
				BLC	6,770	1	0	2	97	7,293	1	0	2	104	7,386	1	0	2	106					
				LCCO	5,038	1	0	2	72	5,427	1	0	2	78	5,496	1	0	2	79					
				RCCO	5,038	1	0	2	72	5,427	1	0	2	78	5,496	1	0	2	79					
30	1050	P3	102W	T1S	11,661	2	0	2	114	12,562	3	0	3	123	12,721	3	0	3	125					
				T2S	11,648	2	0	2	114	12,548	3	0	3	123	12,707	3	0	3	125					
				T2M	11,708	2	0	2	115	12,613	2	0	2	124	12,773	2	0	2	125					
				T3S	11,339	2	0	2	111	12,215	3	0	3	120	12,370	3	0	3	121					
				T3M	11,680	2	0	2	115	12,582	2	0	2	123	12,742	2	0	2	125					
				T4M	11,426	2	0	3	112	12,309	2	0	3	121	12,465	2	0	3	122					
				TFTM	11,673	2	0	2	114	12,575	2	0	3	123	12,734	2	0	3	125					
				T5VS	12,140	3	0	1	119	13,078	3	0	1	128	13,244	3	0	1	130					
				T5S	12,150	3	0	1	119	13,089	3	0	1	128	13,254	3	0	1	130					
				T5M	12,119	4	0	2	119	13,056	4	0	2	128	13,221	4	0	2	130					
				T5W	12,040	4	0	3	118	12,970	4	0	3	127	13,134	4	0	3	129					
				BLC	9,570	1	0	2	94	10,310	1	0	2	101	10,440	1	0	2	102					
				LCCO	7,121	1	0	3	70	7,671	1	0	3	75	7,768	1	0	3	76					
				RCCO	7,121	1	0	3	70	7,671	1	0	3	75	7,768	1	0	3	76					
30	1250	P4	125W	T1S	13,435	3	0	3	107	14,473	3	0	3	116	14,657	3	0	3	117					
				T2S	13,421	3	0	3	107	14,458	3	0	3	116	14,641	3	0	3	117					
				T2M	13,490	2	0	2	108	14,532	3	0	3	116	14,716	3	0	3	118					
				T3S	13,064	3	0	3	105	14,074	3	0	3	113	14,252	3	0	3	114					
				T3M	13,457	2	0	2	108	14,497	2	0	2	116	14,681	2	0	2	117					
				T4M	13,165	2	0	3	105	14,182	2	0	3	113	14,362	2	0	3	115					
				TFTM	13,449	2	0	3	108	14,488	2	0	3	116	14,672	2	0	3	117					
				T5VS	13,987	4	0	1	112	15,068	4	0	1	121	15,259	4	0	1	122					
				T5S	13,999	3	0	1	112	15,080	3	0	1	121	15,271	3	0	1	122					
				T5M	13,963	4	0	2	112	15,042	4	0	2	120	15,233	4	0	2	122					
				T5W	13,872	4	0	3	111	14,944	4	0	3	120	15,133	4	0	3	121					
				BLC	11,027	1	0	2	88	11,879	1	0	2	95	12,029	1	0	2	96					
				LCCO	8,205	1	0	3	66	8,839	1	0	3	71	8,951	1	0	3	72					
				RCCO	8,205	1	0	3	66	8,839	1	0	3	71	8,951	1	0	3	72					
30	1400	P5	138W	T1S	14,679	3	0	3	106	15,814	3	0	3	115	16,014	3	0	3	116					
				T2S	14,664	3	0	3	106	15,797	3	0	3	114	15,997	3	0	3	116					
				T2M	14,739	3	0	3	107	15,878	3	0	3	115	16,079	3	0	3	117					
				T3S	14,274	3	0	3	103	15,377	3	0	3	111	15,572	3	0	3	113					
				T3M	14,704	2	0	3	107	15,840	3	0	3	115	16,040	3	0	3	116					
				T4M	14,384	2	0	3	104	15,496	3	0	3	112	15,692	3	0	3	114					
				TFTM	14,695	2	0	3	106	15,830	3	0	3	115	16,030	3	0	3	116					
				T5VS	15,283	4	0	1	111	16,464	4	0	1	119	16,672	4	0	1	121					
				T5S	15,295	3	0	1	111	16,477	4	0	1	119	16,686	4	0	1	121					
				T5M	15,257	4	0	2	111	16,435	4	0	2	119	16,644	4	0	2	121					
				T5W	15,157	4	0	3	110	16,328	4	0	3	118	16,534	4	0	3	120					
				BLC	12,048	1	0	2	87	12,979	1	0	2	94	13,143	1	0	2	95					
				LCCO	8,965	1	0	3	65	9,657	1	0	3	70	9,780	1	0	3	71					
					8,965	1	0	3	65	9,657	1	0	3	70	9,780	1	0	3	71					

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Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Forward Optics

LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)					AMBPC (Amber Phosphor Converted)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lu-mens	B	U	G	LPW
40	1250	**P6**	163W	T1S	17,654	3	0	3	108	19,018	3	0	3	117	19,259	3	0	3	118					
				T2S	17,635	3	0	3	108	18,998	3	0	3	117	19,238	3	0	3	118					
				T2M	17,726	3	0	3	109	19,096	3	0	3	117	19,337	3	0	3	119					
				T3S	17,167	3	0	3	105	18,493	3	0	3	113	18,727	3	0	3	115					
				T3M	17,683	3	0	3	108	19,049	3	0	3	117	19,290	3	0	3	118					
				T4M	17,299	3	0	3	106	18,635	3	0	4	114	18,871	3	0	4	116					
				TFTM	17,672	3	0	3	108	19,038	3	0	4	117	19,279	3	0	4	118					
				T5VS	18,379	4	0	1	113	19,800	4	0	1	121	20,050	4	0	1	123					
				T5S	18,394	4	0	2	113	19,816	4	0	2	122	20,066	4	0	2	123					
				T5M	18,348	4	0	2	113	19,766	4	0	2	121	20,016	4	0	2	123					
				T5W	18,228	5	0	3	112	19,636	5	0	3	120	19,885	5	0	3	122					
				BLC	14,489	2	0	2	89	15,609	2	0	3	96	15,806	2	0	3	97					
				LCCO	10,781	1	0	3	66	11,614	1	0	3	71	11,761	2	0	3	72					
				RCCO	10,781	1	0	3	66	11,614	1	0	3	71	11,761	2	0	3	72					
40	1400	**P7**	183W	T1S	19,227	3	0	3	105	20,712	3	0	3	113	20,975	3	0	3	115					
				T2S	19,206	3	0	3	105	20,690	3	0	3	113	20,952	3	0	3	114					
				T2M	19,305	3	0	3	105	20,797	3	0	3	114	21,060	3	0	3	115					
				T3S	18,696	3	0	3	102	20,141	3	0	3	110	20,396	3	0	4	111					
				T3M	19,258	3	0	3	105	20,746	3	0	3	113	21,009	3	0	3	115					
				T4M	18,840	3	0	4	103	20,296	3	0	4	111	20,553	3	0	4	112					
				TFTM	19,246	3	0	4	105	20,734	3	0	4	113	20,996	3	0	4	115					
				T5VS	20,017	4	0	1	109	21,564	4	0	1	118	21,837	4	0	1	119					
				T5S	20,033	4	0	2	109	21,581	4	0	2	118	21,854	4	0	2	119					
				T5M	19,983	4	0	2	109	21,527	5	0	3	118	21,799	5	0	3	119					
				T5W	19,852	5	0	3	108	21,386	5	0	3	117	21,656	5	0	3	118					
				BLC	15,780	2	0	3	86	16,999	2	0	3	93	17,214	2	0	3	94					
				LCCO	11,742	2	0	3	64	12,649	2	0	3	69	12,809	2	0	3	70					
				RCCO	11,742	2	0	3	64	12,649	2	0	3	69	12,809	2	0	3	70					
60	1050	**P8**	207W	T1S	22,490	3	0	3	109	24,228	3	0	3	117	24,535	3	0	3	119					
				T2S	22,466	3	0	4	109	24,202	3	0	4	117	24,509	3	0	4	118					
				T2M	22,582	3	0	3	109	24,327	3	0	3	118	24,635	3	0	3	119					
				T3S	21,870	3	0	4	106	23,560	3	0	4	114	23,858	3	0	4	115					
				T3M	22,527	3	0	4	109	24,268	3	0	4	117	24,575	3	0	4	119					
				T4M	22,038	3	0	4	106	23,741	3	0	4	115	24,041	3	0	4	116					
				TFTM	22,513	3	0	4	109	24,253	3	0	4	117	24,560	3	0	4	119					
				T5VS	23,415	5	0	1	113	25,224	5	0	1	122	25,543	5	0	1	123					
				T5S	23,434	4	0	2	113	25,244	4	0	2	122	25,564	4	0	2	123					
				T5M	23,374	5	0	3	113	25,181	5	0	3	122	25,499	5	0	3	123					
				T5W	23,221	5	0	4	112	25,016	5	0	4	121	25,332	5	0	4	122					
				BLC	18,458	2	0	3	89	19,885	2	0	3	96	20,136	2	0	3	97					
				LCCO	13,735	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72					
				RCCO	13,735	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72					
60	1250	**P9**	241W	T1S	25,575	3	0	3	106	27,551	3	0	3	114	27,900	3	0	3	116					
				T2S	25,548	3	0	4	106	27,522	3	0	4	114	27,871	3	0	4	116					
				T2M	25,680	3	0	3	107	27,664	3	0	3	115	28,014	3	0	3	116					
				T3S	24,870	3	0	4	103	26,791	3	0	4	111	27,130	3	0	4	113					
				T3M	25,617	3	0	4	106	27,597	3	0	4	115	27,946	3	0	4	116					
				T4M	25,061	3	0	4	104	26,997	3	0	4	112	27,339	3	0	4	113					
				TFTM	25,602	3	0	4	106	27,580	3	0	4	114	27,929	3	0	4	116					
				T5VS	26,626	5	0	1	110	28,684	5	0	1	119	29,047	5	0	1	121					
				T5S	26,648	4	0	2	111	28,707	5	0	2	119	29,070	5	0	2	121					
				T5M	26,581	5	0	3	110	28,635	5	0	3	119	28,997	5	0	3	120					
				T5W	26,406	5	0	4	110	28,447	5	0	4	118	28,807	5	0	4	120					
				BLC	20,990	2	0	3	87	22,612	2	0	3	94	22,898	2	0	3	95					
				LCCO	15,619	2	0	4	65	16,825	2	0	4	70	17,038	2	0	4	71					
					15,619	2	0	4	65	16,825	2	0	4	70	17,038	2	0	4	71					

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Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Rotated Optics

LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)					AMBPC (Amber Phosphor Converted)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
60	530	**P10**	106W	T1S	13,042	3	0	3	123	14,050	3	0	3	133	14,228	3	0	3	134	7,167	2	0	2	72
				T2S	12,967	4	0	4	122	13,969	4	0	4	132	14,146	4	0	4	133	7,507	2	0	2	76
				T2M	13,201	3	0	3	125	14,221	3	0	3	134	14,401	3	0	3	136	7,263	2	0	2	73
				T3S	12,766	4	0	4	120	13,752	4	0	4	130	13,926	4	0	4	131	7,424	2	0	2	75
				T3M	13,193	4	0	4	124	14,213	4	0	4	134	14,393	4	0	4	136	7,387	2	0	2	75
				T4M	12,944	4	0	4	122	13,945	4	0	4	132	14,121	4	0	4	133	7,400	2	0	2	75
				TFTM	13,279	4	0	4	125	14,305	4	0	4	135	14,486	4	0	4	137	7,288	1	0	2	74
				T5VS	13,372	3	0	1	126	14,405	4	0	1	136	14,588	4	0	1	138	7,734	3	0	1	78
				T5S	13,260	3	0	1	125	14,284	3	0	1	135	14,465	3	0	1	136	7,641	3	0	0	77
				T5M	13,256	4	0	2	125	14,281	4	0	2	135	14,462	4	0	2	136	7,737	3	0	2	78
				T5W	13,137	4	0	3	124	14,153	4	0	3	134	14,332	4	0	3	135	7,522	3	0	2	76
				BLC	10,906	3	0	3	103	11,749	3	0	3	111	11,898	3	0	3	112					
				LCCO	7,789	1	0	3	73	8,391	1	0	3	79	8,497	1	0	3	80					
				RCCO	7,779	4	0	4	73	8,380	4	0	4	79	8,486	4	0	4	80					
60	700	**P11**	137W	T1S	16,556	3	0	3	121	17,835	3	0	3	130	18,061	4	0	4	132	8,952	2	0	2	68
				T2S	16,461	4	0	4	120	17,733	4	0	4	129	17,957	4	0	4	131	9,377	2	0	2	72
				T2M	16,758	4	0	4	122	18,053	4	0	4	132	18,281	4	0	4	133	9,072	2	0	2	69
				T3S	16,205	4	0	4	118	17,457	4	0	4	127	17,678	4	0	4	129	9,273	2	0	2	71
				T3M	16,748	4	0	4	122	18,042	4	0	4	132	18,271	4	0	4	133	9,227	2	0	2	70
				T4M	16,432	4	0	4	120	17,702	4	0	4	129	17,926	4	0	4	131	9,243	2	0	2	71
				TFTM	16,857	4	0	4	123	18,159	4	0	4	133	18,389	4	0	4	134	9,103	2	0	2	69
				T5VS	16,975	4	0	1	124	18,287	4	0	1	133	18,518	4	0	1	135	9,661	3	0	1	74
				T5S	16,832	4	0	1	123	18,133	4	0	2	132	18,362	4	0	2	134	9,544	3	0	1	73
				T5M	16,828	4	0	2	123	18,128	4	0	2	132	18,358	4	0	2	134	9,665	3	0	2	74
				T5W	16,677	4	0	3	122	17,966	5	0	3	131	18,193	5	0	3	133	9,395	4	0	2	72
				BLC	13,845	3	0	3	101	14,915	3	0	3	109	15,103	3	0	3	110					
				LCCO	9,888	1	0	3	72	10,652	2	0	3	78	10,787	2	0	3	79					
				RCCO	9,875	4	0	4	72	10,638	4	0	4	78	10,773	4	0	4	79					
60	1050	**P12**	207W	T1S	22,996	4	0	4	111	24,773	4	0	4	120	25,087	4	0	4	121					
				T2S	22,864	4	0	4	110	24,631	5	0	5	119	24,943	5	0	5	120					
				T2M	23,277	4	0	4	112	25,075	4	0	4	121	25,393	4	0	4	123					
				T3S	22,509	4	0	4	109	24,248	5	0	5	117	24,555	5	0	5	119					
				T3M	23,263	4	0	4	112	25,061	4	0	4	121	25,378	4	0	4	123					
				T4M	22,824	5	0	5	110	24,588	5	0	5	119	24,899	5	0	5	120					
				TFTM	23,414	5	0	5	113	25,223	5	0	5	122	25,543	5	0	5	123					
				T5VS	23,579	5	0	1	114	25,401	5	0	1	123	25,722	5	0	1	124					
				T5S	23,380	4	0	2	113	25,187	4	0	2	122	25,506	4	0	2	123					
				T5M	23,374	5	0	3	113	25,181	5	0	3	122	25,499	5	0	3	123					
				T5W	23,165	5	0	4	112	24,955	5	0	4	121	25,271	5	0	4	122					
				BLC	19,231	4	0	4	93	20,717	4	0	4	100	20,979	4	0	4	101					
				LCCO	13,734	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72					
				RCCO	13,716	4	0	4	66	14,776	4	0	4	71	14,963	4	0	4	72					
60	1250	**P13**	231W	T1S	25,400	4	0	4	110	27,363	4	0	4	118	27,709	4	0	4	120					
				T2S	25,254	5	0	5	109	27,205	5	0	5	118	27,550	5	0	5	119					
				T2M	25,710	4	0	4	111	27,696	4	0	4	120	28,047	4	0	4	121					
				T3S	24,862	5	0	5	108	26,783	5	0	5	116	27,122	5	0	5	117					
				T3M	25,695	5	0	5	111	27,680	5	0	5	120	28,031	5	0	5	121					
				T4M	25,210	5	0	5	109	27,158	5	0	5	118	27,502	5	0	5	119					
				TFTM	25,861	5	0	5	112	27,860	5	0	5	121	28,212	5	0	5	122					
				T5VS	26,043	5	0	1	113	28,056	5	0	1	121	28,411	5	0	1	123					
				T5S	25,824	4	0	2	112	27,819	5	0	2	120	28,172	5	0	2	122					
				T5M	25,818	5	0	3	112	27,813	5	0	3	120	28,165	5	0	3	122					
				T5W	25,586	5	0	4	111	27,563	5	0	4	119	27,912	5	0	4	121					
				BLC	21,241	4	0	4	92	22,882	4	0	4	99	23,172	4	0	4	100					
				LCCO	15,170	2	0	4	66	16,342	2	0	4	71	16,549	2	0	4	72					
					15,150	5	0	5	66	16,321	5	0	5	71	16,527	5	0	5	72					

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FEATURES & SPECIFICATIONS

INTENDED USE
The sleek design of the D-Series Size 1 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and streetscapes.

CONSTRUCTION
Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED drivers are mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65). Low EPA (1.01 ft^2) for optimized pole wind loading.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

OPTICS
Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in standard 3000 K, 4000 K and 5000 K (70 CRI) configurations. The D-Series Size 1 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL
Light engine configurations consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L85/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

INSTALLATION
Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 1 to withstand up to a 3.0 G vibration load rating per ANSI C136.31. The D-Series Size 1 utilizes the AERIS™ series pole drilling pattern (template #8). Optional terminal block and NEMA photocontrol receptacle are also available.

LISTINGS
UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40°C minimum ambient. U.S. Patent No. D672,492 S. International patent pending.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

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

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

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LITHONIA LIGHTING®

Catalog Number	SSS 20 4C DM19AS DDB
Notes	
Type	Z1-POLE

Anchor Base Poles

SSS

SQUARE STRAIGHT STEEL

FEATURES & SPECIFICATIONS

INTENDED USE — Square Straight Steel is a general purpose light pole for up to 39-foot mounting heights. This pole provides a robust yet cost effective option for mounting area lights and floodlights.

CONSTRUCTION — **Pole Shaft:** The pole shaft is of uniform dimension and wall thickness and is made of a weldable-grade, hot-rolled, commercial-quality steel tubing with a minimum yield of 55 KSI (11-gauge, .1196"), or 50 KSI (7-gauge, .1793"). Shaft is one-piece with a full-length longitudinal high-frequency electric resistance weld. Uniformly square in cross-section with flat sides, small corner radii and excellent torsional qualities. Available shaft widths are 4", 5" and 6".

Pole Top: A top cap is provided for all poles that will receive drilling patterns for side-mount luminaire arm assemblies or when ordered with PT option.

Handhole: A reinforced handhole with grounding provision is provided at 18" from the base. Positioning the handhole lower may not be possible and requires engineering review; consult Tech Support-Outdoor for further information. Every handhole includes a cover and cover attachment hardware. The handhole has a nominal dimension of 2.5" x 5".

Base Cover: A durable ABS plastic two-piece full base cover, finished to match the pole, is provided with each pole assembly. Additional base cover options are available upon request.

Anchor Base/ Bolts: Anchor base is fabricated from steel that meets ASTM A36 standards and can be altered to match existing foundations; consult factory for modifications. Anchor bolts are manufactured to ASTM F1554 Standards grade 55, (55 KSI minimum yield strength and tensile strength of 75-95 KSI). Top threaded portion (nominal 12") is hot-dipped galvanized per ASTM A-153.

HARDWARE – All structural fasteners are high-strength galvanized carbon steel. All non-structural fasteners are galvanized or zinc-plated carbon steel or stainless steel.

FINISH – Standard powder-coat finishes include Dark Bronze, White, Black, Medium Bronze and Natural Aluminum colors. Classic finishes include Sandstone, Charcoal Gray, Tennis Green, Bright Red and Steel Blue colors. Architectural Colors and Special Finishes are available by quote and include, but are not limited to Hot-dipped Galvanized, Paint over Hot-dipped Galvanized, RAL Colors, Custom Colors and Extended Warranty Finishes. Factory-applied primer paint finish is available for customer field-paint applications.

WARRANTY — 1-year limited warranty. Complete warranty terms located at:
www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

NOTE: Actual performance may differ as a result of end-user environment and application.
Specifications subject to change without notice.

ORDERING INFORMATION Lead times will vary depending on options selected. Consult with your sales representative.

Example: SSS 20 5C DM19 DDB

SSS

Series	Nominal fixture mounting height	Nominal shaft base size/wall thickness[1]	Mounting[2]			Options			Finish[10]	
SSS	(See technical information table for complete ordering information.) 20' 10'-39' (for 1/2 ft increments, add -6 to the pole height. Ex: 20-6 equals 20ft 6in.)	(See technical information table for complete ordering information.) 4C 4" 11g (.1196") 4G 4" 7g (.1793") 5C 5" 11g (.1196") 5G 5" 7g (.1793") 6G 6" 7g (.1793")	Tenon mounting PT Open top (includes top cap) T20 2-3/8" O.D. (2" NPS) T25 2-7/8" O.D. (2-1/2" NPS) T30 3-1/2" O.D. (3" NPS) T35 4" O.D. (3-1/2" NPS) KAC/KAD/KSE/KSF/KVR/KVF Drill mounting[3] DM19 1 at 90° DM28 2 at 180° DM28 PL 2 at 180° with one side plugged DM29 2 at 90° DM39 3 at 90° DM49 4 at 90° CSX/DSX/AERIS™/OMERO™/HLA/KAX Drill mounting[3] DM19AS 1 at 90° DM28AS 2 at 180° DM29AS 2 at 90° DM39AS 3 at 90° DM49AS 4 at 90°		AERIS™ Suspend drill mounting[3,4] DM19AST_ 1 at 90° DM28AST_ 2 at 180° DM29AST_ 2 at 90° DM39AST_ 3 at 90° DM49AST_ 4 at 90° OMERO™ Suspend drill mounting[3,4] DM19MRT_ 1 at 90° DM28MRT_ 2 at 180° DM29MRT_ 2 at 90° DM39MRT_ 3 at 90° DM49MRT_ 4 at 90°	Shipped installed L/AB Less anchor bolts (Include when anchor bolts are not needed) VD Vibration damper TP Tamper resistant handhole cover fasteners HAxy Horizontal arm bracket (1 fixture)[5,6] FDLxy Festoon outlet less electrical[5] CPL12/xy 1/2" coupling[5] CPL34/xy 3/4" coupling[5] CPL1/xy 1" coupling[5] NPL12/xy 1/2" threaded nipple[5] NPL34/xy 3/4" threaded nipple[5] NPL1/xy 1" threaded nipple[5] EHHxy Extra handhole[5,7] MAEX Match existiing [8] USPOM United States point of manufacture[9] IC Interior coating[10] UL UL listed with label (Includes NEC compliant cover) NEC NEC 410.30 compliant gasketed handhole (Not UL Labeled) Shipped separately (replacement kit available) (blank) FBC Full base cover (plastic) (blank) TC Top cap (blank) HHC Handhole cover		Standard colors DDB Dark bronze DWH White DBL Black DMB Medium bronze DNA Natural aluminum Classic colors DSS Sandstone DGC Charcoal gray DTG Tennis green DBR Bright red DSB Steel blue Architectural Colors and Special Finishes[11] Galvanized, Paint over Galvanized, RAL Colors, Custom Colors and Extended Warranty Finishes available.

See footnotes next page.

SSS Square Straight Steel Poles

NOTES:

1. Wall thickness will be signified with a "C" (11 Gauge) or a "G" (7-gauge) in nomenclature. "C" - 0.1196" | "G" - 0.1793".
2. PT open top poles include top cap. When ordering tenon mounting and drill mounting for the same pole, follow this example: DM28/T20. The combination includes a required extra handhole.
3. Refer to the fixture spec sheet for the correct drilling template pattern and orientation compatibility.
4. Insert "1" or "2" to designate fixture size; e.g. DM19AST**2**.
5. Specify location and orientation when ordering option.
   For "x": Specify the height above the base of pole in feet or feet and inches; separate feet and inches with a "-".
   Example: 5ft = 5 and 20ft 3in = 20-3
   For "y": Specify orientation from handhole (A,B,C,D)
   Refer to the Handhole Orientation diagram below.
   Example: 1/2" coupling at 5'8 ", orientation C = CPL12/5-8C
6. Horizontal arm is 18" x 2-3/8" O.D. tenon standard, with radius curve providing 12" rise and 2-3/8" O.D..
7. Combination of tenon-top and drill mount includes extra handhole.
8. Must add original order number of existing pole(s).
9. Use when mill certifications are required.
10. Provides enhanced corrosion resistance.
11. Additional colors available; see www.lithonia.com/archcolors or Architectural Colors brochure (Form No. 794.3). Available by formal quote only, consult factory for details.

TECHNICAL INFORMATION — EPA (ft^2) WITH 3-SECOND GUST PER AASHTO 2013

Series	Mounting Height (ft)*	Shaft Base Size	90 MPH	Max. weight	100 MPH	Max. weight	110 MPH	Max. weight	120 MPH	Max. weight	130 MPH	Max. weight	140 MPH	Max. weight	150 MPH	Max. weight	Approximate ship weight (lbs.)
SSS	10	4C	20	500	16	400	13	325	10.5	263	8.5	213	7	175	6	150	75
SSS	12	4C	16	400	13	325	10	250	8	200	6.5	163	5	125	4	100	90
SSS	14	4C	13.5	338	10	250	7.5	188	6	150	4.5	113	3.5	88	2.5	63	100
SSS	16	4C	10.5	263	7.5	188	5.5	138	4	100	3	75	1.5	38	1	25	115
SSS	18	4C	8	200	5.5	138	4	100	2.5	63	1.5	38	0.5	13	-	-	125
SSS	18	4G	13	325	9.5	238	7	175	5	125	3.5	88	2.5	63	1.5	38	185
SSS	18	5C	13	325	9.5	238	6.5	163	4.5	113	3	75	1.5	38	3.5	13	170
SSS	20	4C	6	150	4	100	2.5	63	1	25	-	-	-	-	-	-	140
SSS	20	4G	10.5	263	7.5	188	5.5	138	3.5	88	2	50	1	25			205
SSS	20	5C	10	250	7	175	4.5	113	2.5	63	1	25	-	-	-	-	185
SSS	20	5G	20	500	15	375	11.5	288	8.5	213	6	150	4.5	113	3	75	265
SSS	25	4C	2	50	0.5	13	-	-	-	-	-	-	-	-	-	-	170
SSS	25	4G	5.5	138	3	75	1.5	38	-	-	-	-	-	-	-	-	245
SSS	25	5C	4.5	113	2	50	-	-	-	-	-	-	-	-	-	-	225
SSS	25	5G	12	300	8.5	213	5.5	138	3	75	1.5	38	-	-	-	-	360
SSS	25	6G	19	475	13.5	338	9	225	5.5	138	3	75	1	25			445
SSS	30	4G	1.5	38	-	-	-	-	-	-	-	-	-	-	-	-	291
SSS	30	5C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265
SSS	30	5G	6.5	163	3.5	88	1	25	-	-	-	-	-	-	-	-	380
SSS	30	6G	11	275	6	150	2.5	63	-	-	-	-	-	-	-	-	520
SSS	35	5G	2	50	-	-	-	-	-	-	-	-	-	-	-	-	440
SSS	35	6G	4	100	-	-	-	-	-	-	-	-	-	-	-	-	540
SSS	39	6G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	605

AASHTO 2013 criteria is the most conservative existing EPA calculation. For poles not showing EPA values under AASHTO 2013, EPA values may exist under commercial criteria (see table below).

*For 1/2 ft increments, add -6 to the pole height. Ex: 20-6 equals 20ft 6in.

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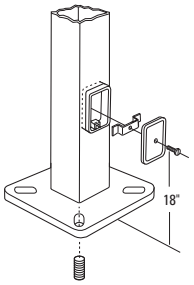
SSS Square Straight Steel Poles

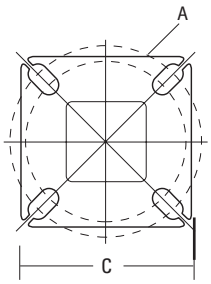
TECHNICAL INFORMATION													
Catalog Number	Nominal Shaft Length (ft.)*	Pole Shaft Size (Base in. x Top in. x ft.)	Wall thick (in)	Gauge	EPA (ft^2) with 1.3 gust						Bolt circle (in)	Bolt size (in. x in. x in.)	Approximate ship weight (lbs.)
					80 MPH	Max. weight	90 MPH	Max. weight	100 MPH	Max. weight			
SSS 10 4C	10	4.0 x 10.0	0.1196	11	30.6	765	23.8	595	18.9	473	8--9	3/4 x 18 x 3	75
SSS 12 4C	12	4.0 x 12.0	0.1196	11	24.4	610	18.8	470	14.8	370	8--9	3/4 x 18 x 3	90
SSS 14 4C	14	4.0 x 14.0	0.1196	11	19.9	498	15.1	378	11.7	293	8--9	3/4 x 18 x 3	100
SSS 16 4C	16	4.0 x 16.0	0.1196	11	15.9	398	11.8	295	8.9	223	8--9	3/4 x 18 x 3	115
SSS 18 4C	18	4.0 x 18.0	0.1196	11	12.6	315	9.2	230	6.7	168	8--9	3/4 x 18 x 3	125
SSS 20 4C	20	4.0 x 20.0	0.1196	11	9.6	240	6.7	167	4.5	150	8--9	3/4 x 18 x 3	140
SSS 20 4G	20	4.0 x 20.0	0.1793	7	14	350	11	275	8	200	8--9	3/4 x 30 x 3	198
SSS 20 5C	20	5.0 x 20.0	0.1196	11	17.7	443	12.7	343	9.4	235	10--12	1 x 36 x 4	185
SSS 20 5G	20	5.0 x 20.0	0.1793	7	28.1	703	21.4	535	16.2	405	10--12	1 x 36 x 4	265
SSS 25 4C	25	4.0 x 25.0	0.1196	11	4.8	150	2.6	100	1	50	8--9	3/4 x 18 x 3	170
SSS 25 4G	25	4.0 x 25.0	0.1793	7	10.8	270	7.7	188	5.4	135	8--9	3/4 x 30 x 3	245
SSS 25 5C	25	5.0 x 25.0	0.1196	11	9.8	245	6.3	157	3.7	150	10--12	1 x 36 x 4	225
SSS 25 5G	25	5.0 x 25.0	0.1793	7	18.5	463	13.3	333	9.5	238	10--12	1 x 36 x 4	360
SSS 30 4G	30	4.0 x 30.0	0.1793	7	6.7	168	4.4	110	2.6	65	8--9	3/4 x 30 x 3	295
SSS 30 5C	30	5.0 x 30.0	0.1196	11	4.7	150	2	50	--	--	10--12	1 x 36 x 4	265
SSS 30 5G	30	5.0 x 30.0	0.1793	7	10.7	267	6.7	167	3.9	100	10--12	1 x 36 x 4	380
SSS 30 6G	30	6.0 x 30.0	0.1793	7	19	475	13.2	330	9	225	11--13	1 x 36 x 4	520
SSS 35 5G	35	5.0 x 35.0	0.1793	7	5.9	150	2.5	100	--	--	10--12	1 x 36 x 4	440
SSS 35 6G	35	6.0 x 35.0	0.1793	7	12.4	310	7.6	190	4.2	105	11--13	1 x 36 x 4	540
SSS 39 6G	39	6.0 x 39.0	0.1793	7	7.2	180	3	75	--	--	11--13	1 x 36 x 4	605

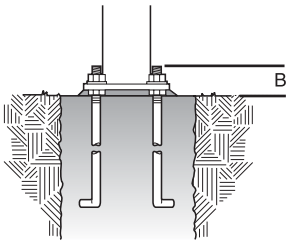
*For 1/2 ft increments, add -6 to the pole height. Ex: 20-6 equals 20ft 6in.

BASE DETAIL

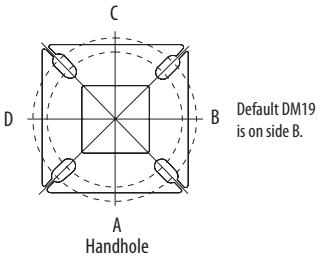


POLE DATA								
Shaft base size	Bolt circle A	Bolt projection B	Base diameter C	Base plate thickness	Template description	Anchor bolt description	Anchor bolt and template number	Anchor bolt description
4"C	8" – 9"	3.25"- 3.75"	8"- 8.25"	0.75"	ABTEMPLATE PJ50004	AB18-0	ABSSS-4C	3/4"x18"x3"
4"G	8" – 9"	3.38"- 3.75"	8"- 8.25"	0.875"	ABTEMPLATE PJ50004	AB30-0	ABSSS-4G	3/4"x30"x3"
5"	10" – 12"	3.5"- 4"	11"	1"	ABTEMPLATE PJ50010	AB36-0	ABSSS-5	1"x36"x4"
6"	11" – 13"	4"- 4.50"	12.5"	1"	ABTEMPLATE PJ50011	AB36-0	N/A	1"x36"x4"





HANDHOLE ORIENTATION



IMPORTANT INSTALLATION NOTES:

- **Do not** erect poles without having fixtures installed.
- Factory-supplied templates must be used when setting anchor bolts. Lithonia Lighting will not accept claim for incorrect anchorage placement due to failure to use Lithonia Lighting factory templates.
- If poles are stored outside, all protective wrapping must be removed immediately upon delivery to prevent finish damage.
- Lithonia Lighting is not responsible for the foundation design.

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Village of
Germantown
...Willkommen

Fee must accompany application

- ☒ $700 Minor Addition
- ☐ $1,240 Construction <10,000 SF
- ! $2,095 Construction 10,000 SF to 50,000
- ☐ $3,460 Industrial Construction >50,000 SF
- ☐ $3,460 Commercial Construction >50,000
- ☐ $200 Plan Commission Consultation
- ☒ $125 Fire Department Plan Review

PAID [illegible] DATE 4-16-18

Alteration Project

SITE PLAN REVIEW APPLICATION

Pursuant to Section 17.43 of the Municipal Code

Please read and complete this application carefully. **All applications must be signed and dated.**

1 APPLICANT OR AGENT

MSI General Corporation
P.O. Box 7
Oconomowoc, WI 53066

Phone (262) 563-5338
E-Mail andrea@msigeneral.com

PROPERTY OWNER

MGS Group North
W190N11701 Moldmakers Way
Germantown, WI 53022

Phone ( )
E-Mail

2 PROPERTY ADDRESS

W190 N11701 Moldmakers Way
Germantown, WI

3 NEIGHBORING USES – Specify name and type of use, e.g. Enviro Tech – Industrial, Smith – Residential, etc.

North	South	East	West
Dynacast – Industrial	Ethoplex – Industrial	MGS – Industrial	Furey Filter & Pump

4 READ AND INITIAL THE FOLLOWING:

JK I am aware of the Village of Germantown ordinance requiring fire sprinklers in most new construction.

JK I understand that all new development is subject to Impact and/or Connection Fees that must be paid before building permits will be issued.

JK I understand that an incomplete application will be withdrawn from the Plan Commission agenda and that all resubmissions to the Plan Commission are subject to a new application fee.

5 SIGNATURES – ALL APPLICATION MUST BE SIGNED BY OWNER!

Applicant [signature] Date 4/13/18

Owner [signature] Date 4/13/18

Germantown Plan Commission Summary

Date: April 16, 2018

Project Address: MGS Manufacturing
W190 N11701 Moldmakers Way
Germantown, WI 53022

RE: Interior Remodeling

Narrative:

This project consists of an interior remodel to an existing manufacturing building to allow for
the owner to have room for a 13,000 square foot clean room and support space.

However, the roof over this newly remodeled space will need to be modified to be 6'-0" taller than the existing roof height. Because of the additional adjustment to the existing roof height, we were advised to bring this project before the plan commission.

The building addition aesthetics will match the existing building in materials and design. The exterior is primarily pre-cast panels, with aluminum framed windows and metal exterior doors. All new materials will match existing in product and layout.

We have provided design drawings for the May 14th plan commission review, including elevations and floor plans.

Project Contacts:

John Kutz, Project Executive, MSI General Corporation
John@MSIGeneral.com

Andrea Hunley, Project Architect, MSI General Corporation
Andrea@MSIGeneral.com

Ken Krahe, Project Estimator, MSI General Corporation
KenK@MSIGeneral.com

MSI General
Corporation
P.O. Box 7
Oconomowoc
Wisconsin
53066
262.367.3661
Fax 262.367.7390
www.msigeneral.com

Single Source Responsibility™

Project Name

MGS Clean Room Remodel

Project Address

W190 N11701 Moldmakers Way

Germantown, WI 53022

Project Data

Building

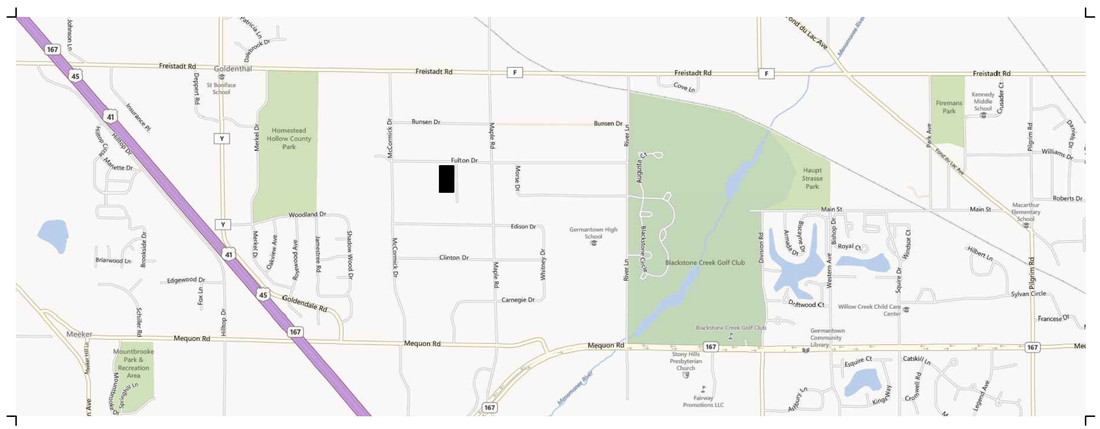
Construction Type	IIB
Occupancy	
Major	F-1 (Factory Moderate Hazard)
Minor	S-1 (Storage Moderate Hazard)
Office	B (Business)
Sprinkler System	Yes
Number of Stories	1 with mezzanine
Gross Building Area	170,627 s.f.
Existing First Floor Area	170,627 s.f.
Existing Mezzanine Area	8,607 s.f.
Proposed Interior Project Area	13,800 s.f.
Existing Building Height	29'-3 1/4"
Proposed Remodel Height	35'-3 1/4"

Project Narrative and Design Intent

This project is an interior remodel to an existing manufacturing building to allow for the client to have additional clean room space and support space. However, the roof over this newly remodeled space will have to be 6'-0" taller than the existing roof.

Accessibility

This building already has an accessible route into the building & existing accessible parking stalls. There is also an accessible route to all primary function spaces and restrooms, no modifications required.



Architects Seal

Engineers Seal

60 YEARS OF DESIGN EXCELLENCE

SHEET INDEX

REVISIONS

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G-001	COVER SHEET																													
A-001	OVERALL FIRST FLOOR PLAN																													
A-100	DEMO FIRST FLOOR PLAN																													
A-101	FIRST FLOOR PLAN																													
A-102	REFLECTED CEILING PLAN																													
A-103	MEZZANINE FLOOR PLAN																													
A-104	ROOF PLAN																													
A-201	EXTERIOR ELEVATIONS																													

MSI GENERAL

MSI GENERAL CORPORATION
P.O. BOX. 7
OCONOMOWOC, WI 53066
PHONE: 262-367-3661

WWW.MSIGENERAL.COM

SINGLE SOURCE RESPONSIBILITY ™

ISSUE DATES:	
Village Site Plan Review Set:	04/16/18
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Contract:	
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PROJECT ADDRESS:

PROJECT NAME
MGS CLEAN ROOM BLDG ADDITION
STREET ADDRESS
W190N11701 MOLDMAKERS WAY
CITY/ STATE / ZIP
GERMANTOWN, WI 53022

ALL WORK TO BE COMPLETED AS SHOWN, AND IN ACCORDANCE WITH THE LATEST EDITION OF THE MSI GENERAL MASTER SPECIFICATION

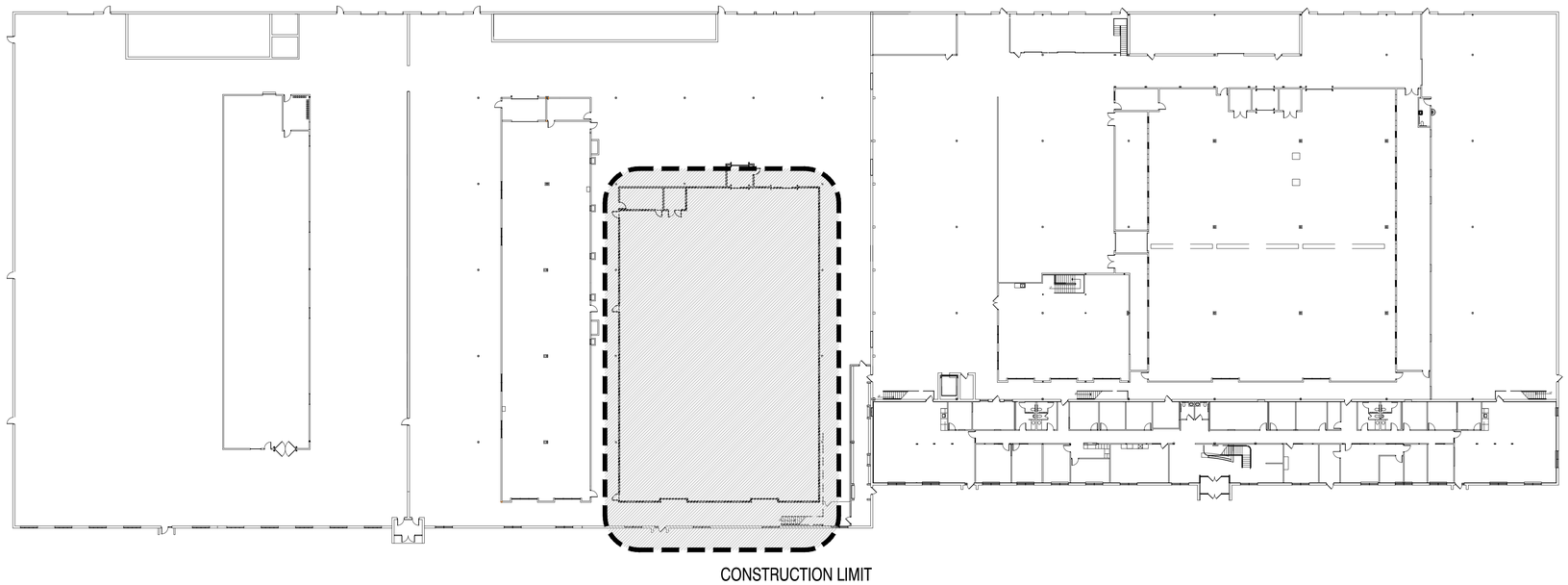
Architect:	Engineer:	Reviewed By:
AMH/BGK	PE	MSI

Sheet Title:
COVER SHEET

Sheet Number:
G-001

Project Number: -
P12087

MANAGERS . ENGINEERS . CONTRACTORS . ARCHITECTS



OVERALL FIRST FLOOR PLAN 1/32"= 1'-0"

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AMH/BGK	PE	MSI

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OVERALL FIRST FLOOR PLAN

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A-001

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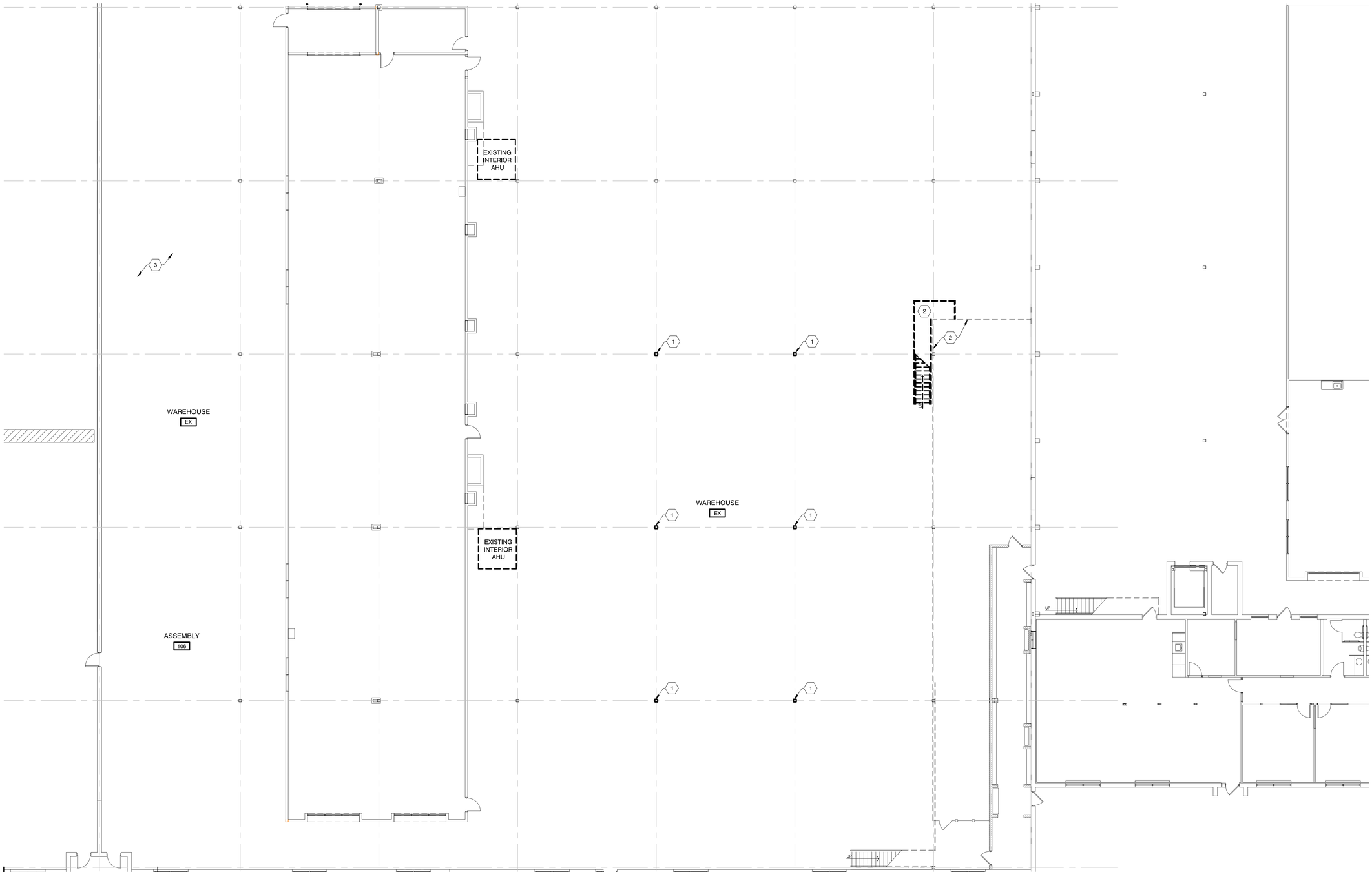
MANAGERS . ENGINEERS . CONTRACTORS . ARCHITECTS



DEMOLITION NOTES

1. REMOVE AND DISPOSE OF EXISTING STEEL COLUMN AND STRUCTURE ABOVE
   -PROVIDE SHORING AS REQUIRED
2. REMOVE AND DISPOSE OF EXISTING STEEL STAIRS
   -VERIFY w/ OWNER IF MEZZANINE OFFICES TO REMAIN OR BE REMOVED
3. REMOVE AND DISPOSE OF EXISTING STEEL STAIRS AND MEZZANINE. PATCH FLOOR AS REQUIRED.

DEMO FIRST FLOOR PLAN 3/32"= 1'-0"

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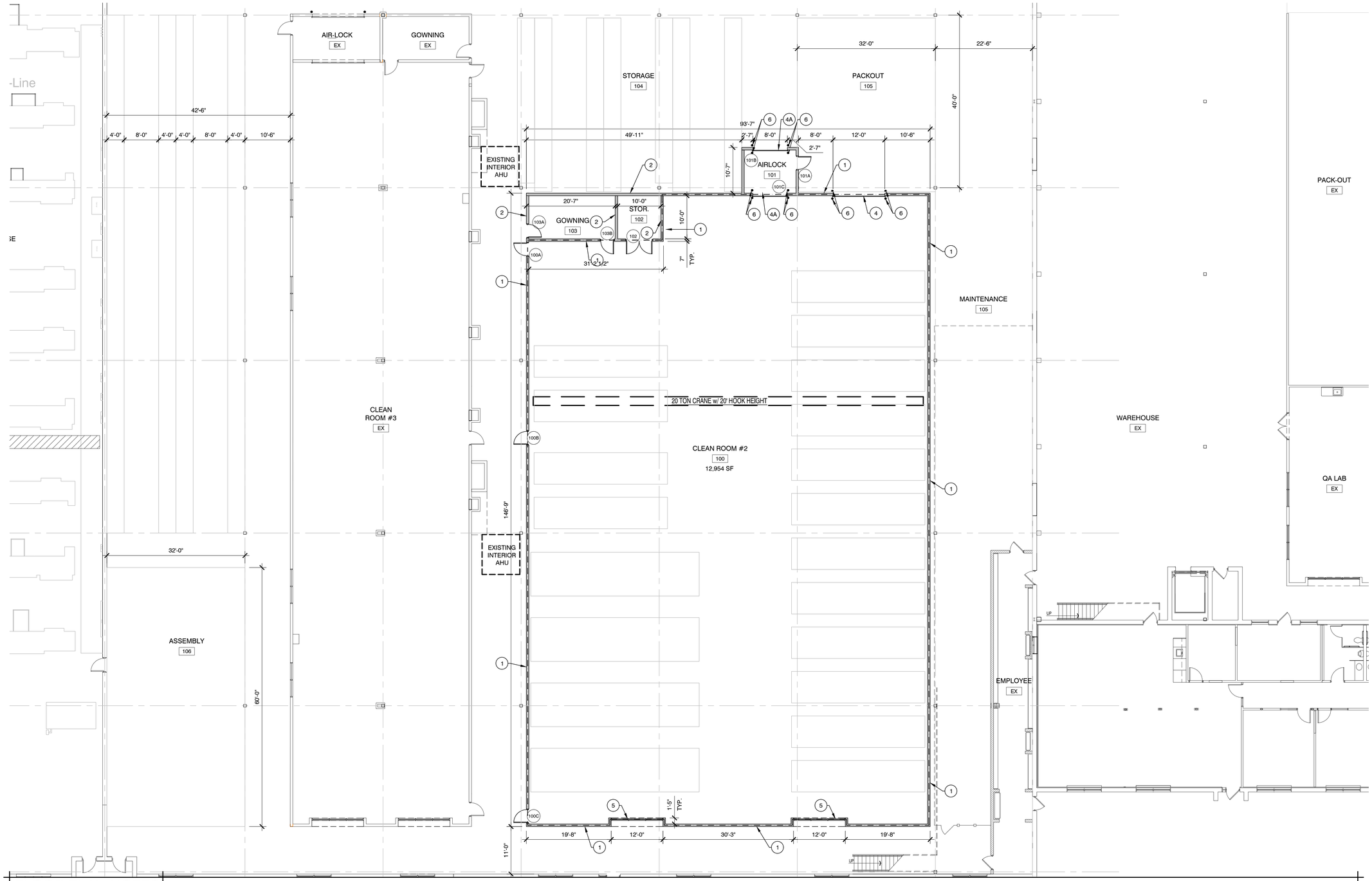
Architect:	Engineer:	Reviewed By:
AMH/BGK	PE	MSI

Sheet Title:
DEMO FIRST FLOOR PLAN

Sheet Number:
A-100

Project Number: -
P12087

MANAGERS . ENGINEERS . CONTRACTORS . ARCHITECTS



FLOOR PLAN NOTES

1. CLEAN ROOM WALLS:
MIN 18 GA 6" METAL STUDS, 16" O.C. UP TO BOTTOM OF ROOF DECK (PROVIDE SLIP JOINT AT ROOF DECK), VAPOR BARRIER, 5/8" GYP. BD. FULL HEIGHT BOTH SIDES
-PROVIDE SEALANT AT TOP AND BOTTOM OF WALL EACH SIDE

2. TYPICAL STUD WALLS:
MIN 18 GA 6" METAL STUDS, 16" O.C. UP TO BOTTOM OF ROOF DECK (PROVIDE SLIP JOINT AT ROOF DECK), 5/8" GYP. BD. FULL HEIGHT BOTH SIDES

3. 8" CMU WALL UP TO 10'-0" AFF
-MEZZANINE ABOVE

4. DYNACO CLEANROOM M2 COILING DOOR (12'W x 12'H). PROVIDE VISION PANEL, STAINLESS STEEL COVERS, AND DOOR SHALL BE BLUE 5001 OR APPROVED EQUAL.

4A. DYNACO CLEANROOM M2 COILING DOOR (8'W x 8'H). PROVIDE VISION PANEL, STAINLESS STEEL COVERS, AND DOOR SHALL BE BLUE 5001 OR APPROVED EQUAL.

5. 12'-0"W x 11'-0"H CLEAR ANODIZED KAWNEER ANCORE OR "APPROVED EQUAL" ALUMINUM WINDOW SYSTEM w/ 1" INSULATED CLEAR SAFETY GLAZING. GLAZING SHALL BE ON THE CLEAN ROOM SIZE. PROVIDE AND INSTALL WOOD JAMB BLOCKING AS REQUIRED.
-REFER TO WINDOW ELEVATION ON THIS SHEET

6. STEEL PIPE BOLLARDS - PAINTED

FIRST FLOOR PLAN 3/32"= 1'-0"

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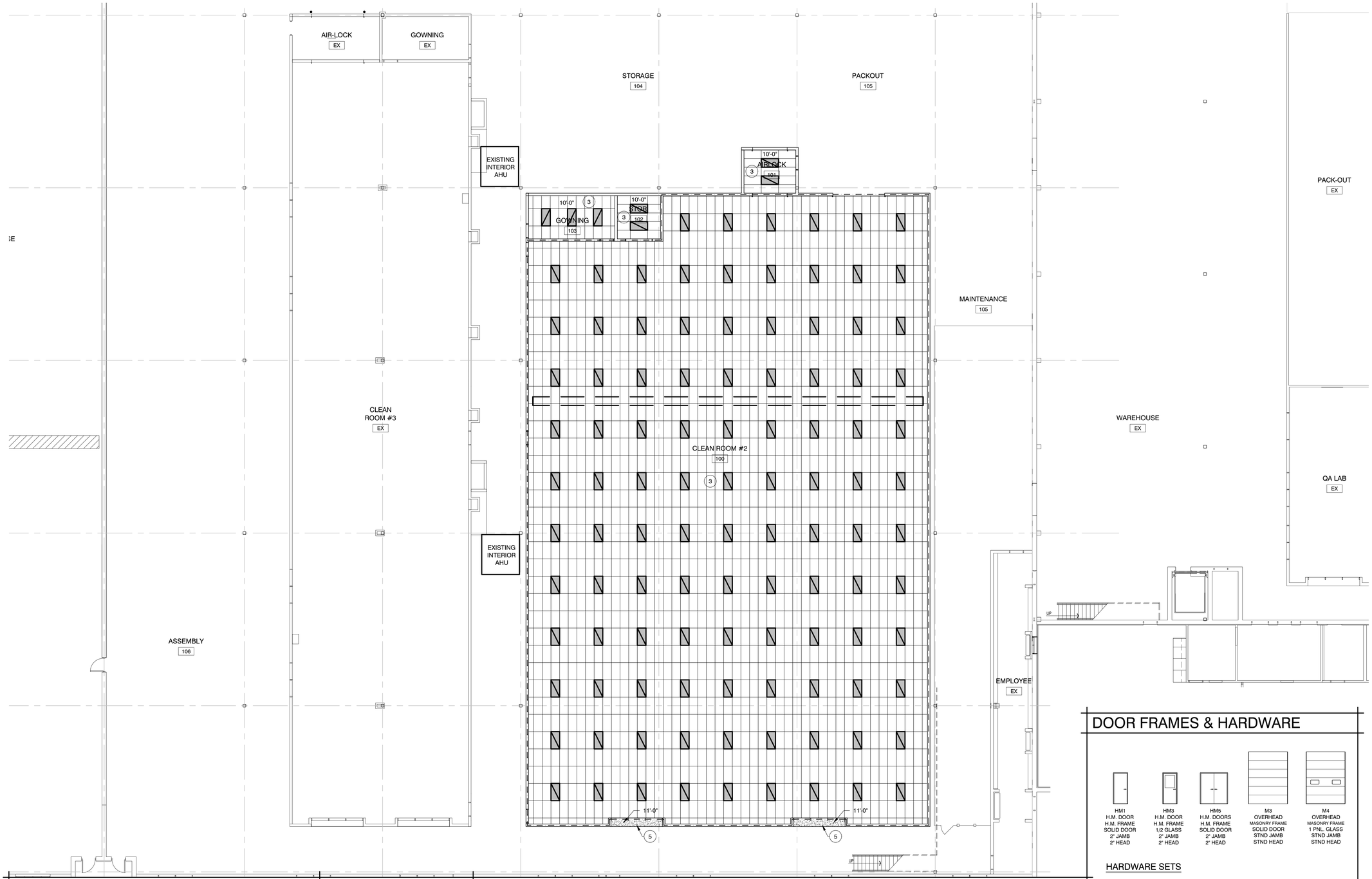
AMH/BGK	PE	MSI

Sheet Title:
FIRST FLOOR PLAN
Sheet Number:
A-103
Project Number: -
P12087

MANAGERS • ENGINEERS • CONTRACTORS • ARCHITECTS



CEILING PLAN NOTES

1. EXPOSED STRUCTURE - NO CEILING
2. DRYFALL PAINT EXPOSED STRUCTURE
3. 2'x4' USG CLEAN ROOM CLIMAPLUS CLASS 100 TILE w/ $\frac{15}{16}$" USG DONN CE GASKETED ACOUSTICAL SUSPENSION SYSTEM. PROVIDE HOLD DOWN CLIPS.
4. 2'x4' ARMSTRONG KITCHEN ZONE TILE w/ $\frac{15}{16}$" PRELUDE ACOUSTICAL SUSPENSION SYSTEM.
5. GYPSUM BOARD BULKHEAD

DOOR SCHEDULE

DOOR AND FRAME SCHEDULE - AREA B

	DOOR							FRAME									
		SIZE							DETAIL								
DOOR #	TYPE	PR WxH	MATERIAL	SWING	GLASS SIZE	FINISH	Color	MATERIAL	JAMB	HEAD	FINISH	Color	LABEL	REMARKS	Door Keying	Door Hardware	DOOR #
100B	HM 3	3'-0" x 7'-0"	H.M.	Left	1/2	PAINT	P-1	H.M.	2"	2"	PAINT	P-1	--	--	--	HS8	100B
100C	HM 3	3'-0" x 7'-0"	H.M.	Left	1/2	PAINT	P-1	H.M.	2"	2"	PAINT	P-1	--	--	--	HS8	100C
100A	HM 3	3'-0" x 7'-0"	H.M.	Right	1/2	PAINT	P-1	H.M.	2"	2"	PAINT	P-1	--	--	--	HS8	100A
101A	HM 3	3'-0" x 7'-0"	H.M.	Left	1/2	PAINT	P-1	H.M.	2"	2"	PAINT	P-1	--	ELECTRIC STRIKE	--	HS2	101A
101B	M 2	8'-0" x 8'-0"	STND	NA	1-PANEL GLASS	--	--	METAL	STND	STND	--	--	--	--	--	--	101B
101C	M 1	8'-0" x 8'-0"	STND	NA		--	--	METAL	STND	STND	--	--	--	--	--	--	101C
102	HM 5	PR 3'-0" x 7'-0"	H.M.	NA		PAINT	P-1	H.M.	2"	2"	PAINT	P-1	--	--	--	HS4	102

DOOR FRAMES & HARDWARE

HM1 H.M. DOOR H.M. FRAME SOLID DOOR 2" JAMB 2" HEAD

HM3 H.M. DOOR H.M. FRAME 1/2 GLASS 2" JAMB 2" HEAD

HM5 H.M. DOORS H.M. FRAME SOLID DOOR 2" JAMB 2" HEAD

M3 OVERHEAD MASONRY FRAME SOLID DOOR STND JAMB STND HEAD

M4 OVERHEAD MASONRY FRAME 1 PNL. GLASS STND JAMB STND HEAD

HARDWARE SETS

HS1: (not used)
HS2: Butt hinges, push/pull, door closer, kick plates, wall mounted door stop, perimeter gasket, drop down door sweeps. Doors shall interlock with each other.
HS3: (not used)
HS4: Butt hinges, dummy trim, kick plates, astragal, perimeter gasket, drop down door sweeps, surface bolts
HS5: Butt hinges, storeroom lock, door closer, wall stop
HS6: Butt hinges, push/pull, door closer, kick plates
HS7: Butt hinges, passage set, wall stop
HS8: Butt hinges, exit only, door closer, wall stop, perimeter gasket, drop down door sweeps

REFLECTED CEILING PLAN 3/32"= 1'-0"

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OCONOMOWOC, WI 53066
PHONE: 262-367-3661

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SINGLE SOURCE RESPONSIBILITY ™

ISSUE DATES:	
Village Site Plan Review Set:	04/16/18
Bid:	03/29/18
Contract:	
State Submittal / Permit:	
As-Built:	

REVISIONS:	
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PROJECT ADDRESS:

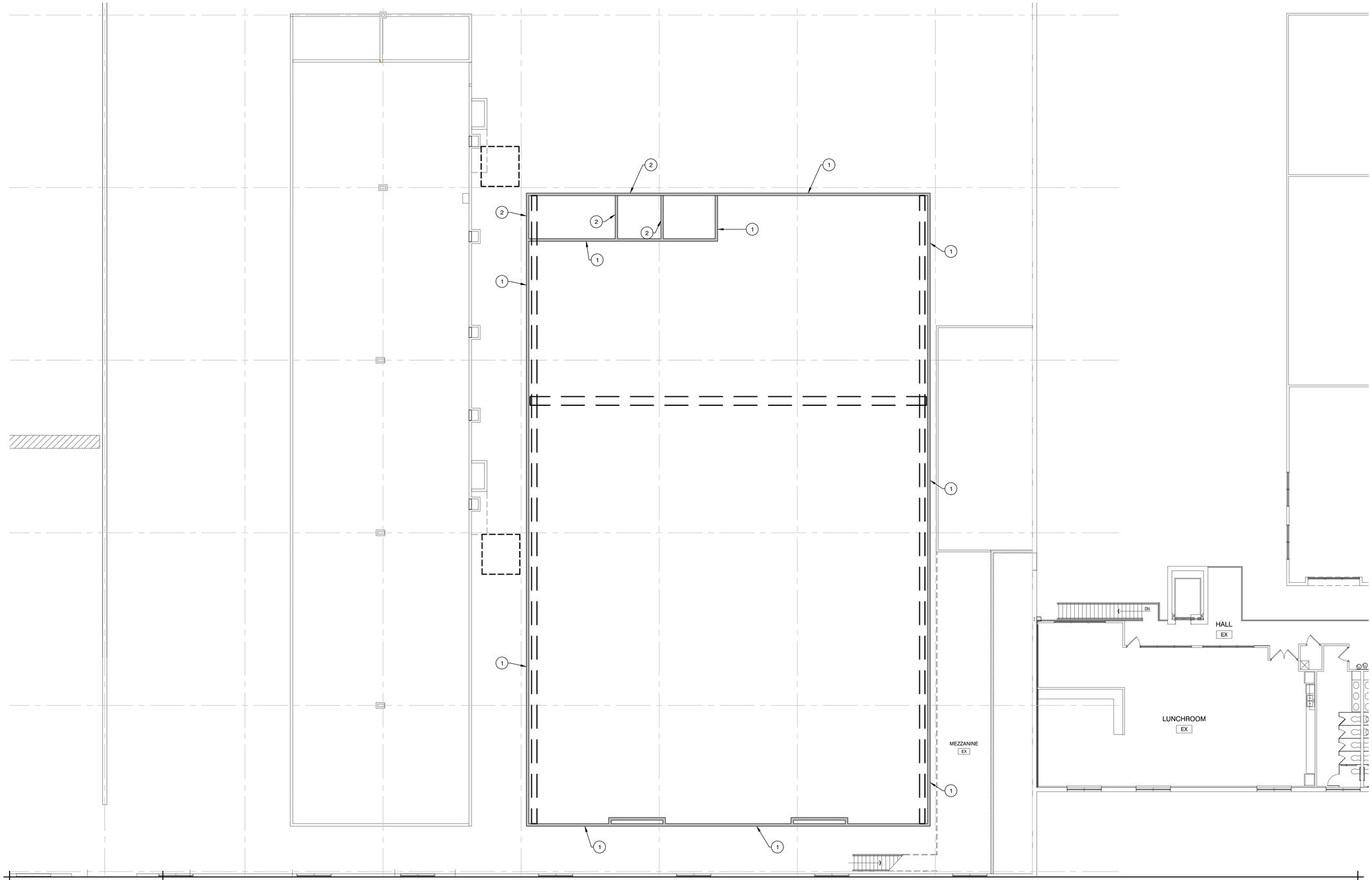
PROJECT NAME
MGS CLEAN ROOM BLDG ADDITION
STREET ADDRESS
W190N11701 MOLDMAKERS WAY
CITY/ STATE / ZIP
GERMANTOWN, WI 53022

ALL WORK TO BE COMPLETED AS SHOWN, AND IN ACCORDANCE WITH THE LATEST EDITION OF THE MSI GENERAL MASTER SPECIFICATION

Architect:	Engineer:	Reviewed By:
AMH/BGK	PE	MSI

Sheet Title:
REFLECTED CEILING PLAN
Sheet Number:
A-102
Project Number: -
P12087

MANAGERS . ENGINEERS . CONTRACTORS . ARCHITECTS



FLOOR PLAN NOTES

1. CLEAN ROOM WALLS:
MIN 18 GA 6" METAL STUDS, 16" O.C. UP TO BOTTOM OF ROOF DECK (PROVIDE SLIP JOINT AT ROOF DECK), VAPOR BARRIER, 5/8" GYP. BD. FULL HEIGHT BOTH SIDES
-PROVIDE SEALANT AT TOP AND BOTTOM OF WALL EACH SIDE

2. TYPICAL STUD WALLS:
MIN 18 GA 6" METAL STUDS, 16" O.C. UP TO BOTTOM OF ROOF DECK (PROVIDE SLIP JOINT AT ROOF DECK), 5/8" GYP. BD. FULL HEIGHT BOTH SIDES

3. 8" CMU WALL UP TO 10'-0" AFF
-MEZZANINE ABOVE

4. DYNACO CLEANROOM M2 COILING DOOR (12'W x 12'H). PROVIDE VISION PANEL, STAINLESS STEEL COVERS, AND DOOR SHALL BE BLUE 5001 OR APPROVED EQUAL.

4A. DYNACO CLEANROOM M2 COILING DOOR (8'W x 8'H). PROVIDE VISION PANEL, STAINLESS STEEL COVERS, AND DOOR SHALL BE BLUE 5001 OR APPROVED EQUAL.

5. 12'-0"W x 11'-0"H CLEAR ANODIZED KAWNEER ANCORE OR "APPROVED EQUAL" ALUMINUM WINDOW SYSTEM w/ 1" INSULATED CLEAR SAFETY GLAZING. GLAZING SHALL BE ON THE CLEAN ROOM SIZE. PROVIDE AND INSTALL WOOD JAMB BLOCKING AS REQUIRED.
-REFER TO WINDOW ELEVATION ON THIS SHEET

6. STEEL PIPE BOLLARDS - PAINTED

MEZZANINE FLOOR PLAN 3/32"= 1'-0"

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PROJECT ADDRESS:

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STREET ADDRESS
W190N11701 MOLDMAKERS WAY
CITY/ STATE / ZIP
GERMANTOWN, WI 53022

ALL WORK TO BE COMPLETED AS SHOWN, AND IN ACCORDANCE WITH THE LATEST EDITION OF THE MSI GENERAL MASTER SPECIFICATION

Architect:	Engineer:	Reviewed By:
AMH/BGK	PE	MSI

Sheet Title:
MEZZANINE FLOOR PLAN

Sheet Number:
A-103

Project Number: -
P12087

MANAGERS . ENGINEERS . CONTRACTORS . ARCHITECTS

ROOF PLAN NOTES

1. RELOCATE EXISTING ROOF DRAIN

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

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CITY/ STATE / ZIP
GERMANTOWN, WI 53022

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Architect:	Engineer:	Reviewed By:
AMH/BGK	PE	MSI

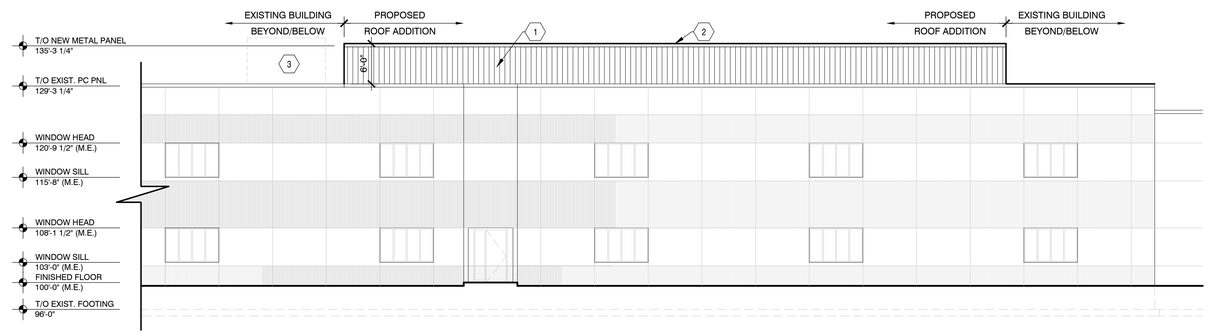
Sheet Title:
ROOF PLAN

Sheet Number:
A-104

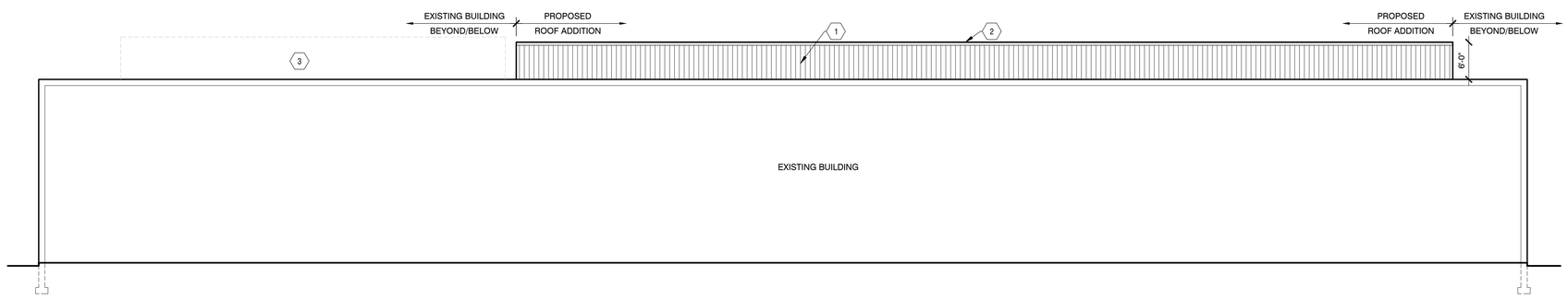
Project Number: -
P12087

ARCHITECTS . CONTRACTORS . ENGINEERS . MANAGERS

EXTERIOR RENDERING



EAST ELEVATION



NORTH/SOUTH ELEVATION

EXTERIOR MATERIAL KEY NOTES

1. CORRUGATED METAL PANEL; COLOR TO BE SIMILAR TO EXISTING PRECAST PANELS
2. PRE-FINISHED METAL COPING CAP -MATCH EXISTING
3. RTU LOCATION

ELEVATIONS 3/32" = 1'-0"

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GERMANTOWN, WI 53022

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Architect:	Engineer:	Reviewed By:
AMH/BGK	PE	MSI

Sheet Title:
EXTERIOR ELEVATIONS

Sheet Number:
A-201

Project Number: -
P12087

MANAGERS . ENGINEERS . CONTRACTORS . ARCHITECTS

SIGN PERMIT REVIEW

5/14/18 Plan Commission Meeting

VJS Construction Services Inc / PHW Germantown Inc.

Village Planner Report **Germantown, Wisconsin**

Summary

VJS Construction services, agent for PHW Germantown Inc. and the Fairway Knoll senior living community, is requesting approval for a monument sign for the new Fairway Knoll facility located at N112 W17500 Mequon Road.

Property Location: N112 W17500 Mequon Road

Property Owner/ Applicant:

VJS Const Services	PHW Germantown Inc.
W2133N2847 Roundy Cir	2845 Hamline Ave N
Pewaukee WI	Roseville MN

Current Zoning: B-1: Neighborhood Business w/PDD Overlay

Adjacent Land Use		Adjacent Zoning
North	Golf Course	B-1/Rd-2
South	Commercial/Institutional	B-1 / B-2 / B-4 / I
East	Commercial/Residential	B-1/Rm-2
West	Residential	Rd-2

Proposal

VJS Construction services, agent for PHW Germantown Inc. and the Fairway Knoll senior living community, is requesting approval for a monument sign for the new Fairway Knoll facility located at N112 W17500 Mequon Road:

- 3’ x 7’ sign area to a maximum height of 7 feet (21 sqft per side; 42 total sqft) double-sided, etched masonry monument sign mounted on a masonry base and stone pilaster accent to be located near the driveway entrance to Mequon Road. The sign will be externally-lit with a ground-mounted LED shielded fixture.

Staff Analysis

The proposed monument sign meets the Village’s sign requirements for a permanent monument sign. However, the sign location is required to meet a 5’ minimum setback from the property line. Landscaping was reviewed and approved at the time the Site Plan was approved in July, 2016.

Village Planner Recommendation

APPROVE the proposed monument sign for the Fairway Knoll facility located at N112 W17500 Mequon Road subject to the following conditions:

1. An electrical permit shall be obtained from Inspection Services prior to installation of any/all electrical components.
2. Landscaping materials (type, size and quantity) shall be installed as specified in the original site plan approval granted on July 11, 2016.
3. All exterior lighting shall be shielded to prohibit glare affecting traveling public on Mequon Road. Directional lighting, glare shields and/or landscaping shall be utilized to prohibit glare. Additional details and specifications for all lighting components shall be submitted to the Village Planner for review/approval prior to obtaining a building (electrical) permit and installation.
4. A minimum setback of 5 feet shall be maintained between the nearest edge of the sign base and the nearest property line.

Village of Germantown ...Willkommen

Fee must accompany application

$275 Sign Review Fee

$ 75 Sign Face Replacement

Paid [illegible] Date 4-13-18

SIGN REVIEW APPLICATION

Pursuant to Section 17.46 of the Municipal Code

Please read and complete this application carefully. **All applications must be signed and dated.**

1 APPLICANT OR AGENT

VJS Construction Services, Inc.
W233 N2847 Roundy Circle West
Germantown, WI 53022

Phone (262) 542-9000
Fax (262) 542-1371
E-Mail jgross@vjscs.com

PROPERTY OWNER

PHW Germantown, Inc.
2845 Hamline Ave N
Roseville MN 55113-7127

Phone (651) 631-6325

2 PROPERTY ADDRESS OR GENERAL LOCATION

N112 W17500 Mequon Road
Germantown, WI 53022

3 SIGN INFORMATION

Sign Dimensions 2' height x 7' width Single/Multi Tenant (circle one)
Number of Sides 2 Building Frontage SF _____
Total Square Footage of Sign (include all sides) 28'
Total height of the Sign 7'
Is the Sign to be illuminated Yes/Spotlight yes _____ no
Type of Sign Construction Materials Masonry
Distance to Closest Property Line 0'-0"

Are there any existing signs on the property No
If yes, what is the total Square Footage of existing signs N/A

What are the intentions for the existing signs: Take down _____ Remain _____

4 SIGNATURES -- ALL APPLICATIONS MUST BE SIGNED BY OWNER!

[signature] 4/13/18
Applicant Date

[signature] 4.13.18
Owner Date

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OFFICE OF THE VILLAGE PLANNER
VILLAGE OF GERMANTOWN

Rev. 020618

FL20L LED Small Flood Light

DuraGuard PRODUCTS INC.® A QSSI Company

Project Information

Project Name:	Fixture Type:
Complete Catalog #:	Date:
Comments:	

The DuraGuard FL20 flood light luminaire is available with a knuckle mounting feature and is designed to replace HID lighting systems up to 100w MH or HPS. Typical lighting applications include retail centers, industrial parks, schools and universities, public transit and airports, office buildings and medical facilities. Mounting can be accomplished using ground attachment accessories and up to heights of 12 feet based on light level and uniformity requirements.

12V Available

L70 25°C — 128,000 Hours

Specifications and Features:

Housing:
Die Cast Aluminum Housing and Front Frame with Separate Ballast Compartment. Integral Heat-Dissipating Fins for Thermal Management. ½" Threaded Aperture with Liquid-Tight Connector.

Listing & Ratings:
CSA: Listed for Wet Locations, ANSI/UL 1598, 8750 IP65 Sealed LED Compartment.

Finish:
Textured Architectural Bronze Powdercoat Finish Over a Chromate Conversion Coating. Custom Colors Available Upon Request.

Lens:
Clear Glass Lens.

Mounting Options:
Adjustable Knuckle with ½" NPS Threads.

COB LED:
LED COB

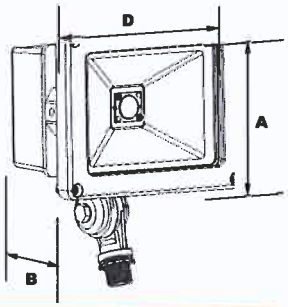
Wattage:
LED: 1 x 18w; System: 21w
(70w HID Equivalent)

Driver:
Electronic Driver, 120-277V, 50/60Hz
12V: Electronic Driver, 12-17VAC Input, 50/60Hz, Non-Dimmable

Warranty:
5-Year Warranty for -30°C to +50°C Environment.

LM-79 Report Available on Select Models.

See Page 2 for Projected Lumen Maintenance Table.



Dimensions	
Width (D)	6¾" (172mm)
Length (B)	4⅜" (113mm)
Height (A)	5¼" (133mm)

DuraLED Technology

Complete Units
Ordering Information
Example: FL20L1X18U5KZKP22

FL20L LED Small Flood Light

FL20L	1X18				K	
Model	Wattage	Driver	CCT	Color	Mounting	Options
FL20L=LED Small Flood Light	**1X18**=18w	**U**=120-277V **V**=12V	**4K**=4000K **5K**=5000K	**Z**=Bronze **C**=Custom (Consult Factory)	**K**=½" NPS Knuckle	**P10**=Pencil Photocell, 120VAC* **P12**=Pencil Photocell, 208-277VAC* **P20**=Swivel Photocell, 120VAC* **P22**=Swivel Photocell, 208-277VAC* *Not Available on 12V Model.

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VILLAGE OF GERMANTOWN

DesignLights Consortium™ Qualified Luminaires: FL20L1X18U5K

Specifications subject to change without notice.

12802 Commodity Place • Tampa, FL 33626 • www.duraguard.com • Toll Free: (800) 736-7991 • Fax: (800) 287-4175

Rev. 121317

FL20L LED Small Flood Light

DuraGuard PRODUCTS INC. A QSSI Company

PTFZ STK FL20GTFZ*

P18110 & P18112 P18120 & P18122

*Shown mounted.

Mounting Accessories (Order separately, Field installed)	
PTFZ	Die-cast Post Top Fitter for 2⅜" to 3½" Poles, Bronze Powdercoat Finish, Three (3) ½" Coin Plugs.
STK	Heavy Duty Ground Stake, Built-in Wiring Compartment with ½" NPS Threaded Fitting, Black Plastic.

Accessories (Order separately, Field installed)	
FL20GTFZ	Die Cast Top Frame with Aluminum Glare Shield, Bronze Powdercoat Finish.

Replacement Parts (Order separately, Field installed)	
P18110*	110-130V 120VAC Pencil Photocell
P18112*	208-277V 240VAC Pencil Photocell
P18120*	110-130V, 120VAC Swivel Photocell
P18122*	208-277V, 240VAC Swivel Photocell

*Not Available on 12V Model.

Photometric Performance

				5000 CCT 80 CRI	
LED Board Watts	Drive Current (mA)	Input Watts	Beam	Lumens	LPW
COB LED 18w	525	21	115°H x 100°V, NEMA 7H x 6V	2,324	111

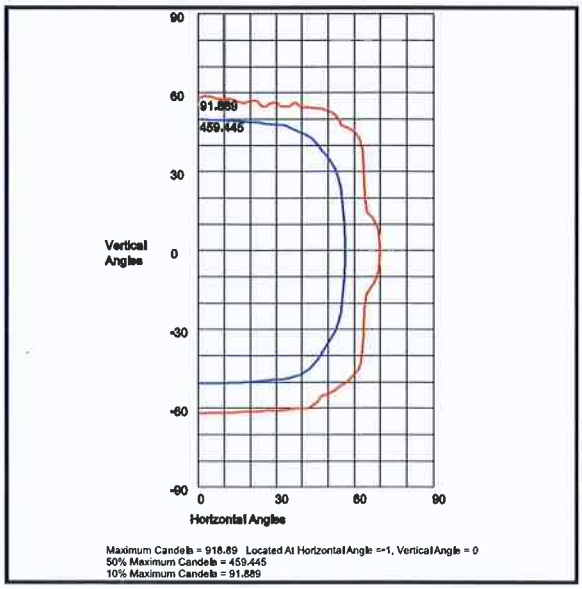
Projected Lumen Maintenance

Data shown for 5000 CCT			Compare to MH			
TM-21-11	Input Watts	Initial	25,000 Hrs	50,000 Hrs	100,000 Hrs	Calculated L70@ 25°C
L70 Lumen Maintenance @ 25°C / 77°F	21	1.00	0.94	0.88	0.77	128,000
TM-21-11	Input Watts	Initial	25,000 Hrs	50,000 Hrs	100,000 Hrs	Calculated L70@ 50°C
L70 Lumen Maintenance @ 50°C / 122°F	21	1.00	0.92	0.83	0.66	89,000
TM-21-11	Input Watts	Initial	25,000 Hrs	50,000 Hrs	100,000 Hrs	Calculated L80@ 40°C
L80 Lumen Maintenance @ 40°C / 104°F	21	1.00	0.93	0.86	0.72	71,000

NOTES:

1. Projected per IESNA TM-21-11. Data references the extrapolated performance projections for the 525mA base model in a 25°C ambient, based on 10,000 hours of LED testing per IESNA LM-80-08.
2. Compare to MH box indicates suggested Light Loss Factor (LLF) to be used when comparing to Metal Halide (MH) systems.

Photometric Data



FL20L1X18U5K
115°H x 100°V, NEMA 7H x 6V

Specifications subject to change without notice.

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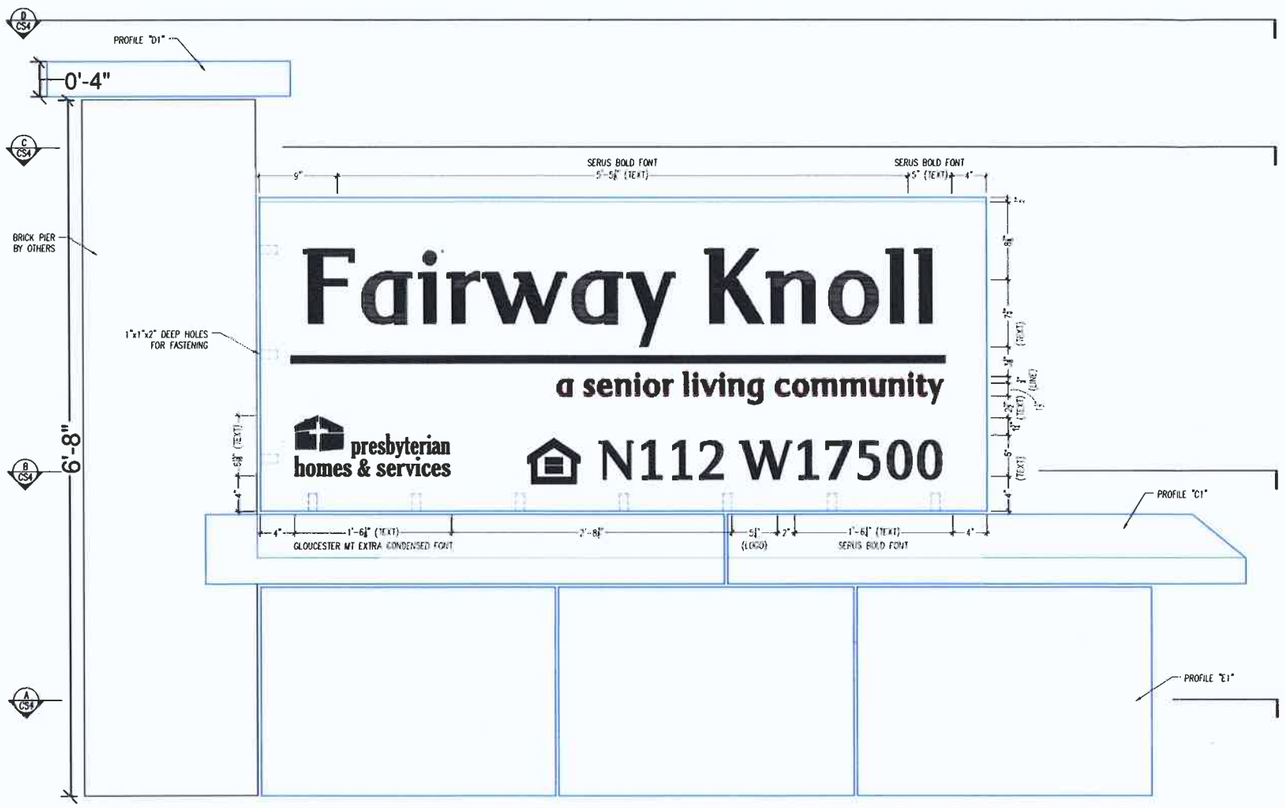
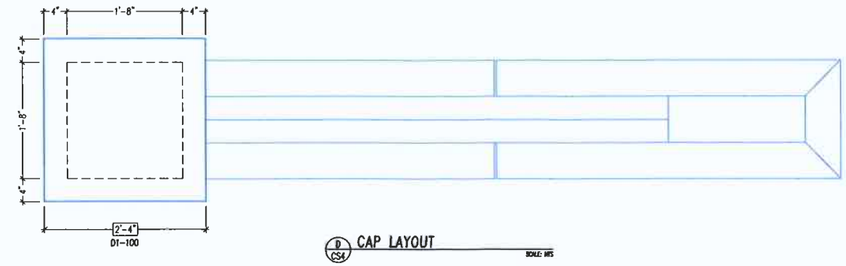
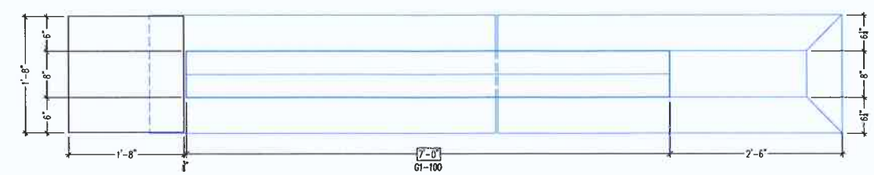


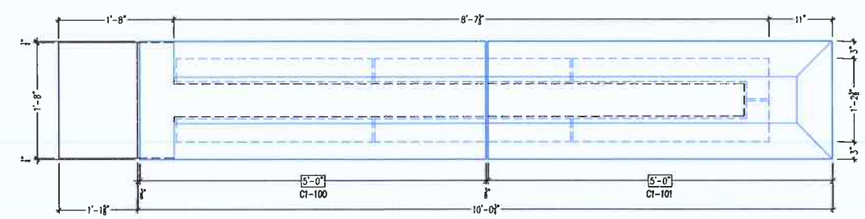
1 CS4 SIGN FRONT ELEVATION SCALE: NTS



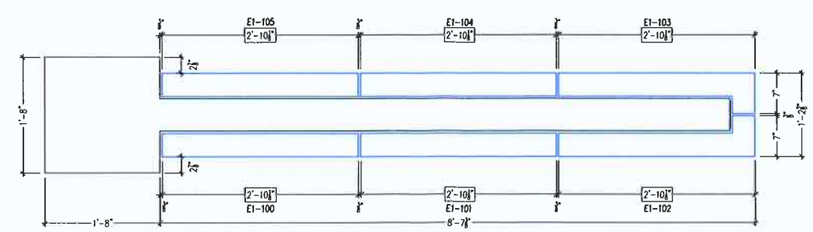
D CS4 CAP LAYOUT SCALE: NTS



C CS4 SIGN LAYOUT SCALE: NTS

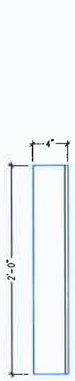


B CS4 COPING LAYOUT SCALE: NTS

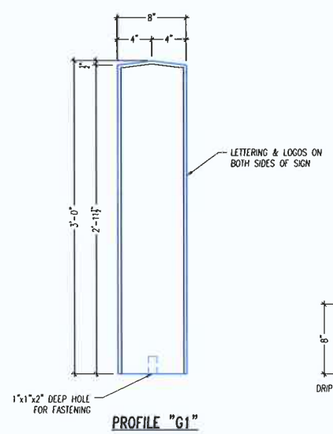


A CS4 BASE LAYOUT SCALE: NTS

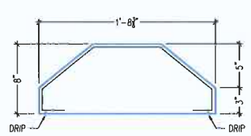
PLEASE VERIFY ALL DIMENSIONS & SIGN TEXT AS LIMITED INFORMATION IS PROVIDED IN CONTRACT DRAWINGS



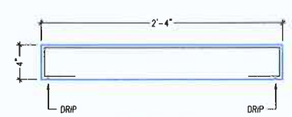
PROFILE "E1"



PROFILE "G1"



PROFILE "C1"



PROFILE "D1"

PRECAST COLOR
PLEASE VERIFY

GENERAL NOTES:
- ALL LETTERING & LOGOS TO BE ENGRAVED & PAINTED BLACK
- STONECAST IS NOT RESPONSIBLE FOR CONNECTION DESIGN & ENGINEERING
- STONECAST IS NOT RESPONSIBLE FOR SUPPLYING ANY CONNECTION HARDWARE

GENERAL NOTES:
- ALL PRECAST JOINTS TO BE 3/8" (UNLESS NOTED OTHERWISE).
- APPROVAL TO VERIFY ALL DIMENSIONS.
- DIMENSIONS NOT CHANGED ON SHOP DRAWINGS ARE ASSUMED TO BE CORRECT.
- FABRICATION WILL NOT COMMENCE WITHOUT STAMPED APPROVAL OR SIGNING AUTHORIZATION TO PROCEED BY THE CONTRACTOR.
- STONECAST PRODUCTS, INC. IS NOT RESPONSIBLE FOR COORDINATING WITH OTHER TRADES.
- INSTALLATION OF PRECAST CONSTITUTES ACCEPTANCE OF PRODUCT.
- ALL DIMS, SIZES & LENGTHS OF PRECAST UNITS SHOWN ON SHOP DRAWINGS ARE ACTUAL - NOT NOMINAL.
- STONECAST IS NOT RESPONSIBLE FOR SUPPLYING ANCHORS, DOWELS OR ANY OTHER CONNECTION HARDWARE.
- "F.C." DENOTES FIELD CUT.
- "C.J." DENOTES CONTROL JOINT.
- "F.J." DENOTES FALSE JOINT.
- "M.J." DENOTES MASONRY JOINT.

REVISIONS NO.	DESCRIPTION	BY	DATE
1	INCREASE WIDTH OF BASE, INCREASE SIZE & CENTER LETTERING	PJH	3/27/18
2	ADD 2-WAY WASH TO PROFILE "C1"	PJH	3/28/18

STONECAST
YOUR IMAGINATION IS OUR INNOVATION
N112 W14343 MEQUON ROAD
P.O. BOX 5
GERMANTOWN, WI 53022
PHONE: (262) 255-6600 FAX: (262) 255-6500

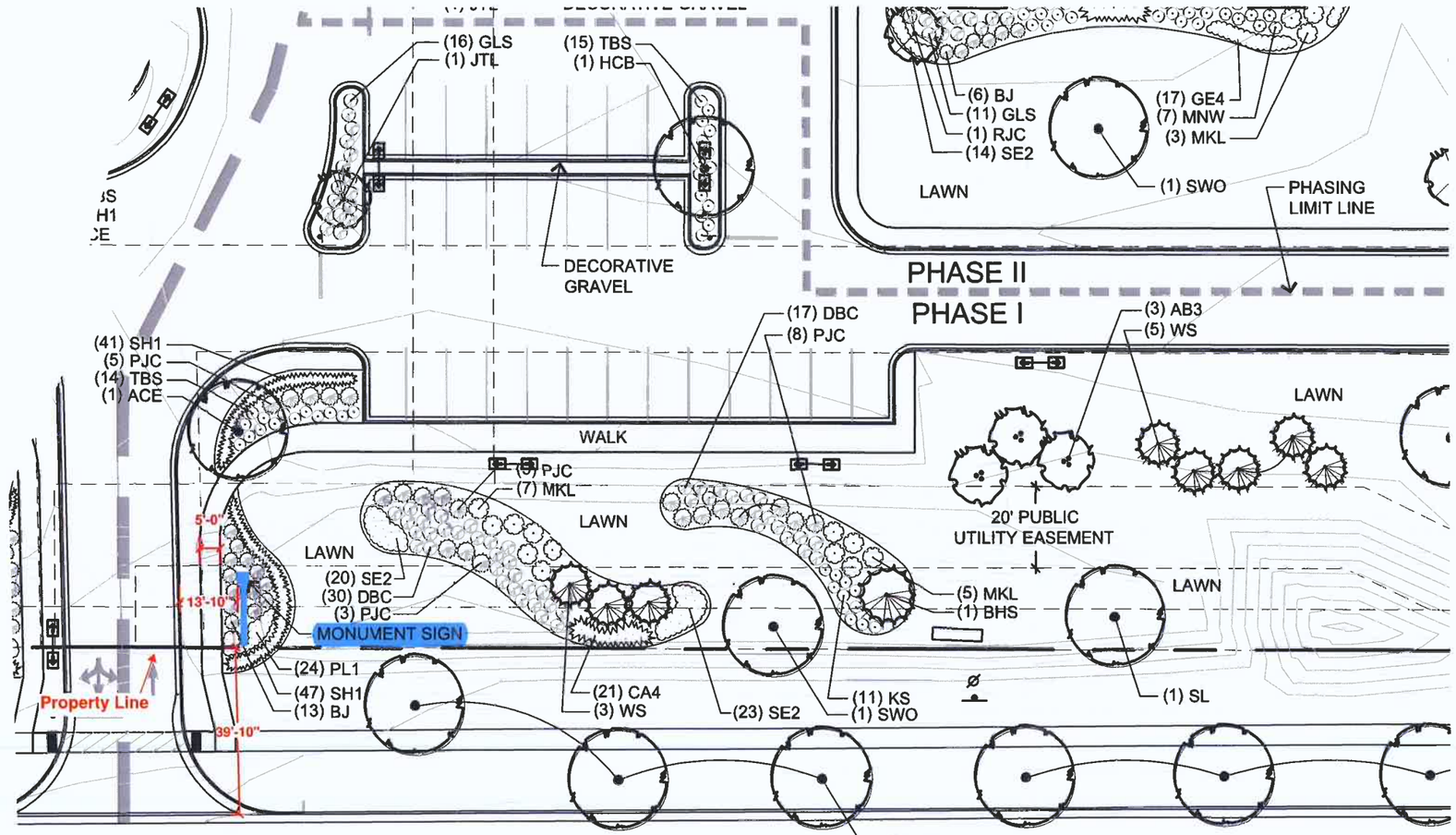
PROJECT: FAIRWAY KNOLL
Germantown, WI 53022
CONTRACTOR: TCM CONSTRUCTION | ARCHITECT: IN-SITE ARCHITECTS

PROJECT #:	17-0043
SCALE:	NTS
DRAWN:	BTL/PJH
DATE:	3/16/2018
SHEET #:	CS4

SH1 - Prairie Dropseed

PL1 - Little Spire Russian Sage

BJ - Broadmoor Juniper



SIGN PLANT SCHEDULE

SH1	47	Prairie Dropseed	Sporobolus heterolepis	1 GAL.	POT	18" Spacing
PL1	24	Little Spire Russian Sage	Perovskia x `Little Spire`	4 1/2"	POT	18" Spacing
BJ	13	Broadmoor Juniper	Juniperus sabina `Broadmoor`	18"SPD	CONT.	

DIGGERS HOTLINE

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