



AGENDA

VILLAGE OF LITTLE CHUTE PLAN COMMISSION MEETING

PLACE: Little Chute Village Hall – Village Board Room
DATE: Monday, September 14, 2020
TIME: 6:00 p.m.

- A. Call to order
- B. Roll Call
- C. Public Appearance for Items Not on the Agenda

Virtually attend the September 14th Plan Commission meeting at 6 PM by following the link here:
<https://www.gotomeet.me/JamesFenlon/september-14-plan-commission>

Call-in Information: +1 (571) 317-3122 Access Code: 233-330-093

1. Approval of Minutes from the Plan Commission Meeting of August 10, 2020
2. Recommendation—Hammen Court CSM
3. Recommendation—Prometheus Spirit Court CSM
4. Recommendation—Ordinance Amendment to RC
5. Recommendation—Conditional Use for 1215 Buchanan
6. Recommendation—ID Park Development – Dave Gitter
7. Recommendation—Parking Lot Site Plan for St. Johns
8. Recommendation—Nestle Site Plan
9. Recommendation—Pine Street Parking Lot Alternatives
10. Recommendation—Condominium CSM 1851 E. Elm Drive
11. Unfinished Business
12. Items for Future Agenda

13. Adjournment

Requests from persons with disabilities who need assistance to participate in this meeting or hearing should be made with as much advance notice as possible to the Clerk's Office at 108 West Main Street, (920) 423-3852 September 10, 2020



Information for the Plan Commission Meeting – September 14th, 2020 – 6:00 PM

The Village of Little Chute is taking precautions related COVID-19 as it relates to Village Board meetings. On March 16th, 2020, the Wisconsin Attorney General released guidance for local communities related to Open Meetings and the use of technology while still complying with Wisconsin's Open Meeting laws. You can find Wisconsin Department of Justice guidance here: [DOJ Guidance on Open Meetings](#).

Until further notice, the Village of Little Chute will be providing the following means for residents to interact, engage, and participate in Village Board proceedings. The proceedings of all Village of Little Chute public meetings are recorded and available for review.

1. Virtually attend the September 14th Plan Commission Meeting at 6 PM by following the link here:
<https://www.gotomeet.me/JamesFenlon/september-14-plan-commission>
2. **Call-in Information:** [+1 \(571\) 317-3122](tel:+15713173122) **Access Code:** 233-330-093
3. If you are experiencing connectivity issues or have questions on the options above, please contact James Fenlon at james@littlechutewi.org
4. The Board Room at Village Hall will be open, but board members and staff have the option to attend virtually. We urge residents to participate in our meetings by utilizing the virtual options above.
5. If you have questions or comments regarding the agenda or potential items on the agenda, we urge you to contact Board or staff members regarding your concerns. You can find Board Member contact information here: <http://www.littlechutewi.org/59/Meet-the-Village-Board>
6. If you have questions or comments regarding the agenda, you can also contact the Village Administrator, James Fenlon, at james@littlechutewi.org or 920-423-3850.
7. If you have questions or comments regarding the agenda and want to contact a Village of Little Chute Department Head, you can find a complete staff directory here: <http://www.littlechutewi.org/directory.aspx>

MINUTES OF THE PLAN COMMISSION MEETING AUGUST 10, 2020

Call to Order

The Plan Commission meeting was called to order at 6:00 p.m. by President Vanden Berg

Roll Call

PRESENT: Todd Verboomen
Bill Van Berkel
President Vanden Berg
Kent Taylor
Richard Schevers
EXCUSED: Larry Van Lankvelt

STAFF PRESENT: Administrator Fenlon, Community Development Director Kittel

Public Appearance for Items Not on the Agenda

None

Approve Minutes from the Plan Commission Meeting of July 13, 2020

Moved by Commissioner Verboomen, seconded by Commissioner Schevers to Approve the Minutes from the Plan Commission Meeting of July 13, 2020

All Ayes— Motion Carried

Public Hearing—3639 Don DeGroot Drive

Moved by Commissioner Van Berkel, seconded by Commissioner Verboomen to enter Public Hearing

All Ayes— Motion Carried

Director Kittel went over the application for a preschool to be operated from 3639 Don DeGroot Drive. A question was asked if neighbors need to be notified; Director Kittel advised that all property owners within 100 feet were notified and there were not any negative responses. Mr. Bill Wittmann advised he wasn't against the daycare but was concerned with the drainage system and height of the play system in the back yard; Director Kittel advised that the play system should not be higher than the fence and is allowed to be 6 feet high, also can be up to the property line but not on or over. Director Kittel also advised the drainage system was inspected and there were not any issues found at the time but will ask the building inspector to check. Administrator Fenlon asked Mr. Wittmann to leave his contact information.

Moved by Commissioner Verboomen, seconded by Director Taylor to exit Public Hearing

All Ayes— Motion Carried

Action—Home Occupation Request for 3639 Don DeGroot

Moved by Commissioner Verboomen, seconded by Commissioner Van Berkel to Approve the Home Occupation Request as presented

All Ayes— Motion Carried

Recommendation—1215 Buchanan Street Rezoning Request

Director Kittel advised an application was received to move zoning for this property from Residential to Commercial. A gentleman from Hoover Court thought this would be a good move.

Moved by Commissioner Verboomen, seconded by Commissioner Van Berkel to Recommend to the Village Board to Approve the Rezoning Request with the condition to check with legal counsel on giving the Village flexibility on future use.

All Ayes— Motion Carried

Recommendation—Cobblestone Hotel Site Plan

Director Kittel advised this is the updated site plan with the requested changes made by the Plan Commission, Fox Valley Metro and the Fire Department.

Moved by Commissioner Van Berkel, seconded by Commissioner Verboomen to Recommend the Village Board Approve the updated Cobblestone Hotel Site Plan

All Ayes— Motion Carried

Recommendation—North Evergreen Pond Home Site Plan

Director Kittle advised that staff is recommending approval to the Board with the site plan changes to be made to meet all Village Ordinances.

Moved by Commissioner Van Berkel, seconded by Commissioner Schevers to Recommend the Board Approve the Site Plan with the addition of staff comments being corrected.

All Ayes— Motion Carried

Recommendation—CSM Little Chute North Estates Outlot 4

This change was requested to change this from Outlot 4 to Lot #1 per the Certified Survey Map attached.

Moved by Commissioner Van Berkel, seconded Commissioner Verboomen to Recommend the CSM to the Village Board as presented

All Ayes— Motion Carried

Unfinished Business

None

Items for Future Agenda

None

Adjournment

Moved by Commissioner Verboomen, seconded by Director Taylor to Adjourn the Plan Commission Meeting at 6:55 p.m.

All Ayes— Motion Carried

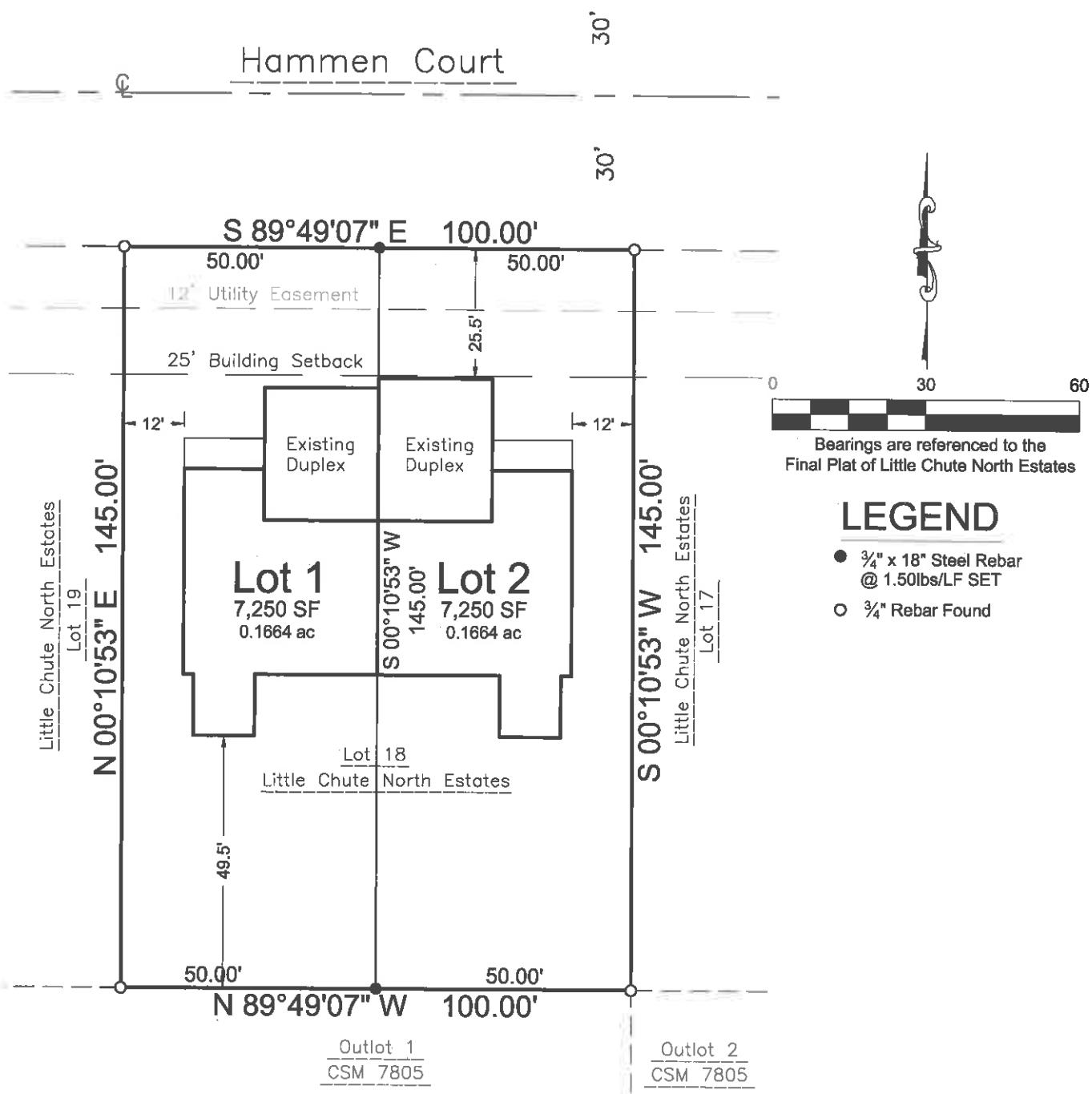
VILLAGE OF LITTLE CHUTE

By: Michael Vanden Berg, Village President

Attest: Laurie Decker, Village Clerk

Certified Survey Map No. _____

All of Lot 18 of Little Chute North Estates, being part Northwest 1/4 of the Southwest 1/4, Section 10, Township 21 North, Range 18 East, Village of Little Chute, Outagamie County, Wisconsin.



Note:

1. Restrictive covenants shall be recorded at the Outagamie County Register of Deeds, providing declarations and/or by-laws similar to those typically recorded on a declaration of condominium. Said covenants shall provide for mediation of any and all disputes between owners of each unit and any third party with regard to construction, use, and maintenance of the real property. Furthermore, said covenants shall specifically state that the village of Little Chute and all approving authorities shall not be held responsible for the same, and that said covenants shall inure to all heirs and assigns.



**DAVEL ENGINEERING &
ENVIRONMENTAL, INC.**
Civil Engineers and Land Surveyors

1184 Province Terrace, Menasha, WI 54952
Ph: 920-991-1866 Fax: 920-441-0804
www.davel.pro

James R. Sehloff
Professional Land Surveyor No. S-2692
jim@davel.pro

Survey for:
Jeff Heiting Builder Inc.
4448 N. Orion Lane
Appleton, WI 54913
File: 6159CSM.dwg
Date: 09/07/2020
Drafted By: jim
Sheet: 1 of 3

WISCONSIN
JAMES R
SEHLOFF
S-2692
APPLETON
WI
7 SEPT 2020
DAVEL SURVEYORS
Date

Certified Survey Map No. _____

All of Lot 18 of Little Chute North Estates, being part Northwest 1/4 of the Southwest 1/4, Section 10, Township 21 North, Range 18 East, Village of Little Chute, Outagamie County, Wisconsin.

Surveyor's Certificate

I, James R. Sehloff, Professional land surveyor, hereby certify: That in full compliance with the provisions of Chapter 236 of the Wisconsin Statutes and the subdivision regulations of the Village of Little Chute, and under the direction of Jeff Heiting Builder Inc., the property owners of said land, I have surveyed divided and mapped this Certified Survey Map; that such map correctly represents all exterior boundaries and the subdivision of the land surveyed; and that this land is all of Lot 18 of Little Chute North Estates, being part Northwest 1/4 of the Southwest 1/4, Section 10, Township 21 North, Range 18 East, Village of Little Chute, Outagamie County, Wisconsin., containing 14,500 Square Feet (0.3329 Acres) of land, subject to all easements, and restrictions of record.

Given under my hand this 7 day of JAMES R. SEHLOFF, 2020.

James R. Sehloff, Wisconsin Professional Land Surveyor No. S-2692

Corporate Owner's Certificate

Jeff Heiting Builder Inc., a corporation duly organized and existing under and by virtue of the Laws of the State of Wisconsin, as the property owners, do hereby certify that we caused the land above described to be surveyed, divided and mapped all as shown and represented on this map.

We do further certify this plat is required by s.236.10 or s.236.12 to be submitted to the following for approval or objection:

Village of Little Chute

IN WITNESS WHEREOF, the said Jeff Heiting Builder Inc., has caused these presents to be

signed by its authorized representatives, located at, _____, Wisconsin, and its corporate seal to be hereunto affixed

this _____ day of _____, 20_____.

In the Presence of: Jeff Heiting Builder Inc.

Jeff Heiting, President

Date

State of Wisconsin)
)ss

County)

Personally came before me this _____ day of _____, 20_____,

the above named, officer of said corporation, and acknowledged that they executed the foregoing instrument as such officers as the deed of said corporation, by its authority.

My commission expires: _____.

Notary Public, Wisconsin

File: 6159CSM.dwg
Date: 09/07/2020
Drafted By: jim
Sheet: 2 of 3

Certified Survey Map No. _____

All of Lot 18 of Little Chute North Estates, being part Northwest 1/4 of the Southwest 1/4, Section 10, Township 21 North, Range 18 East, Village of Little Chute, Outagamie County, Wisconsin.

Village Board Approval Certificate

Resolved, that this certified survey map in the Village of Little Chute, Outagamie County, Jeff Heiting Builder Inc., the property owner, is hereby approved by the Village Board of the Village of Little Chute.

Chairman _____ Date _____

I hereby certify that the foregoing is a copy of a resolution adopted by the Village Board of the Village of Little Chute.

Clerk _____ Date _____

Treasurers' Certificate

We, being the duly elected, qualified and acting Treasurers' of the Village of Little Chute and Outagamie County, do hereby certify that in accordance with the records in our office, there are no unredeemed tax sales and unpaid taxes, or special assessments on and of the land included in this certified survey map.

Village Treasurer _____ Date _____

County Treasurer _____ Date _____

This Certified Survey Map is contained wholly within the property described in the following recorded instruments:

the property owners of record:
Jeff Heiting Builder Inc.

Recording Information:
Doc. 2166866

Parcel Number:
260451928





APPLICATION FOR SUBDIVISION AND/ OR CSM REVIEW

Name of Subdivision: 3110 Spirit Court, 3 Lot CSM

Parent Parcel # 260400521, 260400522 Number of Lots: 3

Preliminary Plat Final Plat CSM

Will deed restrictions be recorded? Yes No

Property Owner Information:

Name: PROMETHEUS HOLDINGS LLC, BLACK DIAMOND HOLDINGS LLC Telephone Number:

Mailing Address: 501 S NICOLET RD, APPLETON, WI 54914

Surveyor Information:

Name: David M. Schmalz Telephone Number: (920) 751-4200 email dschmalz@mcmgrp.com

Engineer Information:

Name: _____ Telephone Number: _____ email _____

Required for plat review:

- Lot Layout (4 full size copies) and (24) 11" x 17" copies
- Topographic survey (4 full size copies) and (2) 11" x 17" copies
- Drainage plan (4 full size copies) and (2) 11" x 17" copies
- Pavement Design Catalog (3 copies)
- Stormwater Pollution Prevention Plan / Erosion Prevention & Sediment Control Plan (3 copies)
- Final plans and specifications of public improvements (4 full size copies) and (2) 11" x 17" copies

Proposed CSM (24) copies

- Plat restrictions or covenants to be recorded (3 copies)

Filing Fees:

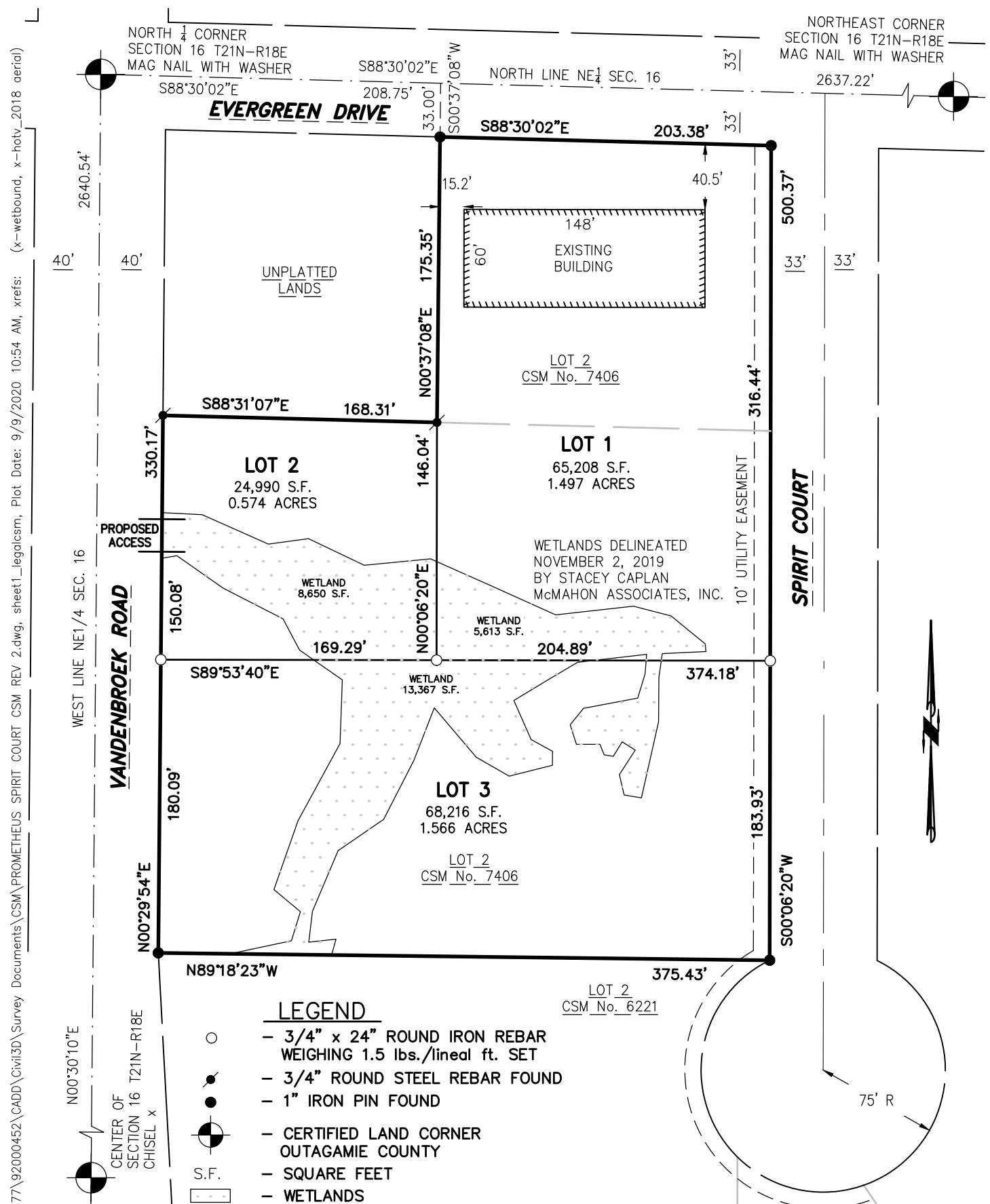
Preliminary Plat \$100.00 plus \$5.00 per lot. Final Plat \$50.00 plus \$2.00 per lot. CSM \$50.00 flat fee.

Amount of Fees submitted: \$50

Signature of Applicant _____ Date _____

Submit to: Director of Community Development
108 W Main Street, Little Chute, Wisconsin 54140
(920)423-3870 jim@littlechutewi.org

ALL OF LOTS 1 & 2 OF CERTIFIED SURVEY MAP No. 7406,
RECORDED AS DOCUMENT No. 2110869, ALL LOCATED IN THE
NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 16,
TOWNSHIP 21 NORTH, RANGE 18 EAST, VILLAGE OF LITTLE
CHUTE, OUTAGAMIE COUNTY, WISCONSIN.



BEARINGS ARE REFERENCED TO THE NORTH
LINE OF THE NORTHEAST 1/4 OF SECTION 16,
TOWNSHIP 21 NORTH, RANGE 18 EAST, WHICH
BEARS S88°30'02"E PER THE PUBLISHED
OUTAGAMIE COUNTY COORDINATE SYSTEM.

DRAFTED BY: DAVID W. JOHNSON

FOR: -PROMETHEUS HOLDINGS, LLC
-501 NICOLET ROAD
-APPLETON, WI 54914

CERTIFIED SURVEY MAP NO. _____

SHEET 2 OF 4

ALL OF LOTS 1 & 2 OF CERTIFIED SURVEY MAP NO. 7406, RECORDED AS DOCUMENT NO. 2110869, ALL LOCATED IN THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 16, TOWNSHIP 21 NORTH, RANGE 18 EAST, VILLAGE OF LITTLE CHUTE, OUTAGAMIE COUNTY, WISCONSIN.

SURVEYOR'S CERTIFICATE

I, David M. Schmalz, Wisconsin Professional Land Surveyor S-1284, certify that I have surveyed, divided and mapped all of Lots 1 & 2 of Certified Survey Map No. 7406, recorded as Document No. 2110869, located in the Northwest 1/4 of the Northeast 1/4 of Section 16, Township 21 North, Range 18 East, Village of Little Chute, Outagamie County, Wisconsin containing 158,414 square feet (3.637 Acres) of land.

That I have made this survey by the direction of the Owners of said Land.

I further certify that this map is a correct representation of the exterior boundary lines of the land surveyed and the division of that land, and that I have complied with section 236.34 of the Wisconsin Statutes, Village of Little Chute, Subdivision Ordinance in surveying, dividing and mapping the same.

Given under my hand and seal this _____ day of _____, 20____.

David M. Schmalz, WI Professional Land Surveyor S-1284

NOTES

-THIS CSM IS ALL OF TAX PARCEL No.s 26-0-4005-21 & 26-0-4005-22.

-THE PROPERTY OWNERS OF RECORD ARE PROMETHEUS HOLDINGS, LLC AND BLACK DIAMOND HOLDINGS, LLC.

-THIS PROPERTY IS CONTAINED WHOLLY WITHIN LANDS DESCRIBED IN DOCUMENTS No. 2151056 & 2187168.

-THIS CERTIFIED SURVEY MAP CONTAINS NO WATERS OF THE UNITED STATES PER THE ARMY CORPS OF ENGINEERS, REGULATORY FILE No. 2018-01179-MWM AJD REVIEW, DATED AUGUST 13, 2020

McMAHON
ENGINEERS  ARCHITECTS

McMAHON ASSOCIATES, INC.
1445 McMAHON DRIVE NEENAH, WI 54956
Mailing: P.O.BOX 1025 NEENAH, WI 54957-1025
PH 920.751.4200 FX 920.751.4284 MCMGRP.COM

CERTIFIED SURVEY MAP NO. _____

SHEET 3 OF 4

ALL OF LOTS 1 & 2 OF CERTIFIED SURVEY MAP NO. 7406, RECORDED AS DOCUMENT NO. 2110869, ALL LOCATED IN THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 16, TOWNSHIP 21 NORTH, RANGE 18 EAST, VILLAGE OF LITTLE CHUTE, OUTAGAMIE COUNTY, WISCONSIN.

VILLAGE BOARD APPROVAL CERTIFICATE

This Certified Survey Map was approved by the Village of Little Chute, Outagamie County, Wisconsin by the Village Board on this _____ day of _____, 2020.

Village President
Michael Vanden Berg

Village Clerk
Laurie Decker

CERTIFICATE OF VILLAGE FINANCE DIRECTOR

I, being the duly elected, qualified and acting Finance Director, do hereby certify that the records in my office show no unredeemed tax sales and no un-paid taxes or un-paid special assessments on any of the lands included in this Certified Survey Map as of: _____ affecting the lands.

CERTIFICATE OF COUNTY TREASURER

I, being the duly elected, qualified and acting Treasurer, do hereby certify that the records in my office show no unredeemed tax sales and no un-paid taxes or un-paid special assessments on any of the lands included in this Certified Survey Map as of: _____ affecting the lands.

CERTIFIED SURVEY MAP NO. _____

SHEET 4 OF 4

ALL OF LOTS 1 & 2 OF CERTIFIED SURVEY MAP NO. 7406, RECORDED AS DOCUMENT NO. 2110869, ALL LOCATED IN THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 16, TOWNSHIP 21 NORTH, RANGE 18 EAST, VILLAGE OF LITTLE CHUTE, OUTAGAMIE COUNTY, WISCONSIN.

OWNER's CERTIFICATE

PROMETHEUS HOLDINGS, LLC, As Owner(s), I/We hereby certify that I/we caused the land described on this Certified Survey Map to be surveyed, divided, and mapped as represented on this Certified Survey Map. I/We also certify that this Certified Survey Map is required by s. 236.34 of the Wisconsin Statutes to be submitted to the following for approval.
Village of Little Chute

Village of Little Chute

Dated this _____ day of _____, 20____.

Authorized Signature Title

Print Name _____

State of _____))ss
_____) County)

Personally appeared before me on the _____ day of _____, 20____, the above named person(s) to me known to be the person(s) who executed the foregoing instrument, and acknowledged the same.

Notary Public

County, _____

My commission expires _____

OWNER's CERTIFICATE

BLACK DIAMOND HOLDINGS, LLC, As Owner(s), I/We hereby certify that I/we caused the land described on this Certified Survey Map to be surveyed, divided, and mapped as represented on this Certified Survey Map. I/We also certify that this Certified Survey Map is required by s. 236.34 of the Wisconsin Statutes to be submitted to the following for approval.

Village of Little Chute

Dated this _____ day of _____, 20_____.
(Handwritten date)

Authorized Signature

Title

Print Name

State of _____))ss

_____County)

Personally appeared before
above named person(s) to

instrument, and acknowledged the same.

Village of Little Chute
REQUEST FOR BOARD CONSIDERATION

ITEM DESCRIPTION: To update the Zoning ordinance as it pertains to special exceptions in the Residential Conventional (RC) district

PREPARED BY: David Kittel, Community Development Director

REPORT DATE: 8/19/2020

ADMINISTRATOR'S REVIEW/COMMENTS:

EXPLANATION:

There are a few uses that are allowed in the Residential Conventional (RC) district that are not residential in use. These would be public and semipublic nonprofit institutional uses including churches, schools, libraries and the like. On occasion these other allowed use buildings are no longer needed and placed for sale. What results is a building that sits vacant with only a few uses allowed. Many of these buildings are still economically useful for a different use such as an office or clinic. Yet due to how our current ordinances are set up this would require rezoning the property. Depending on the location of these buildings this may be viable, but on occasion a rezoning could open up a future use that would not be desirable in a residential setting. In these situations a conditional use would be appropriate and allow for certain uses like an office/clinic that has minimal impact to the area to be allowed where applicable and allow for stipulations to be placed on the conditional use to minimize impact to the residences while allowing the building to be occupied. Currently the Special exception uses and structures for the RC district are below with the proposed change/addition in red:

d) *Special exception uses and structures.* The following are special exception uses and structures in the RC district:

- (1) Day nurseries and kindergartens with at least 100 square feet of open play space for each child enrolled.
- (2) Convalescent, children's and nursing homes and group homes under Wis. Stats. ch. 61.
- (3) Public utility installations.
- (4) Cemeteries.
- (5) Gardens, nurseries, and orchards, provided no office or store is maintained on the premises.
- (6) Bed and breakfast establishments.
- (7) **Business and Professional Offices, public and private clinics.**

Adding this would set up a clear process for these instances and allow the Village to ensure any use would be fitting to the property while not being intrusive to our existing residential areas. This would also assist in preventing otherwise useable building from being vacant, and unsightly, with the potential to add value to the community.

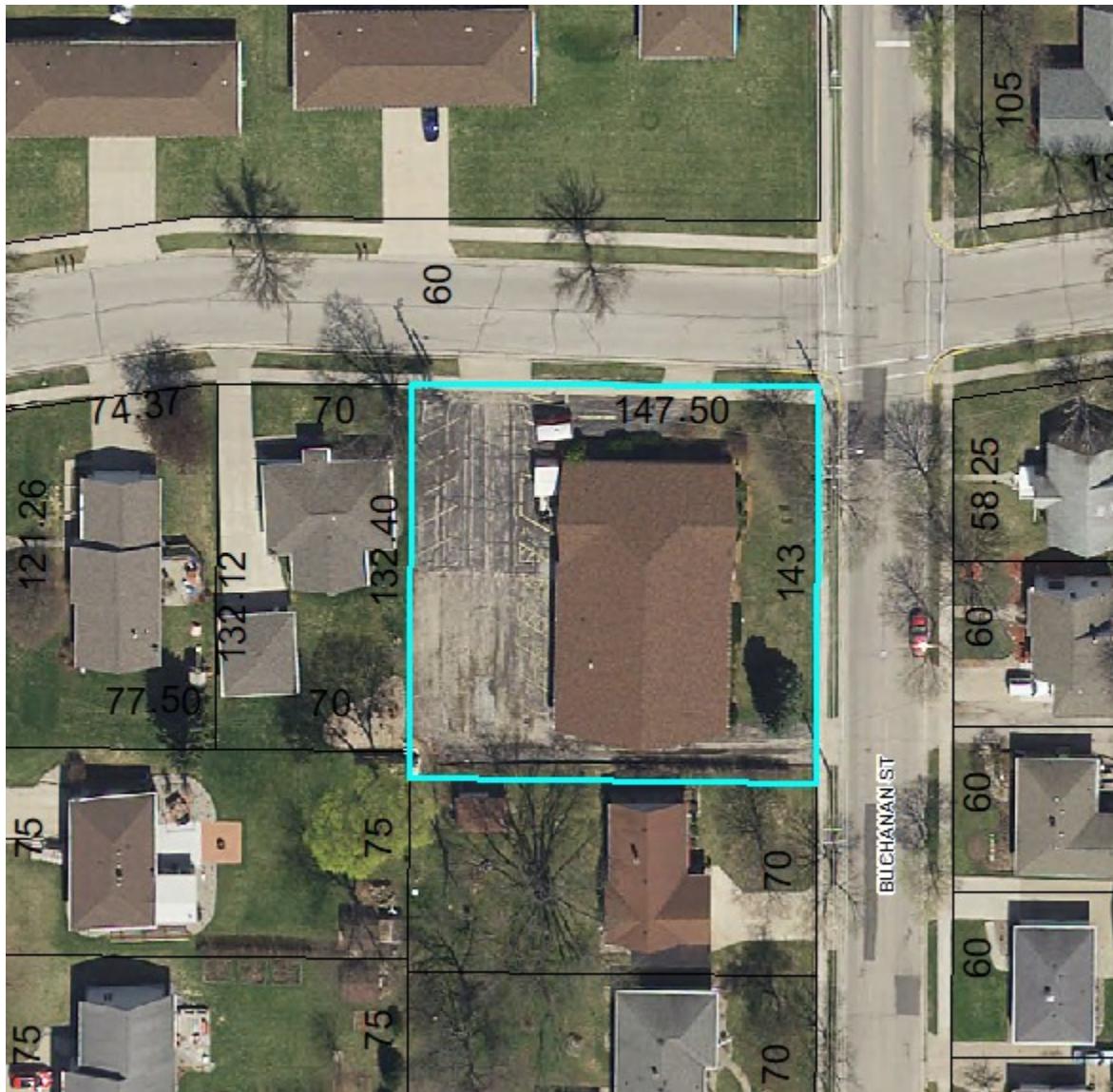
RECOMMENDATION:

Amend Sec 44-46(d) to include business, professional offices, and public, private clinics as a special exception use in the Residential Commercial district.

Conditional Use request for 1215 Buchanan:

The request is to utilize existing building previously used as a church for a private Clinic. There is ample onsite parking for this use. This proposed use would have low amount of additional traffic, not operate on the weekends, and hold normal business hours during the week.

Some areas of concern brought up by adjacent property owners are regarding a buffer between the residential properties and this property. An easy solution would be to have a fence constructed on the boundary area



**VILLAGE OF LITTLE CHUTE
SITE PLAN REVIEW APPLICATION**

PLEASE SUBMIT 4 FULLSIZE AND 4 (11 X 17) SETS OF DRAWINGS ALONG WITH THIS
APPLICATION AND COMPLETED CHECKLIST

SITE ADDRESS 2140 Bohm Drive

LEGAL DESCRIPTION Lot 1, CSM 7923

PROPERTY OWNER(S) David Gitter **TELEPHONE** _____

ADDRESS/ZIP 1500 E Lincoln Ave, Little Chute, WI 54140 **FAX** _____ Email: dgitter@new.rr.com

APPLICANT McMahon Associates, Inc., Attn: Ronald Wolf
CHECK: Architect Engineer Surveyor Attorney Agent Other

ADDRESS 1445 McMahon Drive **TELEPHONE** 920.751.4200

CITY/ZIP Neenah, WI 54956 **FAX** 920.751.4284

DESCRIBE IN **DETAIL** THE TYPE OF BUSINESS BEING PROPOSED AND/OR USE OF PROPERTY _____
Self Storage Facility

GROUND FLOOR ELEVATION 716 LOT SIZE 0.543 ac. FLOOR AREA 4,284 S.F.

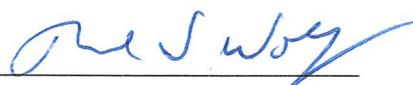
NUMBER OF STORIES IN BLDG 1 BASEMENT _____ YES X NO BUILDING HEIGHT 21' 6"

TOTAL CURRENT EMPLOYEES 2 EMPLOYEES ADDED BY EXPANSION - _____

IMPERVIOUS SURFACE COVERAGE SQ. FT 9,348 # OF PARKING SPACES 4

I CERTIFY THE ATTACHED DRAWINGS ARE, TO THE BEST OF MY KNOWLEDGE, COMPLETE AND
DRAWN IN ACCORDANCE WITH ALL APPLICABLE CODES.

APPLICANT SIGNATURE _____



DATE 8/27/2020

<u>44-387(f)</u>	Site plan review fee	\$300.00
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NOTE: BUILDING DESIGN PLANS: TWO SETS OF FLOOR PLANS ALSO NEED TO BE SUBMITTED.

Reasonable accommodations for persons with disabilities will be made upon request and if feasible.

McMAHON

ENGINEERS / ARCHITECTS

PO. BOX 1025, NEENAH, WI 54957-1025
 1445 MCMAHON DRIVE, NEENAH, WI 54956
 PHONE: 920-751-4200

NICOLET NATIONAL BANK
 APPLETON, WI 54915
 79-1793/759

173290

CHECK DATE

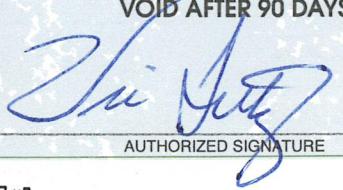
August 27, 2020

PAY Three Hundred and 00/100 Dollars

TO VILLAGE OF LITTLE CHUTE
 108 W. MAIN ST
 LITTLE CHUTE, WI 54140

AMOUNT
 300.00

VOID AFTER 90 DAYS


 AUTHORIZED SIGNATURE

MP

173290 007591793710 1200933200

McMAHON • Neenah, WI 54957-1025

173290

Check Date: 8/27/2020

Invoice Number	Date	Voucher	Amount	Discounts	Previous Pay	Net Amount
082720	8/27/2020	0083569	300.00			300.00
VILLAGE OF LITTLE CHUTE Nicolet - Wisconsin		TOTAL 1 90050	300.00			300.00

STANDARD ABBREVIATIONS

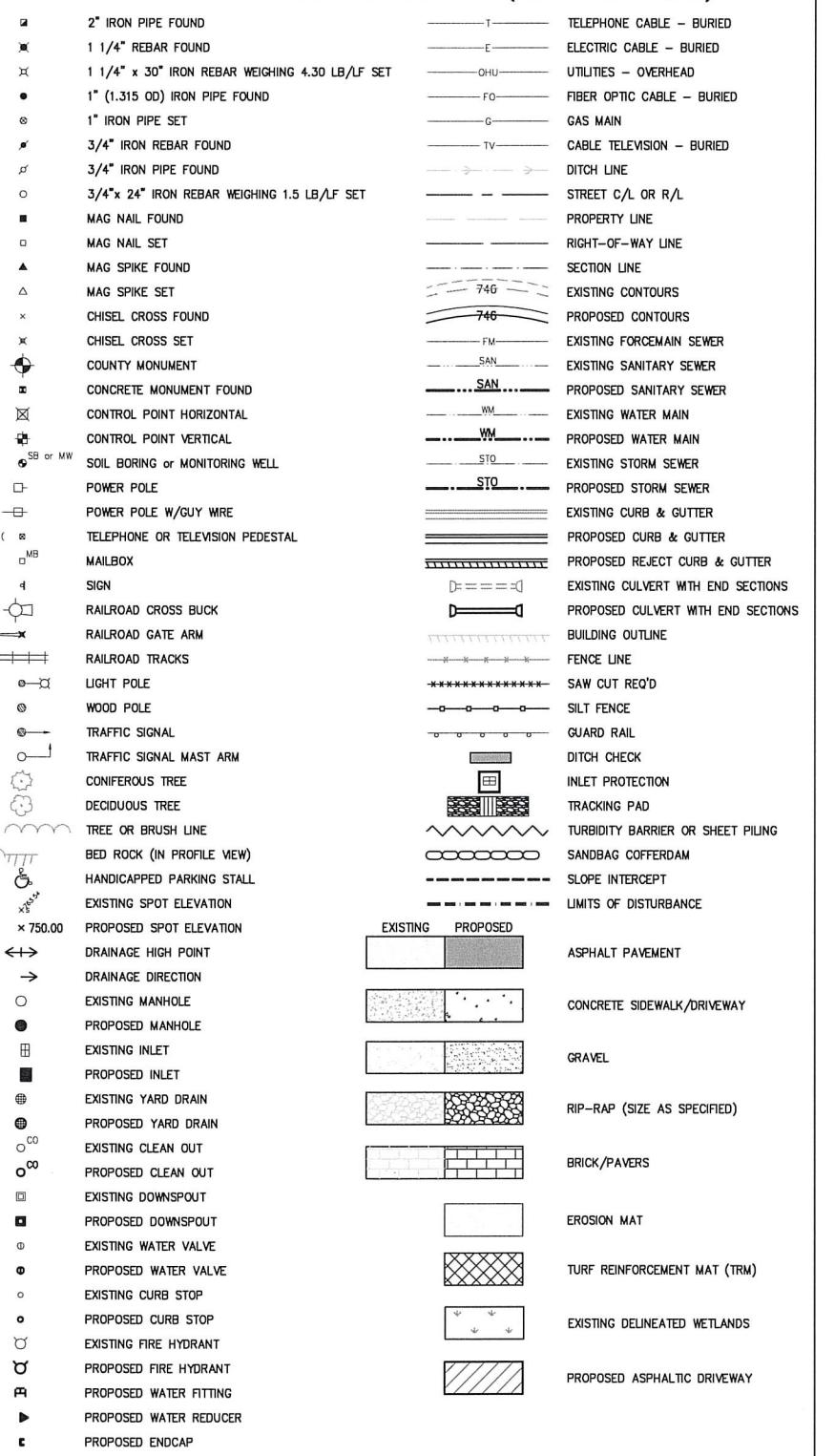
AC	ACRE	LT	LEFT
AGG	AGGREGATE	LVC	LENGTH OF VERTICAL CURVE
AH	AHEAD	MAINT	MAINTENANCE
ASPH	ASPHALT PAVEMENT	MAX	MAXIMUM
AVG	AVERAGE	MIN	MINIMUM
B-B	BACK TO BACK	MH	MANHOLE
BEG	BEGIN	MP	MILE POST
BIT	BITUMINOUS	NB	NORTHBOUND
BK	BACK	NO	NUMBER
B/L	BASE LINE	NOR	NORMAL
BLDG	BUILDING	OD	OUTSIDE DIAMETER
BM	BENCH MARK	OBLIT	OBLITERATE
BOC	BACK OF CURB	PAVT	PAVEMENT
BRG	BEARING	PC	POINT OF CURVATURE
C-C	CENTER TO CENTER	PCC	PORTLAND CEMENT CONCRETE OR POINT OF COMPOUND CURVATURE
CY	CUBIC YARD		
C&G	CURB AND GUTTER	PE	PRIVATE ENTRANCE
CB	CATCH BASIN	PED	PEDESTAL
CE	COMMERCIAL ENTRANCE	PGL	PROFILE GRADE LINE
CHD	CHORD	PI	POINT OF INTERSECTION
C/L	CENTER LINE	P/L	PROPERTY LINE
CL	CLASS (FOR CONC PIPE)	PLE	PERMANENT LIMITED EASEMENT
CMP	CORRUGATED METAL PIPE	PP	POWER POLE
CO	CLEAN OUT	PRC	POINT OF REVERSE CURVATURE
CONC	CONCRETE	PROP	PROPOSED
CORR	CORRUGATED	PSD	PASSING SIGHT DISTANCE
CP	CONTROL POINT	PSI	POUNDS PER SQUARE INCH
CR	CRUSHED	PT	POINT OF TANGENCY
CS	CURB STOP	PVC	POLYVINYL CHLORIDE OR
CSW	CONCRETE SIDEWALK		POINT OF VERTICAL CURVATURE
CTH	COUNTY TRUNK HIGHWAY	PV	POINT OF VERTICAL INTERSECTION
CULV	CUVERT	PVT	POINT OF VERTICAL TANGENCY
D	DEPTH OR DELTA	R	RADIUS
DI	DUCTILE IRON	RCP	REINFORCED CONCRETE PIPE
DIA	DIAMETER	RD	ROAD
DIS	DISCHARGE	REBAR	REINFORCEMENT ROD
EA	EACH	REM	REMOVE
EB	EASTBOUND	RECON	RECONSTRUCT
EBS	EXCAVATION BELOW SUBGRADE	REQ'D	REQUIRED
EG	EDGE OF GRAVEL	R/L	REFERENCE LINE
ELEV	ELEVATION	RP	RADIUS POINT
ELEC	ELECTRIC	RR	RAILROAD
EMB	EMBANKMENT	RT	RIGHT
EMAT	EROSION MAT	R/W	RIGHT-OF-WAY
ENT	ENTRANCE	SB	SOUTHBOUND
EOR	END OF RADIUS	SE	SUPERELEVATION
EP	EDGE OF PAVEMENT	SF	SQUARE FEET
EXC	EXCAVATION	SI	SLOPE INTERCEPT
EX	EXISTING	STH	STATE TRUNK HIGHWAY
EW	ENDWALL	SY	SQUARE YARD
F-F	FACE TO FACE	SAVL	SALVAGED
FDN	FOUNDATION	SAN	SANITARY
FE	FIELD ENTRANCE	SEC	SECTION
FERT	FERTILIZER	SHLDR	SHOULDER
FG	FINISHED GRADE	S/L	SURVEY LINE
F/L	FLOW LINE	SQ	SQUARE
FT	FOOT	STA	STATION
FTG	FOOTING	STD	STANDARD
GRAV	GRAVEL	STO	STORM
GN	GRID NORTH	SW	SIDEWALK
GV	GAS VALVE	TC	TOP OF CURB
HDPE	HIGH DENSITY POLYETHYLENE	TEL	TELEPHONE
HE	HIGHWAY EASEMENT	TEMP	TEMPORARY
HMA	HOT MIX ASPHALT	TELE	TEMPORARY LIMITED EASEMENT
HP	HIGH POINT	TELE	TELEVISION
HT	HEIGHT	TV	TYPICAL
HYD	HYDRANT	TYP	UNDERGROUND
ID	INSIDE DIAMETER	UG	U.S. HIGHWAY
IN	INCH	USH	VARIES
INL	INLET	VAR	VERTICAL CURVE
INV	INVERT	VC	VERTICAL
IP	IRON PIPE	VERT	WESTBOUND
JCT	JUNCTION	WB	WATER MAIN
LB	POUND	WM	WATER VALVE
LF	LINEAR FOOT	WV	
LP	LIGHT POLE		

GENERAL NOTES

- THE UTILITIES SHOWN IN PLAN AND PROFILE ARE INDICATED IN ACCORDANCE WITH AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING EXACT LOCATIONS AND ELEVATIONS OF ALL UTILITIES, INCLUDING ANY PRIVATE UTILITIES, FROM THE OWNERS OF THE RESPECTIVE UTILITIES. ALL UTILITIES SHALL BE NOTIFIED 72 HRS. PRIOR TO EXCAVATION.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY PROPOSED SITE GRADES BY FIELD CHECKING TWO (2) BENCHMARKS AND A MINIMUM OF ONE (1) SITE FEATURE AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY MCMAHON OF ANY VERTICAL DISCREPANCY.
- THE PROPERTY LINES, RIGHT-OF-WAY LINES AND OTHER PROPERTY INFORMATION ON THIS DRAWING WERE DEVELOPED OR OBTAINED AS PART OF THE COUNTY GEOGRAPHIC INFORMATION SYSTEM OR THROUGH THE COUNTY PROPERTY TAX MAPPING FUNCTION. MCMAHON DOES NOT GUARANTEE THIS INFORMATION TO BE CORRECT, CURRENT OR COMPLETE. THE PROPERTY AND RIGHT-OF-WAY INFORMATION ARE INTENDED FOR USE AS A GENERAL REFERENCE AND ARE NOT INTENDED OR SUITABLE FOR SITE-SPECIFIC USES. ANY USE TO THE CONTRARY OF THE ABOVE STATED USES IS THE RESPONSIBILITY OF THE USER AND SUCH USE IS AT THE USER'S OWN RISK.
- NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT PRIOR APPROVAL FROM THE OWNER.
- A SAWED JOINT IS REQUIRED WHERE NEW HMA PAVEMENT MATCHES EXISTING ASPHALTIC CONCRETE SURFACE.
- ALL CURB RADII SHOWN ON THE PLAN SHEETS ARE TO THE BACK OF CURB UNLESS OTHERWISE NOTED.
- DIMENSIONS ARE TO THE BACK OF CURB UNLESS OTHERWISE NOTED.

THIS PLAN SET WAS CREATED WITH CIVIL3D 2018. MCMAHON'S "DISCLAIMER FOR TRANSFER OF ELECTRONIC FILES" FORM NEEDS TO BE SIGNED IF A COPY OF THE ELECTRONIC FILES ARE REQUESTED. MCMAHON MAKES NO REPRESENTATION REGARDING THE COMPATIBILITY OF THESE FILES WITH OTHER SOFTWARE, NOR DOES MCMAHON REPRESENT THAT THE FILES WILL CONVERT TO OTHER SOFTWARE WITHOUT ERROR.

STANDARD SYMBOLS (PLAN VIEW ONLY)



SITE PLAN RETURN COMMENTS

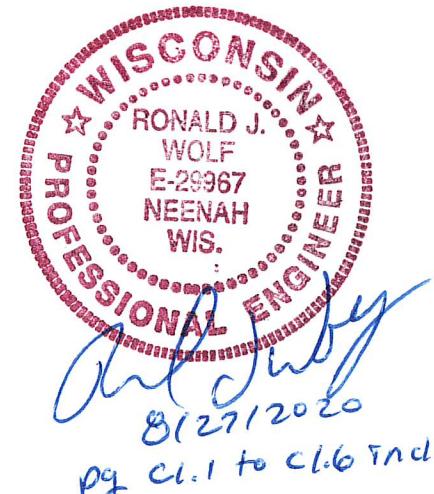
General Sheet - 1

- Building occupancy classification = S-1
- No products will be manufactured or sold on site
- No hazardous materials will be stored on site
- There is no proposal outdoor storage or display
- No outdoor refuse containers will be used
- One ground level A.C. unit will be installed along the south wall with no screening
- No signage is proposal
- No fire protection system is used
- No fire rated wall assemblies are used
- Building construction classification = 5B

ARCHITECTURAL & CONSTRUCTION PLANS

C. Structure material

- Exterior metal panels - dark bronze
- Overhead doors - white
- Split face block - salt and pepper
- Sills - limestone
- Roof, standing seam 360 - galvanized



PRELIMINARY - NOT FOR CONSTRUCTION

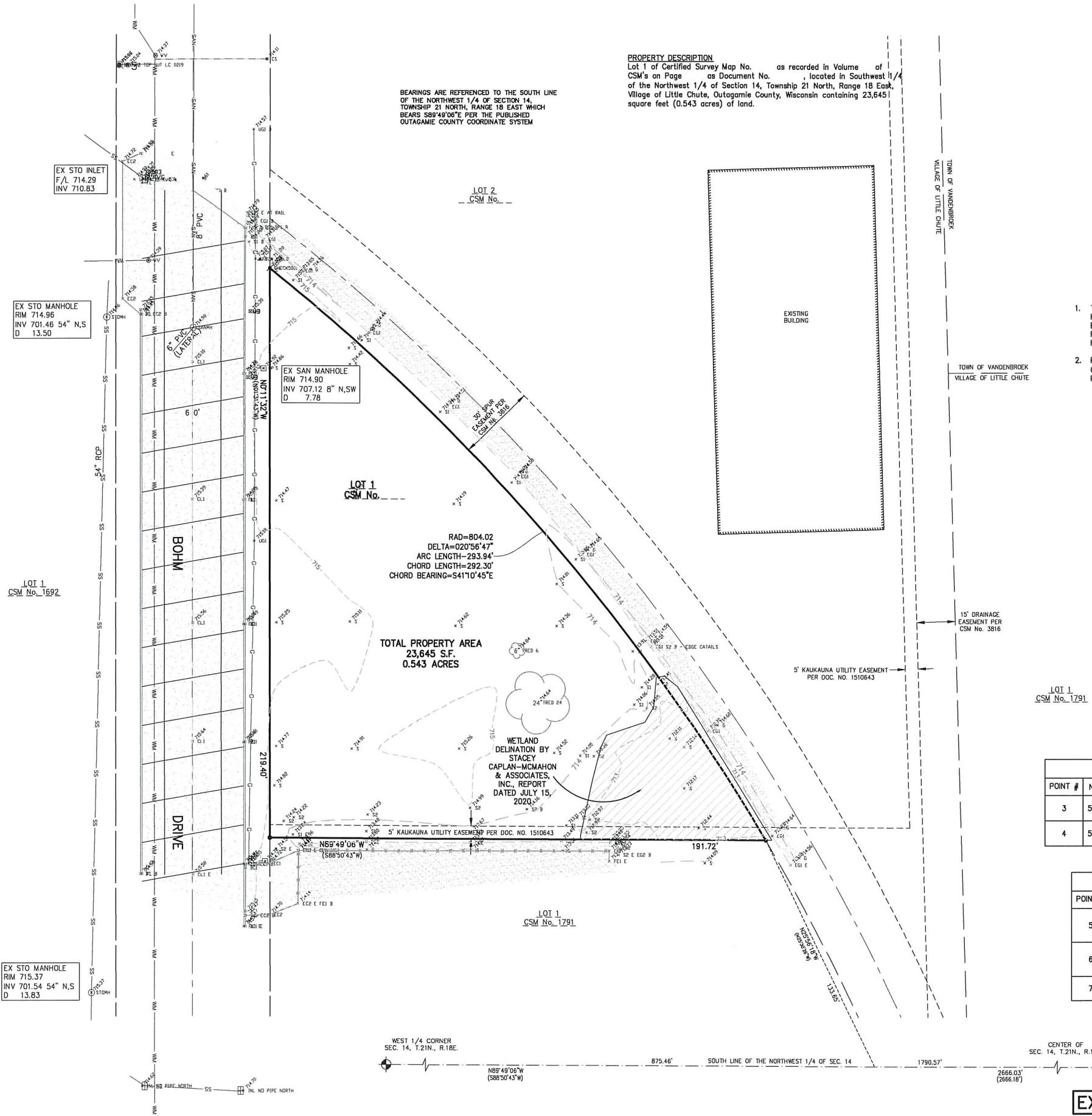
REVISIONS
PROJECT MANAGER: _____
DESIGNER: RJJW
DRAWN BY: RRS
EXPEDITOR: _____
SUPERVISOR: _____
PRELIMINARY NO: P20139
CONTRACT NO: _____
DATE: AUG. 2020
SHEET: C1.1

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DG STORAGE

VILLAGE OF LITTLE CHUTE, OUTAGAMIE COUNTY, WI





EXISTING CONDITIONS AND SURVEY CONTROL

PRELIMINARY - NOT FOR CONSTRUCTION

PROPOSED FOR:

PROPOSED FOR: DG STORAGE

VILLAGE OF LITTLE CHUTE, OUTAGAMIE COUNTY, WI

1445 McMAHON DRIVE NEENAH, WI 54956
Mailing: P.O.BOX 1025 NEENAH, WI 54957-1025
PH 920.751.4200 FX 920.751.4284 MCMDGRP.COM

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HORIZONTAL CONTROL POINTS			OUTAGAMIE COUNTY COORDINATES DATUM = NAD 83(1991)
POINT #	NORTHING	EASTING	DESCRIPTION
3	574669.98	857771.61	MAG NAIL LOCATED 2225 BOHM DRIVE 260' SOUTH OF THE CENTERLINE OF STEPHEN STREET
4	573845.50	857774.54	MAG NAIL LOCATED 1850 E ELM DRIVE 490' NORTH OF THE CENTERLINE OF F. ELM DRIVE

VERTICAL BENCHMARK CONTROL DATUM = NAVD 88(1991)		
POINT #	ELEVATION	DESCRIPTION
5	717.96	HYDRANT TOP NUT LOCATED 2101 BOHM DRIVE 550' SOUTH OF THE CENTERLINE OF STEPHEN STREET ON THE WEST RIGHT OF WAY OF BOHM DRIVE LC 0219
6	718.53	HYDRANT TOP NUT LOCATED 1850 E ELM DRIVE 208' NORTH OF THE CENTERLINE OF E ELM DRIVE ON THE WEST RIGHT OF WAY OF BOHM DRIVE LC 0501
7	718.12	HYDRANT TOP NUT LOCATED 2225 BOHM DRIVE AT THE SOUTHWEST CORNER OF BOHM DR. & STEPHEN ST/FFLT LC 0192

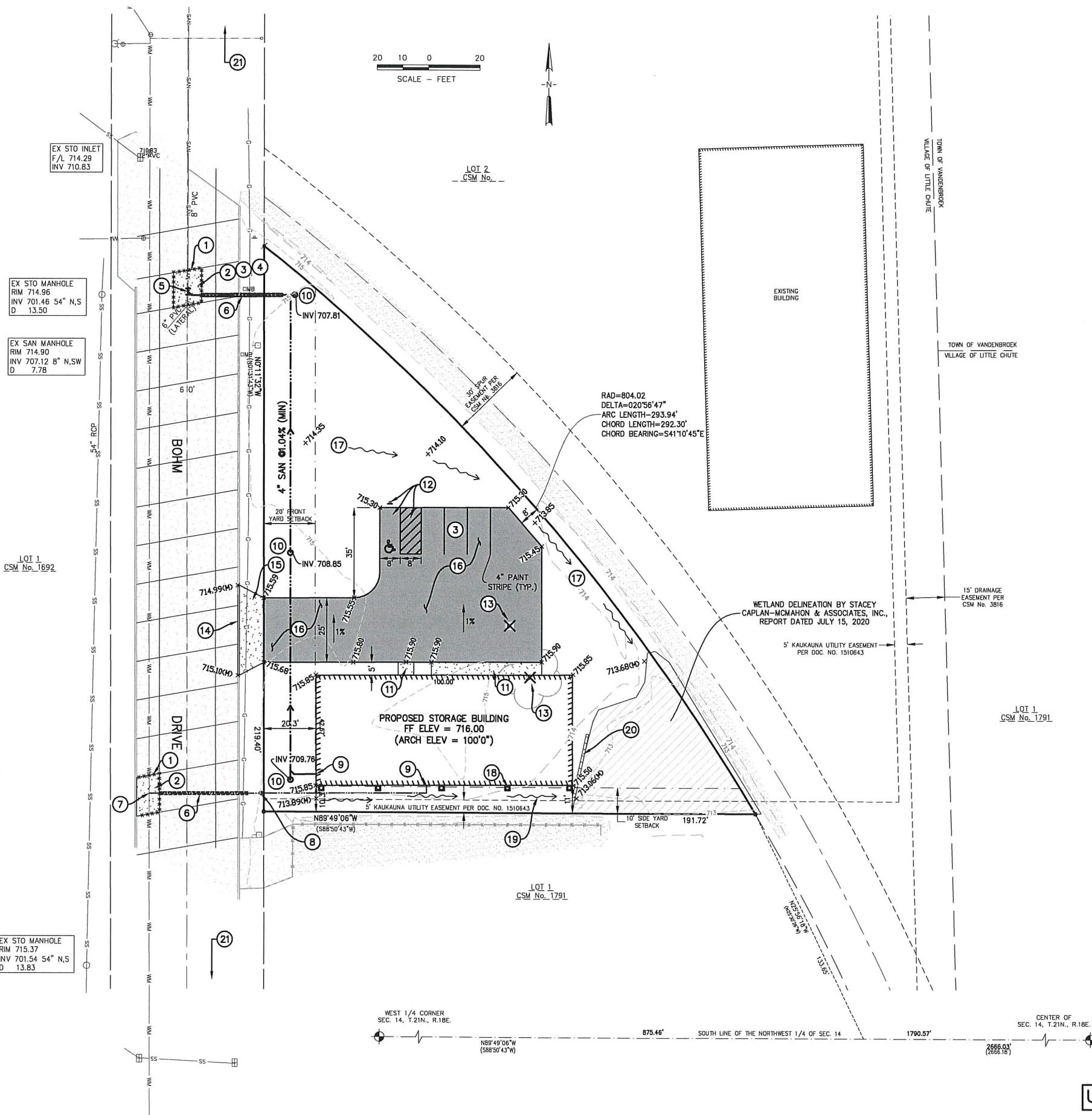
FOR: -DAVID GITTER
-2140 BOHM DRIVE
LITTLE CHUTE, WI 54140

SURVEYOR'S CERTIFICATE

The property as shown and described on this map was surveyed under my direction and control according to the Wisconsin Administrative Code, Chapter A-E7 of Minimum Standards for Property Surveys, and is a correct representation of said survey to the best of my knowledge and belief.

Date Professional Land Surveyor
REVISED 7-20-2020
FIELD WORK COMPLETED JULY 7TH, 2020
FIELD BOOK 1378 PAGE 51

Keller
PLANNERS | ARCHITECTS | BUILDERS



UTILITY, GRADING & DRAINAGE PLAN

PRELIMINARY - NOT FOR CONSTRUCTION

REVISIONS	
PROJECT MANAGER: _____	
DESIGNER:	RJW
DRAWN BY:	RRS
EXPEDITOR:	_____
SUPERVISOR:	_____
PRELIMINARY NO.: P20139	
CONTRACT NO.: _____	
DATE:	AUG. 2020
SHEET:	C1.3

DG STORAGE

VILLAGE OF LITTLE CHUTE, OUTAGAMIE COUNTY, WI

MCMAHON
ENGINEERS \ ARCHITECTS
MCMAHON ASSOCIATES, INC.



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PLANNERS | ARCHITECTS | BUILDERS

McMahon Associates, Inc.
1445 McMahon Drive, Neenah, WI 54956
Mailing: P.O. Box 1025 Neenah, WI 54957-1025
Phone: (920) 751-4200 Fax: (920) 751-4284 MCNGRP.COM

MILWAUKEE
 W204 N11509
 Coldenale Rd
 Germantown, WI 53022
 PHONE (262) 250-9710
 FAX (262) 250-9740

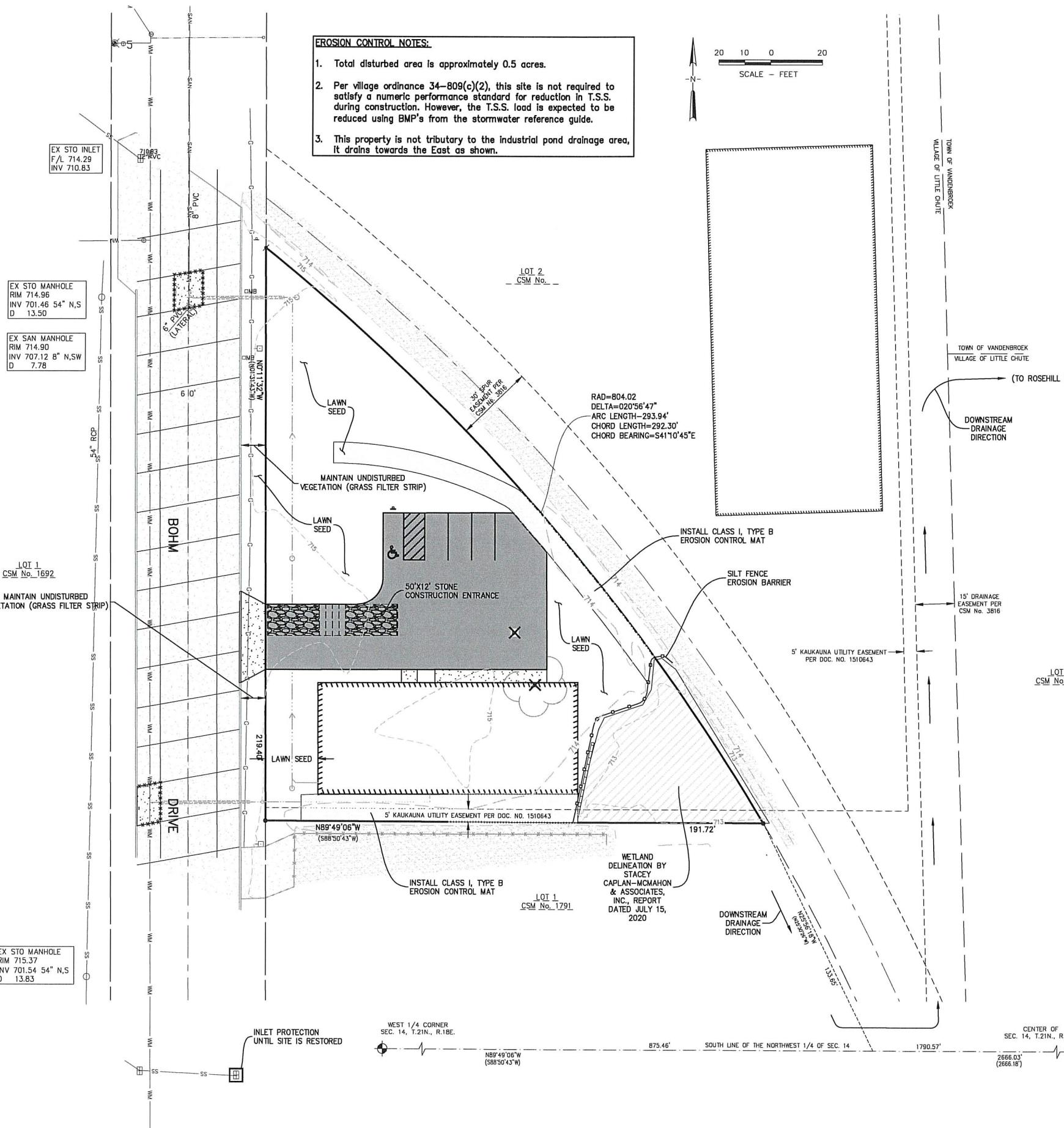
WAUSAU
 5605 Wlsc Ave
 Wausau, WI 54401
 PHONE (715) 849-3141
 FAX (715) 849-3181

www.kellerbuilds.com

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Key Notes

1. Full depth sawcut concrete pavement.
2. Repair concrete roadway according to Village of Little Chute requirements.
3. Concrete repair at sanitary lateral shall be special high early to facilitate trucking into the driveway to W.O.W. to the west.
4. Normal village protocol is full panel concrete replacement for any patches. Enquire whether half-panel replacement is possible in order to better facilitate return of trucking access to W.O.W. driveway from the south. It is assumed a half panel repair will still allow truck access to the West side of the patch.
5. Cut in 8X4" wye plus repair coupler at 4" Inv. = 707.37.
6. Bore lateral beneath pavement to minimize street repair.
7. Install saddle, tap, and 1.5" corporation in accordance with village utility requirements. Extend 1.5" water service to structure at 6.5' depth.
8. Install 1.5" curb stop and box with stainless stationary rod.
9. Coordinate utility entrance location with plumber. Sanitary Inv. = 709.86.
10. Install sanitary wye cleanout with frost sleeve.
11. Concrete stoop and apron. See building plans.
12. Provide one paint striped handicap stall with symbol, sign on post, and x-hatched 8' access aisle.
13. Clear and grub tree.
14. Diamond saw curb head to create 35' opening (25' plus two 5' flares) and tapers each side consistent with other openings on Bohm Drive.
15. Install 6" thick concrete apron. See detail.
16. Install stone base plus asphalt pavement. See detail.
17. Grade swale in lawn at 0.50% minimum towards Southeast.
18. Downspout to grade with splash block. See building plans for exact number and location.
19. Rear yard swale towards east at approximately 0.90%.
20. Protect wetlands from fill or disruption during construction. If necessary, construct masonry unit retaining wall or other means necessary to separate building grade from wetlands, unless permit is obtained to fill or modify wetlands.
21. Provide construction signage for work in right-of-way in accordance with state of Wisconsin M.U.T.C.D. standards. Coordinate with village and W.O.W. Management for trucking disruption during sanitary connection and street repair.



EROSION & SEDIMENT CONTROL PLAN

BEST MANAGEMENT PRACTICES:

THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING BEST MANAGEMENT PRACTICES IN ACCORDANCE WITH WISCONSIN DEPARTMENT OF NATURAL RESOURCES (DNR) TECHNICAL STANDARDS. THESE STANDARDS MAY BE FOUND ON THE DNR WEBSITE AT <http://www.dnr.wi.gov/runup/stormwater/techstds.htm>. RIP-RAP SHALL BE IN ACCORDANCE WITH SECTION 606, WS-DOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION, UNTIL TECHNICAL STANDARD 1065 IS COMPLETED BY THE DNR. THE MINIMUM BEST MANAGEMENT PRACTICES SPECIFIED FOR THIS PROJECT ARE AS FOLLOWS:

<input type="checkbox"/> LAND APPLICATION OF POLYACRYLAMIDE (1050)	<input type="checkbox"/> DE-WATERING (1061)
<input type="checkbox"/> WATER APPLICATION OF POLYMERS (1051)	<input type="checkbox"/> DITCH CHECK (1062)
<input checked="" type="checkbox"/> NON-CHANNEL EROSION MAT (1052)	<input type="checkbox"/> SEDIMENT TRAP (1063)
<input type="checkbox"/> CHANNEL EROSION MAT (1053)	<input type="checkbox"/> SEDIMENT BASIN (1064)
<input type="checkbox"/> VEGETATIVE BUFFER (1054)	<input type="checkbox"/> RIP-RAP (1065)
<input type="checkbox"/> SEDIMENT BAILE BARRIER (1055)	<input type="checkbox"/> CONSTRUCTION DIVERSION (1066)
<input type="checkbox"/> SILT FENCE (1056)	<input type="checkbox"/> GRADING PRACTICES (1067)
<input checked="" type="checkbox"/> TRACKING PAD & TIRE WASHING (1057)	<input type="checkbox"/> DUST CONTROL (1068)
<input checked="" type="checkbox"/> MULCHING (1058)	<input type="checkbox"/> TURBIDITY BARRIER (1069)
<input checked="" type="checkbox"/> SEEDING (1059)	<input type="checkbox"/> SILT CURTAIN (1070)
<input checked="" type="checkbox"/> STORM DRAIN INLET PROTECTION (1060)	<input type="checkbox"/> MANUFACTURED PERIMETER PRODUCTS (1071)

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES AND IMPLEMENT BEST MANAGEMENT PRACTICES TO PREVENT OR REDUCE ALL OF THE FOLLOWING:

- A. DEPOSITION OR TRACKING OF SOIL ONTO STREETS BY VEHICLES.
- B. DISCHARGE OF SEDIMENT INTO STORM WATER INLETS.
- C. DISCHARGE OF SEDIMENT INTO ADJACENT STREAMS, RIVERS, LAKES AND WETLANDS.
- D. DISCHARGE OF SEDIMENT FROM DITCHES AND STORM SEWERS THAT FLOW OFFSITE.
- E. DISCHARGE OF SEDIMENT FROM DEWATERING ACTIVITIES.
- F. DISCHARGE OF SEDIMENT FROM SOIL STOCKPILES EXISTING FOR 7 DAYS OR MORE.
- G. DISCHARGE OF SEDIMENT FROM EROSION OUTLET FLOWS.
- H. TRANSPORT OF CHEMICALS, CEMENT AND BUILDING MATERIALS BY RUNOFF.
- I. TRANSPORT OF UNTREATED VEHICLE AND WHEEL WASH WATER BY RUNOFF

THE CONTRACTOR SHALL IMPLEMENT THE FOLLOWING PREVENTATIVE MEASURES:

- A. PRESERVE EXISTING VEGETATION WHENEVER POSSIBLE.
- B. MINIMIZE SOIL COMPACTION AND PRESERVE TOPSOIL.
- C. MINIMIZE LAND DISTURBANCES ON SLOPES OF 20% OR MORE.
- D. MINIMIZE THE AMOUNT OF SOIL EXPOSED AT ANY ONE TIME.
- E. DIVERT CLEAR WATER AWAY FROM EXPOSED SOILS.
- F. TEMPORARILY STABILIZE EXPOSED SOILS THAT WILL NOT BE ACTIVE FOR 14 DAYS OR MORE. USE MULCHING, SEEDING, POLYACRYLAMIDE OR GRAVELING TO STABILIZE.
- G. PERMANENTLY STABILIZE EXPOSED SOILS AS SOON AS POSSIBLE.
- H. CONTRACTOR SHALL EDUCATE ITS EMPLOYEES AND SUBCONTRACTORS ABOUT PROPER SPILL PREVENTION AND RESPONSE PROCEDURES. IF A SPILL OCCURS, THE CONTRACTOR SHALL EVACUATE THE AREA AND IMMEDIATELY NOTIFY THE LOCAL MUNICIPALITY, FIRE DEPARTMENT OR 911 EMERGENCY SYSTEM. IF NO FIRE, EXPLOSION OR LIFE / HEALTH SAFETY HAZARD EXISTS, THE NEXT STEP IS TO CONTAIN THE SPILL AND PERFORM CLEANUP. USE DRY CLEANUP

THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING OR REPLACING BEST MANAGEMENT PRACTICES DESTROYED AS A RESULT OF CONSTRUCTION ACTIVITIES BY THE END OF THE WORK DAY. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING BEST MANAGEMENT PRACTICES TEMPORARILY REMOVED FOR CONSTRUCTION ACTIVITY AS SOON AS THOSE ACTIVITIES ARE COMPLETED. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND DISPOSING OF TEMPORARY BEST MANAGEMENT

INSPECTION & MAINTENANCE:

THE CONTRACTOR IS RESPONSIBLE FOR INSPECTING BEST MANAGEMENT PRACTICES WEEKLY, AND WITHIN 24 HOURS FOLLOWING A RAINFALL OF 0.5 INCHES OR GREATER, WRITTEN DOCUMENTATION OF EACH INSPECTION SHALL BE KEPT AT THE CONSTRUCTION SITE AND SHALL INCLUDE THE FOLLOWING INFORMATION: DATE, TIME, AND LOCATION OF INSPECTION; NAME OF INDIVIDUAL WHO PERFORMED THE INSPECTION; AN ASSESSMENT OF THE CONDITION OF BEST MANAGEMENT PRACTICES; A DESCRIPTION OF ANY BEST MANAGEMENT PRACTICE IMPLEMENTATION AND MAINTENANCE PERFORMED; AND A DESCRIPTION OF THE PRESENT PHASE OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING, REPAIRING, OR REPLACING BEST MANAGEMENT PRACTICES AS NECESSARY WITHIN 24 HOURS OF AN INSPECTION OR NOTIFICATION. THE CONTRACTOR IS RESPONSIBLE FOR INSPECTING, MAINTAINING, REPAIRING, OR REPLACING BEST MANAGEMENT PRACTICES UNTIL ALL LAND DISTURBING CONSTRUCTION ACTIVITY IS COMPLETED AND A UNIFORM PERENNIAL VEGETATIVE COVER IS ESTABLISHED WITH A DENSITY OF AT LEAST 70%.

THE CONTRACTOR IS RESPONSIBLE FOR POSTING THE PERMIT IN A CONSPICUOUS LOCATION ON THE CONSTRUCTION SITE. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING A COPY OF THE APPROVED REPORTS, PLANS, AMENDMENTS, INSPECTION REPORTS, AND PERMITS AT THE CONSTRUCTION SITE AT ALL TIMES UNTIL ALL LAND DISTURBING CONSTRUCTION ACTIVITY IS COMPLETED AND A UNIFORM PERENNIAL VEGETATIVE COVER IS ESTABLISHED WITH A DENSITY OF AT LEAST 70%. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE OWNER WHEN THE VEGETATIVE DENSITY REACHES AT LEAST 70%. THE OWNER IS RESPONSIBLE FOR TERMINATING DNR PERMIT COVERAGE.

AMENDMENTS:

THE CONTRACTOR IS RESPONSIBLE FOR AMENDING THE EROSION & SEDIMENT CONTROL PLAN IF: THERE IS A CHANGE IN CONSTRUCTION, OPERATION OR MAINTENANCE AT THE SITE WHICH HAS THE REASONABLE POTENTIAL FOR THE DISCHARGE OF POLLUTANTS; THE ACTIONS REQUIRED BY THE PLAN FAIL TO REDUCE THE IMPACTS OF POLLUTANTS CARRIED BY CONSTRUCTION SITE RUNOFF; OR IF THE DNR NOTIFIES THE APPLICANT OF CHANGES NEEDED IN THE PLAN. THE DNR AND OWNER SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO MAKING CHANGES TO THE PLAN.

EROSION CONTROL PLAN

PRELIMINARY - NOT FOR CONSTRUCTION

PROPOSED FO

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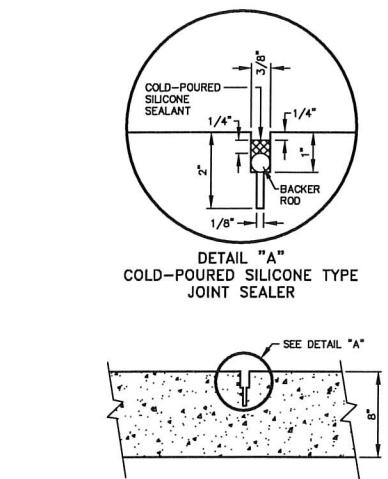
REVISIONS	
PROJECT MANAGER: _____	
DESIGNER:	RJW
DRAWN BY:	RRS
EXPEDITOR:	_____
SUPERVISOR:	_____
PRELIMINARY NO.: P20139	
CONTRACT NO.: _____	
DATE:	AUG. 2020
SHEET:	C1.4

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NOTES:

T=TREES; S=SHRUB; E=EVERGREEN; B-B=BALLED IN BURLAP; B.R.=BARE ROOT; P=POTTED; T.S.= TREE SPADE.

THE LAYOUT OF THE PLANTING AND LOCATION OF PLANT HOLES OR BEDS SHALL BE STAKED BY THE CONTRACTOR SUBJECT TO ENGINEER/ ARCHITECTS APPROVAL.

ALL PLANTING AREAS TO BE FREE OF WEEDS AND GRASS, TREATED WITH A NON-LEACHING PRE-EMERGENT HERBICIDE, PREEN OR EQUAL, PER MANUFACTURER'S SPECIFICATIONS AND COVERED WITH TYPAR 3301 OR SUPAC 2P AND THEN COVERED WITH 4" OF 1.5" WASHED MISSISSIPPI STONE. THE MISSISSIPPI STONE SHALL BE RAKED TO PRODUCE A UNIFORM TEXTURE. SUBMIT SAMPLES OF HERBICIDE AND MISSISSIPPI STONE TO ENGINEER/ARCHITECT FOR APPROVAL. ON DAY OF INSTALLATION WATER HERBICIDE TO ACTIVATE IF NECESSARY.

SEE THIS PAGE FOR PLANTING AND STAKING DETAILS.

AREAS TO BE PAVED, SEEDED, AND BEDDED ARE INDICATED ON THE PLANS.

PLANT QUANTITIES INDICATED ON THE PLAN RULE OVER QUANTITIES ON THE PLANTS LIST.

CONTRACTOR TO VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING PITS FOR NEW TREES.

ALL PLANTS TO BE SIZED AND GRADED AS RECOMMENDED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. IN THE USA STANDARD FOR NURSERY STOCK.

PLANT SUBSTITUTIONS PERMISSIBLE WITH ENGINEER/ARCHITECT AND TOWN APPROVAL AND WRITTEN NOTIFICATION PRIOR TO INSTALLATION.

PLASTIC OR METAL POTS TO BE REMOVED. SCORE FOOTBALL 1" DEEP WITH SHARP KNIFE. REMOVE TOP PORTION OF FIBER POT THAT EXTENDS ABOVE FINISH GRADE AND CUT SIDES OF POT TO AID IN DECOMPOSITION.

ALL LAWN AREAS TO BE SEEDED AND MULCHED WITH CHOPPED STRAW. MULCH IS TO BE CRIMPED AND SHOULD CONFORM TO DNR TECHNICAL STANDARDS 1058 AND 1059.

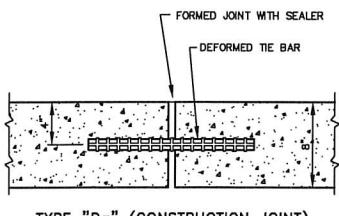
MATURE TREES SHOULD BE LINED UP TO PROVIDE A SEVEN FOOT UNDERCLEARANCE.

SEE EROSION CONTROL PLAN FOR EROSION MAT AND SPECIAL RESTORATION INFORMATION.

ALL BEDS EDGES TO BE WELL SHAPED 'SPADE CUT' EDGES, 3" DEPTH, FORMED IN LINES OR CURVES AS SHOWN ON THE DRAWINGS.

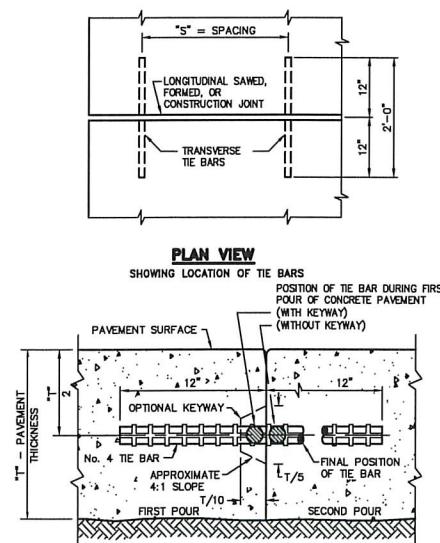
RESTORE ALL DISTURBED AREAS AROUND PERIMETER OF SITE WITH LAWN.

CITY STREET TRANSVERSE JOINT DETAIL



TYPE "Da" (CONSTRUCTION JOINT)

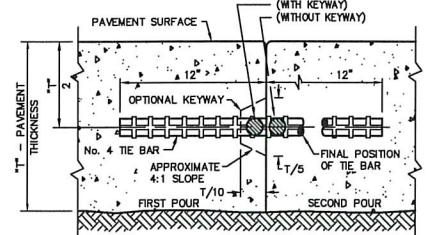
CITY STREET LONGITUDINAL JOINT DETAIL



PLAN VIEW

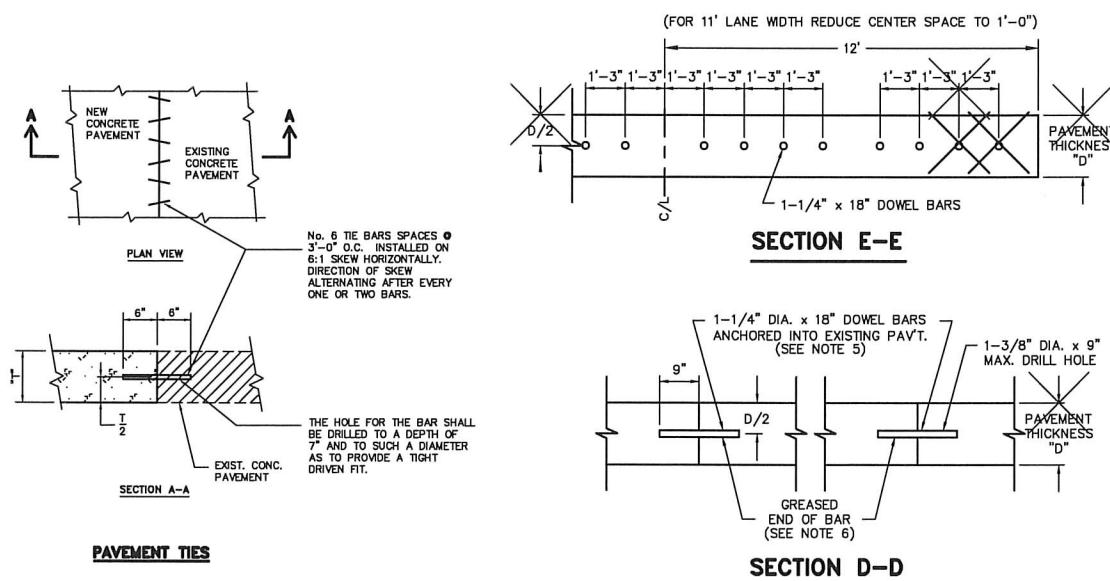
SHOWING LOCATION OF TIE BARS

POSITION OF TIE BAR DURING FIRST POUR OF CONCRETE PAVEMENT (WITH KEYWAY) (WITHOUT KEYWAY)

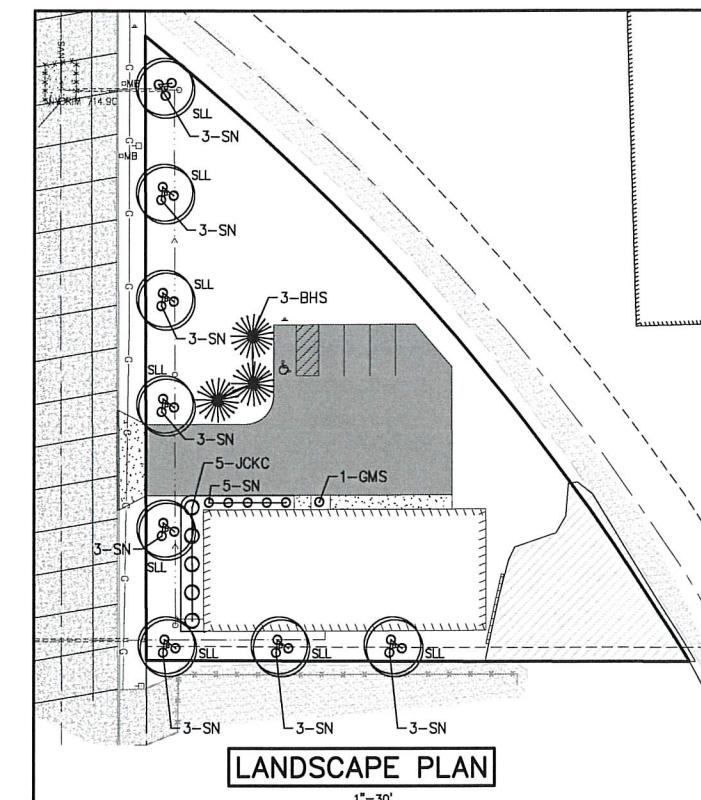


CONSTRUCTION JOINT

List						
Large Deciduous Tree						
KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	ROOT CONDITION	SIZE AT PLANTING	SIZE AT MATURITY HEIGHT/WIDTH
SLL	8	Gleditsia triacanthos var. inermis 'Skyline'	Skyline Honey Locust	Balled & Burlapped or Potted	2.5"	60 x 40
TOTAL	8					
Small Deciduous Tree						
KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	ROOT CONDITION	SIZE AT PLANTING	SIZE AT MATURITY HEIGHT/WIDTH
BHS	3	Picea glauca den. 'Black Hills'	Black Hills Spruce	Balled & Burlapped or Potted	5	50 x 25
TOTAL	3					
EVERGREEN TREE						
KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	ROOT CONDITION	SIZE AT PLANTING	SIZE AT MATURITY HEIGHT/WIDTH
JcKc	5	Juniperus X phitzeriana 'Kallays Compacta'	Kallays Compact Juniper	Potted	2'	3x3.5
TOTAL	5					
SHRUB EVERGREEN						
KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	ROOT CONDITION	SIZE AT PLANTING	SIZE AT MATURITY HEIGHT/WIDTH
SN	29	Spiraea japonica 'Norman'	Norman Spirea	Potted	2'	3x3.5
GMS	1	Spiraea japonica 'Goldmound'	Goldmound Spirea	Potted	2'	3x3.5
TOTAL	30					
SHRUB DECIDUOUS						
KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	ROOT CONDITION	SIZE AT PLANTING	SIZE AT MATURITY HEIGHT/WIDTH
SN	29	Spiraea japonica 'Norman'	Norman Spirea	Potted	2'	3x3.5
GMS	1	Spiraea japonica 'Goldmound'	Goldmound Spirea	Potted	2'	3x3.5
TOTAL	30					



PAVEMENT TIES



LANDSCAPE PLAN

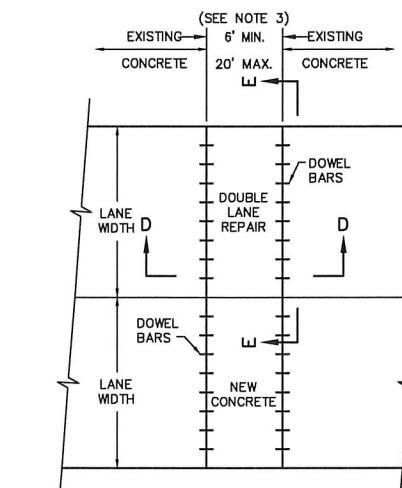
14,297 Square Feet of proposed greenspace proposed on the lot.

5082 Square Feet of off-street parking

3 standard and 1 handicapped parking spaces.

There are no interior islands or peninsulas.

CONCRETE PAVEMENT REPAIR



GENERAL NOTES

1. TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS. DOWEL BARS SHALL BE COATED IN CONFORMANCE WITH SUBSECTION 505.2.6 OF THE STANDARD SPECIFICATIONS.
2. DOWEL BARS SHALL BE INSTALLED PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.
3. CONCRETE REPAIR SHALL BE FULL PANELS.
4. THE PREPARATION OF FOUNDATION FOR FULL DEPTH CONCRETE PAVEMENT REPAIR SHALL BE IN ACCORDANCE WITH SUBSECTION 211.4.4 OF THE STANDARD SPECIFICATIONS.
5. DOWEL BARS SHALL BE ANCHORED INTO DRILL HOLES WITH AN APPROVED EPOXY GROUT.
6. THE FREE END OF DOWEL BARS SHALL RECEIVE A THIN UNIFORM COATING OF BOND GREASE.
7. JOINTS SHALL NOT BE SEALED OR FILLED.

MISCELLANEOUS SITWORK DETAILS/LANDSCAPE PLAN

PRELIMINARY - NOT FOR CONSTRUCTION

DATE: AUG. 2020

CONTRACT NO: P20139

PRELIMINARY NO: P20139

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PRELIMINARY NO: P20139

DATE: AUG. 2020

CONTRACT NO: P20139

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DATE: AUG. 2020

CONTRACT NO: P20139

PRELIMINARY NO: P20139

DATE: AUG. 2020

CONTRACT NO: P20139

PRELIMINARY NO

REF-ENGINEERED METAL BUILDING
REF-ENGINEERED METAL BUILDING SHALL BE DESIGNED FOR LOADS AS INDICATED IN 'DESIGN LOADS' SECTION.
THE ERECTION OF THE METAL BUILDING AND THE INSTALLATION OF ACCESSORIES SHALL BE PERFORMED IN ACCORDANCE WITH THE BUILDING MANUFACTURER'S ERECTION DRAWINGS BY A QUALIFIED ERECTOR USING PREPEN TOOLS AND EQUIPMENT. ERECTION PRACTICES SHALL CONFORM TO THE 'CODE OF STANDARD PRACTICES'. THERE SHALL BE NO FIELD MODIFICATIONS TO PRIMARY STRUCTURAL MEMBERS EXCEPT AS AUTHORIZED AND SPECIFIED BY THE BUILDING MANUFACTURER.
CONTRACTOR MUST VERIFY FINAL BUILDING DESIGN WITH THE FOLLOWING AREAS SHOWN ON THESE PLANS.
-ANCHOR BOLT SIZE AND SPACING.
-ANCHOR COLUMNS.
-DEPTH OF RAFTERS.

INTERIOR PARTITION WALLS
INTERIOR PARTITION WALLS ARE DIMENSIONED FROM FACE OF STUD TO FACE OF STUD.
INTERIOR PARTITIONS ARE $\frac{3}{8}$ " FOR WOOD STUDS AND $\frac{3}{16}$ " FOR METAL STUDS. PLUMBING WALLS ARE $\frac{1}{2}$ " FOR WOOD STUDS OR $\frac{1}{4}$ " FOR METAL STUDS.
SPACERS ARE SPACED AT 4" ON CENTER UNLESS NOTED OTHERWISE. USE MINIMUM $\frac{1}{4}$ " GYPSUM BOARD ON THE FINISHED SIDE OF INTERIOR PARTITIONS. PRECISE EXPANSION JOINTS AT 30'-0" O.C. FOR LONG GYPSUM BOARD WALLS.
PARTITION WALLS WHICH ARE NOT FULL HEIGHT MUST BE BRACED TO CROSS WALLS OR TO THE STRUCTURE ABOVE TO PROVIDE ADEQUATE STABILITY.
DRYWALL
DRYWALL SHALL BE INSTALLED PER THE LATEST EDITIONS OF 'RECOMMENDED SPECIFICATIONS FOR THE APPLICATION AND FINISHING OF GYPSUM BOARD' CA-216 AS PUBLISHED BY THE GYPSUM ASSOCIATION AND THE 'GYPSUM CONSTRUCTION HANDBOOK' AS PUBLISHED BY UNITED STATES GYPSUM COMPANY. PROVIDE CONTROL JOINTS AS REQUIRED.

WALL TYPE SCHEDULE		
NO.	DESCRIPTION	WALL DIAGRAM
1	$\frac{3}{8}$ " GYPSUM BOARD WAP BARRIER 2x6 WOOD STUDS AT 16" O.C. BATT INSULATION X" BATT INSULATION WITH FACING (R-X) PLYWOOD	
2	HEIGHT: FULL HEIGHT $\frac{3}{8}$ " GYPSUM BOARD 2x4 WOOD STUDS AT 16" O.C. BATT INSULATION $\frac{3}{16}$ " GYPSUM BOARD	



Keller

PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5755 /
1-800-236-2534
FAX (920) 766-5004

MADISON
711 Lola Drive
Sun Prairie, WI 53590
PHONE (608) 316-2336
FAX (608) 316-2337

WAUSAU
5665 Illico Ave
Wausau, WI 54401
PHONE (715) 849-3141
1-800-236-2534
FAX (715) 849-3181

www.kellerbuilds.com

WISCONSIN 54140

PROPOSED BUILDING FOR:

D.G. STORAGE

BOHM DRIVE
LITTLE CHUTE

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REVISIONS
-
△

"NOT FOR CONSTRUCTION"
This document represents preliminary
information about the overall requirements.
Therefore DO NOT involve or offer
construction. Feasibility of the site or
construction development is not guaranteed.
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consent of KELLER, INC. is prohibited.

PROJECT MANAGER: _____

DESIGNER: _____

IED PROJECT MANAGER: T. BAUMGARTNER

EXPEDITOR: _____

SUPERVISOR: _____

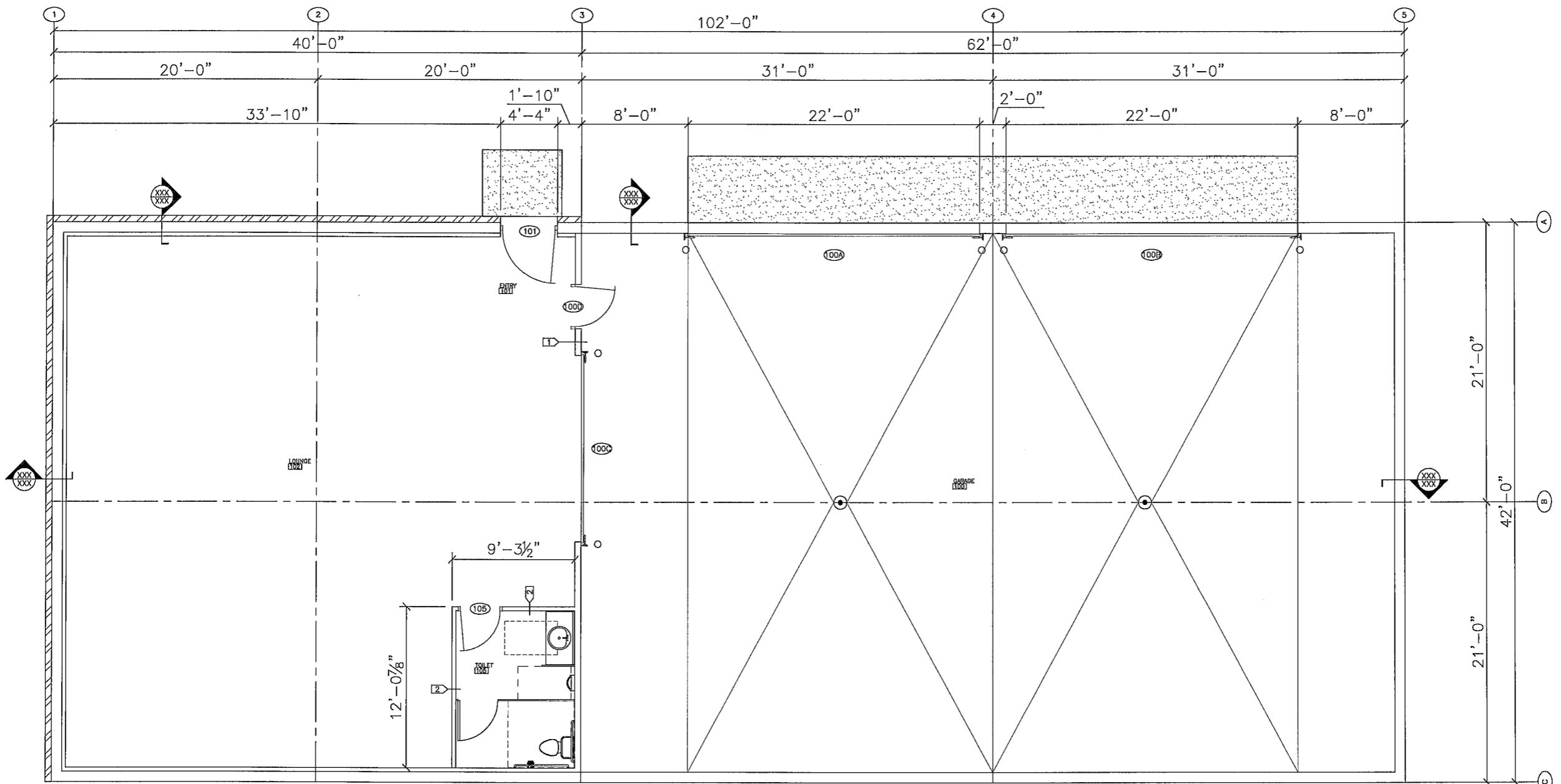
CONTRACT NO: _____

IED NO: _____

20117

ISSUED DATE: AUGUST 24, 2020

SHEET: A1.0



FLOOR PLAN

SCALE: $\frac{1}{4}$ "=1'-0"



WALL TYPE SYMBOL
SEE WALL TYPE SCHEDULE
ON SHEET A1.0



Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna 54130
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FAX (608) 754-2337
1-800-236-2334
FAX (820) 754-5004

MADISON
711 Loi Dr.
Sun Prairie, WI 53590
PHONE (608) 318-2336
FAX (608) 318-2334
1-800-236-2334
FAX (820) 754-5004

WAUSAU
W204 N11509
Colendale Rd.
Cantonment, WI 53022
PHONE (602) 250-9710
FAX (715) 849-3141
1-800-236-2334
FAX (602) 250-9740

www.kellerbuilds.com

WISCONSIN

D.G. STORAGE

PROPOSED FOR:
LITTLE CHUTE,

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REVISIONS		
1	06.30.2020	J.R.S.
2		
3		
4		
5		
6		

PROJECT MANAGER: M. NYSTED

DESIGNER: S. KLESSIG

DRAWN BY: C. TEAOE

EXPEDITOR: -----

SUPERVISOR: -----

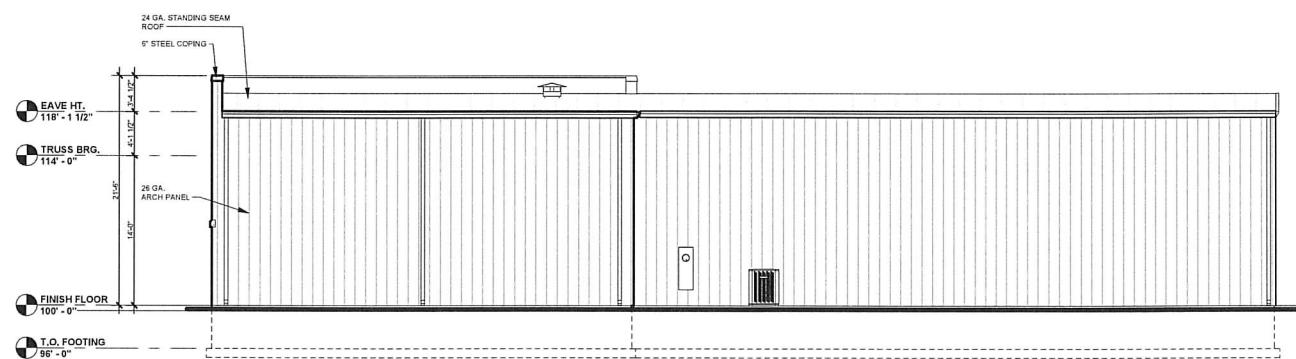
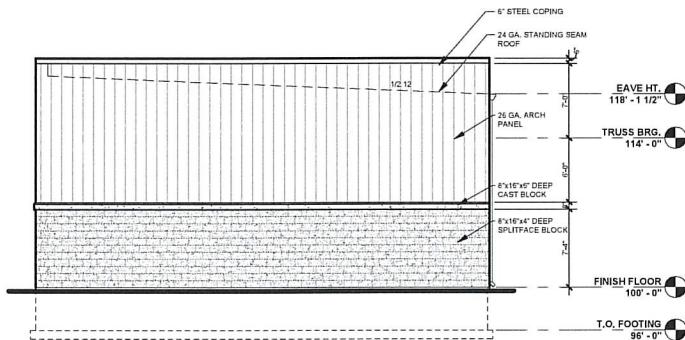
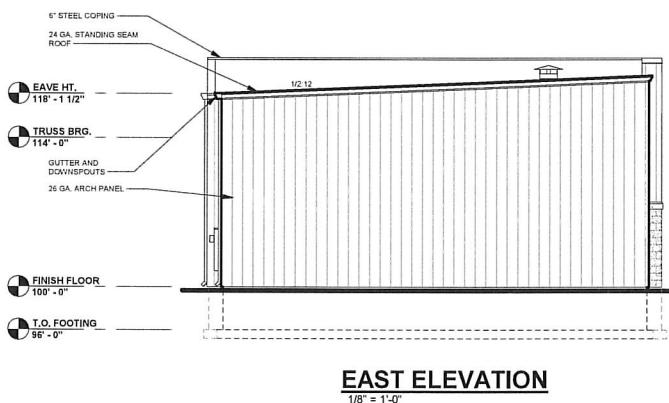
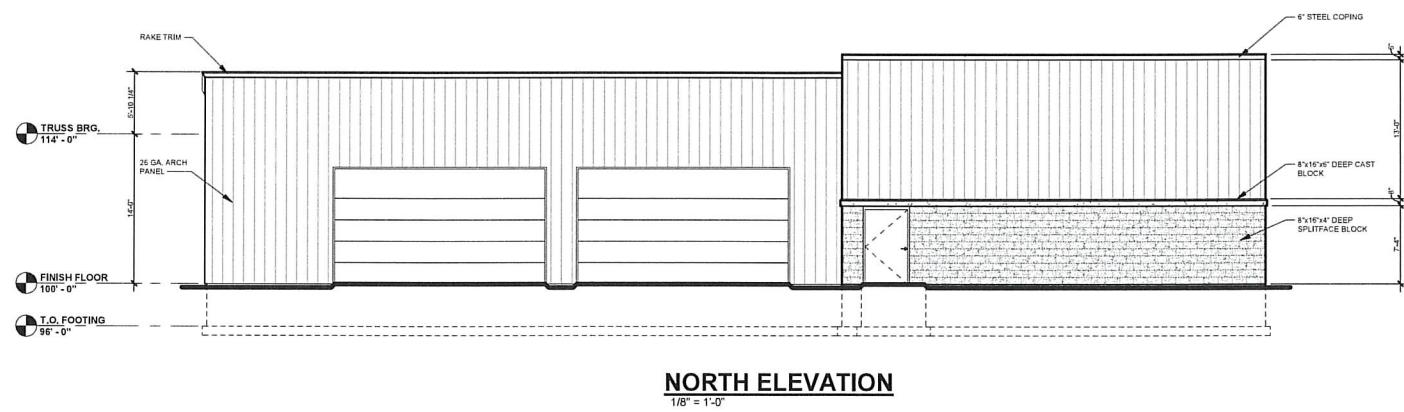
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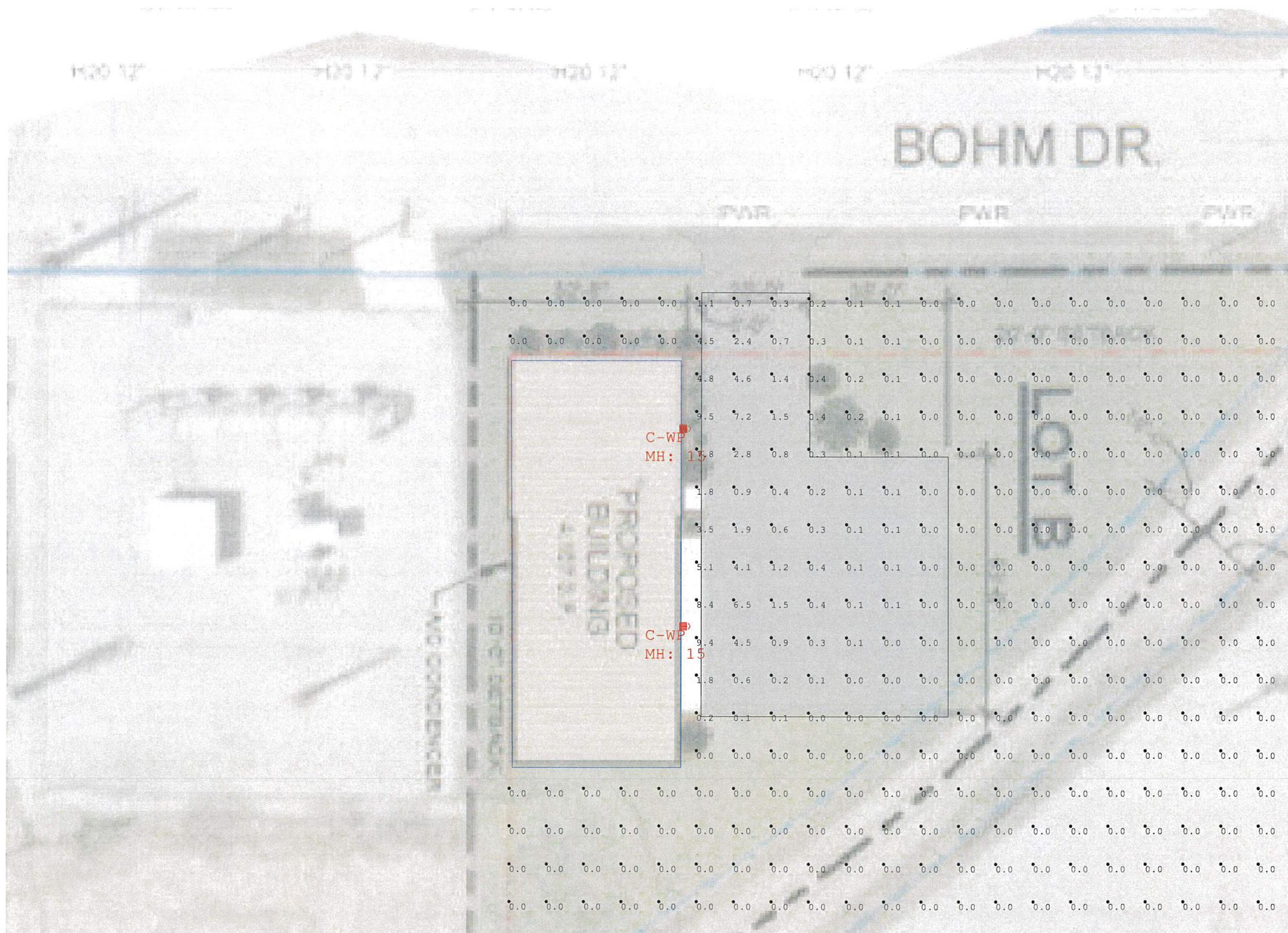
CONTRACT NO: -----

DATE: 06.17.2020

SHEET: A2.0

PRELIMINARY - NOT FOR CONSTRUCTION





Symbol	Qty	Label	Arrangement	Lumens/Lamp	LLF	Total Watts	Description
■	2	C-WP	SINGLE	N.A.	1.000	154	C-WP-A-RDC-10L-50K-DB

Calculation Summary					
Label	Avg	Max	Min	Avg/Min	Max/Min
CalcPts_1	0.36	9.5	0.0	N.A.	N.A.
Pavement of Lot B	0.88	7.2	0.0	N.A.	N.A.

Customer to verify Color, Mounting, Fixture Location and Voltage prior to ordering.

0 32' 64'

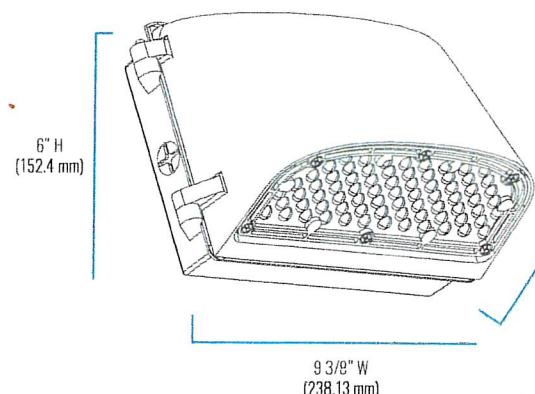
e-conolight®
1501 96th Street
Sturtevant, Wisconsin 53177
PH: (888) 243-9445
FX: (262) 504-5409
www.e-conolight.com

Customer responsible to verify ordering information/
catalogue number prior to placing order

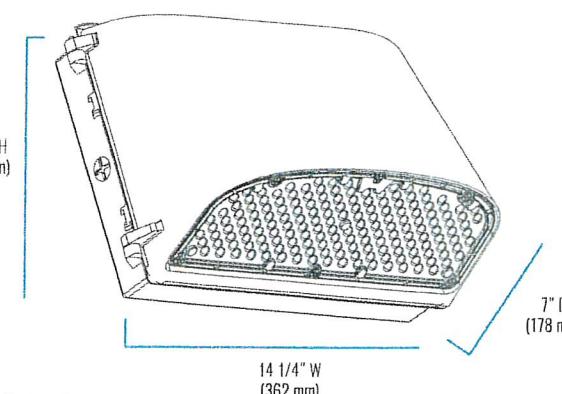
Date: 8/19/2020 Scale: 1"=16" Layout by: Nicholas Passeri
Project Name: DG Storage, Village of Little Chute, WI Salesforce: SR-32547
Filename: V:\Common\AppEng\Working\Nrp\2020 Virtual Drawer\Outdoor\08 AUG\0818 - SR32547
Footcandles calculated at grade using initial lumen values
Illumination results shown on this lighting design are based on project parameters provided to E-conolight
used in conjunction with luminaire test procedures conducted under laboratory conditions. Actual project
conditions differing from these design parameters may affect field results. The customer is responsible for
verifying dimensional accuracy along with compliance with any applicable electrical, lighting, or energy code.

C-WP-A-RDC Series

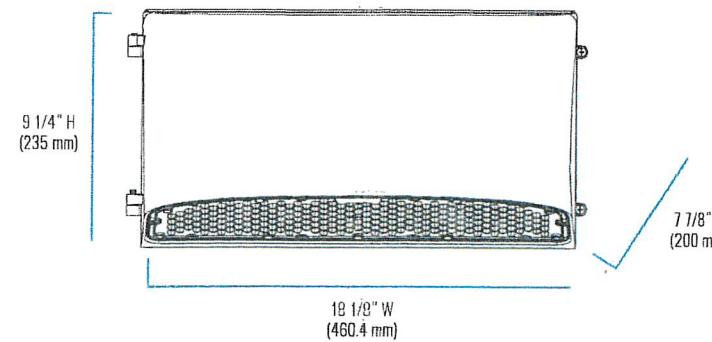
C-WP-A-RDC-1L | C-WP-A-RDC-3L



C-WP-A-RDC-6L | C-WP-A-RDC-10L



C-WP-A-RDC-15L | C-WP-A-RDC-20L



SERIES OVERVIEW

SKU	DIMENSIONS	PRODUCT WEIGHT
C-WP-A-RDC-1L	9-3/8" W x 6" H x 5-1/4" D	2.41 lbs.
C-WP-A-RDC-3L		
C-WP-A-RDC-6L	14-1/4" W x 9-1/4" H x 7" D	5.48 lbs.
C-WP-A-RDC-10L		5.94 lbs.
C-WP-A-RDC-15L	18-1/8" W x 9-1/4" H x 7-7/8" D	12.94 lbs.
C-WP-A-RDC-20L		13.15 lbs.

Fixture Specifications

HOUSING	Heavy duty, die-cast aluminum housing with hinged door frame. Dark bronze polyester powder-coat finish.
LENS ASSEMBLY	UV Stabilized polycarbonate lens designed to not only protect the LEDs but also to distribute the light efficiently.
MOUNTING	1/2" threaded knockouts provided for conduit entry or mount over a recessed junction box.

CA RESIDENTS WARNING: Cancer and Reproductive Harm - www.p65Warnings.ca.gov

US: creelighting.com, e-conolight.com Distribution/Sales: 855-617-2733 Customer Services: 888-243-9445

Rev. Date: 09/14/2020

For informational purposes only. Content is subject to change. *See lighting.cree.com/warranty for details

C-LITE
LED LIGHTING

C-WP-A-RDC Series

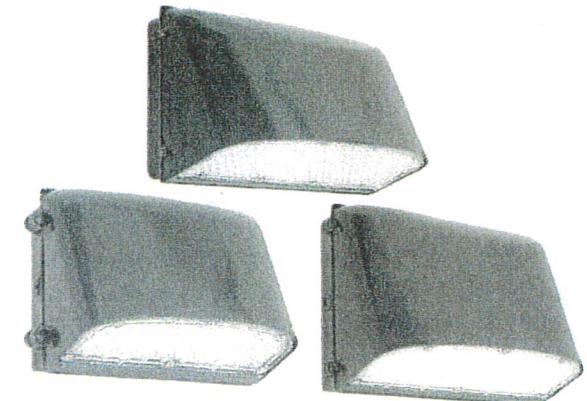
Full Cutoff LED Wall Pack

Replaces up to 400W PSMH

C-LITE
LED LIGHTING

THE WALL PACK DESIGNED WITH YOU IN MIND

UL listed, the C-WP-A-RDC Series LED Full Cutoff Wall Pack features an aesthetically pleasing form factor, with an optical lens designed to pass full cutoff compliance with many town ordinances. It delivers up to 21,100 lumens, with a ≥ 70 CRI and estimated 50,000-hour maintenance-free lifespan. Choose yours in 3000K, 4000K, or 5000K.



PRODUCT SPECIFICATIONS

OVERVIEW

- Initial Delivered Lumens: Up to: 21,100L
- CRI: ≥ 70 CRI
- CCT: Warm White 3000K, Neutral White 4000K, Cool White 5000K
- Mounting: 1/2" threaded knockouts provided for conduit entry or mount over a recessed junction box
- Input Power: Up to 144 Watts
- Dimmable: No
- Operating Range: -40°C (-40°F) 40°C (104°F)

C-WP-A-RDC-10L-50K-DB

- Lifespan: Estimated >50,000 Hours
- Power Factor: > 0.9
- Total Harmonic Distortion: < 20%
- Limited Warranty: 5-Years*
- Replaces up to 400W PSMH
- Distribution: Forward throw

FEATURES	BENEFITS	RECOMMENDED USE
<ul style="list-style-type: none"> Easy to install Lens assembly designed to control the light 	<ul style="list-style-type: none"> Full cutoff luminaire Developed with the contractor in mind Fully tested and backed by Cree Lighting 	<ul style="list-style-type: none"> Building Facade Security Perimeter General Area Lighting

ORDERING INFORMATION

Example: C-WP-A-RDC-1L-30K-DB

	A	RDC	1L	30K	DB
PRODUCT	Series	Style	LUMEN PACKAGE	CCT	Color
C-WP	A	RDC	1L 1500 Lumens (30K, 40K, 50K) 12W 3L 3000 Lumens (30K, 40K, 50K) 22W 6L 6200 Lumens (30K, 40K) 6300 Lumens (50K) 47W 10L 10,600 Lumens (40K, 50K) 77W 15L 15,000 Lumens (40K) 15,200 Lumens (50K) 108W 20L 20,900 Lumens (40K) 21,100 Lumens (50K) 144W	30K Warm White (3000K) (Only Available in 1L, 3L and 6L) 40K Neutral White (4000K) 50K Cool White (5000K)	-

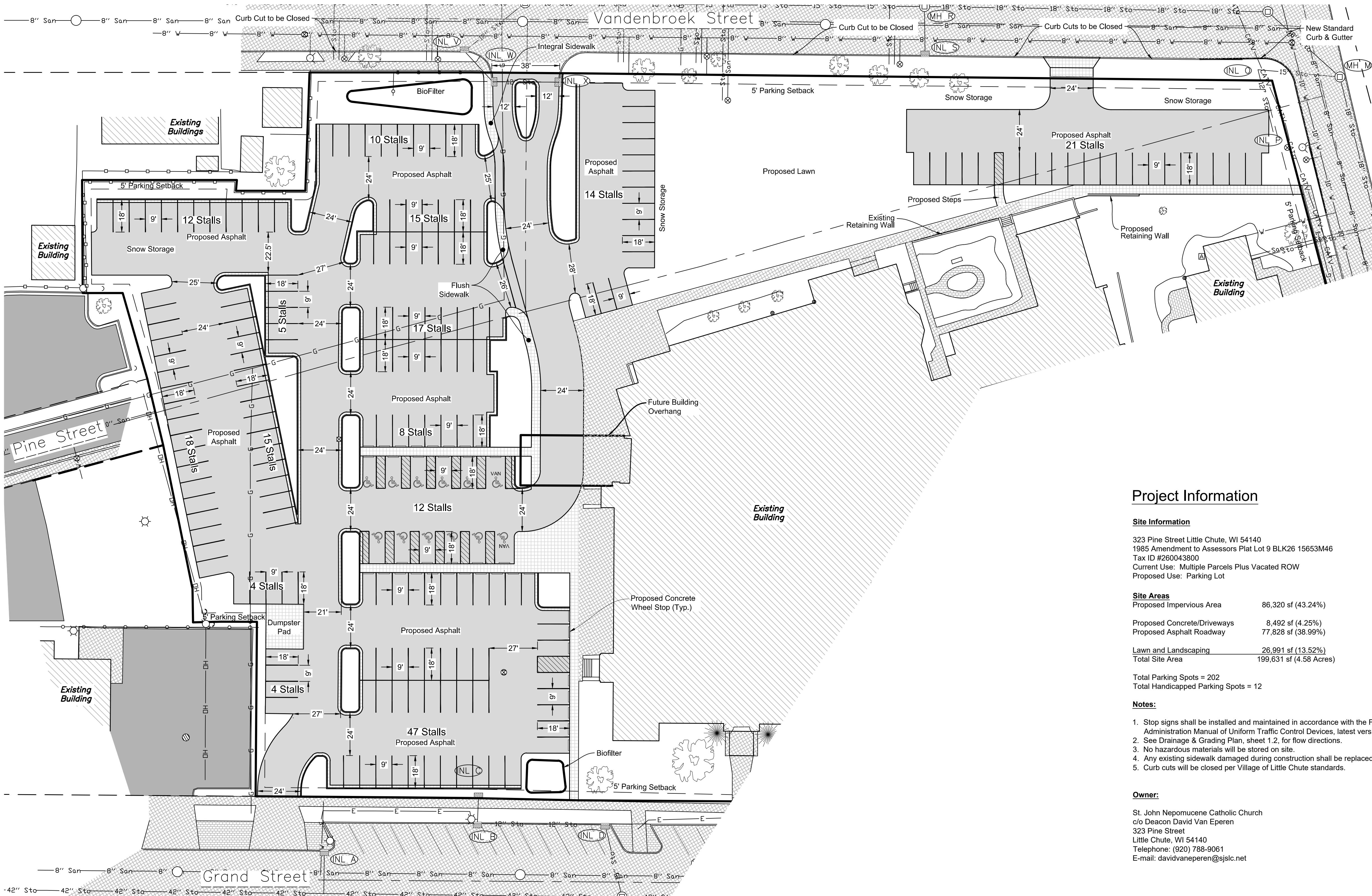
CERTIFICATIONS



US: creelighting.com, e-conolight.com Distribution/Sales: 855-617-2733 Customer Services: 888-243-9445

Rev. Date: 09/14/2020

For informational purposes only. Content is subject to change. *See lighting.cree.com/warranty for details



LEGEND

CATV	Underground Cable TV
FO	Underground Fiber Optic
OH	Overhead Electric Lines
San	Utility Guy Wire
Sto	Sanitary Sewer
E	Storm Sewer
G	Underground Electric
T	Underground Gas Line
W	Underground Telephone
Fence - Steel	Water Main
Fence - Wood	Fence - Steel
Fence - Barbed Wire	Fence - Wood
Wetlands	Wetlands
Treeline	Railroad Tracks
Railroad Tracks	Culvert
Culvert	Index Contour
Wetlands	Intermediate Contour

800

799

800

799

800

799

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800

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799

800

799

800

799

30 0 30 60 90

Ex Spot Elevation

Gravel

Project Information

Site Information

323 Pine Street Little Chute, WI 54140
1985 Amendment to Assessors Plat Lot 9 BLK26 15653M46
Tax ID #260043800
Current Use: Multiple Parcels Plus Vacated ROW
Proposed Use: Parking Lot

Site Areas
Proposed Impervious Area 86,320 sf (43.24%)
Proposed Concrete/Driveways 8,492 sf (4.25%)
Proposed Asphalt Roadway 77,828 sf (38.99%)
Lawn and Landscaping 26,991 sf (13.52%)
Total Site Area 199,631 sf (4.58 Acres)

Total Parking Spots = 202
Total Handicapped Parking Spots = 12

Notes:

1. Stop signs shall be installed and maintained in accordance with the Federal Highway Administration Manual of Uniform Traffic Control Devices, latest version.
2. See Drainage & Grading Plan, sheet 1.2, for flow directions.
3. No hazardous materials will be stored on site.
4. Any existing sidewalk damaged during construction shall be replaced as a part of this project.
5. Curb cuts will be closed per Village of Little Chute standards.

Owner:

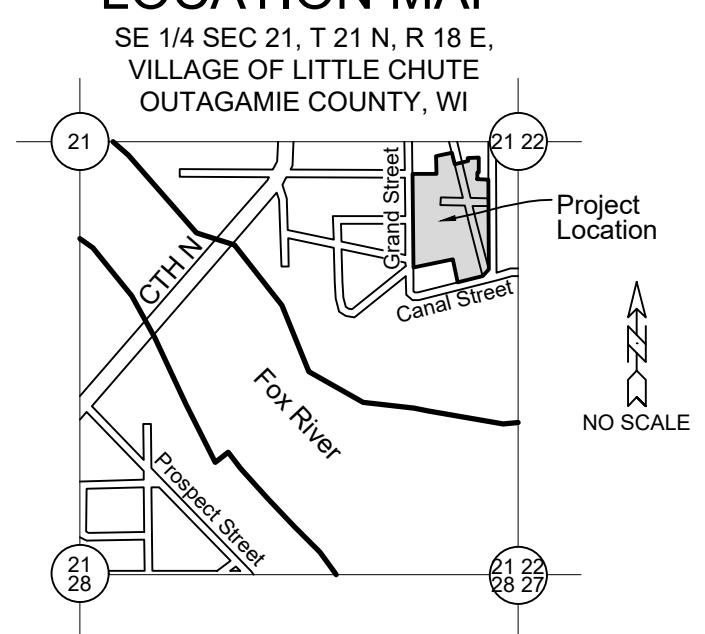
St. John Nepomucene Catholic Church
c/o Deacon David Van Eperen
323 Pine Street
Little Chute, WI 54140
Telephone: (920) 788-9061
E-mail: davidvaneperen@sjslc.net

SHEET INDEX:

Sheet	Page
Site Plan	1.0
Topographic Survey	1.1
Drainage and Grading Plan	1.2
Erosion & Sediment Control Plan	1.3
Demolition Plan	1.4
Landscape Plan	1.5
Construction Details	2.1
Author:	MDB
Last Saved by:	jennifer
Page	1.0

St. John Nepomucene Catholic Community
Village of Little Chute, Outagamie County, WI
For: St. John Nepomucene Catholic Community

LOCATION MAP



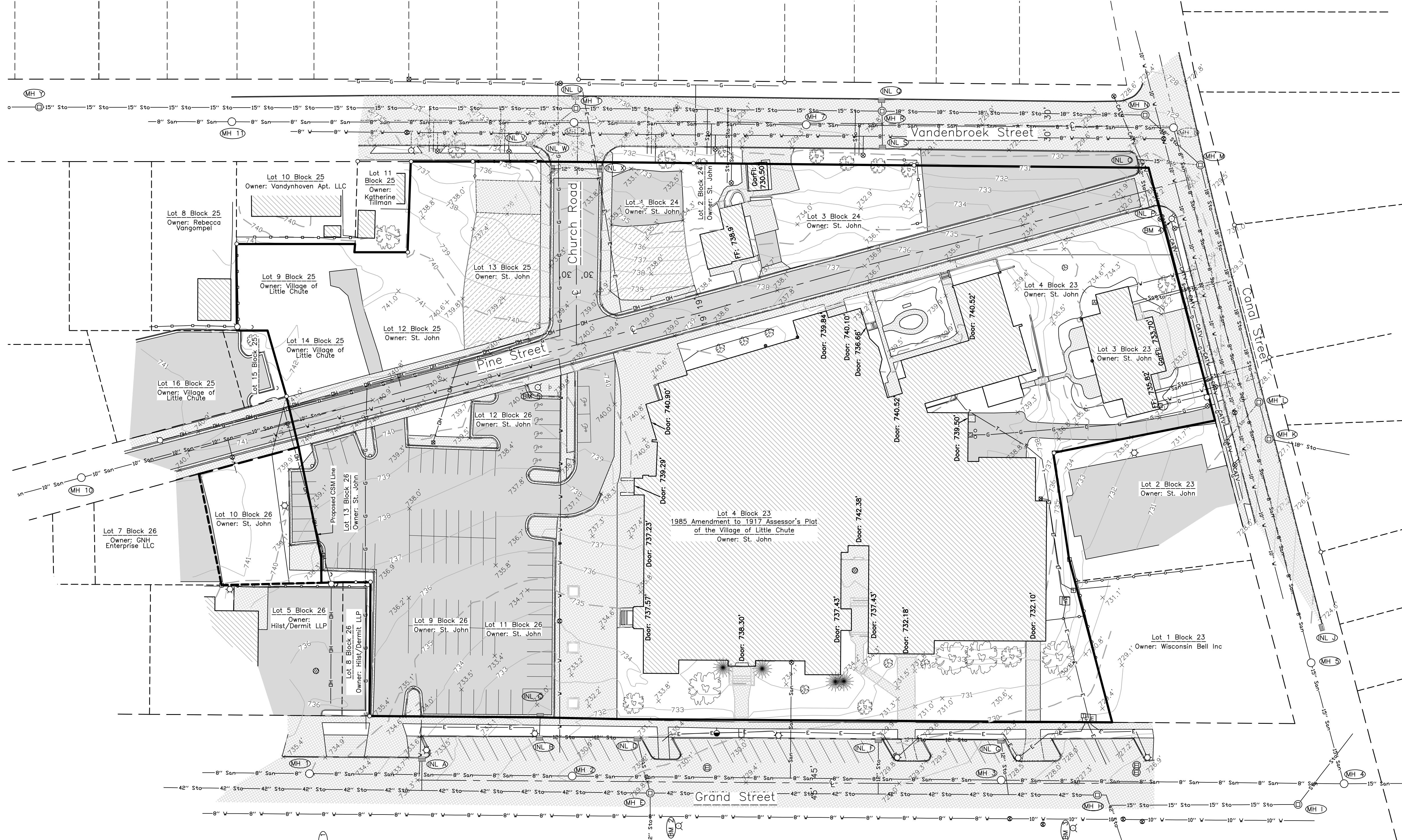
TOPOGRAPHIC SURVEY

St. John Nepomucene Catholic Community
Village of Little Chute, Outagamie County, WI
For: St. John Nepomucene Catholic Community

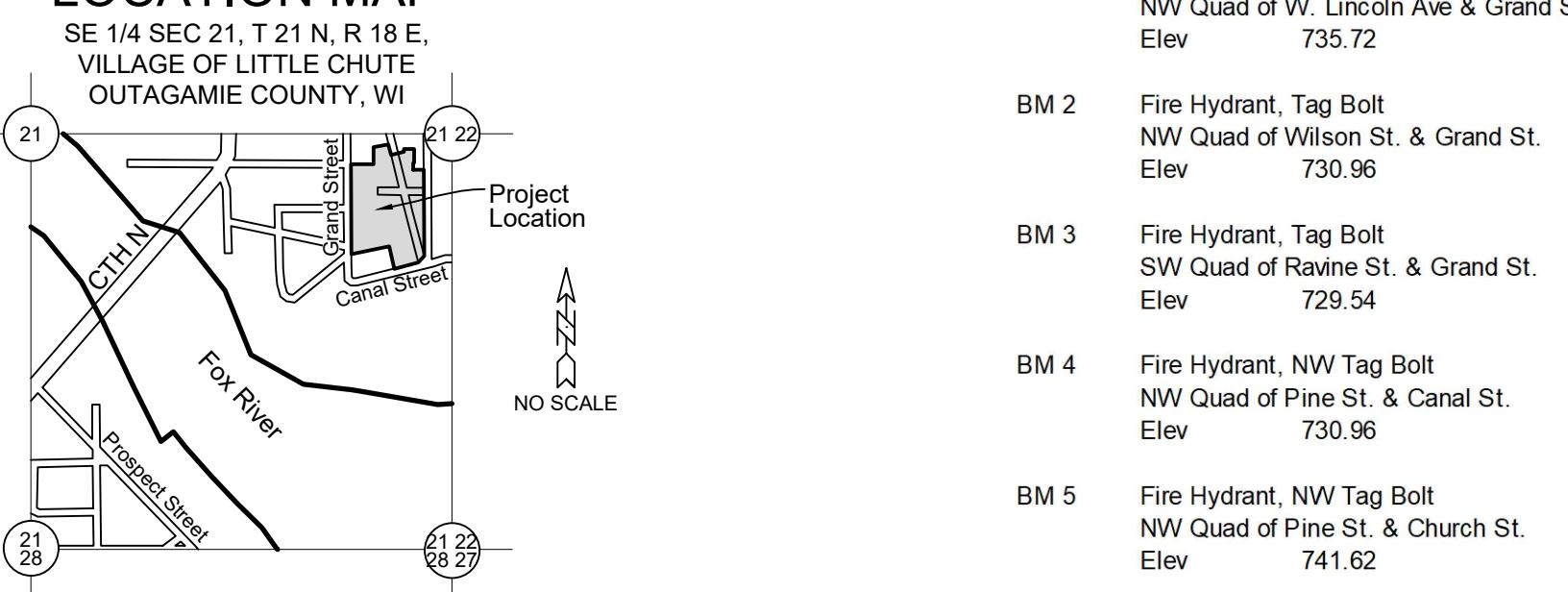
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Filename: 6044TOPO.dwg
Author: SRA
Last Saved by: scott
Page 1.1

Storm Structures						
Structure #	Rim	Inv	Size	Material	Direction	
INL A	733.45	731.25	12"	PVC	W	
INL B	732.02	728.47	12"	PVC	E	
INL C	731.73	728.12	12"	PVC	S	
INL D	730.35	726.50	12"	PVC	N	
MH E	729.63	722.83	15"	PVC	E	
		723.78	12"	PVC	W	
		717.03	42"	RCP	N	
		717.03	42"	RCP	S	
INL F	729.46	724.81	12"	PVC	W	
		724.81	12"	PVC	S	
INL G	728.73	724.45	12"	PVC	N	
MH H	726.86	714.90	42"	RCP	N	
		714.90	42"	RCP	S	
MH I	725.56	719.98	18"	RCP	N	
INL J	724.44	721.81	15"	PVC	W	
		721.81	15"	PVC	E	
MH K	727.64	721.61	15"	PVC	W	
		722.21	18"	RCP	E	
MH L	728.20	722.64	18"	RCP	W	
		723.63	10"	PVC	NW	
MH M	729.57	724.54	18"	RCP	E	
		724.54	15"	PVC	N	
MH N	729.13	724.92	18"	RCP	SW	
		724.95	18"	RCP	N	
INL O	730.08	726.26	12"	PVC	W	
		725.55	15"	PVC	S	
INL P	731.25	727.61	12"	PVC	E	
INL Q	727.94	725.25	12"	PVC	W	
MH R	728.41	725.18	18"	RCP	S	
		725.19	12"	PVC	W	
		725.19	12"	PVC	E	
INL S	728.90	725.45	12"	PVC	E	
MH T	731.04	726.60	15"	PVC	S	
		726.61	12"	PVC	NW	
		726.61	12"	PVC	E	
INL U	730.60	727.23	12"	PVC	W	
INL V	732.41	728.65	12"	PVC	SE	
		728.88	12"	PVC	SW	
INL W	733.03	729.00	12"	PVC	NE	
		729.01	12"	PVC	S	
INL X	732.43	729.11	12"	PVC	N	
MH Y	738.36	732.70	12"	PVC	S	
		722.19	10"	PVC	NW	
		722.19	10"	PVC	N	

Sanitary Structures						
Structure #	Rim	Inv	Size	Material	Direction	
MH 1	735.01	723.91	8"	PVC	N	
		723.91	8"	PVC	S	
MH 2	730.76	721.56	8"	PVC	N	
		721.55	8"	PVC	S	
MH 3	728.37	719.11	8"	PVC	N	
		719.10	8"	PVC	S	
MH 4	725.19	717.14	8"	PVC	N	
		717.14	15"	PVC	S	
MH 5	725.55	717.95	15"	PVC	W	
		717.95	8"	PVC	E	
MH 6	729.33	720.04	8"	PVC	W	
		720.06	8"	PVC	NE	
MH 7	728.91	721.24	8"	PVC	S	
		721.27	8"	PVC	N	
MH 8	731.41	724.13	8"	PVC	S	
		724.14	8"	PVC	N	
MH 9	740.67	731.92	10"	PVC	NW	
MH 10	740.21	729.93	10"	PVC	SE	
		729.92	10"	PVC	NW	
MH 11	737.84	727.09	8"	PVC	S	



LOCATION MAP



LEGEND

CATV	Underground Cable TV
DH	Overhead Electric Lines
San	Sanitary Sewer
Sto	Storm Sewer
E	Underground Electric
G	Underground Gas Line
T	Underground Telephone
V	Water Main
W	Fence - Steel
800	Fence - Wood
799	Index Contour
	Intermediate Contour

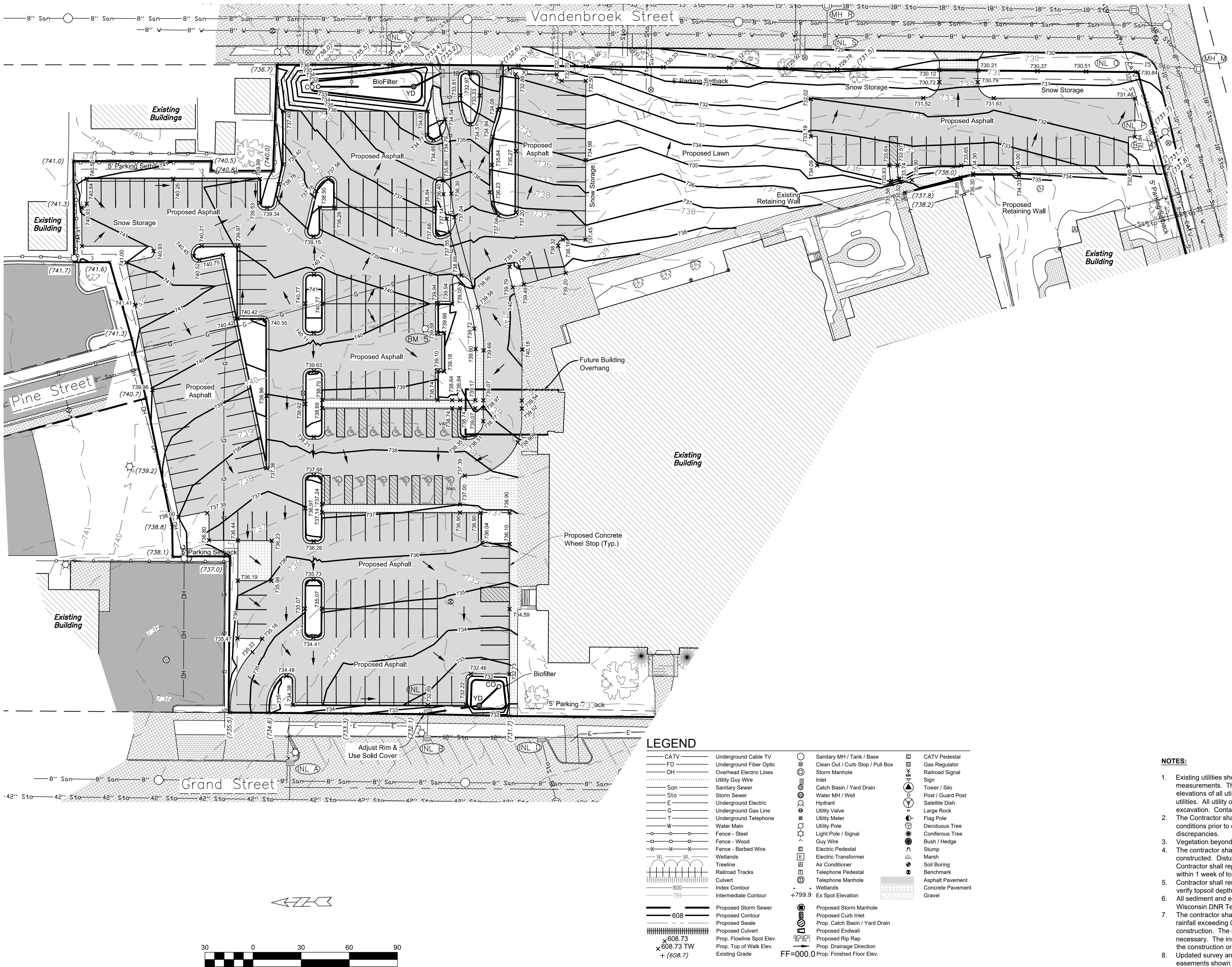
Sanitary MH / Tank / Base
Clean Out / Curb Stop / Pull Box
Storm Manhole
Inlet
Catch Basin / Yard Drain
Hydrant
Utility Valve
Utility Meter
Utility Pole
Light Pole / Signal Guy Wire
Electric Transformer
Ac Conditioner
Telephone Pedestal
Telephone Manhole

Ex Spot Elevation

+799.9

40 0 40 80 120

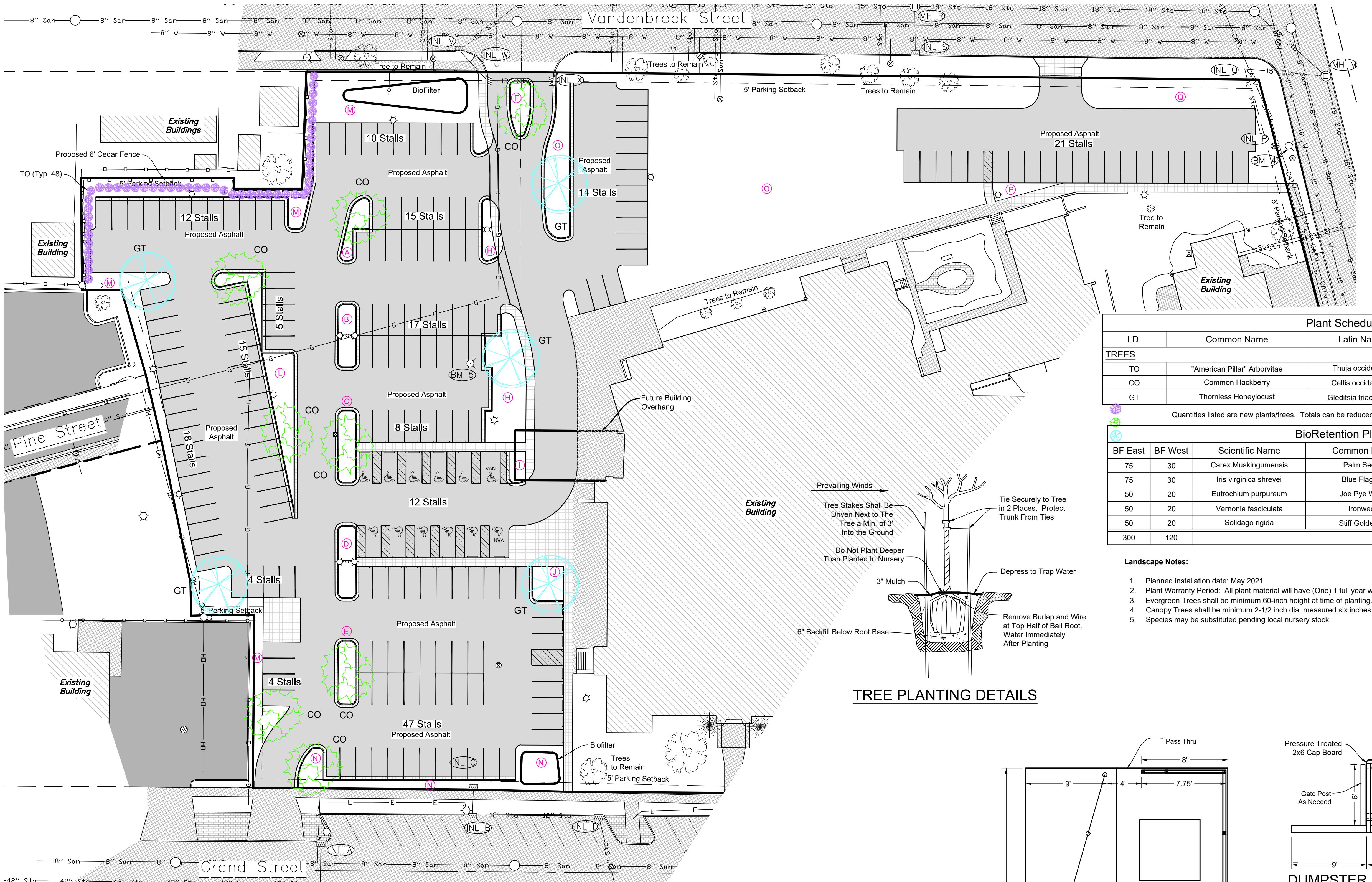
DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com



WAGE & GRADING PLAN

St. John Nepomucene Catholic Community
Village of Little Chute, Outagamie County, WI
For: St. John Nepomucene Catholic Community

te:
07/22/2020
enname:
6044engr.dwg
uthor:
MDB
st Saved by:
mitch
ge
1.2



Proposed Concrete/Driveways 8,492 sf
Lawn and Landscaping 26,991 sf
Total Parking Spots = 202
Total Handicapped Parking Spots = 12

12 Islands:
A. 257sf
B. 331sf
C. 374sf
D. 374sf
E. 331sf
F. 287sf
G. 189sf
H. 1,343sf
I. 152sf
J. 331sf
K. 307sf
L. 785sf

5 Peninsulas/Greenspace:
M. 7,463sf
N. 1,497sf
O. 18,856sf
P. 211sf
Q. 4,321sf

Double Light Pole
Single Light Pole

LANDSCAPE PLAN

St. John Nepomucene Catholic Community
Village of Little Chute, Outagamie County, WI
For: St. John Nepomucene Catholic Community

Date: 08/05/2020
Filename: 6044engr.dwg
Author: MDB
Last Saved by: mitch
Page 1.5

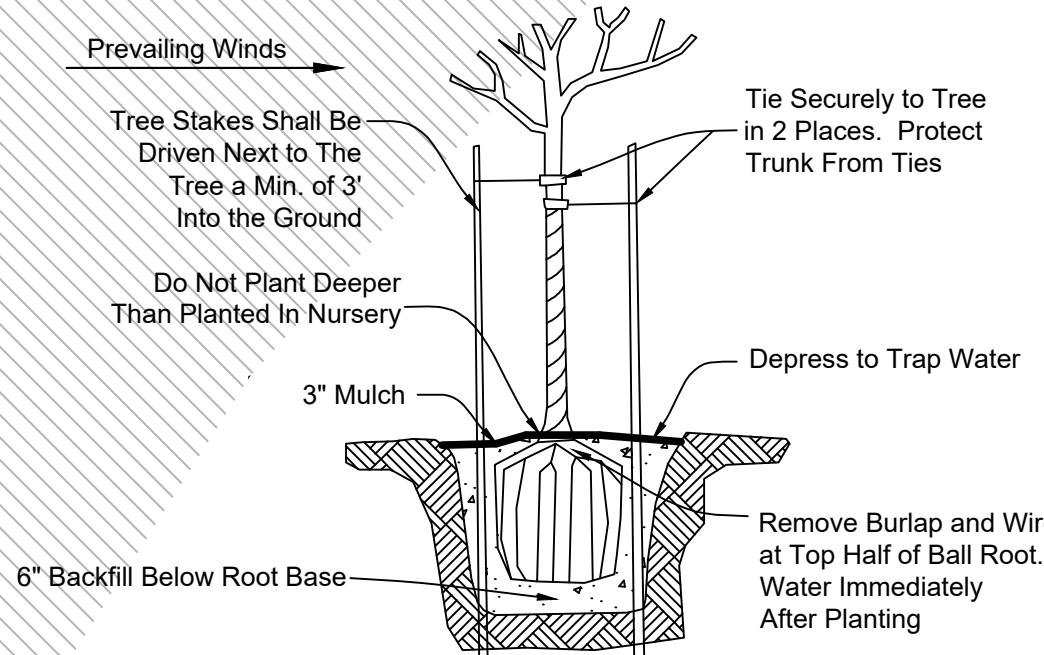
Plant Schedule						
I.D.	Common Name	Latin Name	Planting Size	Height	Spread	Qty.
TO	"American Pillar" Arborvitae	Thuja occidentalis	Refer Note 3	23'-30'	3'-5'	48
CO	Common Hackberry	Celtis occidentalis	Refer Note 4	40'-60'	40'-60'	8
GT	Thornless Honeylocust	Gleditsia triacanthos	Refer Note 4	30'-70'	30'-70'	5

Quantities listed are new plants/trees. Totals can be reduced if existing plants/trees are salvaged and transplanted.

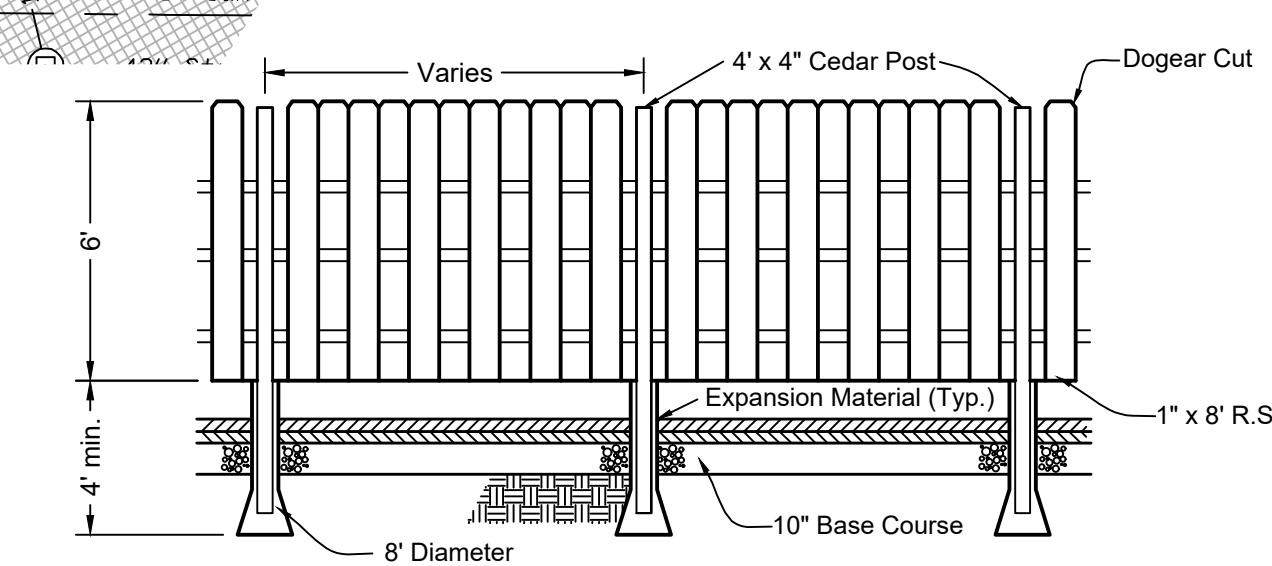
BioRetention Plants					
BF East	BF West	Scientific Name	Common Name	Size @ Planting	Size @ Maturity
75	30	Carex Muskingumensis	Palm Sedge	2.5" Pot	8-12" Ht x 1-2' Spread
75	30	Iris virginica shrevei	Blue Flag Iris	2.5" Pot	8-12" Ht x 1-2' Spread
50	20	Eutrochium purpureum	Joe Pye Weed	2.5" Pot	8-12" Ht x 1-2' Spread
50	20	Vernonia fasciculata	Ironweed	2.5" Pot	8-12" Ht x 1-2' Spread
50	20	Solidago rigida	Stiff Goldenrod	2.5" Pot	8-12" Ht x 1-2' Spread
300	120				

Landscape Notes:

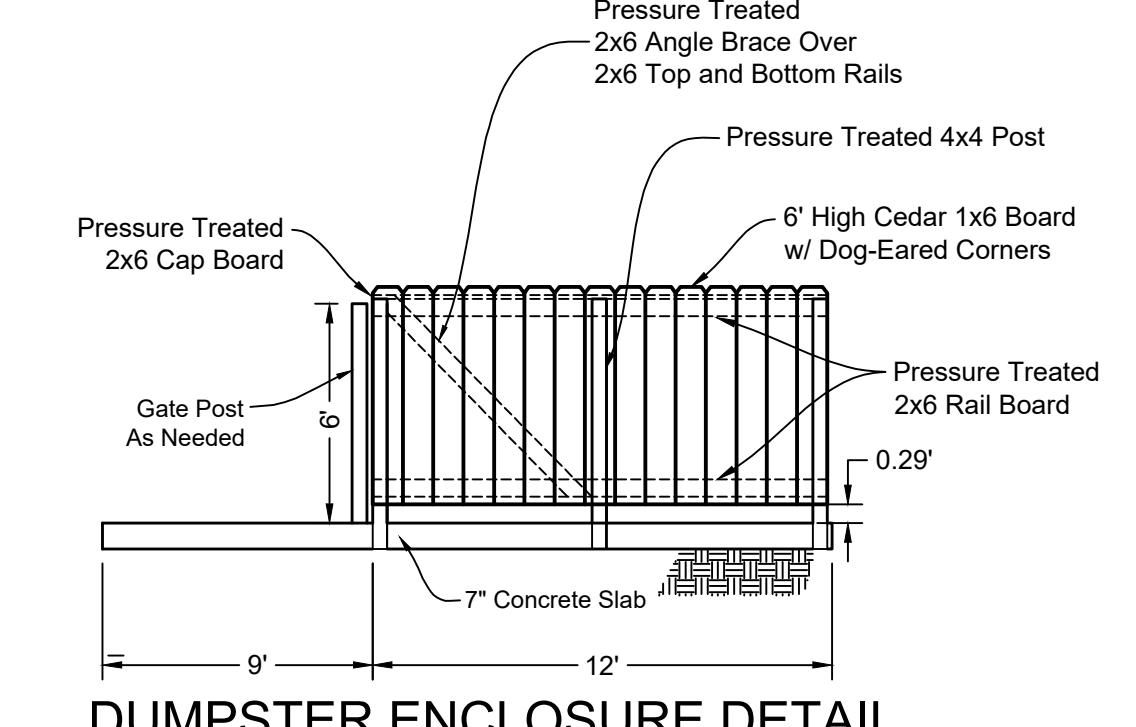
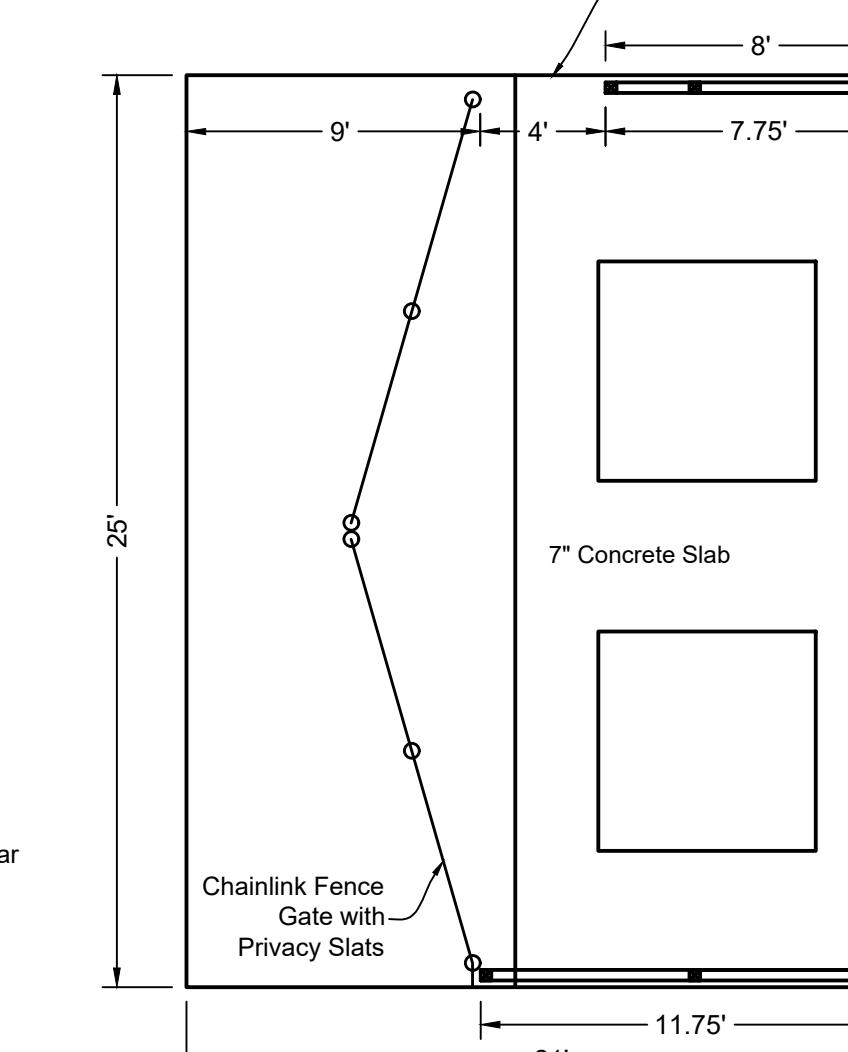
- Planned installation date: May 2021
- Plant Warranty Period: All plant material will have (One) 1 full year warranty replacement from date of Village acceptance.
- Evergreen Trees shall be minimum 60-inch height at time of planting.
- Canopy Trees shall be minimum 2-1/2 inch dia. measured six inches from the ground at time of planting.
- Species may be substituted pending local nursery stock.



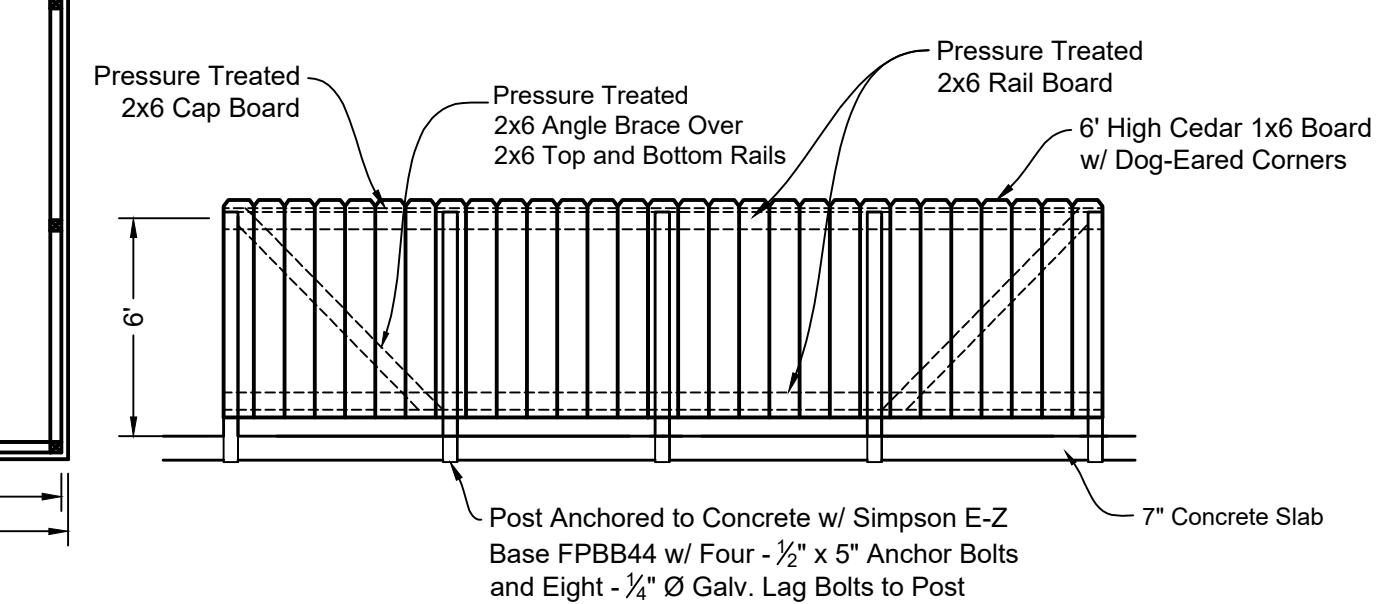
TREE PLANTING DETAILS



CEDAR FENCING DETAIL

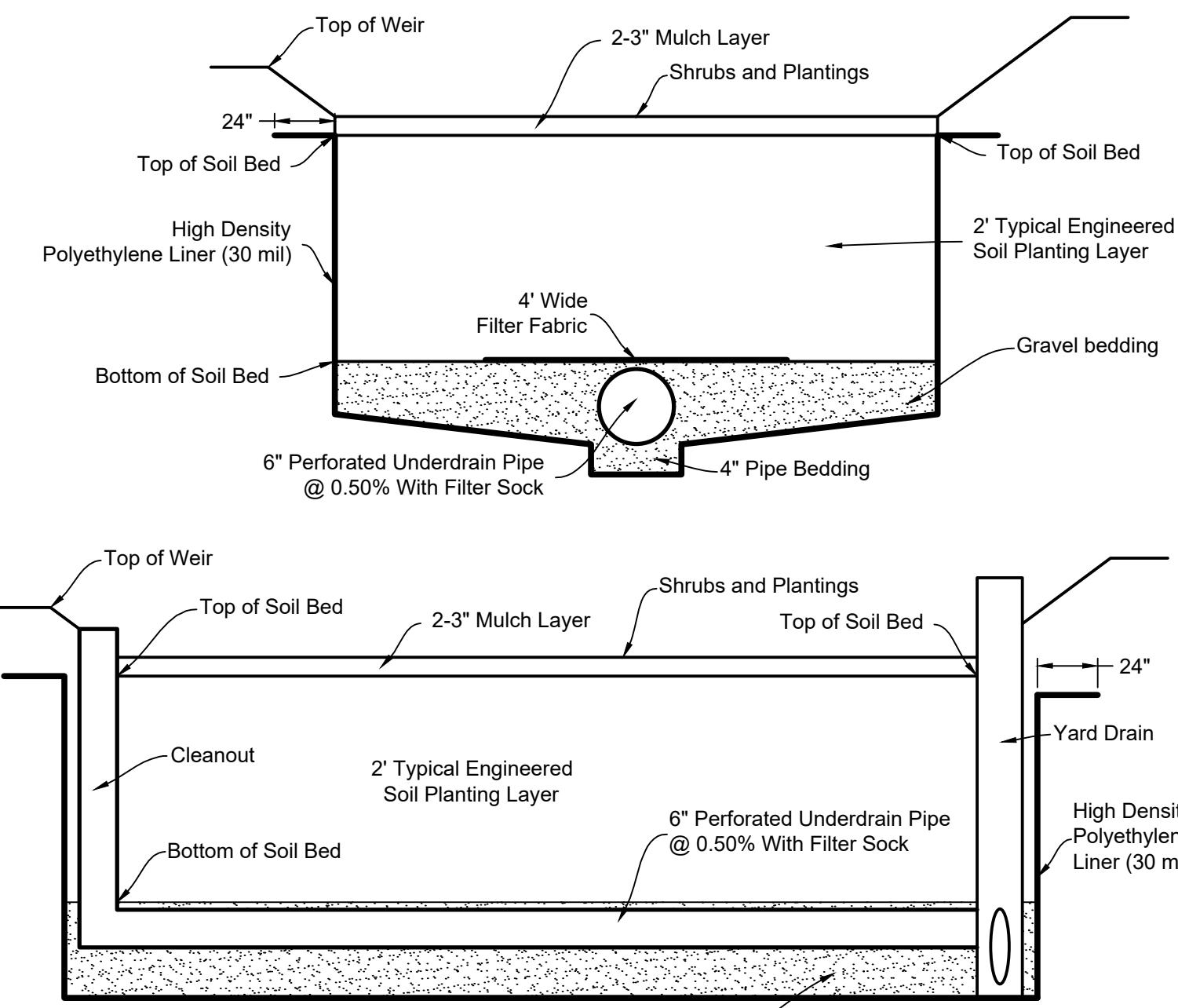


DUMPSTER ENCLOSURE DETAIL



CEDAR FENCING DETAIL

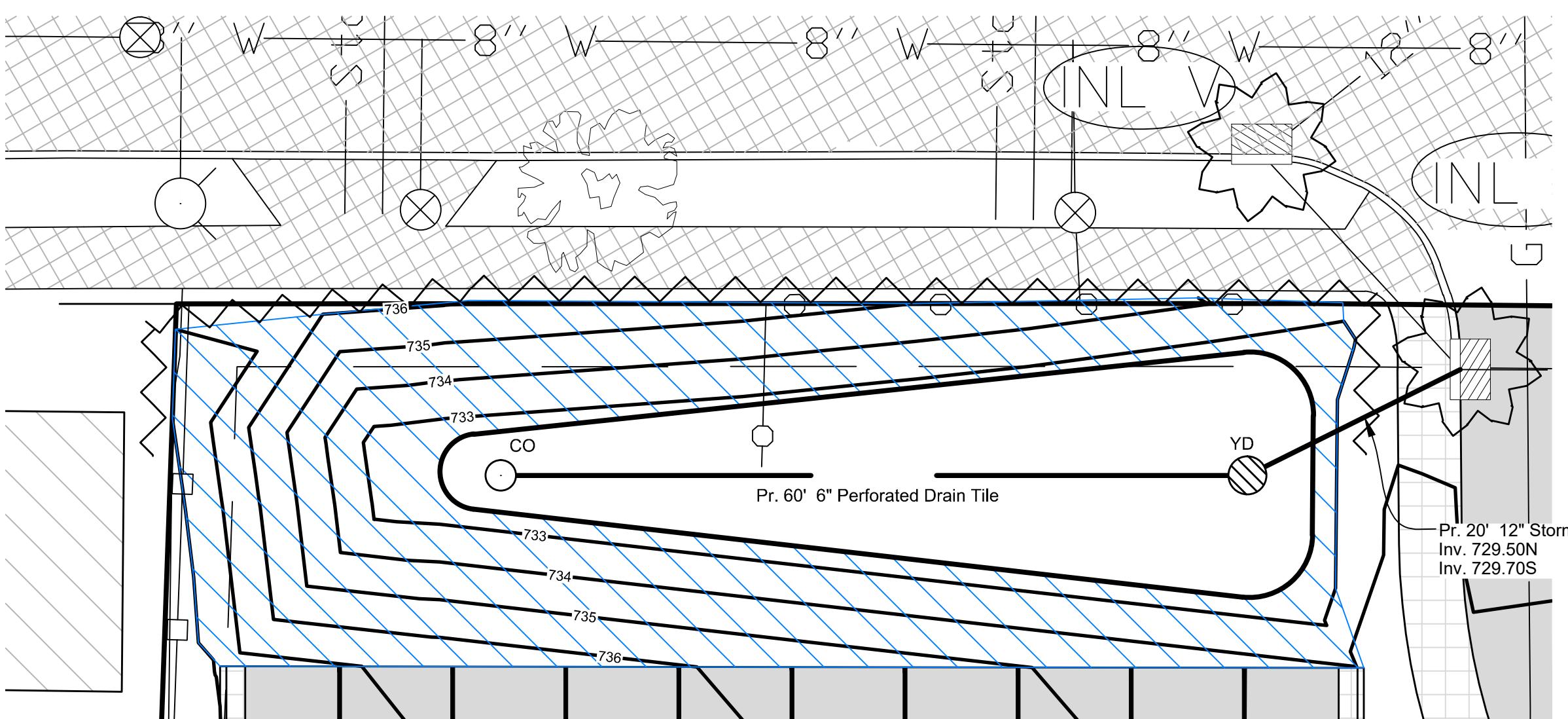
PLAN VIEW



BIOFILTRATION DETAIL SECTIONS

Biofilter	East	West
Soil Bed Area Required (sq. ft.)	900	350
Perimeter Treatment	Grass	Grass
Top of Weir Elev. (overflow path)	733.35	731.75
Top of Soil Bed Elev.	732.50	731.35
Bottom of Soil Bed Elev.	730.50	729.35
Yard Drain Rim Elev.	733.10	731.85
Yard Drain Outlet Pipe Invert Elev.	729.70	728.80
Yard Drain Underdrain Invert Elev.	729.85	728.80
Cleanout Rim Elev.	733.10	731.85
Cleanout Underdrain Invert Elev.	730.15	728.89
Underdrain Pipe Length (ft)	60.00	18.00
Underdrain Pipe Diameter (ft)	0.50	0.50

BIOFILTRATION DETAIL TABLE



Village of Little Chute
REQUEST FOR BOARD CONSIDERATION

ITEM DESCRIPTION: Nestle Site Improvements

PREPARED BY: David Kittel, Community Development Director

REPORT DATE: 9/10/2020

ADMINISTRATOR'S REVIEW/COMMENTS:

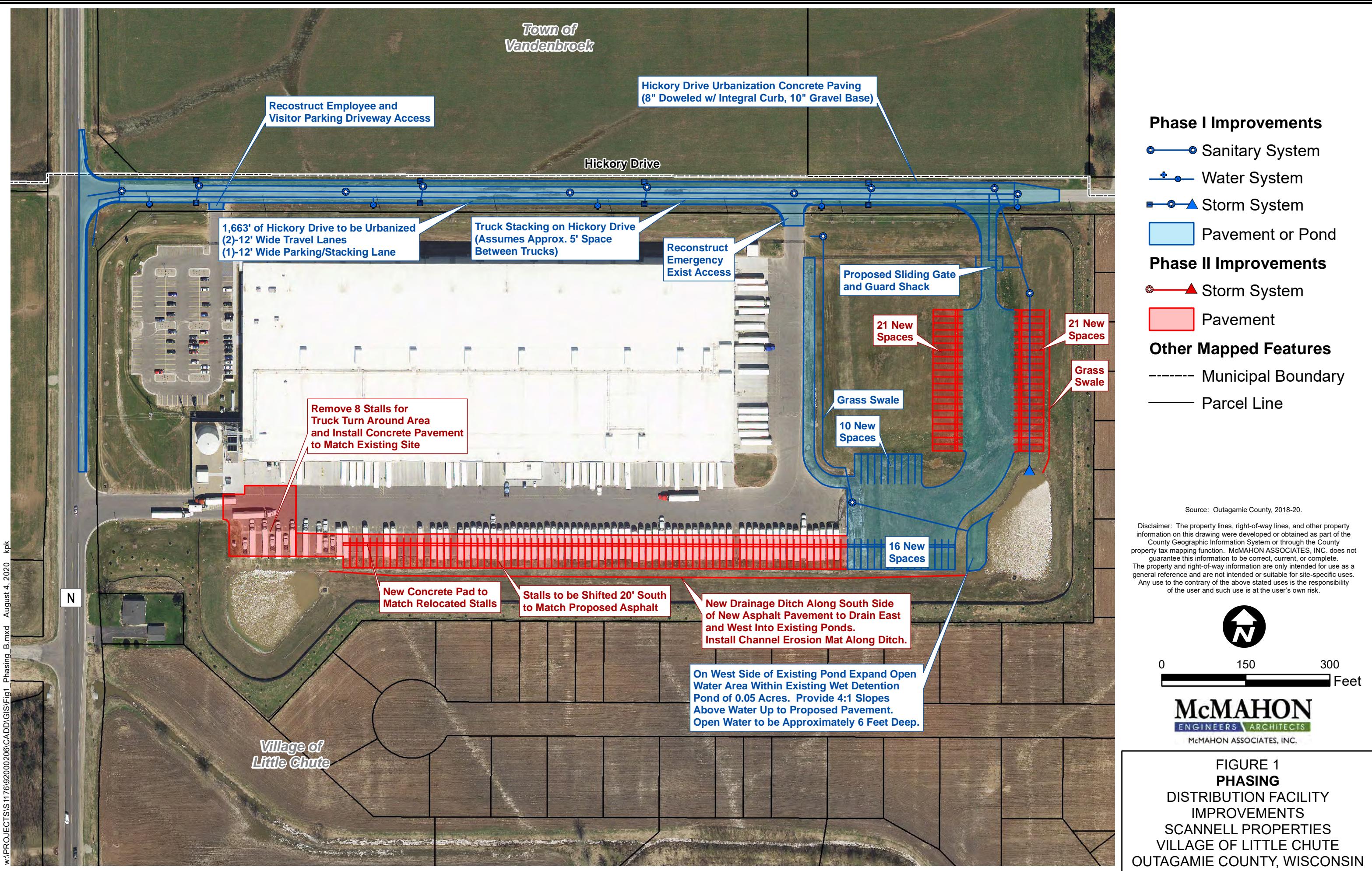
EXPLANATION:

Nestle is looking at upgrading and improving the facility at 3900 Freedom road. Part of this work is to improve Hickory road to better handle truck traffic as well as some site improvements. These improvements will improve the flow of the trucks into the facility and assist in preventing trucks stacking on CTY N. There will be a new entrance created and driving lane off Hickory to allow trucks to enter off Hickory and then exit at the existing gate off CTY N. The Site improvements on the property are listed below:

- Shift existing stalls 20' to the south
- Add 26 stalls along the southern portion of property (16 following the existing parking area and 10 on the other side of the driving lane)
- Add 42 stalls on the eastern portion of the property
- Add Guard shack
- Adding asphalt to widen portions of the existing lot/driving lane

Typically, the trucks parked along the southern portion of the property are not idling and the refres are off. These changes should not be increasing the noise at the facility and our performance standards laid out in Sec 44-245 still apply (No operation or activity shall transmit any noise exceeding 70 dBA from 7:00 a.m. to 10:00 p.m. and 60 dBA from 10:00 p.m. to 7:00 a.m. beyond the property line).

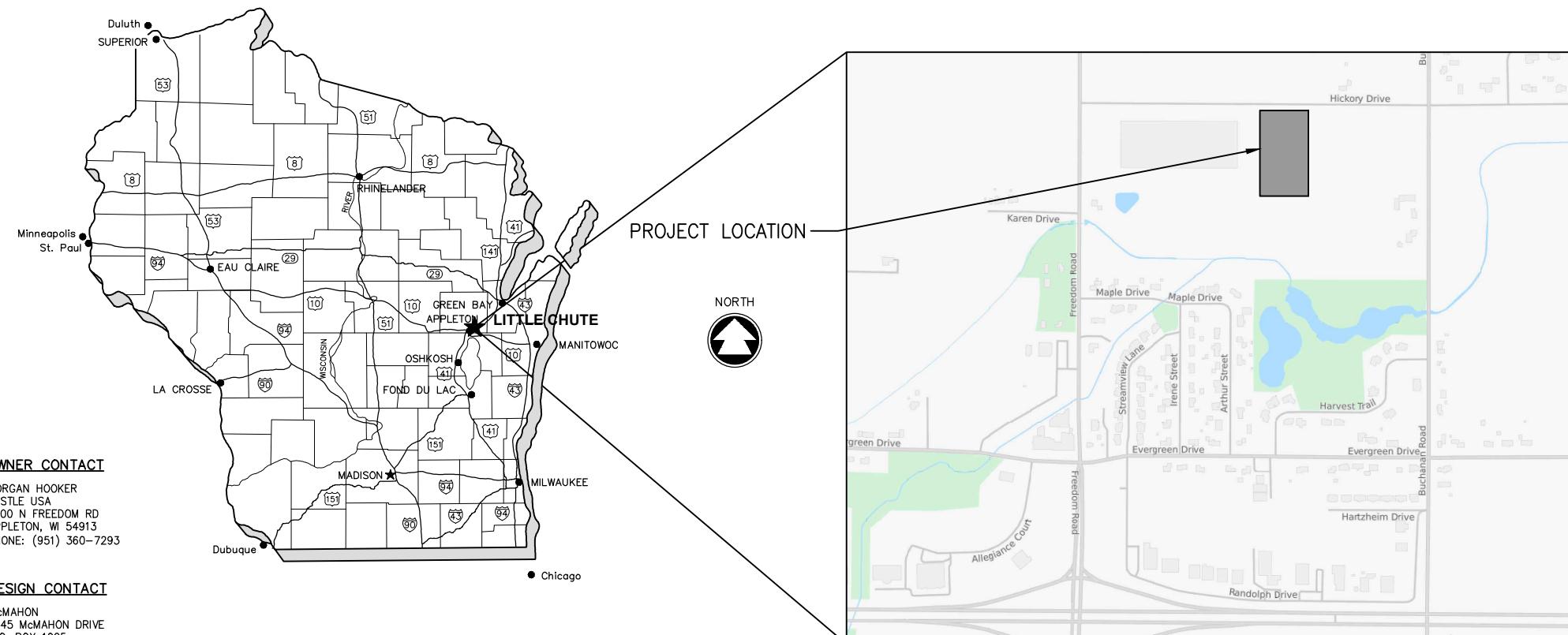
RECOMMENDATION: For the Plan Commission to discuss and make a recommendation to the Village Board to Approve the Site Plan for Nestle.



2020 SITE IMPROVEMENTS

NESTLE USA

VILLAGE OF LITTLE CHUTE, WISCONSIN
MCM # N0940 9-20-00535-B



CONTACT INFORMATION

UTILITIES

VILLAGE OF LITTLE CHUTE
CHRIS MURAWSKI (SANITARY, STORM, WATER)
108 W. MAIN STREET
LITTLE CHUTE, WI 54140
920-423-3865

TIME WARNER CABLE
VINCE ALBIN (CABLE)
3520 DESTINATION DRIVE
APPLETON, WI 54915
920-378-0444

KAUKAUNA ELECTRIC
KELLY O'KEEFE (ELECTRIC)
777 ISLAND STREET
KAUKAUNA, WI 54130
920-462-0222

WE ENERGIES
TOM BORCHART (GAS)
800 SOUTH LYNDALE DRIVE
APPLETON, WI 54912
920-380-3349

AT&T MIDWEST
JOE KASSAB (TELEPHONE)
205 S. JEFFERSON STREET
GREEN BAY, WI 54301
920-202-4002

OWNER CONTACT

MORGAN HOOKER
NESTLE USA
3900 N FREEDOM RD
APPLETON, WI 54913
PHONE: (951) 360-7293

DESIGN CONTACT

McMAHON
1445 McMAHON DRIVE
P.O. BOX 1025
NEENAH, WI 54957-1025
NICK VANDER HEY, PROJECT ENGINEER
PHONE: (920) 751-4200
EMAIL: nvandehhey@mcmgrp.com

DIGGERS HOTLINE

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



SHEET INDEX

01	ABBREVIATIONS, SYMBOLS & NOTES
02	SURVEY CONTROL
03	OVERALL SITE PLAN
04-06	PHASE I PROPOSED GRADING, UTILITY, & EROSION CONTROL PLAN
07-09	PHASE II PROPOSED GRADING, UTILITY, & EROSION CONTROL PLAN
10	SITE PLAN & PAVING PLAN
11-14	DETAILS
A211	GATE & FENCE DETAILS
E1-E12	ELECTRICAL PLAN & DETAILS

STANDARD ABBREVIATIONS

AC	ACRE	LT	LEFT
AGG	AGGREGATE	LVC	LENGTH OF VERTICAL CURVE
AH	AHEAD	MAINT	MAINTENANCE
ASPH	ASPHALT PAVEMENT	MAT'L	MATERIAL
AVG	AVERAGE	MAX	MAXIMUM
B-B	BACK TO BACK	MIN	MINIMUM
BEG	BEGIN	MH	MANHOLE
BIT	BITUMINOUS	MP	MILE POST
BK	BACK	NB	NORTHBOUND
B/L	BASE LINE	NO	NUMBER
BLDG	BUILDING	NOR	NORMAL
BM	BENCH MARK	OD	OUTSIDE DIAMETER
BOC	BACK OF CURB	OBLIT	OBLITERATE
BRG	BEARING	PAVT	PAVEMENT
C-C	CENTER TO CENTER	PC	POINT OF CURVATURE
CY	CUBIC YARD	PCC	PORTLAND CEMENT CONCRETE OR POINT OF COMPOUND CURVATURE
C&G	CURE AND GUTTER	PE	PRIVATE ENTRANCE
CB	CATCH BASIN	PED	PEDESTAL
CE	COMMERCIAL ENTRANCE	PGL	PROFILE GRADE LINE
CHD	CHORD	PI	POINT OF INTERSECTION
C/L	CENTER LINE	P/L	PROPERTY LINE
CL	CLASS (FOR CONC PIPE)	PLE	PERMANENT LIMITED EASEMENT
CMP	CORRUGATED METAL PIPE	PP	POWER POLE
CO	CLEAN OUT	PRC	POINT OF REVERSE CURVATURE
CONC	CONCRETE	PROP	PROPOSED
CORR	CORRUGATED	PSD	PASSING SIGHT DISTANCE
CP	CONTROL POINT	PSI	POUNDS PER SQUARE INCH
CR	CRUSHED	PT	POINT OF TANGENCY
CS	CURB STOP	PVC	POLYVINYL CHLORIDE OR POINT OF VERTICAL CURVATURE
CSW	CONCRETE SIDEWALK	PVI	POINT OF VERTICAL INTERSECTION
CTH	COUNTY TRUNK HIGHWAY	PVT	POINT OF VERTICAL TANGENCY
CULV	CULVERT	RCP	RADIUS
D	DEPTH OR DELTA	RD	REINFORCED CONCRETE PIPE
DI	DUCTILE IRON	REBAR	ROAD
DIA	DIAMETER	REM	REINFORCEMENT ROD
DIS	DISCHARGE	RECON	REMOVE
EA	EACH	REQ'D	RECONSTRUCT
EB	EASTBOUND	R/L	REQUIRED
EBS	EXCAVATION BELOW SUBGRADE	RP	REFERENCE LINE
EC	EDGE OF GRAVEL	RR	RADIUS POINT
ELEV	ELEVATION	RT	RAILROAD
ELEC	ELECTRIC	R/W	RIGHT
EMB	EMBANKMENT	SB	RIGHT-OF-WAY
EMAT	EROSION MAT	SE	SOUTHBOUND
ENT	ENTRANCE	SF	SUPERELEVATION
EOR	END OF RADIUS	SI	SQUARE FEET
EP	EDGE OF PAVEMENT	STH	SLOPE INTERCEPT
EXC	EXCAVATION	SY	STATE TRUNK HIGHWAY
EX	EXISTING	SAVL	SQUARE YARD
EW	ENDWALL	SAN	SAVAGED
F-F	FACE TO FACE	SEC	SANITARY
FDN	FOUNDATION	SHLDR	SECTION
FE	FIELD ENTRANCE	S/L	SHOULDER
FERT	FERTILIZER	SQ	SURVEY LINE
FG	FINISHED GRADE	STA	SQUARE
F/L	FLOW LINE	STD	STATION
FT	FOOT	STO	STANDARD
FTG	FOOTING	STO	STORM
GRAV	GRAVEL	SW	SIDEWALK
GN	GRID NORTH	TC	TOP OF CURB
GV	GAS VALVE	TEL	TELEPHONE
HDPE	HIGH DENSITY POLYETHYLENE	TEMP	TEMPORARY
HE	HIGHWAY EASEMENT	TELE	TEMPORARY LIMITED EASEMENT
HMA	HOT MIX ASPHALT	TV	TELEVISION
HP	HIGH POINT	TYP	TYPICAL
HT	HEIGHT	UG	UNDERGROUND
ID	INSIDE DIAMETER	USH	U.S. HIGHWAY
IN	INLET	VAR	VARIABLES
INL	INVERT	VC	VERTICAL CURVE
INV	IRON PIPE	VERT	VERTICAL
IP	JUNCTION	WB	WESTBOUND
JCT	POUND	WM	WATER MAIN
LB	LINEAR FOOT	WV	WATER VALVE
LF	LIGHT POLE		

GENERAL NOTES

- THE UTILITIES SHOWN IN PLAN AND PROFILE ARE INDICATED IN ACCORDANCE WITH AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING EXACT LOCATIONS AND ELEVATIONS OF ALL UTILITIES, INCLUDING ANY PRIVATE UTILITIES, FROM THE OWNERS OF THE RESPECTIVE UTILITIES. ALL UTILITIES SHALL BE NOTIFIED 72 HRS. PRIOR TO EXCAVATION.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY PROPOSED SITE GRADES BY FIELD CHECKING TWO (2) BENCHMARKS AND A MINIMUM OF ONE (1) SITE FEATURE AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY MCMAHON OF ANY VERTICAL DISCREPANCY.
- EXISTING STREET RIGHT-OF-WAY AND INTERSECTING PROPERTY LINES ARE ESTABLISHED FROM FIELD LOCATED SURVEY MONUMENTATION, PREVIOUS SURVEYS, PLATS AND CURRENT PROPERTY DEEDS.
- NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT PRIOR APPROVAL FROM THE OWNER.
- A SAWED JOINT IS REQUIRED WHERE NEW PAVEMENT MATCHES EXISTING PAVEMENT.
- ALL CURB RADII SHOWN ON THE PLAN SHEETS ARE TO THE BACK OF CURB UNLESS OTHERWISE NOTED.
- DIMENSIONS ARE TO THE BACK OF CURB UNLESS OTHERWISE NOTED.
- UTILITY IMPROVEMENTS WITHIN FREEDOM ROAD (CTH N) AND HICKORY DRIVE RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH VILLAGE OF LITTLE CHUTE SPECIFICATIONS AND PERMITS.
- STREET IMPROVEMENTS WITHIN HICKORY DRIVE RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH VILLAGE OF LITTLE CHUTE SPECIFICATIONS AND PERMITS.
- STREET IMPROVEMENTS WITHIN FREEDOM ROAD (CTH N) RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH WISCONSIN DEPARTMENT OF TRANSPORTATION SPECIFICATIONS AND COUNTRY HIGHWAY PERMIT.

THIS PLAN SET WAS CREATED WITH CIVIL3D 2018. MCMAHON'S "DISCLAIMER FOR TRANSFER OF ELECTRONIC FILES" FORM NEEDS TO BE SIGNED IF A COPY OF THE ELECTRONIC FILES ARE REQUESTED. MCMAHON MAKES NO REPRESENTATION REGARDING THE COMPATIBILITY OF THESE FILES WITH OTHER SOFTWARE, NOR DOES MCMAHON REPRESENT THAT THE FILES WILL CONVERT TO OTHER SOFTWARE WITHOUT ERROR.

STANDARD SYMBOLS (PLAN VIEW ONLY)

2" IRON PIPE FOUND	T	TELEPHONE CABLE - BURIED
1 1/4" REBAR FOUND	E	ELECTRIC CABLE - BURIED
1 1/4" x 30" IRON REBAR WEIGHING 4.30 LB/LF SET	OHU	UTILITIES - OVERHEAD
1" (1.315 OD) IRON PIPE FOUND	FO	FIBER OPTIC CABLE - BURIED
1" IRON PIPE SET	G	GAS MAIN
3/4" IRON REBAR FOUND	TV	CABLE TELEVISION - BURIED
3/4" IRON PIPE FOUND		DITCH LINE
3/4"x 24" IRON REBAR WEIGHING 1.5 LB/LF SET		STREET C/L OR R/L
MAG NAIL FOUND		PROPERTY LINE
MAG NAIL SET		RIGHT-OF-WAY LINE
MAG SPIKE FOUND		SECTION LINE
MAG SPIKE SET	746	EXISTING CONTOURS
CHISEL CROSS FOUND	746	PROPOSED CONTOURS
CHISEL CROSS SET	FM	EXISTING FORCEMAIN SEWER
COUNTY MONUMENT	SAN	EXISTING SANITARY SEWER
CONCRETE MONUMENT FOUND	SAN	PROPOSED SANITARY SEWER
CONTROL POINT HORIZONTAL	WM	EXISTING WATER MAIN
VERTICAL BENCHMARK	WM	PROPOSED WATER MAIN
SOIL BORING or MONITORING WELL	STO	EXISTING STORM SEWER
POWER POLE	STO	PROPOSED STORM SEWER
POWER POLE W/GUY WIRE		EXISTING CURB & GUTTER
TELEPHONE OR TELEVISION PEDESTAL		PROPOSED CURB & GUTTER
MAILBOX		PROPOSED REJECT CURB & GUTTER
SIGN		EXISTING CULVERT WITH END SECTIONS
RAILROAD CROSS BUCK		PROPOSED CULVERT WITH END SECTIONS
RAILROAD GATE ARM		BUILDING OUTLINE
RAILROAD TRACKS		FENCE LINE
LIGHT POLE		SAW CUT REQ'D
WOOD POLE		SILT FENCE
TRAFFIC SIGNAL		GUARD RAIL
TRAFFIC SIGNAL MAST ARM		DITCH CHECK
CONIFEROUS TREE		INLET PROTECTION
DECIDUOUS TREE		TRACKING PAD
TREE OR BRUSH LINE		TURBIDITY BARRIER OR SHEET PILING
BED ROCK (IN PROFILE VIEW)		SANDBAG COFFERDAM
HANDICAPPED PARKING STALL		SLOPE INTERCEPT
EXISTING SPOT ELEVATION		LIMITS OF DISTURBANCE
750.00 PROPOSED SPOT ELEVATION		
DRAINAGE HIGH POINT		
DRAINAGE DIRECTION		
EXISTING MANHOLE		CONCRETE SIDEWALK/DRIVEWAY
PROPOSED MANHOLE		GRAVEL
EXISTING INLET		RIP-RAP (SIZE AS SPECIFIED)
PROPOSED INLET		BRICK/PAVERS
EXISTING YARD DRAIN		PROPOSED EROSION MAT
PROPOSED YARD DRAIN		PROPOSED TURF REINFORCEMENT MAT (TRM)
EXISTING CLEAN OUT		EXISTING DELINERATED WETLANDS
PROPOSED CLEAN OUT		
EXISTING DOWNSPOUT		
PROPOSED DOWNSPOUT		
EXISTING WATER VALVE		
PROPOSED WATER VALVE		
EXISTING CURB STOP		
PROPOSED CURB STOP		
EXISTING FIRE HYDRANT		
PROPOSED FIRE HYDRANT		
PROPOSED WATER FITTING		
PROPOSED WATER REDUCER		
PROPOSED ENDCAP		
GAS VALVE		

EROSION & SEDIMENT CONTROL PLAN**BEST MANAGEMENT PRACTICES:**

THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING BEST MANAGEMENT PRACTICES IN ACCORDANCE WITH WISCONSIN DEPARTMENT OF NATURAL RESOURCES (DNR) TECHNICAL STANDARDS. THESE STANDARDS MAY BE FOUND ON THE DNR WEBSITE AT <http://www.dnr.wi.gov/runoff/stormwater/techstds.htm>. RIP-RAP SHALL BE IN ACCORDANCE WITH SECTION 606, MIS-DOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION, UNTIL TECHNICAL STANDARD 1065 IS COMPLETED BY THE DNR. THE MINIMUM BEST MANAGEMENT PRACTICES SPECIFIED FOR THIS PROJECT ARE AS FOLLOWS:

[] LAND APPLICATION OF POLYACRYLAMIDE (1050) [x] DE-WATERING (1061)
 [] WATER APPLICATION OF POLYMERS (1051) [x] DITCH CHECK (1062)
 [x] NON-CHANNEL EROSION MAT (1052) [] SEDIMENT TRAP (1063)
 [x] CHANNEL EROSION MAT (1053) [] SEDIMENT BASIN (1064)
 [] VEGETATIVE BUFFER (1054) [x] RIP-RAP (1065)
 [] SEDIMENT BALE BARRIER (1055) [] CONSTRUCTION DIVERSION (1066)
 [x] SILT FENCE (1056) [] GRADING PRACTICES (1067)
 [x] TRACKING PAD & TIRE WASHING (1057) [x] DUST CONTROL (1068)
 [x] MULCHING (1058) [] TURBIDITY BARRIER (1069)
 [x] SEEDING (1059) [] SILT CURTAIN (1070)
 [x] STORM DRAIN INLET PROTECTION (1060) [] MANUFACTURED PERIMETER PRODUCTS (1071)

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES AND IMPLEMENT BEST MANAGEMENT PRACTICES TO PREVENT OR REDUCE ALL OF THE FOLLOWING:

- DEPOSITION OR TRACKING OF SOIL ONTO STREETS BY VEHICLES.
- DISCHARGE OF SEDIMENT INTO STORM WATER INLETS.
- DISCHARGE OF SEDIMENT INTO ADJACENT STREAMS, RIVERS, LAKES AND WETLANDS.
- DISCHARGE OF SEDIMENT FROM DITCHES AND STORM SEWERS THAT FLOW OFFSITE.
- DISCHARGE OF SEDIMENT FROM DEWATERING ACTIVITIES.
- DISCHARGE OF SEDIMENT FROM SOIL STOCKPILES EXISTING FOR 7 DAYS OR MORE.
- DISCHARGE OF SEDIMENT FROM EROSION OUTLET FLOWS.
- TRANSPORT OF CHEMICALS, CEMENT AND BUILDING MATERIALS BY RUNOFF.
- TRANSPORT OF UNTREATED VEHICLE AND WHEEL WASH WATER BY RUNOFF.

THE CONTRACTOR SHALL IMPLEMENT THE FOLLOWING PREVENTATIVE MEASURES:

- PRESERVE EXISTING VEGETATION WHENEVER POSSIBLE.
- MINIMIZE SOIL COMPACTION AND PRESERVE TOPSOIL.
- MINIMIZE LAND DISTURBANCES ON SLOPES OF 20% OR MORE.
- MINIMIZE THE AMOUNT OF SOIL EXPOSED AT ANY ONE TIME.
- DIVERT CLEAR WATER AWAY FROM EXPOSED SOILS.
- TEMPORARILY STABILIZE EXPOSED SOILS THAT WILL NOT BE ACTIVE FOR 14 DAYS OR MORE. USE MULCHING, SEEDING, POLYACRYLAMIDE OR GRAVELING TO STABILIZE.
- PERMANENTLY STABILIZE EXPOSED SOILS AS SOON AS POSSIBLE.
- CONTRACTOR SHALL EDUCATE ITS EMPLOYEES AND SUBCONTRACTORS ABOUT PROPER SPILL PREVENTION AND RESPONSE PROCEDURES. IF A SPILL OCCURS, THE CONTRACTOR SHALL EVACUATE THE AREA AND IMMEDIATELY NOTIFY THE LOCAL MUNICIPALITY, FIRE DEPARTMENT OR 911 EMERGENCY SYSTEM. IF NO FIRE, EXPLOSION OR LIFE / HEALTH SAFETY HAZARD EXISTS, THE NEXT STEP IS TO CONTAIN THE SPILL AND PERFORM CLEANUP. USE DRY CLEANUP METHODS, NOT WET.

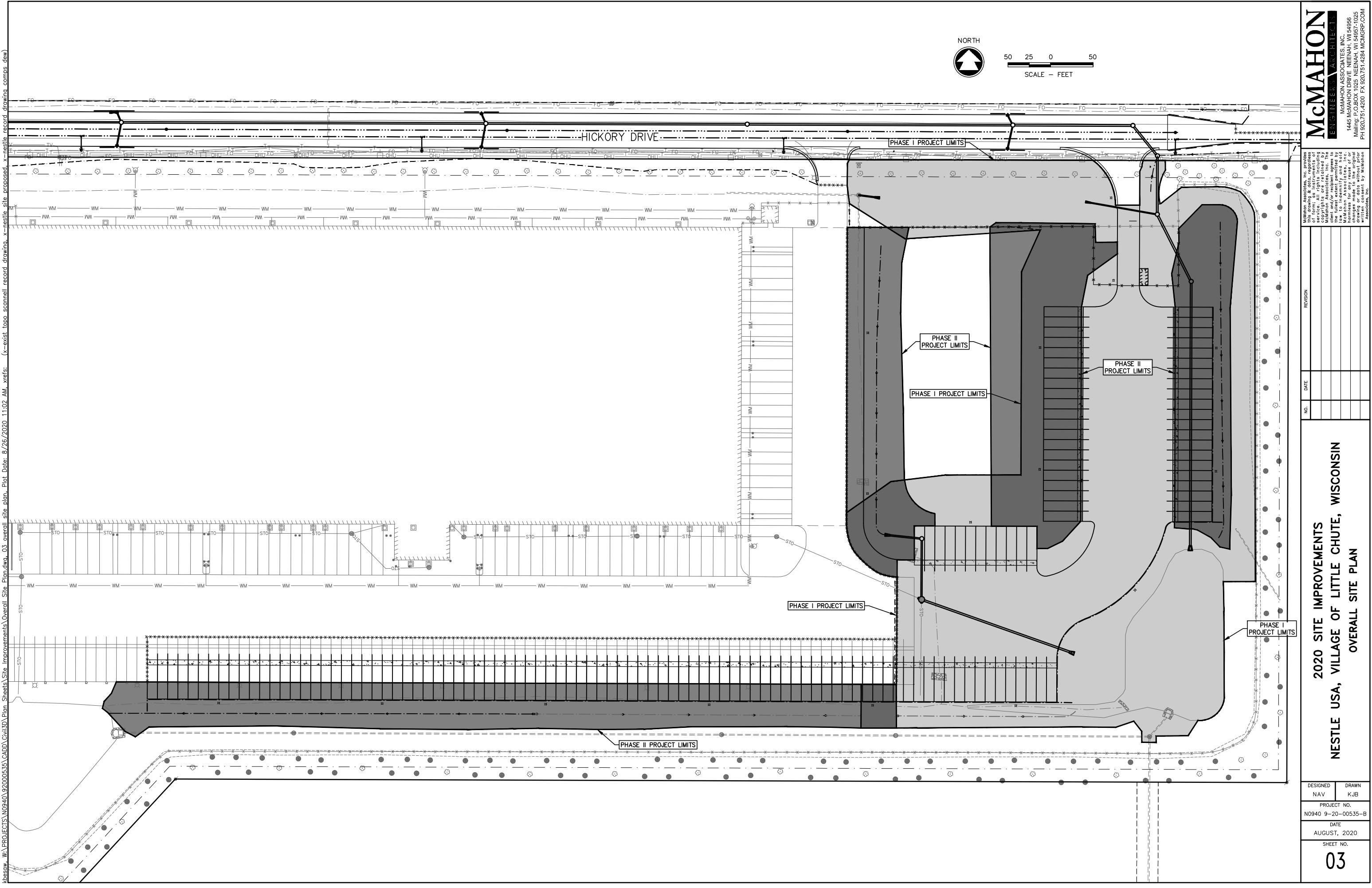
THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING OR REPLACING BEST MANAGEMENT PRACTICES DESTROYED AS A RESULT OF CONSTRUCTION ACTIVITIES BY THE END OF THE WORK DAY. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING BEST MANAGEMENT PRACTICES TEMPORARILY REMOVED FOR CONSTRUCTION ACTIVITY AS SOON AS THOSE ACTIVITIES ARE COMPLETED. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND DISPOSING OF TEMPORARY BEST MANAGEMENT PRACTICES AFTER CONSTRUCTION IS COMPLETE AND PERMANENT VEGETATION IS ESTABLISHED.

INSPECTION & MAINTENANCE:

THE CONTRACTOR IS RESPONSIBLE FOR INSPECTING BEST MANAGEMENT PRACTICES WEEKLY, AND WITHIN 24 HOURS FOLLOWING A RAINFALL OF 0.5 INCHES OR GREATER. WRITTEN DOCUMENTATION OF EACH INSPECTION SHALL BE KEPT AT THE CONSTRUCTION SITE AND SHALL INCLUDE THE FOLLOWING INFORMATION: DATE, TIME, AND LOCATION OF INSPECTION; NAME OF INDIVIDUAL WHO PERFORMED THE INSPECTION; AN ASSESSMENT OF THE CONDITION OF BEST MANAGEMENT PRACTICES; A DESCRIPTION OF ANY BEST MANAGEMENT PRACTICE IMPLEMENTATION AND MAINTENANCE PERFORMED; AND A DESCRIPTION OF THE PRESENT PHASE OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING, REPAIRING, OR REPLACING BEST MANAGEMENT PRACTICES AS NECESSARY WITHIN 24 HOURS OF AN INSPECTION OR NOTIFICATION. THE CONTRACTOR IS RESPONSIBLE FOR INSPECTING, MAINTAINING, REPAIRING, OR REPLACING BEST MANAGEMENT PRACTICES UNTIL ALL LAND DISTURBING CONSTRUCTION ACTIVITY IS COMPLETED AND A UNIFORM PERENNIAL VEGETATIVE COVER IS ESTABLISHED WITH A DENSITY OF AT LEAST 70%.

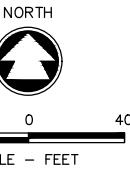
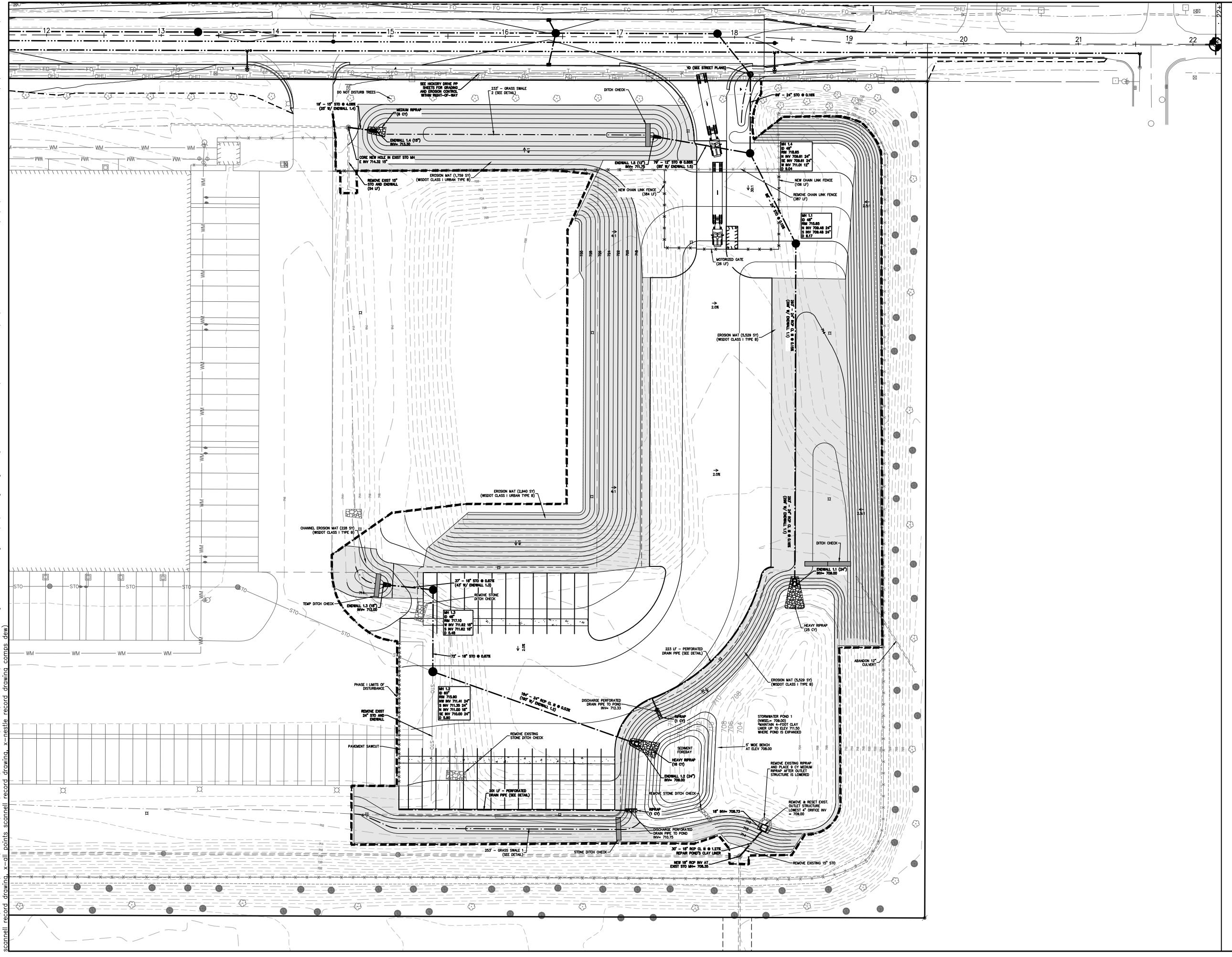
THE CONTRACTOR IS RESPONSIBLE FOR POSTING THE PERMIT IN A CONSPICUOUS LOCATION ON THE CONSTRUCTION SITE. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING A COPY OF THE APPROVED REPORTS, PLANS, AMENDMENTS, INSPECTION REPORTS, AND PERMITS AT THE CONSTRUCTION SITE AT ALL TIMES UNTIL ALL LAND DISTURBING CONSTRUCTION ACTIVITY IS COMPLETED AND A UNIFORM PERENNIAL VEGETATIVE COVER IS ESTABLISHED WITH A DENSITY OF AT LEAST 70%. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE OWNER WHEN THE VEGETATIVE DENSITY REACHES AT LEAST 70%. THE OWNER IS RESPONSIBLE FOR TERMINATING DNR PERMIT COVERAGE.

kbesaw_W:\PROJECTS\N09401\92000535\CAD\Civil3D\Plan Sheets\Site Improvements\Overall Site Plan.dwg, 03 overall site plan, Plot Date: 8/26/2020 11:02 AM, xrefs: (x-exist topo sconnell record drawing, x-nestle site proposed, x-nestle record drawing comps dev) kbesaw_W:\PROJECTS\N09401\92000535\CAD\Civil3D\Plan Sheets\Site Improvements\Overall Site Plan.dwg, 03 overall site plan, Plot Date: 8/26/2020 11:02 AM, xrefs: (x-exist topo sconnell record drawing, x-nestle site proposed, x-nestle record drawing comps dev)



NESTLE USA, VILLAGE OF LITTLE CHUTE, WISCONSIN
OVERALL SITE PLAN

ED	DRAWN
V	KJB
PROJECT NO.	
9-20-00535-B	
DATE	
AUGUST, 2020	
SHEET NO.	
03	



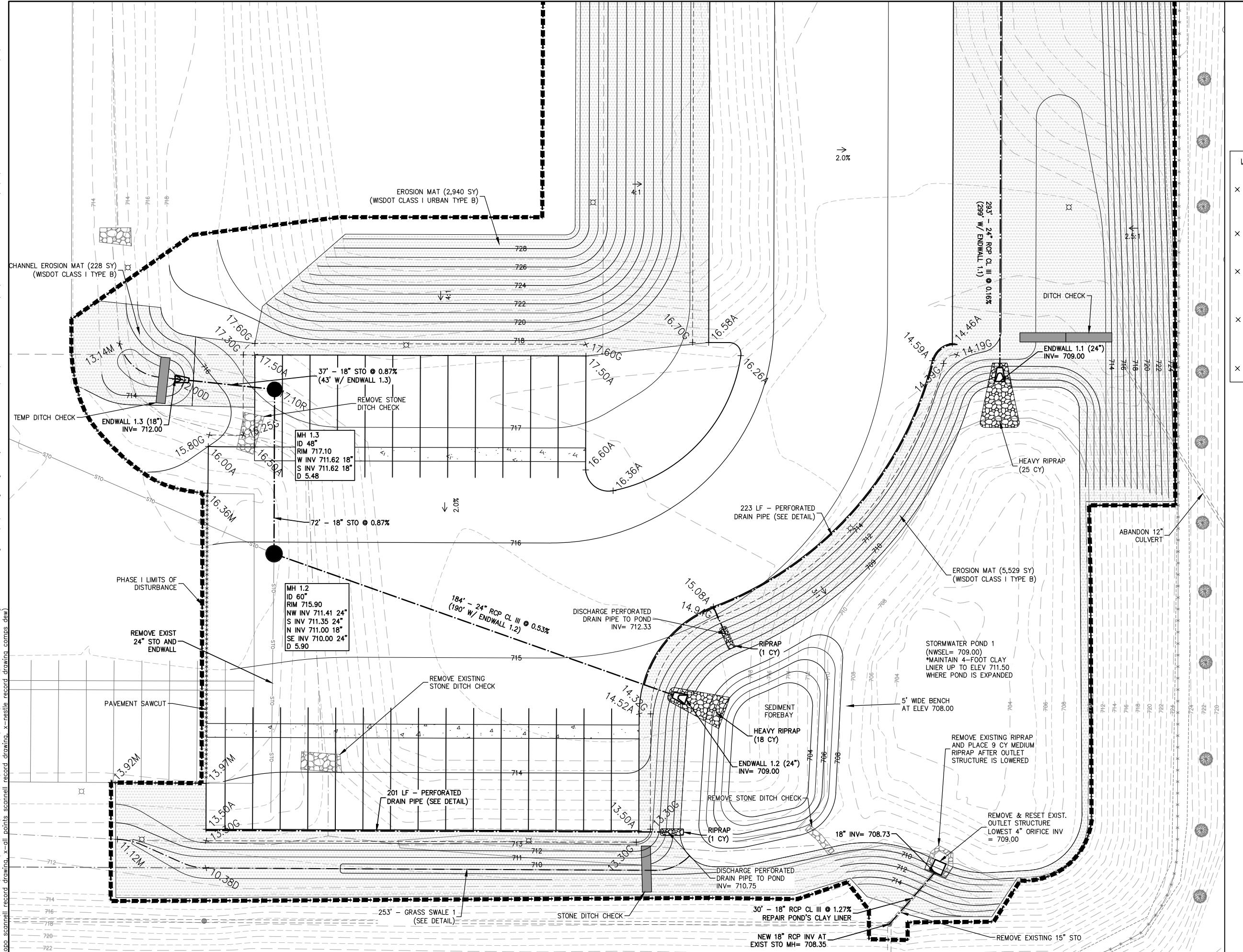
A north arrow icon consisting of a circle with a triangle pointing upwards. Below it is a scale bar with markings for 20, 0, and 40 feet.

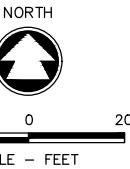
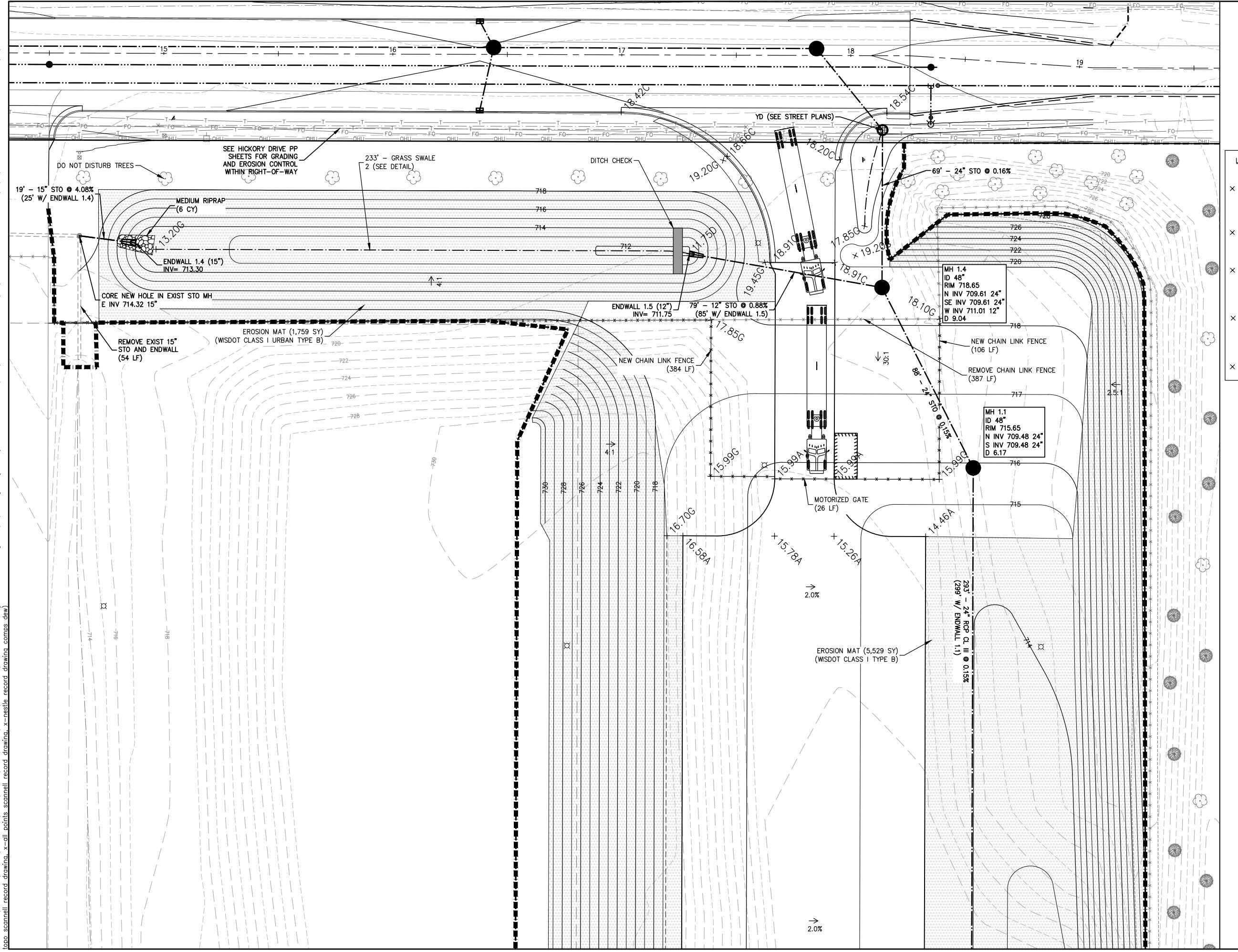
McMAHON ENGINEERS & ARCHITECTS
McMAHON ASSOCIATES, INC.
1445 McMAHON DRIVE NEENAH, WI 54966

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ENGINEERS
McMAHON ASSOCIATES, INC.
1445 McMAHON DRIVE, NEENAH, WI 54956

**2020 SITE IMPROVEMENTS
NESTLE USA, VILLAGE OF LITTLE CHUTE, WISCONSIN
PROPOSED GRADING, UTILITY & EROSION CONTROL PLAN**

DESIGNED NAV	DRAWN KJB
PROJECT NO.	
0940 9-20-00535-B	
DATE	
AUGUST, 2020	
SHEET NO.	
04	





A horizontal scale bar with three tick marks. The first tick mark is labeled '10' at its left end. The second tick mark is labeled '0' at its center. The third tick mark is labeled '20' at its right end. The scale bar is a thick black line with white tick marks.

2020 SITE IMPROVEMENTS Nestle USA, Village Of Little Chute, Wisconsin

2020 SITE IMPROVEMENTS **Nestle USA, Village Of Little Chute, Wisconsin**

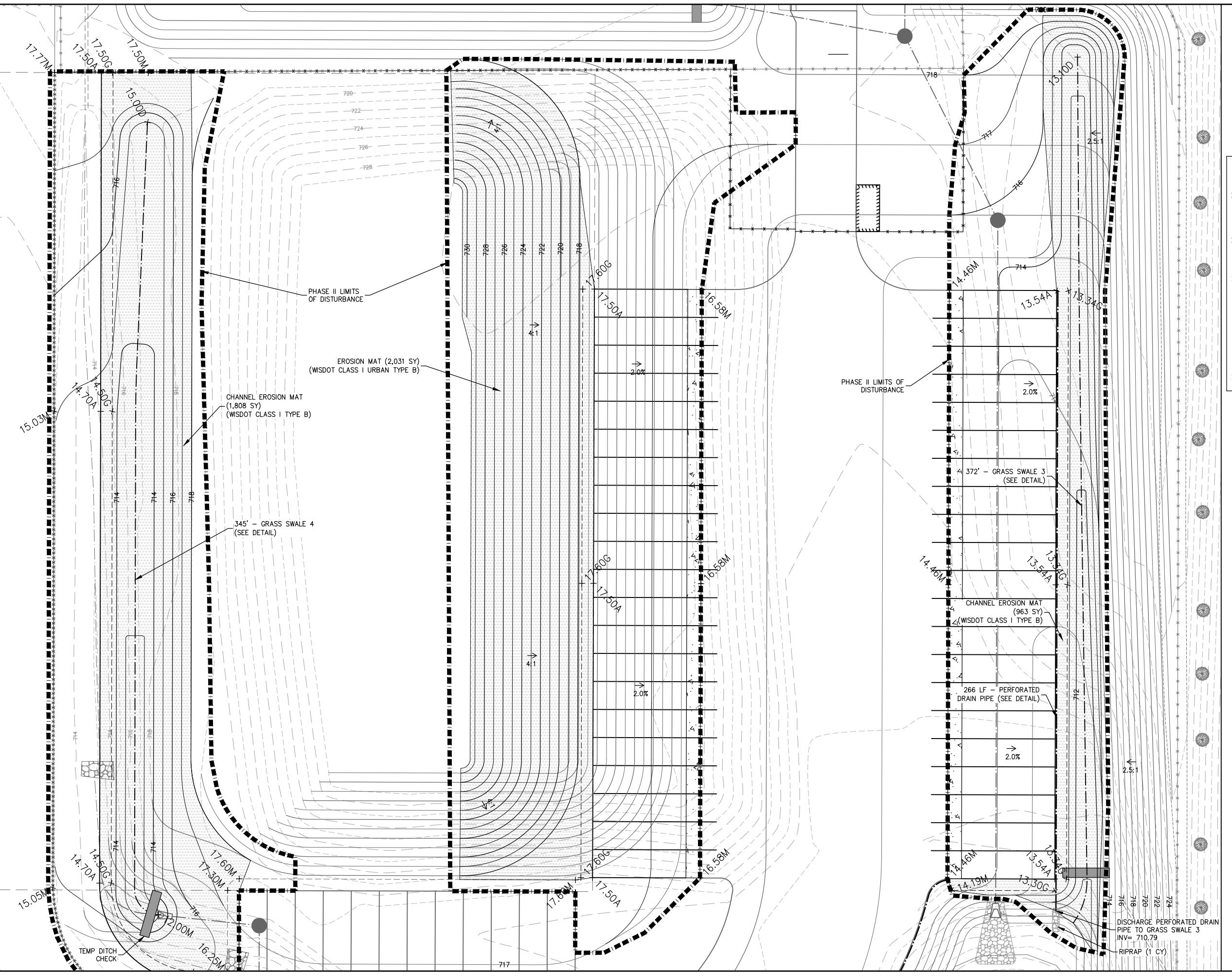
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N0940 9-20-00535-B	
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LE - FEET

2020 SITE IMPROVEMENTS

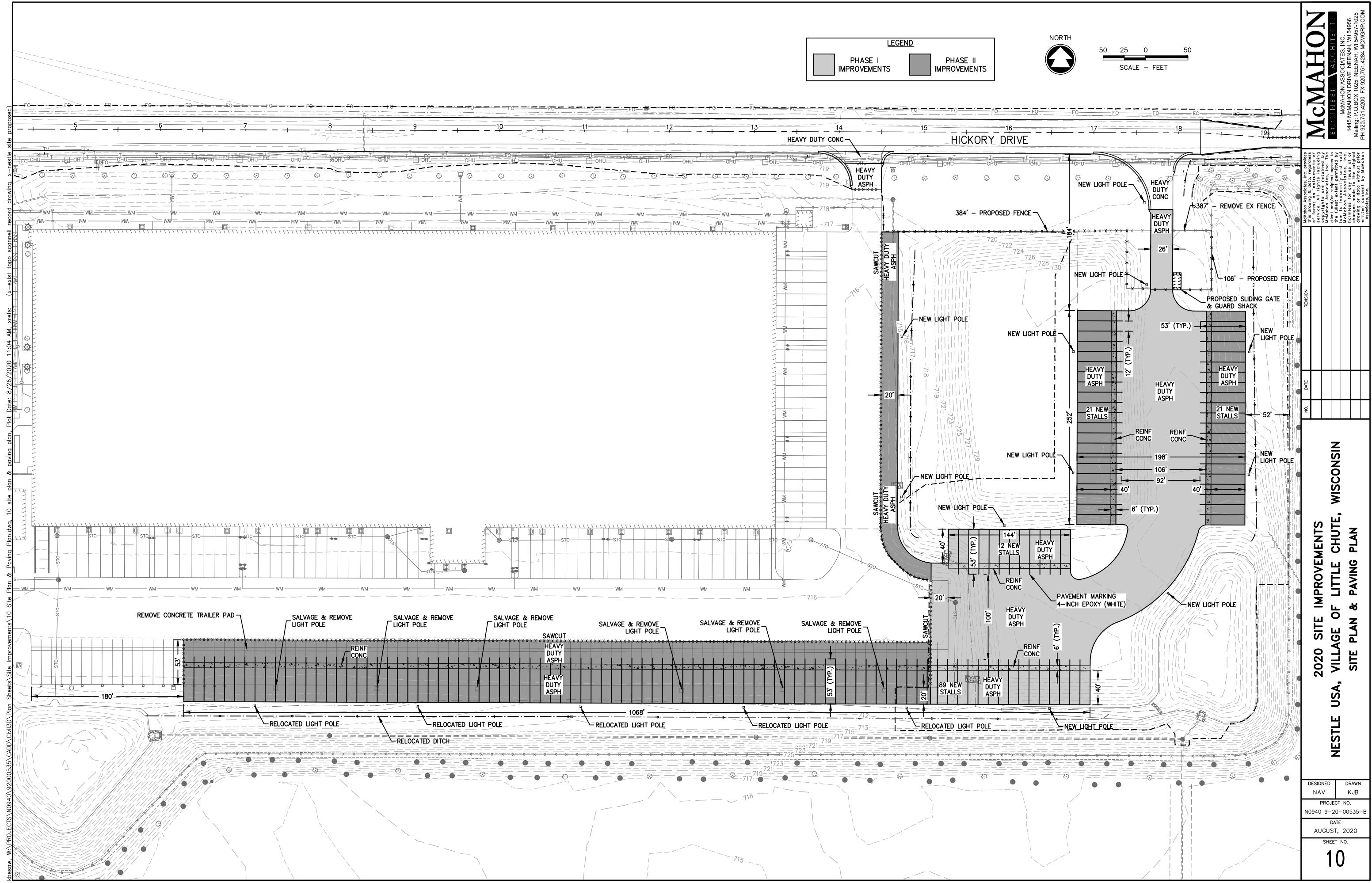
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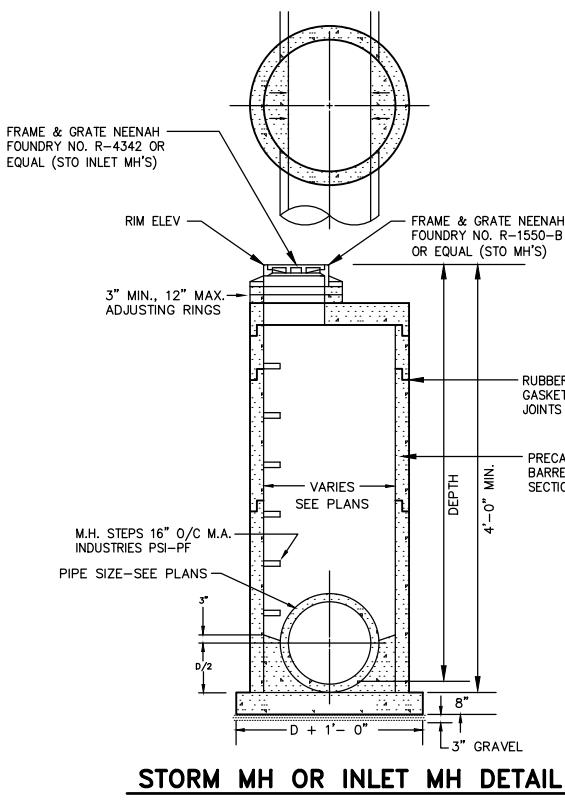
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2020 SITE IMPROVEMENTS

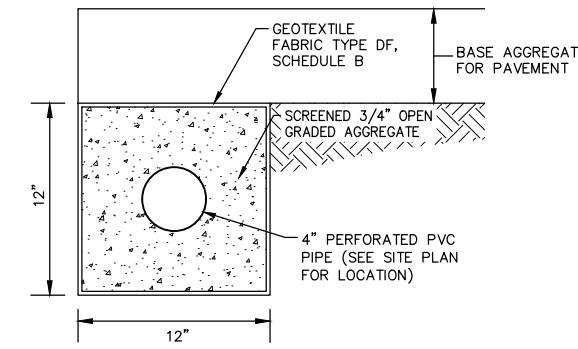
Nestle USA, Village Of Little Chute, Wisconsin

PROPOSED GRADING UTILITY & EROSION CONTROL PLAN PHASE II

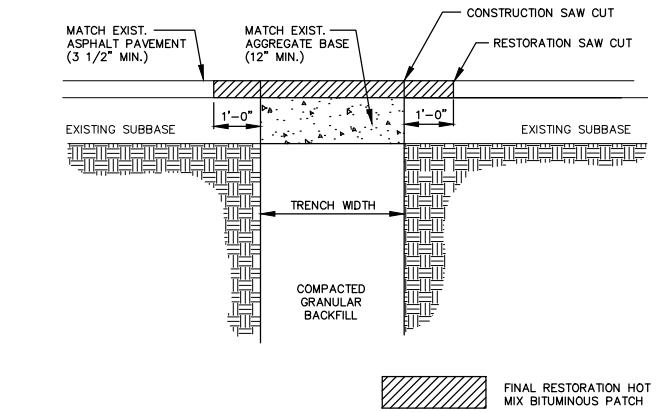




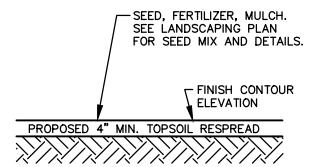
STORM MH OR INLET MH DETAIL



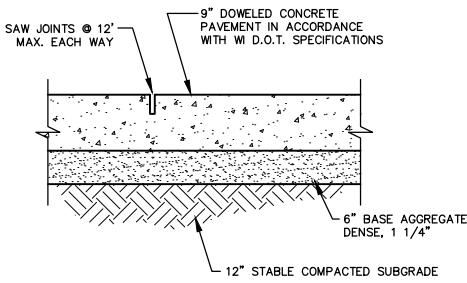
PERFORATED DRAIN PIPE DETAIL (NTS)



BITUMINOUS PAVEMENT RESTORATION

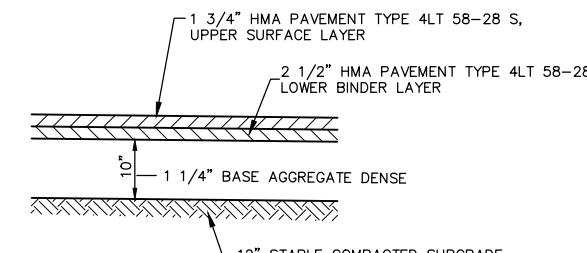


TYPICAL LAWN SECTION



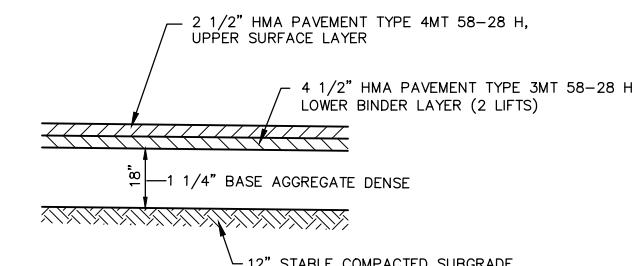
NOTE: CONSTRUCT PAVEMENT AND SUBGRADE IN CONFORMANCE WITH NESTLE STANDARD REQUIREMENTS AND PSI GEOTECHNICAL ENGINEERING REPORT (DATED JULY 8, 2020) RECOMMENDATIONS, WHICHEVER IS MORE STRINGENT.

SEMI-TRUCK/HEAVY DUTY CONCRETE PAVEMENT DETAIL



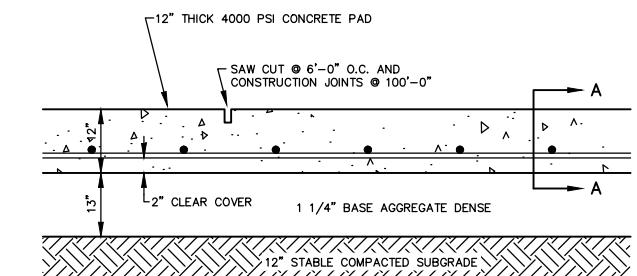
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LIGHT DUTY ASPHALT DETAIL



NOTE: CONSTRUCT PAVEMENT AND SUBGRADE IN CONFORMANCE WITH NESTLE STANDARD REQUIREMENTS AND PSI GEOTECHNICAL ENGINEERING REPORT (DATED JULY 8, 2020) RECOMMENDATIONS, WHICHEVER IS MORE STRINGENT.

SEMI-TRUCK/HEAVY DUTY ASPHALT DETAIL



SECTION A-A

NOTE: CONSTRUCT PAVEMENT AND SUBGRADE IN CONFORMANCE WITH NESTLE STANDARD REQUIREMENTS AND PSI GEOTECHNICAL ENGINEERING REPORT (DATED JULY 8, 2020) RECOMMENDATIONS, WHICHEVER IS MORE STRINGENT.

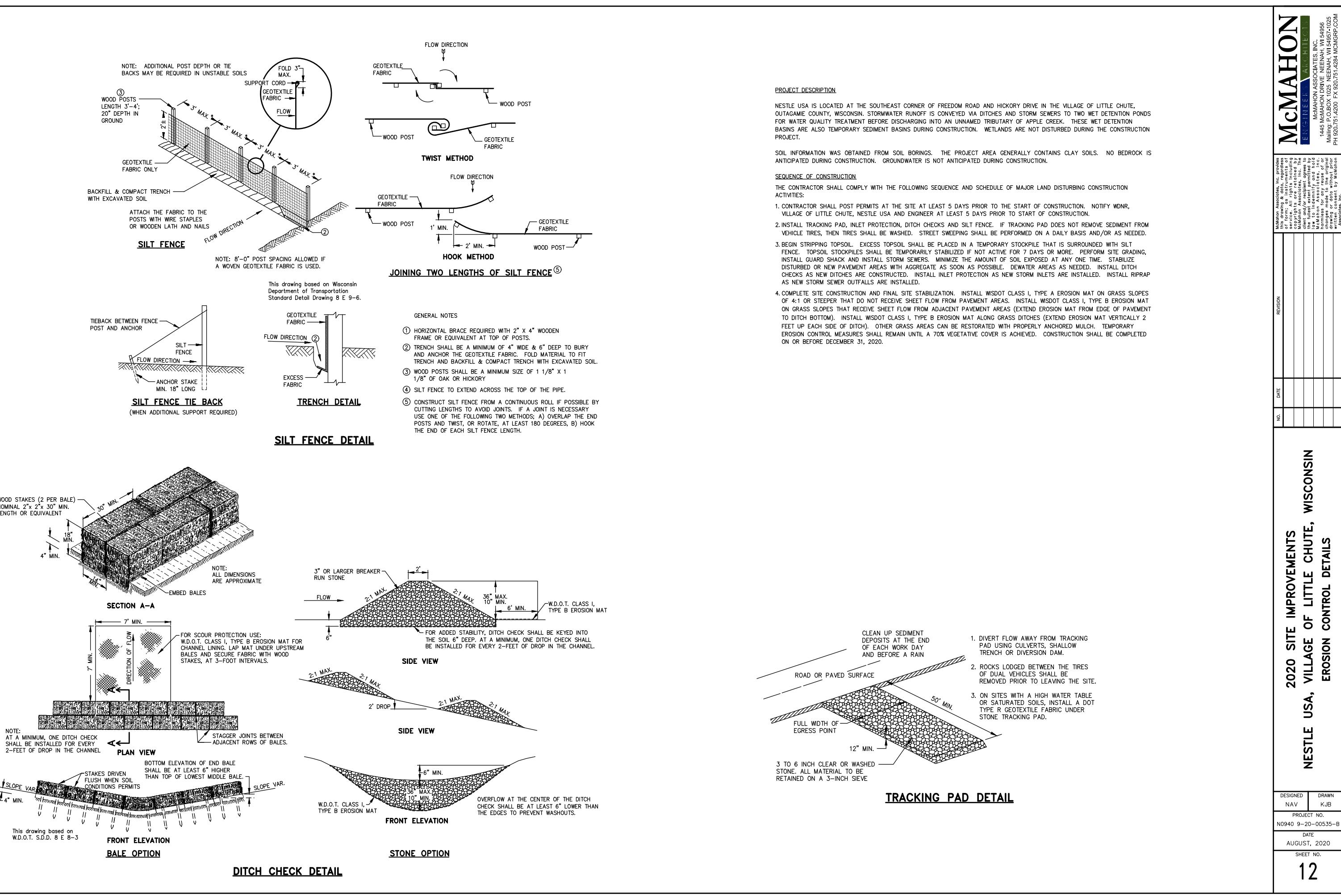
CONCRETE TRAILER PAD DETAIL

**2020 SITE IMPROVEMENTS
NESTLE USA, VILLAGE OF LITTLE CHUTE, WISCONSIN
STORM SEWER & PAVING DETAILS**

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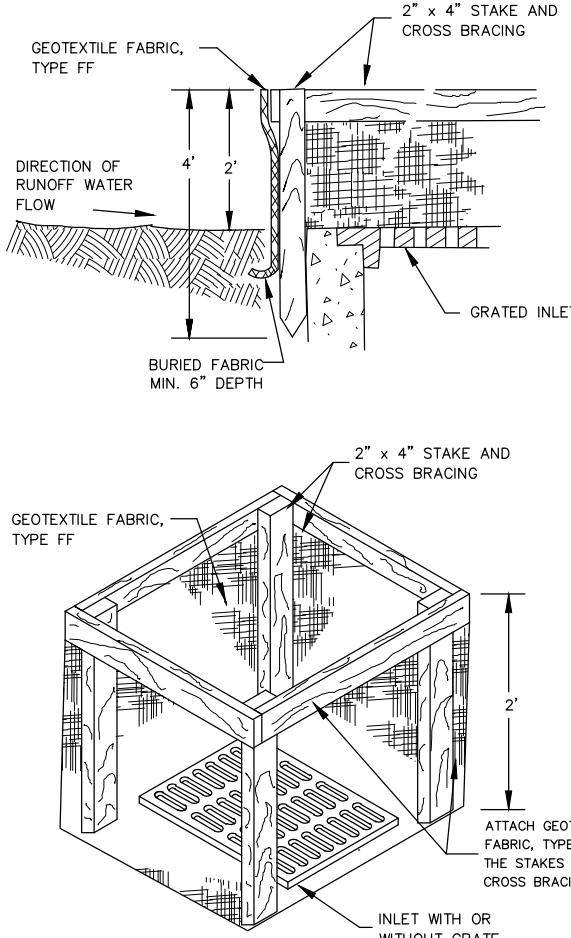
INLET PROTECTION, TYPE A

GENERAL NOTES

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2x4.



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

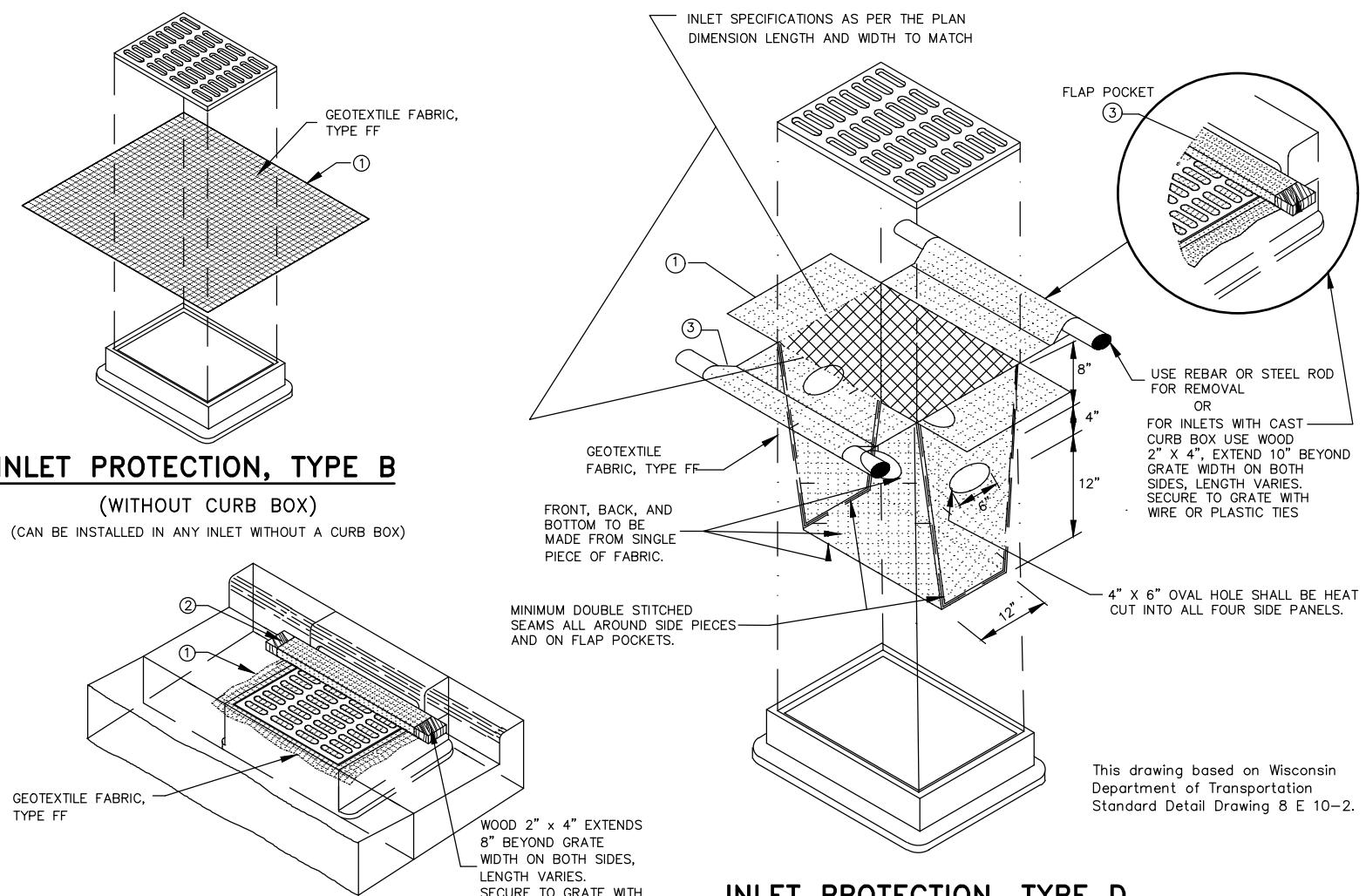
TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE. THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

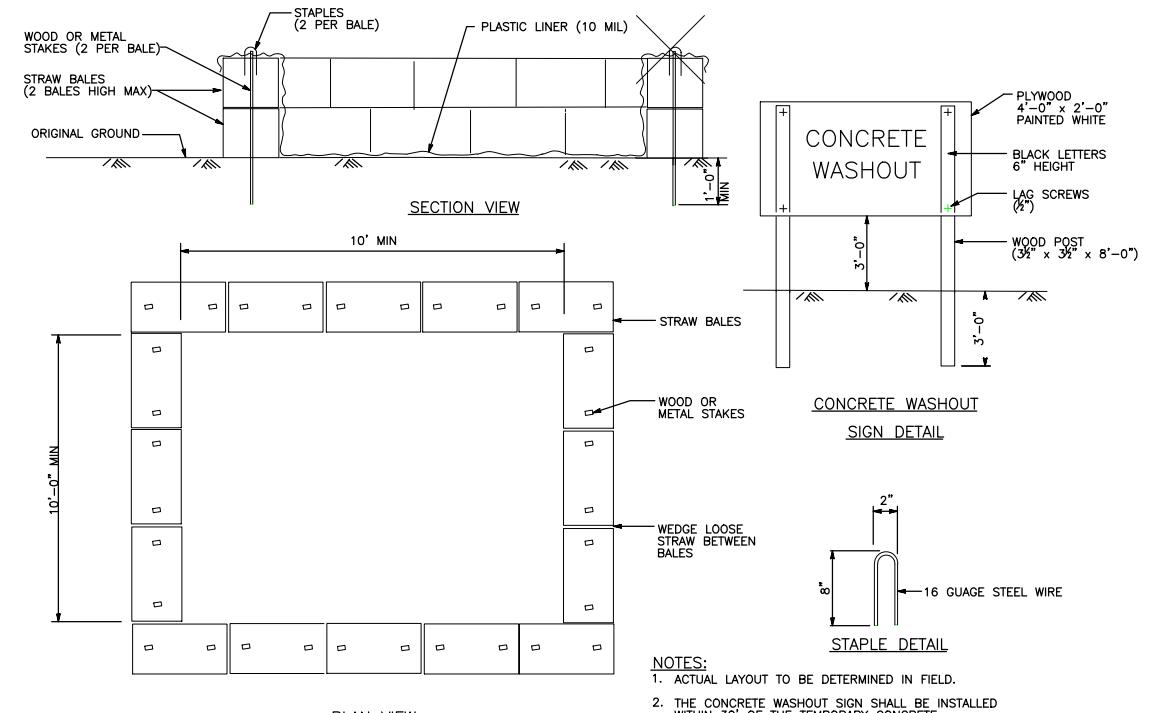
TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE. THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

STORM DRAIN INLET PROTECTION



INLET PROTECTION, TYPE D

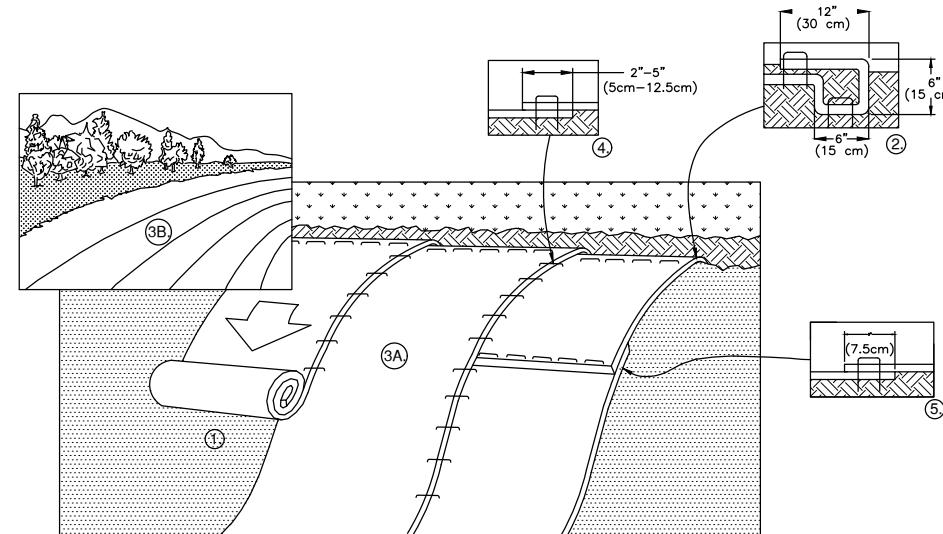
(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)



1. ACTUAL LAYOUT TO BE DETERMINED IN FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

2020 SITE IMPROVEMENTS NESTLE USA, VILLAGE OF LITTLE CHUTE, WISCONSIN EROSION CONTROL DETAILS

DESIGNED NAV	DRAWN KJB
PROJECT NO. N0940 9-20-00535-B	DATE AUGUST, 2020
SHEET NO.	

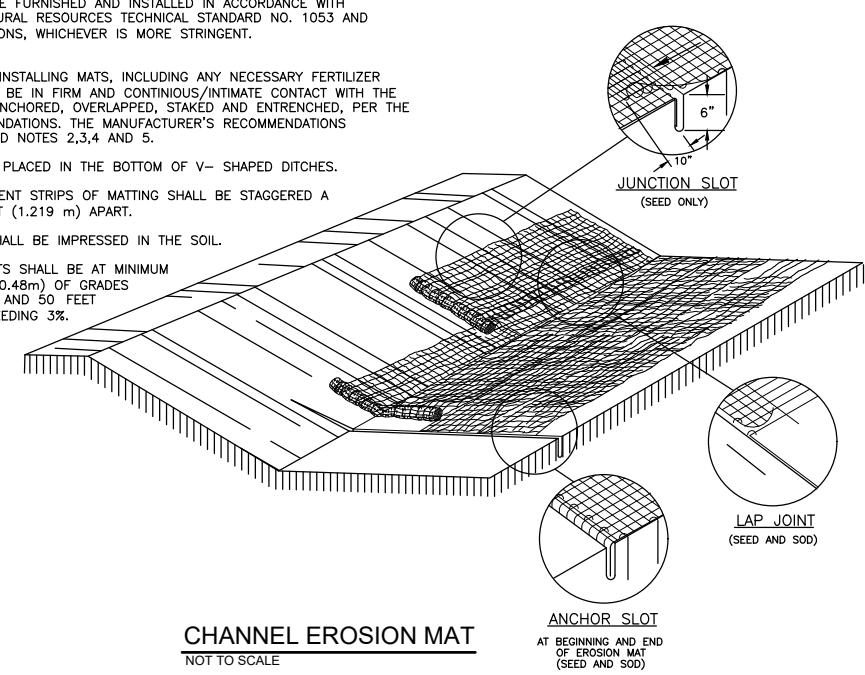


SLOPE EROSION MAT SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARD NO. 1052 AND MANUFACTURER'S RECOMMENDATIONS, WHICHEVER IS MORE STRINGENT.

1. PREPARE TOPSOIL BEFORE INSTALLING MATS, INCLUDING ANY NECESSARY FERTILIZER AND SEED. THE MAT SHALL BE IN FIRM AND CONTINUOUS/INTIMATE CONTACT WITH THE SOIL. THE MAT SHALL BE ANCHORED, OVERLAPPED, STAKED AND ENTRENCHED, PER THE MANUFACTURER'S RECOMMENDATIONS. THE MANUFACTURER'S RECOMMENDATIONS SUPERCEDE THIS DETAIL AND NOTES 2,3,4 AND 5.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE MAT IN A 6" (15CM) DEEP X 6" (15CM) WIDE TRENCH WITH APPROXIMATELY 12" (30CM) OF MAT EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE MAT WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30CM) PORTION OF MAT BACK OVER SEED AND COMPACTED SOIL. SECURE MAT OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30CM) APART ACROSS THE WIDTH OF THE MAT.
3. ROLL THE MATS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. MATS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL MATS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL MATS MUST BE STAPLED WITH APPROXIMATELY 2"-5" (5CM-12.5CM) OVERLAP DEPENDING ON MAT TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING MAT (MAT BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED MAT.
5. CONSECUTIVE MATS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30CM) APART ACROSS ENTIRE MAT WIDTH.

SLOPE EROSION MAT

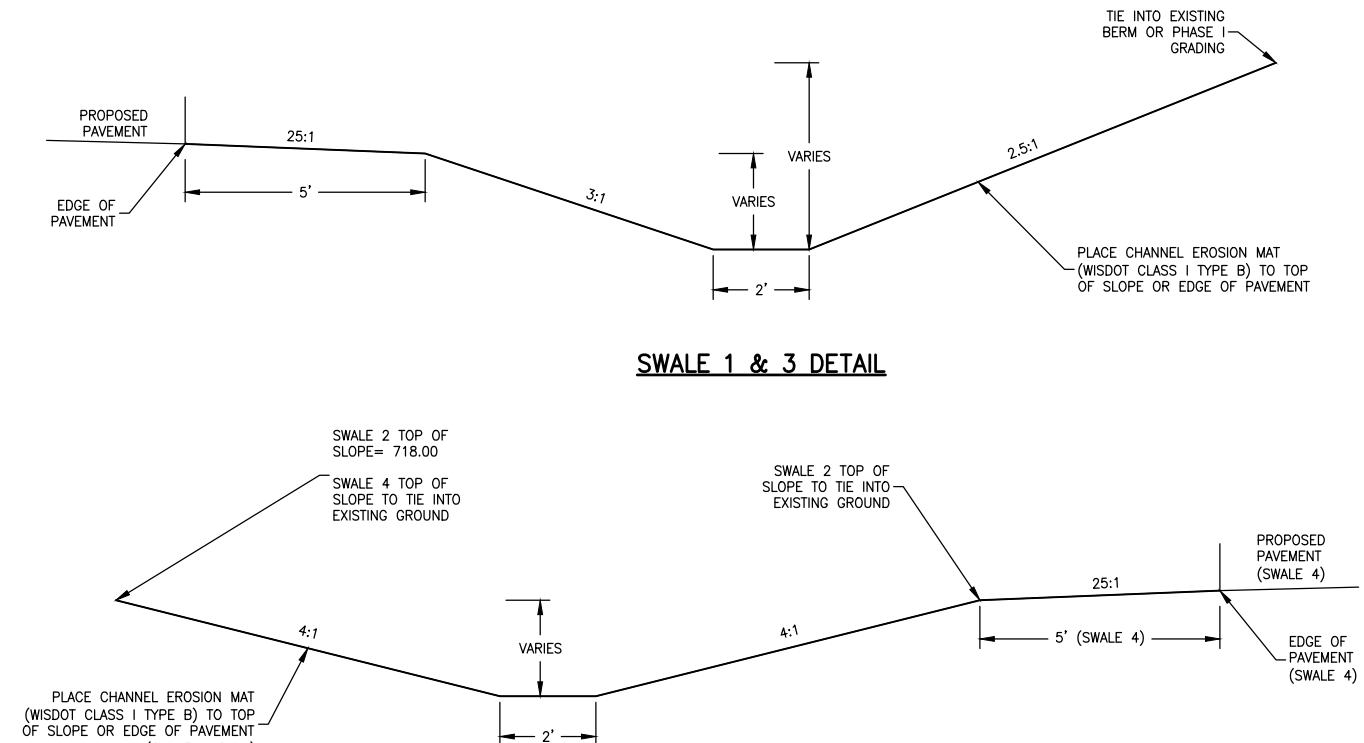
NOT TO SCALE



GENERAL NOTES

CHANNEL EROSION MAT SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARD NO. 1053 AND MANUFACTURER'S RECOMMENDATIONS, WHICHEVER IS MORE STRINGENT.

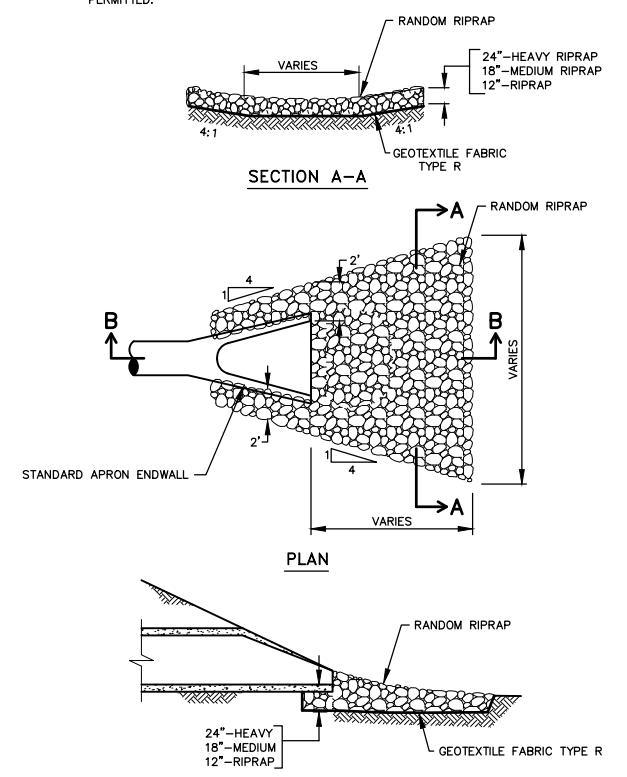
1. PREPARE TOPSOIL BEFORE INSTALLING MATS, INCLUDING ANY NECESSARY FERTILIZER AND SEED. THE MAT SHALL BE IN FIRM AND CONTINUOUS/INTIMATE CONTACT WITH THE SOIL. THE MAT SHALL BE ANCHORED, OVERLAPPED, STAKED AND ENTRENCHED, PER THE MANUFACTURER'S RECOMMENDATIONS. THE MANUFACTURER'S RECOMMENDATIONS SUPERCEDE THIS DETAIL AND NOTES 2,3,4 AND 5.
2. LAP JOINTS SHALL NOT BE PLACED IN THE BOTTOM OF V- SHAPED DITCHES.
3. JUNCTION SLOTS ON ADJACENT STRIPS OF MATTING SHALL BE STAGGERED A MINIMUM OF 4 (FOUR) FEET (1.219 m) APART.
4. EDGES OF EROSION MAT SHALL BE IMPRESSED IN THE SOIL.
5. JUNCTION OR ANCHOR SLOTS SHALL BE AT MINIMUM INTERVALS OF 100 FEET (30.48m) OF GRADES UP TO AND INCLUDING 3%, AND 50 FEET (15.24m) ON GRADES EXCEEDING 3%.



SWALE 2 & 4 DETAIL

RIP-RAP

1. RIP-RAP SHALL BE IN ACCORDANCE WITH SECTION 606, WIS-DOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, 2009 EDITION.
2. RIP-RAP SHALL BE ANGULAR. ROUND RIP-RAP IS NOT PERMITTED.



RIPRAP AT STORM SEWER OUTFALL

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ENGINEERS INC.

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EROSION CONTROL DETAILS				
DESIGNED NAV	DRAWN KJB			
PROJECT NO. N0940 9-20-00535-				
DATE AUGUST, 2020				
SHEET NO. 14				

SECTION 32 31 13
CHAIN LINK FENCES AND GATES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Posts, rails, and frames.
- B. Wire fabric.
- C. Concrete.
- D. Automatic gate operators.
- E. Accessories.

1.2 REFERENCE STANDARDS

- A. ASTM A428/A428M - Standard Test Method for Weight (Mass) of Coating on Aluminum-Coated Iron or Steel Articles 2010 (Reapproved 2014).
- B. ASTM A491 - Standard Specification for Aluminum-Coated Steel Chain-Link Fence Fabric 2011 (Reapproved 2017).
- C. ASTM F567 - Standard Practice for Installation of Chain-Link Fence 2014a.
- D. ASTM F1043 - Standard Specification for Strength and Protective Coatings on Steel Industrial Fence Framework 2018.
- E. ASTM F1083 - Standard Specification for Pipe, Steel, Hot-Dipped Zinc-Coated (Galvanized) Welded, for Fence Structures 2018.
- F. ASTM F2200 - Standard Specification for Automated Vehicular Gate Construction 2017.
- G. CLFMI CLF-SFR0111 - Security Fencing Recommendations 2014.
- H. CLFMI WLG 2445 - Wind Load Guide for the Selection of Line Post and Line Post Spacing 2018.
- I. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum) 2018.
- J. UL 50 - Enclosures for Electrical Equipment, Non-Environmental Considerations Current Edition, Including All Revisions.
- 1.3 SUBMITTALS**
- A. Product Data: Provide data on fabric, posts, accessories, fittings and hardware.
- B. Design Calculations: For high wind load areas, provide calculations for fence fabric and accessory selection as well as line post spacing and foundation details. See CLFMI WLG 2445 for line post and spacing guidance.
- C. Shop Drawings: Indicate plan layout, spacing of components, post foundation dimensions, hardware anchorage, and schedule of components. See CLFMI CLF-SFR0111 for planning and design recommendations.

1.4 QUALITY ASSURANCE

- A. Fence Installer: Company with demonstrated successful experience installing similar projects and products, with not less than five years of documented experience.
- 1.5 WARRANTY**
- A. Correct defective Work within a five year period after Date of Substantial Completion.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Chain Link Fences and Gates:
 - 1. Master-Halco, Inc: www.masterhalco.com/#sle.
 - 2. Merchants Metals: www.merchantsmetals.com/#sle.

2.2 MATERIALS

- A. Posts, Rails, and Frames:
 - 1. ASTM A1011/A1011M, Designation SS; hot-rolled steel strip, cold formed to pipe configuration, longitudinally welded construction, minimum yield strength of 50 ksi; zinc coating complying with ASTM F1043 and ASTM F1083.
 - 2. Line Posts: Type I round.
 - 3. Terminal, Corner, Rail, Brace, and Gate Posts: Type I round.
- B. Wire Fabric:
 - 1. ASTM A392 zinc coated steel chain link fabric.
- C. Concrete:
 - 1. Ready-mixed, complying with ASTM C94/C94M; normal Portland cement; 2,500 psi strength at 28 days, 3 inch slump; 3/4 inch nominal size aggregate.
- 2.3 COMPONENTS**
- A. Line Posts: 2.38 inch diameter.
- B. Corner and Terminal Posts: 2.88 inch diameter.
- C. Gate Posts: 6.63 inch diameter.
- D. Top and Brace Rail: 1.66 inch diameter, plain end, sleeve coupled.
- E. Bottom Rail: 1.66 inch diameter, plain end, sleeve coupled.

- F. Gate Frame: 1.90 inch diameter for welded fabrication.
- G. Fabric: 2 inch diamond mesh interwoven wire, 9 gage, 0.1483 inch thick, top selavage knuckle end closed, bottom selavage twisted tight.
- H. Tension Wire: 6 gage, 0.1920 inch thick steel, single strand.
- I. Tie Wire: Aluminum alloy steel wire.
- 2.4 AUTOMATIC GATE OPERATORS**
- A. Sliding Gates: Pre-wired, pedestal mounted gate operator for horizontal sliding gates, per ASTM F2200 and UL 325.
 - 1. Operating type: roller chain.
 - 2. Control Functions: Open, Pause, Close.
 - 3. Opening and closing speed: 12 inches per second.
 - 4. Access: Dual control visor remote, one for ingress, one for egress...Provide 25 remotes.
 - 5. Maximum gate weight: 1,000 pounds (373 kilograms).
 - 6. Horsepower Rating: Suitable for connected load.
 - 7. Entrapment Protection Devices: Provide sensing devices and safety mechanisms complying with UL 325.
 - 8. Enclosures: Comply with NEMA 250, and list and label as complying with UL 50 and UL 50E.
 - a. Environment Type per NEMA 250: Unless otherwise indicated, as specified for the following installation locations:
 - 1) Outdoor Locations: Type 3R.
 - 2) Cabinet heater to allow use to -40 degrees F.

2.5 ACCESSORIES

- A. Caps: Cast steel galvanized; sized to post diameter, set screw retainer.
- B. Fittings: Sleeves, bands, clips, rail ends, tension bars, fasteners and fittings; steel.

2.6 FINISHES

- A. Components (Other than Fabric): Galvanized in accordance with ASTM A123/A123M, at 1.7 ounces per square foot.
- B. Hardware: Hot-dip galvanized to weight required by ASTM A153/A153M.
- C. Accessories: Same finish as framing.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install framework, fabric, accessories and gates in accordance with ASTM F567.
- B. Place fabric on outside of posts and rails.
- C. Set intermediate posts plumb, in concrete footings with top of footing 2 inches above finish grade. Slope top of concrete for water runoff.
- D. Line Post Footing Depth Below Finish Grade: ASTM F567.
- E. Corner, Gate and Terminal Post Footing Depth Below Finish Grade: ASTM F567.
- F. Brace each gate and corner post to adjacent line post with horizontal center brace rail. Install brace rail one bay from end and gate posts.
- G. Provide top rail through line post tops and splice with 6 inch long rail sleeves.
- H. Install center brace rail on corner gate leaves.
- I. Position bottom of fabric 2 inches above finished grade.
- J. Fasten fabric to top rail, line posts, braces, and bottom tension wire with tie wire at maximum 15 inches on centers.
- K. Attach fabric to end, corner, and gate posts with tension bars and tension bar clips.
- L. Install bottom tension wire stretched taut between terminal posts.
- M. Install operator in accordance with manufacturer's instructions and in accordance with NFPA 70.

3.2 TOLERANCES

- A. Maximum Variation From Plumb: 1/4 inch.
- B. Maximum Offset From True Position: 1 inch.

3.3 FIELD QUALITY CONTROL

- A. Layout: Verify that fence installation markings are accurate to design, paying attention to gate locations, underground utilities, and property lines.
- B. Gates: Inspect for level, plumb, and alignment.

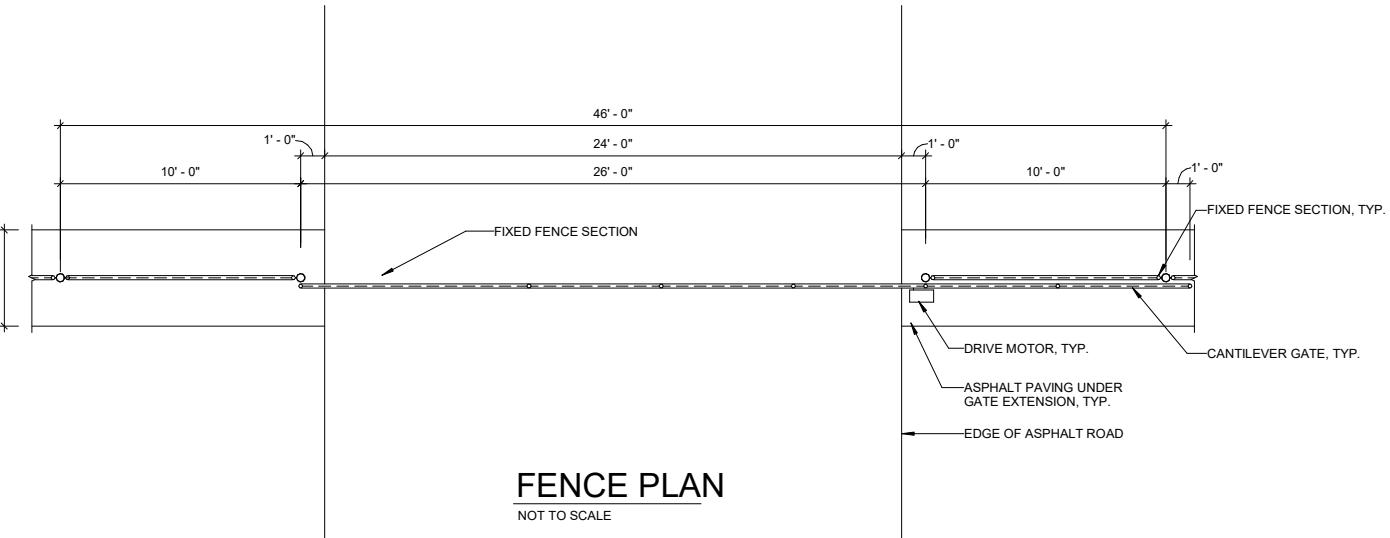
3.4 CLOSEOUT ACTIVITIES

- A. Demonstration: Demonstrate operation of system to Owner's personnel.
 - 1. Use operation and maintenance data as reference during demonstration.
 - 2. Briefly describe function, operation, and maintenance of each component.

END OF SECTION

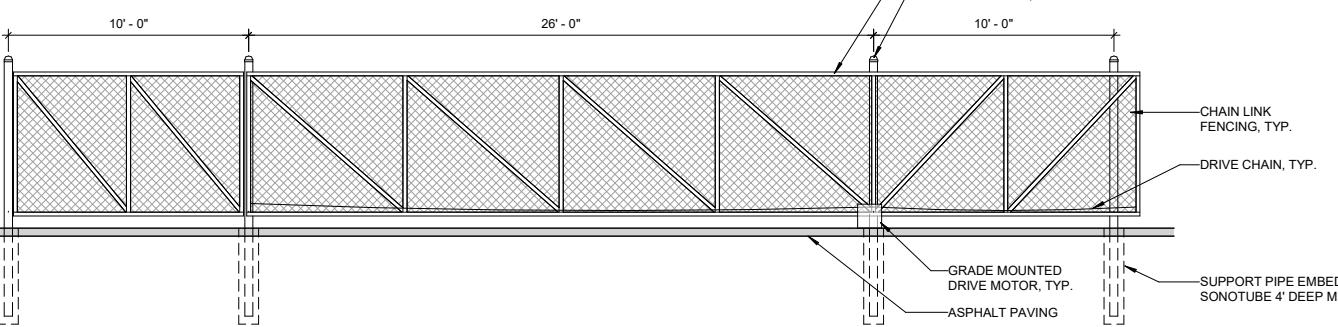
FENCE PLAN

NOT TO SCALE



FENCE ELEVATION

NOT TO SCALE



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PRELIMINARY NOT FOR CONSTRUCTION

NESTLE USA VILLAGE OF LITTLE CHUTE, WI

FREEDOM ROAD & HICKORY DRIVE RECONSTRUCTION

DESIGNED DRAWN
GLS GBK
PROJECT NO.
N0940 92000535
DATE
AUGUST 2020
SHEET NO.
A211

GENERAL ELECTRICAL NOTES

DRAWINGS

1. THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE, AND INDICATE THE GENERAL ARRANGEMENT OF EQUIPMENT, BUT ACCURACY IS NOT GUARANTEED, AND FIELD VERIFICATION OF ALL LOCATIONS AND DIMENSIONS IS DIRECTED.
2. THESE DRAWINGS WILL NOT SHOW ALL INSTALLATION DETAILS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE A COMPLETE AND SATISFACTORY INSTALLATION IN ACCORDANCE WITH THE BEST MODERN PRACTICE METHODS.
3. E.C. SHALL MAKE OWN COUNT OF ALL EQUIPMENT TO BE WIRED BASED ON ALL PLANS AND SPECIFICATIONS IN THEIR ENTIRETY.
4. THE ELECTRICAL DRAWINGS ARE NOT TO BE USED FOR ROOM DIMENSIONS AND EQUIPMENT PLACEMENT. REFERENCE THE APPROPRIATE ARCHITECTURAL, STRUCTURAL, OR MECHANICAL PLANS. DRAWINGS ARE SCHEMATIC -- VERIFY ALL LOCATIONS BEFORE INSTALLING CONDUIT, EQUIPMENT, ETC.
5. DETAILS ARE TYPICAL OF THE INSTALLATIONS. CONTRACTOR TO FAMILIARIZE HIMSELF WITH THE INSTALLATION AND TO PROVIDE THE PROPER INSTALLATION FOR SITUATIONS WHICH MAY VARY FROM THE DETAILS OR DRAWINGS. CONTRACTORS ARE ADVISED TO COMPLETELY SURVEY THE WORK AREA FOR NON-TYPICAL SITUATIONS, ETC.
6. ALL EQUIPMENT DIMENSIONS SHOWN ON PLANS AND ELEVATIONS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL USE THE SHOP DRAWINGS FOR PROPER LAYOUT, FOUNDATION AND PAD, ETC. FOR FINAL INSTALLATION WITHOUT ADDITIONAL COST TO THE OWNER.

COORDINATION

1. E.C. SHALL BE RESPONSIBLE FOR COORDINATING THE ELECTRICAL WORK WITH CONTRACTORS OF OTHER TRADES.
2. CAREFULLY REVIEW THE FINAL EQUIPMENT LAYOUT, DO NOT ROUGH-IN ANY ELECTRICAL EQUIPMENT WITHOUT FIRST COORDINATING THE LATEST SET OF EQUIPMENT LAYOUT PLANS.
3. VERIFY THE LOCATION OF ALL DEVICES PRIOR TO ROUGH-IN.
4. FOR ALL CONTROL PANELS AND FIELD DEVICES, VERIFY ACTUAL FIELD WIRING REQUIRED PRIOR TO START OF ROUGH-IN. REVIEW SUBMITTAL DRAWINGS OF ALL EQUIPMENT TO BE WIRED.
5. IN CASE OF INTERFERENCE BETWEEN ELECTRICAL EQUIPMENT SHOWN ON THE DRAWINGS AND THE OTHER EQUIPMENT, THE CONTRACTOR SHALL NOTIFY THE FIELD REPRESENTATIVE IN WRITING AND THE ENGINEER SHALL REVIEW THE PROPOSED CHANGES BEFORE THEY ARE MADE.

DEFINITIONS

1. "PROVIDE" MEANS FURNISH AND INSTALL.
2. "INSTALL" MEANS SET AND WIRE COMPLETE.

DEMOLITION

1. E.C. TO DE-ENERGIZE AND MAKE SAFE ALL AREAS, AND STRUCTURES, AND EQUIPMENT SCHEDULED FOR DEMOLITION.
2. WHERE EQUIPMENT IS IDENTIFIED FOR DEMOLITION, E.C. SHALL MAKE SAFE, AND REMOVE EXISTING WIRING TO POINT OF SUPPLY. CONDUIT SERVING DEMOLISHED EQUIPMENT SHALL ALSO BE REMOVED TO POINT OF SUPPLY EXCEPT WHERE SUCH CONDUIT MAY BE REUSED.
3. NO ABANDONED CONDUIT SHALL REMAIN AT THE CONCLUSION OF THE PROJECT, EXCEPT:
 - A. CONCRETE-ENCASED CONDUIT.
 - B. CONDUITS DETERMINED BY THE ENGINEER AS SUITABLE FOR SPARE OR FUTURE USE.
4. MAINTAIN AND RESTORE, IF INTERRUPTED, ALL CONDUITS AND FEEDERS PASSING THRU RENOVATED AREAS AND SERVICING UNDISTURBED AREAS. THE EXACT METHOD OF RE-ROUTING NEW CONDUIT AND WIRE TO EQUIPMENT REMAINING SHALL BE COORDINATED WITH WORK OF OTHER TRADES PRIOR TO INSTALLATION.
5. ALL ELECTRICAL EQUIPMENT BEING REMOVED OR RELOCATED BY DEMOLITION SHALL BE ELECTRICALLY DISCONNECTED BACK AT PANELBOARD WHICH SERVICES THE EQUIPMENT. REMOVE AND DISPOSE OF EQUIPMENT (OR RELOCATE IF NOTED) UNLESS NOTED OTHERWISE, AFTER TESTING TO DETERMINE THE ELECTRICITY HAS BEEN TURNED OFF.
6. LEGALLY DISPOSE OF ALL LIGHT FIXTURES, LAMPS AND BALLASTS BEING REMOVED. THIS CONTRACTOR SHALL VERIFY THE EXISTENCE OF PCB'S, DEHP'S, MERCURY AND OTHER HAZARDOUS MATERIALS AND DISPOSE OF OR RECYCLE THEM PER THE WISCONSIN EPA AND THE FEDERAL GOVERNMENT.
7. RE-ROUTE EXISTING CONDUIT AND WIRE INTERFERING WITH THE NEW WORK. RE-ROUTED CONDUIT AND WIRE SHALL BE CONCEALED IN THE NEW CONSTRUCTION, UNLESS NOTED OTHERWISE.
8. EXISTING ELECTRICAL EQUIPMENT REQUIRED TO BE REMOVED AND/OR RELOCATED, BUT NOT SHOWN ON THE DRAWINGS, SHALL BE INCLUDED IN THE SCOPE OF WORK.
9. VISIT AND EXAMINE ELECTRICAL SYSTEMS AND EXISTING CONSTRUCTION SO AS TO BECOME FAMILIAR WITH EXISTING CONSTRUCTION AS DIFFICULTIES THAT WILL BE ENCOUNTERED AS PART OF THE PROJECT, BEFORE SUBMITTING PROPOSALS. SUBMISSIONS OF PROPOSALS WILL BE EVIDENCE THAT SUCH EXAMINATION HAS BEEN MADE AND LATER CLAIMS FOR LABOR, EQUIPMENT OR MATERIALS WILL NOT BE RECOGNIZED.
10. SHUTDOWN OF ANY SERVICE TO EQUIPMENT REMAINING SHALL ONLY BE FOR THE TIME AGREED UPON BY THE OWNER'S REPRESENTATIVE. ALL SHUTDOWN AGREEMENTS SHALL BE IN WRITING WITH COPIES TO THE OWNER, GENERAL CONTRACTOR AND CONSULTANTS.

LEGEND

X - EXISTING TO REMAIN
 X/D - EXISTING TO BE DEMOLISHED
 X/R - EXISTING TO BE RELOCATED
 X/S - EXISTING TO BE SALVAGED
 // - DEMO

CONDUCTORS AND CABLE

1. EVERY WIRE/CABLE SHALL BE MARKED AT BOTH ENDS IN ALL JUNCTION BOXES, TERMINAL BOXES, AND FINAL DESTINATION EQUIPMENT. USE PRINTED HEAT SHRINK SLEEVE TYPE MARKERS. HAND MARKING IS NOT ACCEPTABLE. VERIFY WITH ENGINEER WHAT THE IDENTIFICATION SHALL BE IF NOT DESCRIBED WITHIN THESE DRAWINGS.
2. E.C. SHALL TERMINATE ALL CONDUCTORS INDICATED IN DRAWINGS, UNLESS OTHERWISE NOTED.
3. A 24" SEPARATION SHALL BE MAINTAINED BETWEEN INSTRUMENT, CONTROL, AND COMMUNICATION CABLES AND A.C. CABLES. IF CONDUITS MUST BE RUN PROXIMATE TO EACH OTHER, RIGID STEEL CONDUIT SHALL BE USED FOR THE LOW VOLTAGE CABLE.
4. ALL DATA CABLES SHALL INCLUDE ENDS, BY CONTRACTOR.
5. ROUTE A SEPARATE NEUTRAL CONDUCTOR FOR ALL CIRCUITS THAT REQUIRE A NEUTRAL. DO NOT USE CIRCUIT BREAKER TIE HANDLES.

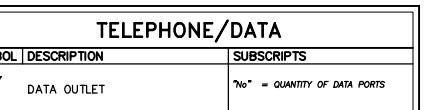
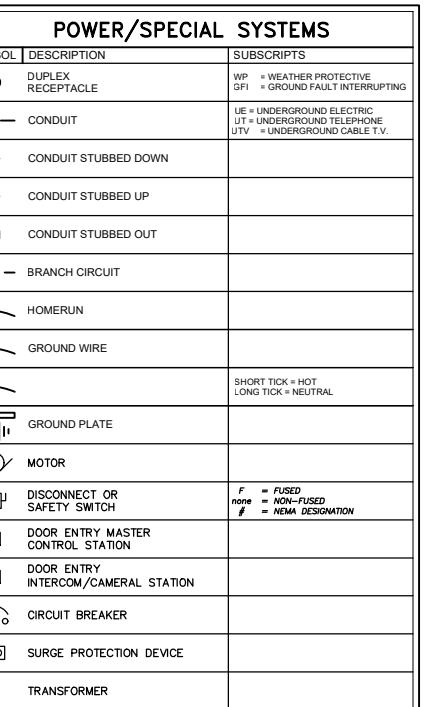
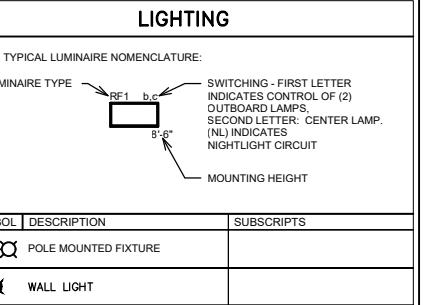
GROUNDING

1. ALL METALLIC STRUCTURES, METALLIC ENCLOSURES, AND ELECTRICAL EQUIPMENT SHALL BE PERMANENTLY AND EFFECTIVELY GROUNDED AND GROUND CONNECTIONS SHALL BE MADE TO THE PLANT GROUND GRID. THE GROUND CONDUCTOR SHALL BE SIZED PER N.E.C. UNLESS OTHERWISE SHOWN.

2. GROUNDING CONDUCTORS STUB-UPS AND INSERT LOCATIONS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY LOCATIONS IN FIELD, WITH ENGINEER. ALL GROUND GRID CONDUCTORS SHALL BE #4/0 SIZE UNLESS OTHERWISE NOTED.
3. ALL GROUNDING GRID CONDUCTORS SHALL BE A MINIMUM OF 36" BELOW GRADE EXCEPT UNDER BUILDING SLAB WHEN THEY SHALL BE A MINIMUM OF 6" BELOW SLAB.

RACEWAYS AND BOXES

1. CONDUIT FITTINGS AND SUPPORTS ARE NOT SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL FURNISH ALL SUPPORT CHANNELS, CLAMPS, HARDWARE, ETC. MATERIAL TO BE SUITABLE FOR THE AREA IN WHICH THEY ARE INSTALLED.
2. UNDERGROUND CONDUITS SHALL BE BURIED A MINIMUM OF 36" BELOW GRADE, U.O.N. WARNING MARKER TAPE SHALL BE LAID IN TRENCHES AND GROUND SYSTEM TRENCHES A MINIMUM OF 12" ABOVE CONDUIT. ALL UNDERGROUND CONDUIT RUNS SHALL BE WITH LONG RADIUS SWEEP BENDS. THE MINIMUM BENDING RADIUS SHALL BE 12 TIMES NOMINAL DIAMETER OF THE CONDUIT.
3. THE MINIMUM SIZE OF CONDUITS INSTALLED BELOW GRADE SHALL BE 1", UNLESS OTHERWISE NOTED.
4. THE MINIMUM SIZE OF CONDUIT INSTALLED ABOVE GRADE SHALL BE 3/4", UNLESS OTHERWISE NOTED.
5. ARRANGE STUB-UPS SO CURVED PORTIONS OF BENDS ARE NOT VISIBLE ABOVE FINISHED SLAB.
6. INSTALL NO MORE THAN THE EQUIVALENT OF THREE 90-DEGREE BENDS IN ANY CONDUIT RUN.



ABBREVIATIONS		
A	AMPERES	
AF	AMPERES FRAME SIZE	
A.F.F.	ABOVE FINISHED FLOOR	
A.I.	AMPERE INTERRUPTING CAPACITY	
A.T.	AMPERE TRANSFORMER	
ATRVS	AUTOTRANSFORMER REDUCED VOLTAGE STARTER	
ATS	AUTOMATIC TRANSFER SWITCH	
AUTO	AUTOMATIC	
AUX	AUXILIARY	
AWG	AMERICAN WIRE GAUGE	
BC	BYPASS CONTACTOR	
C	CONDUIT, CONTACTOR	
C/B	CIRCUIT BREAKER	
C/G	GROUND	
CNTL	CONTROL	
CPT	CONTROL POWER TRANSFORMER	
CR	CONTROL RELAY	
CT	CURRENT TRANSFORMER	
CU	COPPER	
D.C.	DIRECT CURRENT OR DRIVE CONTACTOR	
DET	DETAIL	
DISC	DISCONNECT	
DSV	DISCONNECT SWITCH	
E.C.	ELECTRICAL CONTRACTOR	
E.C.C.	EDDY CURRENT CONTROLLER	
EF	EXHAUST FAN	
E.G.C.	EQUIPMENT GROUNDING CONDUCTOR	
EH	ELECTRIC HEATER	
EL	ELEVATION	
EMT	ELECTRICAL METALLIC TUBING	
ES	EMERGENCY	
ETM	ELAPSED TIME METER	
EWC	ELECTRIC WATER COOLER	
EX	EXISTING	
F.B.O.	FURNISHED BY OTHERS	
F.C.	FAIL CLOSED	
F.C.P.	FAN CONTROL PANEL	
FDR	FEEDER	
FDSW	FUSED DISCONNECT SWITCH	
F.H.P.	FRACTIONAL HORSEPOWER	
F.O.	FAIL OPEN	
FUT	FUTURE	
FVR	FULL VOLTAGE NON-REVERSING	
FVR	FULL VOLTAGE REVERSING	
G.C.	GENERAL CONTRACTOR	
GEC	GROUNDING ELECTRODE CONDUCTOR	
GFF	GROUND FAULT INTERRUPTING FOR EQUIPMENT PROTECTION	
GFI	GROUND FAULT INTERRUPTING FOR PERSONNEL	
GD	GROUNDING	
GP	GROUND	
GW	GROUND WIRE	
HOA	HANDS-OFF-AUTO	
HP	HORSEPOWER	
HW	HOT WATER	
HWH	HOT WATER HEATER	
HZ	HERTZ, CYCLES PER SECOND	
IC	INTEGRATED CIRCUIT	
IMC	INTEGRATED METALIC CONDUIT	
INSTL	INSTALLATION, WIRING, & CONNECTIONS BY E.C.	
INTLK	INTERLOCK	
IS	INTRINSICALLY SAFE	
ISB	INTRINSIC SAFETY BARRIER	
IO	INPUT/OUTPUT	
Kcmil	THOUSAND CIRCULAR MILS	
KV	KILOVOLTS	
KA	KILOAMPERES (APPARENT POWER)	
KVAR	KILOVARS (REACTIVE POWER)	
KW	KILOWATTS (REAL POWER)	
LC	LIGHTING CONTRACTOR	
LCS	LOCAL CONTROL STATION	
LP	LIGHTING PANEL	
LV	LOW VOLTAGE	
MAN	MANUAL	
MCC	MOTOR CONTROL CENTER	
MCM	MILLICIRCULAR MILS	
MCP	MOTOR CIRCUIT PROTECTOR	
M_MTR	MOTOR	
MOD	MOTOR OPERATED DAMPER	
MPA	MANUAL PURGE/ALARM	
mA	MILLIAMPERE	
mV	MILLIVOLT	
N.C.	NORMALLY CLOSED	
N.O.	NORMALLY CONTRACT	
N.O.	NORMALLY OPEN	
N.U.	NEAR UNIT	
NEC	NATIONAL ELECTRICAL CODE	
NL	NIGHT LIGHT	
O.C.	ON CENTER	
OH	OVER HEAD	
O.L.	OVERLOAD	
O/O	ON/OFF	
O.C.	OPEN/TO CLOSE PUSH BUTTONS	
O.T.	OVER TEMPERATURE	
OVR	TO OVER TORQUE	
PB	PUSHBUTTON	
PLC	PROGRAMMABLE LOGIC CONTROLLER	
PROVIDE	FURNISHED, INSTALLED, WIRED AND CONNECTED BY E.C.	
P/T	PUSH TO TEST	
PVC	POLYVINYL CHLORIDE CONDUIT	
RAC	RIGID ALUMINUM CONDUIT	
RCF	RIGID CONDUIT FLEX	
TCG	RIGID GALVANIZED CONDUIT	
RMC	RIGID METAL CONDUIT	
RMS SYM	ROOT-MEAN-SQUARED VALUE OF SYMMETRICAL COMPONENT	
RPC	RIGID PVC-COATED CONDUIT	
S.C.KVA	SHORT CIRCUIT KVA	
SD	SMOKE DETECTOR	
S.O.	SPECIAL OUTLET	
SPD	SURGE PROTECTIVE DEVICE	
SPG	SURGE PROTECTION	
SRVS	SOLID STATE REDUCED VOLTAGE STARTER	
SW	SWITCH	
SSW	SAFETY SWITCH	
ST	SHUNT TRIM	
SUS	SUITABLE FOR USE AS SERVICE EQUIPMENT	
T.C.C.	TEMPERATURE CONTROL CONTRACTOR	
TM	Thermal Magnetic	
TR	TRIP RELAY	
TR	TRIP-TRAIL SWITCH	
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR	
TYP	Typical	
UG	UNDERGROUND	
UE	UNDERGROUND ELECTRIC	
UPS	UNINTERRUPTABLE POWER SUPPLY	
V	VOLTS	
VAC	VOLTS ALTERNATING CURRENT	
VFD	VARIABLE FREQUENCY AC DRIVE	
VSD	VARIABLE SPEED DC DRIVE	
W	WITH	
W/O	WITHOUT	
WP	WEATHER PROTECTIVE	
XDR	TRANSDUCER	
XFER	TRANSFER	
XFMR	TRANSFORMER	
XMTR	TRANSMITTER	
Z	IMPEDANCE	

DESIGNED	DRAWN

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ELECTRICAL SPECIFICATIONS

DIVISION 26 ELECTRICAL

01 11 00 GENERAL REQUIREMENTS

- A. SUBSTITUTIONS:
 - 1. CONTRACTOR SHALL PROVIDE ALL SUPPORTING DATA AND ASSUME THE BURDEN OF PROOF THAT ANY SUBSTITUTION IS EQUIVALENT AS TO APPEARANCE, CONSTRUCTION, CAPACITY, AND PERFORMANCE. THE JUDGEMENT OF EQUIVALENCY SHALL BE MADE BY THE ENGINEER AT THE TIME OF SHOP DRAWING REVIEW, NOT DURING BIDDING.
 - 2. WHERE SUBSTITUTE EQUIPMENT REQUIRES REDESIGN OF ANY PART OF THE PROJECT, THE COST OF REDESIGN AND ADDITIONAL COSTS OF THE WORK SHALL BE PAID BY THE CONTRACTOR. REDESIGN SHALL BE SUBJECT TO THE APPROVAL OF ALL AUTHORITIES HAVING JURISDICTION OVER THE WORK INCLUDING THE ARCHITECT / ENGINEER.
- B. SHOP DRAWINGS, PRODUCT DATA, TEST RESULTS, SAMPLE SUBMITTALS:
 - 1. SHOP DRAWINGS SHALL BE SUBMITTED FOR THE FOLLOWING:
 - a. LIGHT FIXTURES
 - b. SWITCHBOARDS
 - c. PANELBOARDS
 - 3. INCLUDE OUTLINE AND GENERAL ARRANGEMENT DRAWINGS, DATA SHEETS, AND WIRING DIAGRAMS.
 - 4. SHOP DRAWINGS SHALL CLEARLY INDICATE SPECIFIC MODEL BEING PROVIDED WHERE CUT SHEETS SHOW MULTIPLE MODELS.
 - 5. FAILURE TO SUBMIT SHOP DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR FROM PROVIDING THE SPECIFIED EQUIPMENT AND MATERIALS.
 - 6. SYSTEM WIRING RISER DIAGRAMS SHALL INDICATE ALL COMPONENTS SHOWN ON THE FLOOR PLANS, TYPE AND TERMINATION POINT OF CABLE TO EACH COMPONENT.

09 91 00 FINISH AND PAINTING

- A. PREPARE EXPOSED CONDUIT, FITTINGS, SUPPORTS, AND ACCESSORIES FOR FINISH PAINTING.
- B. E.C. SHALL PROVIDE A FACTORY OF FIELD APPLIED PRIME AND FINISH COAT OF COLOR SELECTED BY THE OWNER'S REPRESENTATIVE TO ALL ROOF MOUNTED EQUIPMENT AND OTHER EXTERIOR MATERIALS, INCLUDING SUPPORT HARDWARE.
- C. COORDINATE WORK WITH THE PAINTERS SO THAT ALL EQUIPMENT IS INSTALLED PRIOR TO PAINTING. E.C. SHALL PAINT ITEMS IF NOT IN PLACE PRIOR TO NORMAL ROUTINE PAINTING.
- D. IF FINISH BECOMES RUSTED, CORRODED, SCRATCHED, OR FLAKED DURING STORAGE OR INSTALLATION, REFINISH THE EQUIPMENT TO THE SATISFACTION OF THE OWNER.

26 05 01 BASIC ELECTRICAL REQUIREMENTS

- A. ELECTRICAL CONTRACTOR SHALL VERIFY REQUIREMENTS FOR TEMPORARY LIGHTING AND POWER WITH GENERAL CONTRACTOR AND INCLUDE IN HIS SCOPE OF WORK WHEN DIRECTED BY G.C. INSTALL IN ACCORDANCE WITH ALL CODE AND OSHA REQUIREMENTS FOR CONSTRUCTION PROJECTS.
- B. DETAILS AND SCHEDULES ARE SHOWN TO AID THE CONTRACTOR AND ARE NOT MEANT TO BE INCLUSIVE OF ALL DEVICES. PROVIDE REQUIRED EQUIPMENT AND ACCESSORIES FOR A COMPLETE INSTALLATION.
- C. INSTALL ALL EQUIPMENT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND REQUIREMENTS. PROVIDE ADDITIONAL WORK AND MATERIALS AS REQUIRED.
- D. THE CONTRACTOR HAS THE SOLE RESPONSIBILITY FOR AND SHALL HAVE CONTROL OF CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND SAFETY PRECAUTIONS AND PROCEDURES USED TO CONSTRUCT THE WORK.
- E. COORDINATE INSTALLATION OF ELECTRICAL WORK WITH THE OTHER CONTRACTORS TO AVOID CONFLICTS WITH OTHER WORK.
- F. COMPLY WITH THE REQUIREMENTS OF NFPA; NATIONAL, STATE, AND LOCAL ELECTRICAL CODES, AND LOCAL UTILITY REGULATIONS.
- G. MATERIAL SHALL BEAR U.L. AND / OR OTHER APPROVAL AGENCY LISTING.
- H. VERIFY ELECTRICAL SIZE AND CONNECTION REQUIREMENTS FOR EQUIPMENT FURNISHED BY OTHERS WITH FINAL SHOP DRAWINGS.
- I. CONTRACTOR SHALL CALL LOCAL UTILITY LOCATING SERVICE AND CONDUCT A PRIVATE UTILITY LOCATE TO ENSURE THAT ALL ELECTRICAL FEEDERS, BRANCH CIRCUITS, LOW VOLTAGE CABLES, AND FIBER OPTIC HAVE BEEN LOCATED BEFORE STARTING SITE DEMOLITION. DESIGN ENGINEER AND GENERAL CONTRACTOR SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN PLAN AND FIELD CONDITIONS PRIOR TO CONSTRUCTION.
- J. PROVIDE ALL CUTTING AND PATCHING NECESSARY FOR ELECTRICAL WORK INSTALLATION UNLESS THIS WORK IS IDENTIFIED TO BE THE WORK OF OTHER CONTRACTORS. PATCHING SHALL MATCH ADJACENT SURFACES.
- K. PROJECT COMPLETION:
 - 1. CLEAN FIXTURES AND EQUIPMENT AND LEAVE IN PROPER WORKING CONDITION AT THE TIME OF FINAL CLEAN-UP.
 - 2. MARK RECORD DRAWINGS ON A FINAL SET OF DRAWINGS WHICH INCLUDES ALL FIELD MODIFICATIONS.
- L. EXCAVATION AND BACKFILL:
 - 1. VERIFY ALL EXISTING UNDERGROUND ELECTRICAL FEEDERS, BRANCH CIRCUITS, LOW VOLTAGE CABLES AND FIBER OPTIC HAVE BEEN LOCATED PRIOR TO EXCAVATION. CONTRACTOR SHALL NOT USE MACHINE EXCAVATORS AROUND EXISTING BURIED ELECTRICAL LINES.
 - 2. EXCAVATE AND BACKFILL TRENCHES FOR ELECTRICAL WORK. BACKFILL AND COMPACTION SHALL MEET REQUIREMENTS SPECIFIED ELSEWHERE.
 - 3. RESTORE EXISTING GROUND, LAWNS, PAVING, WALKS, ETC. TO ORIGINAL CONDITION.

26 05 19 LOW VOLTAGE POWER CONDUCTORS AND CABLES (600V AND LESS)

- A. TYPE AND SIZE:
 - 1. No. 10 & 12: SOLID OR STRANDED COPPER, 600V, THHN / THWN OR XHHW-2 FOR UNDERGROUND.
 - 2. No. 8 TO 3: STRANDED COPPER, 600V, THHN / THWN OR XHHW-2 FOR UNDERGROUND.
 - 3. No. 2 TO 250 KCMIL: STRANDED COPPER, 600V, THHN / THWN OR XHHW-2 FOR UNDERGROUND.
 - 4. MINIMUM BRANCH CIRCUIT WIRE SIZE No. 12.
 - 5. CONTROL WIRING: STRANDED COPPER, MINIMUM No. 14.
 - 6. GREEN INSULATION, COPPER STRANDED EQUIPMENT GROUND.
- B. NEUTRALS AND GROUNDS SHALL BE COLOR CODED PER NEC.
- C. WIRE COLORS:
 - 1. 120 / 208 - VOLT SYSTEM: PHASE-A (BLACK), PHASE-B (RED), PHASE-C (BLUE).
 - 2. 277 / 480 - VOLT SYSTEM: PHASE-A (BROWN), PHASE-B (ORANGE), PHASE-C (YELLOW).
- D. TWO PERCENT VOLTAGE DROP AT PANELBOARDS AND THREE PERCENT FOR BRANCH CIRCUITS FOR FIVE PERCENT VOLTAGE DROP PER NEC.
- E. PROVIDE GROUND CONDUCTOR(S) WITH EVERY BRANCH CIRCUIT AND EVERY FEEDER.
- F. PROVIDE A SEPARATE GROUND CONDUCTOR AND A SEPARATE NEUTRAL CONDUCTOR WHEN AN INDIVIDUAL RECEPTACLE OR PIECE OF EQUIPMENT IS SHOWN WITH AN INDIVIDUAL HOMERUN.

26 05 26 GROUNDING AND BONDING - CONT.

- G. CONNECTIONS
 - 1. MAKE CONNECTIONS SO POSSIBILITY OF GALVANIC ACTION OR ELECTROLYSIS IS MINIMIZED. SELECT CONNECTORS, CONNECTION HARDWARE, CONDUCTORS, AND CONNECTION METHODS SO METALS IN DIRECT CONTACT WILL BE GALVANICALLY COMPATIBLE.
 - a. USE ELECTROPLATED OR HOT-TIN-COATED MATERIALS TO ASSURE HIGH CONDUCTIVITY AND TO MAKE CONTACT POINTS CLOSER IN ORDER OF GALVANIC SERIES.
 - b. MAKE CONNECTIONS WITH CLEAN, BARE METAL AT POINT OF CONTACT.
 - c. MAKE ALUMINUM-TO-STEEL CONNECTIONS WITH TIN-PLATED COPPER JUMPERS AND MECHANICAL CLAMPS.
 - d. MAKE ALUMINUM-TO-GALVANIZED STEEL CONNECTIONS WITH TIN-PLATED COPPER JUMPERS AND MECHANICAL CLAMPS.
 - e. COAT AND SEAL CONNECTIONS HAVING DISSIMILAR METALS WITH INERT MATERIAL TO PREVENT FUTURE PENETRATION OF MOISTURE TO CONTACT SURFACES.
 - f. EXOTHERMIC-WELDED CONNECTIONS: USE FOR CONNECTIONS TO STRUCTURAL STEEL AND FOR UNDERGROUND CONNECTIONS, EXCEPT THOSE AT TEST WELLS. COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. WELDS THAT ARE PUFFED UP OR THAT SHOW CONVEX SURFACES INDICATING IMPROPER CLEANING ARE NOT ACCEPTABLE.
 - 2. EQUIPMENT GROUNDING-WIRE TERMINATIONS: FOR No. 8 AWG AND LARGER, USE PRESSURE-TYPE GROUNDING LUGS. No. 10 AWG AND SMALLER GROUNDING CONDUCTORS MAY BE TERMINATED WITH WINGER PRESSURE-TYPE CONNECTORS.
 - 3. NONCONTACT METAL RACEWAY TERMINATIONS: WHERE METALLIC RACEWAYS TERMINATE AT METAL HOUSINGS WITHOUT MECHANICAL AND ELECTRICAL CONNECTION TO HOUSING, TERMINATE EACH CONDUIT WITH A GROUNDING BUSHING. CONNECT GROUNDING BUSHINGS WITH BARE GROUNDING CONDUCTOR TO GROUNDING BUS OR TERMINAL IN HOUSING. BOND ELECTRICALLY NONCONTINUOUS CONDUITS AT BOTH ENTRANCES AND EXITS WITH GROUNDING BUSHINGS AND BARE GROUNDING CONDUCTORS, EXCEPT AS OTHERWISE INDICATED.
 - 4. TIGHTEN SCREWS AND BOLTS FOR GROUNDING AND BONDING CONNECTORS AND TERMINALS ACCORDING TO MANUFACTURER'S PUBLISHED TORQUE-TIGHTENING VALUES. WHERE THESE REQUIREMENTS ARE NOT AVAILABLE, US THOSE SPECIFIED IN UL 486A AND UL 496B.
 - 5. COMPRESSION-TYPE CONNECTIONS: USE HYDRAULIC COMPRESSION TOOLS TO PROVIDE CORRECT CIRCUMFERNENTIAL PRESSURE FOR COMPRESSION CONNECTORS. USE TOOLS AND DIES RECOMMENDED BY MANUFACTURER OF CONNECTORS. PROVIDE EMBOSSED DIE CODE OR OTHER STANDARD METHOD TO MAKE VISIBLE INDICATION THAT CONNECTOR HAS BEEN ADEQUATELY COMPRESSED ON GROUND CONDUCTOR.
 - 6. MOISTURE PROTECTION: WHERE INSULATED GROUNDING CONDUCTORS ARE CONNECTED TO GROUNDING RODS OR GROUNDING BUSES, INSULATE ENTIRE AREA OF CONNECTION AND SEAL AGAINST MOISTURE PENETRATION OF INSULATION AND CABLE.

26 05 29 HANGERS AND SUPPORTS

- A. CONDUIT HANGERS, ATTACHMENTS, AND SUPPORTS
 - 1. PROVIDE PROPER FITTINGS AND SUPPORT SUITABLE FOR AMBIENT / ENVIRONMENTAL CONDITIONS AND SERVICE DUTY.
 - 2. ATTACH TO STRUCTURAL COMPONENTS TO NOT JEOPARDIZE STRUCTURAL INTEGRITY.
 - 3. PROVIDE ANGLES, CHANNELS, AND BEAMS AS REQUIRED.
- B. EXTERIOR LIGHT POLE AND BOLLARD BASES
 - 1. PROVIDE EXTERIOR LIGHT POLE AND BOLLARD CONCRETE BASES PER DETAILS.

26 05 30 CONDUIT

- A. RMC
 - 1. ALLOWED FOR ALL SIZES BELOW GRADE AND INSIDE ABOVE GRADE.
 - 2. REQUIRED FOR ALL SIZES OF OUTDOOR ABOVE GRADE CONDUIT.
 - 3. GALVANIZED RIGID STEEL REQUIRED FOR ALL UNDERGROUND 90 DEGREE BENDS.
 - 4. GALVANIZED RIGID STEEL WITH GALVANIZED RIGID STEEL FITTINGS, THREADED WATERTIGHT.
- B. EMT
 - 1. ALLOWED FOR ALL SIZES INSIDE ABOVE GRADE.
- C. FLEXIBLE
 - 1. MINIMUM SIZE 1/2"
 - 2. MAXIMUM LENGTH 36" FOR CONNECTION TO HVAC EQUIPMENT.
 - 3. MAXIMUM LENGTH 72" FOR CONNECTION TO FIXTURES IN TILE CEILINGS.
 - 4. STEEL FITTINGS WITH INSULATED THROAT, UL LISTED.
 - 5. USE LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT FOR EXTERIOR ABOVE GRADE CONNECTIONS TO VIBRATING EQUIPMENT
- C. PVC
 - 1. USE FOR CONDUIT IN EARTH WHEN PERMITTED BY CODE AND LOCAL ORDINANCES.
 - 2. SCHEDULE 40 PVC.
- D. FITTINGS
 - 1. FITTING MATERIAL SHALL MATCH CONDUIT MATERIAL UNLESS OTHERWISE NOTED IN PLANS AND SPECIFICATIONS OR WITH WRITTEN APPROVAL BY ENGINEER.
- E. INSTALLATION
 - 1. DRAWINGS AND DIAGRAMS SHOW SIZE AND APPROXIMATE LOCATION OF CONDUIT. THE DRAWINGS ARE DIAGRAMMATIC AND SHALL NOT BE SCALDED TO DETERMINE EXACT LOCATION. PROVIDE ADDITIONAL OFFSETS AS REQUIRED FOR FIELD CONDITIONS. ROUTE CONDUIT IN ORDERLY MANNER, PARALLEL TO BUILDING STRUCTURE. CONCEAL CONDUIT IN FINISHED AREAS.
 - 2. INSTALL UL APPROVED EXPANSION FITTINGS COMPLETE WITH GROUNDING JUMPERS WHERE CONDUITS CROSS BUILDINGS EXPANSION JOINTS AND IN LONG CONDUIT RUNS WHERE DIFFERENTIAL EXPANSION OF CONTRACTION WOULD CAUSE BENDING OR SEPARATION.
 - 3. INSTALL CONDUIT WITH ADEQUATE DRAINAGE.
 - 4. SECURE CONDUITS WITH AT LEAST (1) CORROSION PROOF MALLEABLE ALLOY STRAP OR HANGER EVERY 8 FT. DO NOT USE PERFORATED STRAPPING.
 - 5. PROVIDE SEPARATE CONDUIT / RACEWAY FOR TELECOMMUNICATIONS SYSTEMS.
 - 6. ROUTE CONDUIT ABOVE LAY-IN SUSPENDED CEILINGS SO AS NOT TO INTERFERE WITH TILE REMOVAL.
 - 7. INSTALL FLEXIBLE STEEL CONDUIT DROPS FROM INDEPENDENT JUNCTION BOX MOUNTED ABOVE CEILING TO RECESSED LIGHT FIXTURES.
 - 8. SECURE CONDUITS WITH AT LEAST (1) CORROSION PROOF MALLEABLE ALLOY STRAP OR HANGER EVERY 8 FT. DO NOT USE PERFORATED STRAPPING.
 - 9. PROVIDE UL LISTED FIRE-WALL PENETRATIONS WHEN CONDUIT PASS THROUGH A FIRE RATED WALL.
 - 10. USE A CONDUIT BUSHING TO TERMINATE CONDUIT STUB-UPS.
 - 11. PROVIDE CONDUIT SEALS IN RACEWAYS THAT EXTEND FROM INTERIOR TO EXTERIOR OF BUILDING.

26 05 33 BOXES

- A. FLUSH INTERIOR 4" SQUARE STEEL BOXES WITH RAISED CORNERS AND SQUARE CUT CORNERS. PROVIDE BOXES RATED FOR THROUGH FEED.
- B. PROVIDE CAST BOXES FOR EXTERIOR USE DEVICES. PROVIDE COVERS WITH GASKETS.
- C. JUNCTION AND SPLICE BOXES SHALL HAVE GALVANIZED SCREW COVERS AND BE NOT LESS THAN CODE DIMENSIONS. THROUGH-WALL AND BACK-TO-BACK BOXES NOT ALLOWED.
- D. OUTLET AND JUNCTION BOXES USED AS SURFACE METAL RACEWAY SHALL BE MANUFACTURED BY THE SURFACE METAL RACEWAY MANUFACTURER TO BE COMPATIBLE WITH THE RACEWAY USED.
- E. VERIFY LOCATION PRIOR TO ROUGH-IN. MATCH THE HEIGHT OF EXISTING DEVICES FOR INSTALLATIONS IN ADDITION TO EXISTING FACILITIES.
- F. BOXES FOR LIGHTING SHALL BE RATED FOR A MINIMUM OF 50 LBS.
- G. HANDHOLES:
 - 1. POLYMER-CONCRETE TYPE
 - 2. OPEN BOTTOM
 - 3. COVER: WEATHERPROOF, SECURED BY TAMPER RESISTANT LOCKING DEVICES. NON-SKID FINISH. MOLDED LETTERING "ELECTRIC".

26 05 35 PENETRATIONS

- A. SLEEVES
 - 1. FURNISH RIGID CONDUIT SLEEVES FOR CABLES PASSING THROUGH MASONRY, CONCRETE, OR OTHER SIMILAR CONSTRUCTION.
 - 2. FURNISH SLEEVE TO MASON FOR NEW MASONRY WALLS.
 - 3. FURNISH, INSTALL, AND GROUT SLEEVE IN EXISTING MASONRY AND NEW CONCRETE WALLS.
 - 4. SLEEVE NOT REQUIRED FOR DRYWALL WALLS OR CORE DRILLED HOLE IN CONCRETE WALL.
- B. NON-FIRE RATED INTERIOR WALL AND FLOOR PENETRATIONS: FILL VOID BETWEEN CONDUIT AND SLEEVE, CONCRETE, OR DRYWALL WITH EXPANDING POLYURETHANE FOAM. CAULK BETWEEN CONDUIT AND SLEEVE OR WALL WITH NON-HARDENING CAULK.
- C. PROVIDE FIRE-PROOF CAULKING AT ALL PENETRATIONS AT FIRE-RATED WALLS.

26 05 53 IDENTIFICATION FOR ELECTRICAL SYSTEMS

- A. ENGRAVED LABELS: ENGRAVED 3-LAYER PHENOLIC LABEL WITH BLACK LETTERS ON WHITE MATERIAL. LABELS MINIMUM 3/4" HIGH AND 3" LONG. LABELS MAY BE ATTACHED WITH DOUBLE BACKED ADHESIVE TAPE. INCLUDE EQUIPMENT IDENTIFICATION AND IDENTIFICATION OF "FED FROM" DEVICE. LABELS REQUIRED AT:
 - 1. SWITCHBOARDS
 - 2. PANELBOARDS
 - 3. DISCONNECTS
 - 4. SURGE PROTECTION DEVICES.
- B. PROVIDE TYPEWRITTEN DIRECTORY ACCURATELY INDICATING ROOMS AND / OR EQUIPMENT BEING SERVED IN PANELBOARDS.
- C. PROVIDE UNDERGROUND ELECTRICAL MARKING TAPE FOR UNDERGROUND POWER AND COMMUNICATION CONDUITS.

26 24 16 PANELBOARDS

- A. MANUFACTURER:
 - 1. SIEMENS
- B. REFER TO SECTION 26 24 13 SWITCHBOARDS FOR INTEGRATED POWER SYSTEMS (IPS) FOR CUSTOM ENCLOSURE SYSTEM.
- C. CABINET:
 - 1. NEMA 1 CABINET, CODE GAUGE STEEL CONSISTING OF A BOX WITH A REMOVABLE FRONT WITH HINGED DOOR AND LATCH.
 - 2. FABRICATE WITH STRAIGHT EDGES AND SQUARE CORNERS.
 - 3. BOXES SHALL BE MINIMUM 20" WIDE.
 - 4. MANUFACTURER'S STANDARD FINISH, PRIME COAT AND BAKED ENAMEL FINISH.
- D. PROVIDE A NAMEPLATE LISTING OF THE PANEL TYPE AND NUMBER OF PROTECTIVE AND SWITCHING DEVICES AND RATINGS.
- E. BUS BARS FOR THE MAINS SHALL BE COPPER OR ALUMINUM SIZED IN ACCORDANCE WITH UL STANDARDS. INCLUDE FULL SIZE NEUTRAL BARS UNLESS OTHERWISE NOTED. PROVIDE GROUND BUS.
- F. NEUTRAL BUSSING SHALL HAVE ONE LUG FOR EVERY BRANCH CIRCUIT THAT THE PANELBOARD IS CAPABLE OF SUPPORTING.
- G. BUS SPACES FOR FUTURE SWITCHING AND PROTECTIVE DEVICES FOR THE MAXIMUM DEVICES AND SWITCHES THAT THE PANELBOARD CAN ACCOMMODATE.
- H. PANELBOARD SHORT-CIRCUIT CURRENT RATING: FULLY RATED TO INTERRUPT SYMMETRICAL SHORT-CIRCUIT CURRENT AVAILABLE AT TERMINALS. ASSEMBLY LISTED BY AN NRTL FOR 100 PERCENT INTERRUPTING CAPACITY.
- I. CIRCUIT BREAKERS:
 - 1. UNLESS INDICATED OTHERWISE, CIRCUIT BREAKERS SHALL BE PLUG-ON, INDIVIDUALLY REPLACING, THERMAL-MAGNETIC, AUTOMATIC FREE TRIPPING, SEPARATELY INDICATING "ON", "TRIPPED", AND "OFF", AMBIENT COMPENSATED AT 40 DEGREES C. SINGLE, DOUBLE, OR TRIPLE POLE, AS REQUIRED BY THE PANEL SCHEDULES.
 - 2. CIRCUIT BREAKERS INDICATED AS MULTIPLE POLE SHALL BE COMMON TRIP.
 - 3. APPLICATION LISTING: APPROPRIATE FOR APPLICATION; TYPE HACR FOR MOTOR LOADS.

FREEDOM ROAD & HICKORY DRIVE RECONSTRUCTION NESTLE USA, VILLAGE OF LITTLE CHUTE, WI

ELECTRICAL SPECIFICATIONS

DESIGNED JAF	DRAWN GYV
PROJECT NO. N0940 9-20-00535-A	
DATE AUGUST 2020	
SHEET NO. E2	

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ELECTRICAL SPECIFICATIONS CONTINUED

DIVISION 26 ELECTRICAL

26 43 13 SURGE PROTECTION FOR LOW-VOLTAGE ELECTRICAL POWER CIRCUITS

A. MANUFACTURER:
1. SIEMENS

B. PANELBOARD SUPPRESSORS

- 1. COMPLY WITH UL 1449 TYPE 2.
- 2. PEAK SURGE CURRENT RATING: 240 PER MODE
- 3. PROTECTION MODES FOR GROUNDED WYE CIRCUITS WITH 277/480V, THREE-PHASE, FOUR-WIRE CIRCUITS SHALL NOT EXCEED THE FOLLOWING:
 - a. L-N: 1200V
 - b. L-G: 1200V
 - c. N-G: 1200V
 - d. L-L: 2000V
- 4. SCCR: 100 KAIC
- 5. IN NOMINAL RATING: 20 KA.

26 05 73.13 SHORT CIRCUIT STUDIES

A. SOFTWARE MANUFACTURER:
1. ESA
2. SKM
3. POWER ANALYTICS

B. SHORT-CIRCUIT STUDY REPORT CONTENTS

- 1. EXECUTIVE SUMMARY OF STUDY FINDINGS.
- 2. STUDY DESCRIPTIONS, PURPOSE, BASIS, AND SCOPE. INCLUDE CASE DESCRIPTIONS, DEFINITION OF TERMS, AND GUIDE FOR INTERPRETATION OF RESULTS.
- 3. ONE-LINE DIAGRAM OF MODELED POWER SYSTEM, SHOWING THE FOLLOWING:
 - a. PROTECTIVE DEVICE DESIGNATIONS AND AMPERE RATINGS.
 - b. CONDUCTOR TYPES, SIZES, AND LENGTHS.
 - c. TRANSFORMER KILOVOLT AMPERE (KVA) AND VOLTAGE RATINGS.
 - d. MOTOR AND GENERATOR DESIGNATIONS AND KVA RATINGS.
 - e. SWITCHGEAR, SWITCHBOARD, MOTOR-CONTROL CENTER, AND PANELBOARD DESIGNATIONS AND RATINGS.
 - f. DERATING FACTORS AND ENVIRONMENTAL CONDITIONS.
 - g. ANY REVISIONS TO ELECTRICAL EQUIPMENT REQUIRED BY THE STUDY.
 - h. COMMENTS AND RECOMMENDATIONS FOR SYSTEM IMPROVEMENTS OR REVISIONS IN A WRITTEN DOCUMENT, SEPARATE FROM ONE-LINE DIAGRAM.

4. PROTECTIVE DEVICE EVALUATION:
a. EVALUATE EQUIPMENT AND PROTECTIVE DEVICES AND COMPARE TO AVAILABLE SHORT-CIRCUIT CURRENTS. VERIFY THAT EQUIPMENT WITHSTAND RATINGS EXCEED AVAILABLE SHORT-CIRCUIT CURRENT AT EQUIPMENT INSTALLATION LOCATIONS.

b. TABULATIONS OF CIRCUIT BREAKER, FUSE, AND OTHER PROTECTIVE DEVICE RATINGS VERSUS CALCULATED SHORT-CIRCUIT DUTIES.

c. FOR 600-V OVERCURRENT PROTECTIVE DEVICES, ENSURE THAT INTERRUPTING RATINGS ARE EQUAL TO OR HIGHER THAN CALCULATED 1/2-CYCLE SYMMETRICAL FAULT CURRENT.

d. FOR DEVICES AND EQUIPMENT RATED FOR ASYMMETRICAL FAULT CURRENT, APPLY MULTIPLICATION FACTORS LISTED IN STANDARDS TO 1/2-CYCLE SYMMETRICAL FAULT CURRENT.

5. SHORT-CIRCUIT STUDY INPUT DATA:
a. ONE-LINE DIAGRAM OF SYSTEM BEING STUDIED.

b. POWER SOURCES AVAILABLE.

c. MANUFACTURER, MODEL, AND INTERRUPTING RATING OF PROTECTIVE DEVICES.

d. CONDUCTORS.

e. TRANSFORMER DATA.

6. SHORT-CIRCUIT STUDY OUTPUT REPORTS:
a. LOW-VOLTAGE FAULT REPORT: THREE-PHASE AND UNBALANCED FAULT CALCULATIONS, SHOWING THE FOLLOWING FOR EACH OVERCURRENT DEVICE LOCATION:

A. VOLTAGE.
C. CALCULATED FAULT-CURRENT MAGNITUDE AND ANGLE.

D. FAULT-POINT X/R RATIO.

E. EQUIVALENT IMPEDANCE.

b. MOMENTARY DUTY REPORT: THREE-PHASE AND UNBALANCED FAULT CALCULATIONS, SHOWING THE FOLLOWING FOR EACH OVERCURRENT DEVICE LOCATION:

A. VOLTAGE.
B. CALCULATED SYMMETRICAL FAULT-CURRENT MAGNITUDE AND ANGLE.

C. FAULT-POINT X/R RATIO.

D. CALCULATED ASYMMETRICAL FAULT CURRENTS.

- BASED ON FAULT-POINT X/R RATIO.
- BASED ON CALCULATED SYMMETRICAL VALUE MULTIPLIED BY 1.6.
- BASED ON CALCULATED SYMMETRICAL VALUE MULTIPLIED BY 2.7.

E. INTERRUPTING DUTY REPORT: THREE-PHASE AND UNBALANCED FAULT CALCULATIONS, SHOWING THE FOLLOWING FOR EACH OVERCURRENT DEVICE LOCATION:

- VOLTAGE.
- CALCULATED SYMMETRICAL FAULT-CURRENT MAGNITUDE AND ANGLE.
- FAULT-POINT X/R RATIO.
- NO AC DECREMENT (NACD) RATIO.
- EQUIVALENT IMPEDANCE.

- MULTIPLYING FACTORS FOR 2-, 3-, 5-, AND 8-CYCLE CIRCUIT BREAKERS RATED ON A SYMMETRICAL BASIS.
- MULTIPLYING FACTORS FOR 2-, 3-, 5-, AND 8-CYCLE CIRCUIT BREAKERS RATED ON A TOTAL BASIS.

F. INTERRUPTING DUTY REPORT: THREE-PHASE AND UNBALANCED FAULT CALCULATIONS, SHOWING THE FOLLOWING FOR EACH OVERCURRENT DEVICE LOCATION:

- VOLTAGE.
- CALCULATED SYMMETRICAL FAULT-CURRENT MAGNITUDE AND ANGLE.
- FAULT-POINT X/R RATIO.
- NO AC DECREMENT (NACD) RATIO.
- EQUIVALENT IMPEDANCE.

- MULTIPLYING FACTORS FOR 2-, 3-, 5-, AND 8-CYCLE CIRCUIT BREAKERS RATED ON A SYMMETRICAL BASIS.
- MULTIPLYING FACTORS FOR 2-, 3-, 5-, AND 8-CYCLE CIRCUIT BREAKERS RATED ON A TOTAL BASIS.

26 05 73.19 ARC-FLASH HAZARD ANALYSIS

A. MANUFACTURERS

- 1. ESA
- 2. SKM
- 3. POWER ANALYTICS

B. ARC-FLASH STUDY REPORT CONTENT

- 1. EXECUTIVE SUMMARY OF STUDY FINDINGS.
- 2. STUDY DESCRIPTIONS, PURPOSE, BASIS, AND SCOPE. INCLUDE CASE DESCRIPTIONS, DEFINITION OF TERMS, AND GUIDE FOR INTERPRETATION OF RESULTS.
- 3. ONE-LINE DIAGRAM, SHOWING THE FOLLOWING:
 - a. PROTECTIVE DEVICE DESIGNATIONS AND AMPERE RATINGS.
 - b. CONDUCTOR TYPES, SIZES, AND LENGTHS.
 - c. TRANSFORMER KILOVOLT AMPERE (KVA) AND VOLTAGE RATINGS, INCLUDING DERATING FACTORS AND ENVIRONMENTAL CONDITIONS.
 - d. MOTOR AND GENERATOR DESIGNATIONS AND KVA RATINGS.
 - e. SWITCHGEAR, SWITCHBOARD, PANELBOARD DESIGNATIONS, AND RATINGS.
- 4. STUDY INPUT DATA, AS DESCRIBED IN "POWER SYSTEM DATA" ARTICLE.
- 5. SHORT-CIRCUIT STUDY OUTPUT DATA, AS SPECIFIED IN "SHORT-CIRCUIT STUDY OUTPUT REPORTS" PARAGRAPH IN "SHORT-CIRCUIT STUDY REPORT CONTENTS" ARTICLE IN SECTION 2605.13 "SHORT-CIRCUIT STUDIES."
- 6. ARC-FLASH STUDY OUTPUT REPORTS:
 - a. INTERRUPTING REPORT: THREE-PHASE AND UNBALANCED FAULT CALCULATIONS, SHOWING THE FOLLOWING FOR EACH EQUIPMENT LOCATION INCLUDED IN THE REPORT:
 - VOLTAGE.
 - CALCULATED SYMMETRICAL FAULT-CURRENT MAGNITUDE AND ANGLE.
 - FAULT-POINT X/R RATIO.
 - NO AC DECREMENT (NACD) RATIO.
 - EQUIVALENT IMPEDANCE.
 - MULTIPLYING FACTORS FOR 2-, 3-, 5-, AND 8-CYCLE CIRCUIT BREAKERS RATED ON A SYMMETRICAL BASIS.
 - MULTIPLYING FACTORS FOR 2-, 3-, 5-, AND 8-CYCLE CIRCUIT BREAKERS RATED ON A TOTAL BASIS.
 - b. INCIDENT ENERGY AND FLASH PROTECTION BOUNDARY CALCULATIONS:
 - ARCING FAULT MAGNITUDE.
 - PROTECTIVE DEVICE CLEARING TIME.
 - DURATION OF ARC.
 - ARC-FLASH BOUNDARY.
 - RESTRICTED APPROACH BOUNDARY.
 - LIMITED APPROACH BOUNDARY.
 - WORKING DISTANCE.
 - INCIDENT ENERGY.
 - HAZARD RISK CATEGORY.
 - RECOMMENDATIONS FOR ARC-FLASH ENERGY REDUCTION.
 - FAULT STUDY INPUT DATA, CASE DESCRIPTIONS, AND FAULT-CURRENT CALCULATIONS INCLUDING A DEFINITION OF TERMS AND GUIDE FOR INTERPRETATION OF COMPUTER PRINTOUT.

C. ARC-FLASH WARNING LABELS

- 1. PRODUCE A 3.5-BY-5-INCH SELF-ADHESIVE EQUIPMENT LABEL FOR EACH WORK LOCATION INCLUDED IN THE ANALYSIS.
- 2. LABEL SHALL HAVE AN ORANGE HEADER WITH THE WORDING, "WARNING, ARC-FLASH HAZARD." AND SHALL INCLUDE THE FOLLOWING INFORMATION TAKEN DIRECTLY FROM THE ARC-FLASH HAZARD ANALYSIS:
 - a. LOCATION DESIGNATION.
 - b. NOMINAL VOLTAGE.
 - c. PROTECTION BOUNDARIES.
 - ARC-FLASH BOUNDARY.
 - RESTRICTED APPROACH BOUNDARY.
 - LIMITED APPROACH BOUNDARY.
 - d. ARC FLASH PPE CATEGORY.
 - REQUIRED MINIMUM ARC RATING OF PPE IN CAL/CM SQUARED.
 - AVAILABLE INCIDENT ENERGY.
 - WORKING DISTANCE.
 - ENGINEERING REPORT NUMBER, REVISION NUMBER, AND ISSUE DATE.

D. LABELS SHALL BE MACHINE PRINTED, WITH NO FIELD-APPLIED MARKINGS.

26 24 13 SWITCHBOARDS

A. MANUFACTURERS

- 1. SIEMENS

B. FRONT CONNECTED, FRONT ACCESSIBLE SWITCHBOARDS

- 1. MAIN DEVICES: PANEL MOUNTED
- 2. BRANCH DEVICES: PANEL MOUNTED
- 3. SECTIONS FRONT AND REAR ALIGNED

C. ENCLOSURES:

- 1. OUTDOOR - NEMA TYPE 3R

D. SPACE HEATERS: FACTORY-INSTALLED ELECTRIC SPACE HEATERS OF SUFFICIENT WATTAGE IN EACH VERTICAL SECTION TO MAINTAIN ENCLOSURE TEMPERATURE ABOVE EXPECTED DEW POINT.

E. DISCONNECTING AND OVERCURRENT PROTECTIVE DEVICES

- 1. MOLDED-CASE CIRCUIT BREAKER (MCCB): COMPLY WITH UL 489, WITH INTERRUPTING CAPACITY TO MEET AVAILABLE FAULT CURRENTS.
- 2. THERMAL-MAGNETIC CIRCUIT BREAKERS: INVERSE TIME-CURRENT ELEMENT FOR LOW-LEVEL OVERLOADS AND INSTANTANEOUS MAGNETIC TRIP ELEMENT FOR SHORT CIRCUITS. ADJUSTABLE MAGNETIC TRIP SETTING FOR CIRCUIT-BREAKER FRAME SIZES 250 A AND LARGER.
- 3. MCCB FEATURES AND ACCESSORIES:
 - a. STANDARD FRAME SIZES, TRIP RATINGS, AND NUMBER OF POLES.
 - b. LUGS: MECHANICAL STYLE, SUITABLE FOR NUMBER, SIZE, TRIP RATINGS, AND CONDUCTOR MATERIAL.
 - c. APPLICATION LISTING: APPROPRIATE FOR APPLICATION; TYPE SWD FOR SWITCHING FLUORESCENT LIGHTING LOADS, TYPE HID FOR FEEDING FLUORESCENT AND HIGH-INTENSITY DISCHARGE (HID) LIGHTING CIRCUITS.

F. INTEGRATED POWER SYSTEMS:

- 1. ENCLOSURE SHALL CONTAIN PANELBOARDS, TRANSFORMER, AND SURGE PROTECTION DEVICES.
- 2. CUSTOM CONFIGURATION, CONSULT WITH FACTORY.

26 22 13 LOW-VOLTAGE DISTRIBUTION TRANSFORMERS

A. MANUFACTURERS

- 1. SIEMENS

B. REFER TO 26 24 13 SWITCHBOARDS FOR INTEGRATED POWER SYSTEMS (IPS) FOR CUSTOM ENCLOSURE SYSTEM.

C. GENERAL TRANSFORMER REQUIREMENTS

- 1. DESCRIPTION: FACTORY-ASSEMBLED AND -TESTED, AIR-COOLED UNITS FOR 60-Hz SERVICE.
- 2. COMPLY WITH NFPA 70.
- 3. TRANSFORMERS RATED 15 KVA AND LARGER:
 - a. COMPLY WITH 10 CFR 431 (DOE 2010) EFFICIENCY LEVELS.
 - b. MARKED AS COMPLIANT WITH DOE 2010 EFFICIENCY LEVELS BY AN NRTL.
- 4. CORES: ELECTRICAL GRADE, NON-AGING SILICON STEEL WITH HIGH PERMEABILITY AND LOW HYSTERESIS.
- 5. COILS: CONTINUOUS WINDINGS WITHOUT SPLICES EXCEPT FOR TAPS.
- 6. COILS MATERIAL: ALUMINUM
- 7. INTERNAL COIL CONNECTIONS: BRAZED OR PRESSURE TYPE
- 8. TERMINAL CONNECTIONS: WELDED

D. DISTRIBUTION TRANSFORMERS

- 1. COMPACT
- 2. CORES: ONE LEG PER PHASE
- 3. ENCLOSURE: VENTILATED
 - a. NEMA 2501, TYPE 1: CORE AND COIL SHALL BE ENCAPSULATED WITHIN RESIN COMPOUND, SEALING OUT MOISTURE AND AIR.
 - b. WIRING COMPARTMENT: SIZED FOR CONDUIT ENTRY AND WIRING INSTALLATION.
- 4. TAPS FOR TRANSFORMERS 25 KVA AND LARGER: TWO 2.5 PERCENT TAPS ABOVE AND TWO 2.5 PERCENT TAPS BELOW FULL CAPACITY.
- 5. INSULATION CLASS: 220 DEG C UL-COMPONENT-RECOGNIZED INSULATION SYSTEM WITH A MAXIMUM OF 80 DEG C RATED INSULATION C. AMBIENT TEMPERATURE.
- 6. GROUNDING: PROVIDE GROUND-BAR LIT OR A GROUND BAR INSTALLED ON THE INSIDE OF THE TRANSFORMER ENCLOSURE.
- 7. WALL BRACKETS: MANUFACTURER'S STANDARD BRACKETS.

D. INSTALLATION

- 1. VERIFY THAT FIELD MEASUREMENTS ARE AS NEEDED TO MAINTAIN WORKING CLEARANCES REQUIRED BY NFPA 70 AND MANUFACTURER'S WRITTEN INSTRUCTIONS.
- 2. EXAMINE WALLS, FLOORS, ROOFS, AND CONCRETE BASES FOR SUITABLE MOUNTING CONDITIONS WHERE TRANSFORMERS WILL BE INSTALLED.
- 3. INSTALL WALL-MOUNTED TRANSFORMERS LEVEL AND PLUMB WITH WALL BRACKETS FABRICATED BY TRANSFORMER MANUFACTURER.
- 4. SECURE COVERS TO ENCLOSURE AND TIGHTEN ALL BOLTS TO MANUFACTURER-RECOMMENDED TORQUES TO REDUCE NOISE GENERATION.
- 5. PROVIDE FLEXIBLE CONNECTIONS AT ALL CONDUIT AND CONDUCTOR TERMINATIONS AND SUPPORTS TO ELIMINATE SOUND AND VIBRATION TRANSMISSION TO THE BUILDING STRUCTURE.

E. FIELD QUALITY CONTROL

- 1. PERFORM TESTS AND INSPECTIONS
- 2. SMALL (UP TO 167-KVA SINGLE-PHASE OR 500-KVA THREE-PHASE) DRY-TYPE TRANSFORMER FIELD TESTS:
 - a. VISUAL AND MECHANICAL INSPECTION
 - b. INSPECT PHYSICAL AND MECHANICAL CONDITION
 - c. INSPECT ANCHORAGE, ALIGNMENT, AND GROUNDING.
 - d. VERIFY THAT RESILIENT MOUNTS ARE FREE AND THAT ANY SHIPPING BRACKETS HAVE BEEN REMOVED.
 - e. VERIFY THAT THE UNIT IS CLEAN.
 - f. PERFORM SPECIFIC INSPECTIONS AND MECHANICAL TESTS RECOMMENDED BY MANUFACTURER.
 - g. VERIFY THAT AS-LEFT TAP CONNECTION ARE AS SPECIFIED.
 - h. VERIFY THAT SURGE ARRESTERS AND THAT THEIR RATINGS ARE AS SPECIFIED.
- 3. ELECTRICAL TESTS:
 - a. MEASURE RESISTANCE AT EACH WINDING, TAP, AND BOLTED CONNECTION.
 - b. PERFORM INSULATION-RESISTANCE TESTS WINDING-TO-WINDING AND EACH WINDING-TO-GROUND. APPLY VOLTAGE ACCORDING TO MANUFACTURER'S PUBLISHED DATA, COMPLY WITH NETA ATs, TABLE 100.5. CALCULATE POLARIZATION INDEX: THE VALUE OF THE INDEX SHALL NOT BE LESS THAN 1.0.
 - c. PERFORM TURN-RATIO TESTS IN ALL TAP POSITIONS. TEST RESULTS SHALL NOT DEVIATE BY MORE THAN ONE-HALF PERCENT FROM EITHER THE ADJACENT COILS OR THE CALCULATED RATIO. IF TEST FAILS, REPLACE THE TRANSFORMER.
 - d. VERIFY CORRECT SECONDARY VOLTAGE, PHASE-TO-PHASE AND PHASE-TO-NEUTRAL, AFTER ENERGYIZATION AND PRIOR TO LOADING.
 - e. REMOVE AND REPLACE UNITS THAT DO NOT PASS TESTS OR INSPECTIONS AND RETEST AS SPECIFIED ABOVE.

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FREEDOM ROAD & HICKORY DRIVE RECONSTRUCTION
NESTLE USA, VILLAGE OF LITTLE CHUTE, WI

ELECTRICAL SPECIFICATIONS

DESIGNED
JAF
DRAWN
GYV
PROJECT NO.
N0940 9-20-00535-A
DATE
AUGUST 2020
SHEET NO.
E3

ELECTRICAL SPECIFICATIONS CONTINUED

DIVISION 27 COMMUNICATIONS

27 15 00 COMMUNICATIONS HORIZONTAL CABLING

- A. ALL CABLE CONNECTING HARDWARE SHALL COMPLY WITH TIA/EIA-568-B.2, IDC TYPE, WITH MODULES DESIGNED FOR PUNCH-DOWN CAPS OR TOOLS. CABLES SHALL BE TERMINATED WITH CONNECTING HARDWARE OF SAME CATEGORY OR HIGHER.
- B. THE CONTRACTOR SHALL PROVIDE ALL DATA WIRING, OUTLET JACKS, AND LABELING FOR A COMPLETE WIRING SYSTEM. PROVIDE THE FOLLOWING MATERIALS:
 - 1. DATA, SECURITY CAMERAS, ACCESS DOOR CONTROLLERS, VIDEO GAMES, GOLF SIMULATORS, POS SYSTEM: CATEGORY 6, PLENUM RATED, NO. 24 AWG, 100OHM, 4-PAIR UTP, FORMED INTO 25-PAIR, BINDER GROUPS COVERED WITH A BLUE THERMOPLASTIC JACKET AS MANUFACTURED BY BELDEN OR BELK-TEK.
 - 2. WIRELESS ACCESS POINTS: CATEGORY 6A, PLENUM RATED, NO. 24 AWG, 100OHM, 4-PAIR UTP, FORMED INTO 25-PAIR, BINDER GROUPS COVERED WITH A BLUE THERMOPLASTIC JACKET AS MANUFACTURED BY BELDEN OR BELK-TEK.
 - 3. OUTLET JACKS: MODULAR, COLOR CODED, CATEGORY 6 OR 6A FOR WIRELESS ACCESS POINTS, RJ-45 RECEPTACLE UNITS WITH INTEGRAL IDC-TYPE TERMINAL, T568B PINOUT.
 - 4. DATA: PANDUIT CJI687BU - BLUE OR EQUIVALENT.
 - 5. OUTLETS: 4-JACK ASSEMBLIES MOUNTED IN A SINGLE GANG FACEPLATE.
 - 6. FACEPLATE: PANDUIT CBIW, ACCEPTS TWO 1/2 SIZE MODULE INSERTS.
 - 7. MODULE INSERTS: PANDUIT CHF2IW-X, TWO REQUIRED FOR EACH FACEPLATE.
 - 8. BLANK FILLER: PANDUIT CMBIW-X, TWO REQUIRED FOR EACH FACEPLATE.
 - 9. MOUNTING: FLUSH
 - 10. LABELING: PRINTED, ADHESIVE TAPE LABEL IDENTIFYING THE CIRCUIT, DATA OUTLET AT PATCH PANEL LABELING SHALL MATCH. COORDINATE REQUIREMENTS WITH OWNER.
 - 11. PATCH CORDS: 3'-0" LENGTH.
- C. PROVIDE (1) CABLE DROP AT EACH DOOR ACCESS POINT. COORDINATE WITH MARTIN SYSTEMS.
- D. PROVIDE (1) CABLE DROP AT EACH SECURITY CAMERA. PROVIDE 10 FEET OF COILED CABLE AT EACH CAMERA LOCATION IN ORDER TO ALLOW FOR MOVEMENT OF CAMERA. COORDINATE WITH MARTIN SYSTEMS.
- E. ALL CATEGORY 6 AND 6A CABLES SHALL BE TESTED END TO END AND DOCUMENTED FOR CATEGORY 6 AND 6A COMPLIANCE. IT SHOULD BE TESTED WITH A FLUKE OMNISCANNER OR LIKE DEVICE. HARDCOPY AND SOFTCOPY SHOULD BE PROVIDED. PROVIDE SPECIAL SOFTWARE IF REQUIRED TO VIEW SOFTCOPY.
- F. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OPENINGS REQUIRED IN WALLS. OPENING SHALL BE REPAIRED, AND CONDUITS/CABLES THROUGH WALL SHALL BE GROUTED OR SEALED INTO OPENING.
- G. ALL FLOOR AND WALL PENETRATIONS SHALL BE THROUGH A SLEEVE AND FIRE STOPPED PER LOCAL CODES. ALL MATERIAL USED TO SEAL PENETRATIONS SHALL BE U.L. LISTED.
- H. INSTALLATION:
 - 1. INSTALL IN RACEWAYS EXCEPT ABOVE ACCESSIBLE CEILING SPACES. USE SUPPORTS SO THAT CABLING IS NOT LAYING ON CEILING. INSTALL IN RACEWAYS EXCEPT ABOVE ACCESSIBLE CEILING SPACES. USE SUPPORTS SO THAT CABLING IS NOT LAYING ON CEILING. CABLE SHALL NOT BE RUN THROUGH STRUCTURAL MEMBERS OR BE IN CONTACT WITH PIPES, DUCTS, OR OTHER POTENTIALLY DAMAGING ITEMS.
 - 2. CONCEAL RACEWAY AND CABLES EXCEPT IN UNFINISHED SPACES.
 - 3. BUNDLE, LACE, AND TRAIN CABLES WITHIN ENCLOSURES.
- I. TEST ALL CABLING END-TO-END.

27 13 00 COMMUNICATIONS BACKBONE CABLING

- A. MANUFACTURERS
 - a. BERK-TEK
 - b. BELDEN
 - c. CORNING CABLE SYSTEM
- B. 9 / 125 MICROMETER SINGLE-MODE OPTICAL FIBER CABLE (OS2)
 - a. 6 FIBERS, SINGLE LOOSE TUBE, ARMORED OPTICAL FIBER CABLE.
 - b. JACKET: YELLOW
 - c. PLUMED RATED, ARMORED (CONDUCTIVE): TYPE OFCP, COMPLYING WITH NFPA 262.
 - d. PROVIDE 1000 BASE-LX SFP TRANSCEIVER.
- C. OPTICAL FIBER HARDWARE
 - a. COMPLY WITH TIA-568-C.3.
 - b. CROSS CONNECTS AND PATCH PANELS: MODULAR PANELS HOUSING MULTIPLE NUMBERED DUPLEX CONNECTORS.
 - c. CONNECTOR TYPE: SC-P, COMPLYING WITH TIA-604-3-B.
 - d. PLUGS: MALE COLOR CODED MODULAR CONNECTOR DESIGNED FOR TERMINATION OF SINGLE OPTICAL FIBER CABLE. INSERTION LOSS OF NOT LESS THAN 0.25 dB.
 - e. JACKS: FEMALE, QUICK CONNECT, DUPLEX, FIXED CONNECTOR DESIGNED FOR TERMINATION OF SINGLE OPTICAL FIBER CABLE. INSERTION LOSS OF NOT LESS THAN 0.25 dB DESIGNED TO SNAP IN TO A PATCH PANEL.
- D. INSTALLATION
 - a. INSTALL IN RACEWAYS EXCEPT ABOVE ACCESSIBLE CEILING SPACES. USE SUPPORTS SO THAT CABLING IS NOT LAYING ON CEILING. INSTALL IN RACEWAYS EXCEPT ABOVE ACCESSIBLE CEILING SPACES. USE SUPPORTS SO THAT CABLING IS NOT LAYING ON CEILING. CABLE SHALL NOT BE RUN THROUGH STRUCTURAL MEMBERS OR BE IN CONTACT WITH PIPES, DUCTS, OR OTHER POTENTIALLY DAMAGING ITEMS.
 - b. CONCEAL RACEWAY AND CABLES EXCEPT IN UNFINISHED SPACES.
 - c. BUNDLE, LACE, AND TRAIN CABLES WITHIN ENCLOSURES.
- E. TEST ALL FIBER OPTIC CABLES END-TO-END.

DIVISION 28 COMMUNICATIONS

28 60 11 DOOR ENTRY CONTROL AND VIDEO

- 1.1 SUMMARY
 - A. ADD SUB-MASTER STATION TO EXISTING AIPHONE JP-4MED SYSTEM. SUB-MASTER STATION SHALL BE ABLE TO CONTROL THE VISITOR GATE AND VISITOR ENTRY VIDEO / INTERCOM.
- 1.2 QUALITY ASSURANCE
 - A. ELECTRICAL COMPONENTS, DEVICES, AND ACCESSORIES: LISTED AND LABELED AS DEFINED IN NFPA 70, BY A QUALIFIED TESTING AGENCY, AND MARKED FOR INTENDED LOCATION AND APPLICATION.
 - B. COMPLY WITH NFPA 70.
 - C. ALL ITEMS OF EQUIPMENT INCLUDING WIRE AND CABLE SHALL BE DESIGNED BY THE MANUFACTURER TO FUNCTION AS A COMPLETE SYSTEM AND SHALL BE ACCOMPANIED BY THE MANUFACTURER'S COMPLETE SERVICE NOTES AND DRAWINGS DETAILING ALL INTERCONNECTIONS.
- 1.3 COORDINATION
 - A. COORDINATE FLUSH MOUNTED BACK BOXES WITH OTHER TRADES.
 - B. COORDINATE REQUIREMENTS OF DOOR STRIKES, POWER SUPPLIES, CARD READER SYSTEMS, POWER OPERATED DOORS AND OTHER EQUIPMENT SPECIFIED UNDER OTHER SECTIONS OF SPECIFICATION AND DRAWINGS.
- 2.1 MANUFACTURERS
 - A. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING:
 - a. AIPHONE.
- 2.2 SUB-MASTER STATION
 - A. JP-4HD MASTER STATION WITH TOUCHSCREEN MONITOR.
 - B. DESK MOUNT STAND.
 - C. THE MCW-S/A PROVIDES A DESK MOUNTING OPTION FOR AIPHONE MONITORS, ANGLING THEM BACK AT APPROXIMATELY 75°.
- 2.3 SELECTIVE DOOR RELEASE ADAPTOR
 - A. THE RY-3DL PROVIDES SELECTIVE DOOR RELEASE CAPABILITY WITH THE IE-2AD AUDIO DOOR ENTRY SYSTEM, THE MY-2CD PAN TILT VIDEO ENTRY SYSTEM OR THE KB-3MRD TILT COLOR VIDEO SYSTEM. WHEN COMMUNICATION IS ESTABLISHED TO A DOOR STATION, THE SINGLE DOOR RELEASE BUTTON ON THE INTERCOM WILL ACTIVATE THE DOOR RELEASE MECHANISM ASSOCIATED WITH THAT DOOR. THE ADAPTOR CAN BE INSTALLED WITH THE POWER SUPPLIES FOR THE SYSTEM.
 - B. SELECTIVE DOOR RELEASE WITH ONE BUTTON.
 - C. DOOR RELEASE CONTACTS RELEASE THE DOOR WHERE COMMUNICATION IS ESTABLISHED.
 - D. BOTH NORMALLY OPEN AND NORMALLY CLOSED CONTACTS.
- 2.4 LONG DISTANCE ADAPTOR:
 - A. JPW-BA - USED WHEN MASTER STATION TO DOOR STATION EXCEEDS 330 FEET.
- 2.5 POWER SUPPLY
 - A. POWER SUPPLY TO BE A PS-2420UL.
 - B. PACKAGE TO INCLUDE:
 - a. AC CORD AND PLUG.
 - b. MOUNTING BRACKET - AND SCREWS.
- 3.1 EXAMINATION
 - A. EXAMINE AREAS AND CONDITIONS FOR COMPLIANCE WITH REQUIREMENTS FOR INSTALLATION TOLERANCES AND OTHER CONDITIONS AFFECTING PERFORMANCE OF THE WORK.
 - B. EXAMINE PRODUCTS OR MATERIALS BEFORE INSTALLATION. REJECT PRODUCTS OR MATERIALS THAT ARE WET, MOISTURE DAMAGED, OR MOLD DAMAGED.
 - C. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
- 3.2 INSTALLATION
 - A. COMPLY WITH NECA 1.
 - B. COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS AND RECOMMENDATIONS FOR INSTALLING, CALIBRATING AND THE START UP OF PRODUCTS.
 - C. WIRING METHOD: INSTALL CABLES IN RACEWAYS AND CABLE TRAYS EXCEPT WITHIN CONSOLES, CABINETS, DESKS, AND COUNTERS. CONCEAL RACEWAY AND CABLES EXCEPT IN UNFINISHED SPACES.
 - a. INSTALL PLUMED CABLE IN ENVIRONMENTAL AIR SPACES, INCLUDING PLUMED CEILINGS.
 - b. COMPLY WITH REQUIREMENTS FOR RACEWAYS AND BOXES SPECIFIED IN DIVISION 26 SECTION "RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS."
 - D. WIRING METHOD: CONCEAL CONDUCTORS AND CABLES IN ACCESSIBLE CEILINGS, WALLS, AND FLOORS WHERE POSSIBLE.
 - E. WIRING WITHIN ENCLOSURES: BUNDLE, LACE, AND TRAIN CONDUCTORS TO TERMINAL POINTS WITH NO EXCESS AND WITHOUT EXCEEDING MANUFACTURER'S LIMITATIONS ON BENDING RADI. PROVIDE AND USE LACING BARS AND DISTRIBUTION SPOOLS.
 - F. GENERAL REQUIREMENTS:
 - a. TERMINATE CONDUCTORS; NO CABLE SHALL CONTAIN UNTERMINATED ELEMENTS. MAKE TERMINATIONS ONLY AT OUTLETS AND TERMINALS.
 - b. SPLICES, TAPS, AND TERMINATIONS: ARRANGE ON NUMBERED TERMINAL STRIPS IN JUNCTION, PULL, AND OUTLET BOXES; TERMINAL CABINETS; AND EQUIPMENT ENCLOSURES. CABLES MAY NOT BE SPLICED.
 - c. SECURE AND SUPPORT CABLES AT INTERVALS NOT EXCEEDING 30 INCHES AND NOT MORE THAN 6 INCHES FROM CABINETS, BOXES, FITTINGS, OUTLETS, RACKS, FRAMES, AND TERMINALS.
 - d. BUNDLE, LACE, AND TRAIN CONDUCTORS TO TERMINAL POINTS WITHOUT EXCEEDING MANUFACTURER'S LIMITATIONS ON BENDING RADI. INSTALL LACING BARS AND DISTRIBUTION SPOOLS.
 - e. DO NOT INSTALL BRUISED, KINKED, SCORED, DEFORMED, OR ABRASIVE CABLE. DO NOT SPLICE CABLE BETWEEN TERMINATION, TAP, OR JUNCTION POINTS. REMOVE AND DISCARD CABLE IF DAMAGED DURING INSTALLATION AND REPLACE IT WITH NEW CABLE.
 - f. COLD-WEATHER INSTALLATION: BRING CABLE TO ROOM TEMPERATURE BEFORE DEREELING. HEAT LAMPS SHALL NOT BE USED.
 - G. OPEN-CABLE INSTALLATION:
 - a. INSTALL CABLING WITH HORIZONTAL AND VERTICAL CABLE GUIDES IN TELECOMMUNICATION SPACES WITH TERMINATING HARDWARE AND INTERCONNECTION EQUIPMENT.
 - b. SUSPEND SPEAKER CABLE NOT IN A WIREWAY OR PATHWAY A MINIMUM OF 8 INCHES ABOVE CEILING BY CABLE SUPPORTS NOT MORE THAN 60 INCHES APART.
 - c. CABLE SHALL NOT BE RUN THROUGH STRUCTURAL MEMBERS OR BE IN CONTACT WITH PIPES, DUCTS, OR OTHER POTENTIALLY DAMAGING ITEMS.
 - H. SEPARATION OF WIRES: SEPARATE SPEAKER-MICROPHONE, LINE-LEVEL, SPEAKER-LEVEL, AND POWER WIRING RUNS. INSTALL IN SEPARATE RACEWAYS OR, WHERE EXPOSED OR IN SAME ENCLOSURE, SEPARATE CONDUCTORS AT LEAST 12 INCHES APART FOR SPEAKER MICROPHONES AND ADJACENT PARALLEL POWER AND TELEPHONE WIRING. SEPARATE OTHER INTERCOMMUNICATION EQUIPMENT CONDUCTORS AS RECOMMENDED BY EQUIPMENT MANUFACTURER.

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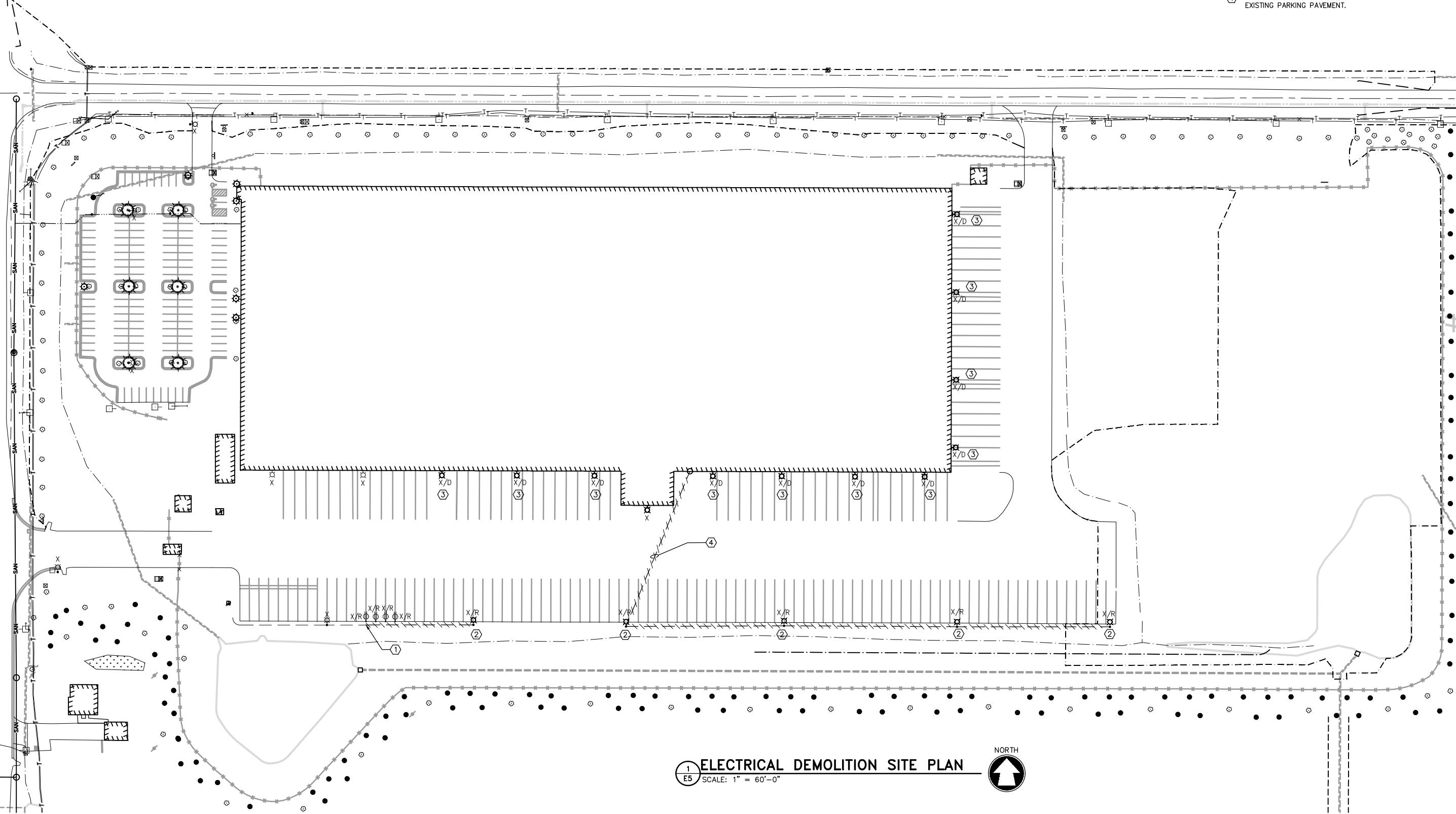
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**FREEDOM ROAD & HICKORY DRIVE RECONSTRUCTION
NESTLE USA, VILLAGE OF LITTLE CHUTE, WI
ELECTRICAL DEMOLITION SITE PLAN**

DESIGNED JAF	DRAWN GYV
PROJECT NO. N0940 9-20-00535-A	DATE AUGUST 2020
SHEET NO.	

E5

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2
E6 IMAGE "A"
NOT TO SCALE

E6 NOT TO SCALE

RELOCATE POST AND RECEPTACLE TO NEW LOCATION

REMOVE ASSOC
BRANCH CIRCUIT
CONDUIT/WIRING

KEYED NOTE

- ① INTERCEPT EXISTING H1-1, 3 BRANCH CIRCUIT, REFER TO DETAIL 1/E12.
- ② INTERCEPT EXISTING H2-1, 3 BRANCH CIRCUIT INSIDE BUILDING AND ROUTE OUT TO RELOCATED FIXTURE.
- ③ CONNECT TO EXISTING BRANCH CIRCUIT THAT FED DEMOLISHED FIXTURE.
- ④ REMOVE (2) 20A-1P CIRCUIT BREAKERS AND SALVAGE TO OWNER. PROVIDE A 20A-2P SIEMENS NGB CIRCUIT BREAKER, ROUTE VIA H2 - LIGHTING CONTACTOR, USE SPARE 2-POLE RELAY.
- ⑤ ROUTE GUARD STATION FIBER OPTIC CABLE IN 2" CONDUIT, REFER TO VOICE DATA RISER DIAGRAM FOR FURTHER INFORMATION.
- ⑥ PROVIDE (2) 2" EMPTY CONDUITS FOR GUARD STATION LOW VOLTAGE/ SECURITY. LABEL EACH END OF THE CONDUITS AND PROVIDE PULL STRING.
- ⑦ PROVIDE A 1" EMPTY CONDUIT FOR FUTURE GATE CONTROLS. STUB INTO GUARD STATION AND CONNECT TO GATE CONTROLLER. LABEL CONDUIT IN GUARD STATION AND PROVIDE A PULL STRING.
- ⑧ ROUTE (4) 20A-1P BRANCH CIRCUITS TO PANEL L4 IN IPS-H4. PROVIDE 1" C. #12, #12G FOR EACH CIRCUIT.
- ⑨ SUGGESTED ROUTE FOR FEEDER FOR IPS-H8, REFER TO ELECTRICAL RISER DIAGRAM ON SHEET E9 FOR FURTHER INFORMATION.
- ⑩ HAND HOLE, HUBBELL #PG2424BA24 (BOX); #PG2424EA12

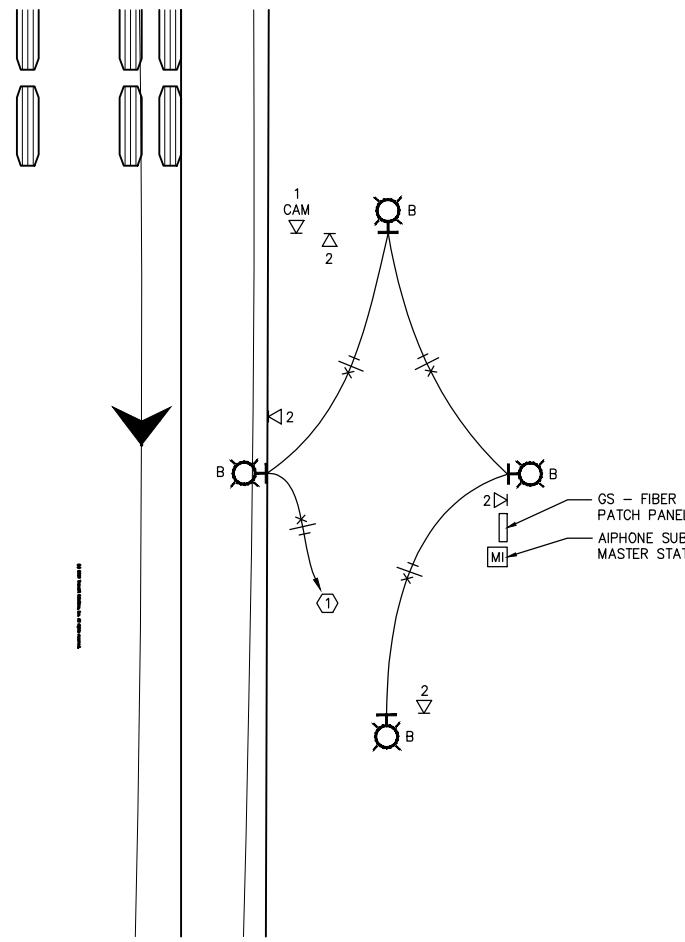
XTENSION); #PG2424CA0017 (COVER).

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**ELECTRICAL
ENLARGED GUARD STATION PLAN**

KEYED NOTE

① PROVIDE A 20A-1P BRANCH CIRCUIT IN GUARD STATION PANEL. COORDINATE WITH PRE-FAB MANUFACTURER AND GENERAL CONTRACTOR.



FREEDOM ROAD & HICKORY DRIVE RECONSTRUCTION

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EQUIPMENT SCHEDULE

ID	LOCATION	LOAD												POWER		CONTROLS			LOCAL DISCONNECT								
		1 HP	1 A	1 KVA	2 KVA	3 KVA	4 KVA	5 KVA	6 KVA	7 KVA	8 KVA	CONNECTED LOAD KVA	MOCP	VOLTS	PHASE	PANEL	BRANCH CIRCUIT SIZE	FURN BY	INST. BY	TYPE	FURN BY	INST. BY	TYPE	SWITCH AMPS	FUSE AMPS	NOTES	
TAG	ROOM / AREA	1 *1.25	1	1	1	2	3	4	5	6	7	8															
GATE	EXTERIOR	1	2.1		1.01									480.0	3	H8	20	DIV 11	DIV 11								

LOCAL DISCONNECT LEGEND:

3FSW: NEMA 3R FUSED DISCONNECT SWITCH

NOTES:

TRANSFORMER SCHEDULE

CALLOUT	KVA	K-RATED	PRIMARY VOLTS	SECONDARY VOLTS	MOUNTING	GROUNDING ELECTRODE	ENCLOSURE	LOAD KVA	LOAD AMPS	NOTES
T-L8	45	NO	480V 3PH 3W	120/208V 3PH 4W	INTEGRAL IPS	3/4" C... 1#4	NEMA 3R	27.45	76.2	1

NOTES:

1. LOCATED IN SIEMENS INTEGRATED POWER SYSTEM IPS-H8.

SERVICE CALCULATION							
	Existing Load (kW)	New Load (kW)	Total Load (kW)	Revised Load (A)	Capacity	Load %	Notes
IPS-H8	79.9	17.22	97.12	116.544	400	29%	
MSB1	1341.2	19.22	1360.42	1632.504	2000	82%	1

NOTES:

1. CIRCUIT BREAKER IN UPSTREAM SWITCHBOARD PDP-2 IS 100% RATED.

FEEDER SCHEDULE						
TAG		AMP	WIRE AND CONDUIT			
3F70	70	(3) 4 AWG, (1) 8 AWG GND, IN (1) 1-1/4" C				
4F100	100	(4) 3 AWG, (1) 8 AWG GND, IN (1) 1-1/4" C				
4F175	175	(4) 2/0 AWG, (1) 6 AWG GND, IN (1) 2" C				
4F300	300	(4) 350 kcmil, (1) 4 AWG GND, IN (1) 3" C				
4F800	800	(4) 600 kcmil, (1) 1/0 AWG GND, IN EA. OF (2) 3-1/2" C				

LIGHTING CONTROL NARRATIVE					
SPACE TYPE	EXTERIOR		REMARKS		
	PHOTOCELL	TIMECLOCK	ON	OFF	
EXTERIOR AREA LIGHTING					1
GUARD STATION EXTERIOR LIGHTING	ON / OFF				2

NOTES:

1. MATCH EXISTING AREA LIGHTING CONTROL SETTINGS.
2. TRUCK ENTRANCE IS 24/7/365.

LIGHT FIXTURE SCHEDULE

TYPE	MFR.	CATALOG NUMBER	LAMP			ELECTRICAL		DRIVER	Fixture			Note
			TYPE	COLOR TEMP.	LUMENS	INPUT WATT	INPUT VOLT		TYPE	MOUNTING	DESCRIPTION	
A	VISIONAIRE	VLX-1-T3-96LC-5-5K-5-AM-BK_CLS-UPMA-S; SNTS 4S 7 25' 12BC 136 S1 BK	LED	5000K	18963	159	480V	NON DIMMING	CONCRETE BASE, REFER TO DETAIL #2 / E12	25 FOOT SQUARE STRAIGHT STEEL POLE BLACK FINISH	LIGHTING STANDARD W/ TYPE 3 OPTICS & BACK SITE CUTOFF SHIELD	
B	VISIONAIRE	MLB-2-T3-5-5K-UNV-VM-BZ-PC120	LED	5000K	6461	77.7	120-277V	NON DIMMING	WALL	EXTERIOR WALL SCONCE INTEGRAL PHOTOCELL CONTROL BRONZE FINISH	LIGHTING STANDARD W/ TYPE 2 OPTICS	
C	VISIONAIRE	VLX-1-T2-128LC-7-5K-5-AM-BK_UPMA-S; SNTS 4S 7 25' 12BC 136 S1 BK	LED	5000K	32360	285	480V	NON DIMMING	CONCRETE BASE, REFER TO DETAIL #2 / E12	25 FOOT SQUARE STRAIGHT STEEL POLE BLACK FINISH	LIGHTING STANDARD W/ TYPE 4 OPTICS	
D	VISIONAIRE	VLX-1-T4-192LC-7-5K-5-WM-BK_BAWP	LED	5000K	45061	421	480V	NON DIMMING	CONCRETE BASE, REFER TO DETAIL #2 / E12	WALL MOUNT AREA LIGHT W/ TYPE 4 OPTICS BLACK FINISH	LIGHTING STANDARD W/ TYPE 2 OPTICS	
E	VISIONAIRE	(2) VMF 7X6 96LC 7 5K 5 KM BK; RCA-2 36 2-3/8-BK; SNTS 4S 7 25' 12BC 136 T238R BK	LED	5000K	2 @ 24714	424	480V	NON DIMMING	CONCRETE BASE, REFER TO DETAIL #2 / E12	25 FOOT SQUARE STRAIGHT STEEL POLE BLACK FINISH	POLE MOUNT FIXTURE W/ DUAL FLOOD LIGHTS W/ BULLHORN BRACKET	
F	VISIONAIRE	VLX-1-T4-192LC-7-5K-5-AM-BK_UPMA-S; SNTS 5S 7 28' 12BC 136 S1 BK	LED	5000K	45061	421	480V	NON DIMMING	CONCRETE BASE, REFER TO DETAIL #2 / E12	28 FOOT SQUARE STRAIGHT STEEL POLE BLACK FINISH	LIGHTING STANDARD W/ TYPE 4 OPTICS	
G	VISIONAIRE	VLX-1-T2-128LC-5-5K-5-AM-BK_UPMA-S; SNTS 4S 7 25' 12BC 136 S1	LED	5000K	25950	215	480V	NON DIMMING	CONCRETE BASE, REFER TO DETAIL #2 / E12	25 FOOT SQUARE STRAIGHT STEEL POLE BLACK FINISH	LIGHTING STANDARD W/ TYPE 2 OPTICS	

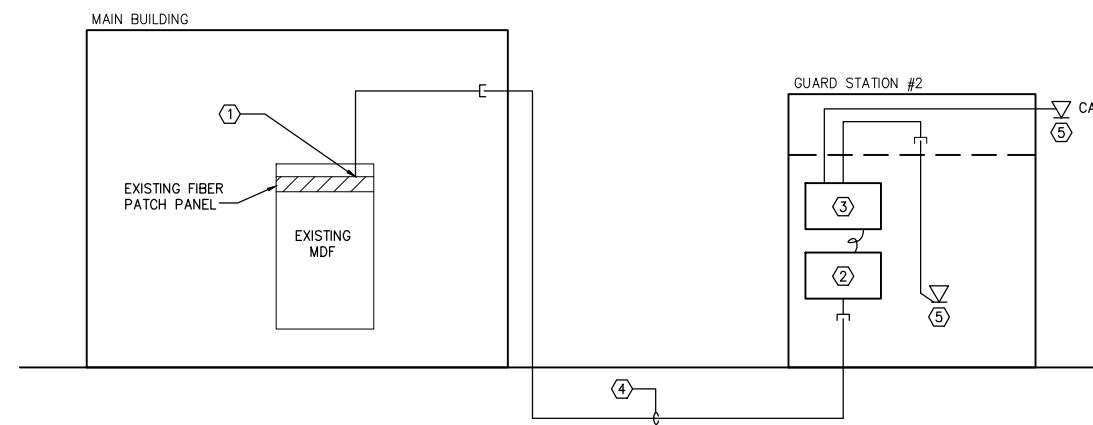
FREEDOM ROAD & HICKORY DRIVE RECONSTRUCTION
NESTLE USA, VILLAGE OF LITTLE CHUTE, WI

ELECTRICAL SCHEDULES

DESIGNED
NAV
DRAWN
KJB
PROJECT NO.
N0940 9-20-00535-A
DATE
AUGUST 2020
SHEET NO.
E10McMAHON ASSOCIATES, INC.
McMAHON ASSOCIATES, INC.
1445 McMAHON DRIVE, NEENAH, WI 54956
Mailing: P.O. BOX 14200, FAX 920/751/4284 MCGRRE.COM

BRANCH CIRCUIT WIRING SCHEDULE

OCPD AMPS	TAG (NOTE 2)	1P, 2W+GND, OR 2P, 2W+GND	2P, 3W+GND, OR 3P, 3W+GND	3P, 4W+GND	NOTES
		2P, 2W+GND	3P, 3W+GND	3P, 4W+GND	
15	BxW#12G	(2) #12, (1) #12 GND, (1) 3/4" C	(3) #12, (1) #12 GND, (1) 3/4" C	(4) #12, (1) #12 GND, (1) 3/4" C	
20	BxW#12G	(2) #12, (1) #12 GND, (1) 3/4" C	(3) #12, (1) #12 GND, (1) 3/4" C	(4) #12, (1) #12 GND, (1) 3/4" C	
25	BxW#10G	(2) #10, (1) #10 GND, (1) 3/4" C	(3) #10, (1) #10 GND, (1) 3/4" C		



1 VOICE DATA RISER DIAGRAM
E11 NOT TO SCALE

NOTES:

- ① PROVIDE AN OS2 LC CONNECTOR MODULAR PATCH PANEL. EITHER INSTALL IN EXISTING MODULAR PATCH PANEL OR PROVIDE NEW PATCH PANEL. PROVIDE A 1000 BASE-LX SFP TRANSCEIVER AT BOTH ENDS OF THE FIBER CABLES.
- ② PROVIDE A WALL MOUNT OS2 LC CONNECTOR PATCH PANEL. VERIFY LOCATION WITH PRE-FAB UNIT MANUFACTURER AND GENERAL CONTRACTOR.
- ③ NETWORK SWITCH BY OTHERS.
- ④ PROVIDE 6-STRAND OS2 SINGLE MODE FIBER TYPE OFCP INDOOR/OUTDOOR WITH INTERLOCKED ALUMINUM ARMOR AND SUITABLE FOR DIRECT BURIAL. REFER TO KEYED NOTE #5 ON SHEET E6 FOR FURTHER INFORMATION.
- ⑤ REFER TO PLANS FOR DATA OUTLET LOCATIONS. COORDINATE LOCATIONS AND REQUIREMENTS WITH PRE-FAB MANUFACTURER AND GENERAL CONTRACTOR.

McMAHON ENGINEERS ARCHITECTS
McMAHON ASSOCIATES, INC.
1445 McMAHON ON DRAVE NEENAH, WI 54956
Mailing P.O. BOX 1025 NEENAH, WI 54957-1025

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REVISION

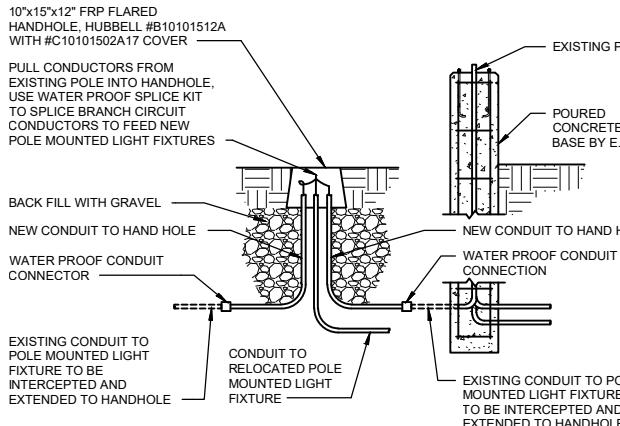
STRUCTION, WI

**HICKORY DRIVE RECONSTRUCTION
VILLAGE OF LITTLE CHUTE
E DATA RISER DIAGRAM**

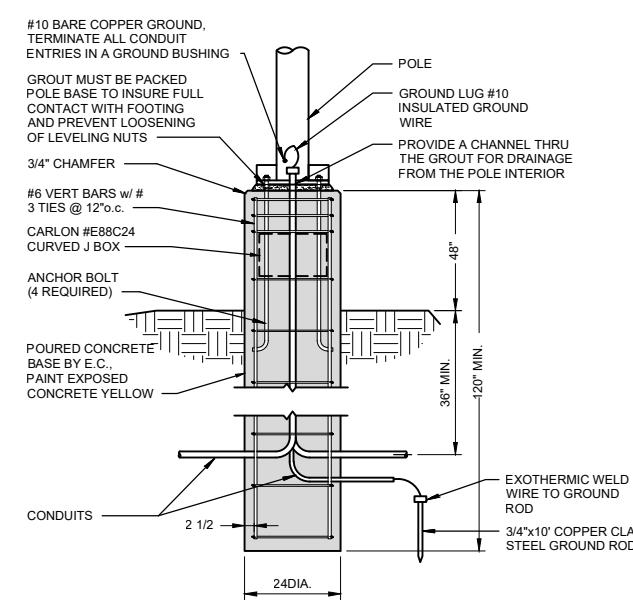
**FREEDOM ROAD &
NESTLE USA,
voic**

DESIGNED	DRAWN
JAF	GYV
PROJECT NO.	
N0940 9-20-00535	
DATE	

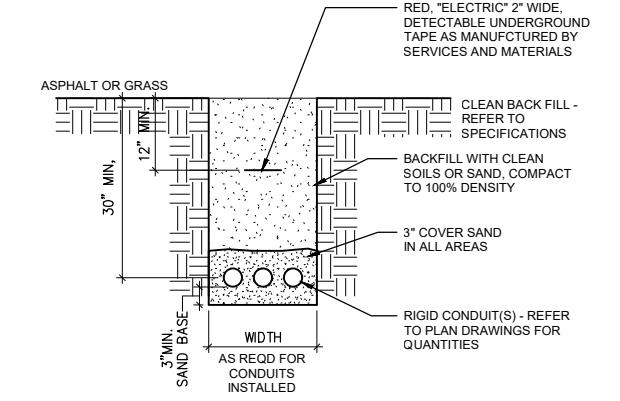
DATE
AUGUST 2020
SHEET NO.
E11



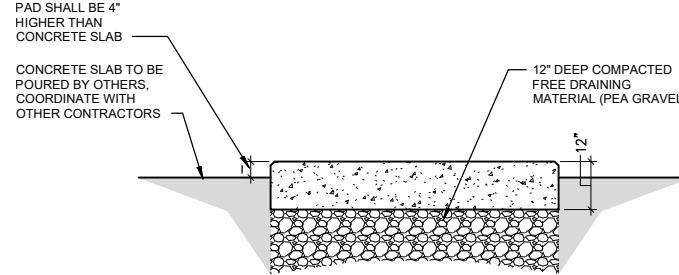
1 HAND HOLE DETAIL
E12 NOT TO SCALE



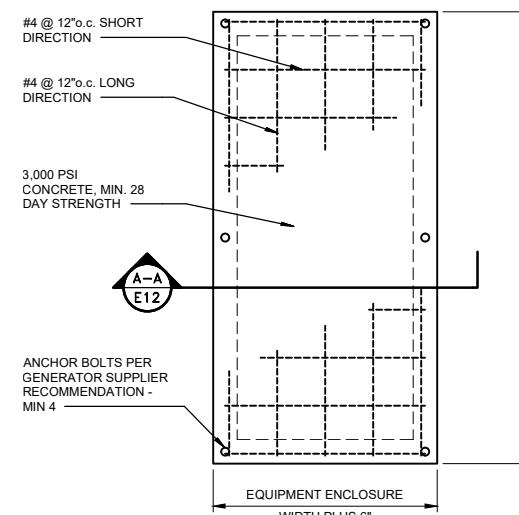
2 POLE BASE DETAIL
E12 NOT TO SCALE



3 TYPICAL CONDUIT TRENCH DETAIL
E12 NOT TO SCALE



A-A EQUIPMENT PAD - SECTION A-A
E12 SCALE: 1/2" = 1'-0"



4 EQUIPMENT PAD - PLAN VIEW
E12 NOT TO SCALE

FREEDOM ROAD & HICKORY DRIVE RECONSTRUCTION
NESTLE USA, VILLAGE OF LITTLE CHUTE, WI
ELECTRICAL DETAILS

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PROJECT NO.			
DATE			
SHEET NO.			

E12

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Village of Little Chute
Engineering Department

REQUEST FOR BOARD'S CONSIDERATION

ITEM DESCRIPTION:	Pine Street Parking Lot Alternatives
REPORT PREPARED BY:	Christopher L. Murawski, P.E.
REPORT DATE:	September 10, 2020
ADMINISTRATOR'S REVIEW / COMMENTS:	
No additional comments to this report _____ See additional comments attached _____	
<p>EXPLANATION: Village staff have been working on two preliminary layouts for the Proposed Pine Street Parking Lot configuration.</p> <p>The proposed improvements is considered a redevelopment project and will require additional storm water management improvements for water quality. However, these requirements are less restrictive than for new development and can most likely be provided in the green space area provided. It is most likely that a bio-swale will accommodate the needs of this project and not a pond with a normal water surface.</p> <p>Alternate 1 – an attached exhibit is providing for a pedestrian mall to be created between the two existing buildings while providing pedestrian access to Main Street for the proposed parking lot. Although vehicle access to Main Street will be removed, public access to the parking area would remain from Grand Avenue and Vandenbroek Street. The vacation of Pine Street further to the south provides an excellent opportunity to provide additional parking for the downtown area while also allowing for additional open space for pedestrians and other special event activities.</p> <p>Alternate 2- is provided to show that vehicle access from Main Street can still be provided with 11-ft. sidewalks on both sides of a 15-ft wide one way street. This layout could still accomplish a pedestrian mall atmosphere by blocking off vehicle access from Main Street during special events. Removable decorative chains or fencing could be installed when vehicle access is not desired.</p>	
<p>RECOMMENDATION: These alternatives are being provided for discussion purposes. Village staff is seeking direction from the planning commission and the Village Board as to their opinion on how to best utilize this space. Other options for discussion is also open and is not limited to the two alternatives provided.</p>	

1851 EAST ELM DRIVE CONDOMINIUM

AREA CALCULATIONS

UNIT 1 = 2,500 S.F.
 LIMITED COMMON ELEMENT UNIT 1 = 15,741 S.F.
 UNIT 2=7,200 S.F.
 LIMITED COMMON ELEMENT UNIT 2 = 15,277 S.F.
 COMMON ELEMENT = 7,283 S.F.
 TOTAL AREA = 48,000 S.F.

NOTES:

A SITE PLAN UNDER SECTION 44-464 IS REQUIRED FOR ALL INDUSTRIAL DISTRICT DEVELOPMENT (PROPOSED UNIT 2)

THIS CONDOMINIUM PLAT IS SUBJECT TO A CONDOMINIUM DECLARATION RECORDED BY SEPARATE INSTRUMENT.

SURVEYOR'S CERTIFICATE:
 I, DAVID M. SCHMALZ, PROFESSIONAL WISCONSIN LAND SURVEYOR NO. 1284, DO HEREBY CERTIFY THAT THIS PLAT IS A CORRECT REPRESENTATION OF THE CONDOMINIUM DESCRIBED AND THE IDENTIFICATION AND LOCATION OF EACH UNIT AND THE COMMON ELEMENTS CAN BE DETERMINED FROM THE PLAT.

DAVID M. SCHMALZ-PLS #1284 DATED

LEGEND

- - 3/4" x 24" ROUND IRON REBAR WEIGHING 1.5 lbs./lineal ft. SET
- - 3/4" ROUND STEEL REBAR FOUND
- CERTIFIED LAND CORNER OUTAGAMIE COUNTY
- () - RECORDED BEARING AND/OR DISTANCE
- S.F. - SQUARE FEET
- * - EXISTING FENCE

Condominium Description: All of Lot 38 Industrial Park Plat located in the Northwest 1/4 of the Southwest 1/4 of Section 14, Township 21 North, Range 18 East, Village of Little Chute, Outagamie County, Wisconsin, containing 48,000 square feet (1.02 acres) of land

FOR: -PETER VANDEN HEUVEL CONDOMINIUM ADDRESS:
 -ROBERT VANDEN HEUVEL 1851 EAST ELM DRIVE
 -1921 W. MAIN ST. LITTLE CHUTE, WISCONSIN
 -LITTLE CHUTE, WI 54911

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 ENGINEERS / ARCHITECTS

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