

N64W23760 Main Street Sussex, Wisconsin 53089 Phone (262) 246-5200 FAX (262) 246-5222

Email: <a href="mailto:info@villagesussex.org">info@villagesussex.org</a>
Website: <a href="mailto:www.villagesussex.org">www.villagesussex.org</a>

#### Architectural Review Board Agenda 4:00 PM Wednesday, September 6, 2023 Sussex Civic Center – Committee Room Second Floor

Pursuant to the requirements of Section 19.84, Wis. Stats., notice is hereby given of a meeting of the Village of Sussex Architectural Review Board, at which a quorum of the Village Board may attend in order to gather information about a subject which they have decision making responsibility. The meeting will be held at the above noted date, time and location. (If a Quorum is present the Chairperson shall announce, "Please let the minutes reflect that a quorum of the Village Board is present and that the Village Board members may be making comments under the Public Comments section of the agenda, during any Public Hearing(s) or if the rules are suspended to allow them to do so.)

- 1. Roll call.
- 2. <u>Consideration and possible action on the minutes of June 7, 2023.</u>
- 3. <u>Discussion and possible action on building and site plans in association with a Conditional Use Permit amendment for Beer Capitol for a warehouse and distribution expansion at their facility located at W222N5700 Miller Way.</u>
- 4. <u>Discussion and possible action on an exception from the Sussex Design Standards in association with a Conditional Use Permit amendment for Beer Capitol for a warehouse and distribution expansion at their facility located at W222N5700 Miller Way.</u>
- 5. Adjournment.

Chairperson
Jeremy Smith
Village Administrator

Please note that, 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, contact Jeremy Smith at 246-5200.



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#### **MEMORANDUM**

TO: Architectural Review Board

FROM: Gabriel Gilbertson, Community Development Director

RE: September 6, 2023 Architectural Review Board

DATE: August 31, 2023

The following is background information for the ARB agenda items (Design Standards 3-25-2014)

#### I. Roll call.

#### II. Consideration and possible action on the ARB minutes of June 7, 2023.

## III. <u>Discussion and possible action on building and site plans in association with a Conditional Use Permit amendment for Beer Capitol for a warehouse and distribution expansion at their facility located at W222N5700 Miller Way.</u>

The subject property is zoned BP-1 Business Park District and is the occupied by Beer Capitol – a beverage wholesaler. Beer Capitol operates 24 hours a day Monday through Friday and employs 372 full time employees. A conditional use permit amendment application was submitted for a roughly 98,500 square foot warehouse and loading dock expansion to the existing building which would bring the total size of the building up to 360,926 square feet.

#### Site

- The building addition will be going on the north side of the existing building where there are currently two wooded areas.
- Additional parking areas will be added to the site; one as an extension to the existing parking lot on the west side of the property, a new parking lot adjacent to the expansion, and additional stalls as part of the loading dock expansion.

#### Architecture

• The proposed addition will be constructed of the same style and finish of tilt-up concrete panels as the existing building. The color and architecture of the addition will match.

#### **Lighting and Signage**

- No signage is proposed with this addition. There is additional lighting proposed. The developer is proposing new parking lot lighting on bases and has been advised that the bases should be buried and not exposed. The proposed site and building lighting will match existing lighting.
- There is some lighting that is shown to spill over the northern property line. Lights should be redirected or shielded to prevent this.

#### Landscape

• The proposed expansion will eliminate wooded areas that exist on the site and the applicant has submitted a plan documenting the trees to be removed. A Tree Mitigation plan will be reviewed by the Park Board. Mitigation measures include new trees along the northern driveway and adjacent to the northern stormwater basin. Trees within parking lot islands is also proposed in the parking lot expansions.

#### **Policy Question:**

1. Are there any concerns with the submitted plans?

#### **Action Items:**

1. Approve the site and building plans and recommend the Plan Commission approve the Conditional Use Permit.

<u>Staff Recommendation:</u> Staff recommends the Architectural Review Board approve the site and building plans and recommend the Plan Commission approve the Conditional Use Permit amendment for Beer Capitol for a warehouse and distribution expansion at their facility located at W222N5700 Miller Way.

IV. <u>Discussion and possible action on an exception from the Sussex Design Standards in association with a Conditional Use Permit amendment for Beer Capitol for a warehouse and distribution expansion at their facility located at W222N5700 Miller Way.</u>

The Sussex Design Standards require industrial buildings in the Village to have a minimum of 20% of window or door openings on facades that face the street. The Design Standards also require loading docks to be screened and to have very limited impact on neighboring properties.

The existing building does not have any windows or door openings on the facades that face the street. The proposed addition does not include any additional windows or door openings. Staff would not consider the loading dock doors into this equation as they should be located on the backside of the building for screening purposes.

The Sussex Design Standards does allow for exceptions from the standards with approval by the Architectural Review Board and Plan Commission.

#### **Policy Question:**

1. Are there any concerns with the requested exception from the Sussex Design Standards to have less than the 20% window and door opening and for the loading docks to be visible from the public right-of-way?

#### **Action Items:**

1. Take action on the submitted site plans to approve or deny the exceptions from the Sussex Design Standards.

<u>Staff Recommendation:</u> Staff recommends the Architectural Review Board Staff approve an exception from the Sussex Design Standards for the reduced window and door opening requirements and loading dock location in association with the Conditional Use Permit amendment for Beer Capitol for a warehouse and distribution expansion at their facility located at W222N5700 Miller Way.

#### VILLAGE OF SUSSEX SUSSEX. WISCONSIN

Minutes of the Architectural Review Board (ARB) meeting held on June 7, 2023.

President LeDonne called the meeting to order at 4:13 p.m.

Members present: Anthony LeDonne, Gary Foxe, and Mike Knapp

Members absent: Stacy Riedel and Michael Smith

Others present: Gabe Gilbertson, Community Development Director

#### Consideration and possible action on the minutes of February 1, 2023.

A motion by LeDonne, seconded by Foxe to approve the minutes of the meeting held on February, 1, 2023.

All ayes, motion carried.

#### <u>Discussion and possible action on a detached garage in the B-4 Central Mixed Use Business</u> <u>District in accordance with Section 17.0419(I)(1) for the property located at N64W23602</u> Main Street.

A motion by LeDonne, seconded by Foxe to approve the building permit for a detached garage in the B-4 Central Mixed Use Business District in accordance with Section 17.0419(I)(1) for the property located at N64W23602 Main Street subject to Staff confirming green space requirements will be met.

All ayes, motion carried.

#### Discussion and possible action on a proposed fence located at N64W23589 Ivy Lane.

The applicant, Britney Hammer, N64W23589 Ivy Lane, Sussex, WI 53089 was present to address the Architectural Review Board.

A motion by LeDonne, seconded by Knapp to allow the existing fence to remain until June 30, 2024 at which time the applicant either removes the existing fence or replaces it with a more common fence material.

All ayes, motion carried.

A motion by LeDonne, seconded by Foxe to adjourn the meeting at 4:36 pm.

All ayes, motion carried.

Respectfully submitted, Jeremy Smith, Village Administrator



### PLAN OF OPERATION – NEW CONSTRUCTION PROCEDURE LIST

	Project Name
	Tax Key #
Pre-application conference must be arranged with staff. Ple application materials.	ease contact us at 262-246-5215 prior to submitting
Submittal checklist:	
Original completed Plan of Operation (Page 1-3) Original completed Professional Services Reimburs Permit and Flood Plain Occupancy 3 original size and 3 reduced (11 x 17) copies of Security 3 original size and 3 reduced (11 x 17) copies of Security 3 original size and 3 reduced (11 x 17) copies of Security 3 original size and 3 reduced (11 x 17) copies of Least Submit plans in PDF format on a disc	ite Plan rchitectural plans ign Plan andscape Plan
The following fees are required at the time of submittal:	
Plan of Operation fee \$175.00 Conditional Use fee \$210.00 Plan Review fee \$250.00 Additional fees are required for building permits, review fees, or	other items depending upon the nature of your request.
Please make check payable to: Village of Sussex (fees are	non refundable)
Deadline for submittals is the last business day of the month Agenda. (Please note that submitting by the deadline does not gu Application can be submitted via email to <a href="mailto:ggilbertson@villagesus">ggilbertson@villagesus</a>	parantee placement on the Plan Commission Agenda.).
Contact Name for meetings:E-mail:	Phone #
For office use only:	
Met with staff on:  Received documents on:  Fees received and paid on:  To be on the Plan Commission Agenda for:  Original forms to the following:  Service reimbursement  Emergency Contact to Sheriff Dept  Wastewater Permit to WWTP  Any outstanding fees owed on PROPERTY	

#### SITE PLAN REVIEW CHECKLIST

This checklist is a guide for developers to have a project reviewed by the Village of Sussex Plan Commission. Before a project can reviewed by the Plan Commission, initial consultation should be made with staff.

#### **GENERAL INFORMATION**

Names and addresses of owner/developer/ designer/engineer Graphic scale, north arrow Location sketch Size of site (gross and net acreage) Existing zoning, adjacent zoning Summary of proposed development

#### **EXISTING SITE INFORMATION**

Dimensions of site and lot lines

Existing grades

Adjacent property grades and structures

Drainage systems and structures

Natural features

Wetland boundaries

Floodplain elevation and boundaries

Environmental concerns

Roads, curbs, parking lots, pavement areas

Structures (location, size)

Rights-of-way (existing/proposed)

Easements (drainage, utility)

Existing utilities

Benchmark locations and elevations

Location of fences, wells, borings, etc.

#### **ARCHITECTURAL PLANS**

Existing building location

Existing building elevations/materials

Proposed use

Proposed floor plans

Square footage

Proposed elevations, building height

Proposed materials and colors (material sample

board

required for new construction)

Details of any special features

#### **PROPOSED SITE PLAN**

Grading and spot elevations

Erosion control measures

Stormwater management

Stormwater management design report

General drainage pattern

Swales w/ arrows for direction of flow

Pond design with outfalls

Culverts location/size

Utilities

Sanitary

Water

Stormsewer

Electrical or power generators

Building location (dimension)

Building elevation (finished grade)

Location of proposed signage

Dumpster enclosure details

Setbacks (clearly marked and dimensioned)

Vehicular entrances (dimension to centerline of

nearest intersection

Streets (dimension and direction for one-ways)

Curve radii

Sidewalks

Parking areas (show striping/spot elevations)

Parking setback form property line

Lot coverage

Square footage total

Impervious surface total %

Green space total %

Percent permitted %

Municipal utility connections

Sanitary sewer (pipe size/elevations)

Water (size, valve location, elevations)

Location of hydrants

Easement for public water mains

#### **LIGHTING PLAN**

Major improvements for context
Location/nature of existing fixtures
Location of proposed fixtures
Photometric report (to scale on plan)
Manufactures cut-sheets of all fixtures
Lighting schedule
Key to plan
Number/type of fixtures
Output (wattage)
Installation details as appropriate

The following materials can be reviewed on our website <a href="https://www.villagesussex.org">www.villagesussex.org</a>

Design Standards
Chapter 17 & 18
Development Requirements
Downtown Plan
2040 Comprehensive Plan
2040 Land Use Plan

#### LANDSCAPING PLAN

Landscape plan to be same scale as site plan
Location of driveways, walk ways and sidewalks
Proposed outdoor amenities (benches, decks,
gazebos)
Existing vegetation plan
Saved
Destroying
Proposed landscape features (berms, fountains)
Plant list broken down in the following categories
Deciduous trees, names and numbers
Evergreens, names and numbers
Shrubs/flowers, names and numbers
Indicate sizes of plantings

Fire Department Chapter 5

### ITEMS SUBMITTED FOR PLAN COMMISSION

Completed Plan of Operation Required # of copies to be received by established deadline date Building material sample board All required fees paid

In addition to the items on this list, Village Staff and/or the Plan Commission may require additional drawings and data to be submitted for approval.



#### PLAN OF OPERATION

To be used for a	business with	new construc	tion.				
Is this request to	be considered	for a Conditi	onal Use?	If yes	s, is this a ne	ew CU?	
(Conditional Use	Permits require a F	Public Hearing)	OR ar	n amendment	to an existing	ng CU?	
Address location	of new constr	uction					
Tax Key #				Zoning	;		
1. Name of Busi	ness:						
Business							
Address		•	tate, Zip		Phone #		
Fax #			Email address				
2. Business own	er contact info	rmation:					
Contact							
Address		City, S	tate, Zip		Phone #		
Fax #			Email address				
3. Building/Land	d owner contac	et information	ı:				
Contact							
Address		City, S	tate, Zip		Phone #		
Fax #			Email address				
4. Number of En Please see at 5. Days of Opera	tached narrativ	> Emple	oyees	S	hifts		
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Put an X in box that	Ĩ		1	1	1		

applies: Hours

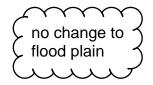
Open for business

7. On lis	a separate t of all ite	e sheet of pap ms to be sold	er explain you l, produced or s	r business use stored on the	e and/or th premises.	e change to	your business. Attach
8. Is a Lic Arc	a liquor lic ensing Ag cade perm	ense or any ogencies? it? n:	other special lic	ense to be ob ou need an C	otained fro Outdoor Es	m the Villa stablishmen	ge Board or State  It Permit?
		sed operation		iquor license	, what typ		ainment are you
	you feel eration? _		any problems s	such as odor,	smoke or	noise resul	ting from this
If y	es, explai	n:					
11. Di	mensions		all buildings: imensions	1	Levels		Square footage
Buildi	ng 1						
Buildi	ng 2						
Buildi	ng 3						
Is the	building(s	) to be used f	or multi-tenant	purpose? _			
12.	Lot siz	e I	Depth	Width		Area	
		Above to	o be included o	n survey			
13 Par	king: I	Dimensions of	f parking lot _				
			onstruction				
	7	Type of scree	ning: Fence		or ]	Plantings _	
	1	Number of sp	aces needed pe Above to be i			of spaces fo	r employees
	•	he following otage of build	information: ling, new and e	existing			
Total	square foo	otage of parki	ing lot, new and	d existing			
14. Si	gns: Type	: Free st	anding		Attache	ed to buildi	ng
		$\sim$	d				aced
Size					_		
		A	bove to be incl				

6. Is this an extension of an existing operation? \_\_\_\_\_

15. What security lighting are you proposing? (Please include on lighting plan)				
16. Is there a need for outside storage? If yes, explain:				
17. Is a Highway access permit needed from the state or County Highway Departments?				
If yes, please attach a copy of the secured permit. What conditions has the State or County imposed upon your permit?				
18. Is there a need for any special type of security fencing?  If yes, what type?				
19. What provisions are you making for fire protection?				
What provisions are your making for a sprinkler system?				
Storage system?				
Hydrant stand pipes?				
Is there a fire lane shown on your site plan?				
Explain:				
20. Surface water drainage facilities and impervious areas, describe and/or include on site plan.				
21. Did Wisconsin State Department of Industry Labor and Human Relations approve building pla  If yes, explain:	ıns?			
22. Please give a timetable for items to be completed:  Building construction Paving Landscaping Occupancy  Description:				
I have reviewed a copy of the Zoning Ordinance in the Village of Sussex and hereby agree to abide the same, as well as any and all terms and conditions of any permit issued pursuant to this application.	-			
I do swear to or affirm that all statements contained herein are true and correct to the best of our knowledge.				
Name Date				
Title or Position				





#### Information on Flood Plain Occupancy:

1.	What is the flood plain elevation at the site?
2.	Is the flood plain construction elevated or flood proofed? Elevated Flood proofed
3.	What is the elevation of the lowest floor of the structure?
4.	What is the elevation of the land fill surrounding the structure?
	Does the fill extend beyond the structure?  How far beyond the structure? feet
6.	Is dry land access provided?
7.	If the structure is flood proofed, what flood proofing measures are used?
8.	Certification of elevation or flood proofing must be provided by a licensed surveyor or registered



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#### VILLAGE OF SUSSEX PROFESSIONAL SERVICES REIMBURSEMENT NOTICE

Pursuant to the Village of Sussex Ordinance No. 3.11, the Village of Sussex Village Board has determined that whenever the services of the Village Attorney, Village Engineer, Village Planner, or any other of the Village's professional staff results in a charge to the Village for that professional's time and services and such service is not a service supplied to the Village as a whole, the Village Clerk shall charge that service for the fees incurred by the Village to the property owner incurring those fees even if the request is not approved. Also, be advised that pursuant to said Village of Sussex Ordinances, certain other fees, costs, and charges are the responsibility of the property owner even if the request is not approved. Imposition of any fees, costs or charges, however, is subjected to the property owner's appeal rights as described in said Village of Sussex Ordinances.

I, the undersigned, have been advised that, pursuant to said Village of Sussex Ordinances, if the Village Attorney, Village Engineer, Village Planner or any other Village professional provides services to the Village because of my activities, whether at my request or at the request of the Village, I shall be responsible for the fees incurred by the Village even if the request is not approved. In addition, I have been advised that pursuant to said Village of Sussex Ordinances, certain other fees, costs, and charges are my responsibility even if the request is not approved. By signing this document however, I am not waiving my appeal rights that are described in said Village of Sussex Ordinances.

#### PLEASE PRINT LEGIBLY

Name and Mailing Address of the Property Owner and /or Authorized Agent for Invoices:			
Business Name:			
Name of Owner and Address of the Property involved in the Re	equest (if different from above):		
Tax Key No. of the Property involved in the Request: SUXV_			
Signature of Property Owner and /or Authorized Agent	Date		
Signature of Village Official Accepting Form	Date		

A copy of this completed form shall be provided to the Village Clerk for billing purposes.





#### WASTEWATER DISCHARGE PERMIT APPLICATION

Business Name:
Address:
Owner/Operator:
Standard Industrial Classification #:
How many people do you employ?
What are your businesses hours of work?
Who is responsible for water quality? ( List job titles)
Time and Duration of Discharge:
Average and Peak Wastewater Flow Rates(Include any daily, monthly or seasonal variations):
Please describe the activities, facilities, and plant processes on the premises including all materials and types of materials which are or could be discharged:
Please list each product your business produces. (Include type, amount and rate of production):
What are the constituents and characteristics of your wastewater?

New construction: attach site plans, floor plans, mechanical and plumbing plans and details to show all sewers and appurtenances by size, location and elevation.



#### Village of Sussex Fire Department N63 W24335 Main Street Sussex, Wisconsin 53089

Fire Station - *PHONE*262-246-5197
Fire Station - *FAX*262-246-5196

change)

Waukesha County Sheriff – Sussex Office

Emergency Contact Form to be completed with Plan of Operation form.

Business Name:
Business Address:
Business Phone #:
Business Email:
Business Emergency Contacts
Name and Phone #:
Name and Phone #:
Name and Phone #:
Building Owner Name:
Building Owner Email:
<b>Building Owner Emergency Contacts</b>
Name and Phone #:
Name and Phone #:
Knox Box (if applies) Have locks been changed and new key provided to Fire Department? Yes No (no



Caitlin LaJoie **Briohn Building Corporation** 3885 N Brookfield Rd, Suite 200 Brookfield, WI 53045

July 31, 2023

#### DESIGN / BUILD CONSTRUCTION

Village of Sussex N64W23760 Main Street Sussex, WI 53089

VIA Email: Gabe Gilbertson (ggilbertson@sussexwi.gov)

Dear Village Staff, Commissioners, and Board Members:

#### ARCHITECTURAL DESIGN

DEVELOPMENT

Briohn Building Corporation is pleased to present the following proposal on behalf of Beer Capitol ("Developer") to the Village of Sussex ("Village") for the proposed addition ("Development") to their existing facility.

#### **Subject Site**

The subject site ("Site") is located at W222N5700 Miller Way, Sussex, WI 53089 (Tax Key SUXV0244992002) and is approximately 24.18 acres. The Site is currently zoned BP-1 with Exceptions, which will remain.

#### **Company History**

Beer Capitol was founded in 1933 and is now in its fourth generation of being family owned and operated. In 2016, Frank Beverage Group acquired Beer Capitol which has proven to be a successful venture as the two companies have many shared values. The Sussex headquarters continues to be a state-of-the-art facility as multiple additions have occurred over the years to accommodate a growing customer base of over 3,100 customers.

#### PROPERTY MANAGEMENT

Beer Capitol is open Monday through Friday 24 hours and employs 372 full-time employees. There are approximately 80 warehouse employees, 96 delivery/transport drivers, 163 sales/merchandising employees, and 33 administrative employees. Additionally, there are 35 yearly part-time employees plus 40 summer employees. The addition is expected to assist in territory and supplier growth.

Beer Capitol is a beverage wholesaler whose facility sells approximately 9 million case equivalences of beer annually. Below is a list of top suppliers, by volume:

Molson Coors Beverage Company

- Constellation Brands (Coronoa, Modelo)
- Mikes Hard Lemonade (Mikes, White Claw)
- Pabst Brewing Company
- Boston Beer Company (Sam Adams, Truly, Twisted Tea)
- Heineken
- Lakefront Brewery
- Premium Waters
- FIFCO (Seagram's)
- New Belgium Brewing (New Belgium, Bells)
- Eagle Park
- Raised Grain
- Stevens Point Brewery
- City Lights
- Sprecher Brewery

#### **Vision of Development**

The Developer is seeking approvals for the site plan, architecture, conditional use permit amendment, and proposed tree replacement from the Village. After completing a wetland delineation, a request for artificial wetland exemption was submitted to the WDNR on 7/27/23. Additional coordination and/or approvals from the county, state, and utility companies will be obtained as needed.

The proposed addition is to expand the existing warehouse to the north by 84,668 SF plus a loading dock addition of 13,800 SF with 10 overhead doors for a total building size (existing plus proposed) of 332,618 SF. There will be additional parking stalls to accommodate employees. Proposed interior alterations to increase efficiencies include relocating the combined cooler, creating new staging areas and modifying the dock enclosures along the southern wall. The Development will be fully sprinkled (NFPA 13) throughout with ESFR in all S-1 occupancy areas; Type 2B construction with primary occupancies as S-1 (storage moderate hazard) and secondary occupancy as B (business).

The Development will meet all BP-1 bulk zoning requirements, summary below:

	BP-1 Standard	Development
Front Setback	40′	76.1'
Side Setback	25′	137.7′
Rear Setback	25′	167.3′
Max Building Height	60′	30′
Min Open Space	25%	39% (403,584 SF)
Max Lot Coverage	75%	61% (642,983 SF)
Parking		276 car parking stalls
		49 trailer parking stalls
		29 van spaces

The Development is designed to be consistent with the existing building while meeting Beer Capitol's demand for additional warehouse space.

The proposed landscape plan has been prepared by a professional landscape architect. The design will meet or exceed Village ordinance and provide adequate screening.

#### **Entitlement and Construction Timeline**

08/15/2023 - Plan Commission meeting to accept application and set public hearing

08/21/2023 – Anticipated WDNR wetland approval

09/19/2023 – Plan Commission public hearing to approve site plan

10/04/2023 – Architectural Review Board meeting

10/17/2023 – Plan Commission public hearing to amend conditional use permit

A tree survey was completed and the Developer will present findings to the Parks Board at an upcoming meeting (to be coordinated with Staff).

Building permits will be applied for immediately so earth work can begin this fall, allowing Beer Capitol to be operational in the addition prior to Memorial Day 2024.

#### **Materials and Image**

The Developer has reviewed and understands the architectural design elements required by the Village. The preliminary design meets or exceeds the code while being aesthetically pleasing. Please reference Exhibit B attached hereto for proposed renderings; full size hard copies and electronic plans provided.

#### **Contact Information**

Dom Ferrante, Vice President - Architecture | Briohn Design Group dferrante@briohn.com | 262-790-0500 x 405

Peyton Paquin, Senior Project Manager | Briohn Building Corporation <a href="mailto:ppaquin@briohn.com">ppaquin@briohn.com</a> | 262-790-0500 x 284

Kyle Roadt, Project Manager | Briohn Building Corporation kroadt@briohn.com | 262-790-0500 x 286

Caitlin LaJoie, Director of Land Development | Briohn Building Corporation clajoie@briohn.com | 262-307-8792

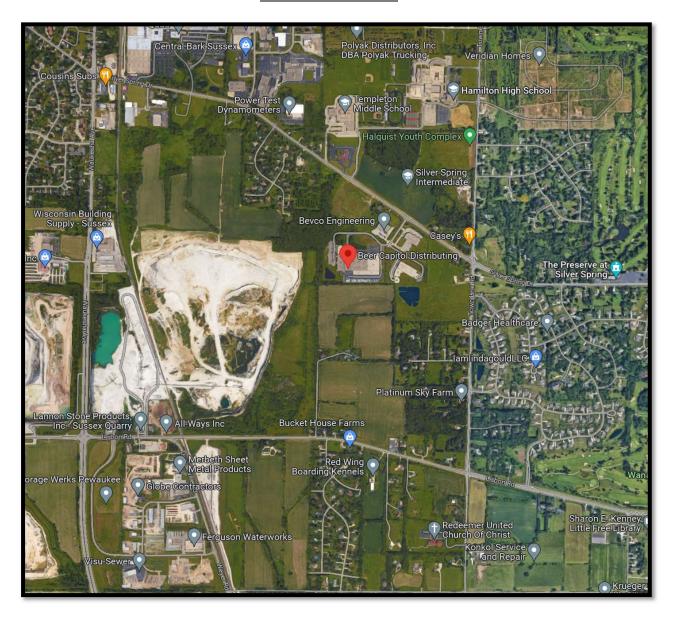
#### Conclusion

Thank you for reviewing and discussing the proposed development with our design team. We look forward to continuing the conversation with the Village. Should you have any further questions, please do not hesitate to contact me.

Sincerely,

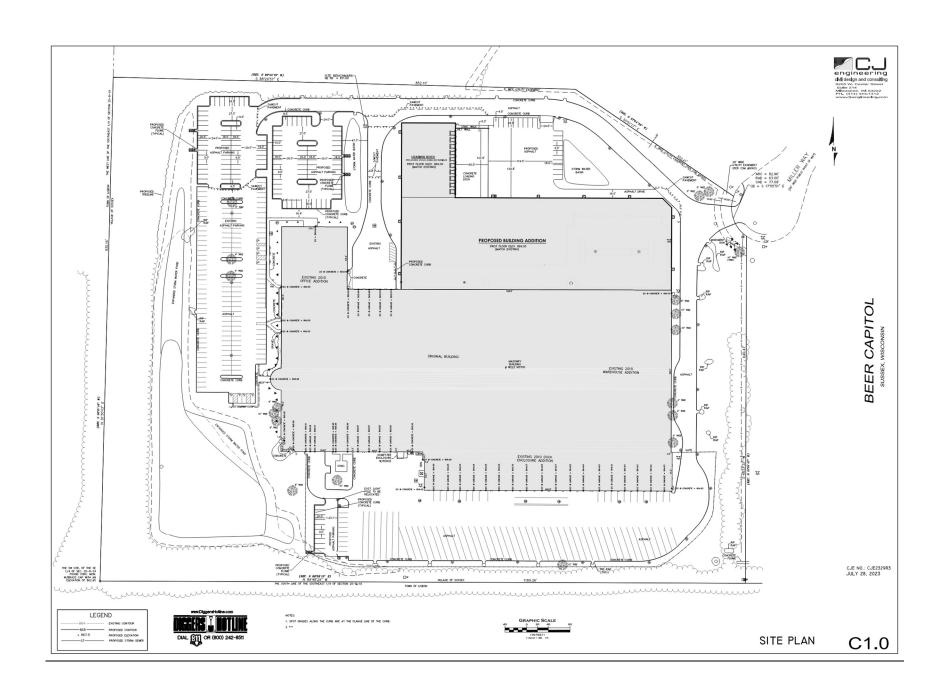
Caitlin LaJoie, Director of Land Development Briohn Building Corporation

#### Exhibit A - Aerial View





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DESIGN GROUP

DESIGN GROUP

BENEFIT OF THE PROPERTY OF THE PRO

OVERALL EXTERIOR ELEVATIONS

PROPOSED BUILDING ADDITIONS FOR:
BEER CAPITOL DISTRIBUTING
W222 N5700 MILLER WAY
SUSSEX, WISCONSIN





PERSPECTIVE VIEW LOOKING SOUTH / SOUTHEAST

PERSPECTIVE WEW LOOKING SOUTH / SOUTHEAST



3 PERSONAL VIEW OF POSTING LOADING BOOK LOOKING NORTH I HORTHEAST



BRIOHN

EXTERIOR RENDERINGS

**—** 

# BEER CAPITOL DISTRIBUTING

W222 N5700 MILLER WAY SUSSEX, WISCONSIN 53089



AERIAL VIEW LOOKING NORTH / NORTHEAST

12" = 1'-0"



**SHEET INDEX SPECIFICATIONS** FIRE APPARATUS PLAN WB-67 TURING MOVEMEN SITE GRADING PLAN **EROSION CONTROL PLAN** SITE DETAILS SITE DEMO PLAN LANDSCAPE PLAN ENLARGEMENT LANDSCAPE NOTES & DETAILS ARCHITECTURAL SITE PLAN OVERALL SITE AND FLOOR PLAN EXISTING CONDITIONS ENLARGED FIRST FLOOR PLAN ENLARGED EXISTING FIRST FLOOR PLAN OVERALL ROOF PLAN **OVERALL EXTERIOR ELEVATIONS** ENLARGED EXTERIOR ELEVATIONS BUILDING LINE OF SIGHT SECTIONS SITE LIGHTING PLAN LIGHTING CUT SHEETS

# PLAN COMMISSION SUBMITTAL SET JULY 31, 2023

OWNER:

BEER CAPITOL DISTRIBUTING GARY GENZ

W222 N5700 MILLER WAY SUSSEX, WI 53089

GENERAL CONTRACTOR:

BRIOHN BUILDING CORPORATION Kyle Roadt, PM

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

ARCHITECT:

BRIOHN DESIGN GROUP, LLC <u>Domenico Ferrante, AIA</u>

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

STRUCTURAL ENGINEER:

<u>Kevin Jankowski, PE</u>

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

CIVIL ENGINEER:

(262) 790-0505 FAX

CJ ENGINEERING

Christopher A. Jackson, P.E.

9205 WEST CENTER STREET, SUITE 214 MILWAUKEE, WISCONSIN 53222 (414) 443-1312 PHONE (414) 443-1317 FAX

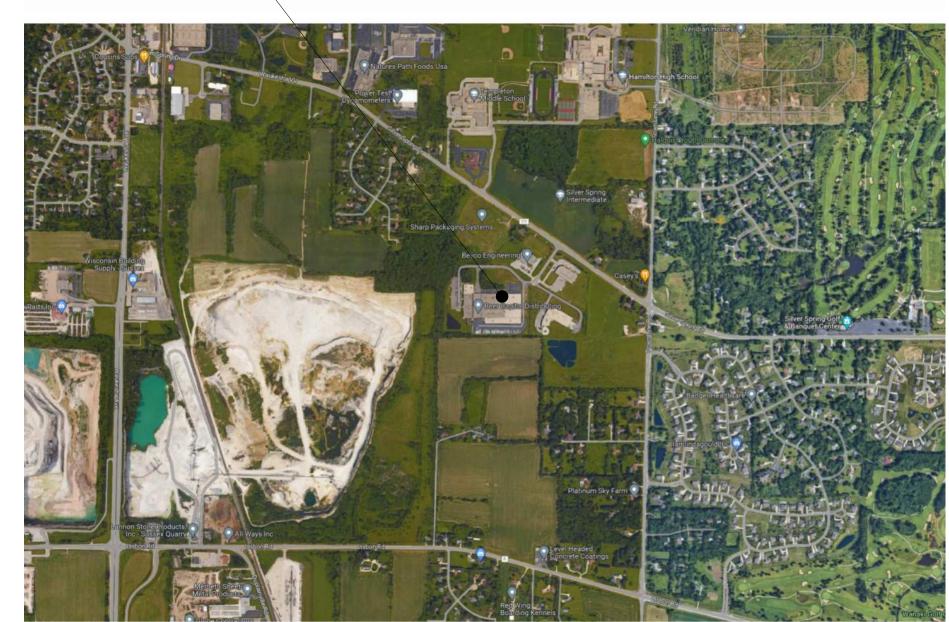
BRIOHN DESIGN GROUP, LLC

LANDSCAPE ARCHITECT:

HELLIANTHUS LLC Kristi Sherfinski, PLA

1836 W. FOND DU LAC AVE., SUITE 100 MILWAUKEE, WISCONSIN 53205 (414) 622-0103 PHONE

PROJECT LOCATION:



SITE LOCATION MAP
SCALE: N.T.S.

### PROJECT INFORMATION:

2015 INTERNATIONAL BUILDING CODE WITH WISCONSIN AMENDMENTS SPS 362 2015 INTERNATIONAL EXISTING BUILDING CODE WITH WISCONSIN AMENDMENTS SPS 366

2015 INTERNATIONAL BUILDING CODE WITH WISCONSIN AMENDMENTS SPS 362 2009 ICC/ANSI A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES

2015 INTERNATIONAL MECHANICAL CODE WITH WISCONSIN AMENDMENTS SPS 364

TYPE 2B UNLIMITED AREA BUILDING PER IBC 507

PLUMBING CODE: 2014 WISCONSIN PLUMBING CODE SPS 381-387 **ELECTRICAL CODE:** 2017 NFPA 70 NATIONAL ELECTRICAL CODE WITH WISCONSIN AMENDMENTS SPS316

SPS 314 FIRE PREVENTION OCCUPANCY: S-1 (MODERATE HAZARD STORAGE) B (BUSINESS)

NFPA 13 OVERALL; ESFR FOR S-1 OCCUPANCY AREAS SPRINKLER SYSTEM: FLOOR LEVELS:

CLASS OF CONSTRUCTION

**NUMBER OF STORIES** 

**TOTAL SITE AREA**: TOTAL CURRENT SITE 1,046,567 SF / 24.0259 ACRES TOTAL EXISTING BUILDING AREA: PROPOSED WAREHOUSE ADDITION: **PROPOSED LOADING DOCK ADDITION: 13,800 SF** TOTAL PROPOSED BUILDING AREA:

TOTAL PROPOSED & EXISTING BUILDING AREAS: 360,926 SF ALL MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SPRINKLER NOTE: ENGINEERING BY DESIGN-BUILD CONTRACTORS

APPLICABLE TO ALL PLAN VIEWS



DISTRIBUTING BEER

07/31/2023



RENDERING

BRIOHN

PERSPECTIVE VIEW LOOKING SOUTH / SOUTHEAST
12" = 1'-0"



PERSPECTIVE VIEW OF EXISTING LOADING DOCK LOOKING NORTH / NORTHEAST
12" = 1'-0"



2. THE COMPLETE CONSTRUCTION DOCUMENT SET IS INCLUSIVE OF THE DRAWING SHEETS LISTED IN THE DRAWING INDEX. 3 ALL WORK SHALL CONFORM TO ALL APPLICABLE PROVISIONS OF THE LOCAL AND STATE BUILDING, HVAC AND FIRE SAFETY CODE; LOCAL AND STATE PLUMBING CODE; LOCAL AND STATE MECHANICAL CODES; LOCAL AND STATE FLECTRICAL CODE: OSHA BARRIER FREE DESIGN: LOCAL AND STATE FIR PROTECTION CODES. ALL WORK SHALL CONFORM TO ALL NATIONAL CODES AND REFERENCE STANDARDS AS REFERENCED IN THE LOCAL AND STATE CODES, ALL WORK, MATERIALS AND INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH ALL ORDINANCES, STATE AND LOCAL BUILDING CODES LATEST EDITION, OF THE AUTHORITIES HAVING JURISDICTION, DESIGN LOADS: LOADS AND CODE RESTRICTIONS FOR ALL DESIGN CONSIDERATIONS SHALL CONFORM TO THE LOCAL AND STATE CODES AND ALL GOVERNING CODES AND ALL CONSTRUCTION IS TO COMPLY WITH ALL LOCAL SEISMIC

4. PERMITS: THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER APPLICATION FOR AND SECURING OF ALL NECESSARY PERMITS, AS WELL AS THE OBSERVANCE OF ALL APPLICABLE CITY, COUNTY, STATE AND FEDERA LAWS, REGULATIONS OR ORDINANCES.

REQUIREMENTS, REFER TO STRUCTURAL SPECIFICATIONS.

5. FIRE PROTECTION: SUBCONTRACTOR SHALL PROVIDE FIRE EXTINGUISHERS PREMISES AS REQUIRED BY CODE AND OR INSURANCE COMPANIES (FOLLOW MORE STRINGENT REQUIREMENTS). OR VERIFY THAT AN ADEQUATE NUMBER OF FIRE EXTINGUISHERS EXIST IN THE CASE OF A REMODELING OR ALTERATION. DISCONNECT AND SEAL UTILITIES SERVING STRUCTURE TO BE DEMOLISHED, PRIOR TO START OF DEMOLITION WORK IF DEMOLITION WORK IS PART OF THE SCOPE OF WORK REQUIRED. FIRE SPRINKLERS: THE GENERAL CONTRACTOR SHALL EMPLOY THE SERVICES OF A LICENSED FIRE SPRINKLER CONTRACTOR TO REWORK AND MODIFY THE EXISTING SYSTEM TO CONFORM WITH THE NEW ROOM AND CEILING HEIGHTS AS SHOWN IN THESE DRAWINGS, THE SPRINKLER CONTRACTOR SHALL DESIGN AND PREPARE SHOP DRAWINGS FOR THE PROPOSED SYSTEM MODIFICATIONS AND SUBMITTHESE DRAWINGS TO THE LOCAL AND STATE BUILDING AND CODE OFFICIALS AND THE ARCHITECT TO GAIN APPROVALS PRIOR TO CONNECTING ANY WORK. PROVIDE CONCEALED HEADS FOR AREAS WITH FINISHED CEILINGS UNLESS OTHERWISE NOTED.

7 CONTRACTOR COMPLIANCE: THE SUBCONTRACTOR SHALL VISIT THE PREMISES AND VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF CONSTRUCTION AND SHALL REPORT ALL DISCREPANCIES TO THE ARCHITECT AND THE GENERAL CONTRACTOR, THE SUBCONTRACTOR SHALL CONFORM TO L REQUIREMENTS REGARDING CONSTRUCTION PROCEDURES, INSURANCE, ETC AS SET FORTH BY THE GENERAL CONTRACTOR.

6. DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER

8. THE SUBCONTRACTOR SHALL SUBMIT A SPECIFIC CONSTRUCTION SCHEDULE THE GENERAL CONTRACTOR'S CONSTRUCTION/PROJECT MANAGER WITHIN 7 DAYS AFTER THE AWARD OF THE SUBCONTRACT. 9. HAZARDOUS MATERIALS: IN THE EVENT HAZARDOUS MATERIALS ARE ENCOUNTERED ON THE PREMISES DURING THE EXECUTION OF THE WORK, NOTIFY THE GENERAL CONTRACTOR BEFORE PROCEEDING WITH THE WORK.

THE GENERAL CONTRACTOR SHALL NOTIFY THE OWNER/LANDLORD. AFTER THE WNER/LANDLORD IS NOTIFIED AND WORK IS SUSPENDED, THE DWNER/LANDLORD IS RESPONSIBLE FOR DIRECTIONS TO THE GENERAL CONTRACTOR AS TO THE REMOVAL AND HANDLING OF HAZARDOUS MATERIALS. PROCEED WITH WORK WHEN THE OWNER/LANDLORD GIVES WRITTEN APPROVAL REMOVAL AND HANDLING OF HAZARDOUS MATERIALS SHALL FOLLOW LOCAL AND STATE CODES AND REQUIREMENTS.

10. INFORMATION RELATED TO EXISTING CONDITIONS GIVEN IN THE ONSTRUCTION DOCUMENTS WAS OBTAINED FROM EXISTING BUILDING SCHEMATIC DRAWINGS AVAILABLE AT THE TIME OF DESIGN, ACCURACY CAN NOT BE GUARANTEED. DRAWINGS AND SPECIFICATIONS ARE INTENDED FOR ASSISTANCE AND GUIDANCE, BUT EXACT DIMENSIONS AND ELEVATIONS SHA BE GOVERNED BY ACTUAL CONDITIONS AT THE SITE AND SHALL BE VERIFIED BY

11. NOTES ARE AN AID FOR THE SUBCONTRACTOR IN UNDERSTANDING THE WORK AND SHALL NOT BE CONSTRUED AS BEING COMPLETE IN EVERY DETAIL IT IS THE RESPONSIBILITY OF THE SUBCONTRACTOR TO VISIT THE SITE BECOME THOROUGHLY FAMILIAR WITH THE WORK AND REPORT ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE ACTUAL CONDITIONS TO THE ARCHITECT AND THE GENERAL CONTRACTOR.

12. DO NOT SUBSTITUTE, REVISE OR CHANGE THE WORK WITHOUT THE WRITTEN CONSENT OF THE ARCHITECT AND THE GENERAL CONTRACTOR. 13. INSTALL WORK PLUMB LEVEL SQUARE TRUE AND IN PROPER ALIGNMENT. 14 WORK SHALL BE SCHEDULED AND PERFORMED SO AS NOT TO DISTURB OR CAUSE DAMAGE TO EXISTING BUILDING ELEMENTS INTENDED TO REMAIN WHICH IS NOT PART OF THE SCOPE OF THE WORK, WORK SHALL BE SCHEDULED AND PERFORMED SO AS NOT TO DISTURB OR CAUSE DAMAGE TO INSTALLED

15. NO WORK SHALL BE DONE IN OTHER NON DESIGNATED AREAS OR OTHER TENANT AREAS, UNLESS OTHERWISE NOTED. SCHEDULE AND PERFORM THE WORK SO THAT THE OTHER AREAS NOT DESIGNATED TO RECEIVE WORK AND THE OTHER TENANTS IN THE BUILDING WILL NOT BE DISTURBED AND COMPLY WITH THE BUILDING OWNERS REQUIREMENT

4 COORDINATE WORK AS REQUIRED WITH THE OWNER/LANDLORD EPRESENTATIVE INCLUDING THE USE OF ELEVATORS, TEMPORARY STORAGE OADING DOCKS, BUILDING KEYING INCLUDING THE USE OF ELEVATORS, TEMPORARY STORAGE, LOADING DOCKS, BUILDING KEYING SYSTEMS, ETC AND PROVIDE NECESSARY BARRICADES, LIGHTING, SIGNAGE AND GUARDRAILS AS REQUIRED BY OWNER/LANDLORD AND/OR APPLICABLE REGULATORY AGENCIES FOR THE PROTECTION OF BUILDING OCCUPANTS, WORKERS, VISITORS, CUSTOMERS AND PEDESTRIANS. 17. EACH SUBCONTRACTOR IS CONSIDERED A SPECIALIST IN HIS/HER RESPECTIVE FIELD, AND PRIOR TO THE SUBMISSION OF BID OR PERFORMANCE OF WORK EACH SUBCONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENERAL CONTRACTOR OF WORK CALLED OUT IN THE DRAWINGS OF SPECIFICATIONS IN HIS/HER TRADE THAT CANNOT BE FULLY GUARANTEED OR

CONSTRUCTED ACCORDING TO THE DESIGN INTENT. 18. PROVIDE AND COORDINATE LOCATION AND TYPE OF BLOCKING/BACKING REQUIRED WITHIN PARTITIONS AT LOCATIONS OF WALL

19. THE DRAWINGS INDICATE LOCATION, DIMENSIONS, REFERENCE AND TYPICAL DETAILS OF CONSTRUCTION, THE DRAWINGS DO NOT ILLUSTRATI EVERY CONDITION, WORK NOT PARTICULARLY DETAILED SHALL BE OF CONSTRUCTION SIMILAR TO PARTS THAT ARE DETAILED. VERIFY WITH ARCHITECT AND GENERAL CONTRACTOR PRIOR TO FABRICATION OR INSTALLATION OF SPECIFIC DETAILS OF CONSTRUCTION.

20. DISCREPANCY IN THE PLANS SHALL BE REPORTED TO ARCHITECT AND ENERAL CONTRACTOR IMMEDIATELY. SUBCONTRACTOR SHALL NOT MAKE A DETERMINATION FOR CONFLICTS IN PLAN DIMENSIONS 21. DIMENSIONS ARE NOT ADJUSTABLE WITHOUT THE APPROVAL OF THE ARCHITECT AND GENERAL CONTRACTOR UNLESS NOTED +/-22. VERTICAL DIMENSIONS ARE FROM THE TOP OF FLOOR FINISH, ESTABLISHED BY THE ARCHITECT AND GENERAL CONTRACTOR UNLESS OTHERWISE NOTED. 23. DIMENSIONS MARKED "FIELD VERIFY" SHALL BE VERIFIED IN THE FIELD BY THE

24. HORIZONTAL DIMENSIONS SHALL BE SHOWN FROM THE FINISHED FACE OF CONSTRUCTION UNLESS OTHERWISE NOTED 25. WASTE AND REFUSE CAUSED BY WORK SHALL BE REMOVED FROM THE REMISES AND DISPOSED OF OR RECYCLED PROPERLY BY THE SUBCONTRACTOR DAILY, FINAL CLEANING PRIOR TO FINAL INSPECTION SHALL INCLUDE A THOROUGH CLEANING OF ALL SURFACES AND REPLACEMENT OF

ALL FILTERS IN NEW INSTALLED HVAC EQUIPMENT AND EXISTING HVAC EQUIPMENT AFFECTED BY CONSTRUCTION OF WORK. 26. MAINTAIN STRICT CONTROL OF DUST AND DEBRIS EMANATING FROM THE PROJECT AREA. KEEP PROJECT AREA BROOM CLEAN AND CLEAR OF DEBRIS

27. SUBCONTRACTOR SHALL PERFORM ANY AND ALL EXCAVATING, CUTTING, PATCHING, REPAIRING, RESTORING AND THE LIKE NECESSARY TO COMPLETE THE WORK OF THIS CONTRACT, RESTORE ANY DAMAGED OR AFFECTED SURFACES RESULTING FROM THE WORK OF THIS CONTRACT TO THEIR ORIGINAL CONDITION AND TO THE SATISFACTION OF THE ARCHITECT, GENERAL CONTRACTOR, AND THE OWNER/LANDLORD. PATCH DAMAGE WITHIN THE WORK AREA, AS WELL AS OUTSIDE THE LIMIT OF WORK AREA IF CAUSED BY THE

EXECUTION OF THE WORK.

28. EACH SUBCONTRACTOR SHALL LEAVE THE SITE IN A NEAT, CLEAN AND ORDERLY CONDITION ON A DAILY BASIS AND UPON CONCLUSION OF HIS WORK, ALL WASTE, RUBBISH AND EXCESS MATERIALS SHALL BE REMOVED FROM THE SITE PROMPTLY, THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ALL TRASH GENERATED FOR THE DURATION OF

29. CONSULT PROPERTY AS BUILT UTILITY PLANS BEFORE SAW CUTTING CONCRETE SLAB IF REQUIRED. IF AS BUILT DRAWINGS ARE NOT AVAILABLE UTILIZE OTHER MEANS TO UNCOVER BURIED UTILITIES. 30. NO SUBSTITUTIONS SHALL BE PERMITTED UNLESS PRIOR APPROVAL BY THE ARCHITECT AND THE GENERAL CONTRACTOR IS GIVEN. 31. PATCH AND REPAIR ALL FIREPROOFING AND FIRE STOPPING DAMAGED OR REMOVED DURING THE PERFORMANCE OF THE WORK.

JRFACE AND AS DIRECTED BY THE ARCHITECT AND THE GENERAL 33. EXTERIOR WALL OPENINGS, FLASHING, COUNTER FLASHING, COPING AND EXPANSION JOINTS SHALL BE WEATHERPROOF. 34. CAULKING AND SEALANTS: OPEN JOINTS PENETRATIONS AND OTHER OPENINGS IN THE BUILDING ENVELOPE SHALL BE SEALED, CAULKED ASKETED, OR WEATHER STRIPPED TO LIMIT AIR LEAKAGE. MAINTAIN REQUIRED

32. ACCESSORIES, ETC. THEY SHALL BE PAINTED TO MATCH THE ADJACENT

35. USE ACOUSTICAL SEALANT AROUND ALL PIPES, DUCTS, CONDUITS, SWITCHES, ETC., ON BOTH SIDES OF WALLS (CROSSING/PENETRATION) WITH THERMAL AND ACOUSTIC INSULATION. MAINTAIN REQUIRED FIRE RATING. 36. NOISE BARRIER BATTS (SOUND INSULATION) SHALL BE NON COMBUSTIBLE 37 MECHANICAL CONTRACTORS SHALL VERIEV EXACT LOCATIONS AND EXACT DIMENSIONS WITH EQUIPMENT MANUFACTURERS, MECHANICAL ONTRACTORS SHALL VERIFY ALL SIZES AND LOCATIONS OF DUCT OPENINGS BEFORE INSTALLATION AND VERIFY DISCREPANCIES, IF ANY.

A) AS REQUIRED: AS REQUIRED BY REGULATORY REQUIREMENTS BY REFERENCED STANDARDS, BY EXISTING CONDITIONS, BY GENERALLY ACCEPTED CONSTRUCTION PRACTICE OR BY THE CONTRACT DOCUMENTS B) TYPICAL: IDENTICAL FOR SIMILAR CONDITIONS, UNLESS OTHERWISE C) SIMILAR: COMPARABLE CHARACTERISTICS FOR THE CONDITION NOTED FFERENCES CAN BE INFERRED FROM OTHER INFORMATION INDICATED.

VERIFY DIMENSIONS AND ORIENTATIONS D) REMOVE: ELIMINATE AND RECYCLE OR DISPOSE OF PROPERLY. PLUMBING PLANS FOR OTHER DETAILS, DIMENSIONS, ELEVATIONS, OPENINGS

INSERTS, BRICK LEDGES, ETC. BRIOHN DESIGN GROUP, LLC TO BE NOTIFIED OF ANY VARIANCE BEFORE CONTRACTOR BEGINS WORK. 40. DIMENSIONS SHOWN ON ARCHITECTURAL DRAWINGS SUPERSEDE DIMENSIONS SHOWN ON STRUCTURAL PLANS. THE USE OF A SCALE TO OBTAIN DIMENSIONS NOT SHOWN ON DRAWINGS IS NOT PERMITTED. 41. IN NO CASE SHALL STRUCTURAL ALTERATIONS OR WORK AFFECTING A STRUCTURAL MEMBER BE MADE, UNLESS APPROVED BY BRIOHN DESIGN

42. IT IS THE SUBCONTRACTORS SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES BUT IS NOT LIMITED T THE ADDITION OF WHATEVER TEMPORARY BRACING. GUYS OR TIE-DOWNS AS MAY BE NECESSARY, ALL CONSTRUCTION AND ERECTION TO CONFORM TO

43. WHERE DETAILS ARE CALLED FOR IN A CERTAIN PORTION OF THE BUILDING, THEY SHALL BE DUPLICATED IN SIMILAR PORTIONS OF THE BUILDING UNLESS SHOWN OTHERWISE. CLARIFY WITH ARCHITECT BEFORE SUBCONTRACTOR

44. CONSTRUCTION DOCUMENTS SHOW DIMENSIONS AND ELEVATIONS TO

INSTALLATION OF WORK.

SIGNIFICANT WORKING POINTS (COLUMN CENTERLINES, OUTSIDE FACES OF WALLS, TOP OF FRAMING MEMBERS, ETC.) MATERIAL SUPPLIERS AND DESIGNERS ARE RESPONSIBLE FOR ALL OTHER INFORMATION IN ORDER TO DETAIL/FABRICATE THEIR WORK. CONTACT THE ARCHITECT WITH ANY DISCREPANCIES. 45. SUBCONTRACTOR SHALL PROVIDE A MINIMUM OF FOUR DETAILED SHOP DRAWINGS, OTHER RELATED DRAWINGS, ERECTION DRAWINGS AND SAMPLES WHERE REQUIRED PRIOR TO COMMENCEMENT OF FABRICATION AND

### GENERAL REQUIREMENTS

1. THE WORK SHALL INCLUDE ALL LABOR, MATERIAL, EQUIPMENT AND SERVICES NECESSARY FOR AND SAID HEADING AS INDICATED IN THE SPECIFICATIONS DRAWINGS AND DESIGN BUILD CONSTRUCTION CONTRACT. 2. SUBCONTRACTORS SHALL VISIT THE PREMISES WHILE BIDDING AND SHALL MILIARIZE THEMSELVES WITH EXISTING CONDITIONS AND THE REQUIREMENTS OF THE PROJECT PRIOR TO DEVELOPING THEIR BID. MATERIAL QUANTITIES SHALL BE BASED ON ACTUAL FIELD CONDITIONS AND MEASUREMENTS. DO NOT RELY ON SCALING PLANS FOR ACCURATE DIMENSIONING. 3. PRIOR TO BEGINNING THE WORK, VERIFY ALL EXISTING DIMENSIONS AND SQUARE FOOTAGES. NOTIFY THE OWNER/LANDLORD OF COMPLIANCE OR DISCREPANCIES, COMPARING THOSE DISCREPANCIES TO THE NUMBERS ON

4. SUBCONTRACTORS SHALL TAKE CARE TO PROTECT ADJACENT AREAS FROM DUST AND DAMAGE DURING THE CONSTRUCTION PROCESS AND SHALL CLEAN UP AFTER THEMSELVES AT THE END OF EACH WORKING DAY. SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER PROTECTION OF ADJACENT ITEMS AND SURFACES FROM DAMAGE RESULTING FROM THE FURNISHING OR INSTALLATION OF SUBCONTRACTORS WORK AND SHALL PROMPTLY REPLACE, AT HIS OWN COST, SUCH DAMAGED WORK. SUBCONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE PROPER PROTECTION OF HIS AND OTHERS WORK FROM DAMAGE. USE APPROPRIATE COVERINGS OVER FURNITURE, DISPLAY CASES, EQUIPMENT AND FINISHES AS REQUIRED. 5. RUBBISH AND TRASH SHALL BE REMOVED FROM THE PREMISES AND RECYCLED AND/OR PROPERLY DISPOSED OF EACH DAY. NO RUBBISH SHALL BE LEFT IN THE PREMISES AFTER WORK IS COMPLETED. 6. UPON COMPLETION OF THE WORK INTERIOR AND EXTERIOR OF ALL GLASS AND GLAZING, FLOORS, WALLS AND CEILING SURFACES, ELECTRICAL FIXTURES

7. DRAWINGS HEREIN CREATE AN ENTIRE PACKAGE, ALL TRADES SHALL BE RESPONSIBLE FOR REVIEWING THEIR RESPECTIVE REQUIREMENTS AND OORDINATING THEIR HIDDEN OR EXPOSED WORK WITH OTHER RELATED

MECHANICAL EQUIPMENT, ETC.; IT IS NECESSARY TO REMOVE ALL DIRT, STAINS

8. COORDINATE WORK OF THE VARIOUS TRADES AND SUBCONTRACTORS TO ASSURE EFFICIENT AND ORDERLY INSTALLATION, PROVIDE ACCOMMODATION FOR ITEMS INSTALLED AT A LATER DATE. VERIFY THAT CHARACTERISTICS OF FLEMENTS OF INTERRELATED OPERATING EQUIPMENT ARE COMPATIBLE COORDINATE WORK OF VARIOUS SECTIONS WHICH HAVE INTERDEPENDEN SPONSIBILITIES FOR INSTALLING, CONNECTING TO, AND PLACING IN SERVICE, SUCH EQUIPMENT, COORDINATE SPACE REQUIREMENTS AND INSTALLATION OF MECHANICAL AND ELECTRICAL WORK AND FIRE SPRINKLER SYSTEM WHICH ARE INDICATED, DETAILED OR IMPLIED DIAGRAMMATIC ALLY

9 LINIESS SPECIFICALLY NOTED PROVIDE AND PAY FOR LABOR MATERIALS. AND EQUIPMENT, TOOLS, CONSTRUCTION EQUIPMENT AND MACHINERY AND THER FACILITIES AND SERVICES NECESSARY FOR PROPER EXECUTION AND COMPLETION OF WORK, INCLUDING PERMITS.

10. GENERAL CONTRACTOR AND SUBCONTRACTOR SHALL PURCHASE AND MAINTAIN INSURANCE COVERAGE IN ACCORDANCE WITH THE REQUIREMENTS OF THE OWNER/LANDLORD 11. FURNISH REQUIRED TEMPORARY FACILITIES AND TEMPORARY UTILITIES

IMMEDIATELY AFTER RECEIPT OF NOTICE TO PROCEED FOR USE IN CONVENIENCE OF THOSE ENGAGED IN THE PROJECT WORK. 12 SLIBCONTRACTORS MUST STAY BEHIND THE BARRIERS AND MAINTAIN ACCESS TO SUCH AREAS CLEAN AND FREE OF CONSTRUCTION MATERIALS AND DEBRIS. FAILURE TO MAINTAIN CLEAN WORK AREAS WILL RESULT IN GENERAL CONTRACTOR HAVING SUCH MATERIALS AND DEBRIS REMOVED.

AND CHARGES FOR MAINTENANCE BILLED TO THE SUBCONTRACTOR.

13. COORDINATE CONSTRUCTION, SCHEDULING WITH THE DWNER/LANDLORD OR REPRESENTATIVE REVIEWING SCHEDULED ACTIVITIES AT OUTSET OF CONSTRUCTION. 14. ALLOWABLE TOLERANCES - UNLESS OTHERWISE NOTED OR INDICATED, THE OLLOWING TOLERANCES SHALL APPLY TO WORK WITHIN AND RELATED TO THE SCOPE OF THESE DOCUMENTS. A) VERTICAL SURFACES SHALL BE PLUMB OR CONSTRUCTED TO THE EXACT SLOPES OR ANGLES INDICATED. B) THE MAXIMUM DEVIATION FROM THE TRUE PLANE FOR VERTICAL AND HORIZONTAL SURFACES SHALL NOT BE GREATER THAN 1/8" IN 10"-0" AS MEASURED BY A STRAIGHT EDGE PLACED ANYWHERE ON THE SURFACE.

C) HORIZONTAL SURFACES SHALL BE LEVEL OR CONSTRUCTED TO THE XACT ANGLE INDICATED OR INTENDED D) WALL AND SOFFIT INTERSECTIONS SHALL BE 90 DEGREES OR THE EXACT ANGLE INDICATED OR INTENDED E) CORNERS AND EDGES SHALL BE STRAIGHT AND TRUE WITHOUT DENTS WAVES, BULGES OR OTHER BLEMISHES. F) JOINTS SHALL BE TIGHT, STRAIGHT, EVEN AND SMOOTH.

G) OPERABLE ITEMS SHALL OPERATE SMOOTHLY WITHOUT STICKING OR BINDING AND WITHOUT EXCESSIVE "PLAY" OR LOOSENESS. 15. THE FOLLOWING MATERIALS SHALL BE LEFT AT THE JOBSITE. THEY SHALL BE

AKEN FROM THE SAME MATERIAL, LOT OR RUN USED TO CONSTRUCT AND FINISH THE PROJECT: A) (5) PIECES OF EACH ENTRY OF TILE, IF USED. B) (1) GALLON OF EACH COLOR PAINT IN A TIGHTLY SEALED AND MARKED C) (1) BOX OF EACH TYPE OF CEILING TILE, IF USED. 16. THE OWNER/LANDLORD OR OWNER/LANDLORD'S SUBCONTRACTORS MAY

CONSTRUCTION, WITH THE COOPERATION AND COORDINATION OF THE ENERAL CONTRACTOR AND APPROVAL OF THE LOCAL CODE OFFICIAL IF 17. DIMENSIONS AND FINISHES SHALL BE VERIFIED AND COORDINATED WITH SANDITIONS BEING CONSTRUCTION EARRICATION OF PURCHASING. IN CASE OF CONFLICT BETWEEN THE PROJECT REQUIREMENTS AND/OR EXISTING CONDITIONS, THE ONE HAVING THE MOST STRINGENT REQUIREMENTS SHALL GOVERN, AS APPROVED BY THE ARCHITECT AND THE

GENERAL CONTRACTOR. 18. PERFORM WORK IN ACCORDANCE WITH ACCEPTABLE TRADE PRACTICE ENSURE THE HIGHEST QUALITY FINISHED PRODUCT - EXPRESSED OR IMPLIED PERFORM WORK BY SKILLED MECHANICS IN ACCORDANCE WITH ESTABLISHED STANDARDS OF WORKMANSHIP IN EACH OF THE VARIOUS TRADES.

19. COORDINATE BLOCKING REQUIREMENTS WITH ADJACENT OR RELATED

TRADES, ACCESSORIES, EQUIPMENT AND FIXTURES INSTALL REQUIRED

BLOCKING AT NO ADDITIONAL COST TO CONTRACT. 20. REPAIR PROPERTY DAMAGE BY THE INSTALLERS TO A LIKE - NEW CONDITION OR REPLACE DAMAGED SURFACES AND MATERIALS OF THE PREVIOUSLY INSTALLED WORK BY OTHER TRADES, INSTALLERS AND

21. WHERE REQUESTED BY THE OWNER/LANDLORD TO CERTIFY CONFORMANCE TO TRADE STANDARDS OR THE PROJECT REQUIREMENTS, THE SUBCONTRACTOR SHALL ENLIST A TESTING LABORATORY AT THE WNER/LANDLORD'S COST, IF THE REQUESTED TEST SHOWS NON CONFORMANCE TO GENERALLY ACCEPTED TRADE STANDARDS OR THE PROJECT REQUIREMENTS, THE SUBCONTRACTOR SHALL CORRECT THE DEFICIENCY AT NO ADDITIONAL COSTS TO THE OWNER/LANDLORD AND REIMBURSE THE COSTS OF THE TESTING TO THE OWNER/LANDLORD, UNLESS THE CONTRACTOR HAS USED PRODUCTS INCORRECTLY LABELED BY THE MANUFACTURER OR HAS MADE PREVIOUSLY APPROVED CHANGES.

22. PROVIDE SECURITY OF THE WORK, INCLUDING TOOLS AND UNINSTALLED MATERIALS, PROTECT THE WORK, STORED PRODUCTS, CONSTRUCTION EQUIPMENT AND OWNER/LANDLORD'S PROPERTY FROM THEFT AND ANDALISM AND THE PREMISES FROM ENTRY BY UNAUTHORIZED PERSONNEL UNTIL FINAL ACCEPTANCE BY OWNER/LANDLORD. 23. MAINTAIN ACTIVE FIRE EXTINGUISHERS AT THE PROJECT AS REQUIRED TO ADEQUATELY COVER THE WORK AREA.

24 DO NOT USE MATERIALS OR FQUIPMENT FOR A PURPOSE OTHER THAN THAT FOR WHICH IT IS SPECIFICALLY DESIGNED OR SPECIFIED FOR. MATERIALS and equipment that are similar shall be the same type, model and STYLE FOR THE SAME USE THROUGHOUT THE PROJECT OR THEY SHALL BE 25. WHEN THE PROJECT REQUIREMENTS REQUIRE THAT THE INSTALLATION OF

WORK IN STRICT ACCORDANCE WITH THE MOST CURRENT WRITTEN MANUFACTURER'S INSTRUCTIONS. 26. PRODUCTS AND EQUIPMENT SHALL BE DELIVERED IN UNDAMAGED CONDITION AND STORED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS TO AVOID DISRUPTION OF THE WORK OR DAMAGE TO THE

ITEMS. REPLACE DAMAGED OR UNFIT MATERIALS, AT NO ADDITIONAL COST TO 27. NOTIFY THE OWNER/LANDLORD WHEN THE WORK IS SUBSTANTIALLY COMPLETE AND READY FOR INSPECTION. PROVIDE WRITTEN OPERATION AND MAINTENANCE INSTRUCTIONS AND GUARANTEES FOR ALL EQUIPMENT AND MATERIALS INSTALLED. PROVIDE WRITTEN GUARANTEES FOR A PERIOD OF ONE (1) YEAR FROM THE THE DATE OF FINAL ACCEPTANCE OF THE WORK. 28. PROVIDE FINAL CLEAN - UP AND DAMAGE REPAIR AT THE PROJECT

CONCLUSION, LEAVE THE PREMISES NEAT, CLEAN AND CLEAR OF TOOLS EQUIPMENT AND SURPLUS MATERIALS, UNLESS REQUESTED BY THE DWNER/LANDLORD. CLEAN - UP SHALL INCLUDE AND NOT BE LIMITED TO 29. SUBCONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS CORRESPONDING TO THE LOCATION OF EXISTING ELEMENTS SUCH AS COLUMNS, BEAMS, WALLS, ETC. NEEDED TO CONSTRUCT THIS PROJECT. 30. SUBCONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND NOTIFY ARCHITECT OF ANY CONFLICTS WITH CONSTRUCTION DOCUMENTS. 31. REMOVE, REPLACE AND/OR MODIFY ALL EXISTING CONSTRUCTION (ARCHITECTURAL, STRUCTURAL, ELECTRICAL, MECHANICAL) AS REQUIRED IN

ORDER TO PLACE NEW STRUCTURAL WORK SHOWN ON THE CONSTRUCTION

32. SUBCONTRACTOR SHALL DESIGN AND PROVIDE ALL SHORING REQUIRED TO SUPPORT EXISTING CONSTRUCTION AND NEW CONSTRUCTION AS REQUIRED TO BUILD THIS PROJECT.

33. IT SHALL BE THE SUBCONTRACTOR'S SOLE RESPONSIBILITY TO RECEIVE, CHECK AND CONFIRM THE ARRIVAL IN GOOD ORDER ALL ITEMS CALLED FOR TO BE FURNISHED BY THE OWNER AND INSTALLED BY THE CONTRACTOR, THE SUBCONTRACTOR SHALL NOTIFY BRIOHN BUILDING CORP. AND OWNER IN WRITING OF ANY SUCH ITEMS MISSING OR DAMAGED WITHIN 3 DAYS OF RECEIVING DATE. FAILURE TO SO NOTIFY THE BRIOHN BUILDING CORP. AND OWNER WILL BE CONSIDERED PROOF THE PROPER QUANTITIES WERE DELIVERED AND IN GOOD CONDITION, AND IT SHALL BE THE SUBCONTRACTOR'S RESPONSIBILITY (AT SUBCONTRACTOR'S OWN COST) TO PROMPTLY REORDER, REPLACE AND OR REPAIR ANY SUCH ITEMS NEEDED FOR THE PROPER COMPLETION OF THIS PROJECT, ON THE AGREED DATE OF

34. THE APPLICATION OF A MATERIAL AND OR EQUIPMENT ITEM BY A SUBCONTRACTOR TO UNSATISFACTORY WORK INSTALLED BY OTHERS CONSTITUTES ACCEPTANCE OF THAT WORK AND ASSUMPTION OF FUL RESPONSIBILITY. PRIOR TO STARTING THE SPECIFIC APPLICATION, NOTIF BRIOHN BUILDING CORP. IN WRITING OF ANY DEFECT OR DEFICIENCY WHICH WOULD IMPAIR COMPLETE AND SATISFACTORY APPLICATIONS OR INSTALLATION OF SUBCONTRACTOR'S WORK INCLUDING GUARANTEE. 35. WHERE INSTALLATION INCLUDE MANUFACTURED PRODUCTS, COMPLY WITH MANUFACTURER'S APPLICABLE INSTRUCTIONS AND RECOMMENDATIONS FOR INSTALLATION TO THE EXTENT THESE ARE MORE EXPLICIT OR MORE STRINGENT 36 PROVIDE ATTACHMENT AND CONNECTION DEVISES AND METHODS FOR SECURING WORK PROPERLY AS IT IS INSTALLED; TRUE TO LINE AND LEVEL, AND

WITHIN RECOGNIZED INDUSTRY TOLERANCES UNLESS OTHERWISE NOTED. ALLOW FOR EXPANSION AND BUILDING MOVEMENT. 37. PROVIDE UNIFORM JOINT WIDTHS IN EXPOSED WORK, ORGANIZED FOR BEST POSSIBLE VISUAL EFFECT. REFER QUESTIONABLE VISUAL-EFFECT CHOICES TO ARCHITECT AND GENERAL CONTRACTOR FOR A FINAL DECISION.
RECHECK MEASUREMENTS AND DIMENSIONS OF THE WORK, AS AN INTEGRAL STEP OF STARTING EACH INSTALLATION.

38. MOUNTING HEIGHTS: WHERE MOUNTING HEIGHTS ARE NOT INDICATED, MOUNT INDIVIDUALUNITS OF WORK AT INDUSTRY RECOGNIZED STANDARD MOUNTING HEIGHTS FOR APPLICATIONS INDICATED, REFER QUESTIONABLE MOUNTING HEIGHT CHOICES TO ARCHITECT AND GENERAL CONTRACTOR FOR FINAL DECISION. 39. PROVIDE AND COMPLETE ALL PRELIMINARY WORK AND TEMPORARY CONSTRUCTION REQUIRED AS INDICATED AND REQUIRED INSTALL

TEMPORARY BARRICADE AS REQUIRED BY LOCAL OFFICIALS IN MANNER 40. INSTALLATION OF ANY COMBUSTIBLE MATERIALS ABOVE FINISHED CEILINGS OR IN ANY OTHER CONCEALED, NON-SPRINKLERED SPACE IS STRICTLY AT IMPOSING ANY STRUCTURAL LOAD TEMPORARY OR PERMANENT ON ANY PART OF THE EXISTING OR PROPOSED STRUCTURE WITHOUT ARCHITECT AND STRUCTURAL ENGINEER'S APPROVAL IS STRICTLY PROHIBITED.

42. CUTTING ANY HOLE IN EXISTING OR PROPOSED FLOOR SLABS, WALLS, COLUMNS, BEAMS OR ROOF WITHOUT PROPER APPROVAL BY ARCHITECT AND STRUCTURAL ENGINEER AND NOT IN ACCORDANCE WITH INSTRUCTIONS HEREIN AND PROPER CONSTRUCTION PROCEDURES IS STRICTLY PROHIBITED. 42. ATTACHING ANY WORK TO METAL DECK OR HANGING WORK FROM LUMBING AND SPRINKLER PIPING OR CONDUIT IS STRICTLY PROHIBITED.

### SITE WORK

WATER DISTRIBUTION

FESTING, AND DISINFECTION.

WITHOUT ARCHITECT'S AND

. THIS SECTION INCLUDES WATER-DISTRIBUTION PIPING AND RELATED COMPONENTS OUTSIDE THE BUILDING FOR COMBINED WATER SERVICE AND B. UTILITY-FURNISHED PRODUCTS INCLUDE WATER METERS THAT WILL BE FURNISHED TO THE SITE, C. RELATED SECTIONS:

1.2 REFERENCES
A. STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION 3. MILWAUKEE WATER WORKS RULES AND REGULATIONS GOVERNING WATER SERVICE AND WATER SERVICE PIPING SPECIFICATIONS, LATEST EDITION.

. COMPLY WITH STANDARDS OF AUTHORITIES HAVING JURISDICTION FOR FIRE-

IPPRESSION WATER- SERVICE PIPING, INCLUDING MATERIALS, HOSE THREADS,

1. COMPLY WITH REQUIREMENTS OF MILWAUKEE WATER WORKS. 2. COMPLY WITH STANDARDS OF AUTHORITIES HAVING JURISDICTION FOR DTABLE-WATER-SERVICE PIPING, INCLUDING MATERIALS, INSTALLATION,

1.3 SUBMITTALSA. PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED.

INSTALLATION, AND TESTING. 1.5 PROJECT CONDITIONS
A. INTERRUPTION OF EXISTING WATER-DISTRIBUTION SERVICE: DO NOT NTERRUPT SERVICE TO FACILITIES OCCUPIED BY OWNER OR OTHERS UNLESS PERMITTED UNDER THE FOLLOWING CONDITIONS AND THEN ONLY AFTER ARRANGING TO PROVIDE TEMPORARY WATER-DISTRIBUTION SERVICE ACCORDING TO REQUIREMENTS INDICATED:

1. NOTIFY ARCHITECT AND OWNER NO FEWER THAN FIVE (5) DAYS IN DVANCE OF PROPOSED INTERRUPTION OF SERVICE. 2. DO NOT PROCEED WITH INTERRUPTION OF WATER-DISTRIBUTION SERVICE

OWNER'S WRITTEN PERMISSION.  $\underline{\text{1.6 COORDINATION}}$  A. COORDINATE CONNECTION TO WATER MAIN WITH MILWAUKEE WATER PART 2 PRODUCTS

2.1 PIPE AND FITTINGS

A. DUCTILE-IRON PIPE WITH PUSH-ON RUBBER GASKETS JOINTS: CONFORM TO C151/A21.51-96 AND MILWAUKEE WATER WORKS WATER SERVICE PIPING SPECIFICATIONS 2 Corporation Valves and Curb Valves Conform to milwaukee water works water service piping

A. WATER METERS WILL BE FURNISHED BY UTILITY COMPANY. PART 3 EXECUTION

REFER TO DIVISION 2 SECTION "EARTHWORK" FOR EXCAVATING, FRENCHING, AND BACKFILLING <u>1,2 PIPING INSTALLATION</u>

A. WATER-MAIN CONNECTION: TAP WATER MAIN ACCORDING TO REQUIREMENTS OF WATER UTILITY COMPANY AND OF SIZE AND IN LOCATION B. INSTALL DUCTILE-IRON, WATER-SERVICE PIPING ACCORDING TO AWWA

600 AND AWWA M41 AND IN ACCORDANCE WITH MILWAUKEE WATER WORKS WATER SERVICE PIPING SPECIFICATIONS. <u>.3 JOINT CONSTRUCTION</u> .. MAKE PIPE JOINTS ACCORDING TO THE FOLLOWING:. DUCTILE-IRON PIPING, GASKETED JOINTS FOR WATER-SERVICE PIPING: AWA 1600 AND AWWA M41 AND MILWAUKEE WATER WORKS WATER SERVICE

3.4 VALVE INSTALLATION
A. IN ACCORDANCE WITH MILWAUKEE WATER WORKS WATER SERVICE PIPING

3.5 FIELD QUALITY CONTROL
A. ARRANGE INSPECTION AND TESTING OF WATER SERVICE PIPING WITH MILWAUKEE WATER WORKS AND CITY OF MILWAUKEE DEPARTMENT OF NEIGHBORHOOD SERVICES PLUMBING INSPECTION. CONDUCT INSPECTION AND TESTING BEFORE JOINTS ARE COVERED 3.6 CLEANING/DISINFECTION
A. CLEAN AND DISINFECT WATER SERVICE PIPING IN ACCORDANCE WITH DCOMM CHAPTER 82.40(8)(I) AND

MILWAUKEE WATER WORKS REQUIREMENTS SANITARY SEWERAGE PART 1 GENERAL <u>1 Summary</u> This Section includes gravity-flow, nonpressure Sanitary

PIPING SPECIFICATIONS.

PART 2 PRODUCTS

2. PRECAST CONCRETE MANHOLES B RELATED SECTIONS 1. SECTION 31 20 00 EARTHWORK 1.2 REFERENCES

A. STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION

SEWERAGE OUTSIDE THE BUILDING, WITH THE FOLLOWING COMPONENTS:

B. WISCONSIN DEPARTMENT OF COMMERCE PLUMBING CODE DCOMM A. SHOP DRAWINGS: FOR MANHOLES. INCLUDE PLANS, ELEVATIONS, SECTIONS, DETAILS, AND FRAMES AND COVERS. B. PRODUCT DATA: FORE EACH TYPE OF PRODUCT INDICATED.

<u>2.1 PIPING MATERIALS</u> A. PVC SEWER PIPE AND FITTINGS, ASTM D 3034, [SDR 35] , WITH BELL-AND-PIGOT ENDS FOR GASKETED JOINTS IN ACCORDANCE WITH CHAPTER 8.10.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.

2.2 NONPRESSURE-TYPE PIPE COUPLINGS COMPLY WITH ASTM C 1173, ELASTOMERIC, SLEEVE-TYPE, REDUCING OR FRANSITION COUPLING, FOR JOINING UNDERGROUND NONPRESSURE PIPING INCLUDE ENDS OF SAME SIZES AS PIPING TO BE JOINED AND CORROSION-RESISTANT-METAL TENSION BAND AND TIGHTENING MECHANISM ON EACH

B. SLEEVE MATERIALS:
1. FOR PLASTIC PIPES: ASTM F 477, ELASTOMERIC SEAL OR ASTM D 5926, PVC. 2. FOR DISSIMILAR PIPES: ASTM D 5926, PVC OR OTHER MATERIAL OMPATIBLE WITH PIPE MATERIALS BEING JOINED . UNSHIELDED, FLEXIBLE COUPLINGS: ELASTOMERIC SLEEVE WITH STAINLESSeel shear ring and corrosion-resistant-metal tension band and

FIGHTENING MECHANISM ON EACH END. A. DALLAS SPECIALTY & MFG. CO. B. FERNCO INC. C. LOGAN CLAY PRODUCTS COMPANY (THE . MISSION RUBBER COMPANY; A DIVISION OF MCP INDUSTRIES, INC. E. NDS F. PLASTIC ODDITIES, INC. SLEEVE WITH FULL-LENGTH, CORROSION-RESISTANT OUTER SHIELD AND

G. SHIELDED, FLEXIBLE COUPLINGS: ASTM C 1460, ELASTOMERIC OR RUBBER CORROSION-RESISTANT-METAL TENSION BAND AND TIGHTENING MECHANISM 1. MANUFACTURERS: A. CASCADE WATERWORKS MFG. B. DALLAS SPECIALTY & MFG. CO. C. MISSION RUBBER COMPANY; A DIVISION OF MCP INDUSTRIES, INC. E. RING-TYPE, FLEXIBLE COUPLINGS: ELASTOMERIC COMPRESSION SEAL WITH

DIMENSIONS TO FIT INSIDE BELL OF LARGER PIPE AND FOR SPIGOT OF SMALLER PIPE TO FIT INSIDE RING. A. FERNCO INC. B. LOGAN CLAY PRODUCTS COMPANY (THE). C. MISSION RUBBER COMPANY; A DIVISION OF MCP INDUSTRIES, INC.

2.3 CLEANOUIS

A. CLEANOUTS: IN ACCORDANCE WITH DEPARTMENT OF COMMERCE CODE A. STANDARD PRECAST CONCRETE MANHOLES: CONFORM TO ASTM C478 AND SECTION 8.39.0 AND FILE NO. 12 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.

. MANHOLE STEPS: CONFORM TO SECTION 8.40.0 AND FILE NO. 15 OF THE

STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION. PART 3 EXECUTION 3.1 PIPING APPLICATIONS
A. PIPE COUPLINGS AND FITTINGS WITH PRESSURE RATINGS AT LEAST EQUAL TO PIPING RATING MAY BE USED IN APPLICATIONS BELOW, UNLESS OTHERWISI 1. USE NONPRESSURE-TYPE FLEXIBLE COUPLINGS WHERE REQUIRED TO JOIN Gravity-flow, nonpressure sewer piping, unless otherwise indicated. A. UNSHIELDED FLEXIBLE COUPLINGS FOR SAME OR MINOR DIFFERENCE OD B. UNSHIELDED, INCREASER/REDUCER-PATTERN, FLEXIBLE COUPLINGS FOR

PIPES WITH DIFFERENT OD. C. RING-TYPE FLEXIBLE COUPLINGS FOR PIPING OF DIFFERENT SIZES WHERE ANNULAR SPACE BETWEEN SMALLER PIPING'S OD AND LARGER PIPING'S ID PERMITS INSTALLATION. 3.2 PIPING INSTALLATION
A. GENERAL LOCATIONS AND ARRANGEMENTS: DRAWING PLANS AND DETAILS INDICATE GENERAL LOCATION AND ARRANGEMENT OF UNDERGROUND SANITARY SEWERAGE PIPING. LOCATION AND rrangement of PiPing Layout take design considerations into

ACCOUNT INSTALL PIPING AS INDICATED TO EXTENT PRACTICAL WHERE SPECIFIC INSTALLATION IS NOT INDICATED, FOLLOW PIPING MANUFACTURER'S WRITTEN INSTRUCTIONS. B. INSTALL IN ACCORDANCE WITH CHAPTER 3.2.0 OF THE STANDARD PECIFICATIONS FOR SEWER AND WATER NOITION TO TRAIN IN INCOMPAN IN INCITATION . INSTALL PROPER SIZE INCREASERS, REDUCERS, AND COUPLINGS WHERE FFERENT SIZES OR MATERIALS OF PIPES AND FITTINGS ARE CONNECTED. REDUCING SIZE OF PIPING IN DIRECTION OF FLOW IS PROHIBITED. D. USE CLASS B COMPACTED TRENCH SECTION IN ACCORDANCE WITH THE TANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION CLEAR INTERIOR OF PIPING AND MANHOLES OF DIRT AND SUPERFLUOUS MATERIAL AS WORK PROGRESSES. MAINTAIN SWAB OR DRAG IN PIPING, AND PULL PAST EACH JOINT AS IT IS COMPLETED. PLACE PLUG IN END OF INCOMPLETE PIPING AT END OF DAY AND WHEN WORK STOPS.

DCOMM CH. 82.30(11)(H). FOLLOW PIPING MANUFACTURER'S WRITTEN INSTRUCTIONS B. JOIN GRAVITY-FLOW, NONPRESSURE, DRAINAGE PIPING ACCORDING TO 1. JOIN PVC SEWER PIPING ACCORDING TO ASTM D 2321 AND ASTM D 3034 FOR ELASTOMERIC- GASKET JOINTS. 2. JOIN DISSIMILAR PIPE MATERIALS WITH NONPRESSURE-TYPE, FLEXIBLE

F. INSTALL TRACER WIRE OVER NON-METALLIC PIPING IN ACCORDANCE WITH

3.4 MANHOLE INSTALLATION A. SET MANHOLE RIMS TO ELEVATIONS INDICATED. 3. INSTALL IN ACCORDANCE WITH SECTION 3.5.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN,

3.5 CLEANOUT INSTALLATION
A. INSTALL CLEANOUTS AND RISER EXTENSIONS FROM SEWER PIPES TO CLEANOUTS AT GRADE. INSTALL PIPING SO CLEANOUTS OPEN IN DIRECTION OF FLOW IN SEWER PIPE. 1. USE LIGHT-DUTY, TOP-LOADING CLASSIFICATION CLEANOUTS IN EARTH OR INPAVED FOOT-TRAFFIC AREAS. 2. USE MEDIUM-DUTY, TOP-LOADING CLASSIFICATION CLEANOUTS IN PAVED FOOT-TRAFFIC AREAS. 3. USE HEAVY-DUTY, TOP-LOADING CLASSIFICATION CLEANOUTS IN VEHICLE-RAFFIC SERVICE AREAS 4. USE EXTRA-HEAVY-DUTY, TOP-LOADING CLASSIFICATION CLEANOUTS IN [ROADS] <INSERT OTHER> B. SET CLEANOUT FRAMES AND COVERS IN EARTH IN CAST-IN-PLACE-CONCRETE BLOCK, 18 BY 18 BY 12 INCHES DEEP. SET WITH TOPS 1 INCH ABOVE SURROUNDING GRADE. C. SET CLEANOUT FRAMES AND COVERS IN PAVEMENT WITH TOPS FLUSH WITH PAVEMENT SURFACE.

### SITE WORK CONTINUED

3.6 FIELD QUALITY CONTROL

A. INSPECT INTERIOR OF PIPING TO DETERMINE WHETHER LINE DISPLACEMENT

OR OTHER DAMAGE HAS OCCURRED. INSPECT AFTER APPROXIMATELY 24 INCHES OF BACKFILL IS IN PLACE, AND GAIN AT COMPLETION OF PROJECT. 1. DEFECTS REQUIRING CORRECTION INCLUDE THE FOLLOWING: A. ALIGNMENT: LESS THAN FULL DIAMETER OF INSIDE OF PIPE IS VISIBLE BETWEEN STRUCTURES. B. DEFLECTION: FLEXIBLE PIPING WITH DEFLECTION THAT PREVENTS PASSAGE OF BALL OR CYLINDER OF SIZE NOT LESS THAN 92.5 PERCENT OF PIPING C. CRUSHED, BROKEN, CRACKED, OR OTHERWISE DAMAGED PIPING D. INFILTRATION: WATER LEAKAGE INTO PIPING. E. EXFILTRATION: WATER LEAKAGE FROM OR AROUND PIPING. I. REPLACE DEFECTIVE PIPING USING NEW MATERIALS, AND REPEA INSPECTIONS UNTIL DEFECTS ARE WITHIN ALLOWANCES SPECIFIED. 2. REINSPECT AND REPEAT PROCEDURE UNTIL RESULTS ARE SATISFACTORY TEST NEW SANITARY BUILDING SEWER IN ACCORDANCE WITH SECTION 5.4.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION. I. DO NOT ENCLOSE, COVER, OR PUT INTO SERVICE BEFORE INSPECTION AND 2. SCHEDULE TESTS AND INSPECTIONS BY AUTHORITIES HAVING JURISDICTION WITH AT LEAST 24 HOURS' ADVANCE NOTICE
3. SUBMIT SEPARATE REPORT FOR EACH TEST. 4. LEAKS AND LOSS IN TEST PRESSURE CONSTITUTE DEFECTS THAT MUST BE 5. REPLACE LEAKING PIPING USING NEW MATERIALS, AND REPEAT TESTING

SITE CLEARING PART 1 GENERAL A. THIS SECTION INCLUDES THE FOLLOWING: 1. REMOVING EXISTING TREES, SHRUBS, GROUNDCOVERS, PLANTS, AND

UNTIL LEAKAGE IS WITHIN ALLOWANCES SPECIFIED

B. STRIPPING AND STOCKPILING TOPSOIL.

5. DISCONNECTING AND CAPPING OR SEALING SITE UTILITIES.
6. TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES. 1.2 MATERIAL OWNERSHIP
A. EXCEPT FOR STRIPPED TOPSOIL OR OTHER MATERIALS INDICATED TO

CONTRACTOR'S PROPERTY AND SHALL BE REMOVED FROM PROJECT SITE

4. REMOVING ABOVE- AND BELOW-GRADE SITE IMPROVEMENTS.

1.3 PROJECT CONDITIONS

A. TRAFFIC: MINIMIZE INTERFERENCE WITH ADJOINING ROADS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES DURING SITE-I. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS, OR OTHER ADJACENT CCUPIED OR USED FACILITIES WITHOUT PERMISSION FROM OWNER AND LITHORITIES HAVING JURISDICTION 2. PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC VAYS IF REQUIRED BY AUTHORITIES HAVING JURISDICTION. B. SALVABLE IMPROVEMENTS: CAREFULLY REMOVE ITEMS INDICATED TO BE SALVAGED AND STORE ON OWNER'S PREMISES WHERE INDICATED. . UTILITY LOCATOR SERVICE: NOTIFY UTILITY LOCATOR SERVICE FOR AREA WHERE PROJECT IS LOCATED BEFORE SITE CLEARING. . DO NOT COMMENCE SITE CLEARING OPERATIONS UNTIL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES ARE IN PLACE. PART 2 PRODUCTS

2.1 SOIL MATERIALS

A. SATISFACTORY SOIL MATERIALS: REQUIREMENTS FOR SATISFACTORY SOIL MATERIALS ARE SPECIFIED IN SECTION "EARTHWORK." . OBTAIN APPROVED BORROW SOIL MATERIALS OFF-SITE WHEN SATISFACTORY SOIL MATERIALS ARE NOT AVAILABLE ON-SITE. PART 3 EXECUTION

3.1 PREPARATION
A. PROTECT AND MAINTAIN BENCHMARKS AND SURVEY CONTROL POINTS FROM DISTURBANCE DURING CONSTRUCTION. B. LOCATE AND CLEARLY FLAG TREES AND VEGETATION TO REMAIN OR TO BE C. PROTECT EXISTING SITE IMPROVEMENTS TO REMAIN FROM DAMAGE 1. RESTORE DAMAGED IMPROVEMENTS TO THEIR ORIGINAL CONDITION, AS ACCEPTABLE TO OWNER.

3.2 TEMPORARY EROSION AND SEDIMENTATION CONTROL

A. CONTRACTOR SHALL OBTAIN EROSION CONTROL PERMIT FROM CITY OF MILWAUKEE PRIOR TO ANY LAND DISTURBANCE. B. PROVIDE TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES PREVENT SOIL EROSION AND DISCHARGE OF SOIL-BEARING WATER RLINGEE OR AIRBORNE DUST TO AD IACENT PROPERTIES AND WALKWAYS ACCORDING TO SITE EROSION CONTROL PLAN, AND CITY OF MILWAUKEE EROSION CONTROL PERMIT. C. INSPECT, REPAIR, AND MAINTAIN EROSION AND SEDIMENTATION CONTROL EASURES DURING CONSTRUCTION UNTIL PERMANENT VEGETATION HAS BEEN REMOVE EROSION AND SEDIMENTATION CONTROLS AND RESTORE AND TABILIZE AREAS DISTURBED DURING REMOVAL.

A. LOCATE, IDENTIFY, DISCONNECT, AND SEAL OR CAP OFF UTILITIES ARRANGE WITH UTILITY COMPANIES TO SHUT OFF INDICATED UTILITIES 3. EXISTING UTILITIES: DO NOT INTERRUPT UTILITIES SERVING FACILITIES OCCUPIED BY OWNER OR OTHERS UNLESS PERMITTED UNDER THE FOLLOWING ONDITIONS AND THEN ONLY AFTER ARRANGING TO PROVIDE TEMPORARY UTILITY SERVICES ACCORDING TO REQUIREMENTS INDICATED: 1. NOTIFY ARCHITECT NOT LESS THAN TWO DAYS IN ADVANCE OF PROPOSED 2. DO NOT PROCEED WITH UTILITY INTERRUPTIONS WITHOUT ARCHITECT'S C. REMOVAL OF UNDERGROUND UTILITIES IS INCLUDED IN DIVISION 2 SECTIONS COVERING SITE UTILITIES.

3.4 CLEARING AND GRUBBING
A. 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 EPTH OF 8 INCHES (200 MM), AND COMPACT EACH LAYER TO A DENSITY EQUAL TO ADJACENT ORIGINAL GROUND.

3<u>.5 Topsoil Stripping</u> A. REMOVE SOD AND GRASS BEFORE STRIPPING TOPSOIL. B. STRIP TOPSOIL TO WHATEVER DEPTHS ARE ENCOUNTERED IN A MANNER TO PREVENT INTERMINGLING WITH UNDERLYING SUBSOIL OR OTHER WASTE C. 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.

<u>.6 SITE IMPROVEMENTS</u> ... REMOVE EXISTING ABOVE- AND BELOW-GRADE IMPROVEMENTS AS INDICATED AND AS NECESSARY TO FACILITATE NEW CONSTRUCTION. A. DISPOSAL: REMOVE SURPLUS SOIL MATERIAL, UNSUITABLE TOPSOIL, DBSTRUCTIONS, DEMOLISHED MATERIALS, AND WASTE MATERIALS INCLUDING TRASH AND DEBRIS. AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY

1. SEPARATE RECYCLABLE MATERIALS PRODUCED DURING SITE CLEARING

FROM OTHER NONRECYCLABLE MATERIALS. STORE OR STOCKPILE WITHOUT

INTERMIXING WITH OTHER MATERIALS AND TRANSPORT THEM TO RECYCLING **EARTHWORK** 

PART 1 GENERAL A. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, SPECIFICATION SECTIONS, APPLY TO THIS SECTION.

A. THIS SECTION INCLUDES THE FOLLOWING I. PREPARING SUBGRADES FOR SLABS-ON-GRADE, WALKS, PAVEMENTS, LAWNS AND GRASSES AND EXTERIOR PLANTS 2. EXCAVATING AND BACKFILLING FOR BUILDINGS AND STRUCTURES. 4. BASE COURSE FOR CONCRETE WALKS, PAVEMENTS BASE COURSE FOR ASPHALT PAVING. . EXCAVATING AND BACKFILLING FOR UTILITY TRENCHES. B. RELATED SECTIONS INCLUDE THE FOLLOWING: DIVISION 1 SECTION "TEMPORARY FACILITIES AND CONTROLS" FOR TEMPORARY CONTROLS, UTILITIES, AND SUPPORT FACILITIES. 2. SECTION "SITE CLEARING" FOR TEMPORARY EROSION AND SEDIMENTATION STOCKPILING TOPSOIL, AND REMOVAL OF ABOVE- AND BELOW- GRADE

IMPROVEMENTS AND UTILITIES. A. STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN. LATEST EDITION B. STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND C. PRELOADING COMPLETION REPORT, NORTH REGION OF BLOCK 4 LOT 1
MENOMONEE VALLEY INDUSTRIAL PARK; GESTRA ENGINEERING; JUNE 30, 2011 GEOTECHNICAL RECOMMENDATIONS REVIEW, PROPOSED INDUSTRIAL DEVELOPMENT, NORTHERN HALF BLOCK 4 LOT 1 (MVBP); GESTRA ENGINEERING; JULY 22, 2013

A. BACKFILL: SOIL MATERIAL USED TO FILL AN EXCAVATION. B. BASE COURSE: COURSE PLACED BETWEEN THE PREPARED SUBGRADE AND HOT-MIX ASPHALT PAVING OR CEMENT CONCRETE PAVEMENT, SIDEWALK OR C. BEDDING COURSE: COURSE PLACED OVER THE EXCAVATED SUBGRADE IN A TRENCH BEFORE LAYING PIPE D. BORROW SOIL: SATISFACTORY SOIL IMPORTED FROM OFF-SITE FOR USE AS FILL OR BACKFILL. E. DRAINAGE COURSE: COURSE SUPPORTING THE SLAB-ON-GRADE THAT ALSO MINIMIZES UPWARD CAPILLARY FLOW OF PORE WATER. F. EXCAVATION: REMOVAL OF MATERIAL ENCOUNTERED ABOVE SUBGRADE LEVATIONS AND TO LINES AND DIMENSIONS INDICATED I. AUTHORIZED ADDITIONAL EXCAVATION: EXCAVATION BELOW SUBGRADE LEVATIONS OR BEYOND INDICATED LINES AND DIMENSIONS AS DIRECTED BY ARCHITECT, AUTHORIZED ADDITIONAL EXCAVATION AND REPLACEMENT MATERIAL WILL BE PAID FOR ACCORDING TO CONTRACT PROVISIONS FOR LINAUTHORIZED EXCAVATION: EXCAVATION BELOW SUBGRADE LEVATIONS OR BEYOND INDICATED LINES AND DIMENSIONS WITHOU RECTION BY ARCHITECT. UNAUTHORIZED EXCAVATION, AS WELL AS REMEDIAL WORK DIRECTED BY ARCHITECT, SHALL BE WITHOUT ADDITIONAL G. FILL: SOIL MATERIALS USED TO RAISE EXISTING GRADES H. PIPE COVER MATERIAL: MATERIAL WHICH IS PLACED IN A TRENCH AROUND AND OVER SEWER OR WATER PIPE ABOVE THE BEDDING COURSE. . STRUCTURES: BUILDINGS, FOOTINGS, FOUNDATIONS, RETAINING WALLS, SLABS, TANKS, CURBS, MECHANICAL AND ELECTRICAL APPURTENANCES, OR

THE GROUND SURFACE. J. SUBGRADE: SURFACE OR ELEVATION REMAINING AFTER COMPLETING EXCAVATION, OR TOP SURFACE OF A FILL OR BACKFILL IMMEDIATELY BELOW BASE COURSE, DRAINAGE FILL, OR TOPSOIL MATERIALS. K. TRENCH BACKFILL: MATERIAL PLACED IN A TRENCH AVOVE THE PIPE COVER NATERIAL FOR SEWER OR WATER PIPE UTILITIES: ON-SITE UNDERGROUND PIPES, CONDUITS, DUCTS, AND CABLES, AS WELL AS UNDERGROUND SERVICES WITHIN BUILDINGS. A. MATERIAL TEST REPORTS: FROM A QUALIFIED TESTING AGENCY INDICATING AND INTERPRETING TEST RESULTS FOR COMPLIANCE OF THE FOLLOWING WITH CLASSIFICATION ACCORDING TO ASTMID 2487 OF EACH ON-SITE AND BORROW SOIL MATERIAL PROPOSED FOR FILL AND BACKFILL. 2. LABORATORY COMPACTION CURVE ACCORDING TO ASTM D 1557 FOR EACH ON-SITE AND BORROW SOIL MATERIAL PROPOSED FOR FILL AND

THER MAN-MADE STATIONARY FEATURES CONSTRUCTED ABOVE OR BELOW

CAUSED BY EARTHWORK OPERATIONS. SUBMIT BEFORE EARTHWORK BEGINS. <u>.6 QUALITY ASSURANCE</u> .. GEOTECHNICAL TESTING AGENCY QUALIFICATIONS: AN INDEPENDENT ESTING AGENCY QUALIFIED ACCORDING TO ASTM E 329 TO CONDUCT SOIL MATERIALS AND ROCK-DEFINITION TESTING, AS DOCUMENTED ACCORDING TO ASTM D 3740 AND ASTM E 548. 1.7 PROJECT CONDITIONS
A. EXISTING UTILITIES: DO NOT INTERRUPT UTILITIES SERVING FACILITIES

B. PREEXCAVATION PHOTOGRAPHS OR VIDEOTAPE: SHOW EXISTING

CONDITIONS OF ADJOINING CONSTRUCTION AND SITE IMPROVEMENTS.

CLUDING FINISH SURFACES, THAT MIGHT BE MISCONSTRUED AS DAMAGE

OCCUPIED BY OWNER OR OTHERS UNLESS PERMITTED IN WRITING BY ARCHITECT AND THEN ONLY AFTER ARRANGING TO PROVIDE TEMPORARY JTILITY SERVICES ACCORDING TO REQUIREMENTS INDICATED. 1. NOTIFY ARCHITECT NOT LESS THAN TWO DAYS IN ADVANCE OF PROPOSED UTILITY INTERRUPTIONS. 2. DO NOT PROCEED WITH UTILITY INTERRUPTIONS WITHOUT ARCHITECT'S WRITTEN PERMISSION 3. CONTACT UTILITY-LOCATOR SERVICE FOR AREA WHERE PROJECT IS OCATED BEFORE EXCAVATING. B. DEMOLISH AND COMPLETELY REMOVE FROM SITE EXISTING JNDERGROUND UTILITIES INDICATED TO BE REMOVED. COORDINATE WITH JTILITY COMPANIES TO SHUT OFF SERVICES IF LINES ARE ACTIVE.

SITE WORK CONTINUED

PART 2 PRODUCTS

2.1 SOIL MATERIALS

A. GENERAL: PROVIDE BORROW SOIL MATERIALS WHEN SUFFICIENT ATISFACTORY SOIL MATERIALS ARE NOT AVAILABLE FROM EXCAVATIONS B. SATISFACTORY SOILS: ASTM D 2487 SOIL CLASSIFICATION GROUPS GW. G AND NEW GRADES. m, 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 AN' SOIL GROUP OR COMBINATION OF GROUPS APPROVED OF BY THE PROJECT SECTECHNICAL ENGINEER C. UNSATISFACTORY SOILS: SOIL CLASSIFICATION GROUPS GC, SC, CL, ML, 2. WALKS: PLUS OR MINUS 1/2 INCH ACCORDING TO ASTM D 2487 OR A COMBINATION OF THESE GROUPS. 1. UNSATISFACTORY SOILS ALSO INCLUDE SATISFACTORY SOILS NOT MAINTAINED WITHIN 2 PERCENT OF OPTIMUM MOISTURE CONTENT AT TIME OF COMPACTION. D. BASE COURSE: 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

E. 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 E BEDDING COURSE: 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 G DRAINAGE COURSE: 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 H. PIPE COVER MATERIAL: CONFORM TO SECTION 8.43.3 OF THE STANDARD PECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, TRENCH BACKFILL: CONFORM TO SECTIONS 8.43.4 AND 8.43.5 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION, TRENCH BACKFILL BENEATH AND WITHIN FIVE ET OF PAVEMENT AREAS SHALL BE GRANULAR BACKFILL. TRENCH BACKFILL BENEATH LANDSCAPE AREAS MAY BE SATISFACTORY SOIL MATERIAL. PART 3 EXECUTION

3.1 PREPARATION
A. SITE PREPARATION SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED IN THE REFERENCED PRELOADING COMPLETION REPORT AND GEOTECHNICAL RECOMMENDATIONS REVIEW OR AS DIRECTED BY THE PROJECT GEOTECHNICAL ENGINEER IN THE FIELD B. PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER ACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMEN UNDERMINING, WASHOUT, AND OTHER HAZARDS CREATED BY EARTHWOR C PREPARATION OF SUBGRADE FOR FARTHWORK OPERATIONS INCLUDING REMOVAL OF VEGETATION, TOPSOIL, DEBRIS, OBSTRUCTIONS, AND ETERIOUS MATERIALS FROM GROUND SURFACE IS SPECIFIED IN DIVISION 2 ECTION "SITE CLEARING" D. PROTECT AND MAINTAIN EROSION AND SEDIMENTATION CONTROLS, WHICH ARE SPECIFIED IN DIVISION 2 SECTION "SITE CLEARING," DURING EARTHWORK OPERATIONS. E. PROVIDE PROTECTIVE INSULATING MATERIALS TO PROTECT SUBGRADES AND FOUNDATION SOILS AGAINST FREEZING TEMPERATURES OR FROST.

3.2 <u>DEWATERING</u> A. PREVENT SURFACE WATER AND GROUND WATER FROM ENTERING EXCAVATIONS, FROM PONDING ON PREPARED SUBGRADES, AND FROM FLOODING PROJECT SITE AND SURROUNDING AREA. B. PROTECT SUBGRADES FROM SOFTENING, UNDERMINING, WASHOUT, AND DAMAGE BY RAIN OR WATER ACCUMULATION.

1. REROUTE SURFACE WATER RUNOFF AWAY FROM EXCAVATED AREAS. DO NOT ALLOW WATER TO ACCUMULATE IN EXCAVATIONS. DO NOT USE CAVATED TRENCHES AS TEMPORARY DRAINAGE DITCHES. 2 INSTALL A DEWATERING SYSTEM TO KEEP SUBGRADES DRY AND CONVEY GROUND WATER AWAY FROM EXCAVATIONS. MAINTAIN UNTIL DEWATERING IS NO LONGER REQUIRED.

3.3 EXPLOSIVES: DO NOT USE EXPLOSIVES.

3.4 EXCAVATION, GENERAL
A LINCLASSIFIED EXCAVATION: EXCAVATE TO SUBGRADE ELEVATIONS REGARDLESS OF THE CHARACTER OF SURFACE AND SUBSURFACE INCLUDE ROCK SOIL MATERIALS AND OBSTRUCTIONS NO CHANGES IN THE ONTRACT SUM OR THE CONTRACT TIME WILL BE AUTHORIZED FOR ROCK XCAVATION OR REMOVAL OF OBSTRUCTIONS. 1. IF EXCAVATED MATERIALS INTENDED FOR FILL AND BACKFILL INCLUDE SATISFACTORY SOIL MATERIALS AND ROCK, REPLACE WITH SATISFACTORY B. SHORING, SHEETING AND BRACING: SHORE, BRACE OR SLOPE BANKS OF KCAVATION TO PROTECT WORKWEN, BANKS, ADJACENT PAVING STRUCTURES, AND UTILITIES TO MEET OSHA REQUIREMENTS, DESIGN OF EMPORARY SUPPORT OF EXCAVATION IS THE RESPONSIBILITY OF THE

3.5 EXCAVATION FOR STRUCTURES

3.5 EXCAVATION FOR STRUCTURES TOLERANCE OF PLUS OR MINUS 1 INCH. IF APPLICABLE, EXTEND EXCAVATIONS A SUFFICIENT DISTANCE FROM STRUCTURES FOR PLACING AND REMOVING ONCRETE FORMWORK FOR INSTALLING SERVICES AND OTHE . EXCAVATIONS FOR FOOTINGS AND FOUNDATIONS: DO NOT DISTURB BOTTOM OF EXCAVATION. CAVATE BY HAND TO FINAL GRADE JUST BEFORE PLACING CONCRETE REINFORCEMENT. TRIM BOTTOMS TO REQUIRED LINES AND GRADES TO LEAVE SOLID BASE TO RECEIVE OTHER WORK. PILE FOUNDATIONS: STOP EXCAVATIONS 6 TO 12 INCHES ABOVE BOTTOM OF PILE CAP BEFORE PILES ARE PLACED. AFTER PILES HAVE BEEN DRIVEN REMOVE LOOSE AND DISPLACED MATERIAL. EXCAVATE TO FINAL GRADE, FAVING SOLID BASE TO RECEIVE CONCRETE PILE CAPS 3. EXCAVATION FOR UNDERGROUND TANKS, BASINS, AND MECHANICAL OR ELECTRICAL UTILITY STRUCTURES: EXCAVATE TO ELEVATIONS AND DIMENSIONS INDICATED WITHIN A TOLERANCE OF PLUS OR MINUS 1 INCH. DO NOT DISTURB BOTTOM OF EXCAVATIONS INTENDED AS BEARING SURFACES.

3.6 EXCAVATION FOR WALKS AND PAVEMENTS
A. EXCAVATE SURFACES UNDER WALKS AND PAVEMENTS TO INDICATED LINES, CROSS SECTIONS, ELEVATIONS, AND SUBGRADES. <u>..7 EXCAVATION FOR UTILITY TRENCHES</u> A. EXCAVATE TRENCHES TO INDICATED GRADIENTS, LINES, DEPTHS, AND B. TRENCH BOTTOMS: EXCAVATE TRENCHES DEEPER THAN BOTTOM OF PIPE ELEVATION TO ALLOW FOR REQUIRED BEDDING COURSE. C. CONFORM TO CLASS B COMPACTED SECTION IN ACCORDANCE WITH E NO. 4 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER

CONSTRUCTION IN WISCONSIN, LATEST EDITION. A. PROOF-ROLL SUBGRADE BELOW THE BUILDING SLABS AND PAVEMENTS WITH HEAVY PNEUMATIC-TIRED EQUIPMENT TO IDENTIFY SOFT POCKETS AND AREAS OF EXCESS YIELDING. DO NOT PROOF-ROLL WET OR SATURATED SUBGRADES. PROOF ROLL IN PRESENCE OF PROJECT GEOTECHNICAL 1. COMPLETELY PROOF-ROLL SUBGRADE IN ONE DIRECTION, REPEATING PROOF-ROLLING IN DIRECTION PERPENDICULAR TO FIRST DIRECTION. LIMIT VEHICLE SPEED TO 5 MPH. 2. PROOF-ROLL WITH A 20-TON TRI-AXIAL DUMP TRUCK. 3. EXCAVATE SOFT SPOTS, UNSATISFACTORY SOILS, AND AREAS OF EXCESSIVE PUMPING OR RUTTING, AS DETERMINED BY ENGINEER, AND REPLACE WITH OMPACTED BACKFILL OR FILL AS DIRECTED. B. AUTHORIZED ADDITIONAL EXCAVATION AND REPLACEMENT MATERIAL WILL BE PAID FOR ACCORDING TO CONTRACT PROVISIONS FOR CHANGES IN THE C. RECONSTRUCT SUBGRADES DAMAGED BY FREEZING TEMPERATURES. FROST

RAIN, ACCUMULATED WATER, OR CONSTRUCTION ACTIVITIES, AS DIRECTED BY ARCHITECT, WITHOUT ADDITIONAL COMPENSATION. <u>3.9 UNAUTHORIZED EXCAVATION</u> A. FILL UNAUTHORIZED EXCAVATION UNDER FOUNDATIONS OR WALL FOOTINGS BY EXTENDING BOTTOM ELEVATION OF CONCRETE FOUNDATION OR FOOTING TO EXCAVATION BOTTOM, WITHOUT ALTERING TOP ELEVATION. LEAN CONCRETE FILL, WITH 28-DAY COMPRESSIVE STRENGTH OF 2500 PSI, MAY BE USED WHEN APPROVED BY ARCHITECT FILL UNAUTHORIZED EXCAVATIONS UNDER OTHER CONSTRUCTION OR UTILITY PIPE AS DIRECTED BY

3.10 STORAGE OF SOIL MATERIALS

A. STOCKPILE BORROW SOIL MATERIALS AND EXCAVATED SATISFACTORY SOIL DRAIN SURFACE WATER, COVER TO PREVENT WINDBLOWN DUST. STOCKPILE SOIL MATERIALS AWAY FROM EDGE OF EXCAVATIONS. DO NOT

STORE WITHIN DRIP LINE OF REMAINING TREES 3.11 BACKFILL

A. PLACE AND COMPACT BACKFILL IN EXCAVATIONS PROMPTLY, BUT NOT BEFORE COMPLETING THE FOLLOWING: ONSTRUCTION BELOW FINISH GRADE INCLUDING, WHERE APPLICABLE, SUBDRAINAGE, DAMPPROOFING, WATERPROOFING, AND PERIMETER 2. SURVEYING LOCATIONS OF UNDERGROUND UTILITIES FOR RECORD

3. TESTING AND INSPECTING UNDERGROUND UTILITIES 4. REMOVING CONCRETE FORMWORK. REMOVING TRASH AND DEBRIS. 6. REMOVING TEMPORARY SHORING AND BRACING, AND SHEETING 7. INSTALLING PERMANENT OR TEMPORARY HORIZONTAL BRACING ON HORIZONTALLY SUPPORTED WALLS. B. PLACE BACKFILL ON SUBGRADES FREE OF MUD, FROST, SNOW, OR ICE.

<u>3.12 Utility trench Backfill</u> A. Place Backfill on Subgrades free of Mud. frost, snow, or ice. B. PLACE AND COMPACT BEDDING COURSE ON TRENCH BOTTOMS AND WHERE INDICATED. SHAPE BEDDING COURSE TO PROVIDE CONTINUOUS SUPPORT FOR BELLS, JOINTS, AND BARRELS OF PIPES AND FOR JOINTS FITTINGS, AND BODIES OF CONDUITS. C. CONFORM TO CLASS B COMPACTED TRENCH SECTION IN ACCORDANCE WITH FILE NO. 4 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER ONSTRUCTION IN WISCONSIN, LATEST EDITION. D. BEDDING PLACEMENT: CONFORM TO SECTION 3,2,6 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN E BACKELL PLACEMENT: CONFORM TO SECTION 2 4.0 OF THE STANDARD SPECIFICATIONS FOR SEWERE AND WATER CONSTRUCTION IN WISCONSIN TEST EDITION EXCEPT THAT FLOODING OF GRANULAR TRENCH BACKFIL SHALL NOT BE ALLOWED FOR BACKELL CONSOLIDATION . INSTALL TRACER WIRE ABOVE NON-METALLIC PIPING IN ACCORDANCE WITH WISCONSIN DEPARTMENT OF COMMERCE CODE SECTION 82.30(11)(H)

A PLOW SCARIEY BENCH OR BREAK UP SLOPED SURFACES STEEPER THAN 1 VERTICAL TO 4 HORIZONTAL SO FILL MATERIAL WILL BOND WITH EXISTING B. PLACE AND COMPACT FILL MATERIAL IN LAYERS TO REQUIRED ELEVATIONS 1 LINDER GRASS AND PLANTED AREAS, USE SATISFACTORY SOIL MATERIAL 2. UNDER WALKS AND PAVEMENTS, USE SATISFACTORY SOIL MATERIAL. 4. UNDER BUILDING SLABS, USE ENGINEERED FILL UNDER FOOTINGS AND FOUNDATIONS, USE ENGINEERE C. PLACE SOIL FILL ON SUBGRADES FREE OF MUD, FROST, SNOW, OR ICE.

3.14 SOIL MOISTURE CONTROL

1. THE CORALLY MOISTEN OR AERATE SUBGRADE AND EACH SUBSEQUENT FILL

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1. THE CORALLY MOISTEN OR AERATE

OR BACKFILL SOIL LAYER BEFORE COMPACTION TO WITHIN 2 PERCENT OF

OPTIMUM MOISTURE CONTEN

SOIL MATERIAL AT 85 PERCENT.

1. DO NOT PLACE BACKFILL OR FILL SOIL MATERIAL ON SURFACES THAT ARE MUDDY, FROZEN, OR CONTAIN FROST OR ICE. 2. REMOVE AND REPLACE, OR SCARIFY AND AIR DRY OTHERWISE SATISFACTORY SOIL MATERIAL THAT EXCEEDS OPTIMUM MOISTURE CONTENT BY 2 PERCENT AND IS TOO WET TO COMPACT TO SPECIFIED DRY UNIT WEIGHT. 3.15 COMPACTION OF SOIL BACKFILLS AND FILLS A. PLACE BACKFILL AND FILL SOIL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS. B. PLACE BACKFILL AND FILL SOIL MATERIALS EVENLY ON ALL SIDES OF RUCTURES TO REQUIRED ELEVATIONS, AND UNIFORMLY ALONG THE FULL ENGTH OF EACH STRUCTURE. C. COMPACT SOIL MATERIALS TO NOT LESS THAN THE FOLLOWING RCENTAGES OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D 1557: 1. UNDER STRUCTURES, BUILDING SLABS, AND STEPS, SCARIFY AND RECOMPACT TOP 12 INCHES OF EXISTING SUBGRADE AND EACH LAYER OF BACKFILL OR FILL SOIL MATERIAL AT 92 PERCENT. 2. UNDER PAVEMENTS AND WALKWAYS, SCARIFY AND RECOMPACT TOP 6 INCHES BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL OR FILL SOIL MATERIAL WITHIN THREE FEET OF THE BASE COURSE ELEVATION AT 92 3. UNDER LAWN OR UNPAVED AREAS, SCARIFY AND RECOMPACT TOP 6 INCHES BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL OR FILL

### SITE WORK CONTINUED

A. 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. 1. PROVIDE A SMOOTH TRANSITION BETWEEN ADJACENT EXISTING GRADES 2. CUT OUT SOFT SPOTS, FILL LOW SPOTS, AND TRIM HIGH SPOTS TO COMPLY WITH REQUIRED SURFACE TOLERANCES. B. SITE GRADING: SLOPE GRADES TO DIRECT WATER AWAY FROM BUILDINGS AND TO PREVENT PONDING. FINISH SUBGRADES TO REQUIRED ELEVATIONS WITHIN THE FOLLOWING TOLERANCES: 1. LAWN OR UNPAVED AREAS: PLUS OR MINUS 1 INCH.

3. PAVEMENTS: PLUS OR MINUS 1/2 INCH. C. GRADING INSIDE BUILDING LINES: FINISH SUBGRADE TO A TOLERANCE OF 1/2 INCH WHEN TESTED WITH A 10- FOOT STRAIGHTEDGE.

3.17 SUBBASE AND BASE COURSES
A. PLACE BASE COURSE ON SUBGRADES FREE OF MUD, FROST, SNOW, OR ICE. B. ON PREPARED SUBGRADE, PLACE BASE COURSE UNDER PAVEMENTS AND 1. SHAPE BASE COURSE TO REQUIRED CROWN ELEVATIONS AND CROSS-2. COMPACT BASE COURSE AT OPTIMUM MOISTURE CONTENT TO REQUIRED GRADES, LINES, CROSS SECTIONS, AND THICKNESS TO CONFORM TO TANDARD COMPACTION REQUIREMENTS CONTAINED IN SECTION 301.3.4.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION.

3.18 DRAINAGE COURSE
A. PLACE DRAINAGE COURSE ON SUBGRADES FREE OF MUD, FROST, SNOW, B. ON PREPARED SUBGRADE, PLACE AND COMPACT DRAINAGE COURSE UNDER CAST-IN-PLACE CONCRETE SLABS- ON-GRADE AS FOLLOWS: 1. INSTALL SUBDRAINAGE GEOTEXTILE ON PREPARED SUBGRADE ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS, OVERLAPPING SIDES AND ENDS 2. PLACE DRAINAGE COURSE 6 INCHES OR LESS IN COMPACTED THICKNESS IN A SINGLE LAYER. 3. PLACE DRAINAGE COURSE THAT EXCEEDS 6 INCHES IN COMPACTED THICKNESS IN LAYERS OF EQUAL THICKNESS, WITH NO COMPACTED LAYER MORE THAN 6 INCHES THICK OR LESS THAN 3 INCHES THICK. 4. COMPACT EACH LAYER OF DRAINAGE COURSE TO REQUIRED CROSS SECTIONS AND THICKNESSES TO NOT LESS THAN 95 PERCENT OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D 698.

3.19 FIELD QUALITY CONTROL

A. TESTING AGENCY: OWNER WILL ENGAGE A QUALIFIED INDEPENDENT GEOTECHNICAL ENGINEERING TESTING AGENCY TO PERFORM FIELD QUALITY-CONTROL TESTING. B. ALLOW TESTING AGENCY TO INSPECT AND TEST SUBGRADES AND EACH FILI OR BACKFILL LAYER. PROCEED WITH SUBSEQUENT EARTHWORK ONLY AFTER TEST RESULTS FOR PREVIOUSLY COMPLETED WORK COMPLY WITH C. FOOTING SUBGRADE: AT FOOTING SUBGRADES, AT LEAST ONE TEST OF EACH SOIL STRATUM WILL BE PERFORMED TO VERIFY DESIGN BEARING CAPACITIES. SUBSEQUENT VERIFICATION AND APPROVAL OF OTHER FOOTING SUBGRADES MAY BE BASED ON A VISUAL COMPARISON O SUBGRADE WITH TESTED SUBGRADE WHEN APPROVED BY ARCHITECT D. TESTING AGENCY SHALL OBSERVE PROOF ROLLING OF BUILDING AND PAVEMENT SUBGRADES E. TESTING AGENCY WILL TEST COMPACTION OF SOILS IN PLACE ACCORDING TO ASTM D 1556, ASTM D 2167, ASTM D 2922, AND ASTM D 2937, AS APPLICABLE. TESTS WILL BE PERFORMED AT THE FOLLOWING LOCATIONS AND 1. BUILDING SLAB AREAS: AT SUBGRADE AND AT EACH COMPACTED FILL AND BACKFILL LAYER, AT LEAST 1 TEST FOR EVERY 2500 SQ. FT. OR LESS OF BUILDING SLAB BUT IN NO CASE FEWER THAN 3 TESTS 2. PAVEMENT AREAS: AT SUBGRADE AND AT EACH COMPACTED FILL AND BACKFILL LAYER, AT LEAST ONE TEST FOR EVERY 5,000 SQUARE FEET OF 3. FOUNDATION WALL BACKFILL: AT EACH COMPACTED BACKFILL LAYER, AT LEAST 1 TEST FOR EACH 100 FEET OR LESS OF WALL LENGTH, BUT NO FEWE THAN 2 TESTS. 4. TRENCH BACKFILL: AT EACH COMPACTED INITIAL AND FINAL BACKFILL LAYER, AT LEAST 1 TEST FOR EACH 150 FEET OR LESS OF TRENCH LENGTH, BUT NO FEWER THAN 2 TESTS. F. 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

3.20 <u>Protection</u> A. Protecting graded areas: Protect Newly Graded areas from TRAFFIC, FREEZING, AND EROSION. KEEP FREE OF TRASH AND DEBRIS. B. REPAIR AND REESTABLISH GRADES TO SPECIFIED TOLERANCES WHERE COMPLETED OR PARTIALLY COMPLETED SURFACES BECOME ERODED, RUTTED SETTLED, OR WHERE THEY LOSE COMPACTION DUE TO SUBSEQUENT ONSTRUCTION OPERATIONS OR WEATHER CONDITIONS 1. SCARIFY OR REMOVE AND REPLACE SOIL MATERIAL TO DEPTH AS DIRECTED BY ARCHITECT; RESHAPE AND RECOMPACT.
C. WHERE SETTLING OCCURS BEFORE PROJECT CORRECTION PERIOD ELAPSES, REMOVE FINISHED SURFACING, BACKFILL WITH ADDITIONAL SOIL MATERIAL, COMPACT, AND RECONSTRUCT SURFACING. 1. RESTORE APPEARANCE, QUALITY, AND CONDITION OF FINISHED SURFACING TO MATCH ADJACENT WORK, AND ELIMINATE EVIDENCE OF RESTORATION TO GREATEST EXTENT POSSIBLE

3.21 DISPOSAL OF SURPLUS AND WASTE MATERIALS

A. DISPOSAL: REMOVE SURPLUS SATISFACTORY SOIL AND WASTE MATERIAL, INCLUDING UNSATISFACTORY SOIL, TRASH, AND DEBRIS, AND LEGALLY

**HOT-MIX ASPHALT PAVING** PART 1 GENERAL

A. THIS SECTION INCLUDES HOT-MIX ASPHALT PAVING. 1. SECTION 31 20 00 - EARTHWORK

A. STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND TRUCTURE CONSTRUCTION, LATEST EDITION (WISDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION). A. PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED. INCLUDE TECHNICAL DATA AND TESTED PHYSICAL AND PERFORMANCE PROPERTIES B. IOB-MIX DESIGNS: CERTIFICATION THAT MIX MEETS OR EXCEEDS WISDO STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

C. MATERIAL CERTIFICATES CERTIFYING COMPLIANCE WITH WISDOT

A. MANUFACTURER QUALIFICATIONS: MANUFACTURER SHALL BE REGISTERED WITH AND APPROVED BY THE DOT OF THE STATE IN WHICH PROJECT IS B. REGULATORY REQUIREMENTS: COMPLY WITH WISDOT STANDARD PECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION FOR ASPHALT PAVING WORK.

1.5 PROJECT CONDITIONS

A. ENVIRONMENTAL LIMITATIONS: DO NOT APPLY ASPHALT MATERIALS IF BASE COURSE IS WET OR EXCESSIVELY DAMP OR IF THE FOLLOWING CONDITIONS ARE NOT MET: 1. ASPHALT LOWER LAYER COURSE, TACK COAT, ASPHALT UPPER LAYER COURSE: MINIMUM SURFACE TEMPERATURE OF 36 DEG F AND RISING AT TIME OF PLACEMENT. B. PAVEMENT-MARKING PAINT: PROCEED WITH PAVEMENT MARKING ONLY ON CLEAN, DRY SURFACES. DO NOT APPLY BELOW THE MINIMUM PAVEMENT TEMPERATURE AS RECOMMENDED BY THE MANUFACTURER. PART 2 PRODUCTS

A. IN ACCORDANCE WITH SECTION 460.2.2 OF THE WISDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST

A IN ACCORDANCE WITH CHAPTER 455 OF THE WISDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST 2.3 PAVEMENT MARKING PAINT
A. PROVIDE PAINT FROM THE WISCONSIN DEPARTMENT OF

PART 3 EXECUTION

TRANSPORTATION'S APPROVED PRODUCTS LIST. A. HOT-MIX ASPHALT: ASPHALTIC BINDER COURSE AND SURFACE COURSE SHALL BE MIXTURE E-1 COMPLYING WITH THE WISDOT STANDAR SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST

A. ASPHALT CONCRETE PAVING EQUIPMENT, WEATHER LIMITATIONS, JOB-MIX FORMULA, MIXING, CONSTRUCTION METHODS, COMPACTION, FINISHING TOLERANCE AND PROTECTION SHALL CONFORM TO THE REQUIREMENTS OF THE APPROPRIATE SECTIONS OF THE WISDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION. 3.2 SURFACE PREPARATION
A. PROOF-ROLL BASE COURSE USING HEAVY, PNEUMATIC-TIRED ROLLERS TO LOCATE AREAS THAT ARE UNSTABLE OR THAT REQUIRE FURTHER B. IMMEDIATELY BEFORE PLACING ASPHALT MATERIALS, REMOVE LOOSE AND DELETERIOUS MATERIAL FROM SUBSTRATE SURFACES. ENSURE THAT PREPARED BASE COURSE IS READY TO RECEIVE PAVING.

SWEEP LOOSE GRANULAR PARTICLES FROM SURFACE OF UNBOUND-AGGREGATE BASE COURSE. DO NOT DISLODGE OR DISTURB AGGREGATE EMBEDDED IN COMPACTED SURFACE OF BASE COURSE. 3.3 HOT-MIX ASPHALT PLACING
A. SPREAD AND FINISH ASPHALTIC MIXTURE IN ACCORDANCE WITH SECTION 450.3.2.5 OF THE WISDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION B. 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. A. COMPACT ASPHALTIC PAVEMENT IN ACCORDANCE WITH SECTION 450.3.2.6 OF THE WISDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST B. PROTECTION: AFTER FINAL ROLLING, DO NOT PERMIT VEHICULAR TRAFFIC ON PAVEMENT UNTIL IT HAS COOLED AND HARDENED. C. ERECT BARRICADES TO PROTECT PAVING FROM TRAFFIC UNTIL MIXTURE HAS COOLED ENOUGH NOT TO BECOME MARKED.

3.5 INSTALLATION TOLERANCES

A. THICKNESS: COMPACT EACH COURSE TO PRODUCE THE THICKNESS INDICATED WITHIN THE FOLLOWING TOLERANCES: 1. BASE COURSE: PLUS OR MINUS 1/2 INCH. 2. SURFACE COURSE: PLUS 1/4 INCH, NO MINUS B. SURFACE SMOOTHNESS: 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:

CEMENT CONCRETE PAVEMENT PART 1 GENERAL A. THIS SECTION INCLUDES EXTERIOR CEMENT CONCRETE PAVEMENT FOR THE 1. SITE CURBS AND GUTTERS 2. SITE WALKWAYS 3. PUBLIC SIDEWALK

3. REMOVE AND REPLACE ALL HUMPS OR DEPRESSIONS EXCEEDING THE

1. SECTION 31 20 00 EARTHWORK 1.2 REFERENCES

A. WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE B. CITY OF MILWAUKEE STREET CONSTRUCTION SPECIFICATIONS A. PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED. B. DESIGN MIXTURES: FOR EACH CONCRETE PAVEMENT MIXTURE.

4 DRIVE APPROACH

5. PUBLIC CURB AND GUTTER

1.4 QUALITY ASSURANCE
A. 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. STRUCTURAL CONCRETE," UNLESS MODIFIED BY REQUIREMENTS IN THE C. MOCKUPS: PROVIDE MOCKUPS OF DECORATIVE STAMPED CONCRETE PAVING NOT LESS THAN 96 INCHES BY 96 INCHES TO DEMONSTRATE SURFACE COLOR, PATTERN, AND TEXTURE.

### SITE WORK CONTINUED

PART 2 PRODUCTS

SPECIFICATIONS.

STRUCTURE CONSTRUCTION, LATEST EDITION

WISDOT STANDARD SPECIFICATIONS.

RESISTANT TO LIME AND OTHER ALKALIS.

2.1 CONCRETE MATERIALS: ON-SITE WORK
A. CONCRETE GRADE: GRADE A OR GRADE A-2 CONFORMING TO SECTION 501.3.1.3 OF THE WISDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND B. AGGREGATES: CONFORM TO SECTION 501 OF THE WISDOT STANDARD SPECIFICATIONS, PROVIDE AGGREGATES FROM A SINGLE SOURCE. C. WATER: ASTM C 94/C 94M AND SECTION 501 OF THE WISDOT STANDARD D. AIR-ENTRAINING ADMIXTURE: ASTM C 260 AND SECTION 501 OF THE E. CHEMICAL ADMIXTURES: PER SECTION 501 OF THE WISDOT STANDARD F. COLOR PIGMENT: ASTM C 979, SYNTHETIC MINERAL-OXIDE PIGMENTS OR COLORED WATER-REDUCING ADMIXTURES; COLOR STABLE, NONFADING, AND

1. IN ACCORDANCE WITH SECTION 415.3.12 OF THE WISDOT STANDARD SPECIFICATIONS H. RELATED MATERIALS 1. EXPANSION JOINT MATERIAL: CONFORM TO SECTION 415.2.2 OF THE WISDOT

SPECIFICATIONS I. CONCRETE MIXTURES . GRADE A OR GRADE A2 CONFORMING TO SECTION 501.3.1 OF THE WISDOT STANDARD SPECIFICATIONS J. CONCRETE MIXING . MEASURE, BATCH, AND MIX CONCRETE MATERIALS AND CONCRETE IN ACCORDANCE WITH SECTION 501 OF THE WISDOT STANDARD SPECIFICATIONS

2.2 CONCRETE MATERIALS: PUBLIC RIGHT OF WAY

A. CONFORM TO SECTION 902 OF THE CITY OF MILWAUKEE STREET CONSTRUCTION PART 3 EXECUTION 3.1 GENERAL
A. CONFORM TO SECTION 415 OF THE WISDOT STANDARD SPECIFICATIONS FOR

CONCRETE PAVEMENTS FOR ON- SITE WORK

B. CONFORM TO THE CITY OF MILWAUKEE STREET CONSTRUCTION SPECIFICATIONS FOR WORK IN THE PUBLIC RIGHT- OF-WAY. 3.2 EXAMINATION AND PREPARATION A. PROOF-ROLL PREPARED SUBBASE OR BASE SURFACE BELOW CONCRETE PAVING TO IDENTIFY SOFT POCKETS AND AREAS OF EXCESS YIELDING.

IMMEDIATELY BEFORE PLACING CONCRETE. 3.3 EDGE FORMS AND SCREED CONSTRUCTION
A. 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. B. CLEAN FORMS AFTER EACH USE AND COAT WITH FORM-RELEASE AGENT TO ENSURE SEPARATION FROM CONCRETE WITHOUT DAMAGE

B. REMOVE LOOSE MATERIAL FROM COMPACTED SUBBASE OR BASE SURFACE

A GENERAL: FORM CONSTRUCTION ISOLATION AND CONTRACTION IGNIS AND TOOL EDGINGS TRUE TO LINE WITH FACES PERPENDICULAR TO SURFACE PLANE OF CONCRETE. CONSTRUCT TRANSVERSE JOINTS AT RIGHT ANGLES TO CENTERLINE UNLESS OTHERWISE INDICATED, CONFORM TO SECTION 415 OF THE WISDOT STANDARD SPECIFICATIONS FOR ON-SITE WORK. CONFORM TO CITY OF MILWAUKEE STREET CONSTRUCTION SPECIFICATIONS FOR WORK IN THE PUBLIC RIGHT-OF-WAY B. CONSTRUCTION JOINTS: SET CONSTRUCTION JOINTS AT SIDE AND END TERMINATIONS OF PAVEMENT AND AT LOCATIONS WHERE PAVEMENT OPERATIONS ARE STOPPED FOR MORE THAN ONE-HALF HOUR UNLESS PAVEMENT TERMINATES A ISOLATION JOINTS. C. ISOLATION JOINTS: FORM ISOLATION JOINTS OF PREFORMED JOINT-FILLER STRIPS ABUTTING CONCRETE CURBS, CATCH BASINS, MANHOLES, INLETS, STRUCTURES, WALKS, OTHER FIXED OBJECTS, AND WHERE INDICATED. D. CONTRACTION JOINTS: FORM WEAKENED-PLANE CONTRACTION JOINTS, SECTIONING CONCRETE INTO AREAS AS INDICATED. CONSTRUCT CONTRACTION DINTS FOR A DEPTH EQUAL TO AT LEAST ONE-FOURTH OF THE CONCRETE THICKNESS TO MATCH JOINTING OF EXISTING ADJACENT CONCRETE PAVEMENT E. EDGING: TOOL EDGES OF PAVEMENT, GUTTERS, CURBS, AND JOINTS 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

A. COMPLY WITH SECTION 601 OF THE WISDOT STANDARD SPECIFICATIONS FOR ON-B. COMPLY WITH SECTION 502 OF THE CITY OF MILWAUKEE STREET CONSTRUCTION SPECIFICATIONS FOR WORK IN THE PUBLIC RIGHT-OF-WAY.

MARKS ON CONCRETE SURFACES.

3.8 CONCRETE PLACEMENT

A. COMPLY WITH SECTION 602 OF THE WISDOT STANDARD SPECIFICATIONS FOR ON-B. COMPLY WITH SECTION 503 OF THE CITY OF MILWAUKEE STREET CONSTRUCTION SPECIFICATIONS FOR PUBLIC SIDEWALK CONSTRUCTION. A. COMPLY WITH SECTION 503 OF THE CITY OF MILWAUKEE STREET CONSTRUCTION

A. MOISTEN SUBBASE TO PROVIDE A UNIFORM DAMPENED CONDITION AT TIME

CONCRETE IS PLACED B. COMPLY WITH ACI 301 REQUIREMENTS AND WISDOT STANDARD Specifications section 501 requirements for measuring, mixing A. ON-SITE WORK FINISH CURBING IN ACCORDANCE WITH SECTION 601.3.5 OF THE WISDOT STANDARD SPECIFICATIONS. 2. FINISH SIDEWALK AND PATIO IN ACCORDANCE WITH SECTION 602,3,2,3 OF THE WISDOT STANDARD SPECIFICATIONS (LIGHT BROOM FINISH). B. COMPLY WITH CITY OF MILWAUKEE STREET CONSTRUCTION SPECIFICATIONS FOR WORK IN THE PUBLIC RIGHT-OF- WAY. A. MAT STAMPING: AFTER FLOATING AND WHILE CONCRETE IS PLASTIC, APPLY MAT-STAMPED FINISH. 1. PIGMENTED POWDER RELEASE AGENT: UNIFORMLY DISTRIBUTE ONTO CONCRETE AT A RATE OF 3 TO 4 LB./100 SQ. FT. 2. LIQUID RELEASE AGENT: APPLY LIQUID RELEASE AGENT TO THE CONCRETE SURFACE AND THE STAMP MAT. UNIFORMLY MIST SURFACE OF CONCRETE AT A RATE OF 5 GAL/1000 SQ. FT. 3. AFTER APPLICATION OF RELEASE AGENT, ACCURATELY ALIGN AND PLACE STAMP MATS IN SEQUENCE 4. PRODUCE REQUIRED IMPRINT AND PATTERN AND DEPTH OF IMPRINT ON CONCRETE SURFACE. HAND STAMP EDGES AND SURFACES UNABLE TO BE IMPRINTED BY STAMP MATS. 5. REMOVE RESIDUAL RELEASE AGENT ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS, BUT NO FEWER THAN THREE DAYS AFTER STAMPING CONCRETE. B. TOOL STAMPING: AFTER FLOATING AND WHILE CONCRETE IS PLASTIC, APPLY 1 COVER SURFACE WITH POLYETHYLENE FILM STRETCH TAUT TO REMOVE WRINKLES LAP SIDES AND ENDS, AND SECURE TO EDGE FORMS. LIGHTLY BROOM SURFACE TO

RODUCE REQUIRED IMPRINT PATTERN AND DEPTH OF IMPRINT ON CONCRETE SURFACE. HAND STAMP EDGES AND SURFACES UNABLE TO BE IMPRINTED BY STAMP 3. CAREFULLY REMOVE POLYETHYLENE FILM IMMEDIATELY AFTER TOOL STAMPING A. ROLLER STAMPING: AFTER FLOATING AND WHILE CONCRETE IS PLASTIC, APPLY ROLLER-STAMPED FINISH. COVER SURFACE WITH POLYETHYLENE FILM, STRETCH TAUT TO REMOVE WRINKLES LAP SIDES AND ENDS, AND SECURE TO EDGE FORMS. LIGHTLY BROOM SURFACE TO REMOVE AIR BUBBLES. 2. ALIGN ROLLER AND PERFORM ROLLING OPERATION TO PRODUCE REQUIRED IMPRINT PATTERN AND EPTH OF IMPRINT ON CONCRETE SURFACE. HAND STAMP  ${\tt 3.\,CAREFULLY\,REMOVE\,POLYETHYLENE\,FILM\,IMMEDIATELY\,AFTER\,ROLLER\,STAMPING.}\\$ 3.11 CONCRETE PROTECTION AND CURING A. ON-SITE WORK

2. ALIGN AND PLACE STAMP TOOLS IN SEQUENCE AND TAMP INTO CONCRETE TO

1. PROTECT AND CURE SIDEWALK IN ACCORDANCE WITH SECTION 602.3.2.6 OF THE WISDOT STANDARD SPECIFICATIONS 2. PROTECT AND CURE CURBING IN ACCORDANCE WITH SECTION 601.3.7 OF THE B. COMPLY WITH CITY OF MILWAUKEE STREET CONSTRUCTION SPECIFICATIONS FOR WORK IN THE PUBLIC RIGHT-OF- WAY. 3.12 REPAIRS AND PROTECTION
A. REMOVE AND REPLACE CONCRETE PAVEMENT THAT IS BROKEN, DAMAGED, OR DEFECTIVE OR THAT DOES NOT COMPLY WITH REQUIREMENTS IN THIS SECTION.

B. PROTECT CONCRETE FROM DAMAGE, EXCLUDE TRAFFIC FROM PAVEMENT

FOR AT LEAST 7 DAYS AFTER PLACEMENT. C 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. STORM DRAINAGE

B RELATED SECTIONS:

REMOVE AIR BUBBLES.

PART 1 GENERAL A. THIS SECTION INCLUDES GRAVITY-FLOW, NONPRESSURE STORM DRAINAGE OUTSIDE THE BUILDING, WITH THE FOLLOWING COMPONENTS: 1. STORM SEWER PIPING . PRECAST CONCRETE CATCH BASINS

1. SECTION 31 20 00 EARTHWORK A. STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION B. WISCONSIN DEPARTMENT OF COMMERCE PLUMBING CODE DCOMM CHAPTERS

1.3 SUBMITTALS

A. PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED. B. SHOP DRAWINGS: FOR CATCH BASINS. INCLUDE PLANS, ELEVATIONS, SECTIONS, DETAILS, AND CATCH BASIN FRAMES AND GRATES. PART 2 PRODUCTS A. 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. JOINTS SHALL CONFORM TO ASTM D-3212. 2.2 NONPRESSURE-TYPE PIPE COUPLINGS A. COMPLY WITH ASTM C 1173, ELASTOMERIC, SLEEVE-TYPE, REDUCING OR TRANSITION COUPLING, FOR JOINING UNDERGROUND NONPRESSURE PIPING INCLUDE ENDS OF SAME SIZES AS PIPING TO BE JOINED AND CORROSION-RESISTANT-METAL TENSION BAND AND TIGHTENING MECHANISM ON EACH END. B. SLEEVE MATERIALS: 1. FOR PLASTIC PIPES: ASTM F 477, ELASTOMERIC SEAL OR ASTM D 5926, PVC. 2. FOR DISSIMILAR PIPES: ASTM D 5926, PVC OR OTHER MATERIAL COMPATIBLE WITH PIPE MATERIALS BEING JOINED. . UNSHIELDED FLEXIBLE COUPLINGS: ELASTOMERIC SLEEVE WITH STAINLESS-STEEL SHEAR RING AND CORROSION-RESISTANT-METAL TENSION BAND AND

TIGHTENING MECHANISM ON EACH END.

CODE CHAPTER 82.35.

A. DALLAS SPECIALTY & MEG. CO. B. FERNCO INC.

B. LOGAN CLAY PRODUCTS COMPANY (THE) . MISSION RUBBER COMPANY; A DIVISION OF MCP INDUSTRIES, INC. NDS INC. D. PLASTIC ODDITIES, INC. E. SHIELDED FLEXIBLE COUPLINGS: ASTM C 1460, ELASTOMERIC OR RUBBER SLEEVE WITH FULL-LENGTH, CORROSION-RESISTANT OUTER SHIELD AND CORROSION-RESISTANT-METAL TENSION BAND AND TIGHTENING MECHANISM ON EACH END. A.CASCADE WATERWORKS MFG. B. DALLAS SPECIALTY & MFG. CO. C. MISSION RUBBER COMPANY; A DIVISION OF MCP INDUSTRIES, INC.

TO FIT INSIDE RING 1. MANUFACTURERS: B. LOGAN CLAY PRODUCTS COMPANY (THE). C. MISSION RUBBER COMPANY; A DIVISION OF MCP INDUSTRIES, INC.

<u>..3 CLEANOUTS</u> N. CLEANOUTS SHALL BE IN ACCORDANCE WITH DEPARTMENT OF COMMERCE

DIMENSIONS TO FIT INSIDE BELL OF LARGER PIPE AND FOR SPIGOT OF SMALLER PIPE

D. RING-TYPE FLEXIBLE COUPLINGS: ELASTOMERIC COMPRESSION SEAL WITH

<u>2.4 CATCH BASINS</u> A. STANDARD PRECAST CONCRETE CATCH BASINS: CONFORMING TO CHAPTER 3.6.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION, OF DEPTH INDICATED. 1. BASE SECTION: 12-INCH MINIMUM THICKNESS FOR FLOOR SLAB AND 5-INCH 2 TOP SECTION: ECCENTRIC-CONE TYPE B. FRAMES AND GRATES: ASTM A-48, CLASS NO. 35B. NEENAH R-2501 WITH TYPE G GRATE OR EQUAL. NEENAH R-3229-A FOR CURB TYPE FRAMES OR EQUAL.

A. STANDARD PRECAST REINFORCED CONCRETE MANHOLES: CONFORM TO ASTM C478 AND SECTION 8.39.0 AND FILE NO. 12 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION. B. MANHOLE STEPS: CONFORM TO SECTION 8.40.0 AND FILE NO. 15 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION. C. FRAMES AND COVERS: AS INDICATED ON PLANS 2.6 TRENCH DRAIN
A. ACO MODEL S200K, OR EQUAL

### SITE WORK CONTINUED

**PART 3 EXECUTION** 

3.1 PIPING APPLICATIONS
A. PIPE COUPLINGS AND FITTINGS WITH PRESSURE RATINGS AT LEAST EQUAL TO PIPING RATING MAY BE USED IN APPLICATIONS BELOW, UNLESS OTHERWISE 1. USE NONPRESSURE-TYPE FLEXIBLE COUPLINGS WHERE REQUIRED TO JOIN GRAVITY-FLOW, NONPRESSURE SEWER PIPING, UNLESS OTHERWISE INDICATED.
A. UNSHIELDED FLEXIBLE COUPLINGS FOR SAME OR MINOR DIFFERENCE OD PIPES. B. UNSHIELDED, INCREASER/REDUCER-PATTERN, FLEXIBLE COUPLINGS FOR PIPES WITH C. RING-TYPE FLEXIBLE COUPLINGS FOR PIPING OF DIFFERENT SIZES WHERE ANNULAR SPACE BETWEEN SMALLER PIPING'S OD AND LARGER PIPING'S ID PERMITS INSTALLATION.

3.2 PIPING INSTALLATION A.GENERAL LOCATIONS AND ARRANGEMENTS: DRAWING PLANS AND DETAILS INDICATE GENERAL LOCATION AND ARRANGEMENT OF UNDERGROUND STORM DRAINAGE PIPING. LOCATION AND ARRANGEMENT OF PIPING LAYOUT TAKE DESIGN CONSIDERATIONS INTO ACCOUNT. INSTALL PIPING AS INDICATED, TO EXTENT PRACTICAL. WHERE SPECIFIC INSTALLATION IS NOT INDICATED, FOLLOW PIPING MANUFACTURER'S WRITTEN INSTRUCTIONS. B. INSTALL IN ACCORDANCE WITH CHAPTER 3.2.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION C. INSTALL PROPER SIZE INCREASERS, REDUCERS, AND COUPLINGS WHERE DIFFERENT SIZES OR MATERIALS OF PIPES AND FITTINGS ARE CONNECTED. REDUCING SIZE OF PIPING IN DIRECTION OF FLOW IS PROHIBITED. D. USE CLASS B COMPACTED TRENCH SECTION IN ACCORDANCE WITH THE STANDARD SPECIFICATION FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN E. CLEAR INTERIOR OF PIPING AND MANHOLES OF DIRT AND SUPERFLUOUS MATERIAL AS WORK PROGRESSES. . INSTALL TRACER WIRE OVER NON-METALLIC PIPING IN ACCORDANCE WITH DCOMM CH. 82.30(11)(H) AND 82.36(7)(D).

A.BASIC PIPE JOINT CONSTRUCTION IS SPECIFIED IN DIVISION 2 SECTION "PIPED JTILITIES - BASIC MATERIALS AND METHODS." WHERE SPECIFIC JOINT CONSTRUCTION IS NOT INDICATED. FOLLOW PIPING MANUFACTURER'S WRITTEN INSTRUCTIONS. B. JOIN GRAVITY-FLOW, NONPRESSURE DRAINAGE PIPING ACCORDING TO THE 1. JOIN PVC SEWER PIPING ACCORDING TO ASTM D 2321 AND ASTM D 3034 FOR **ELASTOMERIC- GASKET JOINTS** 2. JOIN DISSIMILAR PIPE MATERIALS WITH NONPRESSURE-TYPE FLEXIBLE COUPLINGS. 8.4 <u>Cleanout Installation</u> A. Install Cleanouts and Riser extensions from sewer pipes to Cleanouts

AT GRADE INSTALL PIPING SO CLEANOUTS OPEN IN DIRECTION OF FLOW IN SEWER 1. USE LIGHT-DUTY, TOP-LOADING CLASSIFICATION CLEANOUTS IN EARTH OR INPAVED FOOT-TRAFFIC AREAS. 2. USE MEDIUM-DUTY, TOP-LOADING CLASSIFICATION CLEANOUTS IN PAVED FOOT-TRAFFIC AREAS. 3. USE HEAVY-DUTY, TOP-LOADING CLASSIFICATION CLEANOUTS IN VEHICLE-TRAFFIC SERVICE] AREAS. B. SET CLEANOUT FRAMES AND COVERS IN PAVEMENT WITH TOPS FLUSH WITH PAVEMENT SURFACE. 3.5 CATCH BASIN INSTALLATION
A. SET FRAMES AND GRATES TO ELEVATIONS INDICATED.

CONSTRUCTION IN WISCONSIN, LATEST EDITION C. CATCH BASIN EXCAVATION AND PREPARATION OF SUBGRADE SHALL BE IN ACCORDANCE WITH SECTION 3.5.4(A) AND (B) OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION. 3.6 MANHOLE INSTALLATION

A. SET MANHOLE RIMS TO ELEVATIONS INDICATED. B. INSTALL IN ACCORDANCE WITH SECTION 3.5.0 OF THE STANDARD SPECIFICATIONS

B. INSTALL IN ACCORDANCE WITH CHAPTER 3.6.1 OF THE STANDARD

SPECIFICATIONS FOR SEWER AND WATER

CONSTRUCTION IN WISCONSIN, LATEST EDITION.

FOR SEWER AND WATER

A. INSPECT INTERIOR OF PIPING TO DETERMINE WHETHER LINE DISPLACEMENT OR OTHER DAMAGE HAS OCCURRED. B. CONDUCT DEFLECTION TESTING OF INSTALLED PIPE IN ACCORDANCE WITH SECTION 3.2.6(I)4 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION. 1. REPLACE ANY PIPE SECTION NOT PASSING THE DEFLECTION TEST USING NEW 2.REINSPECT AND REPEAT PROCEDURE UNTIL RESULTS ARE SATISFACTORY.

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### PRECAST CONCRETE

CONTRACTED TESTING LABORATORY FOR REVIEW.

1. TILT UP DESIGN SHALL CONFORM TO TCI AND ACI STANDARDS. GOVERNING SPECIFICATION FOR TILT UP CONCRETE PANELS TO BE IN ACCORDANCE WITH THE TILT-UP CONCRETE ASSOCIATIONS GUIDELINE SPECIFICATIONS. DESIGN LOADS SHALL CONFORM TO DESIGN LOADS INDICATED IN "DESIGN LOADS" SECTION OF THE PLAN AND APPLICABLE CODES. DESIGN AND CONSTRUCT TILT-UP WALL PANELS TO WITHSTAND CONSTRUCTION LOADS WHICH MAY OCCUR DURING LIFTING, BRACING, AND IMPACT OF ADJOINING PANELS. PERMANENT LOADS SHALL CONFORM TO CODE REQUIREMENTS THE PROJECT ARCHITECT/ENGINEER HAS NOT BEEN RETAINED TO DESIGN THE WALL PANELS OR THE FLOOR SLAB TO RESIST THE STRESSES CAUSED BY ERECTION OF THE WALL PANELS, NOR TO DETERMINE THE MEANS AND METHODS TO BE USED FOR ERECTION AND BRACING UNTIL PERMANENT BRACING IS IN PLACE. 3. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ERECT THE PANEL IN A MANNER THAT WILL BE BOTH SAFE FOR PERSONNEL AND PROPERTY, AND TO BRACE AND OTHERWISE PROTECT THE PANELS AGAINST WIND AND OTHER FORCES THAT

MAY OCCUR DURING CONSTRUCTION AND UNTIL CONNECTIONS TO THE PERMANENT STRUCTURAL SYSTEM ARE COMPLETED. 4. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT A SUITABLE SLAB HAS BEEN PREPARED TO PROVIDE FOR THE LEVEL OF FINISH THAT HAS BEEN ESTABLISHED WITHIN THIS SPECIFICATION. 5. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO COORDINATE THE SLAB FINISHING INCLUDING SAW CUTTING OF ALL JOINTS WITH THE PANEL FORMING TOM MINIMIZE THE IMPACT TO THE ARCHITECTURAL FINISH OF THE PANELS.

A) DRAWINGS SHALL BE COMPLETE AND INCLUDE PLANS, ELEVATIONS, CROSS SECTIONS AND DETAILS OF ALL BUILDING COMPONENTS AND ACCESSORIES TO BE FURNISHED BY THE TILT UP SUPPLIER. B) APPROVAL OF SHOP AND ERECTION DRAWINGS IN AN APPROVAL OF GENERAL DESIGN ONLY AND DOES NOT RELIEVE THE TILT UP SUPPLIER FROM THE NECESSITY OF MAKING, WITHOUT COST, CHANGES OR CORRECTIONS DUE TO ERRORS IN FABRICATION, OR RESULTING FROM ERRORS IN SHOP AND/OR ERECTION DRAWING DIMENSIONS.

CONTRACTOR IS TO VERIFY ALL DIMENSIONS AND COORDINATE ALL OPENINGS IN TILT UP WITH TILT UP SUPPLIER. ONE TILT UP SUPPLIER WILL BE RESPONSIBLE FOR COORDINATING ENGINEERING, DRAFTING, AND SHOP DRAWING SUBMITTALS IN THE EVENT THAT TILT UP COMPONENTS WILL BE PROVIDED BY MORE THAN ONE SUPPLIER. E) SUBMIT PRODUCT DATA, SHOP DRAWINGS, AND CONCRETE MIX DESIGNS TO OWNER AND OWNERS

TILT UP SUPPLIER SHALL INCLUDE ERECTION, GROUTING, SAWING OF OPENINGS AT NEW AND EXISTING TILT UP. TILT UP SUPPLIER SHALL INCLUDE CAULKING OF ALL TILT UP TO TILT UP JOINTS, AND CAULKING OF ALL TILT UP TO OTHER MATERIAL JOINTS AT ALL EXPOSED AREAS. CAULK TO BE 'TREMCO DYMERIC 240 FC'. PROVIDE 'SONNEBORN DEGUSSA NP1' CAULK AT ALL STRANLOK FINISH LOCATIONS IN FOOD PROCESSING FACILITIES, FOOD PREP AND FOOD STORAGE AREAS. PROVIDE 'TREMCO DYMERIC 240 FC' AT ALL NON-FINISH INTERIOR AND EXTERIOR LOCATIONS. SEE FLOOR PLAN. 8. FACING CONCRETE SHALL BE DESIGNED FOR MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS AS INDICATED ON PROJECT DRAWINGS, OR SPECIFIED, AND TESTED ACCORDING TO ASTM C39.

9. THE BOND BREAKER USED ON THE TILT-UP PANELS AND THE CASTING SLAB MUST BE COMPATIBLE WITH ANY COATING SUITABLE FOR INTERIOR AND EXTERIOR CONCRETE PANELS AND SLAB. 10. CONTRACTOR SHALL ENSURE THAT FINISHED FLOOR SLAB DOES NOT SHOWING SPALLING, BOLT HOLES, OR OTHER SURFACE DEFECTS AFTER TILT-UP CONSTRUCTION IS COMPLETE. CONTRACTOR SHALL FIGURE ALL COSTS REQUIRED TO PROVIDE OWNER WITH FLOOR SLABS THAT MEET ALL QUALITY REQUIREMENTS STATED WITHIN THIS SPECIFICATION. WASTE SLABS ARE STRONGLY RECOMMENDED.

11. CASTING SLAB SHALL BE CURED. SAW CUTS, CRACKS OR JOINTS IN THE CASTING BED SHALL BE FILLED AND LEVELED WITH A SEALANT SO AS TO MINIMIZE TRANSFER OF THE JOINT LINE TO THE PANEL FACE. 12. SURFACES TO BE PAINTED SHALL BE PREPARED TO RECEIVE PAINT FINISH AS SPECIFIED. ALL EXPOSED EXTERIOR SURFACES SHALL BE SACKED AND GROUTED TO CREATE A SMOOTH HONEYCOMB-FREE SURFACE TO ACCEPT FINAL PAINT. 13. PANEL DAMAGED DURING ERECTION, CRACKS READILY VISIBLE FROM 40 FEET, PERMANENT BOWING FROM ERECTION, SPALLS AND PANELS WITH INSUFFICIENT TESTED STRENGTH, SHALL BE REPAIRED OR REPLACED IN A MANNER ACCEPTABLE TO OWNER, AT THE CONTRACTORS EXPENSE. ANY DEMOLITION OR REPAIR OF OTHER MATERIALS OR SYSTEMS AS A RESULT OF REPAIR OR REPLACEMENT OF DEFECTIVE CONCRETE SHALL BE AT THE CONTRACTORS EXPENSE.

### **MASONRY**

MASONRY CONSTRUCTION SHALL CONFORM TO THE CURRENT EDITION OF 'BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES' ACI AND 'SPECIFICATIONS FOR MASONRY STRUCTURES' ACI. BOND BEAMS, PILASTERS, AND LINTELS SHALL BE FILLED WITH CONCRETE HAVING F'C = 3000 PSI UNLESS NOTED OTHERWISE. COARSE AGGREGATE SHALL PEA GRAVEL. REINFORCE ALL CONTINUOUS BOND BEAMS WITH 2-#5, U.N.O. PROVIDE CORNER BARS TO MATCH. THE MINIMUM LENGTH OF LAP FOR BARS EMBEDDED IN CONCRETE SHALL BE 24" FOR #4 BARS, 30" FOR #5 BARS, 36" FOR #6 BARS AND 42" FOR #7 BARS.

MASONRY CONTRACTORS TO GROUT COURSE(S) SOLID WHERE EXPANSION ANCHORS ARE SHOWN/CALLED OUT ON DRAWINGS. 4. USE ONLY U-SHAPED LINTEL BLOCK FOR MASONRY LINTELS. CENTERLINE OF REINFORCING TO BE LOCATED 3" MAX FROM BOTTOM OF LINTEL BLOCK.

LINTELS SHALL BEAR A MINIMUM OF 8" AT EACH END. THE FIRST COURSE OF MASONRY ABOVE THE LINTEL SHALL BE LAID WITH FULL MORTAR BEDDING. AT BEARING WALLS, GROUT END CELL SOLID TO FLOOR BELOW. SEE ARCHITECTURAL AND STRUCTURAL PLANS FOR SPECIAL BOND BEAM AND LINTEL CONDITIONS. FOR STEEL BEAMS BEARING PERPENDICULAR TO MASONRY WALL, GROUT AN AREA OF 4 CELLS WIDE, 4

COURSES DEEP, UNLESS NOTED OTHERWISE. PROVIDE POCKETS IN MASONRY WALLS FOR STEEL BEAMS, JOISTS, GIRDERS AND COLUMN BASE PLATES AND BACK PATCH.

WALLS MUST BE BRACED OR TIED INTO FLOORS PRIOR TO BACKFILLING GROUT PLACEMENT IN REINFORCED MASONRY WALLS OR PIERS SHALL FOLLOW THE PROCEDURES DESCRIBED IN NCMA TEK MANUAL 3-2A FOR EITHER LOW-LIFT OR HIGH-LIFT GROUTING. 10. PROVIDE HORIZONTAL JOINT REINFORCEMENT SUCH AS DUR-O-WALL, 16 INCHES ON CENTER VERTICALLY FOR RUNNING BOND WALLS, AND 8" AND 10" STACK BOND WALLS, FOR 12" STACK BOND WALLS, STANDARD HORIZONTAL JOINT REINFORCEMENT AT 8" ON CENTER OR HEAVY (A=0.056\* MIN) JOINT REINFORCEMENT AT 16" ON CENTER.

11. CONSTRUCTION SHALL BE RUNNING BOND UNLESS OTHERWISE NOTED. REFER TO ARCHITECTURAL DRAWINGS &/OR STRUCTURAL FOUNDATION PLAN FOR LOCATION OF ALL VERTICAL CONTROL JOINTS IN EXTERIOR WALLS. SEE STANDARD CONTROL JOINT DETAIL.

13. CONNECTIONS OF MASONRY VENEERS TO STRUCTURAL BACKUP WALL TO ADHERE TO THE FOLLOWING: A. MASONRY VENEER ANCHORED TO MASONRY BACKING MAY BE ATTACHED USING WIRE ANCHORS, ADJUSTABLE ANCHORS, OR JOINT REINFORCEMENT. VENEER ANCHORED TO A CONCRETE OR STEEL BACKING MUST BE ATTACHED WITH ADJUSTABLE ANCHORS. VENEER ANCHORED TO WOOD STUDS TO BE ATTACHED WITH MINIMUM 22 GA. CORRUGATED SHEET METAL. ANCHOR SPACING TO BE SPACED AT MAXIMUM 32" HORIZONTALLY & 18" VERTICALLY WITH A MAXIMUM WALL SURFACE SUPPORTED OF 2.67 SQ. FT.

B. AROUND OPENINGS LARGER THAN 16" IN EITHER DIMENSION, SPACE ANCHORS AROUND PERIMETER OF OPENING AT A MAXIMUM OF 3 FT. ON CENTER & PLACE ANCHORS WITHIN 12" OF OPENING. C. WHEN MASONRY VENEER IS ANCHORED TO WOOD BACKING, ANCHOR TO BE ATTACHED WITH A CORROSION RESISTANT 8d COMMON NAIL, OR A FASTENER EQUIVALENT OR GREATER PULL-OUT VALUE. WHEN VENEER IS ANCHORED TO STEEL BACKING, ATTACHED WITH CORROSION-RESISTANT SCREW THAT HAS A

MINIMUM NOMINAL SHANK DIAMETER OF 0.19". D. ALL WALL TIES, ANCHORS, AND CONNECTORS TO CONFORM WITH NCMA TEK MANUALS 3-6B AND 14. TEMPORARY CONSTRUCTION BRACING OF FREESTANDING WALLS IS THE RESPONSIBILITY OF THE SUB-

CONTRACTOR. PROCEDURES OUTLINED IN NCMA TEK MANUAL 3-4B TO BE FOLLOWED.

### **METALS**

PROVIDE MISCELLANEOUS METAL ITEMS INCLUDING MATERIALS, FABRICATIONS, FASTENINGS AND ACCESSORIES REQUIRED FOR FINISHED INSTALLATION AS INDICATED AND SPECIFIED. WHERE METAL ITEMS ARE TO BE ERECTED AND IN CONTACT WITH DISSIMILAR MATERIALS. PROVIDE CONTACT SURFACES WITH COATING OF AN IMPROVED ZINC CHROMATE PRIMER IN A MANNER TO OBTAIN NOT LESS THAN 1.0 MIL DRY FILM THICKNESS.

ALUMINUM EXTRUSIONS SHALL CONFORM TO ASTM B221. PROVIDE A CLEAR ANODIZED FINISH UNLESS OTHERWISE NOTED.

FASTENERS SHALL BE AS REQUIRED FOR PROPER ASSEMBLY AND INSTALLATION OF FABRICATED ITEMS. MISCELLANEOUS MATERIALS: PROVIDE INCIDENTAL ACCESSORY MATERIALS, TOOLS, METHODS AND EQUIPMENT REQUIRED FOR FABRICATION AND INSTALLATION OF MISCELLANEOUS MATERIAL ITEMS AS INDICATED ON DRAWINGS. VERIFY DIMENSIONS PRIOR TO FABRICATION OR CASTING. FORM METAL ITEMS TO ACCURATE SIZES AND CONFIGURATIONS AS INDICATED ON DRAWINGS AND OTHERWISE REQUIRED FOR PROPER INSTALLATION. FABRICATE WITH ALL LINES STRAIGHT AND ANGLES SHARP, CLEAN AND TRUE. DRILL, COUNTERSINK, TAP AND OTHERWISE PREPARE ITEMS FOR CONNECTION WITH WORK OF OTHER TRADES MAKE PERMANENT CONNECTIONS BY WELDING AND GRIND ALL EXPOSED WELDS SMOOTH TO MATCH ADJACENT SURFACES. ROUGH JOINT SURFACES NOT PERMITTED. AVOID USING BOLTS AND SCREWS UNLESS SPECIFICALLY INDICATED OR APPROVED. WHEN USED, DRAW UP TIGHT AND TIE THREADS TO PREVENT LOOSENING.

ALL FERROUS METAL ITEMS SHALL BE SHOP FINISHED. TOUCH UP OR REPAIR DAMAGED AREAS PRIOR TO INSTALLATION WITH SAME MATERIAL

PROVIDE ALL STEEL BLOCKING AND BRACING IN METAL STUD FRAMED PARTITIONS NECESSARY FOR A COMPLETE INSTALLATION INCLUDE AS REQUIRED FOR SUPPORT OF ALL WALL-MOUNTED EQUIPMENT AND FABRICATIONS AS INDICATED ON DRAWINGS. PROVIDE SUPPORTS AT JAMBS OF DOORS AND ELSEWHERE, AS REQUIRED. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS AND SPECIFICATIONS.

### **METALS: STRUCTURAL STEEL**

DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL MEMBERS SHALL BE GOVERNED BY THE CURRENT EDITION OF AISC 'MANUAL OF STEEL CONSTRUCTION'. ALL WELDERS TO BE CERTIFIED. ALL WELDING TO CONFORM TO AWS D1.1 LATEST EDITION USING E70-XX

BOLTED CONNECTIONS TO BE DOUBLE ANGLE WITH 3/4" DIAMETER ASTM A-325 BOLTS UNLESS SHOWN OTHERWISE. USE 3/4" DIAMETER A-325 BOLTS FOR SINGLE SHEAR, WING PLATE CONNECTIONS. PROVIDE MAXIMUM NUMBER OF BOLTS IN A SINGLE LINE WITH 3" GAGE. PROVIDE WASHERS FOR ALL ANCHOR BOLTS

PROVIDE AND MAINTAIN TEMPORARY BRACING OF STEEL UNTIL SECURELY INCORPORATED INTO CONSTRUCTION SUCH AS SHEAR WALLS, X-BRACING, ETC. STEEL COLUMNS BUILT IN MASONRY SHALL HAVE ADJUSTABLE MASONRY WALL ANCHORS AT 2'-0" ON

CENTER VERTICALLY EACH SIDE, LOCATED IN COURSING WIDE FLANGE BEAMS 12" OR DEEPER SHALL HAVE 1/4" STIFFENER PLATE EACH SIDE AT ALL POINTS OF SUPPORT INCLUDING BEARING ENDS ON CONCRETE OR MASONRY, PROVIDE 5/8" BEARING PLATES WITH (2) 3/4"

7. UNLESS NOTED OTHERWISE, FRAME AROUND ALL ROOF DECK OPENINGS LARGER THAN 12" IN DIAMETER, INCLUDING ROOF DRAINS/SUMPS, WITH 4-L's 3" x 3" x 1/4" DOWN TURNED.

ANCHOR BOLTS 12" LONG WITH 3" HOOKS UNLESS OTHERWISE INDICATED ON STRUCTURAL DWGS..

8. ALL STEEL BEAMS SHALL BE FABRICATED WITH THE NATURAL CAMBER (WITHIN THE MILL TOLERANCE) LOCATED ABOVE THE HORIZONTAL CENTERLINE BETWEEN THE END CONNECTIONS. 9. STAIRS, HANDRAILS, AND GUARDRAILS SHALL BE DESIGNED BY THE STEEL SUPPLIER.

10. SUBCONTRACTOR SHALL SUBMIT FIVE SETS OF STEEL SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION. SHOP DRAWINGS MUST BE SUBMITTED TO BRIOHN DESIGN GROUP A MINIMUM OF SEVEN WORKING DAYS PRIOR TO FABRICATION DATE NEEDED FOR PROJECT SCHEDULING. 11. ROOF SLOPE TO BE 1/4" PER FOOT UNLESS OTHERWISE NOTED ON CONSTRUCTION DOCUMENTS. ROOF SLOPE IS GENERALLY TO BE ACHIEVED BY SLOPING THE STRUCTURE UNLESS THICKENED OR TAPERED INSULATION IS NOTED ON THE ROOF PLAN. ROOF SLOPE MAY BE 1/8" PER FOOT IF PONDING ANALYSIS IS PERFORMED PROVING STABILITY OF THE ROOF STRUCTURE AGAINST PROGRESSIVE DEFLECTIONS. SEE ASCE 7-05 SECTIONS 7.11 & 8.4. IF DIFFERENCE IN HEIGHT BETWEEN ROOF DRAINS AND HIGH POINT IN ROOF IS GREATER THAN 6", PLUMBING CONTRACTOR TO PROVIDE OVERFLOW DRAINS @ EACH DRAINAGE FIELD ON THE ROOF.

### **METALS: DECK**

1. DECK, ACCESSORIES, AND ATTACHMENTS SHALL CONFORM WITH THE CURRENT EDITION OF 'STEEL DECK INSTITUTE SPECIFICATIONS'. PROVIDE SUPPORT AT COLUMNS AS REQUIRED FOR DECK SUPPORT. PROVIDE L2" x 2" X 3/16" AT OPENINGS IN DECK LESS THAN 12" x 12", PROVIDE A 16 GAUGE COVER PLATE FASTENED TO DECK WITH #12 TEK SCREWS 4. AT CHANGE IN DECK DIRECTION, PROVIDE A 22 GAUGE x 12" CONTINUOUS PLATE. PROVIDE SAME PLATE AT ALL RIDGES, VALLEYS AND HIPS BENT TO MATCH PROFILE OF ROOF.

### METALS: STEEL JOISTS & JOIST GIRDERS

1. DESIGN, FABRICATION, AND ERECTION SHALL CONFORM TO THE CURRENT EDITION OF 'STEEL JOIST INSTITUTE

SPECIFICATIONS'. JOIST MANUFACTURER SHALL BE A MEMBER OF THE SJI (STEEL JOIST INSTITUTE). SUBCONTRACTOR SHALL SUBMIT FIVE SETS OF STEEL JOIST SHOP DRAWINGS TO BRIOHN DESIGN GROUP FOR APPROVAL PRIOR TO FABRICATION. SHOP DRAWINGS MUST BE SUBMITTED TO BRIOHN DESIGN GROUP A MINIMUM OF

SEVEN WORKING DAYS PRIOR TO FABRICATION DATE NEEDED FOR PROJECT SCHEDULING 4. PROVIDE SJI STANDARD BRIDGING AS SHOWN ON THE CONSTRUCTION DOCUMENTS OR AS REQUIRED BY DO NOT DRILL OR CUT THROUGH ANY JOIST OR GIRDER.

ALL CONCENTRATED LOADS SHALL BE APPLIED AT A JOIST PANEL POINT UNLESS SPECIFICALLY NOTED OTHERWISE. JOIST MANUFACTURER SHALL DESIGN JOISTS FOR ROOF TOP UNIT LOADS AND SUSPENDED UNIT OR BULKHEAD LOADS SHOWN ON CONSTRUCTION DOCUMENTS. COORDINATE EXACT LOCATION OF APPLIED LOAD WITH

DESIGN JOIST, JOIST GIRDERS AND BRIDGING TO RESIST A NET UPLIFT LOAD OF 5 PSF UNLESS OTHERWISE NOTED. PROVIDE CAMBER IN JOIST AS RECOMMENDED BY SJI SPECIFICATIONS UNLESS OTHERWISE NOTED ON CONSTRUCTION DOCUMENTS.

10. JOIST SUPPLIER SHALL COORDINATE WORK WITH THE STEEL SUPPLIER ON THE PROJECT. 11. DESIGN JOISTS AND JOIST GIRDERS FOR L/240 LIVE LOAD DEFLECTION UNLESS NOTED OTHERWISE.

### METALS: COLD-FORMED STEEL FRAMING

DESIGN, FABRICATION AND ERECTION OF COLD-FORMED STEEL FRAMING SHALL BE IN ACCORDANCE WITH THE AISI DESIGN MANUAL AS AMENDED TO DATE. ALL FRAMING MEMBERS SHOWN ON PLANS ARE SCHEMATIC AND ARE SHOWN FOR INTENT ONLY. (ASSUMES THAT THE DESIGN AND CALCULATIONS ARE DONE BY THE SUPPLIER) ALL LIGHT GAUGE FRAMING DESIGN & CALCULATIONS TO BE DONE BY SUPPLIER. THIS INCLUDES BEAMS, HEADERS, STUDS, COLUMNS, ETC. INCLUDING ALL CONNECTIONS TO MASONRY, CONCRETE, STEEL & OTHER LIGHT

3. STEEL STUD CURTAIN WALL AND CONNECTIONS TO BE DESIGNED BY SUPPLIER. (STEEL STUD CURTAIN WALL and connection design shall be sealed by professional structural engineer experienced in this work)

L/600 FOR BRICK VENEER L/360 FOR WALL STUDS W/ATTACHED DRYWALL

4. MINIMUM DESIGN THICKNESS OF STUDS AND TRACK AT EXTERIOR OF BUILDING VERTICALLY SUPPORTING MASONRY SHALL BE 0,045 INCHES (GAGE: 18). . MINIMUM DESIGN THICKNESS OF STUDS AND TRACK AT EXTERIOR OF BUILDING VERTICALLY NOT SUPPORTING MASONRY SHALL BE 0,045 INCHES (GAGE: 18). 6. LOAD BEARING STUDS VERTICALLY SUPPORTING MASONRY SHALL BE DESIGNED TO CARRY ALL GRAVITY LOADS AND LATERAL FORCES INCLUDING BUT NOT LIMITED TO DEAD LOADS, LIVE LOADS, WIND LOADS, AND AXIAL LOAD BEARING STUDS NOT VERTICALLY SUPPORTING MASONRY SHALL BE DESIGNED TO CARRY ALL GRAVITY LOADS AND LATERAL FORCES INCLUDING BUT NOT LIMITED TO DEAD LOADS, LIVE LOADS, WIND LOADS, AND AXIAL LOAD ECCENTRICITIES. . NON-LOAD BEARING STUDS NOT VERTICALLY SUPPORTING MASONRY SHALL TRANSFER LATERAL LOADS TO

Structure by means of slide clips to allow for vertical movement of primary structural members. SPLICES IN AXIALLY LOADED STUDS ARE NOT PERMITTED. STUDS, TRACK AND ACCESSORIES SHALL BE GALVANIZED WITH A MINIMUM G-90 COATING PER ASTM A-525. STUDS SHALL BE PLUMBED, ALIGNED, AND SECURELY ATTACHED TO FLANGES OR WEBS OF LOWER TRACK. STUDS SHALL BE SEATED TIGHT TO TRACK EXCEPT AS NEEDED FOR DIAGONAL BRACING OR REQUIRED FOR NON-PLUMB WALLS OR WARPED SURFACES AND SIMILAR REQUIREMENTS.

12. JOINTS SHALL BE LOCATED DIRECTLY OVER BEARING STUDS OR A LOAD DISTRIBUTION MEMBER SHALL BE PROVIDED AT THE TOP OF THE WALL. 13. REFER TO ARCHITECTURAL WALL SECTIONS AND DETAILS FOR ADDITIONAL INFO. 14. ALL MEMBERS 0,0566 INCH MINIMUM THICKNESS OR THICKER (16 GAGE OR LOWER) SHALL BE OF MINIMUM

50 KSI STEEL. ALL MEMBERS OF 0,0451 INCH MINIMUM THICKNESS OR THINNER (18 GAGE OR HIGHER) AND ALL ACCESSORIES SHALL BE OF MINIMUM 33 KSI STEEL. 15. STEEL STUD ERECTOR SHALL CONSTRUCT ALL LIGHT GAGE FRAMING IN A MANNER WHICH PROTECTS LATERAL STABILITY OF THE STRUCTURE. 16. ALL WELDS PERFORMED ON GALVANIZED LIGHT GAGE COMPONENTS SHALL BE COATED WITH ZINC RICH PAINT FOR CORROSION PROTECTION IN ACCORDANCE WITH ASTM A780. CONTRACTOR SHALL NOTIFY THE ENGINEER TO ALLOW ADEQUATE TIME FOR WELDS TO BE REVIEWED BEFORE SYSTEMS ARE ENCLOSED. 17. STEEL STUD WALLS SHALL BE DESIGNED AND CONSTRUCTED TO PROVIDE REQUIRED CAPACITIES TO CARRY CONSTRUCTION LOADS. CONTRACTOR SHALL PROVIDE NECESSARY BRIDGING OR ATTACHMENT TO WALL

SHEATHING BEFORE STRUCTURAL COMPONENTS ARE LOADED. 18. INSTALL SUPPLEMENTARY FRAMING, BLOCKING AND BRACING IN METAL FRAMING SYSTEM WHENEVER WALLS OR PARTITIONS ARE INDICATED TO SUPPORT FIXTURES, EQUIPMENT, SERVICES, CASEWORK, HEAVY TRIM AND FURNISHING AND SIMILAR WORK.

### **WOOD AND PLASTICS**

1. PROVIDE AND/OR INSTALL ALL ROUGH CARPENTRY, FINISH CARPENTRY INCLUDING MILLWORK, FINISH HARDWARE, ROUGH HARDWARE, FASTENING DEVICES AND MISCELLANEOUS ACCESSORIES AS MAY BE REQUIRED HEREIN ROUGH CARPENTRY: FURNISH AND INSTALL ALL FRAMING AS MAY BE REQUIRED FOR INTERIOR PARTITION, BAFFLE,

WALLS, SOFFITS, CEILINGS, STOREFRONTS, EXTERIOR WALLS, ETC. AS NOTED AND WHERE SHOWN ON THE DRAWINGS. FINISH CARPENTRY: FURNISH AND INSTALL ALL THAT IS REQUIRED FOR DOORS AND FRAMES, FINISH TRIM AND MOLDING AND PANELING. PERFORM FINISH CARPENTRY WOK IN ACCORDANCE WITH AWI QUALITY STANDARDS, PREMIUM GRADE. USE FULL LENGTH PIECES, MITER ALL JOINTS, SHOULDER JOINT AT DOOR JAMBS. FILL ALL NAIL HOLES AND SAND SMOOTH. PROVIDE ROUGH LUMBER AND PLYWOOD IN STANDARD DIMENSIONS. MOISTURE CONTENT NOT MORE THAN

PROVIDE ALL NECESSARY ROUGH HARDWARE IN SIZES AND QUANTITIES REQUIRED BY LOCAL CODE OR APPROVED BY ARCHITECT. USE FINISH OR CASING NAILS FOR EXPOSED WORK. USE TYPE 'S' TRIM HEAD SCREWS FOR ATTACHMENT OF WOOD TRIM TO METAL STUDS, RUNNERS OR FURRING. RELIEVE BACKS OF WOOD TRIM, KERF BACKS OF MEMBERS MORE THAN 5" WIDE AND 1" NOMINAL THICKNESS

INSTALL LAMINATES ONLY WHEN RECEIVING SURFACES ARE IN SATISFACTORY CONDITION FOR INSTALLATION. USE ADHESIVES RECOMMENDED BY THE MANUFACTURER FOR THE PARTICULAR APPLICATION. INSTALL IN ACCORDANCE WITH MANUFACTURER'S MOST CURRENT PRINTED APPLICATION INSTRUCTIONS. USE LOWEST VOC ADHESIVES AVAILABLE WHICH MEET OR EXCEED THE MANUFACTURERS REQUIREMENTS. 10. PROTECT FROM DAMAGE BY OTHER TRADES WORKING ADJACENT TO THE INSTALLATION. REPLACE DAMAGED

11. REMOVE EXCESS ADHESIVE AND CLEAN SURFACES USING MANUFACTURER'S RECOMMENDED SOLVENT AND 12. FILL IN ALL SEAMS WITH MANUFACTURER'S RECOMMENDED SOLVENT AND CLEANING PROCEDURES. USE LOWEST

13. WOOD PRODUCTS SHALL MEET OR EXCEED THE AMERICAN WOODWORK INSTITUTE STANDARDS. 14. INSTALL WOODS AND PLASTICS IN CONFORMANCE WITH DETAILS AND THE FOLLOWING CONSIDERATIONS AND

VOC CLEANING AGENTS AVAILABLE THAT MEET OR EXCEED THE MANUFACTURER'S REQUIREMENTS.

REQUIREMENTS: INSTALL WOODS AND PLASTICS WITH TIGHT JOINTS.

MITER CASINGS AND MOLDINGS UNLESS OTHERWISE NOTED. ALL RUNNING TRIM ONE (1) PIECE UP TO 10'-0" LONG. MATCH GRAIN AND COLOR PIECE TO PIECE. USE FINISH NAILS EXCEPT WHERE ARE SPECIFICALLY CALLED FOR OR WHERE SCREWS DO NOT SHOW.

SET FASTENERS FOR PUTTYING. WHERE SCREW ATTACHMENT REQUIRED, SPACE SCREWS AT EQUAL INTERVALS. SINK AND PUTTY IN FINISH WOOD SURFACES.

ALL MEMBERS AND LINES LEVEL AND PLUMB. SELECT AND CUT MATERIAL TO EXCLUDE DAMAGED, MARKED OR DEFECTIVE AREAS. FINISH EXPOSED SURFACES SMOOTH, FREE FROM TOOL AND MACHINE MARKS. EASE ALL EXPOSED WOOD EDGES 1/8" MINIMUM RADIUS.

INSTALL FIRE RATED DOORS IN ACCORDANCE WITH REQUIREMENTS OF NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RECOMMENDATIONS. 15. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS AND SPECIFICATIONS.

### **WOOD: LUMBER**

UNLESS OTHERWISE NOTED.

1. LUMBER SHALL BE GRADED AND STAMPED WITH MINIMUM STRUCTURAL DESIGN VALUES AS LISTED BELOW: A. #1/#2 DOUGLAS FUR 850 PSI Fb. 95 PSI Fv.

1600 KSI E (BEAMS, JOISTS, LINTELS & HEADERS, UNLESS OTHERWISE NOTED) B. #1/#2 S.P.F. 875 PSI Fb. 1150 PSI Fv. 1400 KSI E (ALL STUDS & PLATES, UNLESS OTHERWISE NOTED) C. LVL @ 1800 KSI E OR MICRO-LAM @ 1900 KSI E 2600 PSI Fb. 285 PSI Fv (OR AS NOTED ON STRUCTURAL

D. WOOD HEADER AND FRAMING MATERIAL SHALL BE THOROUGHLY SEASONED, F FREE FROM WARP AND FREE OF ALL SPLITS, SHAKES AND CHECKS. MISCELLANEOUS LUMBER: PROVIDE NO. 3 OR STANDARD GRADE LUMBER OF ANY SPECIES FOR SUPPORT OR ATTACHMENT OF OTHER CONSTRUCTION, INCLUDING ROOFTOP EQUIPMENT CURBS AND SUPPORT BASES, CANT STRIPS, BUCKS, NAILERS, BLOCKING AND SIMILAR MEMBERS.

PROTECTION AGAINST DECAY WITH PRESERVATIVE-TREATED WOOD SHALL BE REQUIRED IN THE FOLLOWING AREAS: A. ALL WOOD SILL PLATES, FRAMING AND FURRING STRIPS ATTACHED TO EXTERIOR BELOW GRADE MASONRY

B. ALL WOOD PLATES, BLOCKING, FRAMING AND FURRING STRIPS ATTACHED TO EXTERIOR, SINGLE WYTHE MASONRY WALLS. C. ALL WOOD CAP FLASHING BLOCKING ATTACHED TO MASONRY OR

CONCRETE PARAPETS.

D. ALL WOOD SLEEPERS AND SILL PLATES ON CONCRETE SLABS INDIRECT E. ALL WOOD IN CONTACT WITH GROUND OR EXPOSED TO THE WEATHER. EXCEPTION: WOOD SILL PLATES ON CONCRETE SLABS SEPARATED FROM DIRECT CONTACT TO THE EARTH WITH A 10 MIL POLYETHYLENE VAPOR BARRIER WILL NOT REQUIRE PRESERVATIVE-TREATMENT. FINISHES FOR FASTENERS AND HARDWARE IN CONTACT WITH PRESERVATIVE-TREATED WOOD ARE BASED ON THE

FOLLOWING ASSUMPTIONS: A. ALL INTERIOR TREATED WOOD SHALL USE AN ACQ-C, ACQ-D (CARBONATE), CBA-A OR CA-B TREATMENT WITH RETENTION LEVELS LESS THAN OR EQUAL TO 0.40 PCF, 0.40 PCF, 0.41 PCF AND 0.21 PCF RESPECTIVELY. B. ALL CONNECTION HARDWARE AND FASTENERS IN DIRECT CONTACT WITH INTERIOR TREATED WOOD SHALL BE HOT-DIPPED GALVANIZED, MECHANICALLY GALVANIZED OR STAINLESS STEEL. C. ALL CONNECTION HARDWARE AND FASTENERS IN DIRECT CONTACT WITH EXPOSED EXTERIOR TREATED WOOD

OR UNKNOWN TREATMENTS SHALL BE STAINLESS STEEL. D. USE TAPCON CLIMASEAL FASTENERS TO CONNECT ACQ-TREATED WOOD BLOCKING TO MASONRY OR CONCRETE PARAPETS.

SHOP DRAWINGS FOR PRESERVATIVE-TREATED WOOD, HARDWARE AND FASTENERS: A. THE SUBCONTRACTOR SHALL FURNISH MATERIAL CERTIFICATES FOR ALL P PRESERVATIVE TREATED WOOD TYPES, SPECIFYING THE NAME OF THE TREATING PRESERVATIVE USED, THE LEVEL OF TREATMENT (0.10, 0.25, 0.40, ETC) THE USE (ABOVE GROUND, GROUND CONTACT, ETC.) AND A REFERENCE TO THE AWPA STANDARD. B. THE SUBCONTRACTOR SHALL FURNISH MATERIAL, DATA SHEETS FOR HARDWARE FASTENERS IN CONTACT WITH PRESERVATIVE-TREATED WOOD.

PLACE 2" THICK NOMINAL FIRE-BLOCKING IN STUD WALLS AT CEILING, SOFFIT, FLOOR LEVELS AND AT EACH 10'-0" JOISTS SHALL BE BLOCKED AT SUPPORTS AND BRIDGED OR BLOCKED AT INTERVALS OF 8'-0" WHERE JOISTS ARE 2' x 12" OR DEEPER JOISTS UNDER NON-BEARING PARTITIONS SHALL BE DOUBLED AND TRIPLED FOR BEARING PARTITIONS ABOVE,

COMMON NAILS SHALL BE USED, UNLESS OTHERWISE NOTED. LAG BOLTS AND SCREWS SHALL BE PRE-DRILLED TO SHANK DIAMETER AND FULL DEPTH AND SCREWED, NOT DRIVEN

CUT WASHERS SHALL BE PLACED UNDER HEADS AND NUTS OF ALL BOLTS AND UNDER HEADS OF LAG BOLTS. ONE CUT WASHER SHALL BE USED FOR BOLTS CONNECTING WOOD LEDGERS TO CONCRETE OR MASONRY WALLS. SEE LUMBER, PLYWOOD AND NAILING SPECIFICATIONS ON STRUCTURAL DRAWINGS. PROVIDE AND INSTALL ALL WOOD FRAMING AS INDICATED ON THE DRAWINGS. 14. METAL CONNECTORS AND FRAMING DEVICES SHOWN ON DRAWINGS OTHER THAN CUSTOM FABRICATED ITEMS SHALL BE "STRONG-TIE" CONNECTORS BY SIMPSON COMPANY

CAULK AROUND ALL WINDOWS (HEAD AND JAMB), DOORS, VENT, OPENINGS, WHERE DIFFERENT MATERIALS MEET,

PROVIDE NON-SAG SEALANT COMPLYING WITH REQUIREMENTS OF FEDERAL SPECIFICATIONS TTS-1543 OR FS TT-S-230

roof openings, eaves, soffits, joints, countertops, door frames, etc. as required for watertight and

AIRTIGHT CONNECTION. PROVIDE CAULK PER MANUFACTURERS RECOMMENDATIONS. CAULK TO BE 'TREMCO DYMERIC

240 FC' FOR FOOD PROCESSING FACULTIES OR FOOD PRE/FOOD STORAGE AREAS. CAULK TO BE INSTALLED AFTER FINISH IS

TYPE "II", CLASS "A". PROVIDE ACOUSTICAL SEALANT WHICH SHALL BE NON-HARDENING, NONDRYING SYNTHETIC RUBBER

AROUND DOOR AND WINDOW FRAMES PRIMER SHALL BE MADE OR RECOMMENDED B SEALANT MANUFACTURER FOR THE

SPECIFIC CONDITIONS AND SUBSTRATES. USE LOWEST VOC SEALANTS AND CAULKING AVAILABLE WHICH MEET OR EXCEED

3. PROVIDE BACKING MATERIAL BY DOW 'ETHAFOAM' OR APPROVED EQUAL. APPLY SEALANT OVER BACKING TO

UNIFORM THICKNESS IN CONTINUOUS BEADS FILLING ALL JOINTS AND VOIDS, SOLID. SUPERFICIAL POINTING WITH SKIM

INSTRUCTIONS PRIOR TO INSTALLATION. USE LOWEST VOC CLEANING AGENTS AVAILABLE THAT MEET OR EXCEED THE

6. WIND RESISTANCE OF EDGE FLASHING SHALL MEET OR EXCEED THE MINIMUM STANDARDS PER THE CODE AND

PROVIDE PRIMED HOLLOW METAL GALVANIZED FRAMES FOR EXTERIOR DOOR FRAMES. PROVIDE PRIMED

PROVIDE DOORS OF SIZES AND TYPES INDICATED ON DRAWINGS, FULLY WELDED SEAMLESS CONSTRUCTION

HOLLOW METAL FRAMES FOR INTERIOR DOORS. WHERE WEATHERSTRIPPING IS IDENTIFIED ON THE DOOR SCHEDULE

WITH NO VISIBLE SEAMS OR JOINTS ON FACES OR VERTICAL EDGES. THICKNESS AS SCHEDULED ON DRAWINGS.

AND MATERIALS. PROVIDE IN ACCORDANCE WITH BEST TRADE PRACTICE AND MANUFACTURER'S WRITTEN

A SECURE INSTALLATION AND SHALL BE IN ACCORDANCE WITH TRADE REQUIREMENTS FOR THE SPECIFIED

4. FACE STIFFENERS, EDGES AND HARDWARE REINFORCEMENT SHALL BE THE HIGHEST QUALITY WORKMANSHIP

PROVIDE CUSTOM MADE WELDED UNITS WITH INTEGRAL TRIM. SIZES AND SHAPES AS INDICATED ON

HARDWARE REINFORCEMENT AND ANCHORS (ERECTION, FLOOR, AND JAMBS) SHALL BE AS REQUIRED FOR

INSTALL FRAMES IN ACCURATE LOCATIONS AS INDICATED ON DRAWINGS. INSTALL RIGID, PLUMB, LEVEL

AND TRUE. ALIGN WITH ADJACENT CONSTRUCTION. SECURE FLOOR ANCHORS TO FLOOR CONSTRUCTION WITH

APPROVED TYPE MECHANICAL FASTENINGS. ANCHOR TO ADJOINING WALLS WITH SPECIFIED ANCHORS. BRACE

FRAMES TO RETAIN POSITION AND CONTINUOUSLY CHECK ALIGNMENT DURING CONSTRUCTION OF ADJACENT

WALLS. ADJUST FRAME LOCATIONS AS NECESSARY USING SHIMS BEFORE FASTENING. LEAVE READY TO RECEIVE

SEALANT WHERE INDICATED ON DRAWINGS. ADJUST AND CHECK OPERATION OF EVERY UNIT. REPAIR OR REPLACE

INSTALL WOOD DOORS, FRAMES AND TRIM. SIZES AND THICKNESS AS SCHEDULED ON DRAWINGS.

TOPS AND 3/8" CLEARANCE AT BOTTOM, UNLESS SPECIFICALLY NOTED FOR 'UNDERCUTS' OR OTHER DEVIATIONS IN

FIT. MAKE NO JOB SITE FIT IN CUTS UNLESS APPROVED. HANG PAIRS OF DOORS AS SPECIFIED WITH 3/32"

PROVIDE ACCESS DOORS AS REQUIRED FOR SPECIFIED RATING. SIZE AS INDICATED.

CLEARANCE AT MEETING EDGES. DEMONSTRATE THAT DOORS OPEN FREELY WITHOUT BINDING, AND WHEN

TO ANCHOR THE HARDWARE IN POSITION FOR LONG LIFE UNDER HARD USE. FURNISH ITEMS COMPLETE WITH

EXPANSION SHIELDS, TOGGLE BOLTS AND OTHER ANCHORS IN ACCORDANCE WITH THE MATERIAL TO WHICH THE

HARDWARE IS TO BE APPLIED TO AND THE RECOMMENDATIONS OF THE HARDWARE MANUFACTURER. FASTENER

HANG DOORS AS SCHEDULED ON DRAWINGS, IN ACCURATE LOCATIONS WITH 1/8" CLEARANCE AT THE

PROVIDE ALL DOORS PER DOOR AND FRAME AND HARDWARE SCHEDULES. INSTALLATION TO COMPLY

PROVIDE ALL HARDWARE WITH ALL NECESSARY SCREWS AND OTHER FASTENERS OF SUITABLE SIZE AND TYPE

COORDINATE WITH OTHER TRADES TO ASSURE PROPER AND ADEQUATE PROVISION IN THE WORK OF THOSE

PROVIDE 'CURRISEAL' TYPE WEATHER STRIPPING FOR EXTERIOR AND INTERIOR APPLICATIONS.

A. MINIMUM 18 GA. FOR FACE SHEETS OF INTERIOR DOORS.

PROVIDE HOLLOW METAL EXIT DOOR CONSTRUCTED WITH THE FOLLOWING MATERIALS:

4. ALL SURFACES SHALL BE ADEQUATELY CLEANED AND PREPARED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN

5. ISOLATION AND CONTROL JOINT MATERIAL TO BE POLYETHYLENE FOAM EXPANSION ISOLATION JOINT FILLER OF 1/2"

THICKNESS UNLESS OTHERWISE INDICATED. THE MINIMUM DEPTH OF ISOLATION JOINT MATERIAL TO BE EQUAL TO THE SMALL

REFER TO ROOF PLAN FOR ADDITIONAL REQUIREMENTS AND SPECIFICATIONS FOR ROOFING MATERIALS AS THEY

SEALING COMPOUND WITH MINIMUM 90% SOLIDS. USE AT ALL INTERIOR JOINTS AT INTERSECTIONS BETWEEN PLANES.

THERMAL AND MOISTURE PROTECTION

APPLIED TO SURFACES PER MANUFACTURE'S RECOMMENDATIONS.

OF THE CONCRETE SLAB THICKNESS WITH WHICH IT COMES IN CONTACT.

SATISFY THE ANSI AND SPRI REFERENCED STANDARDS INCLUDING TESTING.

THE CODE AND MANUFACTURES REQUIREMENTS.

PERTAIN TO THERMAL AND MOISTURE PROTECTION.

**DOORS AND WINDOWS** 

C. MINIMUM 22 GA. FOR FACE STIFFENERS

D. MINIMUM 16 GA. FOR INTERIOR FRAMES.

REQUIREMENTS AND RECOMMENDATIONS FOR THE USE INTENDED.

DRAWINGS. FABRICATE UNITS SQUARE, TRUE AND FREE FROM DEFECTS.

UNITS WHICH CANNOT BE ADJUSTED TO OPERATE FREELY AND SMOOTHLY.

B. 16 GA. FOR EDGE CHANNELS.

HARDWARE AND INTENDED USE.

CLOSED, WILL LATCH PROPERLY.

WITH MANUFACTURER'S INSTRUCTIONS.

FINISH SHALL HARMONIZE WITH THE HARDWARE MATERIAL.

TRADES FOR INTERFACE WITH THE WORK OF THIS SECTION.

BEAD WILL NOT BE ACCEPTED.

### **FINISHES**

1. GENERAL FINISH REQUIREMENTS: A. PROVIDE AND INSTALL ALL FINISHES AS INDICATED ON PLANS. B. INSTALL ALL MATERIALS PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS. C. 'FINISH' INSTALLER INSPECT SUBSURFACE AND PREPARE AS PER REQUIREMENTS, RECOMMENDATIONS, AND SPECIFICATIONS PRIOR TO D. ALL FINISHES TO MEET ALL CODE REQUIREMENTS AND REGULATIONS

FLAME SPREAD AND SMOKE DEVELOPMENT.

### **SPECIALTIES**

NOT USED.

### **EQUIPMENT**

NOT USED.

### **FURNISHINGS**

NOT USED.

### SPECIAL CONSTRUCTION

NOT USED.

### **CONVEYING SYSTEMS**

NOT USED.

NOT USED.

NOT USED.

### **MECHANICAL**

**ELECTRICAL** 

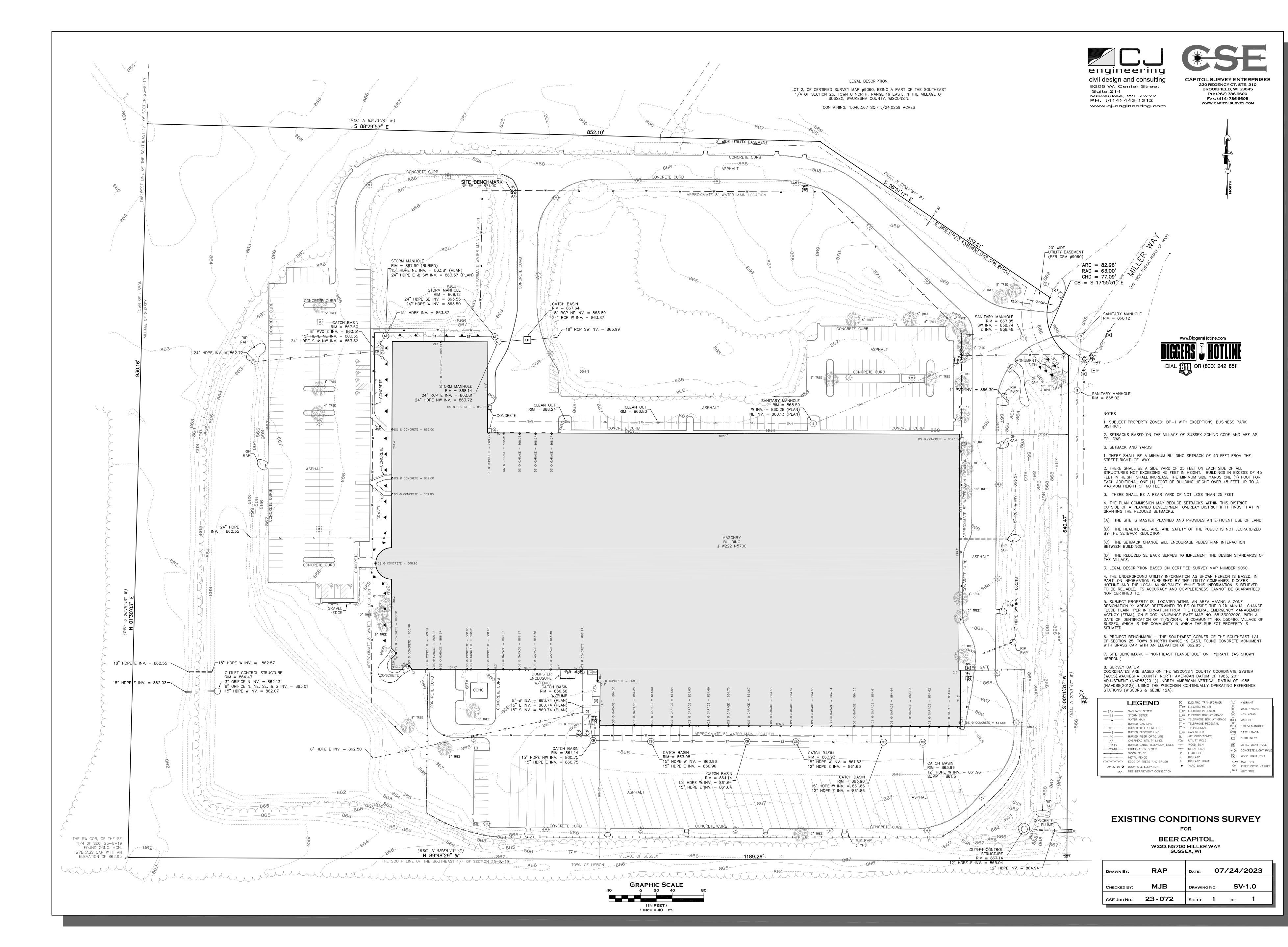
# BRIOHN 3885 N BROOKFIELD ROAD. SUITE 200 BROOKFIELD WISCONSIN 53045-1950 (262) 790-0500 PHONE

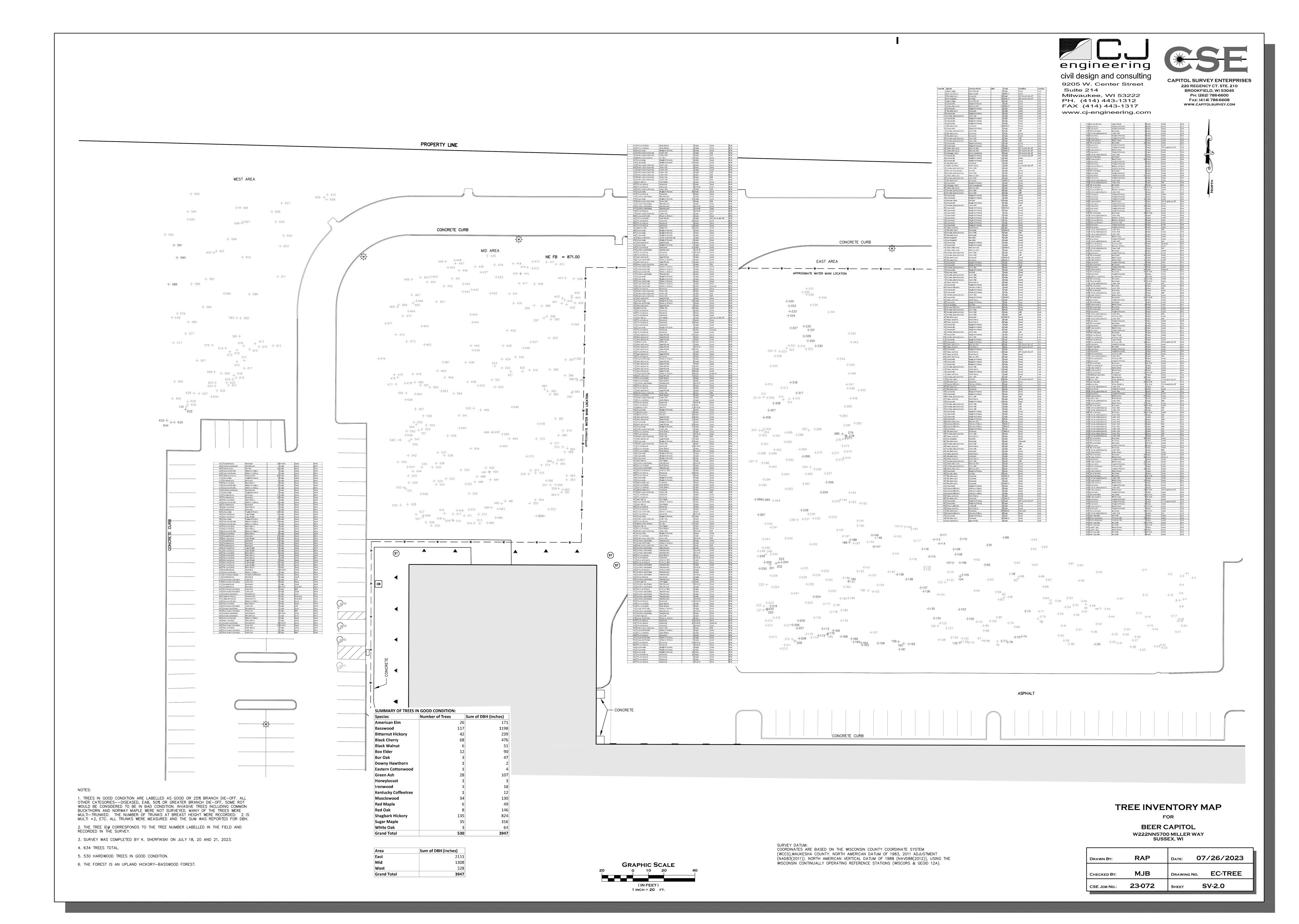
(262) 790-0505 FAX

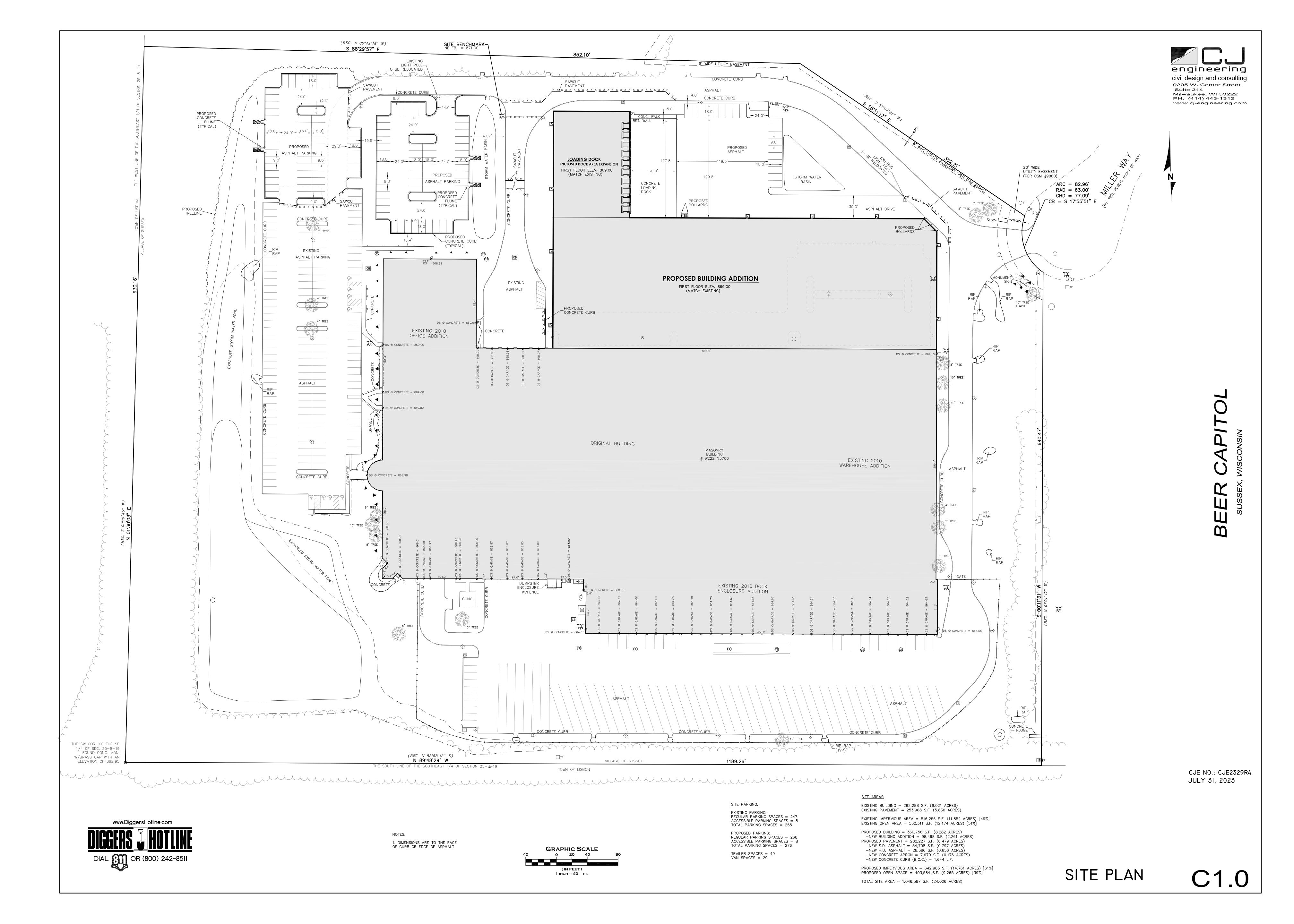
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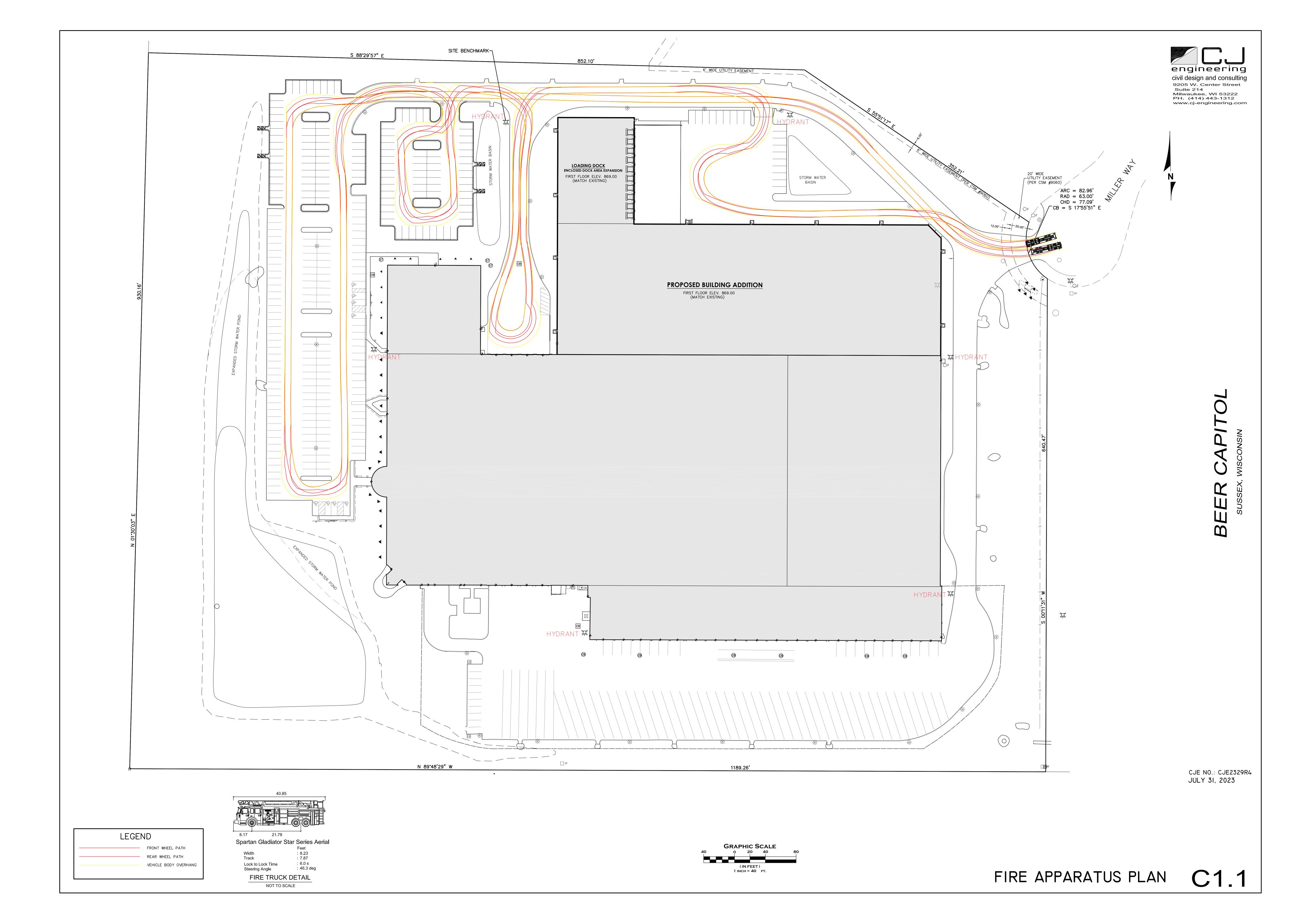
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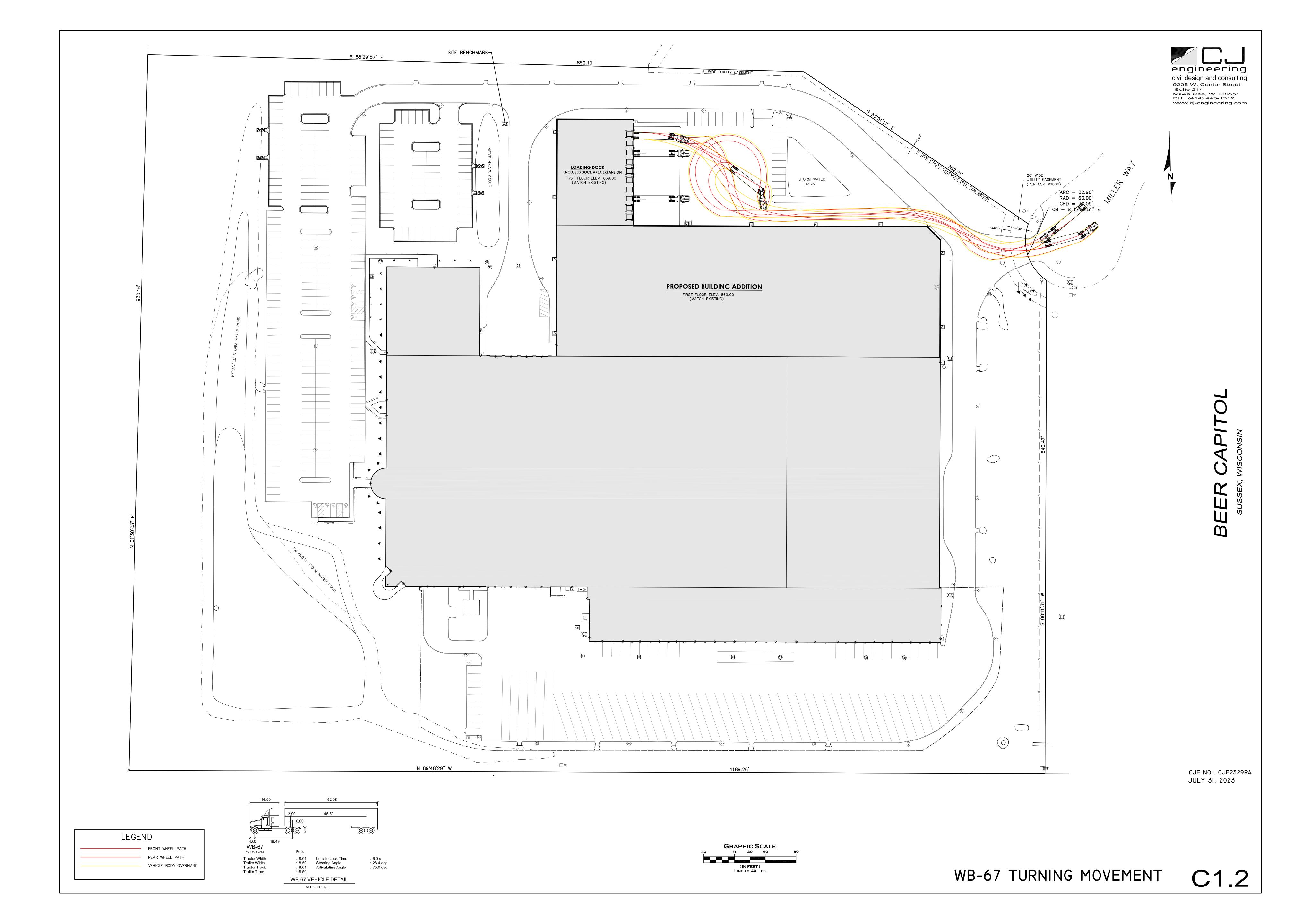
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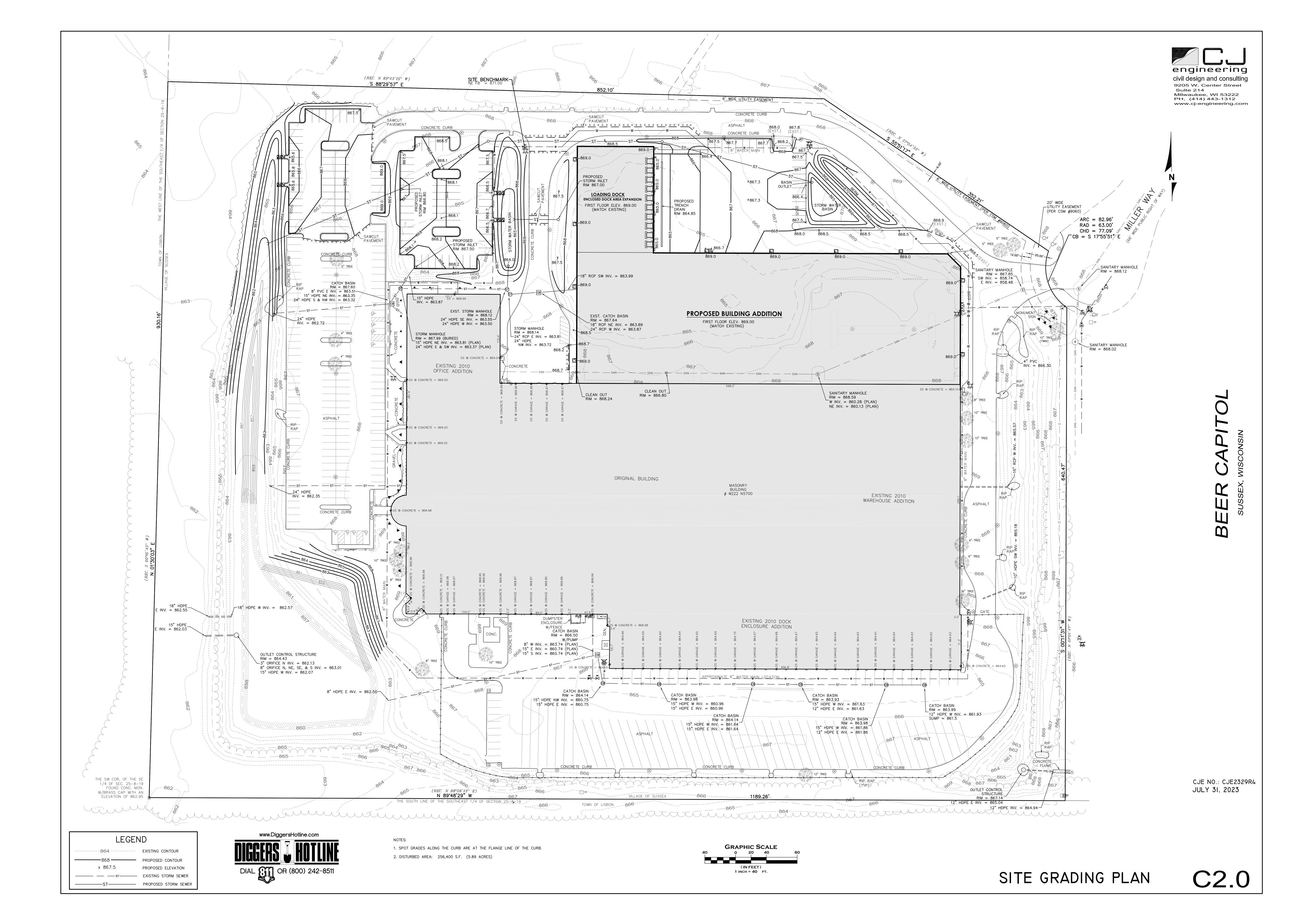


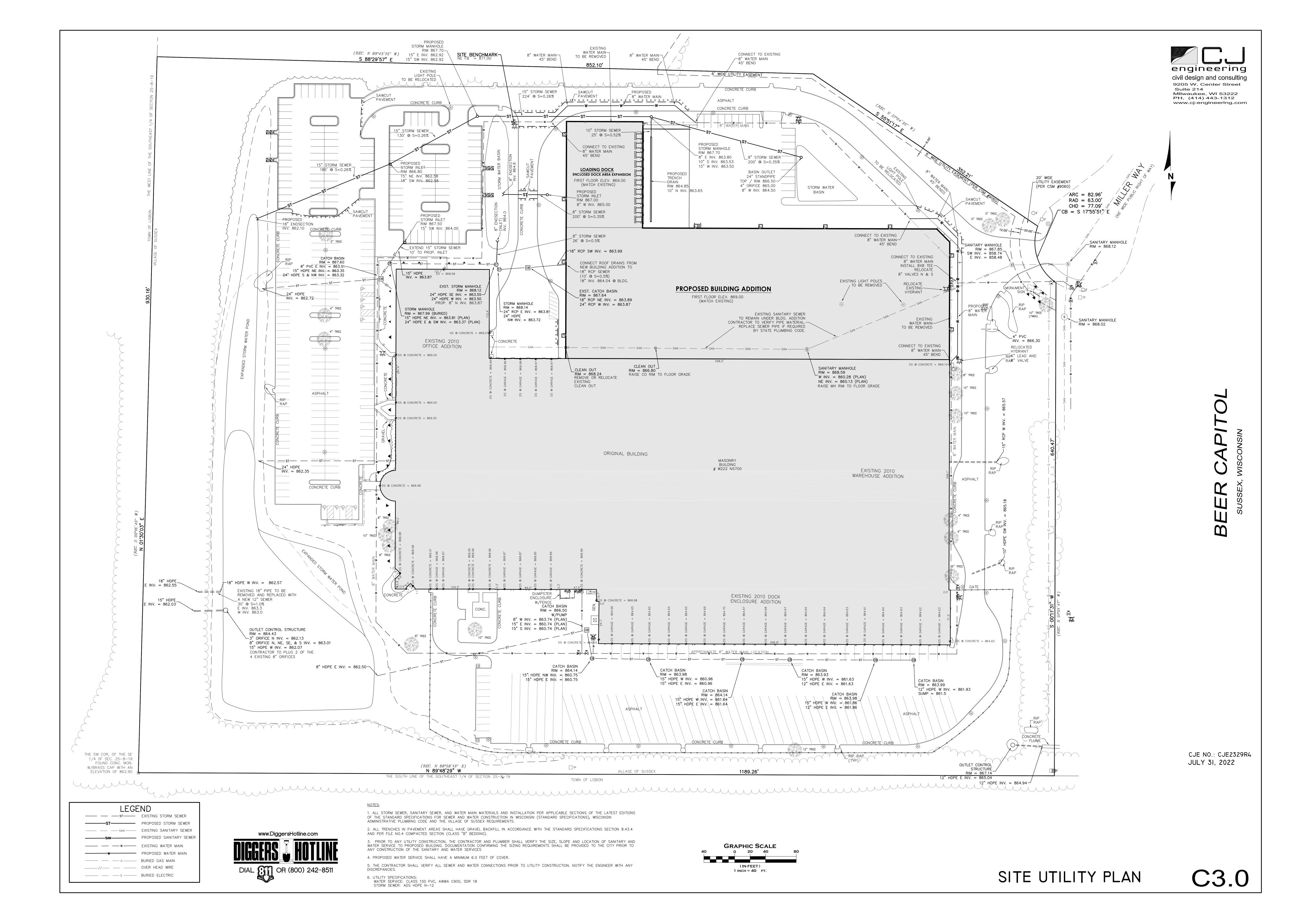


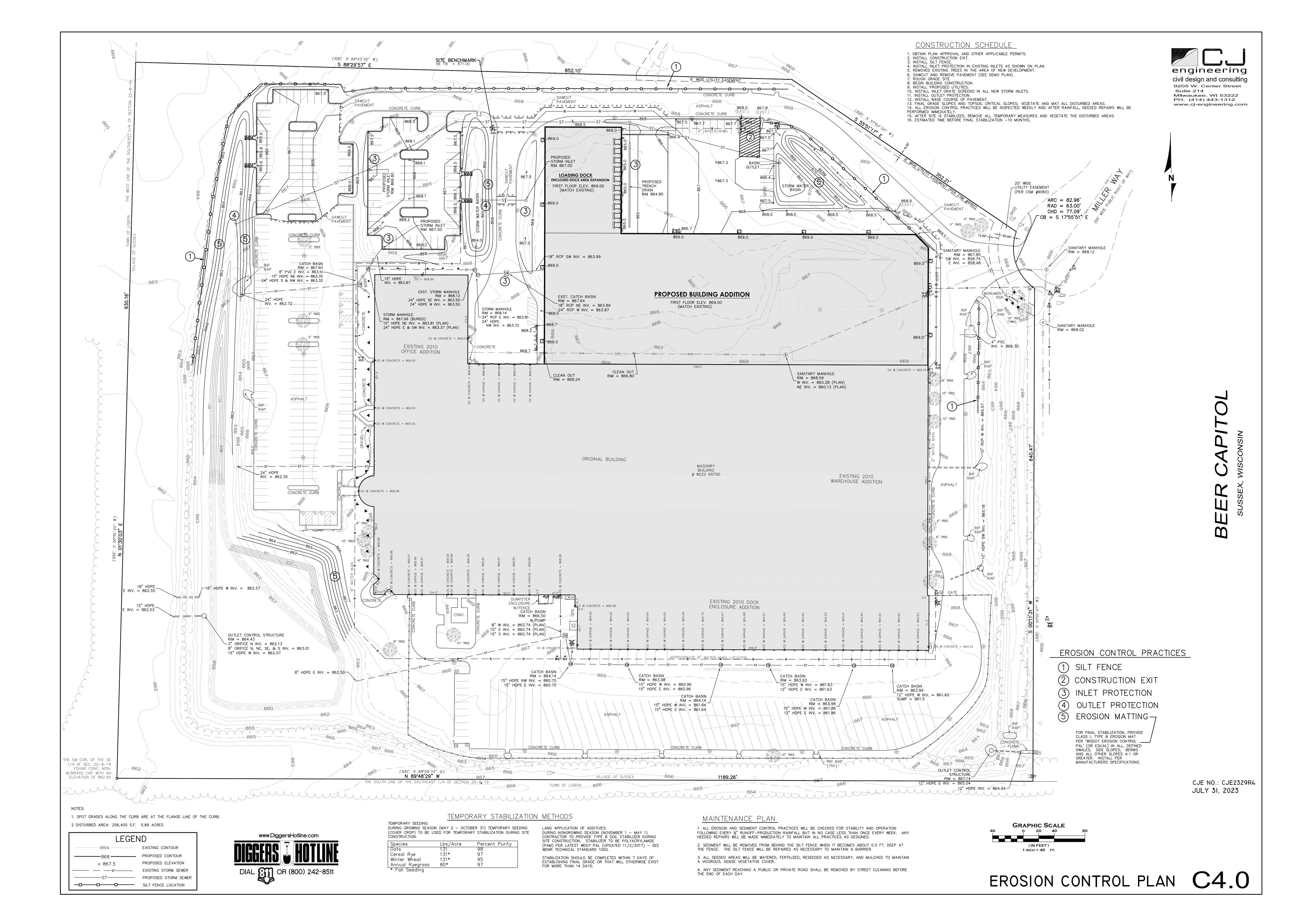




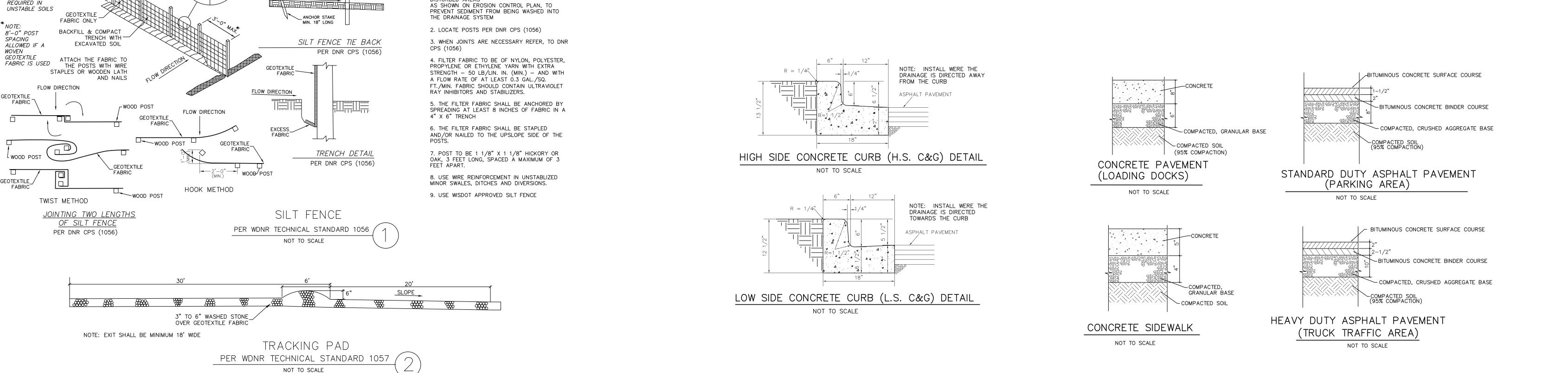


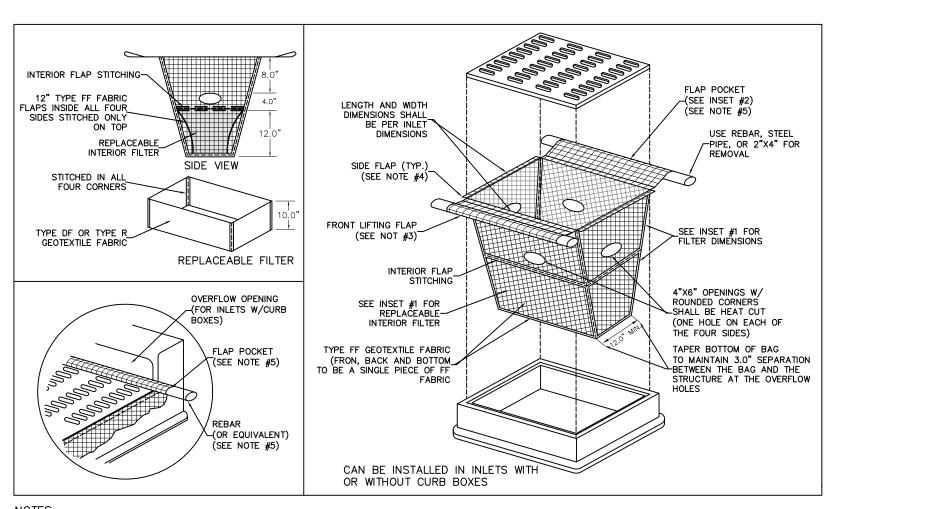












TIEBACK BETWEEN FENCE POST AND ANCHOR

SILT FENCE-

FLOW DIRECTION

CONSTRUCTION

PER DNR CPS (1056)

DISTURBED AREAS

SPECIFICATIONS

1. CONSTRUCTION SILT FENCE AROUND THE

´5" MAX.¯

GEOTEXTILE

WOOD POST

IN GROUND

LENGTH 3'-4' 20" DEPTH

NOTE: ADDITIONAL POST

BACKS MAY BE

UNSTABLE SOILS

REQUIRED IN

8'-0" POST

GEOTEXTILE

ALLOWED IF A

SPACING

WOVEN

GEOTEXTILE

L WOOD POST

GEOTEXTILE\_/

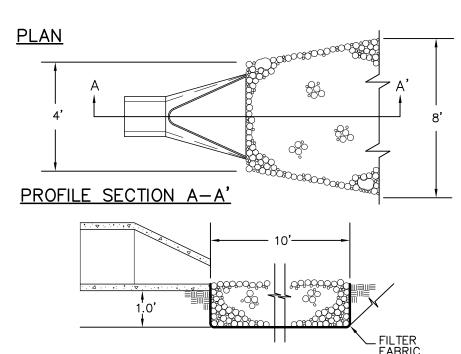
DEPTH OR THE TIE

1. TAPER BOTTOM OF BAG TO MAINTAIN THREE INCHES OF CLEARANCE BETWEEN THE BAG AND THE STRUCTURE, MEASURED FROM THE BOTTOM OF THE OVERFLOW OPENINGS TO GHT STRUCTURE WALL.

2. GEOTEXTILE FABRIC TYPE FF FOR FLAPS, TOP AND BOTTOM OF OUTSIDE OF FILTER BAG. FRONT, BACK AND BOTTOM OF FILTER BAG BEING ONE 3. FRONT LIFTING FLAP IS TO BE USED WEN REMOVING AND MAINTAINING FILTER BAG.
4. SIDE FLAPS SHALL BE A MAXIMUM OF TWO INCHES LONG. FOLD THE FABRIC OVER AND REINFORCE WITH MULTIPLE STITCHES.
5. FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2"X4". THE REBAR, STEEL PIPE, OR WOOD SHALL BE INSTALLED IN THE REAR FLAP AND SHALL NOT BLOCK THE TOP HALF OF THE CURB FACE OPENING.

MAINTENANCE NOTES: 1. WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED IN THE FABRIC DOES NOT FALL INTO THE STRUCTURE. MATERIAL THAT HAS FALLEN INTO THE INLET SHALL BE IMMEDIATELY REMOVED.





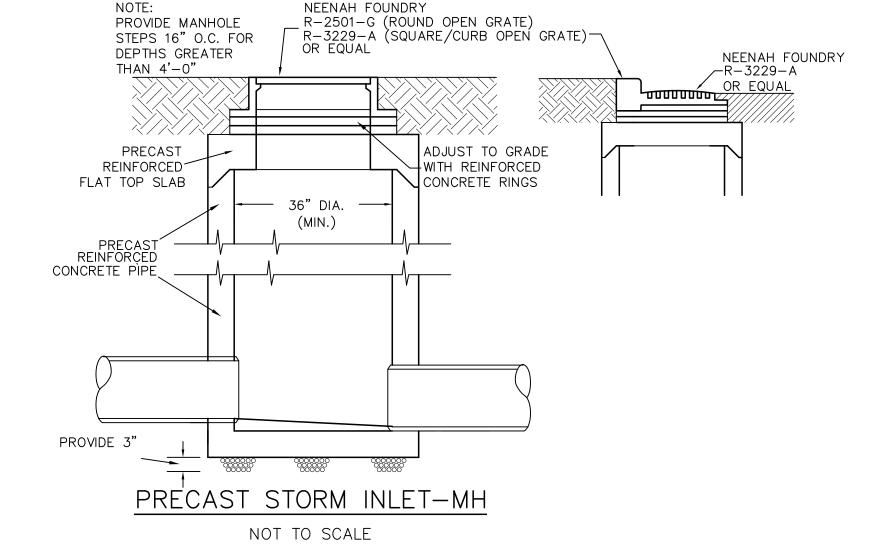
### **CONSTRUCTION SPECIFICATIONS**

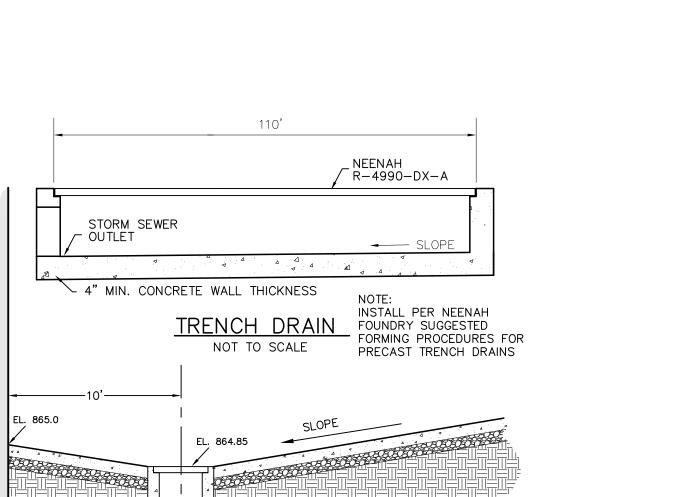
1. EXCAVATE BELOW CHANNEL OUTLET AND WIDEN CHANNEL TO THE REQUIRED RIP RAP THICKNESS FOR EACH APRON. FOUNDATION TO BE CUT TO ZERO GRADE AND SMOOTHED. 2. PLACE FILTER CLOTH ON BOTTOM AND SIDES OF PREPARED FOUNDATION. ALL JOINTS TO OVERLAP A MINIMUM OF 1.0'.

3. EXERCISE CARE IN RIP RAP PLACEMENT TO AVOID DAMAGE TO FILTER FABRIC. 4. PLACE RIP RAP ON ZERO GRADE - TOP OF RIP RAP TO BE LEVEL WITH EXISTING OUTLET -NO OVERFALL AT ENDS.

6. IMMEDIATELY AFTER CONSTRUCTION, STABILIZE ALL DISTURBED AREAS WITH VEGETATION. OUTLET PROTECTION FOR ENDSECTION NOT TO SCALE

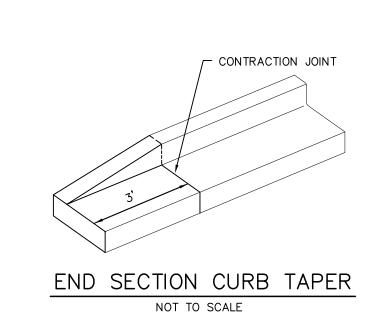
5. RIP RAP TO BE HARD, ANGULAR, WELL GRADE STONE OF 5" TO 8" DIA.

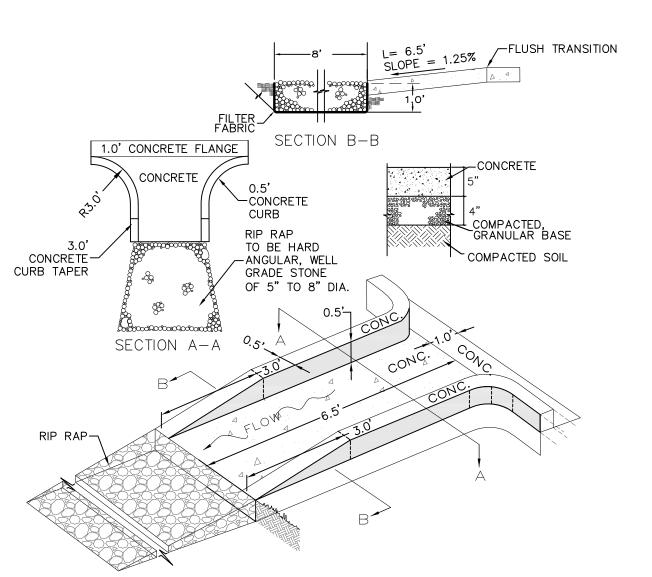




LOADING DOCK DETAIL

' LPROPOSED TRENCH DRAIN

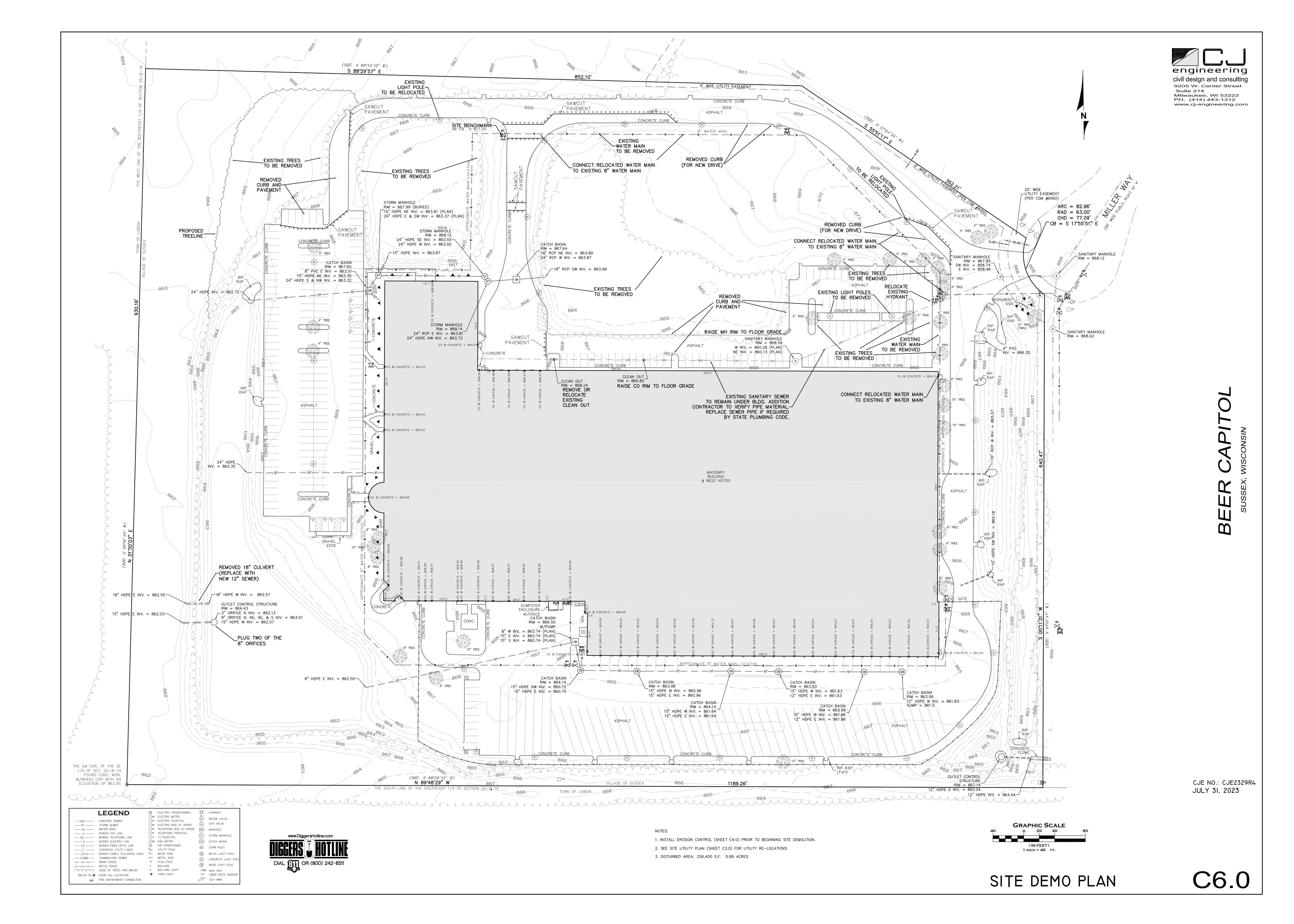


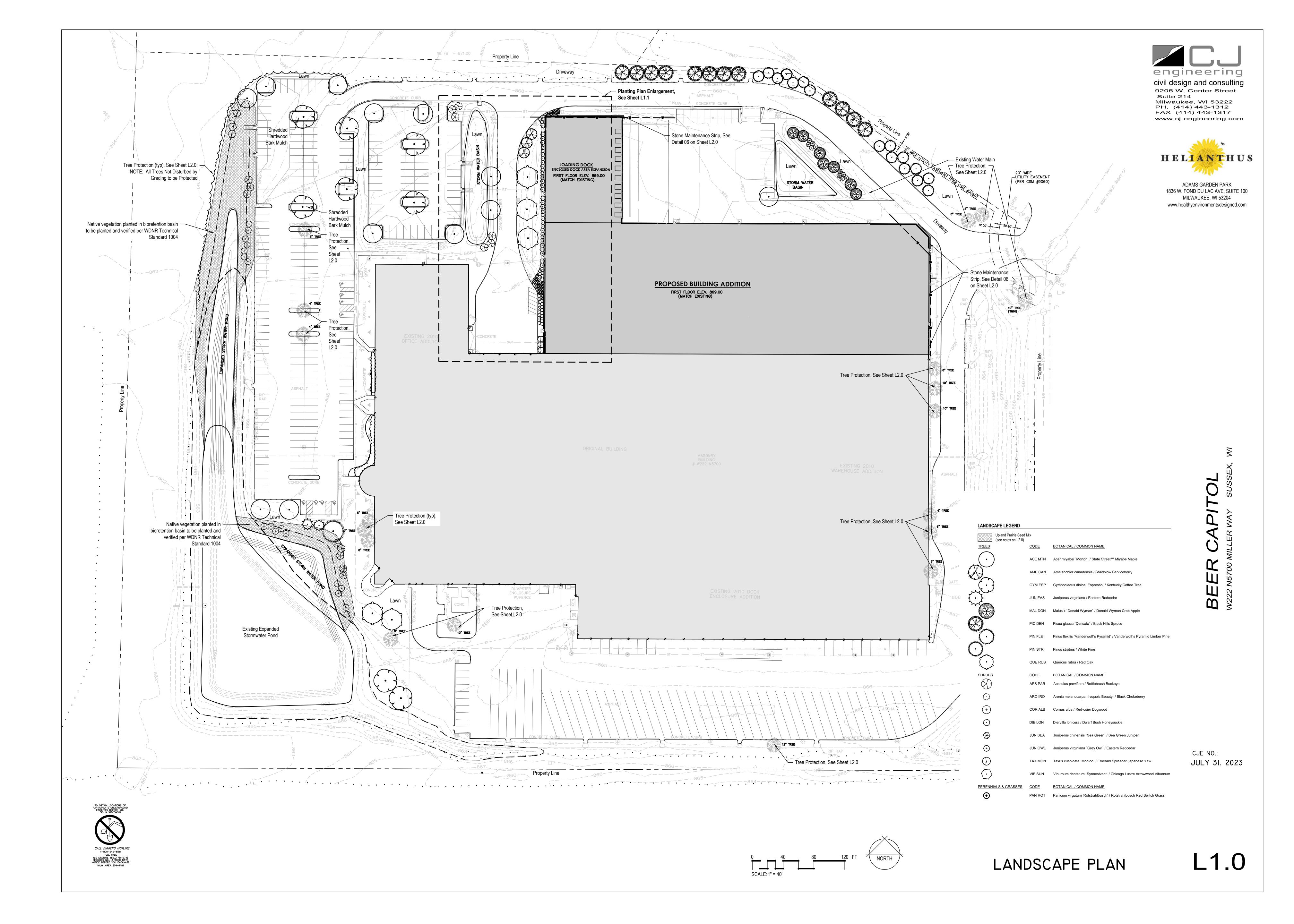


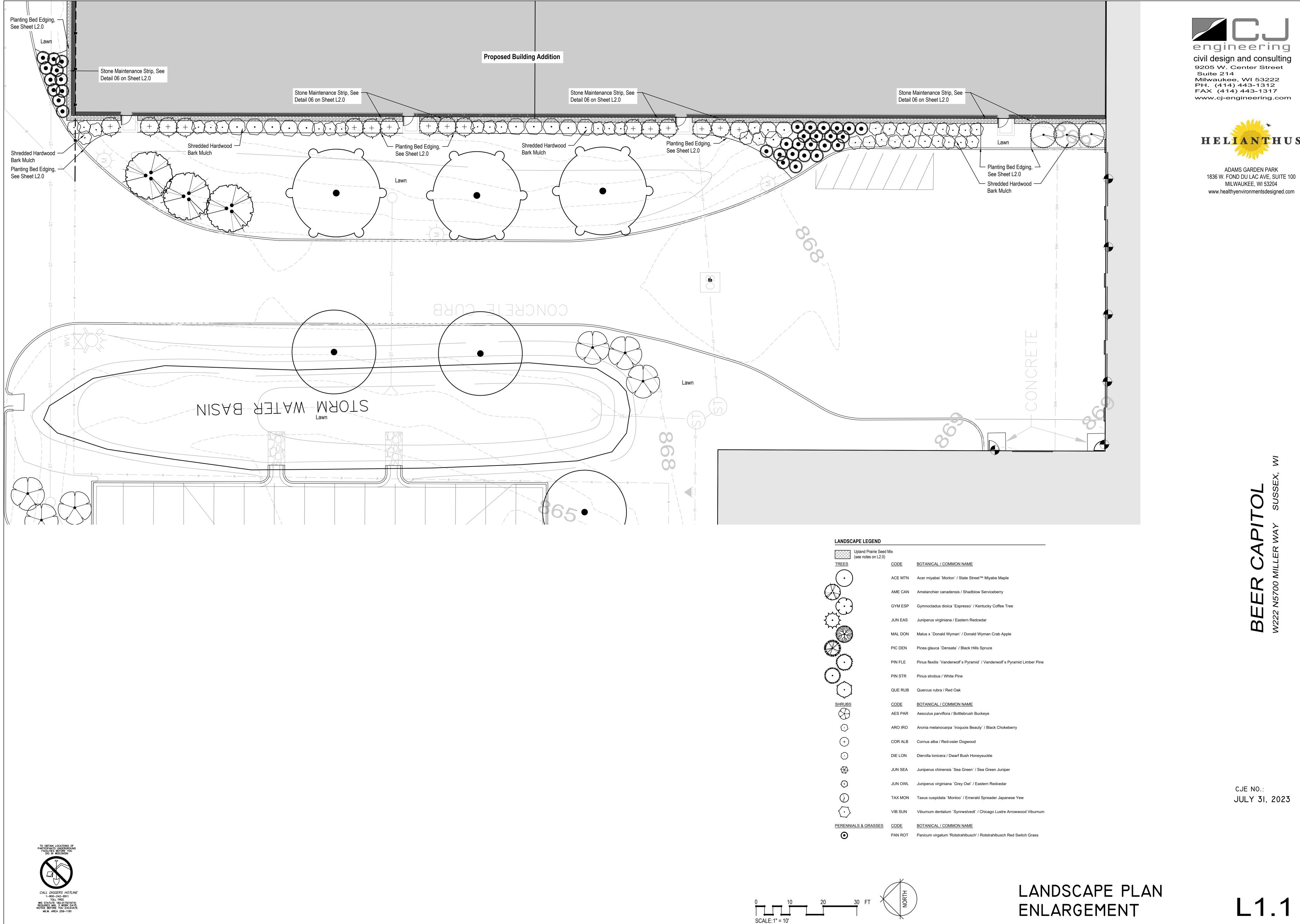
CONCRETE FLUME (TYP.) NOT TO SCALE

CJE NO.: CJE2329R4

JULY 31, 2023









### **GENERAL**

- LANDSCAPE NOTES
- 1. CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED SITE ELEMENTS AND NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES. SURVEY DATA OF EXISTING CONDITIONS WAS SUPPLIED BY OTHERS.
- 2. CONTRACTOR SHALL LOCATE ALL EXISTING UNDERGROUND UTILITIES AND NOTIFY LANDSCAPE ARCHITECT OF ANY CONFLICTS. CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING IN THE VICINITY OF UNDERGROUND UTILITIES.
- 3. CONTRACTOR SHALL PROVIDE MINIMUM 2% SLOPE AWAY FROM ALL STRUCTURES.
- 4. CONTRACTOR SHALL FINE GRADE AREAS TO ACHIEVE FINAL CONTOURS AS INDICATED. LEAVE AREAS TO RECEIVE TOPSOIL 3" BELOW FINAL FINISHED GRADE IN PLANTING AREAS AND 1" BELOW FINAL FINISHED GRADE IN LAWN AREAS.
- 5. TOP OF MULCH SHALL BE ½" MINIMUM BELOW THE TOP OF WALKS AND CURBS
- 6. ALL REQUIRED LANDSCAPE AREAS SHALL BE PROVIDED WITH AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM WITH RAIN AND FREEZE SENSORS AND EVAPOTRANSPIRATION (ET) WEATHER-BASED CONTROLLERS AND SAID IRRIGATION SYSTEM SHALL BE DESIGNED BY A QUALIFIED PROFESSIONAL AND INSTALLED BY A LICENSED IRRIGATOR.
- 7. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED LANDSCAPE AND IRRIGATION PERMITS.

### MAINTENANCE NOTES

- 1. THE OWNER, TENANT AND THEIR AGENT, IF ANY, SHALL BE JOINTLY AND SEVERALLY RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPE.
- 2. THE LANDSCAPE SHALL BE MAINTAINED IN A MANNER COMMON TO THE PRACTICE, INCLUDING MOWING, EDGING, PRUNING, FERTILIZING, WATERING, WEEDING, TRASH REMOVAL, AND OTHER SUCH ACTIVITIES.
- 3. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL WORK FROM THE TIME OF PLANTING FOR 60 DAYS, OR UNTIL FINAL ACCEPTANCE BY THE OWNER. AN ON-SITE INSPECTION BY THE OWNER'S AGENT WILL BE COMPLETED PRIOR TO FINAL ACCEPTANCE.
- 4. DURING WORK, PREMISES SHALL BE KEPT NEAT AND ORDERLY AT ALL TIMES. ALL TRASH AND DEBRIS SHALL BE REMOVED FROM THE SITE AS THE WORK PROGRESSES. KEEP PAVED AREAS CLEAN BY SWEEPING OR HOSING THEM AT THE END OF EACH WORK DAY.
- 5. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS THROUGH ONE (1) YEAR AFTER FINAL ACCEPTANCE BY THE OWNER'S AGENT. PLANTS SHALL BE IN HEALTHY CONDITION AT THE END OF THE GUARANTEE PERIOD. ALL PLANT MATERIALS WHICH DIE SHALL BE REPLACED WITH PLANT MATERIAL OF EQUAL OR BETTER VALUE AT NO COST TO OWNER. RESTORE BEDS AS NECESSARY FOLLOWING PLANT REPLACEMENT.
- 6. THE OWNER SHALL BE RESPONSIBLE FOR THE CONTINUED MAINTENANCE, REPAIR AND REPLACEMENT OF ALL LANDSCAPING MATERIALS AS NECESSARY FOLLOWING THE 60 DAY CONTRACTOR MAINTENANCE PERIOD.

### QUALITY ASSURANCE

- LANDSCAPE CONTRACTOR SHALL COMPLY WITH APPLICABLE FEDERAL, STATE, COUNTY, AND LOCAL REGULATIONS GOVERNING LANDSCAPE MATERIALS AND WORK.
- 2. SELECTION OF PLANT MATERIAL: MAKE CONTACT WITH SUPPLIERS IMMEDIATELY UPON NOTICE OF CONTRACT ACCEPTANCE TO SELECT AND BOOK MATERIALS.
- 3. SUBSTITUTIONS: DO NOT MAKE PLANT MATERIAL SUBSTITUTIONS. IF THE SPECIFIED LANDSCAPE MATERIAL IS NOT OBTAINABLE, SUBMIT PROOF OF NON-AVAILABILITY TO LANDSCAPE ARCHITECT, TOGETHER WITH PROPOSAL FOR USE OF EQUIVALENT MATERIAL. WRITTEN VERIFICATION WILL BE REQUIRED DOCUMENTING MATERIAL SELECTION, SOURCE AND DELIVERY SCHEDULE TO SITE.
- 4. MEASUREMENTS: TAKE CALIPER MEASUREMENTS OF TREES SIX INCHES ABOVE GROUND. MEASURE MAIN BODY OF ALL PLANT MATERIAL FOR HEIGHT AND SPREAD DIMENSIONS, NOT FROM TIP-TO-TIP.
- 5. LANDSCAPE ARCHITECT OR OWNER, SHALL INSPECT ALL PLANT MATERIAL WITH RESPECT TO GENUS. SPECIES. CULTIVAR/VARIETY. SIZE AND QUALITY. INCLUDING SIZE AND CONDITION OF ROOT SYSTEMS, LIMBS, BRANCHING HABIT, INSECTS, INJURIES, OR OTHER LATENT DEFECTS UPON ARRIVAL TO SITE OR DURING INSTALLATION.
- LANDSCAPE ARCHITECT OR OWNER MAY REJECT UNSATISFACTORY OR DEFECTIVE MATERIAL AT ANY TIME DURING THE WORK PROCESS. REMOVE REJECTED MATERIALS FROM SITE AND REPLACE WITH ACCEPTABLE MATERIAL AT NO ADDITIONAL COST TO THE OWNER. PLANTS DAMAGED IN TRANSIT OR AT THE JOB SITE SHALL BE REJECTED.

### PRODUCT DELIVERY, STORAGE AND HANDLING

- 1. DELIVER ONLY PLANT MATERIALS THAT CAN BE PLANTED IN ONE DAY UNLESS ADEQUATE STORAGE AND WATERING FACILITIES ARE AVAILABLE ON THE JOB SITE.
- 2. PROTECT PLANTS DURING DELIVERY TO PREVENT DAMAGE TO ROOT BALLS OR DESICCATION OF LEAVES. KEEP PLANTS MOIST AT ALL TIMES. COVER ALL MATERIALS DURING TRANSPORT. PROTECT ROOT BALLS BY HEELING IN WITH SAWDUST OR OTHER APPROVED MOISTURE RETAINING MATERIAL IF NO PLANTED WITHIN 24 HOURS OF DELIVERY.
- TO AVOID DAMAGE OR STRESS, DO NOT LIFT, MOVE, ADJUST TO PLUMB, OR OTHERWISE MANIPULATE PLANTS BY TRUNK OR STEMS
- DELIVER PLANTS WITH LEGIBLE IDENTIFICATION LABELS.

### **MATERIALS**

- 1. ALL PLANTS SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.1, MOST RECENT EDITION.
- 2. PLANTS SHALL CONFORM TO THE SIZE GIVEN ON THE PLAN, AND SHALL BE HEALTHY, SYMMETRICAL, WELL-SHAPED, FULL BRANCHED AND FREE OF DISEASE AND INSECTS.
- 3. ALL PLANTS WHICH ARE FOUND UNSUITABLE IN GROWTH, OR ARE IN ANY UNHEALTHY, BADLY SHAPED, OR UNDERSIZED CONDITION WILL BE REJECTED BY THE LANDSCAPE ARCHITECT EITHER BEFORE OR AFTER PLANTING AND SHALL BE REMOVED AT THE EXPENSE OF THE LANDSCAPE CONTRACTOR AND REPLACED WITH ACCEPTABLE PLANT AS SPECIFIED AT NO ADDITIONAL COST TO THE OWNER.
- 4. PLANTS SHALL NURSERY GROWN IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICES UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT FOR AT LEAST 2 YEARS.
- PLANTS SHALL BE FRESHLY DUG FROM DURING THE MOST RECENT APPROPRIATE HARVEST
- PRUNING SHALL BE LIMITED TO DEAD BRANCHES, LIMBS DAMAGED OR BROKEN DURING THE PLANTING PROCESS. PRUNING SHALL CONFORM TO AMERICAN STANDARD FOR TREE CARE OPERATIONS ANSI A300.

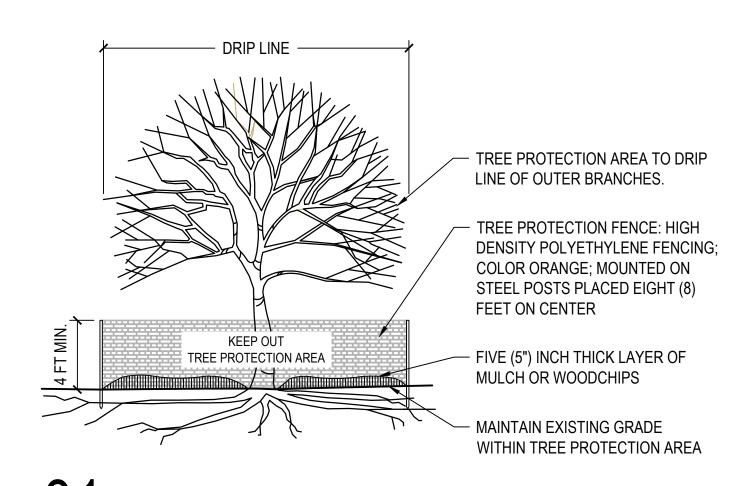
- PLANTING SOIL AND TOPSOIL TO BE A CLEAN, FRIABLE LOAM FROM A LOCAL SOURCE, FREE FROM STONES OR DEBRIS OVER 3/4" IN DIAMETER, AND FREE FROM TOXINS AND WEEDS. TOPSOIL SHALL HAVE A pH VALUE BETWEEN 5.5 AND 7. ORGANIC MATERIAL SHALL BE 2.0-5.0% OF TOTAL DRY WEIGHT. SOLUBLE SALT LEVELS SHALL BE LESS THAN 2 mmho/cm. PLANTING SOIL AND TOPSOIL SHALL BE TESTED AND AMENDED TO MEET THESE SPECIFICATIONS.
- COMPOST SHALL BE COMMERCIALLY PREPARED, PEAT-FREE COMPOST AND MEET US COMPOST COUNCIL STA/TMECC CRITERIA AND SHALL CONSIST OF PLANT-BASED MATERIALS, COMPOSTED FOR A MINIMUM OF 9 MONTHS AT TEMPERATURES SUFFICIENT TO BREAK DOWN ALL WOODY FIBERS, SEEDS, AND LEAF STRUCTURES.
- ALL PLANTING AREAS WITHIN THE DRIP LINE OF EXISTING TREES SHALL BE PREPARED BY TILLING EXISTING SOIL TO A DEPTH OF SIX (6") INCHES PRIOR TO PLACING COMPOST AND FERTILIZER. APPLY FERTILIZER AS PER MANUFACTURER'S RECOMMENDATIONS. ADD THREE (3") INCHES OF COMPOST AND TILL INTO A DEPTH OF SIX (6") INCHES OF THE TOPSOIL. ALL PLANTING AREAS WITHOUT EXISTING TREES SHALL BE PREPARED BY TILLING EXISTING SOIL TO A DEPTH OF EIGHTEEN (18") INCHES PRIOR TO PLACING COMPOST AND FERTILIZER. APPLY FERTILIZER AS PER MANUFACTURER'S RECOMMENDATIONS. ADD SIX (6") INCHES OF COMPOST AND TILL INTO A DEPTH OF EIGHTEEN (18") INCHES OF THE
- BACKFILL FOR TREE PITS SHALL CONSIST OF EXISTING TOPSOIL ON SITE (OR IMPORTED AS NEEDED) FREE FROM LARGE CLUMPS, ROCKS, DEBRIS, SUBSOILS, ETC., PLACED IN NINE (9") LAYERS AND WATERED IN THOROUGHLY

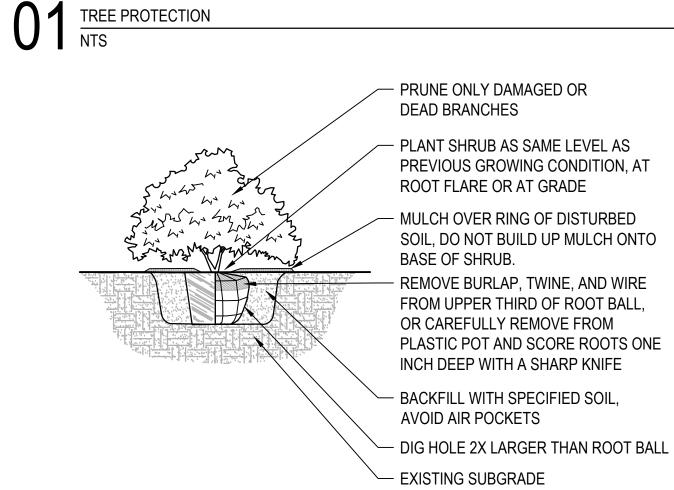
#### OTHER MATERIALS

- 1. SHREDDED HARDWOOD BARK MULCH: ALL PLANTING AREAS LABELED ON PLAN SHALL RECEIVE CERTIFIED WEED-FREE SHREDDED HARDWOOD BARK MULCH SPREAD TO A DEPTH OF THREE (3") INCHES OVER ALL PLANTING AREAS. SHREDDED HARDWOOD BARK MULCH, SIZE AND COLOR TO BE APPROVED BY OWNER'S AGENT PRIOR TO INSTALLATION. MULCHED AREAS SHALL NOT RECEIVE A WOVEN WEED BARRIER FABRIC.
- 2. EDGING: EDGING SHALL BE 5" DEEP, POLYETHYLENE EDGING, TO BE APPROVED BY OWNER'S AGENT.
- 18" WIDE STONE MAINTENANCE STRIP: DECORATIVE STONE TO MATCH EXISTING STONE ON SITE AND SHALL BE APPROVED BY OWNER PRIOR TO INSTALLATION. INSTALL STONE MAINTENANCE STRIP IN THE LOCATIONS INDICATED IN THE PLAN FOLLOWING THE MANUFACTURER'S INSTRUCTIONS. THE GEOTEXTILE FABRIC SHALL BE PERMEABLE NONWOVEN MIRAFI MSCAPE E OR APPROVED EQUAL
- SOD: ALL AREAS SPECIFIED ON PLAN AS SOD (IF APPLICABLE) SHALL BE A PREMIUM GRADE APPROVED TURFGRASS SOD. ONLY IMPROVED TYPES OF SOD (ELITE) ARE ACCEPTABLE. STANDARD SIZE SECTIONS OF TURFGRASS SOD SHALL BE STRONG ENOUGH SO THAT THEY CAN BE PICKED UP AND HANDLED WITHOUT DAMAGE. TURFGRASS SOD SHALL NOT BE HARVESTED OR TRANSPLANTED WHEN MOISTURE CONTENT IS EXCESSIVELY DRY OR WET, AS THIS MAY ADVERSELY AFFECT ITS SURVIVAL. TURFGRASS SOD SHALL BE REASONABLY FREE OF DISEASES, NEMATODES, INSECTS, GRASSY AND BROAD-LEAF WEEDS.
- LAWN SEED: DISTURBED LAWN AREAS LABELED AS SUCH ON PLAN, SHALL BE SPREAD BY HAND BROADCAST METHOD OR APPROPRIATE SPREADER EQUIPMENT WITH 'MADISON PARKS' OR EQUIVALENT SEED MIX AS APPROVED BY OWNER'S AGENT. AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. IN ADDITION TO LAWN SEED, ANNUAL RYE SHALL BE APPLIED TO ALL DISTURBED AREAS WITH SLOPES EXCEEDING 3:1 AT A RATE OF 1 %POUNDS PER 1000 SQUARE FEET. FERTILIZE AND MULCH PER MANUFACTURER'S RECOMMENDATIONS.
- 4. UPLAND NATIVE SEED MIX: POND SIDE SLOPES SHALL BE 'SHORTGRASS PRAIRIE FOR MEDIUM SOILS' BY AGRECOL OR APPROVED EQUAL. PLANT WITH COVER CROP OF COMMON OATS AT 20 LBS/ACRE OR OF WINTER WHEAT AT 12 LBS/ACRE FOR FALL SEEDING. COVER PLANTING WITH STRAW BLANKET FOR EROSION CONTROL.

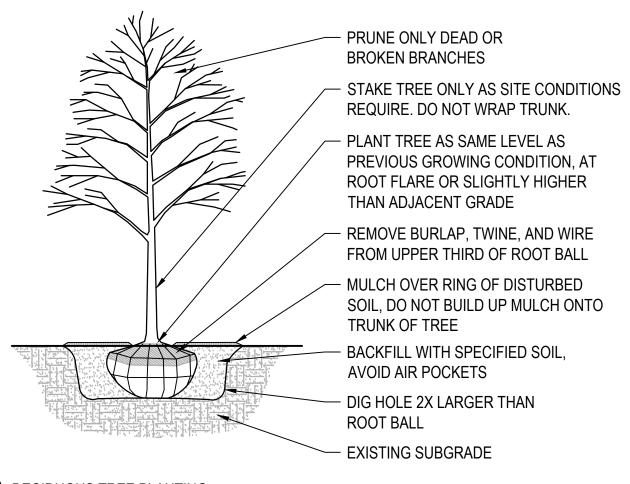
### INSTALLATION

- PLANT MATERIALS SHALL BE DELIVERED TO THE SITE ONLY AFTER THE BEDS ARE PREPARED AND AREAS ARE READY FOR PLANTING.
- EXCAVATE PITS WITH VERTICAL SIDES AND HORIZONTAL BOTTOM. TREE PITS SHALL BE LARGE ENOUGH TO PERMIT HANDLING AND PLANTING WITHOUT INJURY TO THE ROOT BALLS, AND SHALL BE PLACED AT THE SAME DEPTH RELATIVE TO FINISH GRADE AS IT DID TO THE SOIL SURFACE IN THE ORIGINAL PLACE OF GROWTH.
- 3. SHRUB AND TREE PITS SHALL BE NO LESS THAN TWO TIMES WIDER THAN THE LATERAL DIMENSIONS OF THE EARTH BALL AND NO DEEPER THAN ITS VERTICAL DIMENSION. THE SIDES OF THE HOLE SHALL BE ROUGH AND JAGGED, NEVER SLICK AND GLAZED, ROUGH UP WITH SHOVEL IF NEEDED.
- BACKFILL HOLE WITH 5 PARTS EXISTING SOIL AND 1 PART PLANT BED PREPARATION SOIL. CAREFULLY SETTLE BY WATERING TO PREVENT AIR POCKETS. REMOVE THE BURLAP, NYLON, STRING, AND WIRE FROM THE TOP  $\frac{1}{3}$  OF THE BALL. MULCH THE TOP OF THE BALL WITH A MINIMUM OF TWO (2") INCHES OF SPECIFIED MULCH OVER THE PLANTING PIT.
- 5. DO NOT WRAP TREES. STAKE TREES AND LARGE SHRUBS ONLY AS SITE CONDITIONS REQUIRE.
- 6. TURFGRASS SOD SHALL BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 24 HOURS. ENSURE EDGES OF SOD ARE STAGGERED AND TOUCHING. TOP DRESS JOINTS BY HAND WITH TOPSOIL TO FILL VOIDS. POST-PLANT IRRIGATION WILL BE NECESSARY TO ENSURE SOD STAYS ALIVE AND ROOTS INTO THE SOIL. THE CONTRACTOR IS RESPONSIBLE FOR WATERING SOD UNTIL TIME OF ACCEPTANCE BY OWNER. THE SOD SUPPLIER MAY MAKE RECOMMENDATIONS REGARDING THE WATERING SCHEDULE. THE WATERING SCHEDULE SHOULD BEGIN IMMEDIATELY AFTER THE SOD IS INSTALLED.
- 7. THE NATIVE PRAIRIE VEGETATION PLANTED IN THE BASINS WILL BE REQUIRED TO BE PLANTED AND VERIFIED PER THE STANDARDS OF DNR TECHNICAL STANDARD 1004 AND THE WAUKESHA COUNTY PLANTING VERIFICATION DOCUMENT. A PLANTING VERIFICATION LETTER WILL BE REQUIRED TO BE COMPLETED BY A LANDSCAPE ARCHITECT OR OTHER QUALIFIED PROFESSIONAL.





03 SHRUB PLANTING NTS

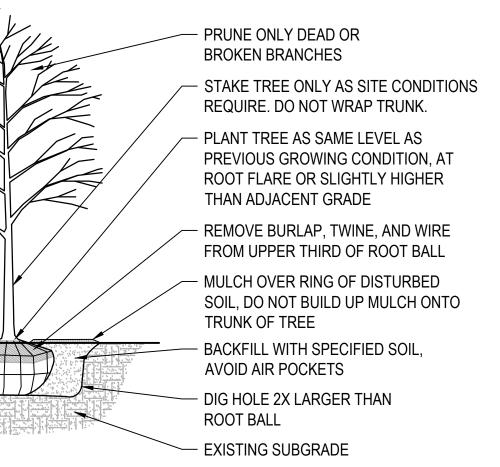


FINAL GRADE OF LAWN 1/3" BELOW TOP OF DIVIDER POLYETHYLENE EDGING DIVIDER, WITH CORNER OR ANGLE CONNECTORS AS NEEDED PLANT BED WITH MULCH - FINISHED GRADE ONE (1") INCH BELOW TOP OF DIVIDER METAL ANCHOR STAKES PLACED

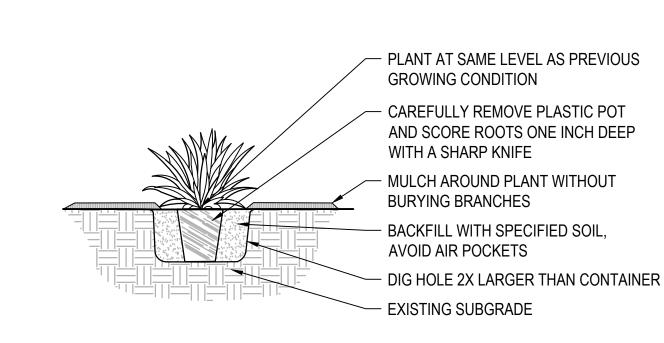
AT INTERVALS PER

MANUFACTURER SPECIFICATIONS

PLANTING BED EDGING NTS



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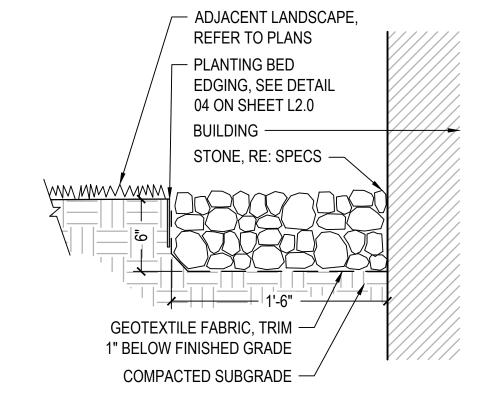
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06 STONE MAINTENANCE STRIP NTS

### PLANT SCHEDULE

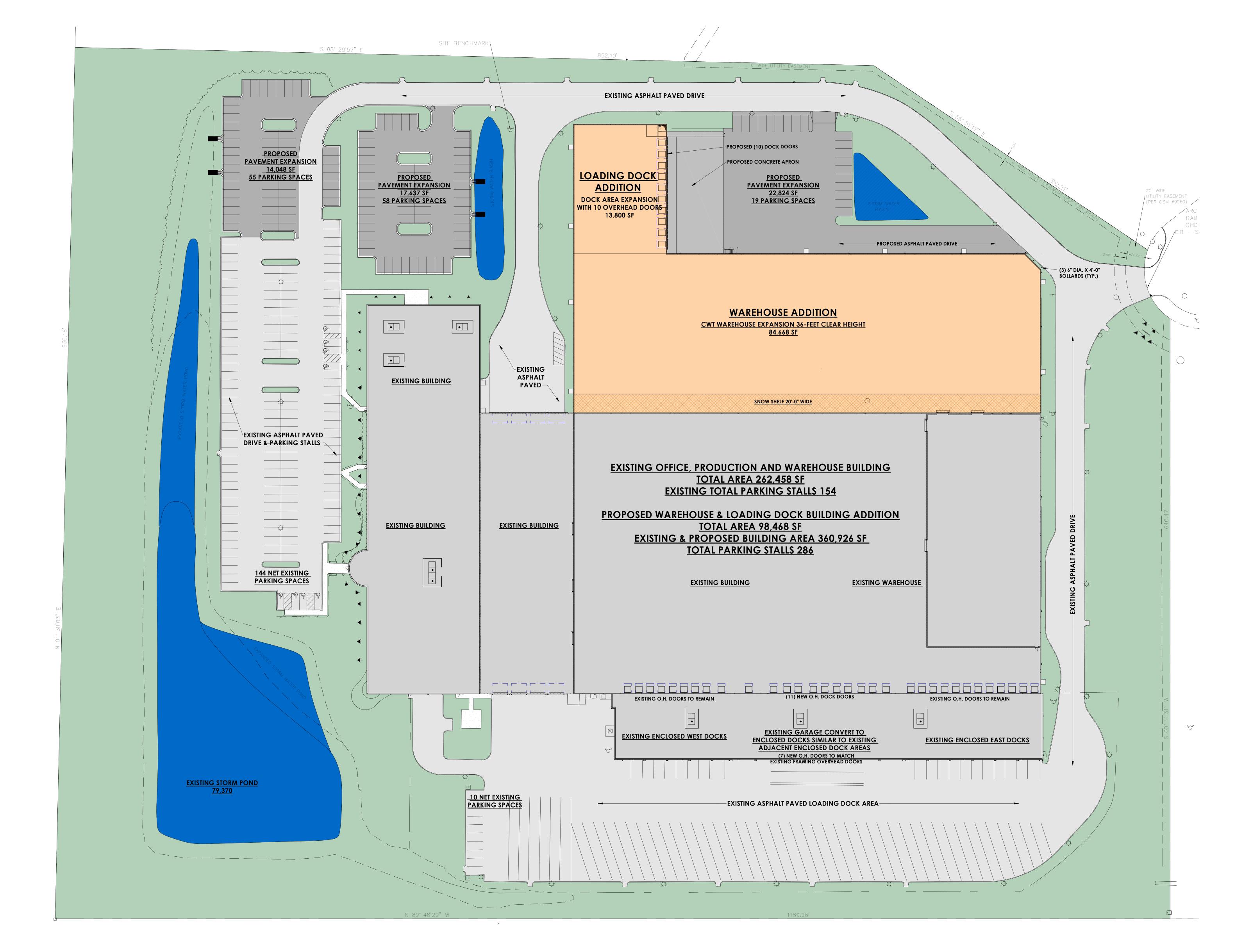
TREES	CODE	BOTANICAL / COMMON NAME	CONT	PLANTING SIZE	MATURE HT	MATURE SP	QTY
	ACE MTN	Acer miyabei `Morton` / State Street™ Miyabe Maple	B & B	2.5" Min. Cal.	60`	50`	12
	AME CAN	Amelanchier canadensis / Shadblow Serviceberry	B & B	1.5" Min. Cal.	15`	10`	3
$(\cdot)$	GYM ESP	Gymnocladus dioica `Espresso` / Kentucky Coffee Tree	B & B	2.5" Min. Cal.	50`	35`	8
\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.	JUN EAS	Juniperus virginiana / Eastern Redcedar	B & B	6 FT. Tall Min.	50`	25`	2
	MAL DON	Malus x `Donald Wyman` / Donald Wyman Crab Apple	B & B	2" Min. Cal	25`	25`	8
	PIC DEN	Picea glauca `Densata` / Black Hills Spruce	B & B	6 FT. Tall Min.	30`	25`	12
William III	PIN FLE	Pinus flexilis `Vanderwolf`s Pyramid` / Vanderwolf`s Pyramid Limber Pine	B & B	6 FT. Tall Min.	30`	20`	16
Manual Ma	PIN STR	Pinus strobus / White Pine	B & B	6 FT. Tall Min.	80`	40`	1
	QUE RUB	Quercus rubra / Red Oak	В&В	2.5" Min. Cal.	75`	75`	5
•							
SHRUBS	CODE	BOTANICAL / COMMON NAME	CONT	PLANTING SIZE	MATURE HT	MATURE SP	QTY
SHRUBS	CODE AES PAR	BOTANICAL / COMMON NAME  Aesculus parviflora / Bottlebrush Buckeye	CONT 3 gal	PLANTING SIZE Container	MATURE HT	MATURE SP 10'	<u>QTY</u> 14
SHRUBS  O							
	AES PAR	Aesculus parviflora / Bottlebrush Buckeye	3 gal	Container	10	10`	14
$\odot$	AES PAR	Aesculus parviflora / Bottlebrush Buckeye  Aronia melanocarpa `Iroquois Beauty` / Black Chokeberry	3 gal	Container	10	10`	14
<ul><li>→</li><li>→</li><li>→</li></ul>	AES PAR ARO IRO COR ALB	Aesculus parviflora / Bottlebrush Buckeye  Aronia melanocarpa `Iroquois Beauty` / Black Chokeberry  Cornus alba / Red-osier Dogwood	3 gal 3 gal	Container  Container  Container	10 3` 8`	10° 4° 8°	14 38 17
<ul><li>→</li><li>→</li><li>→</li></ul>	AES PAR ARO IRO COR ALB DIE LON	Aesculus parviflora / Bottlebrush Buckeye  Aronia melanocarpa `Iroquois Beauty` / Black Chokeberry  Cornus alba / Red-osier Dogwood  Diervilla Ionicera / Dwarf Bush Honeysuckle	3 gal 3 gal 3 gal 3 gal	Container  Container  Container  Container	10 3` 8` 4`	10° 4° 8° 5°	14 38 17 13
<ul><li>→</li><li>→</li><li>→</li><li></li><li></li><li></li></ul>	AES PAR ARO IRO COR ALB DIE LON JUN SEA	Aesculus parviflora / Bottlebrush Buckeye  Aronia melanocarpa `Iroquois Beauty` / Black Chokeberry  Cornus alba / Red-osier Dogwood  Diervilla Ionicera / Dwarf Bush Honeysuckle  Juniperus chinensis `Sea Green` / Sea Green Juniper	3 gal 3 gal 3 gal 3 gal 3 gal	Container  Container  Container  Container  Container	10 3` 8` 4` 6`	10° 4° 8° 5° 6°	14 38 17 13
<ul><li>→</li><li>→</li><li>→</li><li></li><li></li><li></li></ul>	AES PAR  ARO IRO  COR ALB  DIE LON  JUN SEA  JUN OWL	Aesculus parviflora / Bottlebrush Buckeye  Aronia melanocarpa `Iroquois Beauty` / Black Chokeberry  Cornus alba / Red-osier Dogwood  Diervilla Ionicera / Dwarf Bush Honeysuckle  Juniperus chinensis `Sea Green` / Sea Green Juniper  Juniperus virginiana `Grey Owl` / Eastern Redcedar	3 gal 3 gal 3 gal 3 gal 3 gal 3 gal	Container  Container  Container  Container  Container  Container	10 3` 8` 4` 6` 3`	10° 4° 8° 5° 6°	14 38 17 13 10
<ul><li>→</li><li>→</li><li>→</li><li></li><li></li><li></li></ul>	AES PAR ARO IRO COR ALB DIE LON JUN SEA JUN OWL TAX MON	Aesculus parviflora / Bottlebrush Buckeye  Aronia melanocarpa `Iroquois Beauty` / Black Chokeberry  Cornus alba / Red-osier Dogwood  Diervilla Ionicera / Dwarf Bush Honeysuckle  Juniperus chinensis `Sea Green` / Sea Green Juniper  Juniperus virginiana `Grey Owl` / Eastern Redcedar  Taxus cuspidata `Monloo` / Emerald Spreader Japanese Yew	<ul><li>3 gal</li><li>3 gal</li><li>3 gal</li><li>3 gal</li><li>3 gal</li><li>3 gal</li><li>3 gal</li></ul>	Container  Container  Container  Container  Container  Container  Container  Container	10 3° 8° 4° 6° 3° 2.5°	10° 4° 8° 5° 6° 8°	14 38 17 13 10 16 3

CJE NO.: JULY 31, 2023

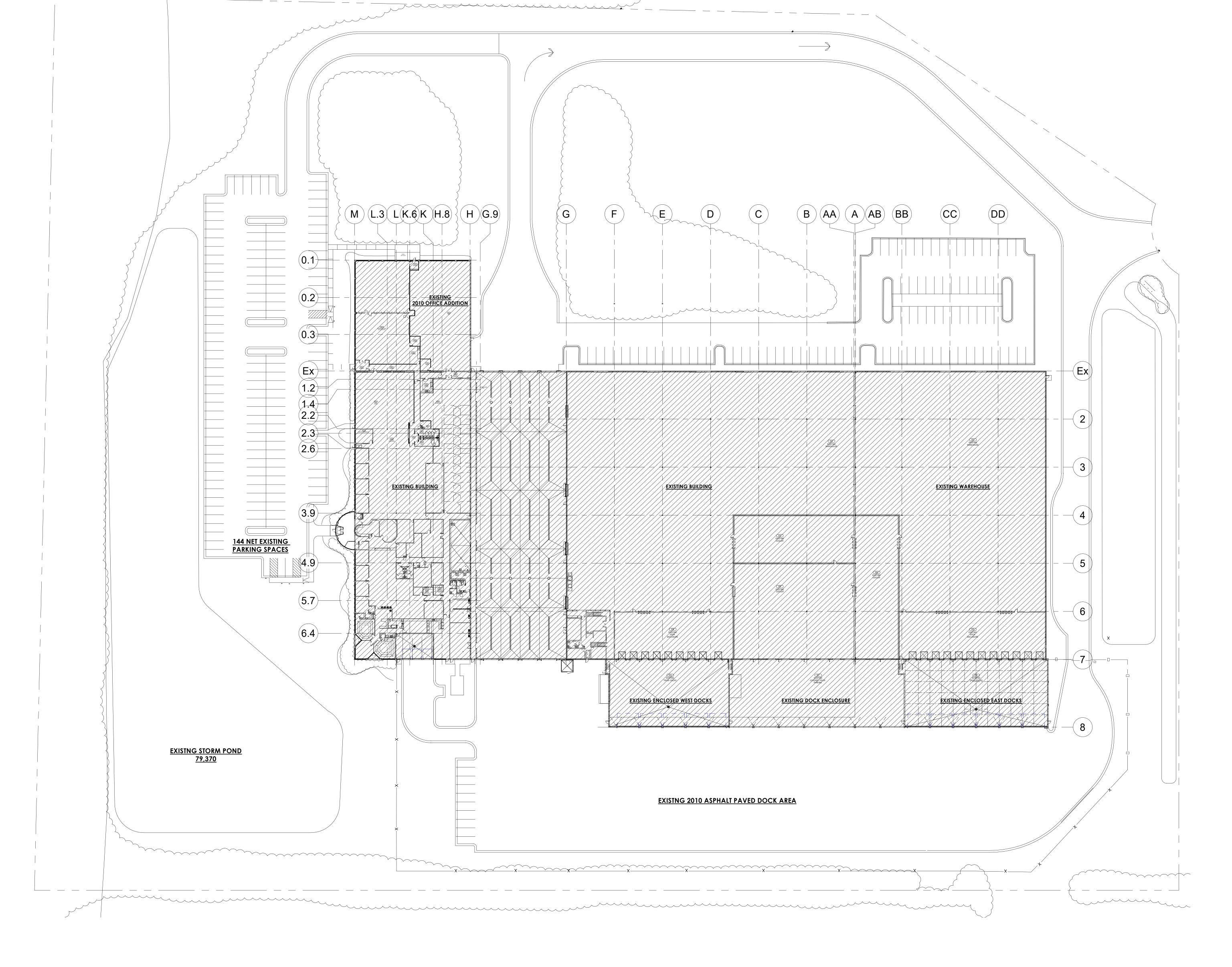
TO OBTAIN LOCATIONS OF PARTICIPANTS UNDERGROUN FACILITIES BEFORE YOU DIG IN WISCONSIN

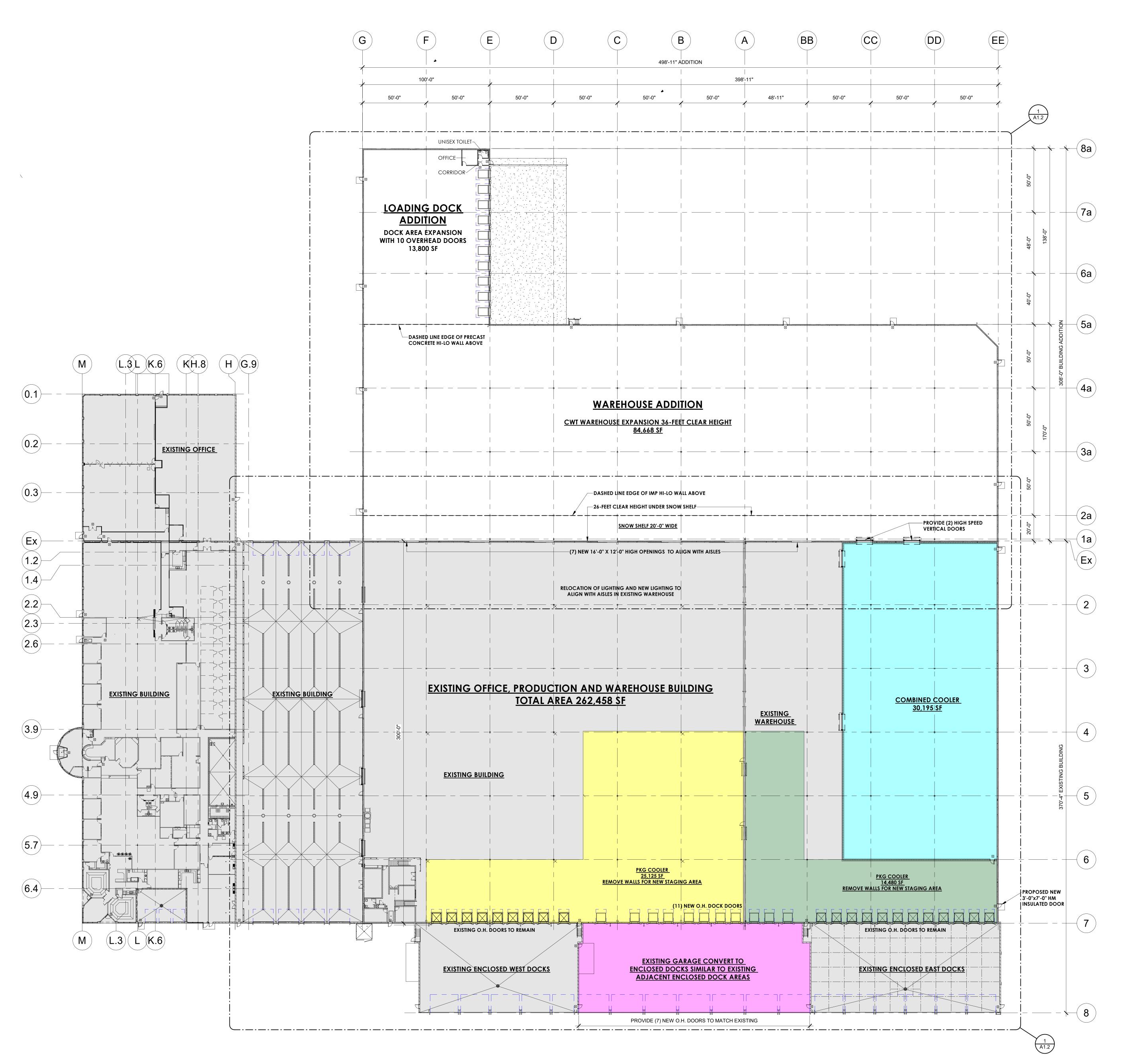
CALL DIGGERS HOTLINE

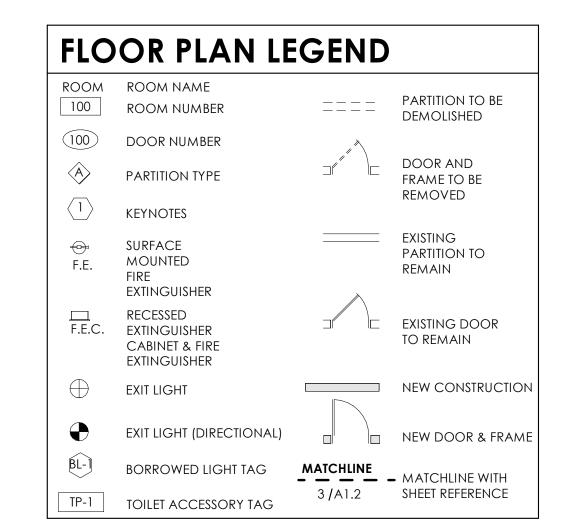
BRIOHN



A1.0







### **EXTERIOR SYSTEMS:**

ROOF ASSEMBLY (AMBIENT): BALLASTED 45 MIL EPDM ROOF MEMBRANE ON 6" DIRECT TO DECK APPROVED EPS INSULATION (R25 - TWO LAYERS OF 3", STAGGERED) ON METAL DECK (SEE STRUCTURAL DRAWINGS)

INSULATED PRECAST WALL PANEL SYSTEM: 12" NOM.
INSULATED PRECAST CONCRETE WALL PANEL (R-13.4)

INSULATED METAL WALL PANEL SYSTEM: 4" INSULATED METAL WALL PANEL SYSTEM (R-26)

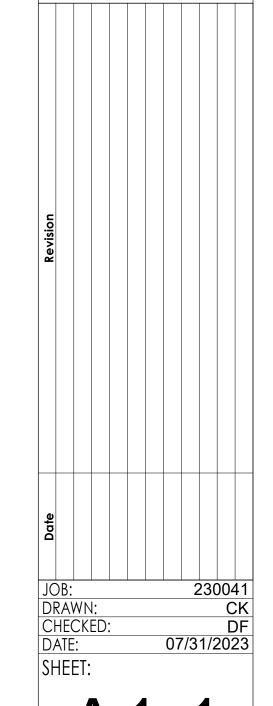
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(262) 790-0505 FAX

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BEER CAPITOL DISTRIBUTING
W222 N5700 MILLER WAY

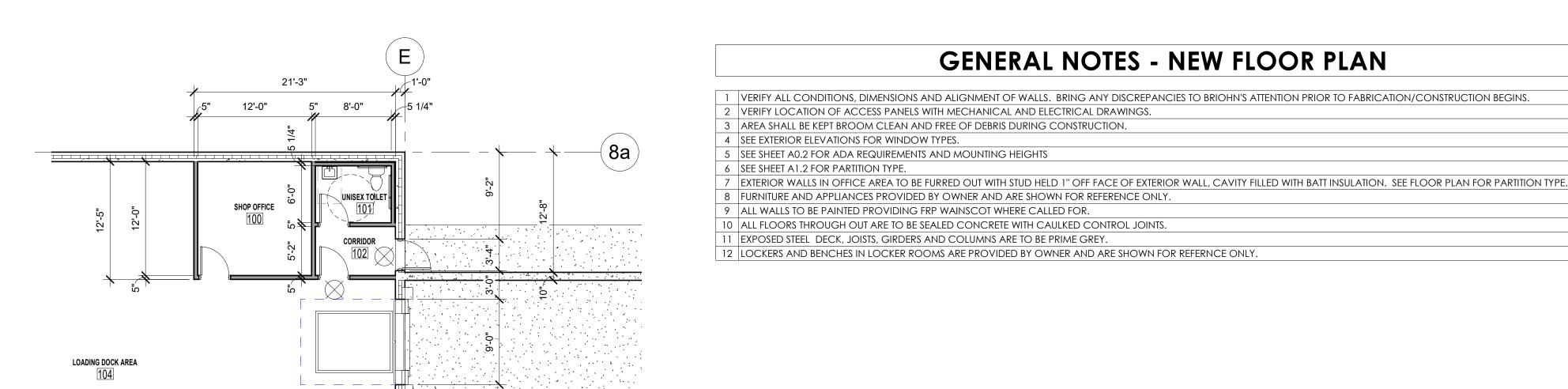


GRAPHIC SCALE

APPLICABL
TO ALL
PLAN VIEW

OVERALL FIRST FLOOR

1" = 30'-0"



KEYNOTE LEGEND FLOOR PLAN

MARK

50'-0"

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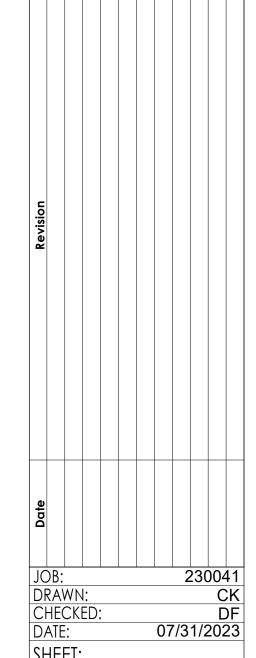
FLOOR PLAN LEGEND ROOM ROOM NAME PARTITION TO BE DEMOLISHED 100 ROOM NUMBER 100 DOOR NUMBER DOOR AND PARTITION TYPE FRAME TO BE REMOVED KEYNOTES EXISTING SURFACE PARTITION TO MOUNTED REMAIN **EXTINGUISHER** RECESSED □ EXISTING DOOR **EXTINGUISHER** CABINET & FIRE EXTINGUISHER EXIT LIGHT EXIT LIGHT (DIRECTIONAL) MATCHLINE — MATCHLINE WITH BORROWED LIGHT TAG 3 / A1.2 SHEET REFERENCE

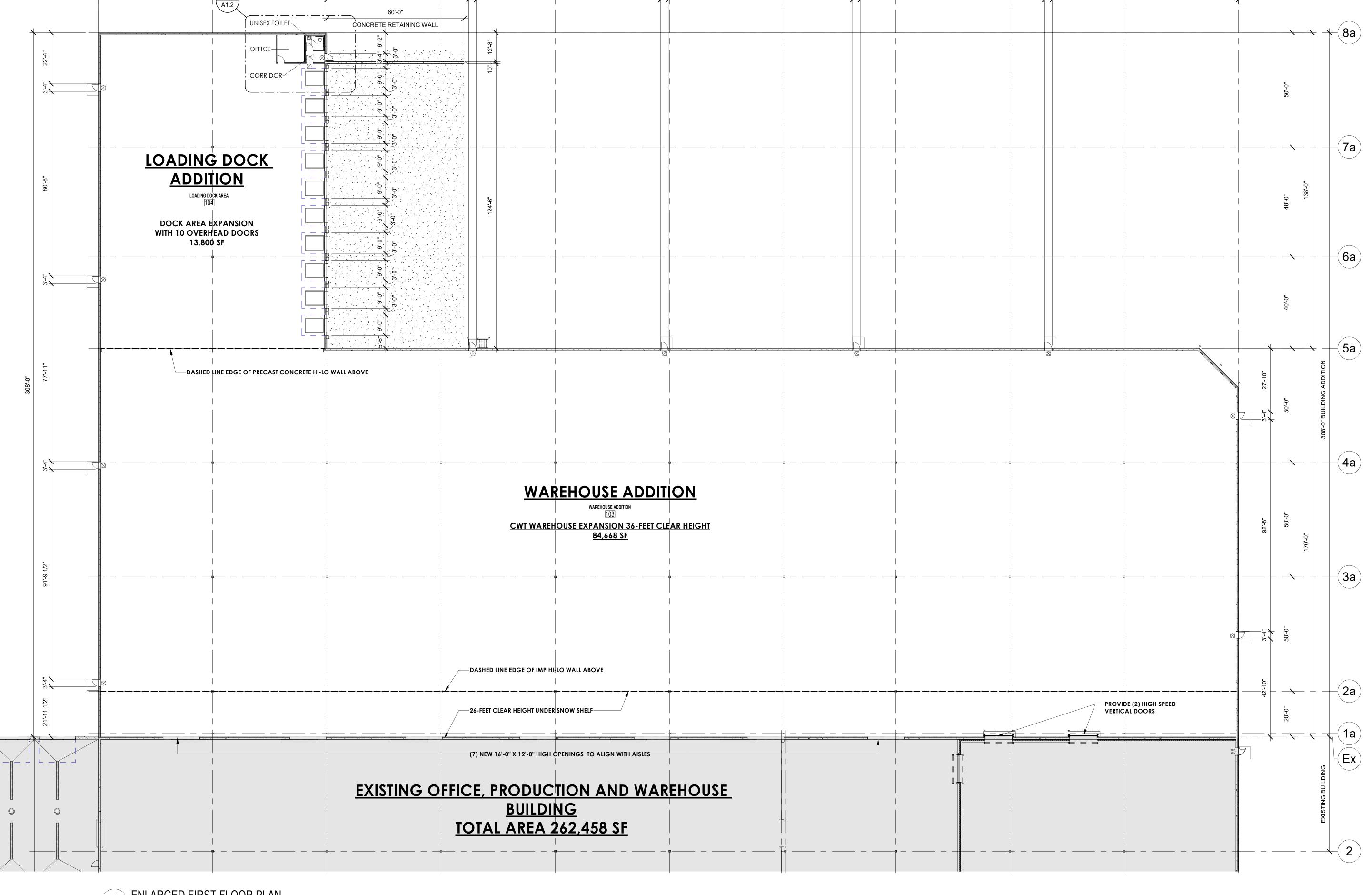
**EXTERIOR SYSTEMS:** 

WALL PANEL SYSTEM (R-26)

ROOF ASSEMBLY (AMBIENT): BALLASTED 45 MIL EPDM ROOF MEMBRANE ON 6" DIRECT TO DECK APPROVED EPS INSULATION (R25 - TWO LAYERS OF 3", STAGGERED) ON METAL DECK (SEE STRUCTURAL DRAWINGS) **INSULATED PRECAST WALL PANEL SYSTEM: 12" NOM.** INSULATED PRECAST CONCRETE WALL PANEL (R-13.4) INSULATED METAL WALL PANEL SYSTEM: 4" INSULATED METAL

NEW CONSTRUCTION NEW DOOR & FRAME TP-1 TOILET ACCESSORY TAG





498'-11" ADDITION

50'-0"

398'-11"

80'-8"

80'-8"

50'-0"

2 ENLARGED OFFICE & UNISEX TOILET ROOM

1/8" = 1'-0"

50'-0"

50'-0"

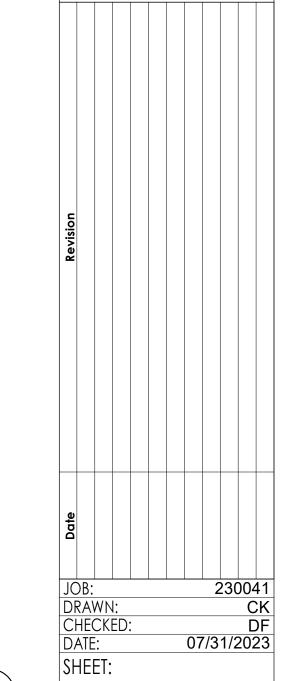
62'-1"

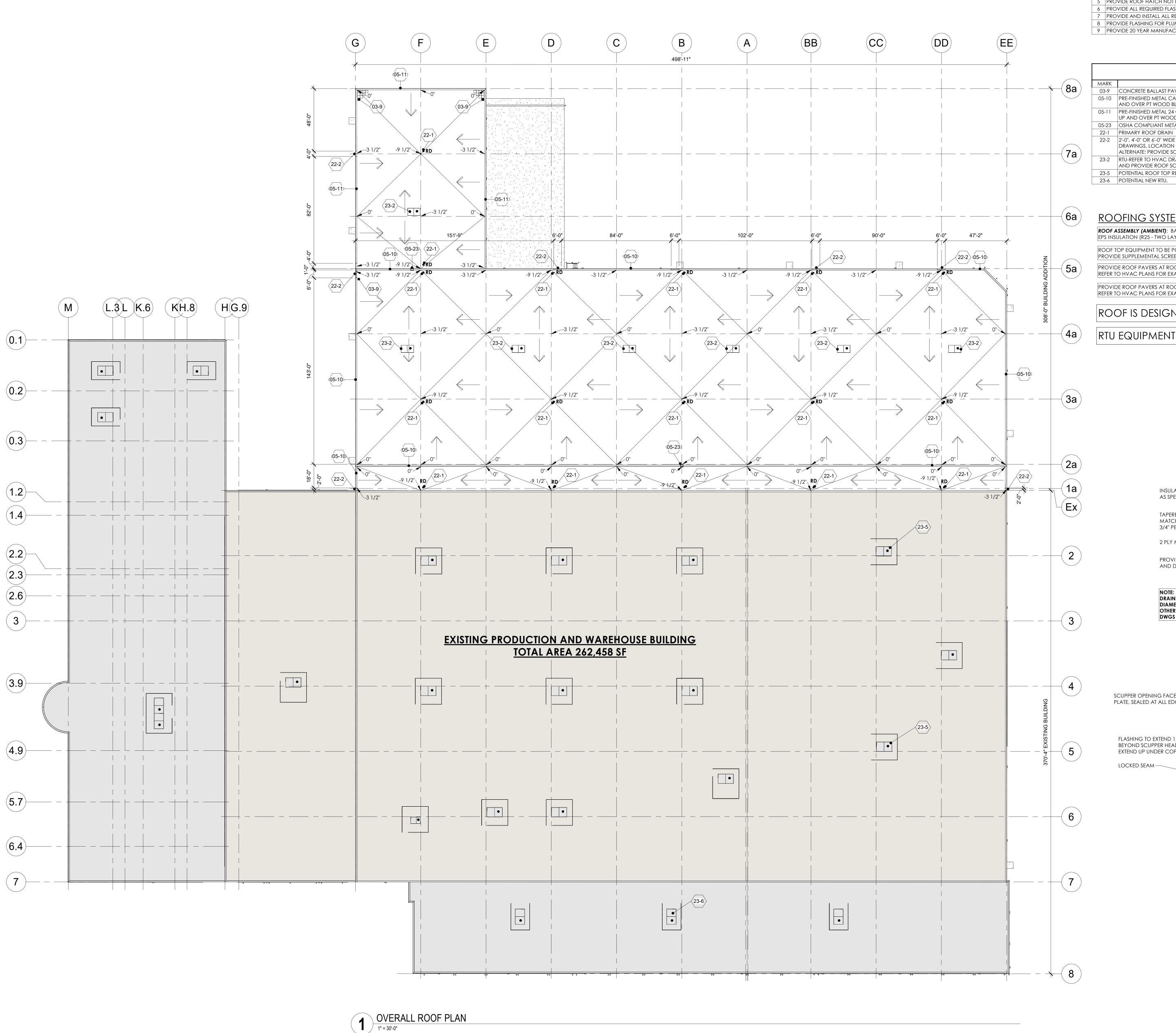
100'-0"

50'-0"

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IG ADDITIONS FOR:
DISTRIBUTING
MILLER WAY





### GENERAL NOTES - ROOF PLAN

1 SEE STRUCTURAL DWGS FOR FURTHER STRUCTURAL INFORMATION.

2 COORDINATE ROOF SCREEN SIZE WHERE CALLED FOR WITH MECHANICAL UNITS. SEE STUCTURAL DRAWINGS FOR FURTHER INFORMATION.

3 SEE SHEET A4.2 FOR OTHER CANOPY AND TUBE SUN SHADES PLANS

4 PROVIDE ROOF PAVERS AT ROOF HATCH AND AT ALL ROOF TOP UNITS. REFER TO HVAC PLAN BY OTHERS FOR LOCATIONS.

5 PROVIDE ROOF HATCH NOT LESS THAN 16 S.F. IN AREA AND HAVING A MINIMUM DIMENSION OF 24".

6 PROVIDE ALL REQUIRED FLASHING FOR HVAC ROOF TOP EQUIPMENT, INCLUDING ROOF TOP UNITS AND EXHAUST FANS. 7 PROVIDE AND INSTALL ALL REQUIRED FLASHING AND BOOTS FOR ROOF TOP AND PARAPET WALL ELECTRICAL PENETRATIONS AND HVAC EQUIPMENT.

8 PROVIDE FLASHING FOR PLUMBING VENTS. 9 PROVIDE 20 YEAR MANUFACTURERS LABOR AND MATERIAL WARRANTY.

### **KEYNOTE LEGEND ROOF PLAN**

03-9 CONCRETE BALLAST PAVERS - 2' X 2' X 2" WITH PROTECTION SHEET.

05-10 PRE-FINISHED METAL CAP/COPING ON SINGLE 2X PRESSURE TREATED WOOD BLOCKING. EXTEND RUBBER MEMBRANE FLASHING TO EXTEND UP AND OVER PT WOOD BLOCKING AND FULLY SEAL TO FACE OF PRE-CAST CONCRETE WALL PANEL. 05-11 PRE-FINISHED METAL 24 GA. GRAVEL STOP ON SINGLE 2X PRESSURE TREATED WOOD BLOCKING, EXTEND RUBBER MEMBRANE FLASHING TO EXTEND UP AND OVER PT WOOD BLOCKING AND FULLY SEAL TO FACE OF PRE-CAST CONCRETE WALL PANEL.

05-23 OSHA COMPLIANT METAL ROOF ACCESS LADDER AND PLATFORM 'BRIDGE BETWEEN' WITH STEEL GUARDRAIL, PAINTED.

22-2 2'-0", 4'-0" OR 6'-0" WIDE SCUPPERS - 6" ABOVE PRIMARY DRAIN - REFER TO ARCHITECTURAL ELEVATION DRAWINGS, STRUCTURAL, AND PLUMBING DRAWINGS. LOCATION OF SCUPPER DRAINS, DO NOT PLACE OUTFALL DIRECTLY ABOVE EXTERIOR DOORS OR WINDOWS. REFER TO DETAIL 3/A4.0. ALTERNATE: PROVIDE SCRUPPER BOX WITH DOWNSPOUT.

23-2 RTU-REFER TO HVAC DRAWINGS. PROVIDE FRAMING, CURB, FLASHING, AND TAPERED INSULATION FOR DRAINAGE AROUND HATCH AS REQUIRED

23-5 POTENTIAL ROOF TOP REFRIGERATION UNITS FOR NEW COOLER TO REPLACE EXISTING RTU'S.

23-6 POTENTIAL NEW RTU.

### **ROOFING SYSTEM NOTES:**

**ROOF ASSEMBLY (AMBIENT)**: BALLASTED 45 MIL EPDM ROOF MEMBRANE ON 6" DIRECT TO DECK APPROVED EPS INSULATION (R25 - TWO LAYERS OF 3", STAGGERED) ON METAL DECK (SEE STRUCTURAL DRAWINGS)

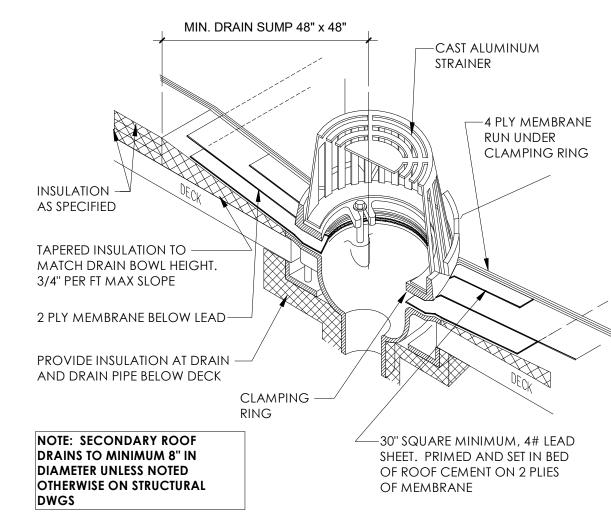
ROOF TOP EQUIPMENT TO BE POSITIONED BEHIND RAISED PARAPETS AS INDICATED BY HATCH PATTERN. PROVIDE SUPPLEMENTAL SCREENING FOR ROOF TOP UNITS THAT ARE NOT SCREENED BY PARAPETS.

PROVIDE ROOF PAVERS AT ROOF HATCH AND AT ALL ROOF TOP UNITS. REFER TO HVAC PLANS FOR EXACT LOCATION.

PROVIDE ROOF PAVERS AT ROOF HATCH AND AT ALL ROOF TOP UNITS. REFER TO HVAC PLANS FOR EXACT LOCATION.

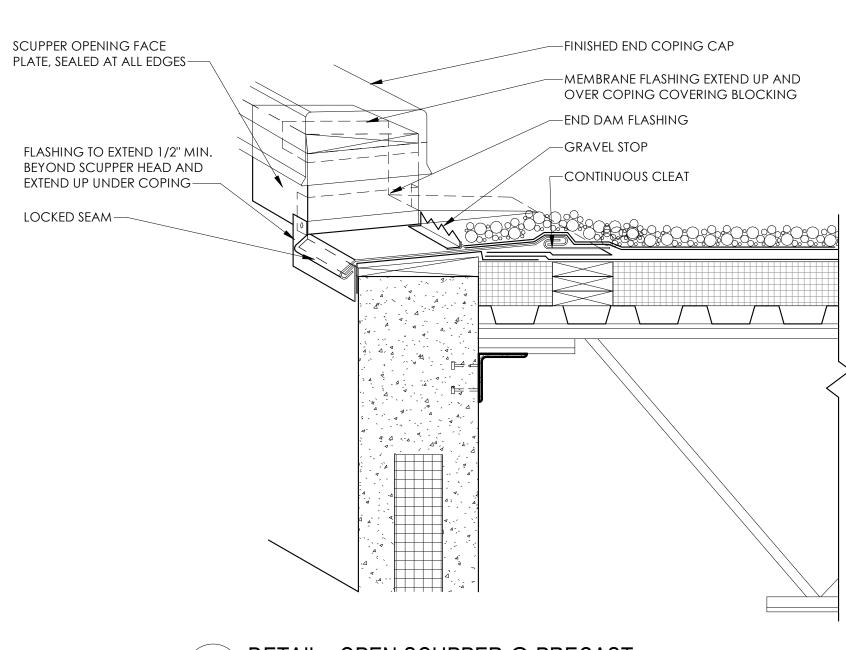
### ROOF IS DESIGNED FOR <u>NO</u> CONTROL FLOW

RTU EQUIPMENT REFER TO MECHANICAL PLANS

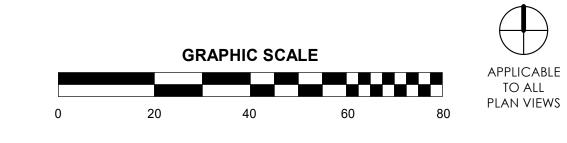


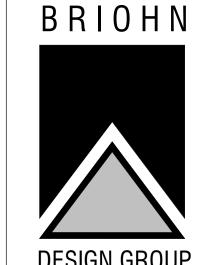
ROOF DRAIN DETAIL

1/2" = 1'-0"



3 DETAIL - OPEN SCUPPER @ PRECAST
1 1/2" = 1'-0"

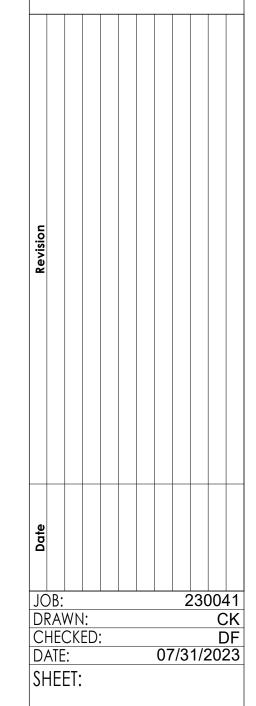




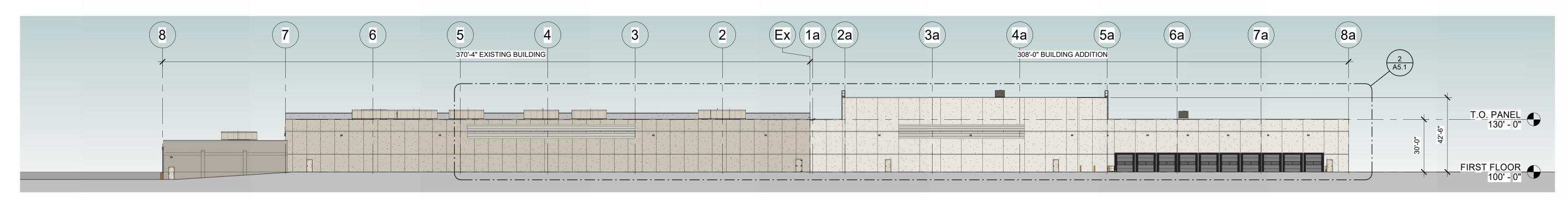
3885 N BROOKFIELD ROAD, SUITE 200 BROOKFIELD WISCONSIN 53045-1950 (262) 790-0500 PHONE (262) 790-0505 FAX

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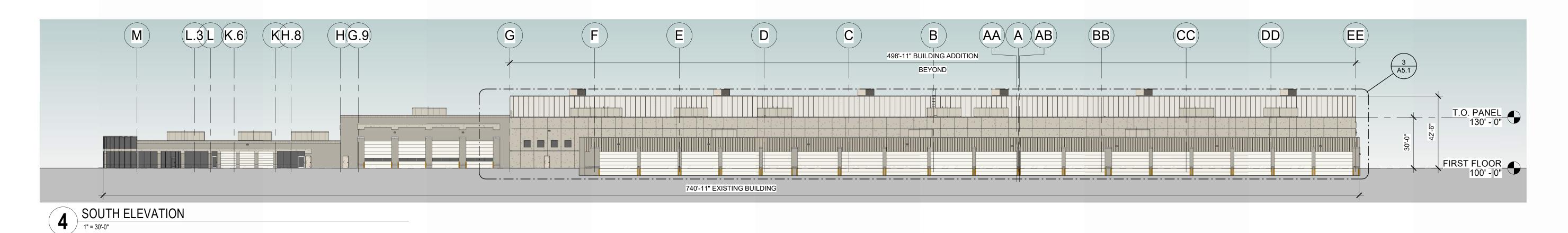
DISTRIBUTING BEER

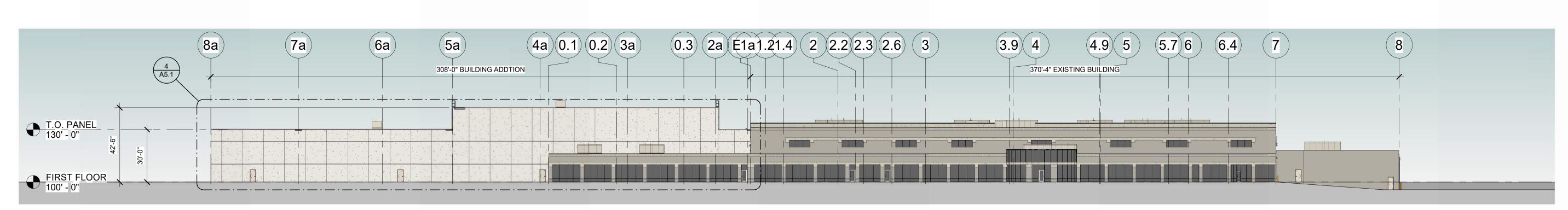






# 2 EAST ELEVATION 1" = 30'-0"





# WEST ELEVATION 1" = 30'-0"

## WALL COLOR LEGEND

### **COLOR 1** - MATCH EXISTING EXPOSED AGGREGATE STONE

COLOR 2 - MATCH EXISTING 4" X 1/2" DEEP REVEAL

### **EXTERIOR SYSTEMS:**

ROOF ASSEMBLY (AMBIENT): BALLASTED 45 MIL EPDM ROOF MEMBRANE ON 6" DIRECT TO DECK APPROVED EPS INSULATION (R25 - TWO LAYERS OF 3", STAGGERED) ON METAL DECK (SEE STRUCTURAL DRAWINGS)

INSULATED PRECAST WALL PANEL SYSTEM: 12" NOM. INSULATED PRECAST CONCRETE WALL PANEL (R-13.4) INSULATED METAL WALL PANEL SYSTEM: 4" INSULATED METAL WALL PANEL SYSTEM (R-26)

### PRECASTER NOTE:

PRECASTER TO PROVIDE COVERS FOR ALL ROUND RECESSED POCKETS AND PROVIDE CLOSED CELL SPRAY FOAM INSULATION WITH STEEL PREFINISHED METAL COVER PLATES FOR ALL OTHER SHAPE OPENINGS OR RECESSED AREAS (BEAM, LINTEL, JOIST, GIRDER BEARING OR OTHER POCKETED CONDITIONS) ON INTERIOR SIDE OF THE PRECAST WALL PANELS

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

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

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

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

## PER 2015 IECC:

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

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

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

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

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

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

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

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

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

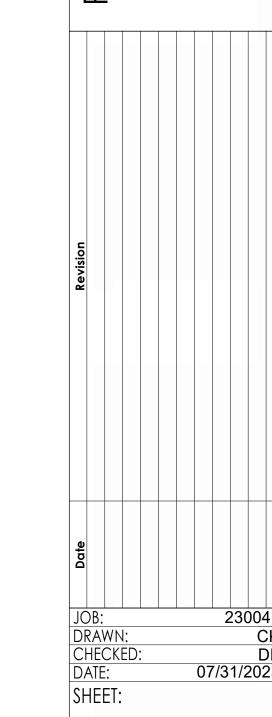
PROPOSED BUILDING COMPLIES.

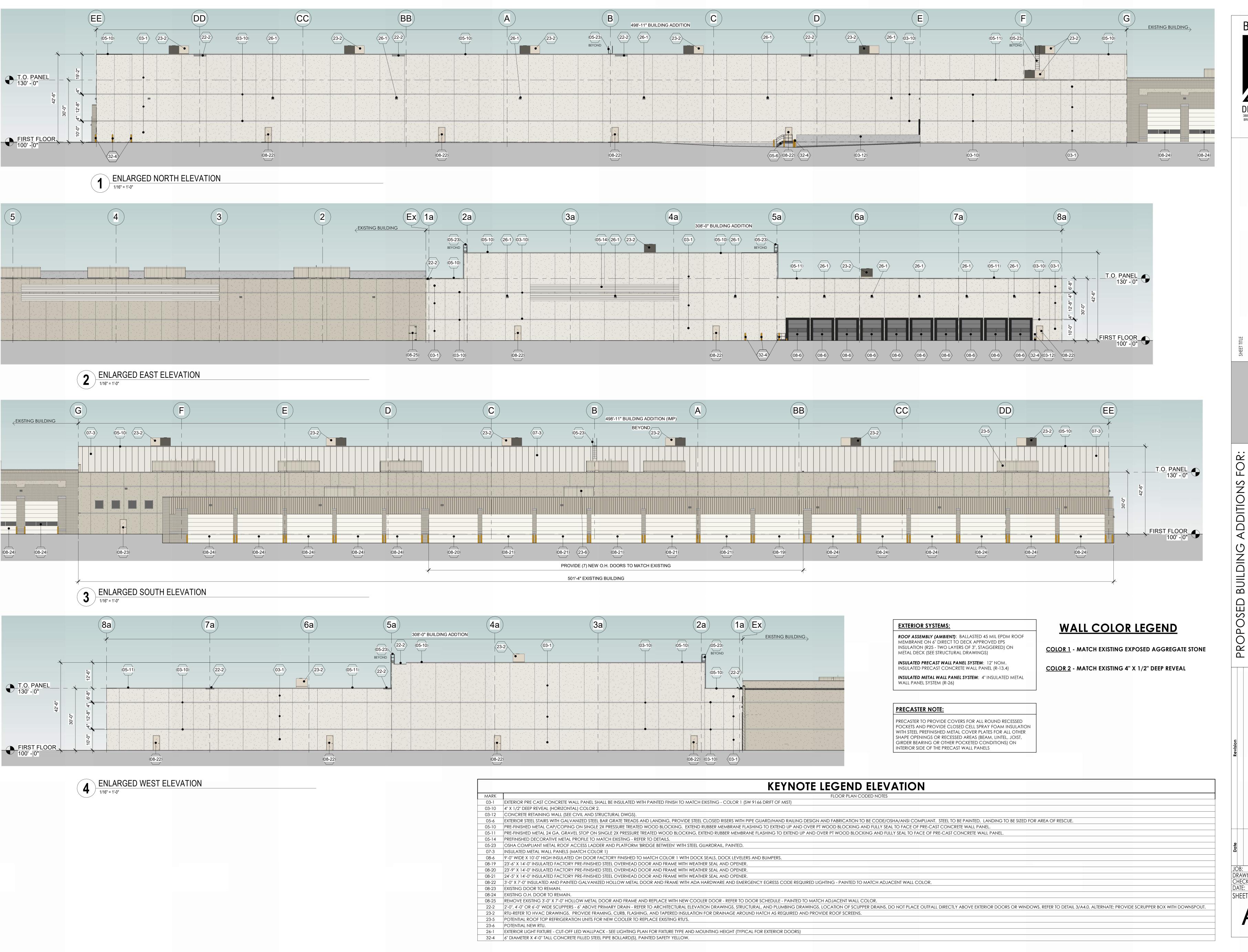


EXTERIOR TIONS ERA ELE

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DISTRIBUTING
MILLER WAY BEER

OSED





DESIGN GROUP

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(262) 790-0505 FAX

ENLARGED EXTERIO ELEVATIONS

BEER CAPITOL DISTRIBUTING
W222 N5700 MILLER WAY

JOB: 230041
DRAWN: CK
CHECKED: DF

SHEET: **A5.1** 

PROPOSED BUILDING ADDITIONS FOR:

BEER CAPITOL DISTRIBUTING

W222 N5700 MILLER WAY
SUSSEX, WISCONSIN

JOB:

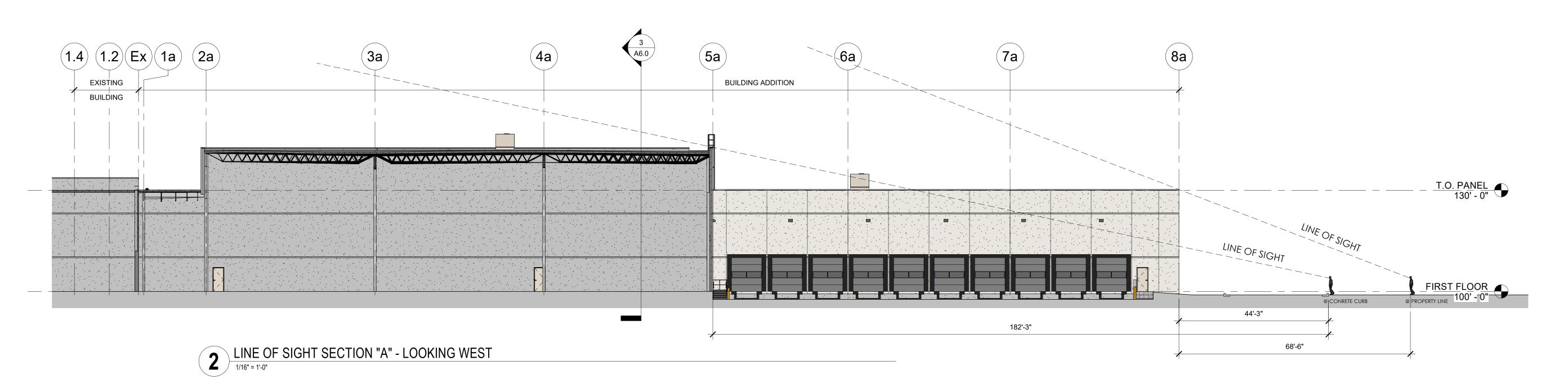
DRAWN:
CHECKED:
DATE:

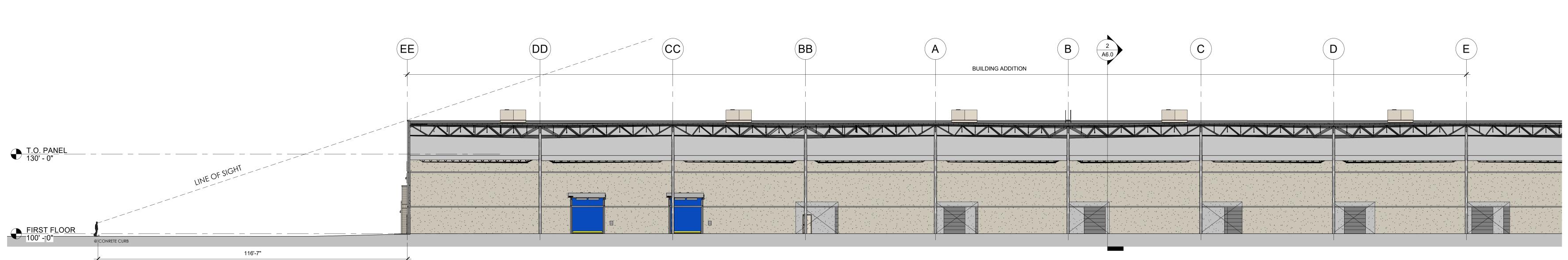
SHEET:

A6.0

A A A 

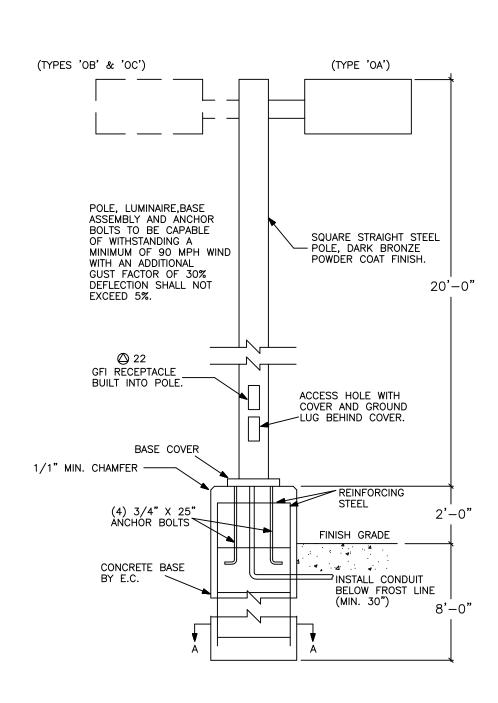
1 OVERALL SITE ROOF PLAN
1" = 80'-0"



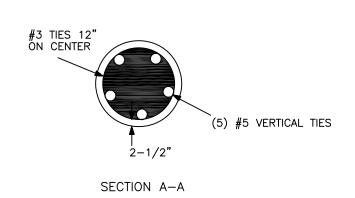


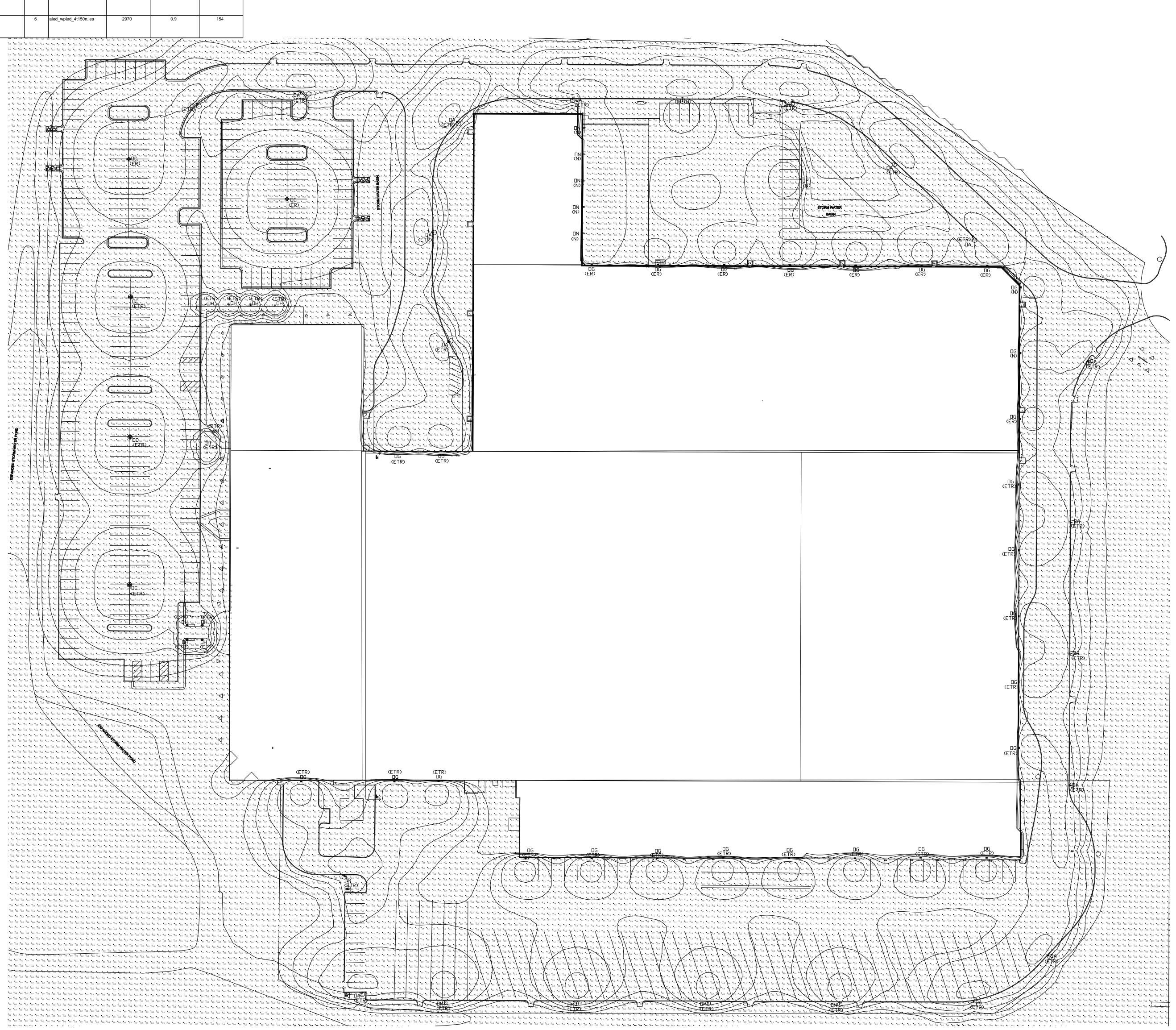
Statistics							
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min	
Site Lighting	+	1.5 fc	27.5 fc	0.0 fc	N/A	N/A	

(N) - NEW FIXTURE (ER) - EXISTING RELOCATED (ETR) - EXISTING TO REMAIN



FIXTURE TYPE 'OA', 'OB', & 'OC' MOUNTING DETAIL NO SCALE





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6.23.23 CB #9

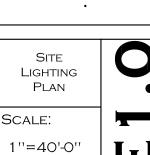
PACE ELECTRIC, INC. 12015 W. JANESVILLE RD HALES CORNERS, WI (414) 425-3305

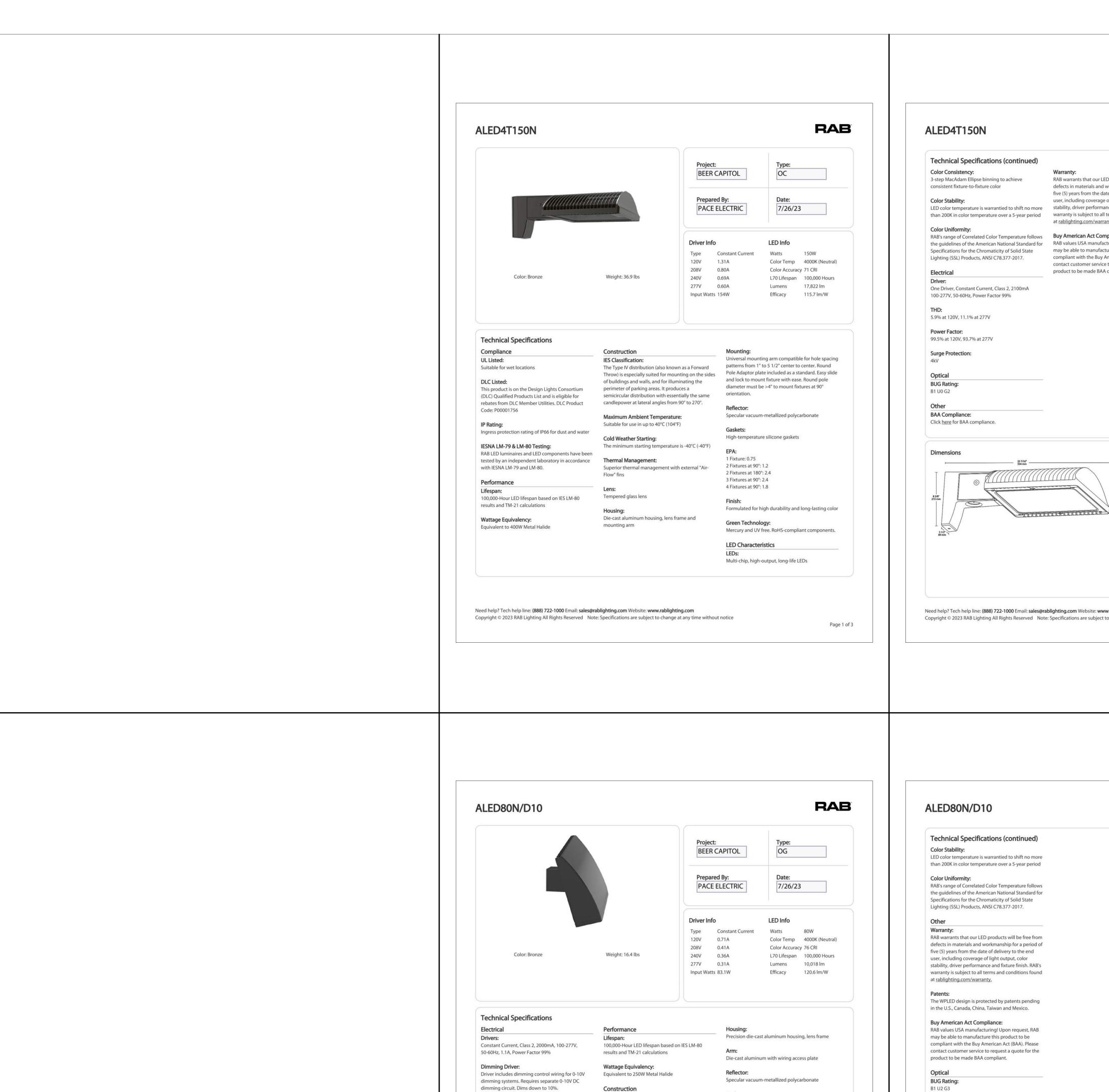
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N5700 M SUSSEX,

07/31/2023

Drawn By: PROJECT NUMBER:





IES Classification:

Ambient Temperature:

Cold Weather Starting:

Thermal Management:

tested by an independent laboratory in accordance operation, most efficient output and maximum LED Color Consistency:

RAB LED luminaires and LED components have been optimal heat sinking. The ALED is designed for cool

Need help? Tech help line: (888) 722-1000 Email: sales@rablighting.com Website: www.rablighting.com

Copyright © 2023 RAB Lighting All Rights Reserved Note: Specifications are subject to change at any time without notice

5.99% at 120V, 10.03% at 277V

99.5% at 120V, 93.6% at 277V

within 4 feet of the ground.

IESNA LM-79 & LM-80 Testing:

with IESNA LM-79 and LM-80

Suitable for wet locations. Suitable for mounting

Power Factor:

Surge Protection:

Compliance

UL Listed:

The Type IV distribution (also known as a Forward

semicircular distribution with essentially the same

The minimum starting temperature is -40°C (-40°F)

Cast aluminum Thermal Management system for

life by minimizing LED junction temperature.

candlepower at lateral angles from 90° to 270°.

perimeter of parking areas. It produces a

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

Throw) is especially suited for mounting on the sides of buildings and walls, and for illuminating the

High-temperature silicone

1 Fixture: 1.5

2 Fixtures at 90°: 2.4

3 Fixtures at 90°: 3.2

4 Fixtures at 90°: 3.2

Green Technology:

**LED Characteristics** 

Formulated for high durability and long-lasting color

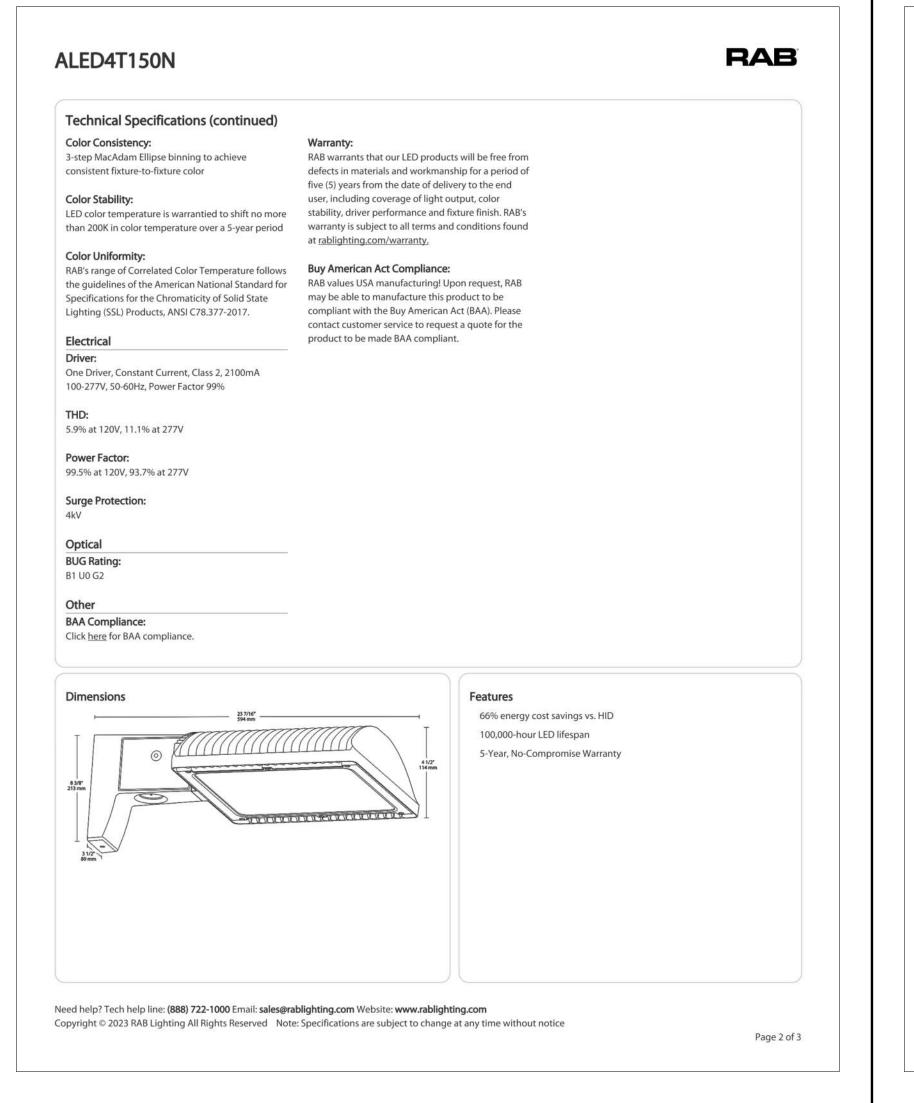
Mercury and UV free. RoHS-compliant components.

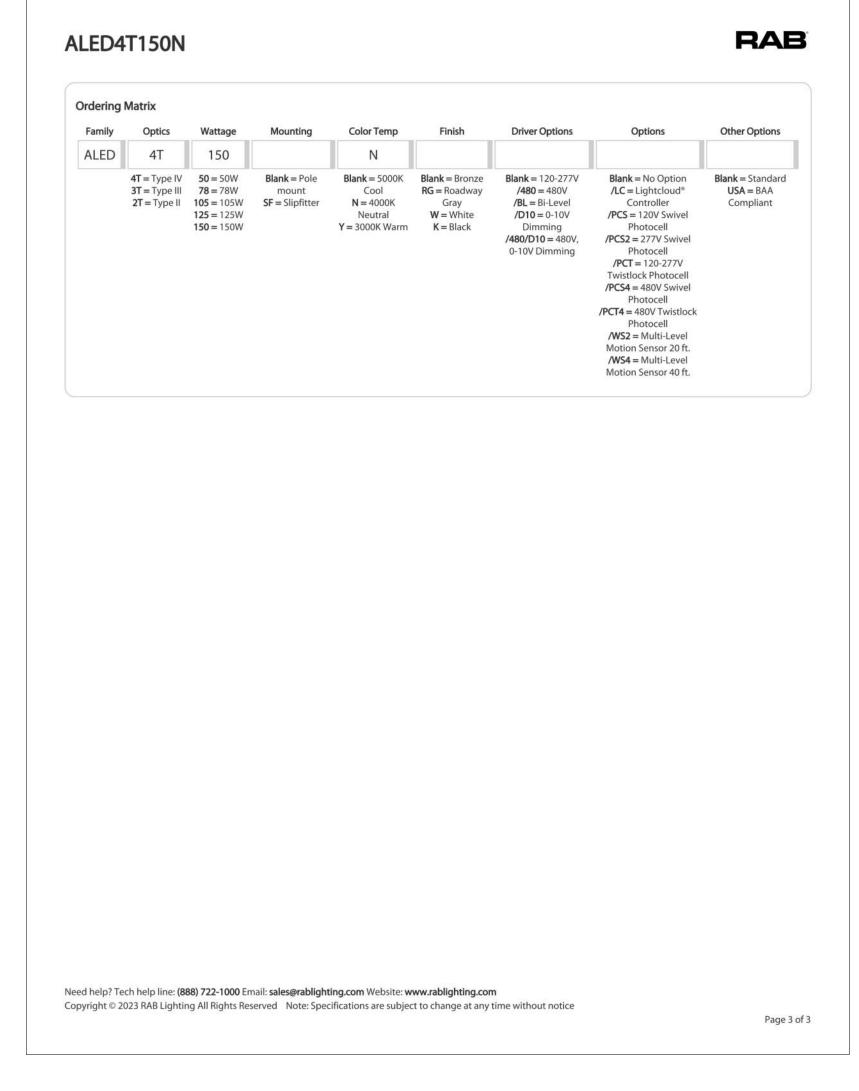
Page 1 of 3

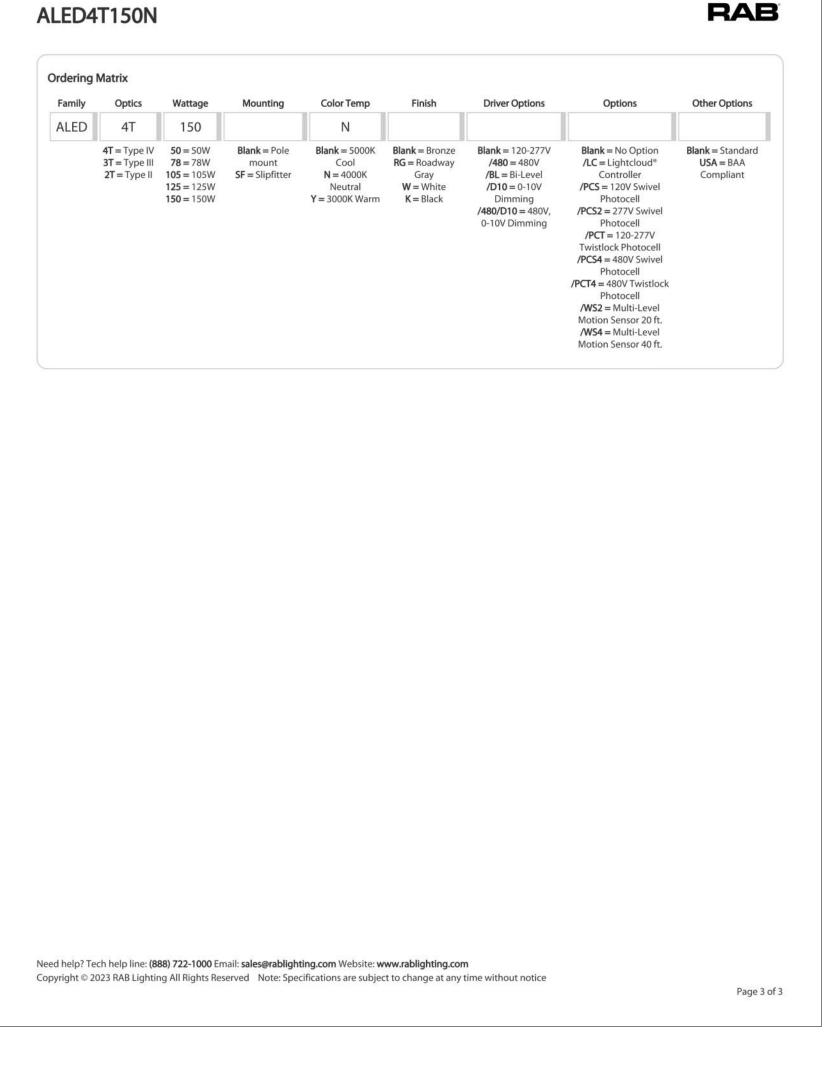
3-step MacAdam Ellipse binning to achieve

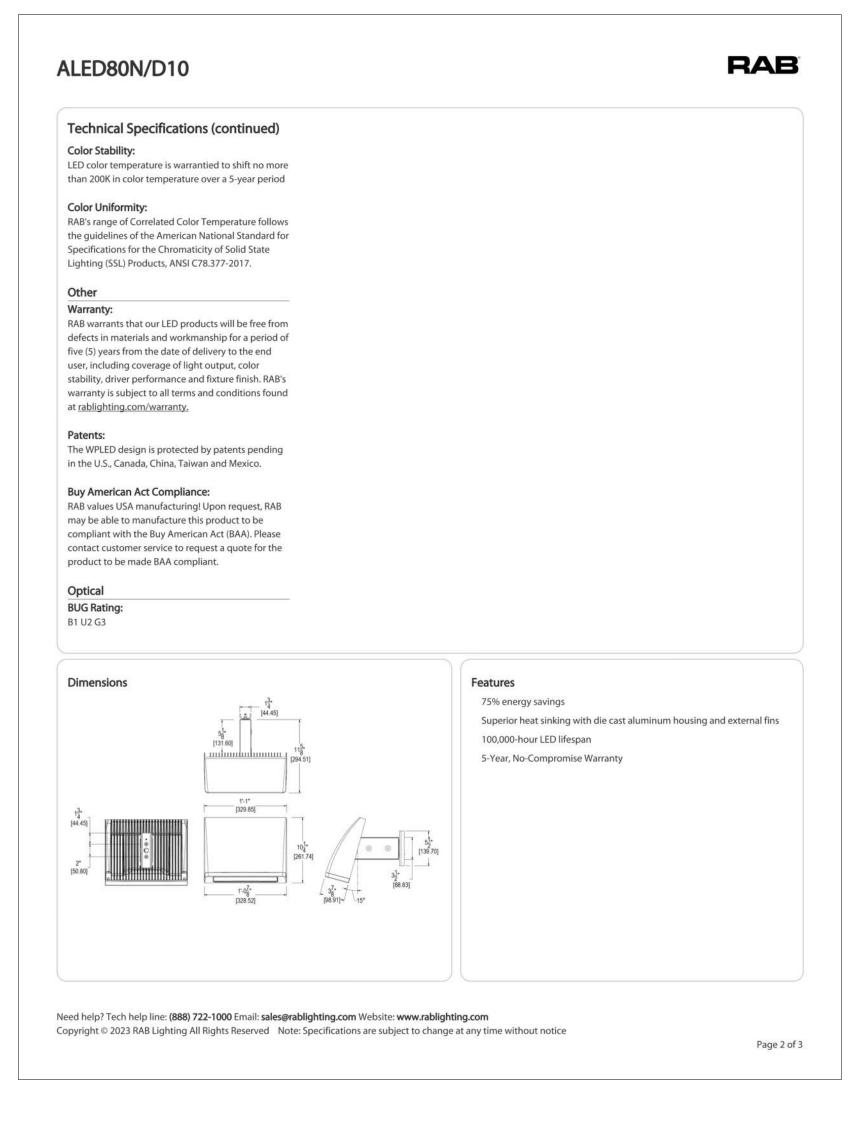
consistent fixture-to-fixture color

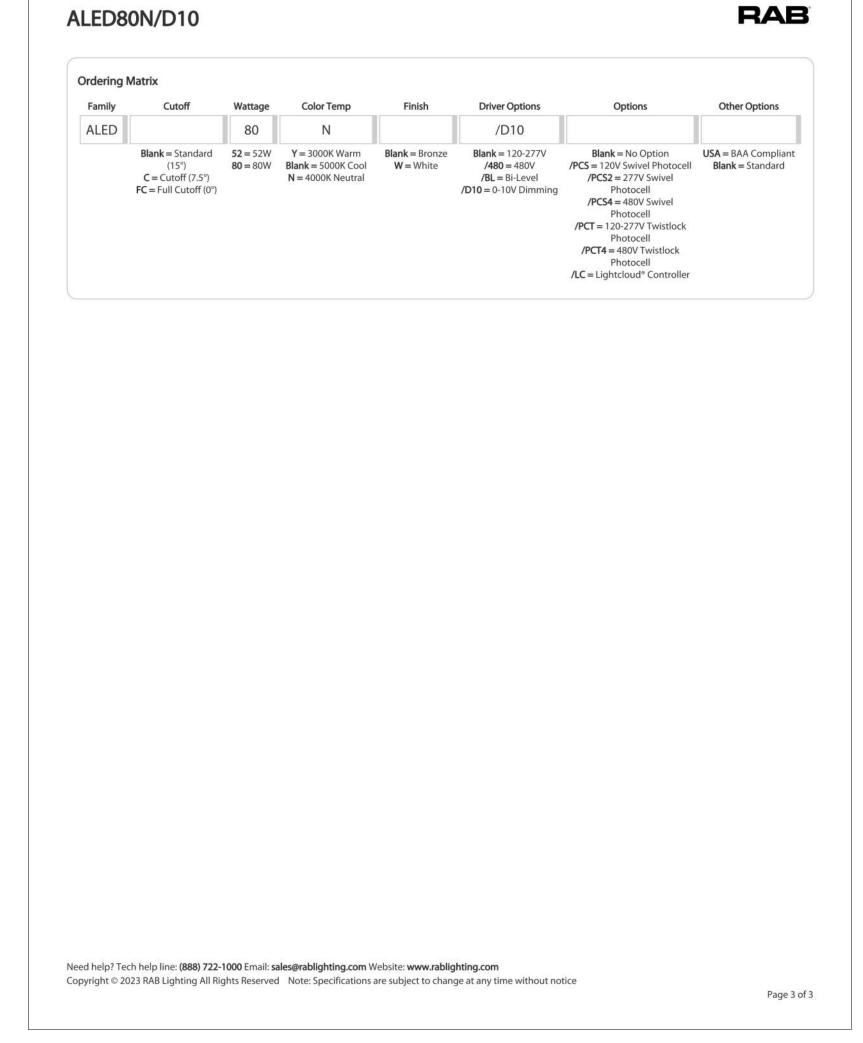
2 Fixtures at 180°: 2.9







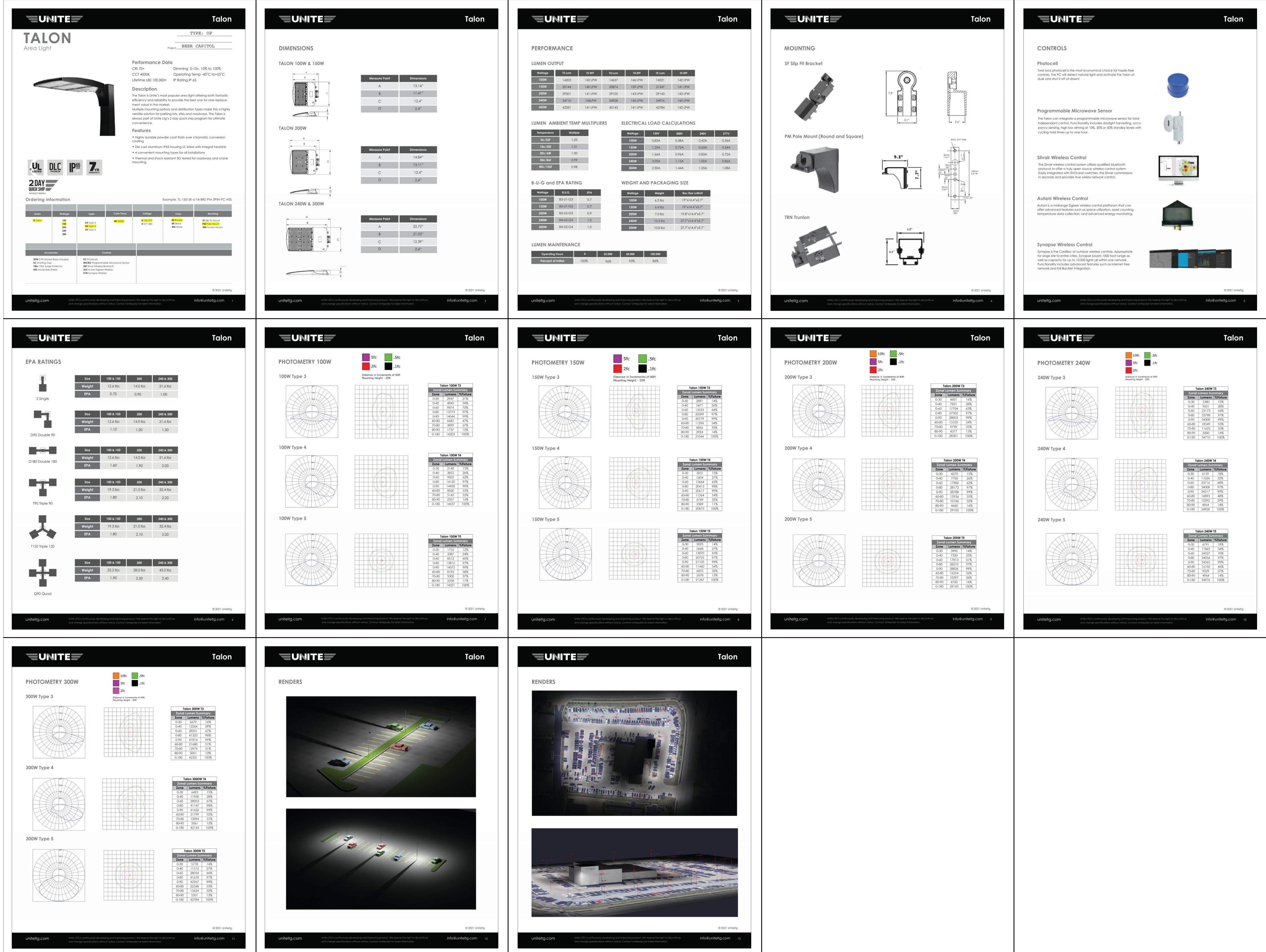


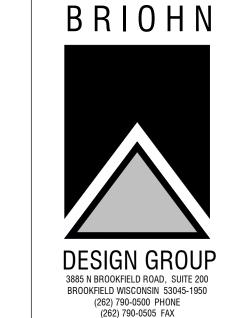




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ER CAPITOL DISTRIBUTING
W222 N5700 MILLER WAY
SUSSEX, WISCONSIN OSED BEER

#### The Conditional Use Standards:

17.0502 APPLICATION. Applications for conditional use permits shall be made to the Village on forms furnished by the Village and shall include Sections A, E, F and G. and may include any or all of Sections B, C, and D. as determined by the Administrator:

- A. Names and addresses of the applicant, owner of the site, or other appropriate entities or persons implementing the project as required by the Administrator.
- B. Description of the subject site by lot, block and recorded subdivision or by metes and bounds; address of the subject site; type of structure; proposed operation or use of the structure or site; number of employees; and the zoning district within which the subject site is located. For floodland conditional uses, such description shall also include information that is necessary for the Plan Commission to determine whether the proposed development will hamper flood flows, impair floodplain storage capacity, or cause danger to human or animal life. This additional information may include plans, certified by a registered professional engineer or land survey or, showing elevations or contours of the ground; fill or storage elevations; first floor elevations of structures; size, location and spatial arrangement of all existing and proposed structures on the site; location and elevation of streets, water supply, and sanitary facilities; photographs showing existing land uses and vegetation upstream and downstream; soil types; and other pertinent information.
- C. A topographic map, drawn to a scale of not less than 200' to 1" showing the land in question, its legal description and location; location and use of existing buildings; sanitary systems and private water supplies on such land; the high water elevation of any navigable water within 100' of the land in question; and the proposed location and use of any buildings, sanitary systems and wells on such land and within 100' of such land in question.
- D. Additional information as may be required by the Plan Commission or Administrator. {This may come out during the Public Hearing.}
- E. A fee, as may be established and periodically modified by resolution of the Village Board, shall accompany each application. Such fee shall be paid by cash, check or money order to the Village. Costs incurred by the Village in obtaining legal, planning, engineering and other technical and professional advice in connection with the review of the conditional use and preparation of conditions to be imposed shall be charged to the applicant.
- F. Where necessary to comply with certain Wisconsin Statutes, an application will be submitted at the appropriate time to the Department of Natural Resources. The site plan and plan of operation information sheet and plan of operation approval form furnished by the Village shall be submitted prior to scheduling before the Plan Commission.
- 17.0503 REVIEW AND APPROVAL. The Plan Commission shall review the site, existing and proposed structures, architectural plans, neighboring uses, parking areas, driveway locations, highway access, traffic generation and circulation, drainage, sewerage and water systems, and the proposed operation.
- A. Upon receipt of the application, foregoing data and fees, the Plan Commission shall establish a date for a public hearing and shall public notice of the hearing once each week for two consecutive weeks in the official newspaper. Notice of the public hearing shall be given to the owners of all lands within 200' of any part of the land included in such conditional use by mail at least 10 days before such public hearing. A copy of the notice of public hearing along with pertinent information

relative to the specific nature of the matter (copy of application and map) shall be transmitted without delay to the Plan Commission. Compliance with this subparagraph shall not be a condition precedent to proper legal notice and no hearing or action taken thereon shall be deemed invalid or illegal because of any failure to mail the notices provided for in this subparagraph.

- B. The procedure for public hearing before the Plan Commission shall be as follows: 1. Any person may appear in person, by agent, or attorney. 2. The Plan Commission shall afford the applicant and each interested person opportunity to present evidence to rebut or offer countervailing evidence. 3. The Plan Commission shall take minutes of the proceedings and shall mark and preserve all exhibits. The Plan Commission shall, when requested by an applicant or a petitioner objecting to the action, cause the proceedings to be taken by a stenographer or by a recording device provided that the applicant or the petitioner objecting making the request pays any and all costs for the stenographer or recording device and any copies of the proceedings. If requested by both the applicant and the petitioner the costs shall be split evenly unless otherwise agreed to by the parties.
- C. Within 95 days of the completion of the hearing conducted by the Plan Commission, the Plan Commission shall render its written determination stating the reasons therefore. If additional time is necessary beyond the 95 days referred to above, such time may be extended with the consent of the petitioner. Failure of the Plan Commission to render a decision as set forth shall constitute approval of the permit. The factual basis of any decision shall be solely the evidence presented at the hearing. The Village Clerk shall mail a copy of the determination to the applicant.
- D. Conditions such as landscaping, architectural design, type of construction, flood proofing, anchoring of structures, construction commencement and completion dates, sureties, lighting, fencing, planting screens, operational control, hours of operation, improved traffic circulation, deed restrictions, highway access restrictions, increased yards, or parking requirements may be required by the Plan Commission upon its finding that these are necessary to fulfill the purpose and intent of this ordinance.
- E. Compliance with all other provisions of this ordinance, such as lot width and area, yards, height, parking, loading, traffic, and highway access shall be required of all conditional uses unless otherwise authorized to be modified by a conditional use. Variances shall only be granted as provided in Section 17.1200 of this ordinance.
- F. Changes in use subsequent to the initial issuance of a conditional use permit shall result in a need to change the initial conditions and shall require an amendment to the conditional use permit. Enlargement of a conditional use shall not be considered an amendment. If any holder of a conditional use permit wishes to extend or alter the terms of such permit, the permit holder must apply for an amendment to the conditional use permit through the procedure of application for conditional use permits detailed herein. The process for amending a permit shall generally follow the procedures for granting a permit as set forth in Sections 17.0501, 17.0502 and 17.0503, and shall require the filing of an application and a hearing as provided above.

#### The Zoning District Standards Section 17.0420 BP-1 Business Park District

#### 17.0420 BP-1 BUSINESS PARK DISTRICT

The BP-1 Business Park District is intended to provide for the orderly and attractive grouping of diverse office, retail, and customer service uses, mixed with industrial uses of limited intensity where the appearance of such mixed uses is enhanced by pleasing building architecture and generously landscaped sites free of outside storage and outside

display of products. The district is intended to be located in highly visible locations adjacent to arterial highways, and should be buffered by means of landscaping and berms from residential uses.

#### A. Permitted Uses

- Accommodations and Food Service
  - (a) Restaurants, snack stands, and mobile food services. For a drive- through the Plan Commission must find that the vehicle stacking and noise from its operation will not impact surrounding properties or any public roadway.
  - (b) Food service contractors and caterers
  - (c) Hotels and Motels

#### 2. Educational, Health Services, and Social Services

- (a) Commercial day care centers provided that any outside play area is surrounded by a security fence; that no day care center is located within 300 feet of a gasoline service station, underground gasoline storage tanks, or any other storage of explosive material; that no day care center shall be located in an area where air pollution caused by smoke, dust, gases, or other particulate matter would endanger children; that no day care center shall be located in an area where noise would be so loud, shrill, or have an impulse to endanger children; that traffic be managed in a manner to minimize danger to children; and provided that adequate parking and circulation be provided on the day care facility site in accordance with the standards set forth in Section 17.0603(K)(6)(h)(3) of this Ordinance.
- 3. General Services
  - (a) Repair and Maintenance of consumer electronics, electronic and precision equipment commercial and Industrial machinery and equipment, appliances, furniture/reupholsters.
  - (b) Barber, beauty, nail salons, spa treatment services
  - (c) Dry cleaning and laundry services (non-industrial)
  - (d) Photo finishing laboratories
  - (e) General Business Offices.
  - (f) General Construction trade services (carpenters, electricians, flooring services, lawn and landscaping services, lighting services, masonry services, painting services, plastering services, plumbing and heating contractors, roofing services, sheet metal services, welding services, and building showrooms)
- 4. Finance, Insurance, Real Estate, and Leasing
  - (a) Financial Service Institutions, for a drive-through the Plan Commission must find that the vehicle stacking and noise from its operation will not impact surrounding properties.
  - (b) Monetary Authority
  - (c) Financial investment, insurance offices, and similar financial products
  - (d) Real estate, appraisers, and developer offices
- 5. Office equipment rental and leasing Information Services
  - (a) Newspapers and Publishers

- (b) Computer programming, software publishers and data/system processing
- (c) Video, film, sound, photo production and studios
- (d) Media station and distribution center, excluding towers and dishes
- (e) Telecommunications services, excluding towers and dishes
- 6. Manufacturing: The manufacture, fabrication, assembly, and/or processing of the following products; or parts, supplies, or subassemblies of the same:
  - (a) Fabrics and Textile Products
    - (1) Yarn, felt, and fabric
    - (2) Carpet, rugs, drapes, canvas, and rope
    - (3) Clothing, hosiery, hats, gloves, shoes
    - (4) Packing and assembly of fur and leather products, no tanning
    - (5). Upholstery of furniture and automotive
  - (b) Wood and Paper Products
    - (1) Wood furniture and wood products
    - (2) Paper products (non pulp)
    - (3) Printing, binding, and associated printing services
  - (c) Home, health, beauty, and cleaning Products
    - (1) Toiletries
    - (2) Medical, botanical, and pharmaceutical processing (non hazardous)
    - (3) Cosmetic manufacturing
    - (4) China, pottery, porcelain, clay, ceramics, silverware
    - (5) Glass and glass products
    - (6) Jewelry
    - (7) Home décor items of art, lamps, furniture, wallpaper.
    - (8) Brooms and brushes
  - (d) Machinery and Metal Products
    - (1) Rolled wire, metal product manufacturing
    - (2) Tool and die, and machining
    - (3) Machinery for of farming, construction, mining, woodworking, paper, textile, printing, food products, commercial or industrial uses, service industry, mechanical, crane, elevator, pumps, and motors.
  - (e) General manufacturing
    - (1) Electronics, telecommunications, medical instruments, scientific and laboratory equipment, measuring and recording devices.
    - (2) Electrical appliances, switches, cable, and components
    - (3) Vehicles, vehicle parts, and equipment
    - (4) Sporting goods, hobby products, musical instruments, and marking devices
    - (5) Signage and advertising products
- 7. Professional, Technical, Scientific, and Administrative Services
  - (a) Legal, notaries, and title services
  - (b) Accountants, tax preparation, payroll, and other accounting services
  - (c) Architects, landscape architects, engineering, surveying services
  - (d) Interior, industrial, graphic, and fashion design services
    - (e) Consulting/professional services of advertising, management, HR, marketing, IT.

- (f) Laboratories, research, and development facilities
- (g) Translation and interpretation services
- (h) Employment placement and provider services
- (i) Private investigators, locksmiths, security, and armored car services
- (j) Janitorial services
- (k) Pest control services
- (I) Business service centers and telemarketers
- (m) Building maintenance services
- (n) Packaging and labeling services
- (o) Veterinary Services
- (p) Offices of holding companies and regional managing offices
- 8. Retail Trade
  - (a) Internet sales shopping/mail order business and vending machine sales
  - (b) Factory Outlets and retail sales of products made onsite in the principal industrial operation.
- 9. Public Administration and Government Services
  - (a) Governmental and cultural uses such as fire and police stations, community centers, public works garages, government administration buildings, parks and playgrounds.
- 10. Transportation and Warehousing, as follows:
  - (a) Courier, delivery, postal service businesses
  - (b) Limited wholesaling, warehousing and storage facilities for distributors, provided that such warehousing and storage does not exceed 50,000 square feet.

#### B. Permitted Accessory Uses

- 1. Garages for storage of vehicles used in conjunction with the principal business park operation.
- 2. Off-street parking and loading areas. Multi-level parking garages shall be designed to minimize impact to adjacent properties and be designed to architecturally match the principal structure.
- 3. Office, storage, power supply, distribution, warehousing, and other uses normally auxiliary to permitted business park uses.
- 4. Indoor storage and sale of machinery and equipment associated with the permitted business park uses.
- 5. Satellite dish antennas located on the roof of the principal structure or in the rear yard. Where the satellite dish is roof-mounted, a registered engi- neer shall certify that the structure is adequate to support the load.
- 6. Roof-mounted solar collectors provided that a registered engineer shall certify that the structure is adequate to support the load.

#### C. Conditional Uses

- 1. Conditional uses as allowed in Section 17.0500 Conditional Uses.
- 2. No Adult Oriented Establishment except as permitted in accordance with Conditional Uses Section 17.0508.

#### D. Certain Incompatible Uses Prohibited

The following uses are considered to be incompatible with the residential characteristics of the Village and surrounding area and are herewith prohibited:

1. Manufacturing/processing of ammonia, asbestos, asphalt, cabbage,

chlo- rine, coal tar, creosote, explosives, fertilizer, fish, glue, grease, gypsum,

insecticide, lampblack, offal, poison, pulp, pyroxylin, and radioactive materials.

- 2. Storage of bulk fertilizer, explosives, gasoline in excess of 50,000 gallons, grease, and radioactive materials.
- 3. Forges, foundries, garbage incinerators, animal reduction, rubbish storage, slaughter houses, smelters, stockyards, and tanneries.

#### E. Lot Area and Width

- 1. Lots shall have a minimum of 40,000 square feet in area and shall be not less than 150 feet in width.
- 2. To achieve a campus-like appearance, lot coverage by buildings, accessory structures, surface parking and loading areas, and driveways shall occupy no more than 75 percent of the lot area. Landscaped open space shall occupy not less than 25 percent of the lot area.
- F. Building Height
  No building or parts of a building shall exceed 60 feet in height.

#### G. Setback and Yards

- 1. There shall be a minimum building setback of 40 feet from the street right- of-way.
- 2. There shall be a side yard of 25 feet on each side of all structures not exceeding 45 feet in height. Buildings in excess of 45 feet in height shall increase the minimum side yards one (1) foot for each additional one (1) foot of building height over 45 feet up to a maximum height of 60 feet.
- 3. There shall be a rear yard of not less than 25 feet.
- 4. The Plan Commission may reduce setbacks within this district outside of a Planned Development Overlay District if it finds that in granting the reduced setbacks:
  - (a) The Site is masterplanned and provides an efficient use of land,
  - (b) The health, welfare, and safety of the public is not jeopardized by the setback reduction,
  - (c) The setback change will encourage pedestrian interaction between buildings.
  - (d) The reduced setback serves to implement the Design Standards of the Village.
- 5. Service islands for gasoline service structures shall be considered principal structures and shall comply with building setback requirements. Canopies over a gasoline service island may extend into a front, side, or rear yard, but shall not encroach more than six (6) feet into any required yard. In no case, may a canopy extend into a street right-of-way.
- 6. Service islands for gasoline service structures shall be considered principal structures and shall comply with building setback requirements. Canopies over a gasoline service island may extend into a front, side, or rear yard, but shall not encroach more than six (6) feet into any required yard. In no case, may a canopy extend into a street right-of-way.

- H. Erosion Control
  - 1. See Chapter 14 of the Village Municipal Code.
- I. Development Design Standards
  - 1. The Village has established clear land use and design principals, as documented in the Village Development Design Guidelines, to guide future development planning decisions towards implementation of the Village's Smart Growth 2020 Comprehensive Plan. These guidelines are intended to serve as basic criteria during reviews, and are not to be construed as the only applicable design elements. All development proposals shall be evaluated against the adopted Village vision of maintaining a small town atmosphere within the Village, featuring a generous amount of greenspace in residential, commercial, and industrial developments.
- J. Plans and Specifications to be Submitted to Plan Commission
  - 1. To encourage a business park environment that is compatible with the residential character of the Village, and that will maintain a campus like setting, building permits for permitted uses in the BP-1 Business Park District shall not be issued without review and approval of the Plan Commission. Said review and approval shall be concerned with general layout, architectural plans, ingress and egress, parking, loading and unloading, landscaping, and open space utilization.

#### 17.0506 CONDITIONAL USES

- A. The following agricultural, mining, commercial, industrial, and institutional uses shall be conditional uses and may be permitted as specified, but all Conditional Use applicants must produce a "Impact Report" detailing the impacts of said use to neighboring properties and to Village services from traffic, parking, and overflow parking, noise, odor, safety, crime, hours of operation, health and sanitation, and property maintenance issues. The Village Administrator shall analyze said report along with any supplemental reports from the Village, and its agents, to create an impact report for the application utilizing the Professional and Technical Trade standards for traffic, noise, dust, light, crime and fire prevention, etc. as a guide for the same. The Petitioner shall then prove by substantial evidence how their use will mitigate and address the findings of the impact report. In addition additional standards shall apply for specific types of uses as follows:
  - 10. Transportation and Warehousing
    Petitioners for conditional uses in the Warehousing section must:
    - a) In the BP-1 district, truck terminals, warehousing, wholesale and distribution centers, and mail-order centers when not accessory to a BP-1 district permitted use. The Plan Commission must also find the following items: that traffic from the use will not reduce the functionality grade of any nearby intersection(s) without the same being mitigated; and that noise standards of the operations shall be at least 10% lower at the property line than the Village Ordinance. The

Plan Commission must find that the buildings fully adhere to the design standards of the Village and the lot is screened such that the parked vehicles or equipment are not visible from any residential district and the street.

#### Site Plan Review Standards 17.1000

17.1002 PRINCIPLES To implement and define criteria for the purposes set forth in Section 17.1001, the following principles are established to apply to all new structures and uses and to changes or additions to existing structures and uses.

A. No structure, or use shall be established that is counter to the intent of the Design Standards nor shall the same be permitted that would have a negative impact on the maintenance of safe and healthful conditions in the Village. Structures and uses in the B-4 Central Mixed Use District shall also ahere to the intent of the Downtown Development and Design Plan.

#### B. No structure shall be permitted:

- 1. The design or exterior appearance of which is of such unorthodox or abnormal character in relation to its surroundings as to be unsightly or offensive to generally accepted taste and community standards.
- 2. The design or exterior appearance of which is so identical to a building on lots within 500 feet of each other that it creates excessive monotony or 17.1000 drabness, in order to realize architectural uniqueness between lots.
- 3. Where any exposed facade is not constructed or faced with a finished material or color which is aesthetically compatible with the other facades and presents an attractive appearance to the public and to surrounding properties.
- C. The facade of a manufacturing building which faces upon a street right-of-way shall be finished with an aesthetically pleasing material. A minimum of 50 percent of a facade facing a street shall be finished with brick or decorative masonry material. Such masonry facing shall extend for a distance of at least 10 feet along the sides of the structure. Manufacturing buildings on corner lots shall have the required masonry facade facing each street. Metal buildings may be constructed in any business, manufacturing, institutional, or park district, but only by a 3/4 affirmative vote of the Plan Commission.
- D. Building Scale and Mass. The relative proportion of a building to its neighboring buildings, to pedestrians and observers, or to other existing buildings shall be maintained or enhanced when new buildings are built or when existing buildings are remodeled or altered.
- E. Structures and uses shall make appropriate use of open spaces and the Plan Commission may require appropriate landscaping and planting screens. All landscaped areas shall provide a mix of climax trees, tall and medium deciduous trees, tall and medium coniferous trees, deciduous and coniferous shrubs, and grasses. The appropriate mix shall be determined by the Plan Commission.
- F. No articles, goods, material, finished or unfinished product, incinerators, storage tanks, refuse containers, or like equipment shall be kept outdoors, exposed to public view, or exposed to view from adjacent buildings and property. Garbage and refuse containers shall be screened from the

street and from neighboring facilities. The Plan Commission may permit the outdoor display of product or merchandise when it makes a finding that such display in essential to a business or industrial use.

- G. Structures and uses shall be provided with adequate services as approved by the appropriate utility and serve to implement the recommendations of Utility and Stormwater Management Plans of the Village.
- H. Buildings and uses shall provide adequate parking and loading areas. No loading dock or overhead door shall face upon a street right-of-way unless a determination is made by the Plan Commission to allow the same, as described herein.
  - 1. The Plan Commission shall not allow the same unless the Plan Commission first finds either a or b: (a) That the loading dock or overhead door is set back at least 75 feet from the street right-of-way and adequate vehicle turnaround areas have been provided on the lot, such that no maneuvering of vehicles will take place within the street right-of-way in order to access the loading dock or overhead door. (b) That the building is on a lot within the M-1 Industrial District and the building has a previously approved loading dock facing the street.
  - 2. If the Plan Commission finds (1) (a) or (1) (b), above, then the Plan Commission may allow the loading dock or overhead door to face the street right-of-way upon consideration of the following additional factors, without limitation by reason of enumeration: 17.1000 (a) Whether the loading dock or overhead door is set back sufficiently from the street right-of-way to adequately limit the adverse visual impact of the loading dock or overhead door; (b) Whether the number of loading docks or overhead doors that are proposed to face the street right-of-way, due to their number, would create an adverse visual impact; (c) Whether the natural terrain and other existing features of the lot may affect the visual impact of the loading dock or overhead door; and (d) Whether the loading dock or overhead door will be appropriately screened with landscape berms or other landscaping.

Any other standards from Chapter 17 that may be relevant.