Villag	e of
Geri	nantown

Fee	e must :	accompany application
		Minor Addition
$\boxtimes$	\$1,240 (	Construction <10,000 SF
	\$2,095	Construction 10,000 SF to 50,000
		Industrial Construction >50,000 S
	\$3,460	Commercial Construction >50,000
	\$200	Plan Commission Consultation
	\$125	Fire Department Plan Review
DAID		DATE
PAIL	'	DATE

#### SITE PLAN REVIEW APPLICATION

Please read and complete	this application carefully.	All applications must be	signeo and o
APPLICANT OR AGENT		PROPERTY OWNER	
Crew Carwash		Nomies Investments LLC	
11700 Exit 5 Pkwy		N96 W17500 County Line Rd	
Fishers, IN 46037		Germantown, WI 53022	
Phone ( 317 ) 572-2408		Phone ( )	
E-Mail katherine.rayner@crev	vcarwash.com	E-Mall	
	Road		
N96 W17500 County Line F NEIGHBORING USES - S	pecify name and type of use, e.g	, Enviro Tech - Industrial, Smith - F	West
NEIGHBORING USES - s North Super 8-Business/Hotel	pecify name and type of use, e.g South ROW		
N96 W17500 County Line F NEIGHBORING USES - S North Super 8-Business/Hotel READ AND INITIAL THE I am aware of the V I understand that all before building perm	south ROW  FOLLOWING: Illiage of Germantown ordinal new development is subject its will be issued.	Easi Landmark Credit Union-	West McDonald's- Business/Res nost new constituees that must to

## SITE PLAN REVIEW CHECKLIST

Pursuant to Section 17.43 of the Municipal Code

This checklist provides a summary of requirements found in the Municipal Code. It is intended purely as a guide for developers and should not substitute for a full review of the Code and applicable regulations. (Revised 1/02)

#### **GENERAL INFORMATION**

- X. Provide Completed Checklist with submittal
- Names and addresses of owner/developer/designer
- IX: Graphic scale, north arrow
- ▼ Location sketch
- X Size of site (gross and net acreage)
- X Existing zoning
- Adjacent zoning and uses
- N/A Number of residents (subdivisions)
  - Number of employees

#### **EXISTING SITE INFORMATION**

- Dimensions of site and lot lines (pipes found, pipes set, monuments)
- x Existing grades (2' contours minimum)
- X Adjacent property grades (within 10' minimum of property lines)
- Adjacent structures (within 20' minimum of property lines)
- IX Drainage systems and structures
- IX Natural features (woods, streams, lakes, ponds, outcroppings)
- N/AF: Welland boundaries (provide date of staking)
- N/A/ Floodplain elevation and boundaries
  - IX: Environmental concerns (underground tanks, etc)
  - IX Roads, curbs, parking lots, pavement areas
  - X. Structures (location, size)
  - Rights-of-Way (existing/ultimate)
  - 区 Easements (drainage, utility)
  - (X Existing utilities (senitary, water, electric, gas, telephone)
  - IX Benchmark locations and elevations
  - K Location of fences, wells, borings, etc.

#### ARCHITECTURAL PLANS

- KI Existing building location
- ▼ Existing building elevations/materials
- Proposed use (use list from Section 17.45)
- Statement of design Intent (narrative)
- Proposed floor plans (dimension)
- Square footage (total and individual rooms/stores)
- ম' Proposed elevations (dimension)
- Proposed building height

- (X) Proposed materials and colors (material sample board required for new construction)
- Proposed signage (elevations, color, square footage, height, construction material, lighting)
- Details of any special features

#### PROPOSED SITE PLAN

- IX Grading and spot elevations
- K: Erosion control measures (silt fencing, hay bales, rip-rap, tracking mat, stockpile locations)
- X Stormwaler management
  - stormwater management design report
  - general drainage pattern
  - swales w/ arrows for direction of flow
  - pond design with outfalls
  - culverts (location/size)
- □ Utilities (size, invert elevations, length, slope, etc.)
  - -- sanitary
  - water
- -- slormsewer
- IX Building location (dimension)
- □ Building elevation (finished grade)
- X Location of proposed signage
- Details of outside storage (including trash receptacles)
- KI Setbacks (clearly marked and dimensioned)
- IX Vehicular entrances (dimension to centerline of nearest intersection)
- Streets (dimension and direction for one-ways)
- ▼ Curve radii
- 区 Sidewalks (dimension)
- X: Parking areas (show striping/spot elevations)
- X: Parking setback from property line
- K Loading areas (dimension)
- Lot coverage
  - Square footage total
  - Impervious surfaces total (%)
  - Green space total (%)
  - Percent permitted (over/under %)
- 区: Municipal utility connections
  - Sanitary sewer (pipe size/elevations)
  - Water (size, valve location, elevations)
  - Location of hydrants
- Easement for public water mains

#### LIGHTING PLAN

- Major improvements for context
- X Location/nature of existing fixtures
- ▼ Location of proposed fixtures
- x. Photometric report (to scale on plan)
- Manufacturers cut-sheets of all fixtures
- 区 Lighting schedule
  - key to plan
  - number/type of fixtures
  - output (wattage)

#### LANDSCAPING PLAN

- Major improvements for context (building, drives, walks)
- Proposed outdoor amenities (benches, paths, etc.)
- 区. Existing vegetation
  - -Species
  - Size
  - Approximate canopy in plan
- ∇ Vegetation to be destroyed
  - List and show location
- Proposed method of saving existing vegetation during construction
- pr. Proposed landscape features (berms, fountains)
- Irrigation/watering systems (locate outlets)
- R Plant lists or schedules
  - Keyed to plan
  - Number of each species
  - Size when planted (caliper)
- X Installation details/staking

## MODEL SUBMITTAL INCLUDES THE FOLLOWING PLANS:

- 1. Cover / Tille Page
- 2. Existing Conditions Survey
- 3. General Site Plan
- Grading, Paving & Erosion Control Plan
- 5. Utility Plan
- Site Details (curbing, catch basins, detention ponds, pavement, erosion control and sign details)
- Landscape Plan
- Landscape details (planting schedule, berming cross-sections, method of installation)
- Lighting Plan
- 10. Floor Plan
- 11. Exterior Bullding Elevations
- 12 Building Material Sample Board

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

If any public improvements or work is to be done in the Public Right-of-Way, the Village will require that a Developer's Agreement be submitted and approved by the Village Board.



Community Development Department Planning & Zoning
Jeff Retzlaff, Village Planner
N112 W17001 Mequon Road, P.O. Box 337
Germantown, WI 53022-0337
(262) 250-4735

#### SITE PLAN REVIEW

Pursuant to Section 17.43 of the Municipal Code

The Village of Germantown requires developers of commercial and industrial property to appear before the Plan Commission prior to obtaining building permits. Some residential developments may also require site plan approval. Site plan approval is not required to construction in Germantown's single- and two-family districts or for interior remodeling in other districts. The site plan review process is summarized below.

Initial Consultation: Recommended but not mandatory

<u>Submission to Plan Commission</u>: See Plan Commission Meeting Dates & Deadlines (approximately 8 weeks prior to meeting).

Internal Review by Planning. Engineering. Fire and Police Departments. Modifications to plans may be required after review.

<u>Plan Commission Meeting</u>: The Village recommends the applicant attend the meeting.

A decision is rendered. Technical corrections may need to be completed before a Building permit is issued

The purpose of site plan review is two-fold: first, the Plan Commission serves as the architectural review body for the Village. By promoting high-quality, visually compatible design, the Plan Commission can assure Village residents that new development will fit in with the character of the rest of the Village. The Site Plan Review process also ensures the long-term provision of adequate public facilities. This includes assessing stormwater management, water and sewer facilities and maintaining acceptable impacts on the environment and public safety. The goal is a win-win situation for both the developer and the Village.

#### **NEW SUBMITTAL REQUIREMENT**

As of September 1, 2015, all applications submitted to the department requiring Plan Commission review and approval shall include a complete digital copy (in .PDF format) of all applications and supporting documents (including all plans, reports, surveys, etc.) that is either imprinted on a CD submitted at the time of the application, or sent via e-mail attachment within 3 days after the date of application.

#### **GETTING ON THE SCHEDULE**

You must submit the following:

- o SITE PLAN at a scale no smaller than 1" = 30'
- o ARCHITECTURAL PLANS AND ELEVATIONS
- LANDSCAPE PLAN
- LIGHTING PLAN
- DIGITAL COPY OF ENTIRE SUBMITTAL

All submissions must be complete and received in the Planning Department by 4:00 PM on the deadline date.

#### **HOW LONG WILL IT TAKE?**

Typically, the site plan review process takes about three to four weeks, depending on how many applications are submitted for a particular date. While every attempt is made to place a complete application on the next agenda, it may not always be possible. In addition, if the Plan Commission requires modifications beyond simple technical corrections, the process may take longer. The applicant should allow ample time for the approval process, in case resubmissions are necessary.

#### **HOW MUCH WILL IT COST?**

The cost of Site Plan Review depends on the scope of the project. Minor approvals cost \$700. New construction is charged by size — a project up to 10,000 square feet is charged \$1,240, projects 10,000 square feet to 50,000 square feet are charged \$2,095, industrial projects greater than 50,000 square feet cost \$3,460, and commercial construction greater than 50,000 square feet cost \$3,460. Also a Fire Department Plan Review Fee cost \$125.

#### **PRELIMINARY CONSULTATION?**

The Village encourages applicants to schedule a brief meeting with Village staff to go over their applications and get feedback, especially if the applicant is new to the Germantown development process. This meeting is not mandatory, however, staff can help save time and frustration by guiding the applicant through the necessary approvals a project will require. An appointment should be scheduled before coming in.

#### **CAN I APPEAL A DECISION?**

An applicant may appeal a decision of the Plan Commission or VIIIage staff within 30 days of being notified of the denial. All appeals must be made to the Board of Zoning Appeals. Typically, the submission deadline for the Board of Zoning Appeals is one month prior to the next scheduled meeting. Applications to the Board of Zoning Appeals must be made through the VIIIage Clerk. The application fee is \$560.

#### **HOW MANY COPIES?**

The Village requires applicants to submit two (2) full size sets of all drawlings, as well as one (1) 11"x17" reduced set. Site plans should be at a scale no smaller than 1:30 and architectural plans no smaller than 1/8"=1'-0". Cut sheets must be provided for all proposed site lighting.

An applicant may reapply for site plan approval as often as necessary, however, each "attempt" that is a substantial change to the Site Plan requires a resubmittal fee. The applicant should contact the VIIIage Planner to discuss If any fees are required.

#### WHAT IF I REVISE THE PLANS?

Any major revisions to the site, architectural, landscape or lighting plans after initial approval must be approved by the Plan Commission or building permits will not be issued. A developer should check with the Village Planner to determine whether a particular change to the approved plans constitutes a "major" revision. Generally, any fundamental change to the site layout, building size or placement, materials or primary function should be considered major revisions.

#### **CAN THE APPROVAL EXPIRE?**

Upon obtaining final approval from the Plan Commission, a project must be completed within three years, or the approval will lapse. The Plan Commission may renew the approval upon reapplication. A Certificate of Occupancy will not be granted until the approved improvements are 100% complete.

#### WHERE DO | APPLY?

All applications to the Plan Commission are submitted to the Planning Department at the Germantown Village Hall. Submissions may be made in person or by mail.

#### **PARTIAL APPROVALS?**

The Village will not accept partial submissions. All drawings must be submitted and deemed complete or the submission will not be placed on the agenda. A complete submission includes site, architectural, landscape and lighting plans. The Village reserves the right to remove a project from the Plan Commission agenda if staff feels information is lacking or missing.

#### Questions? Contact the Village Planner at:

Village of Germantown N112 W17001 Mequon Road P.O. Box 337 Germantown, WI 53022-0337 Phone: (262) 250-4735



Fe	must	acco	mpany	application
X	\$1460	Pald .		Date

## CONDITIONAL USE PERMIT APPLICATION

Pursuant to Section 17.42 of the Municipal Code

PPLICANT OR AGENT	PROPERTY OWNER
Crew Carwash	Nomies Investments LLC
11700 Exit 5 Pkwy	N96 W17500 County Line Rd
Fishers, IN 46037	Germantown, WI 53022
Phone (317) 572-2408	Phone ( )
Fax ( )	
E-Mail katherine.rayner@crewcarwash.com	
PROPERTY ADDRESS	TAX KEY NUMBER
Crew Carwash	
N96 W17500 County Line Road	334990
DESCRIPTION OF EXISTING OPERATI	ON
Briefly describe the use as it exists today, including use, size new construction, describe the current status of the property, Existing BP gas station to be demolished for co	
DESCRIPTION OF PROPOSED OPERA	
Write the name of the proposed conditional use exactly as it Self-Serve Carwash	appears in the Municipal Code
Write the name of the proposed conditional use exactly as it Self-Serve Carwash	

6	Andrew Street Control of the Control	AND BOUNDS LEGAL DESCRIPTION PAGES AS NECESSARY  See attached.	ON OF PROPERTY	- REQUIRED	
0	SUPP	ORTING DOCUMENTATION:			
	0	Site Plan and elevations for new constructions	on (can be conceptual)		
	6	Photos of existing use and/or proposed use	e operating elsewhere		
	O				
0.000	D				
8	READ X X X	I understand that the Village is under no of the applicant successfully demonstrates the the long range goals of the Village.  I will notify the Village if any aspects of the result in the revocation of the CUP.  I understand that a Conditional Use Permitmet. I understand that failure to comply will understand that Village Staff is required on the property subject of this application that a public hearing of my application will Board prior to action being taken on this a the property for the expressed purpose of installing, maintaining and removing said:	at the proposed use is I conditional use change t is valid only if the cond th any aspect of the per to post one or more sig- that indicate to nearby be held before the Villa pplication; I hereby gra- installing said sign(s) p	harmonlous with the neighborharmonlous with the neighborharmonlous with the neighborharmonlous with that fail the street from	ghborhood and lure to do so ma f the permit are ation. tage of and/or e general public and/or Village ion to enter onto
9	SIGN	ATURES - ALL APPLICATIONS MU	JST BE SIGNED B	Y OWNER!	
	Alop	2011 24 10 2 10 10 10 10 10 10 10 10 10 10 10 10 10	6	CuSigned by:	9/2024 Date



February 12, 2024

#### **Project Narrative**

Project: Crew Carwash

N96 W17500 County Line Road

Germantown, WI 53022

Crew Carwash is requesting Site Plan Review, Architectural Review, and Conditional Use Permit review and approval for a new carwash located at N96 W17500 County Line Road in the Village of Germantown. A BP gas station currently exists on the site and will be demolished as a part of the proposed project. The property is zoned B-5, Highway Business with Highway Interchange Area Overlay and the proposed self-serve carwash use requires Conditional Use Permit approval.

Founded in 1948, Crew Carwash is a family-owned business based in Indiana, currently has 45 locations, and is actively growing. Crew carwashes feature the most advanced technology available, specially formulated detergents, soft cloth, computer-controlled equipment, and special touchless hot air dryers. Crew carwashes utilize 40 percent recycled water and 60 percent fresh water due to water reclamation systems that filter, clean and re-use some of the water in the wash process. At Crew Carwash locations, used water runs directly to a unique collection system that filters the water and removes harmful sediments and oil before it reaches the local sanitary sewer. All cleaning and drying functions are contained inside the facility. The customer remains in the car riding on a conveyor belt the entire way through the tunnel and exits the facility themselves. Self-serve vacuum stations are provided for customers at no charge.

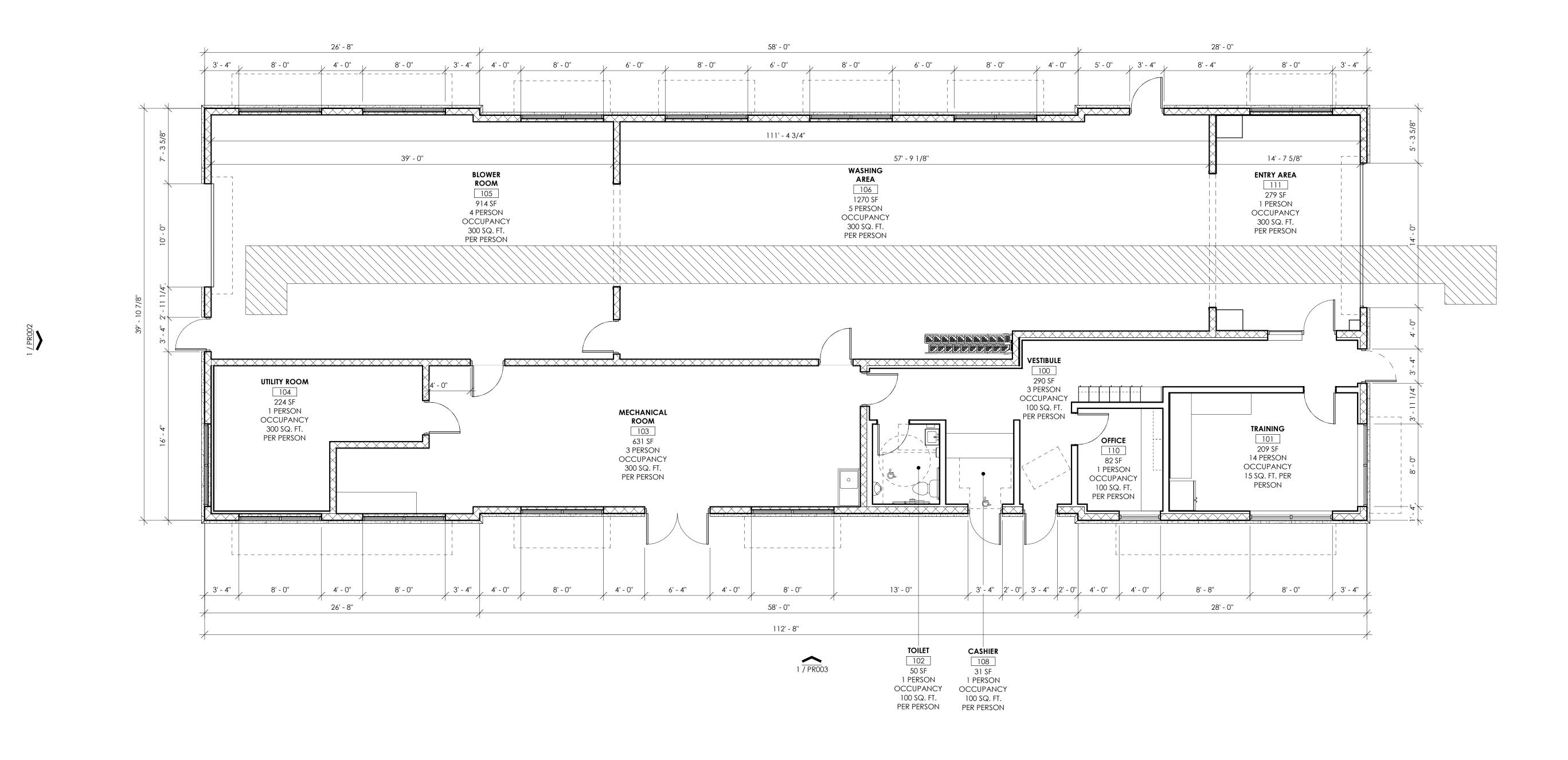
Crew invests approximately six-million dollars per facility and is a community-oriented company. Typically, each location staffs 20 to 25 highly trained and motivated team members with two (2) to five (5) team members per shift and two (2) to three (3) shifts each day operating the carwash from 7 AM to 9 PM. Once all appropriate approvals and permits are granted, the construction timeline is typically six (6) months.

The proposed project will include a proposed carwash building with vehicle queuing located to the far east of the site and vacuum parking stalls located to the east of the carwash facility. The proposed carwash will be 4,512 SF and the proposed kiosk will be 346 SF on a 1.00 acre site with approximately 0.99 acres of site disturbance. Building materials and colors are detailed in the included elevations and will consist of red ground face masonry and buff limestone with an architectural aluminum wall system tower in pewter mica. Clear anodized aluminum storefront and glazing is proposed. Overhead accent canopies above the windows will also be pewter mica in color. The waste enclosure gates will be Trex board in winchester gray, while the gates will consist of brick to match the main building structure.

Proposed drainage patterns will match the existing site drainage patterns. Stormwater will be conveyed via sheet flow to various new inlet structures that will convey stormwater to the same discharge point as the current site condition at the south end of the site. A rain garden green infrastructure BMP will be located at the southeast corner of the site to meet local stormwater management requirements.

The proposed development will fit in to this existing commercially developed area. The building and site will blend in with and enhance the character of the neighborhood. The property will be transformed into a commercial development that is aesthetically pleasing with high-quality exterior materials on the building along with landscaping designed to ensure species resiliency and complimentary style. Site lighting will be provided in a fashion that provides appropriate foot candles for safety with cut-off fixtures for minimal light trespass and directed inward toward the development. The site layout and internal circulation has been designed to provide adequate on-site customer vehicle queuing and efficient, safe circulation. The building and grounds will be well maintained. No hazards or nuisances to nearby neighbors are anticipated as a result of this project.







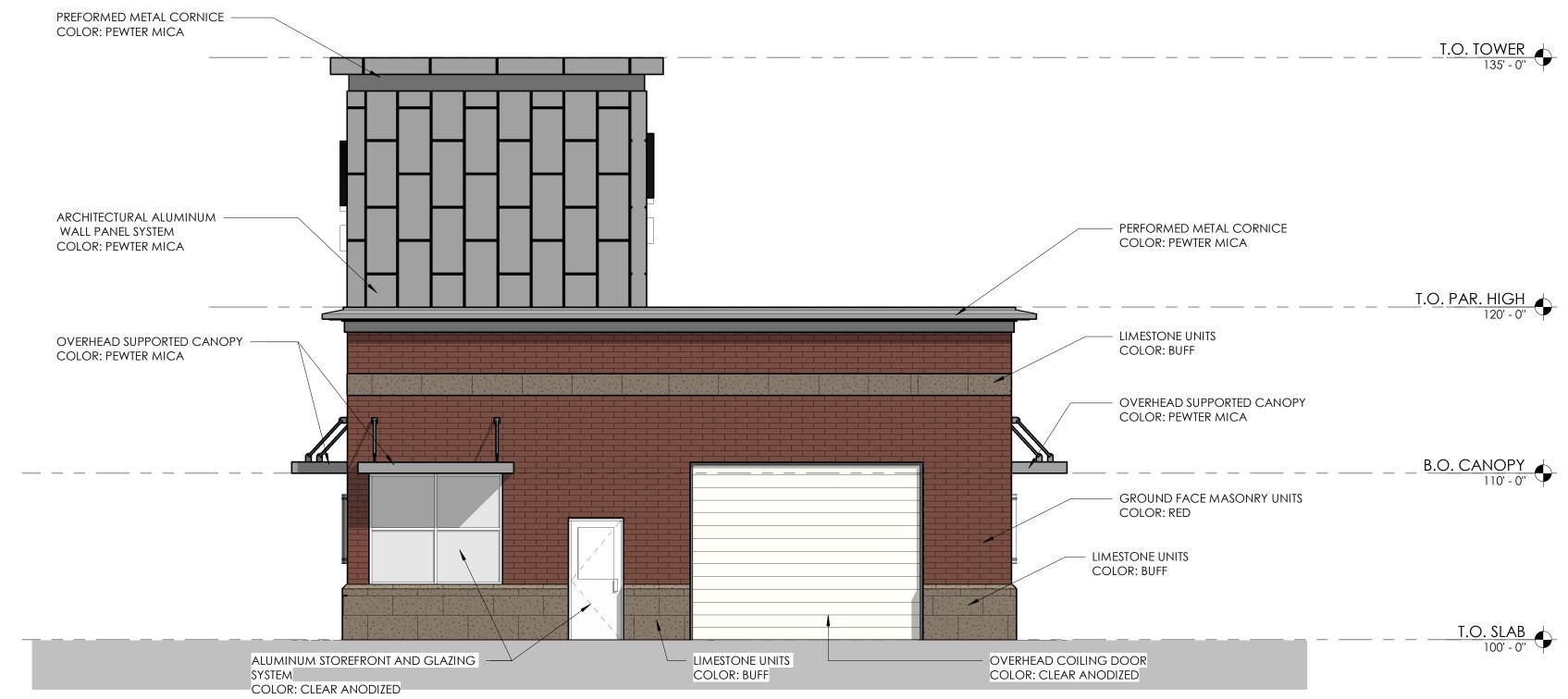
# BUILDING FLOOR PLAN

CREW CARWASH, INC N96 W17500 COUNTY LINE RD. GERMANTOWN, WI 53022

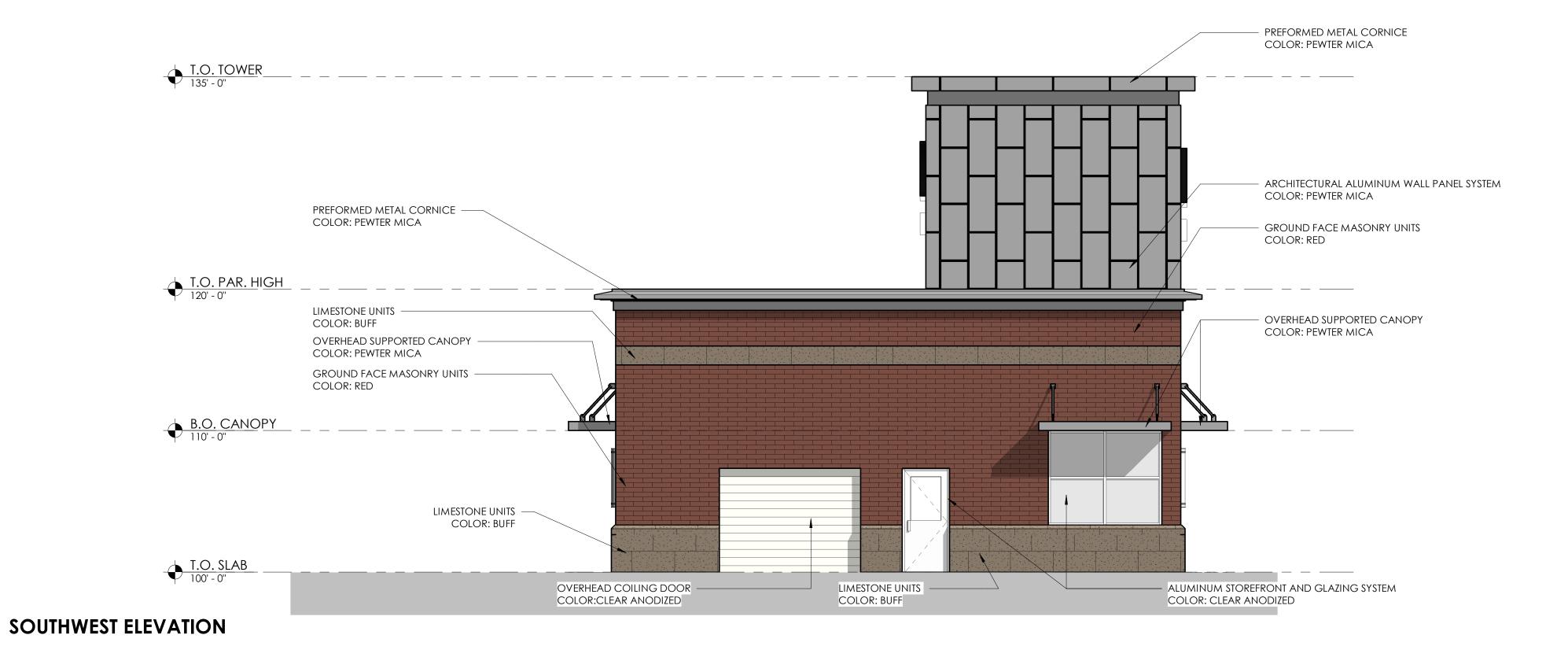


01/12/2024 PRO2024 3/16" = 1'-0"





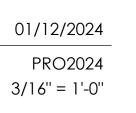
### NORTHEAST ELEVATION



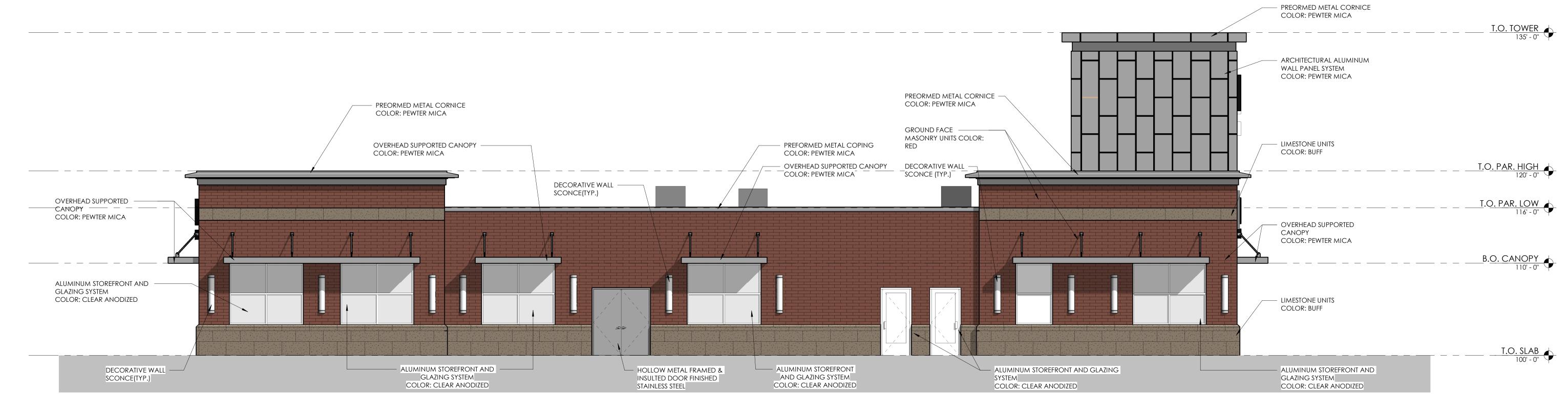


# CREW CARWASH - BUILDING ELEVATIONS

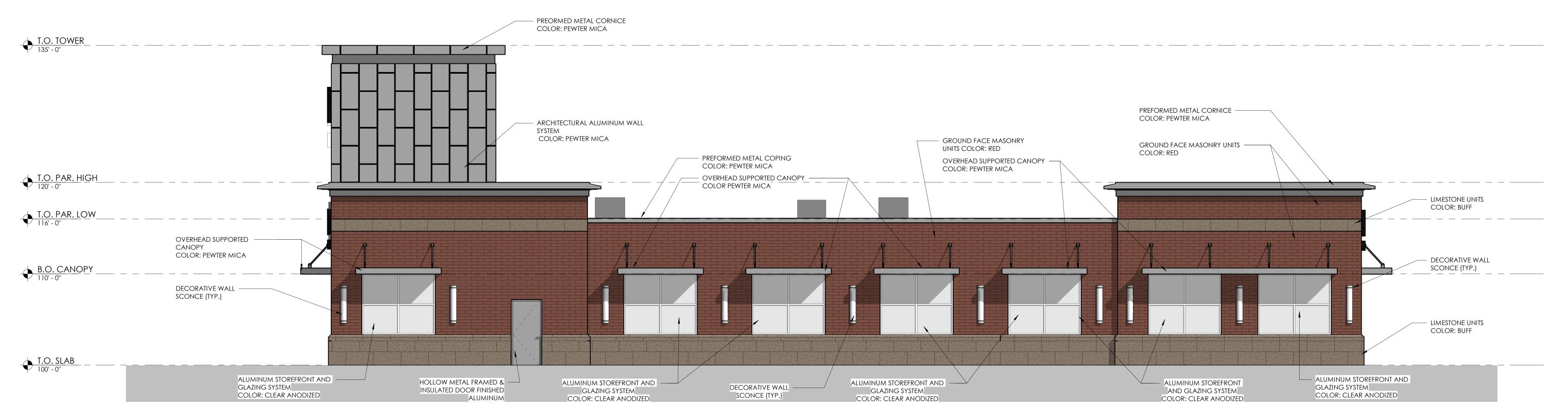
CREW CARWASH, INC N96 W17500 COUNTY LINE RD. GERMANTOWN, WI 53022







#### **SOUTHEAST ELEVATION**



## **NORTHWEST ELEVATION**



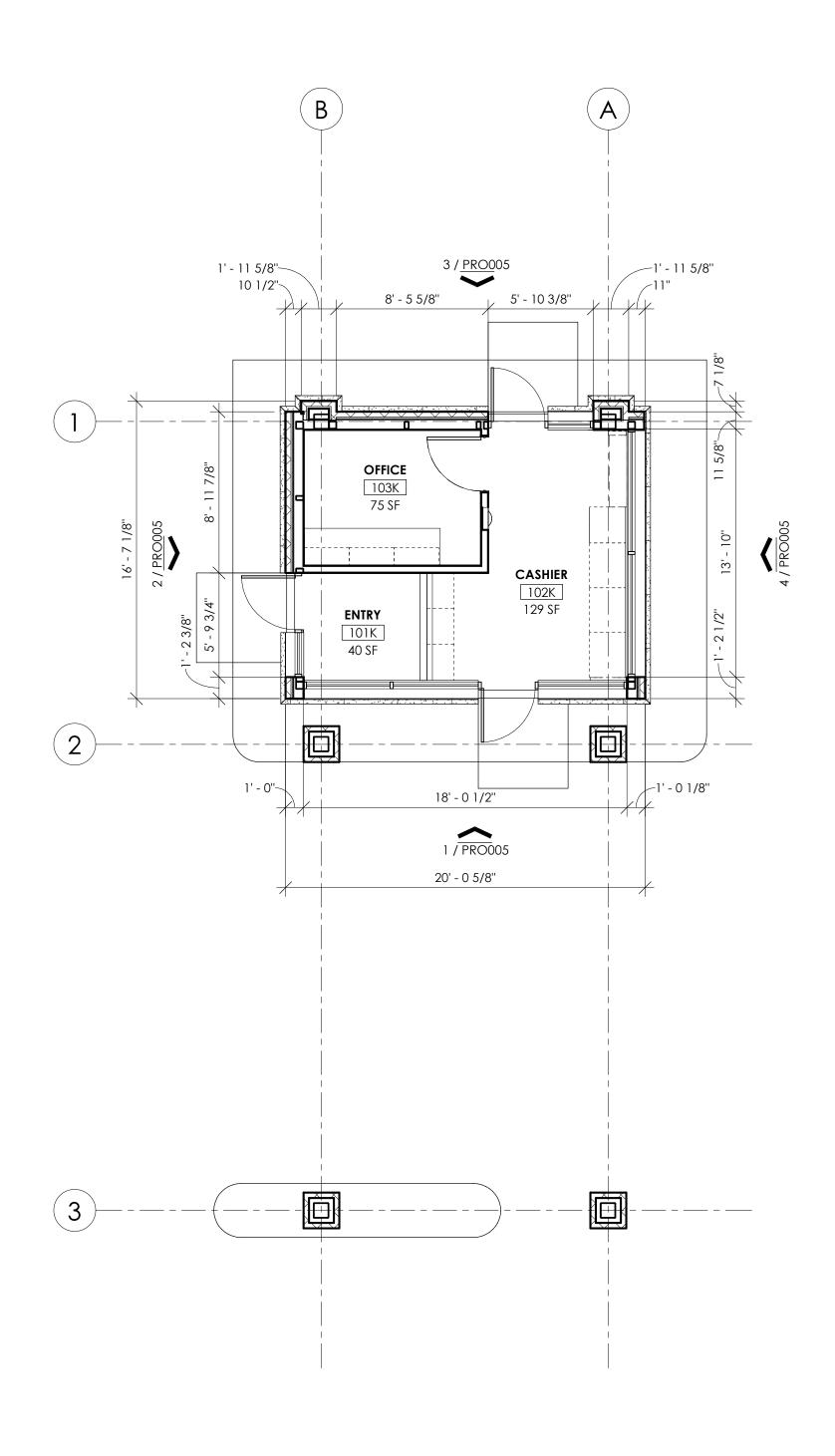
# CREW CARWASH - BUILDING ELEVATIONS

CREW CARWASH, INC N96 W17500 COUNTY LINE RD. GERMANTOWN, WI 53022



3/16" = 1'-0"

Solutions by Design Since 1937

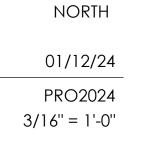




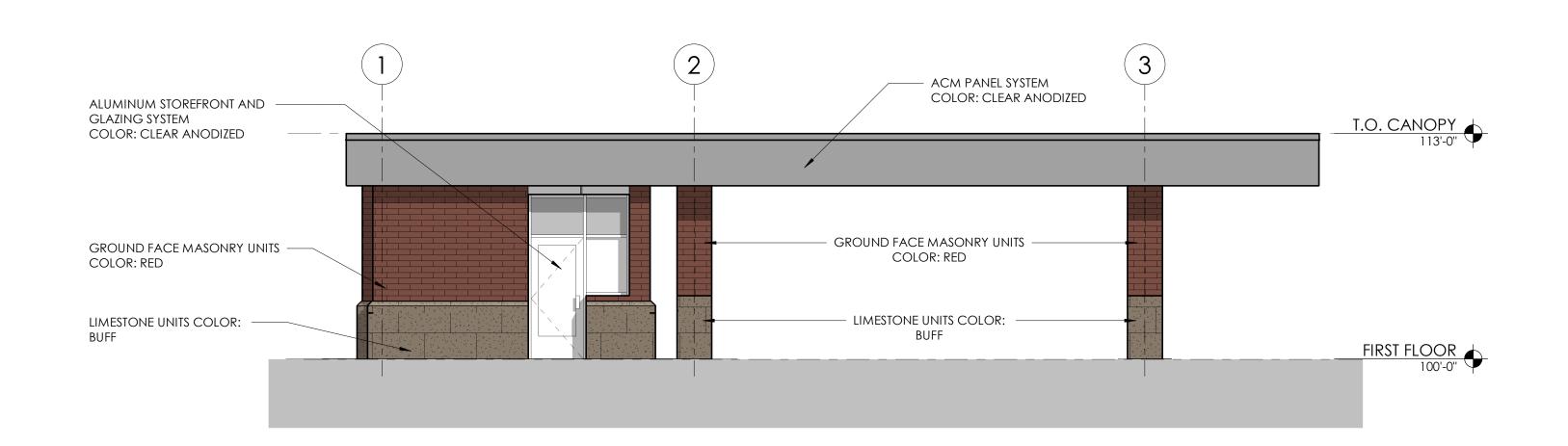
# CREW CARWASH - KIOSK FLOOR PLAN

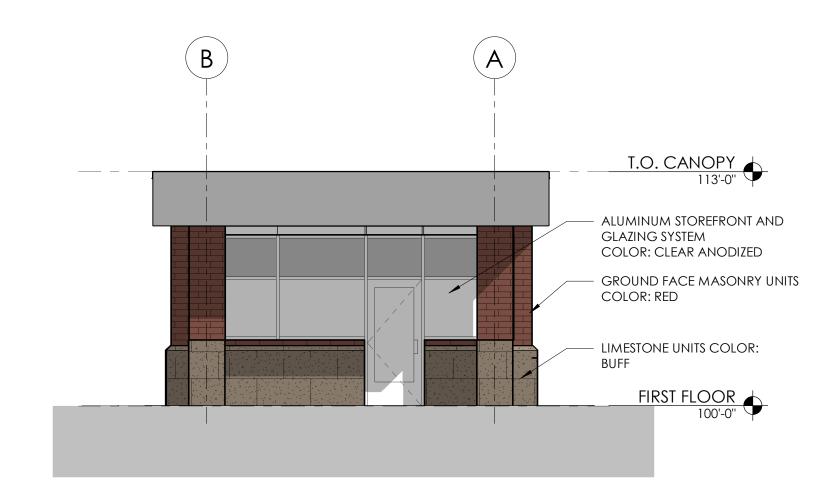
CREW CARWASH, INC N96 W17500 COUNTY LINE RD. GERMANTOWN, WI 53022











2 KIOSK - ENTRY
3/16" = 1'-0"



T.O. CANOPY 113'-0"

COLOR: CLEAR ANODIZED

LIMESTONE UNITS COLOR:

FIRST FLOOR

GROUND FACE MASONRY UNITS

GLAZING SYSTEM

COLOR: RED

- ACM PANEL SYSTEM COLOR: CLEAR ANODIZED ALUMINUM STOREFRONT AND ———— GLAZING SYSTEM T.O. CANOPY 113'-0" COLOR: CLEAR ANODIZED GROUND FACE MASONRY UNITS - COLOR: RED LIMESTONE UNITS COLOR: FIRST FLOOR

**4** KIOSK - EXIT 3/16" = 1'-0"

KIOSK - NORTHWEST ELEVATION

KIOSK - SOUTHEAST ELEVATION



# CREW CARWASH - KIOSK ELEVATIONS

CREW CARWASH, INC N96 W17500 COUNTY LINE RD. GERMANTOWN, WI 53022

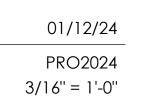
ACM PANEL SYSTEM

COLOR: CLEAR ANODIZED

GROUND FACE MASONRY UNITS

COLOR: RED

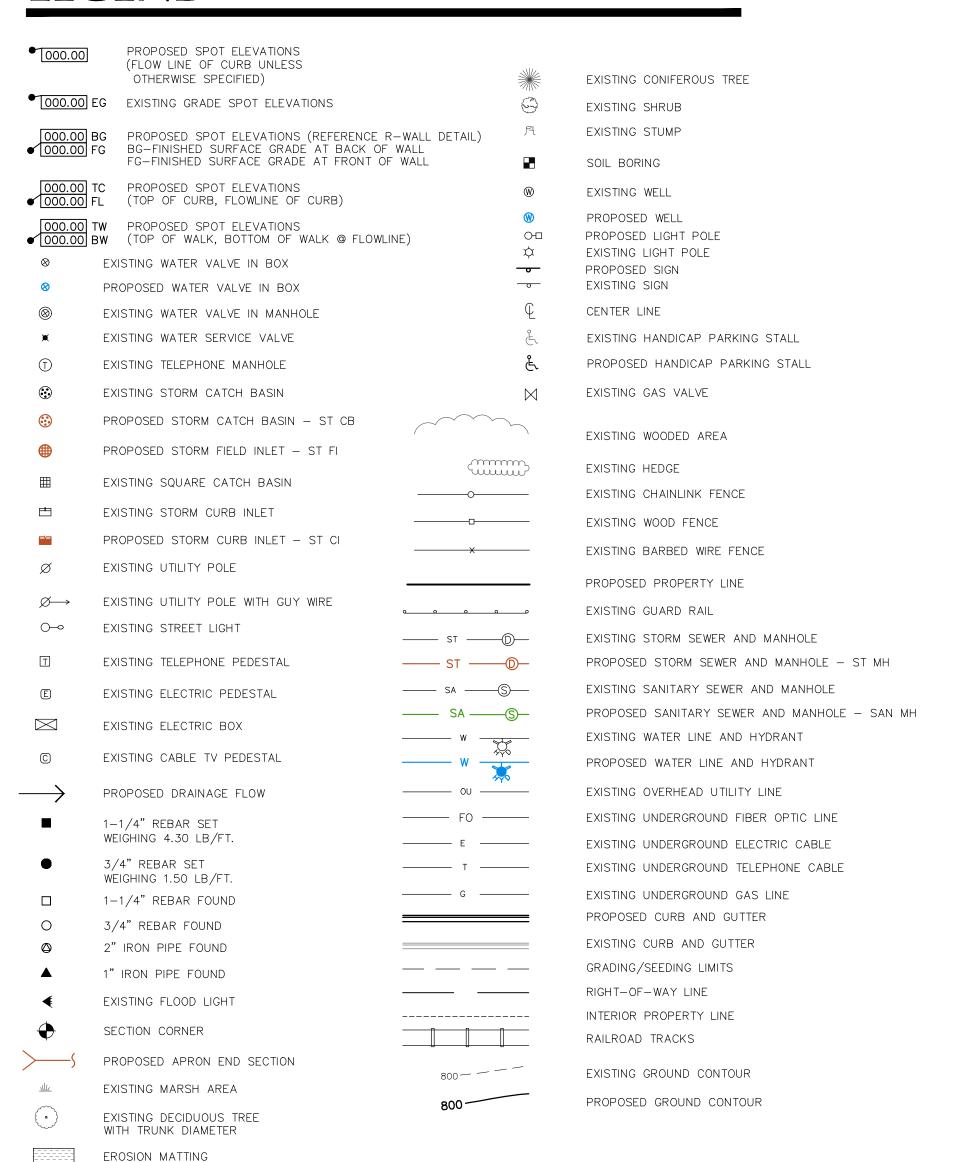
LIMESTONE UNITS COLOR:





# PROPOSED CAR WASH FOR: CREW CARWASH

## GERMANTOWN, WISCONSIN **LEGEND**



## PLAN SPECIFICATIONS (BASED ON CSI FORMAT)

#### **DIVISION 31 EARTH WORK**

#### 31 10 00 SITE CLEARING (DEMOLITION)

- A CONTRACTOR SHALL CALL DIGGER'S HOT LINE AND CONDUCT A PRIVATE LITHITY LOCATE AS REQUIRED TO ENSURE THAT ALL LITHITIES HAVE REEN LOCATED BEFORE STARTING SITE DEMOLITION. DESIGN ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN PLAN AND FIELD CONDITIONS PRIOR TO CONSTRUCTION.
- B. DEMOLITION PLAN IS AN OVERVIEW OF DEMOLITION TO TAKE PLACE ON SITE. CONTRACTOR TO FIELD VERIFY EXISTING SITE CONDITIONS PRIOR TO BIDDING. CONTRACTOR SHALL REMOVE, REPLACE, OR DEMOLISH ALL ITEMS AS NEEDED DURING CONSTRUCTION. C. CONTRACTOR TO PROTECT EXISTING IMPROVEMENTS THAT ARE SCHEDULED TO REMAIN. ANY DAMAGE TO EXISTING FACILITIES SHALL BE
- REPLACED AT CONTRACTORS EXPENSE. D. ALL CONCRETE NOTED TO BE REMOVED SHALL BE REMOVED TO THE NEAREST CONTROL JOINT.

#### 31 20 00 EARTH MOVING

- A. CONTRACTOR SHALL CALL DIGGER'S HOT LINE AND CONDUCT A PRIVATE UTILITY LOCATE AS REQUIRED TO ENSURE THAT ALL UTILITIES HAVE BEEN LOCATED BEFORE STARTING EXCAVATION. DESIGN ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN PLAN AND FIELD CONDITIONS PRIOR TO CONSTRUCTION.
- B. PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT FOR ALL EXCAVATION, GRADING, FILL AND BACKFILL WORK AS REQUIRED TO COMPLETE THE GENERAL CONSTRUCTION WORK. ALL EXCAVATION AND BACKFILL FOR ELECTRICALS AND MECHANICALS ARE THE RESPONSIBILITY OF THE RESPECTIVE CONTRACTOR UNLESS OTHERWISE SPECIFIED IN THE BID DOCUMENTS. C. ALL ORGANIC TOPSOIL INSIDE THE BUILDING AREA, UNDER PAVED AREAS, AND AT SITE FILL AREAS SHALL BE REMOVED. PROOF ROLL SUBGRADES BEFORE PLACING FILL WITH HEAVY PNEUMATIC-TIRED EQUIPMENT, SUCH AS A FULLY-LOADED TANDEM AXLE DUMP TRUCK, TO IDENTIFY SOFT POCKETS AND AREAS OF EXCESS YIELDING. CONTRACTOR SHALL VERIFY TOPSOIL DEPTHS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REVIEW AND FOLLOW THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT AND ACCOUNT FOR EXISTING CONDITIONS PRIOR TO
- LOCAL ZONING REQUIREMENTS. D. PLACE AND COMPACT FILL MATERIAL IN LAYERS TO REQUIRED ELEVATIONS. UNIFORMLY MOISTEN OR AERATE SUBGRADE AND EACH SUBSEQUENT FILL OR BACKFILL LAYER BEFORE COMPACTION AS RECOMMENDED TO ACHIEVE SPECIFIED DRY DENSITY. REMOVE AND REPLACE, OR
- SCARIFY AND AIR DRY, OTHERWISE SATISFACTORY SOIL MATERIAL THAT IS TOO WET TO COMPACT TO SPECIFIED DRY DENSIT E. PLACE BACKFILL AND FILL MATERIALS IN LAYERS NOT MORE THAN 8" IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4" IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS.

SUBMITTING BID FOR THE PROJECT. EXCESS MATERIALS SHALL BE REMOVED FROM THE SITE UNLESS OTHERWISE DIRECTED IN THE PLANS OR BY

- . COMPACT THE SOIL TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY DENSITY ACCORDING TO ASTM D 698, STANDARD PROCTOR TEST, FILL MAY NOT BE PLACED ON FROZEN GROUND AND NO FROZEN MATERIALS MAY BE USED FOR BACK FILL. APPLY THE MORE STRINGENT REQUIREMENTS WHEN COMPARING BETWEEN THE FOLLOWING AND THE GEOTECHNICAL REPORT. UNDER FOUNDATIONS - SUBGRADE, AND EACH LAYER OF BACKFILL OR FILL MATERIAL, TO NOT LESS THAN 98 PERCENT
- 2. UNDER INTERIOR SLAB-ON-GRADE WHERE GROUNDWATER IS MORE THAN 3 FEET BELOW THE SLAB PLACE A DRAINAGE COURSE LAYER OF 3/4" Crushed Stone, with 5% to 12% fines, per thickness indicated on foundation plans on prepared subgrade. Compact the SUBGRADE AND DRAINAGE COURSE TO NOT LESS THAN 95 PERCENT. 3. UNDER INTERIOR SLAB-ON-GRADE WHERE GROUNDWATER IS WITHIN 3 FEET OF THE SLAB SURFACE- PLACE A DRAINAGE COURSE LAYER OF
- CLEAN 3/4" CRUSHED STONE, WITH NO MORE THAN 5% FINES, PER THICKNESS INDICATED ON FOUNDATION PLANS ON PREPARED SUBGRADE. COMPACT THE SUBGRADE AND DRAINAGE COURSE TO NOT LESS THAN 95 PERCENT. 4. UNDER EXTERIOR CONCRETE AND ASPHALT PAVEMENTS - COMPACT THE SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL TO NOT LESS THAN 95 PERCENT
- 5. UNDER WALKWAYS COMPACT SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL TO NOT LESS THAN 95 PERCENT 5. UNDER LAWN OR UNPAVED AREAS - COMPACT SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL, TO NOT LESS THAN 85 PERCENT. G. CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO PERFORM FIELD TESTS AND INSPECTIONS CONTRACTOR SHALL PROVIDE DOCUMENTATION OF PASSING DENSITY TESTING AND PROOF-ROLLING TO ENGINEER UPON COMPLETION. IT IS SUGGESTED THAT THE GEOTECHNICAL FIRM USED TO PERFORM THE SUBSURFACE SOIL INVESTIGATION BE ENGAGED FOR THE FIELD QUALITY
- CONTROL TESTS. H. ALLOW THE TESTING AGENCY TO TEST AND INSPECT SUBGRADES AND EACH FILL OR BACKFILL LAYER. PROCEED WITH SUBSEQUENT EARTHWO ONLY AFTER TEST RESULTS FOR PREVIOUSLY COMPLETED WORK COMPLY WITH REQUIREMENTS. PROVIDE ONE TEST FOR EVERY 2000 SQUARE FEET OF PAVED AREA OR BUILDING SLAB, ONE TEST FOR EACH SPREAD FOOTING, AND ONE TEST FOR EVERY 50 LINEAR FEET OF WALL STRIP FOOTING. WHEN THE TESTING AGENCY REPORTS THAT SUBGRADES, FILLS, OR BACKFILLS HAVE NOT ACHIEVED DEGREE OF COMPACTION SPECIFIED, SCARIFY
- AND MOISTEN OR AERATE, OR REMOVE AND REPLACE SOIL TO DEPTH REQUIRED; RECOMPACT AND RETEST UNTIL SPECIFIED COMPACTION IS THE BUILDING SITE SHALL BE GRADED TO PROVIDE DRAINAGE AWAY FROM THE BUILDING AS INDICATED ON THE PLANS. SITE FARTHWORK SHALL BE GRADED TO WITHIN 0.10' OF REQUIRED EARTHWORK ELEVATIONS ASSUMING POSITIVE DRAINAGE IS MAINTAINED IN ACCORDANCE WITH THE

#### 31 30 00 EROSION CONTROL

- A. THE GRADING PLAN REFLECTS LESS THAN 1 ACRE OF DISTURBED AREA. THE SITE IS THEREFORE EXEMPT FROM WISCONSIN DEPARTMENT OF NATURAL RESOURCES NR 216 NOTICE OF INTENT REQUIREMENTS. THE DESIGN ENGINEER SHALL PREPARE AN EROSION CONTROL PLAN TO MEET NR 151.105 CONSTRUCTION SITE PERFORMANCE STANDARDS FOR NON-PERMITTED SITES.
- B. EROSION AND SEDIMENT CONTROL IMPLEMENTED DURING CONSTRUCTION SHALL STRICTLY COMPLY WITH THE GUIDELINES AND REQUIREMENTS SET FORTH IN WISCONSIN ADMINISTRATIVE CODE (W.A.C.) NR 151, THE STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES RUNOFF MANAGEMENT PERFORMANCE STANDARDS. TECHNICAL STANDARDS PUBLISHED BY THE WISCONSIN DNR SHALL ALSO BE UTILIZED TO IMPLEMENT THE REQUIRED PERFORMANCE STANDARDS. THE METHODS AND TYPES OF EROSION CONTROL WILL BE DEPENDENT ON THE LOCATION AND TYPE OF WORK INVOLVED. ALL SEDIMENT CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION. AND INSTALLED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL. BELOW IS A LIST OF EROSION AND
- SEDIMENT CONTROL BEST MANAGEMENT PRACTICES TO ACHIEVE THE PERFORMANCE STANDARDS REQUIRED. 1. SILT FENCE SHALL BE PLACED ON SITE AT LOCATIONS SHOWN ON THE EROSION CONTROL PLAN. SILT FENCE SHALL ALSO BE PROVIDED AROUND THE PERIMETER OF ALL SOIL STOCKPILES THAT WILL EXIST FOR MORE THAN 7 DAYS. FOLLOW PROCEDURES FOUND IN WISCONSIN
- 2. DITCH CHECKS SHALL BE PROVIDED TO REDUCE THE VELOCITY OF WATER FLOWING IN DITCH BOTTOMS. PLACE AT LOCATIONS SHOWN ON THE EROSION CONTROL PLAN. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1062 (CURRENT EDITION). 3. STONE TRACKING PADS AND TRACKOUT CONTROL PRACTICES SHALL BE PLACED AT ALL CONSTRUCTION SITE ENTRANCES AND SHALL BE INSTALLED PRIOR TO ANY TRAFFIC LEAVING THE CONSTRUCTION SITE. SEE THE EROSION CONTROL PLAN FOR LOCATIONS. THE AGGREGATE JSED FOR THE STONE TRACKING PAD SHALL BE 3/8" TO 3 INCH CLEAR OR WASHED STONE AND SHALL BE PLACED IN A LAYER AT LEAST INCHES THICK, THE STONE SHALL BE UNDERLAIN WITH A WISDOT TYPE R GEOTEXTILE FABRIC AS NEEDED. THE TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT (12' MIN WIDTH) AND SHALL BE A MINIMUM OF 50 FEET LONG. SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. OTHER TRACKOUT CONTROL PRACTICES INCLUDING STABILIZED WORK SURFACES, MANUFACTURED TRACKOUT CONTROL DEVICES, TIRE WASHING. AND STREET/PAVEMENT CLEANING SHALL BE IMPLEMENTED AS NECESSAR\ TO MITIGATE THE TRACKOUT OF SEDIMENT OFFSITE. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1057
- 4. STORM DRAIN INLET PROTECTION SHALL BE PROVIDED FOR ALL NEW AND DOWNSTREAM STORM CATCH BASINS AND CURB INLETS. TYPE B
- 5. DUST CONTROL MEASURES SHALL BE PROVIDED TO REDUCE OR PREVENT THE SURFACE AND AIR TRANSPORT OF DUST DURING CONSTRUCTION. CONTROL MEASURES INCLUDE APPLYING MULCH AND ESTABLISHING VEGETATION. WATER SPRAYING, SURFACE ROUGHENING, APPLYING POLYMERS, SPRAY-ON TACKIFIERS, CHLORIDES, AND BARRIERS, SOME SITES MAY REOUIRE AN APPROACH THA JTILIZES A COMBINATION OF MEASURES FOR DUST CONTROL. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1068 (CURRENT EDITION)
- 6. THE USE, STORAGE, AND DISPOSAL OF CHEMICALS, CEMENT, AND OTHER COMPOUNDS AND MATERIALS USED ON SITE SHALL BE MANAGED DURING THE CONSTRUCTION PERIOD TO PREVENT THEIR TRANSPORT BY RUNOFF INTO WATERS OF THE STATE 7. CONTRACTOR SHALL PROVIDE AN OPEN AGGREGATE CONCRETE TRUCK WASHOUT AREA ON SITE. CONTRACTOR TO ENSURE THAT CONCRETE WASHOUT SHALL BE CONTAINED TO THIS DESIGNATED AREA AND NOT BE ALLOWED TO RUN INTO STORM INLETS OR INTO THE OVERLAND
- STORMWATER DRAINAGE SYSTEM. WASHOUT AREA SHALL BE REMOVED UPON COMPLETION OF CONSTRUCTION. 8. TEMPORARY SITE RESTORATION SHALL TAKE PLACE IN DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE OR ON WHICH LAND DISTURBING ACTIVITIES WILL NOT BE PERFORMED FOR A PERIOD GREATER THAN 14 DAYS AND REQUIRES VEGETATIVE COVER FOR LESS THAN ONE YEAR. THIS TEMPORARY SITE RESTORATION REQUIREMENT ALSO APPLIES TO SOIL STOCKPILES THAT EXIST FOR MORE THAN 7 DAYS PERMANENT RESTORATION APPLIES TO AREAS WHERE PERENNIAL VEGETATIVE COVER IS NEEDED TO PERMANENTLY STABILIZE AREAS OF exposed soil. Permanent stabilization shall occur within 3 working days of final grading. Topsoil, seed, and mulch shali BE IN GENERAL CONFORMANCE WITH TECHNICAL STANDARDS 1058 AND 1059 AND SHALL MEET THE SPECIFICATIONS FOUND IN THE LANDSCAPING AND SITE STABILIZATION SECTION OF THIS CONSTRUCTION DOCUMENT. ANY SOIL EROSION THAT OCCURS AFTER FINAL GRADING AND/OR FINAL STABILIZATION MUST BE REPAIRED AND THE STABILIZATION WORK REDONE

- 9. IF SITE DEWATERING IS REQUIRED FOR PROPOSED CONSTRUCTION ACTIVITIES, ALL SEDIMENT LADEN WATER GENERATED DURING THE DEWATERING PROCESS SHALL BE TREATED TO REMOVE SEDIMENT PRIOR TO DISCHARGING OFF-SITE OR TO WATERS OF THE STATE. FOLLOW ALL PROCEDURES FOUND IN TECHNICAL STANDARD 1061 10. ALL OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF CONSTRUCTION WORK OR A STORM EVENT SHALL BE CLEANED UP BY THE END OF EACH WORKING DAY. DUST CONTROL REQUIREMENTS SHALL BE FOLLOWED PER WI DNR TECHNICAL STANDARD 1068 (CURRENT EDITION).
- FLUSHING SHALL NOT BE ALLOWED. C. ALL EROSION CONTROL DEVICES SHALL AT A MINIMUM BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER EVERY PRECIPITATION EVENT THAT PRODUCES 0.5 INCHES OF RAIN OR MORE DURING A 24 HOUR PERIOD. MAINTENANCE SHALL BE PERFORMED PER WISCONSIN ADMINISTRATIVE CODE (W.A.C.) NR 151 STORMWATER MANAGEMENT TECHNICAL STANDARD REQUIREMENTS.
- D. EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL THE AREA(S) SERVED HAVE ESTABLISHED VEGETATIVE COVER. E. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL LOCAL EROSION CONTROL PERMITS.

#### **DIVISION 32 EXTERIOR IMPROVEMENTS**

#### 32 10 00 AGGREGATE BASE & ASPHALT PAVEMENT

- A. CONTRACTOR TO PROVIDE COMPACTED AGGREGATE BASE AND HOT MIX ASPHALT PAVEMENT WHERE INDICATED ON THE PLANS. ALL AGGREGATE PROVIDED MUST COMPLY WITH SECTION 305 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. PROVIDE HOT MIX ASPHALT MIXTURE TYPES PER SECTION 460 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. CONTRACTOR TO PROVIDE AGGREGATE BASE AND HOT MIX ASPHALT PAVEMENT TYPES TO MATCH THE EXISTING PAVEMENT SECTION WHERE REMOVAL AND REPLACEMENT IS REQUIRED IN ACCORDANCE WITH LOCAL STANDARDS.
- B. CONTRACTOR TO COMPACT THE AGGREGATE BASE, ASPHALT BINDER COURSE, AND ASPHALT SURFACE COURSE TO AN AVERAGE DENSITY PER WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. ALL ASPHALT PAVEMENT AREAS SHALL BE PAVED TO WITHIN 0.05' OF DESIGN SURFACE GRADES WITH POSITIVE DRAINAGE BEING MAINTAINED IN ACCORDANCE WITH DESIGN PLANS. C. HOT MIX ASPHALT CONSTRUCTION TO BE PROVIDED PER MORE STRINGENT REQUIREMENTS OF GEOTECHNICAL REPORT OR CONSTRUCTION

#### 32 20 00 CONCRETE AND AGGREGATE BASE

- A. CONTRACTOR TO PROVIDE CRUSHED AGGREGATE BASE AND CONCRETE WHERE INDICATED ON THE PLANS. B. ALL AGGREGATE PROVIDED MUST COMPLY WITH SECTION 305 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, ALL AGGREGATE PLACED MUST BE COMPACTED TO AN AVERAGE DENSITY PER WISCONSIN STANDARD SPECIFICATIONS FOR
- C. DESIGN AND CONSTRUCTION OF ALL CAST-IN-PLACE EXTERIOR CONCRETE FLAT WORK SHALL CONFORM TO ACI 330R-08 & ACI 318-08.
- D. EXTERIOR CONCRETE FLAT WORK CONSTRUCTION TO BE PROVIDED PER MORE STRINGENT REQUIREMENTS OF THE GEOTECHNICAL REPORT OR THIS SPECIFICATION. CONCRETE FLAT WORK CONSTRUCTION IS AS FOLLOWS:
- . SIDEWALK CONCRETE 5" OF CONCRETE OVER 4" OF 3/4" CRUSHED AGGREGATE BASE. CONTRACTION JOINTS SHALL CONSIST OF 1/8" WIDE BY DEEP TOOLED JOINT WHERE INDICATED ON THE PLANS.
- 2. HEAVY DUTY CONCRETE- 6" OF CONCRETE OVER 6" OF 3/4" CRUSHED AGGREGATE. CONCRETE SHALL BE REINFORCED WITH #3 REBARS ON CHAIRS AT 3' O.C. REBAR SHALL BE PLACED IN THE UPPER 1/3 TO ½ OF THE SLAB. CONTRACTION JOINTS SHALL BE SAWCUT 1.5" IN . DUMPSTER PAD/APRON CONCRETE - 8" OF CONCRETE OVER 6" OF AGGREGATE BASE
- a. CONCRETE SHALL BE STEEL REINFORCED WITH THE FOLLOWING AND PLACED IN THE UPPER 1/3 TO ½ OF THE SLAB: 1). TIE BARS AT ALL CONTRACTION JOINTS OF THE CONCRETE. TIE BARS SHALL BE #4 REBAR 30" LONG PLACED AT 30" O.C.
- b. DUMPSTER PAD CONCRETE JOINTING SHALL BE AS FOLLOWS:
- 1). CONTRACTION SAWCUT JOINT CONTRACTOR SHALL PROVIDE A SAWCUT JOINT AT MAXIMUM SPACING OF 15' ON CENTER. SAWCUT
- 2). TYPICAL POUR CONTROL JOINT POUR CONTROL JOINT SHALL BE PROVIDED WITH 1-1/4" DIAMETER BY 20" LONG SMOOTH DOWE PLACED AT 12" O.C. ONE HALF OF THE DOWEL SHALL BE GREASED. GREENSTREAK 9" SPEED DOWEL TUBES SHALL BE USED.
- E. DESIGN MIXES SHALL BE IN ACCORDANCE WITH ASTM C94 1. STRENGTH TO BE MINIMUM OF 4,500 PSI AT 28 DAYS FOR EXTERIOR CONCRETE
- 2. MAXIMUM WATER/CEMENT RATIO SHALL BE 0.45. 3. SLUMP SHALL NOT EXCEED 4" FOR EXTERIOR CONCRETE FLAT WORLD
- 4. SLUMP SHALL BE 2.5" OR LESS FOR SLIP-FORMED CURB AND GUTTER
- 5. SLUMP SHALL BE BETWEEN 1.5" TO 3" FOR NON SLIP-FORMED CURB AND GUTTER. 6. ALL EXTERIOR CONCRETE SHALL BE AIR ENTRAINED WITH 4% TO 7% AIR CONTENT. NO OTHER ADMIXTURES SHALL BE USED WITHOUT
- APPROVAL OF EXCEL ENGINEERING, INC. CALCIUM CHLORIDE SHALL NOT BE USED 7. MAXIMUM AGGREGATE SIZE FOR ALL EXTERIOR CONCRETE SHALL BE 0.75 INCHES.
- F. VERIFY EQUIPMENT CONCRETE PAD SIZES WITH CONTRACTOR REQUIRING PAD. PADS SHALL HAVE FIBERMESH 300 FIBERS AT A RATE OF 1.5 LBS/CU. YD. OR 6 X 6-W1.4 X W1.4 WELDED WIRE MESH WITH MINIMUM 1 INCH COVER. EQUIPMENT PADS SHALL BE 5.5 INCHES THICK WITH 1 INCH CHAMFER UNLESS SPECIFIED OTHERWISE. COORDINATE ADDITIONAL PAD REQUIREMENTS WITH RESPECTIVE CONTRACTOR. G. ALL CONCRETE FLAT WORK SURFACES AND CONCRETE CURB FLOWLINES SHALL BE CONSTRUCTED TO WITHIN 0.05' OF DESIGN SURFACE AND
- FLOWLINE GRADES ASSUMING POSITIVE DRAINAGE IS MAINTAINED IN ACCORDANCE WITH THE DESIGN PLANS. H. CONCRETE FLAT WORK SHALL HAVE CONSTRUCTION JOINTS OR SAW CUT JOINTS PLACED AS INDICATED ON THE PLANS OR PER THIS SPECIFICATION. SAWCUTS SHALL BE DONE AS SOON AS POSSIBLE, BUT NO LATER THAN 24 HOURS AFTER CONCRETE IS PLACED. CONCRETE CURB AND GUTTER JOINTING SHALL BE PLACED EVERY 10' OR CLOSER (6' MIN.). IF CONCRETE PAVEMENT IS ADJACENT TO CONCRETE CURB. JOINTING IN
- HE PAVEMENT AND CURB SHALL ALIGN. ALL EXTERIOR CONCRETE SHALL HAVE A LIGHT BROOM FINISH UNLESS NOTED OTHERWISE. A UNIFORM COAT OF A HIGH SOLIDS CURING COMPOUND MEETING ASTM C309 SHOULD BE APPLIED TO ALL EXPOSED CONCRETE SURFACES. ALL CONCRETE IS TO BE CURED FOR 7 DAYS. EXTERIOR CONCRETE SHALL BE SEPARATED FROM BUILDINGS WITH CONTINUOUS 0.5 INCH FIBER EXPANSION JOINT AND/OR 0.25 INCH FIBER EXPANSION JOINT AT DECORATIVE MASONRY UNITS. I. ALL REINFORCING BARS SHALL BE ASTM A615 GRADE 60. THICKNESS OF CONCRETE COVER OVER REINFORCEMENT SHALL BE NOT LESS THAN : WHERE CONCRETE IS DEPOSITED AGAINST THE GROUND WITHOUT THE USE OF FORMS AND NOT LESS THAN 1.5" IN ALL OTHER LOCATIONS. ALL REINFORCING SHALL BE LAPPED 36 DIAMETERS FOR UP TO #6 BARS, 60 DIAMETERS FOR #7 TO #10 BARS OR AS NOTED ON THE DRAWINGS AND
- EXTENDED AROUND CORNERS WITH CORNER BARS. PLACING AND DETAILING OF STEEL REINFORCING AND REINFORCING SUPPORTS SHALL BE IN ACCORDANCE WITH CRSI AND ACI MANUAL AND STANDARD PRACTICES. THE REINFORCEMENT SHALL NOT BE PAINTED AND MUST BE FREE OF GREASE/OIL, DIRT OR DEEP RUST WHEN PLACED IN THE WORK. ALL WELDED WIRE FABRIC SHALL MEET THE REQUIREMENTS OF ASTM A 185. WELDED WIRE FABRIC SHALL BE PLACED 2" FROM TOP OF SLAB, UNLESS INDICATED OTHERWISE. CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO SAMPLE MATERIALS, PERFORM TESTS, ANI SUBMIT TEST REPORTS DURING CONCRETE PLACEMENT. TESTS WILL BE PERFORMED ACCORDING TO ACI 301. CAST AND LABORATORY CURE ONE SET OF FOUR STANDARD CYLINDERS FOR EACH COMPOSITE SAMPLE FOR EACH DAY'S POUR OF EACH CONCRETE MIX EXCEEDING 5 CU. YD., BUT
- LESS THAN 25 CU. YD., PLUS ONE SET FOR EACH ADDITIONAL 50 CU. YD. OR FRACTION THEREOF, PERFORM COMPRESSIVE-STRENGTH TESTS ACCORDING TO ASTM C 39. TEST TWO SPECIMENS AT 7 DAYS AND TWO SPECIMENS AT 28 DAYS. PERFORM SLUMP TESTING ACCORDING TO ASTM C 143. PROVIDE ONE TEST AT POINT OF PLACEMENT FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF TH CONCRETE MIY DEPENDIN ADDITIONAL TESTS WHEN CONCRETE CONSISTENCY ADD K PROTECT FRESHLY PLACED CONCRETE FROM PREMATURE DRYING AND EXCESSIVE COLD OR HOT TEMPERATURES. IN HOT DRY AND WINDY
- WEATHER, APPLY AN EVAPORATION-CONTROL COMPOUND ACCORDING TO MANUFACTURER'S INSTRUCTIONS AFTER SCREEDING AND BULL L. LIMIT MAXIMUM WATER-CEMENTITIOUS RATIO OF CONCRETE EXPOSED TO FREEZING, THAWING AND DEICING SALTS TO 0.45
- M. TEST RESULTS WILL BE REPORTED IN WRITING TO THE DESIGN ENGINEER, READY-MIX PRODUCER, AND CONTRACTOR WITHIN 24 HOURS AFTER TESTS. REPORTS OF COMPRESSIVE STRENGTH TESTS SHALL CONTAIN THE PROJECT IDENTIFICATION NAME AND NUMBER, DATE OF CONCRETE PLACEMENT, NAME OF CONCRETE TESTING SERVICE, CONCRETE TYPE AND CLASS, LOCATION OF CONCRETE BATCH IN STRUCTURE, DESIGN OMPRESSIVE STRENGTH AT 28 DAYS, CONCRETE MIX PROPORTIONS AND MATERIALS, COMPRESSIVE BREAKING STRENGTH, AND TYPE OF BREA FOR BOTH 7-DAY TESTS AND 28-DAY TESTS.
- N. CONTRACTOR TO PROVIDE 4" WIDE YELLOW OR WHITE (VERIFY WITH OWNER PRIOR TO STRIPING) PAINTED STRIPING FOR PARKING STALLS. TRAFFIC LANES, AND NO PARKING AREAS. PAINT MARKINGS SHALL ALSO BE PROVIDED FOR H.C. ACCESSIBLE SYMBOLS, TRAFFIC ARROWS, AND

#### 32 30 00 Landscaping and site stabilization

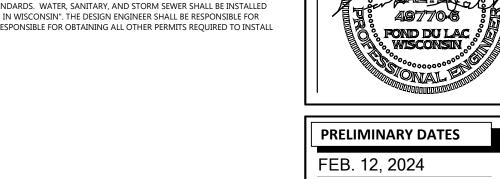
- A. TOPSOIL: CONTRACTOR TO PROVIDE A MINIMUM OF 6" OF TOPSOIL FOR ALL DISTURBED OPEN AREAS, OTHER THAN AT LANDSCAPE ISLANDS WITHIN PAVEMENT AREAS WHERE A MINIMUM OF 10" OF TOPSOIL SHALL BE PROVIDED. RELISE SURFACE SOIL STOCKPILED ON SITE AND SUPPLEMENT WITH IMPORTED OR MANUFACTURED TOPSOIL FROM OFF SITE SOURCES WHEN QUANTITIES ARE INSUFFICIENT. EXCAVATOR SHALL BE RESPONSIBLE FOR ROUGH PLACEMENT OF TOPSOIL TO WITHIN 1" OF FINAL GRADE PRIOR TO LANDSCAPER FINAL GRADING. LANDSCAPER TO PROVIDE PULVERIZING AND FINAL GRADING OF TOPSOIL. PROVIDE SOIL ANALYSIS BY A QUALIFIED SOIL TESTING LABORATORY AS REQUIRED TO VERIFY THE SUITABILITY OF SOIL TO BE USED AS TOPSOIL AND TO DETERMINE THE NECESSARY SOIL AMENDMENTS. TEST SOIL FOR PRESENCE OF ATRAZINE AND INFORM EXCEL ENGINEERING, INC. IF PRESENT PRIOR TO BIDDING PROJECT. TOPSOIL SHALL HAVE A PH RANGE OF 5.5 TO 8, CONTAIN A MINIMUM OF 5 PERCENT ORGANIC MATERIAL CONTENT, AND SHALL BE FREE OF STONES 1 INCH OR LARGER IN DIAMETER. ALL MATERIALS HARMFUL TO PLANT GROWTH SHALL ALSO BE REMOVED.
- B. TOPSOIL INSTALLATION: LOOSEN SURGRADE TO A MINIMUM DEPTH OF 6 INCHES AND REMOVE STONES LARGER THAN 1" IN DIAMETER. ALSO EMOVE ANY STICKS, ROOTS, RUBBISH, AND OTHER EXTRANEOUS MATTER AND DISPOSE OF THEM OFF THE PROPERTY. SPREAD TOPSOIL TO A DEPTH OF 6" BUT NOT LESS THAN WHAT IS REQUIRED TO MEET FINISHED GRADES AFTER LIGHT ROLLING AND NATURAL SETTLEMENT. DO NOT SPREAD TOPSOIL IF SUBGRADE IS FROZEN, MUDDY, OR EXCESSIVELY WET. GRADE PLANTING AREAS TO A SMOOTH, UNIFORM SURFACE PLANE WITH LOOSE, UNIFORMLY FINE TEXTURE. GRADE TO WITHIN 0.05 FEET OF FINISHED GRADE ELEVATION.
- . <u>Sodded Lawns:</u> Provide sod consisting of the following grass species 65% kentucky bluegrass, 20% perennial ryegrass, 15% FINE FESCUE. PROVIDE VIABLE SOD OF UNIFORM DENSITY, COLOR, AND TEXTURE. SOD SHOULD BE STRONGLY ROOTED AND CAPABLE OF VIGOROUS GROWTH AND DEVELOPMENT WHEN PLANTED. LAY SOD WITHIN 24 HOURS OF HARVESTING. DO NOT LAY SOD IF DORMANT OR IF GROUND IS FROZEN OR MUDDY. LAY SOD WITH TIGHTLY FITTED BUTT END AND SIDE JOINTS. DO NOT STRETCH OR OVERLAP. STAGGER SOD STRIPS TO OFFSET JOINTS IN ADJACENT COURSES. TAMP AND ROLL LIGHTLY TO ENSURE CONTACT WITH TOPSOIL. ANCHOR SOD ON SLOPES EXCEEDING 6:1 SLOPE. PROVIDE SLOW RELEASE FERTILIZER AS RECOMMENDED BY SOD SUPPLIER FOR PROPER LAWN ESTABLISHMENT. SATURATE WITH FINE WATER SPRAY WITHIN 2 HOURS OF PLANTING.
- D. <u>SODDED LAWN MAINTENANCE:</u> CONTRACTOR TO PROVIDE MAINTENANCE FOR ALL SODDED AREAS FOR A PERIOD OF 90 DAYS FROM THE DATE OF INSTALLATION. AT THE END OF THE MAINTENANCE PERIOD. A HEALTHY, WELL-ROOTED, EVEN-COLORED, VIABLE LAWN SHOULD BE ESTABLISHED. THE LAWN SHOULD BE FREE OF WEEDS, OPEN JOINTS, BARE AREAS, AND SURFACE IRREGULARITIES. REESTABLISH LAWNS THAT DO NOT COMPLY WITH THESE REQUIREMENTS AND CONTINUE MAINTENANCE UNTIL LAWNS ARE SATISFACTORY.
- TREES AND SHRUBS: FURNISH NURSERY-GROWN TREES AND SHRUBS WITH HEALTHY ROOT SYSTEMS DEVELOPED BY TRANSPLANTING OR ROOT pruning. Provide well-shaped, fully branched, and healthy looking stock. Stock should also be free of disease, insects, eggs. LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT. SEE THE LANDSCAPE PLAN FOR SPECIFIC SPECIE TYPE, SIZE, AND LOCATION.
- TREE AND SHRUB INSTALLATION: EXCAVATE CIRCULAR PITS WITH SIDES SLOPED INWARD. TRIM BASE LEAVING CENTER AREA RAISED SLIGHTLY TO SUPPORT ROOT BALL. EXCAVATE PIT APPROXIMATELY THREE TIMES AS WIDE AS THE ROOT BALL DIAMETER. SET TREES AND SHRUBS PLUMB AND IN CENTER OF PIT WITH TOP OF BALL 1" ABOVE ADJACENT FINISHED GRADES. PLACE PLANTING SOIL MIX AROUND ROOT BALL IN LAYERS AND TAMP TO SETTLE MIX. WATER ALL PLANTS THOROUGHLY, PROVIDE TEMPORARY STAKING FOR TREES AS REQUIRED.
- G. TREE AND SHRUB MAINTENANCE/WARRANTY: CONTRACTOR TO PROVIDE MAINTENANCE OF ALL LANDSCAPING FOR A PERIOD OF 90 DAYS FROM HE DATE OF INSTALLATION. MAINTENANCE TO INCLUDE REGULAR WATERING AS REQUIRED FOR SUCCESSFUL PLANT ESTABLISHMENT. CONTRACTOR TO PROVIDE 1 YEAR WARRANTY ON ALL TREES, SHRUBS, AND PERENNIALS.
- ORGANIC HARDWOOD MULCH: PROVIDE 3" MINIMUM THICK BLANKET OF SHREDDED HARDWOOD MULCH AT ALL PLANTING AREAS INDICATED ON THE LANDSCAPE PLAN. INSTALL OVER NON-WOVEN WEED BARRIER FABRIC. COLOR BY OWNER. DECORATIVE STONE MULCH: PROVIDE 3" MINIMUM THICK BLANKET OF 1.5" MINIMUM TO 2.5" MAXIMUM CRUSHED DECORATIVE STONE AT ALL
- PLANTING AREAS INDICATED ON THE LANDSCAPE PLAN. INSTALL OVER NON-WOVEN WEED BARRIER FABRIC. COLOR BY OWNER. J. <u>ALUMINUM EDGING:</u> INSTALL PERMALOC CLEANLINE LANDSCAPE EDGING TO SEPARATE ALL PLANTING BEDS FROM LAWN AREAS. EDGING TO BE CL 1/8"X4" WITH 12" LONG ALUMINUM STAKES. INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS. COLOR BY OWNER. VERIFY FINAL
- EDGING TYPES TO BE USED WITH OWNER/DIRECTOR OF PROJECTS PRIOR TO INSTALLATION. LANDSCAPE AND LAWN IRRIGATION: CONTRACTOR TO PROVIDE DESIGN AND INSTALLATION OF IRRIGATION SYSTEM PIPING, VALVES, VALVE BOXES, SPRINKLERS, EMITTERS, DRIP TUBES, AND CONTROLS IN COMBINATIONS THAT BEST SUIT THE LANDSCAPE PLAN LAYOUT. ALL LAWN AND LANDSCAPING AREAS SHALL BE PROVIDED WITH IRRIGATION AS DELINEATED ON THE PLAN. THE DESIGN SHOULD MINIMIZE THE AMOUNT OF WATER THAT EXTENDS BEYOND THE PROPERTY AND ON PAVED AREAS. THE SYSTEM SHALL BE DESIGNED FOR FULLY AUTOMATIC OPERATION AND PROVIDE ALL NECESSARY CONTROLS, VALVES, AND WIRING TO OPERATE THE SYSTEM. THE CONTROL UNIT SHALL BE INSTALLED IN A MECHANICAL ROOM OR AT A LOCATION AGREED TO WITH THE OWNER. THE CONTROL UNIT SHOULD BE PROVIDED WITH A LOCKING COVER POP-UP SPRAY OR ROTARY SPRINKLERS SHALL BE USED AT LAWN AREAS TO PROVIDE A UNIFORM COVERAGE OF 1 TO 2 INCHES OF WATER PER HOUR. EMITTERS AND DRIP TUBES OR SHRUBBERY SPRINKLERS SHALL BE USED AT PLANTS AND SHRUBS AS APPROPRIATE FOR THE PLANTING DENSITY AND SPECIES TYPE. ALL SPRINKLER HEADS SHALL BE COMMERCIAL GRADE. THE SYSTEM SHALL BE CIRCUITED AS REQUIRED TO PROVIDE ADEQUATE WATER FLOW TO EACH SPRINKLER HEAD. THE CONTROL SYSTEM MUST INCLUDE A RAIN SENSING SHUT OFF DEVICE. THE ENTIRE SYSTEM IS TO BE INSTALLED WITH A MINIMUM UNIFORM SLOPE OF 0.5 PERCENT TOWARD DRAIN VALVES

## DIVISION 33 UTILITIES

#### 33 10 00 SITE UTILITIES

- A CONTRACTOR TO FIFLD VERIEY ALL EXISTING UNDERGROUND LITILITIES ON SITE CONTRACTOR TO VERIEY PIPE LOCATIONS SIZES AND DEPTHS AT POINT OF PROPOSED CONNECTIONS AND VERIFY PROPOSED UTILITY ROUTES ARE CLEAR (PER CODE) OF ALL EXISTING UTILITIES AND OTHER OBSTRUCTIONS PRIOR TO CONSTRUCTION. COSTS INCURRED FOR FAILURE TO DO SO SHALL BE THE CONTRACTORS RESPONSIBILITY. B. ALL PROPOSED SANITARY PIPE SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL SCHEDULE ON CO.1 OF THE PROPOSED PLANSET.
- . SANITARY MANHOLES SHALL BE 48" PRECAST AND CONFORM TO THE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN WISCONSIN-CURRENT EDITION UNLESS OTHERWISE DIRECTED BY THE ENGINEER. SANITARY MANHOLE FRAME AND GRATE TO BE NEENAH R-1550-A OR EQUAL. RIM ELEVATION TO BE SET AT FINISHED GRADE IN DEVELOPED AREAS AND 12" ABOVE FINISHED GRADE IN UNDEVELOPED AREAS EXCEPT AS OTHERWISE DIRECTED BY THE ENGINEER.
- D. CLEANOUTS SHALL BE PROVIDED FOR THE SANITARY SERVICE AT LOCATIONS INDICATED ON THE UTILITY PLAN. THE CLEANOUT SHALL CONSIST OF A COMBINATION WYE FITTING IN LINE WITH THE SANITARY SERVICE WITH THE CLEANOUT LEG OF THE COMBINATION WYE FACING STRAIGHT UP. THE CLEANOUT SHALL CONSIST OF A 6" VERTICAL PVC PIPE WITH A WATER TIGHT REMOVABLE CLEANOUT PLUG. AN 8" PVC FROST SLEEVE SHALL BE PROVIDED. THE BOTTOM OF THE FROST SLEEVE SHALL TERMINATE 12" ABOVE THE TOP OF THE SANITARY LATERAL OR AT LEAST 6". BELOW THE PREDICTED FROST DEPTH, WHICHEVER IS SHALLOWER. THE CLEANOUT SHALL EXTEND JUST ABOVE THE SURFACE GRADE IN LAWN OR LANDSCAPE AREAS WITH THE FROST SLEEVE TERMINATING AT THE GRADE SURFACE. THE CLEANOUT SHALL EXTEND TO 4 INCHES BELOW SURFACE GRADE IN PAVED SURFACES WITH A ZURN (Z-1474-N) HEAVY DUTY CLEANOUT HOUSING PLACED OVER THE TOP OF THE CLEANOUT FLUSH WITH THE SURFACE GRADE. IN PAVED SURFACES, THE FROST SLEEVE SHALL TERMINATE IN A CONCRETE PAD AT LEAST 6" THICK AND EXTENDING AT LEAST 9" FROM THE SLEEVE ON ALL SIDES, SLOPING AWAY FROM THE SLEEVE. THE CLEANOUT HOUSING SHALL BE CONSTRUCTED PER MANUFACTURERS' REQUIREMENTS.
- F ALL PROPOSED WATER PIPE SHALL RE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWARLE PIPE MATERIAL SCHEDLILE ON CO.1 OF THE PROPOSED PLANSET. 7' MINIMUM COVER SHALL BE PROVIDED OVER ALL WATER PIPING UNLESS OTHERWISE SPECIFIED. F. ALL PROPOSED STORM PIPE SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL SCHEDULE ON CO.1 OF THE PROPOSED PLANSET. SEE UTILITY PLANS FOR ALL STORM PIPE MATERIAL TYPES TO BE USED. PIPE SHALL BE PLACED MIN. 8' HORIZONTALLY
- FROM FOUNDATION WALLS. G. SANITARY STORM, AND WATER LITILITY PIPE INVERTS SHALL BE CONSTRUCTED WITHIN 0.10' OF DESIGN INVER SLOPE AND SEPARATION IS MAINTAINED PER THE UTILITY DESIGN PLANS AND STATE REQUIREMENTS.
- H. SITE UTILITY CONTRACTOR SHALL RUN SANITARY SERVICE TO A POINT WHICH IS A MINIMUM OF 5' FROM THE EXTERIOR WALL OF THE FOUNDATION. SITE UTILITY CONTRACTOR SHALL RUN STORM SEWER FOR INTERNALLY DRAINED BUILDINGS TO A POINT WHICH IS A MINIMUM OF 5' FROM THE EXTERIOR WALL OF THE FOUNDATION. SITE UTILITY CONTRACTOR SHALL RUN DOWNSPOUT LEADS TO BUILDING FOUNDATION AND UP 6" ABOVE SURFACE GRADE FOR CONNECTION TO DOWNSPOUT. ALL DOWNSPOUT LOCATIONS SHOULD BE VERIFIED WITH ARCHITECTURAL PLANS AND DOWNSPOUT CONTRACTOR/GC PRIOR TO INSTALLATION OF DOWNSPOUT LEADS. DOWNSPOUT LEADS SHALL NOT
- UNDERMINE BUILDING FOUNDATIONS. SITE UTILITY CONTRACTOR SHALL RUN WATER SERVICE TO A POINT WITHIN THE FOUNDATION SPECIFIED BY THE PLUMBING PLANS. CONTRACTOR TO CUT AND CAP WATER SERVICE 12" ABOVE FINISHED FLOOR ELEVATION ALL UTILITIES SHALL BE INSTALLED WITH PLASTIC COATED TRACER WIRE (10 TO 14 GAUGE SOLID COPPER, OR COPPER COATED STEEL WIRE PLASTIC WIRE MAY BE TAPED TO PLASTIC WATER OR SEWER PIPE. IF ATTACHED, THE TRACER WIRE SHALL BE SECURED EVERY 6 TO 20 FEET AND AT ALL BENDS. TRACER WIRE SHALL HAVE ACCESS POINTS AT LEAST EVERY 300 FEET. TRACER WIRE SHALL TERMINATE IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS AT GRADE OR IN TERMINATION BOX PER LOCAL/STATE REQUIREMENTS.
- ALL UTILITIES SHALL BE INSTALLED PER STATE, LOCAL, AND INDUSTRY STANDARDS. WATER, SANITARY, AND STORM SEWER SHALL BE INSTALLED PER "STANDARD SPECIFICATION FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN". THE DESIGN ENGINEER SHALL BE RESPONSIBLE FOR OBTAINING STATE PLUMBING REVIEW APPROVAL. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL OTHER PERMITS REQUIRED TO INSTALL

K. SEE PLANS FOR ALL OTHER UTILITY SPECIFICATIONS AND DETAILS.



#### TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN CALL DIGGERS HOTLINE 1-800-242-8511 TELEFAX (414) 259-0947 TDD (FOR THE HEARING IMPAIRED) 1-800 542-2289 WISCONSIN STATUTE 182.0175 (1974) REQUIRES MINIMUM OF 3 WORK DAYS

NOTICE BEFORE YOU EXCAVATE

## **CONTACTS**

katherine.rayner@crewcarwash.com

#### OWNER **CREW CARWASH** 11700 EXIT 5 PKWY STE 100 FISHERS, IN 46037-8003 CONTACT: KATHERINE RAYNER

CIVIL **EXCEL ENGINEERING** 100 CAMELOT DRIVE FOND DU LAC, WISCONSIN 54935 CONTACT: DUSTIN SALTER, PE P: (920) 926-9800 F: (920) 926-9801 dustin.s@excelengineer.com

CIVIL COVER AND SPECIFICATION SHEET

Always a Better Plan

100 Camelot Drive

Fond du Lac, WI 54935

920-926-9800

excelengineer.com

530

500

9

PROJECT INFORMATION

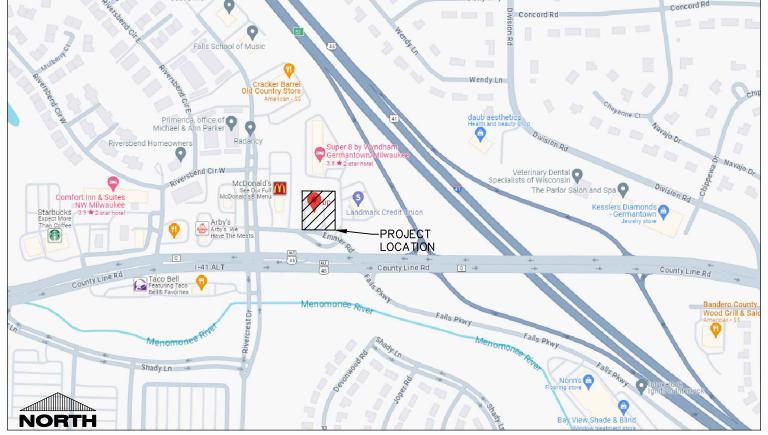
230022600

**SHEET NUMBER** 

## CIVIL SHEET INDEX

PROPOSED INLET PROTECTION

SHEET	SHEET TITLE	
C0.1	CIVIL COVER AND SPECIFICATION SHEET	
C1.0	EXISTING SITE AND DEMOLITION PLAN	
C1.1	SITE PLAN	
C1.2	GRADING AND EROSION CONTROL PLAN	
C1.3	UTILITY PLAN	
C1.4	LANDSCAPE AND RESTORATION PLAN	
C2.0	DETAILS	
C2.1	DETAILS	
C2.2	DETAILS	
C3.1	SITE PHOTOMETRIC PLAN & DETAILS	



PROJECT LOCATION MAP

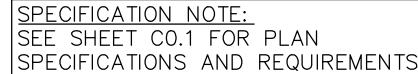
Table A: Allowable Pipe Material Schedule				
Utility	Material	Pipe Code	Fitting Code	Joint Code
Irrigation Service	C901 PE	AWWA C901/C906	ASTM D2609, ASTM D2683, ASTM D3261	Heat fusion: ASTM D2657
Water Service	C900 PVC	AWWA C900, ASTM D1785, ASTM D2241	AWWA C110, AWWA C153, ASTM D2464, ASTM D2466, ASTM D2467, ASTM D3311, ASTM F409, ASTM F1336, ASTM F1866	Joint: ASTM D3139 Integral Bell & Spigot Elastomeric Seal: ASTM F477
Sanitary Sewer	SDR 35 PVC	ASTM D1785, ASTM D2665, ASTM D3034, ASTM F891	ASTM F1336	Push On: ASTM D3212 for Tightness Elastomeric Gasket: ASTM F477
*Sanitary Sewer	SCH.40 PVC	ASTM D1785, ASTM D2665, ASTM F891	ASTM F1336	Primer: ASTM F656 Solvent Cement: ASTM D2564
Storm Sewer	HDPE	ASTM F2648	ASTM F2306 Saddle Gasket	Joint: ASTM F2648 Bell & Spigot Elastomeric Seal: ASTM F477
*Storm Sewer	SCH. 40 PVC	ASTM D1785, ASTM D2665, ASTM F891	ASTM F1336	Primer: ASTM F656 Solvent Cement: ASTM D2564

#### CONSTRUCTION STAKING SERVICES

CONSTRUCTION STAKING SHALL BE COMPLETED BY EXCEL ENGINEERING AS REQUESTED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. CONTRACTOR TO CONTACT RYAN WILGREEN AT 920-926-9800 OR RYAN.W@EXCELENGINEER.COM TO GET STAKING PRICE TO INCLUDE IN BID TO OWNER. PAYMENT OF STAKING COSTS ABOVE AND BEYOND THE BASE PRICE DUE TO RESTAKING WILL BE THE RESPONSIBILITY OF THE CONTRACTOR, NOT THE OWNER. CAD DRAWING FILES AND SURVEY CONTROL WILL NOT BE PROVIDED FOR STAKING PURPOSES.

#### GENERAL PROJECT NOTES

- ALL DRIVEWAYS AND CURB CUTS TO BE CONSTRUCTED ACCORDING TO LOCAL ORDINANCES. CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS.
- 2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL WORK IN ROW PERMITS.
- CONTRACTOR TO CONTACT EXCEL ENGINEERING TO COMPLETE AS-BUILT SURVEY OF THE STORMWATER MANAGEMENT SYSTEM UPON COMPLETION OF THE WORK.





PROJECT INFORMATION

920-926-9800

excelengineer.com

53022 GERMANTOWN, COUNTY LINE W17500

. 96N

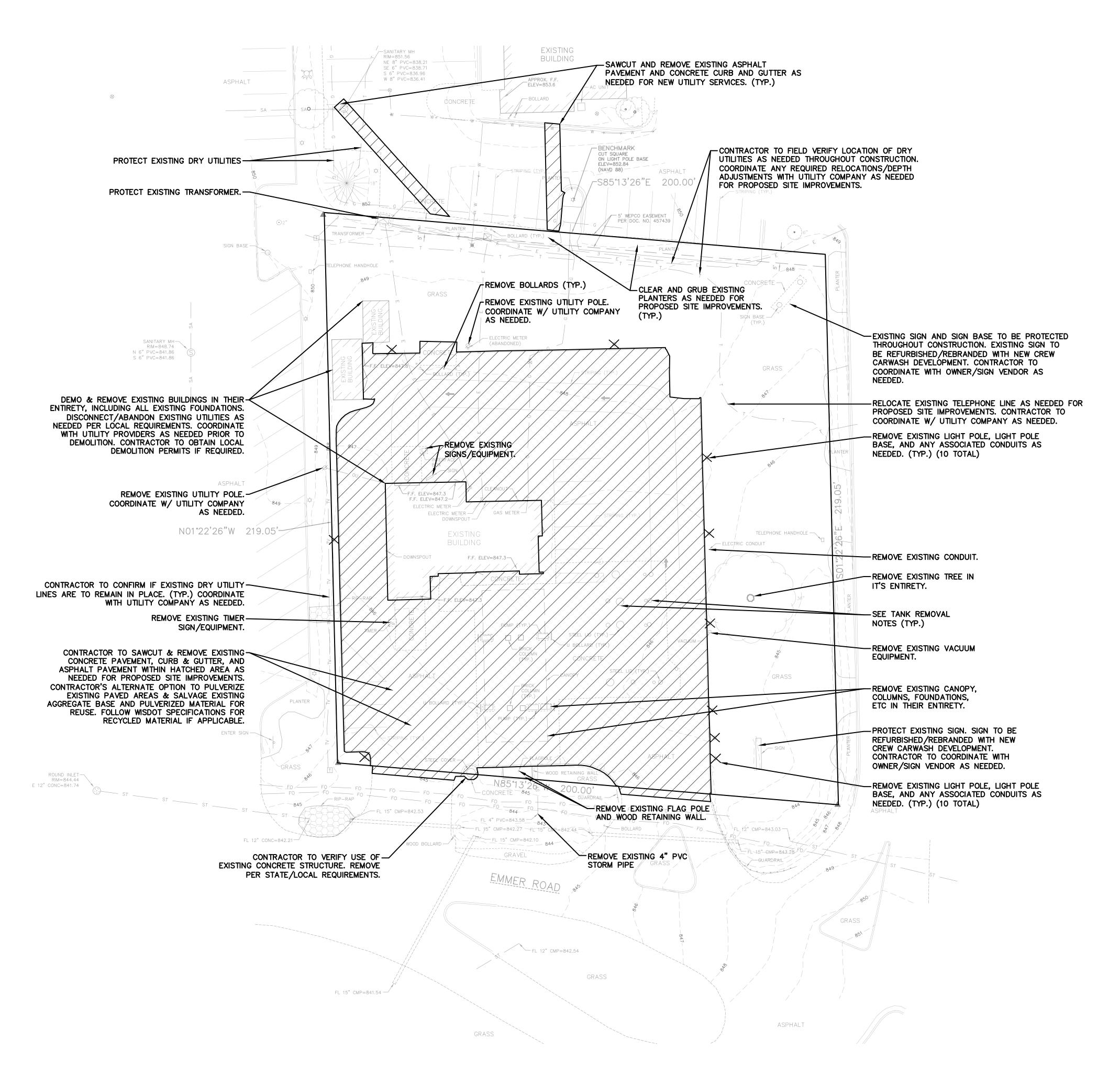
PRELIMINARY DATES

FEB. 12, 2024

**JOB NUMBER** 230022600

SHEET NUMBER

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PROPERTY LINES AND EASEMENTS SHOWN ON THIS SURVEY WERE DRAFTED FROM INFORMATION CONTAINED IN TITLE COMMITMENT NO. 2237081, BY KNIGHT BARRY TITLE, INC., DATED SEPTEMBER 19, 2023.

SURFACE INDICATIONS OF UTILITIES ALONG WITH DIGGER'S HOTLINE MARKINGS PER TICKET NO. 20230306381 AND NO. 20234005120 HAVE BEEN SHOWN. SIZES AND ELEVATION OF UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON FIELD MEASUREMENTS OF VISIBLE STRUCTURES IN COMBINATION WITH AVAILABLE DATA PROVIDED TO EXCEL ENGINEERING. EXCEL ENGINEERING MAKES NO GUARANTEE THAT ALL THE EXISTING UTILITIES IN THE SURVEYED AREA HAVE BEEN SHOWN NOR THAT THEY ARE IN THE EXACT LOCATION INDICATED. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

#### **DEMOLITION PLAN NOTES:**

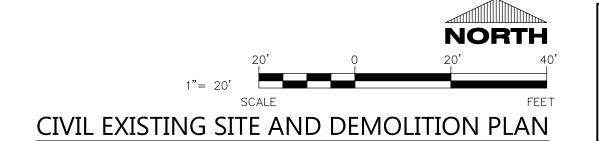
- DEMOLITION PLAN IS AN OVERVIEW OF DEMOLITION TO TAKE PLACE ON SITE. CONTRACTOR TO FIELD VERIFY EXISTING SITE CONDITIONS PRIOR TO BIDDING. CONTRACTOR SHALL REMOVE, OR DEMOLISH ITEMS AS NEEDED DURING CONSTRUCTION.
- PRIVATE LOCATE SHALL BE COMPLETED PRIOR TO CONSTRUCTION AND EXISTING UTILITY LOCATIONS AND DEPTHS SHALL BE FIELD VERIFIED AS NEEDED. PROPOSED DOWNSTREAM UTILITY CONNECTIONS SHALL BE VERIFIED PRIOR TO CONSTRUCTION. NOTIFY DESIGN ENGINEER OF CONFLICTS AND/OR DISCREPANCIES.

#### TANK REMOVAL NOTE:

NOTE THAT ALL FUELING EQUIPMENT AND UNDERGROUND FUEL STORAGE TANKS ARE TO BE COMPLETELY REMOVED BY THE SELLER AT THE SELLER'S EXPENSE PRIOR TO CONSTRUCTION OF CREW CARWASH. CONTRACTOR TO COORDINATE WITH OWNER IF ANY UNDERGROUND FUELING TANKS OR EQUIPMENT ARE DISCOVERED DURING CONSTRUCTION.

#### EXISTING SEWER/WATER LATERAL NOTE:

CONTRACTOR SHALL REMOVE EXISTING SEWER AND WATER SERVICE LATERALS TO THE PROPERTY LINE. CAP/ABANDON PER LOCAL REQUIREMENTS. COORDINATE WITH LOCAL UTILITY DEPARTMENTS AS NEEDED PRIOR TO ABANDONMENT.



GRASS

SPECIFICATION NOTE:
SEE SHEET CO.1 FOR PLAN
SPECIFICATIONS AND REQUIREMENTS

# SITE INFORMATION: PROPERTY ADDRESS: N96W17500 COUNTY LINE RD, GERMANTOWN WI PARCEL ID NUMBER: 334990 PROPERTY AREA: 43,558 S.F. (1.00 ACRES). EXISTING ZONING: B-5 W/ HIGHWAY INTERCHANGE AREA OVERLAY PROPOSED ZONING: B-5 W/ HIGHWAY INTERCHANGE AREA OVERLAY ADJACENT PROPERTY ZONING: B-5 PROPOSED USE: CONVEYOR-STYLE CARWASH AREA OF SITE DISTURBANCE: 43,346 SF (0.995 AC) SETBACKS: BUILDING: FRONT = 50'

REAR = 25'

PAVEMENT: FRONT = 8'

SIDE = 8'

REAR = 8'

SIDE = 10'

PROPOSED BUILDING HEIGHT: 35' TO TOP OF TOWER (MAX. HEIGHT ALLOWED: 35')

PARKING REQUIRED: NO CODIFIED REQUIREMENT FOR CARWASH USE; ADEQUATE SPACE FOR EMPLOYEES AND CUSTOMERS

PARKING PROVIDED: 14 TOTAL (5 STANDARD EMPLOYEE SPACES, 9 VACUUM SPACES)

HANDICAP STALLS REQUIRED: 1 REQUIRED, 1 PROVIDED

LANDSCAPE REQUIREMENTS: MIN. LANDSCAPE SURFACE RATIO = 20% OPEN AREA

EXISTING SITE DATA			
	AREA (AC)	AREA (SF)	RATIO
PROJECT SITE	1.00	43,558	
BUILDING FLOOR AREA	0.06	2,627	6.0%
PAVEMENT (ASP. & CONC.)	0.50	21,843	50.1%
TOTAL IMPERVIOUS	0.56	24,470	56.2%
LANDSCAPE/ OPEN SPACE	0.44	19,088	43.8%
PROPOSED SITE DATA			
	AREA (AC)	AREA (SF)	RATIO
PROJECT SITE	1.00	43,558	
BUILDING FLOOR AREA	0.11	4,858	11.2%
PAVEMENT (ASP. & CONC.)	0.59	25,648	58.9%
TOTAL IMPERVIOUS	0.70	30,506	70.0%
LANDSCAPE/ OPEN SPACE	0.30	13,052	30.0%

NOTE:
CONTRACTOR TO COORDINATE WITH OWNER AND MEP PLANS FOR ANY EXTERIOR HEATED CONCRETE SLAB LOCATIONS & REQUIREMENTS.

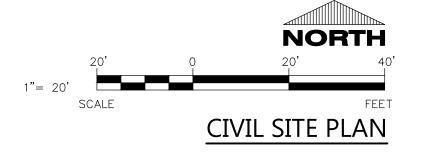
ASPHALT

KNOX BOX TO BE PROVIDED AT PRIMARY ENTRANCE PER LOCAL REQUIREMENTS.
CONTRACTOR TO COORDINATE W/ BUILDING INSPECTOR/FIRE DEPARTMENT FOR SPECIFIC REQUIREMENTS.

PAVEMENT HATCH KEY:
ASPHALT
HEAVY DUTY CONCRETE
DUMPSTER PAD CONCRETE
SIDEWALK CONCRETE
*SEE SHEET CO.1 FOR SECTION REQUIREMENTS

CURB & GUTTER	MARKING KEY:
=== INVERTED	CURB & GUTTER
==== SHEDDING	CURB & GUTTER

CITE F	PLAN KEYNOTES
$\frac{311}{3}$	CONCRETE SIDEWALK (TYP.)
$\rightarrow$	·
5	HEAVY DUTY CONCRETE (TYP.)
7	DUMPSTER PAD/APRON CONCRETE (TYP.)
<u>8</u>	CONCRETE STOOP (TYP.) SEE ARCH. PLANS FOR DETAILS.
(10)	FLUSH WALK (TYP.)
(11)	SIDEWALK RAMP, SEE SHEET C1.2. (TYP.)
13	18" ROLL CURB, 3" CURB HEIGHT (TYP.)
<b>14</b>	18" CURB & GUTTER (TYP.)
(15)	ROLL CURB/STANDARD CURB TRANSITION. (TYP.)
(16)	CURB TAPER (TYP.)
17	CURB CUT W/ 5" THICK CONCRETE PAD/FLUME WARPED TO MATO CURB CUT (TYP.)
(19)	HANDICAP SIGN (TYP.)
20	HANDICAP STALL & STRIPING PER STATE CODES.
21	PRECAST CONCRETE WHEEL STOP PINNED TO PAVEMENT (9 TYP.)
22	EXISTING PYLON SIGN TO REMAIN AND BE RE-BRANDED. (DETAILS & APPROVAL BY SIGN VENDOR)
23	DUMPSTER/STORAGE ENCLOSURE. ROLL OUT DUMPSTERS REQUIRE FOR SERVICE. (SEE ARCH PLANS FOR DETAILS)
24	6" CONCRETE BOLLARDS (SEE DETAIL)
29	TRAFFIC FLOW ARROWS. COLOR TO MATCH PARKING STALL STRIPI
30	PAINT STRIPING (TYP). COLOR TO MATCH PARKING STALL STRIPIN
32	EXISTING DRIVEWAY ENTRANCES TO REMAIN IN PLACE (TYP.)
33	REPLACE EXISTING ASPHALT PAVEMENT PER LOCAL STANDARDS. MATCH EXISTING PAVEMENT SECTION. (TYP.)
34	REPLACE CONCRETE CURB AND GUTTER TO MATCH EXISTING. (TYPE
35	CANOPY. SEE ARCH PLANS. (TYP.)
36	TAPER CURB TO FLUSH IN 3' (TYP.)
37	OUTDOOR VACUUM EQUIPMENT. CONTRACTOR TO COORDINATE FINA PRODUCTS, DETAILS, ETC WITH OWNER/DIRECTOR OF PROJECTS. VERIFY CONCRETE SLAB REQUIREMENTS WITH OWNER & EQUIPMEN SUPPLIER PRIOR TO INSTALLATION. ISLAND AND CANOPY TO BE PROVIDED BY OWNER AND INSTALLED
38	CONTRACTOR. CONTRACTOR TO VERIFY FINAL LOCATIONS, DETAILS EQUIPMENT, ETC WITH OWNER AND EQUIPMENT SUPPLIERS PRIOR CONSTRUCTION.
/\	BUG GATE (TYP.) CONTRACTOR TO VERIFY FINAL DETAILS AND



BUG GATE (TYP.) CONTRACTOR TO VERIFY FINAL DETAILS AND REQUIREMENTS WITH OWNER AND EQUIPMENT SUPPLIER AS NEEDED.

6' OF RAILING/GUARDRAIL. FINAL COLOR/STYLE/DETAIL BY OWNER.

PRIVATE UTILITY EASEMENTS TO BE COMPLETED BY OTHERS AS A SEPARATE DOCUMENT. OWNER TO COORDINATE AS NEEDED. SEE

COLUMN (TYP.) COORDINATE FINAL LOCATIONS W/ CANOPY SUPPLIER

AND SPECIFICATIONS BY WALL SUPPLIER. CONTRACTOR TO

COORDINATE DETAILS W/ WALL SUPPLIER & OWNER AS NEEDED.

EXISTING MONUMENT SIGN TO REMAIN AND BE RE-BRANDED.

157 LF OF VERSA LOK OR EQUIVALENT LANDSCAPE BLOCK RETAINING WALL. SEE SHEET C1.2 FOR WALL HEIGHTS. FINAL DESIGN DETAILS

SHEET C1.3 FOR UTILITY SERVICE EXTENSIONS.

(DETAILS & APPROVAL BY SIGN VENDOR.)

(TYP.)

DRAWINGS.



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PROJECT INFORMATION

CREW CARWASH FOR:
CREW CARWASH
COUNTY LINE RD • GERMANTOWN, WI 53022

PROFESSIONAL SEAL

PRELIMINARY DATES
FEB. 12, 2024

FOR CONSTRUCTION

N96 W17500

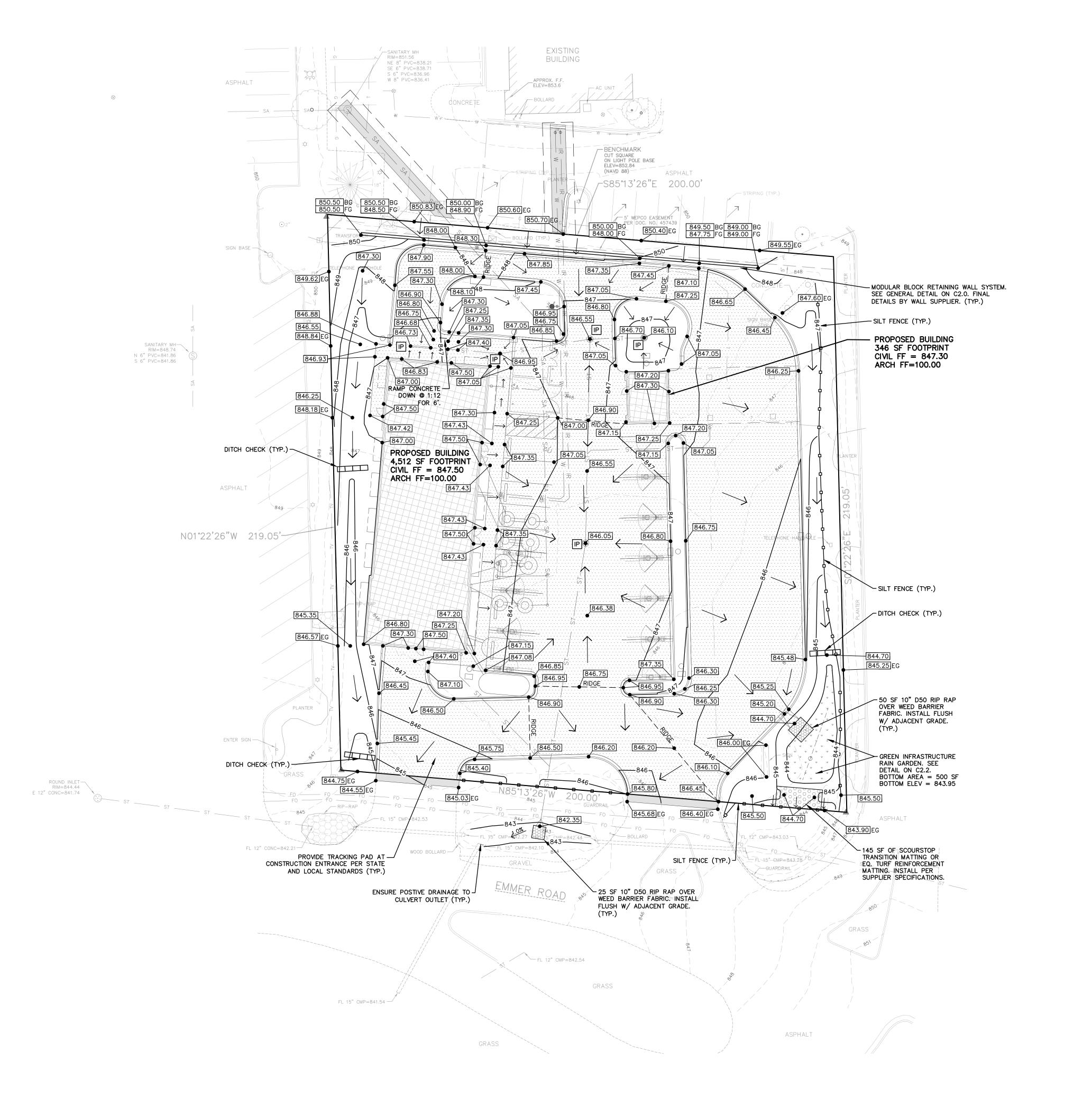
JOB NUMBER

230022600

SHEET NUMBER

C1.1

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#### NOTES:

- 1. HANDICAP STALL AND ACCESS AISLES SHALL NOT EXCEED A SLOPE OF 1.50% IN ANY DIRECTION. HANDICAP STALL & ACCESS AISLES SHALL CONFORM TO ADA REQUIREMENTS (CURRENT EDITION)
- ÀLL SIDEWALKS SHALL NOT EXCEED A MAXIMUM CROSS SLOPE OF 1.50% AND RUNNING SLOPE OF 4.50% UNLESS OTHERWISE SPECIFIED.



#### **INLET PROTECTION NOTE:**

CONTRACTOR SHALL PROVIDE TEMPORARY INLET PROTECTION FOR ALL CURB INLETS & CATCH BASINS ONSITE & OFFSITE IMMEDIATELY DOWNSTREAM OF THE PROJECT SITE PER LOCAL CODE.

#### STABILIZED CONSTRUCTION ENTRANCE NOTE:

CONTRACTOR SHALL PROVIDE STABILIZED CONSTRUCTION ENTRANCE AT CONSTRUCTION ENTRANCE FOR PROPOSED IMPROVEMENTS AS REQUIRED PER CODE.

#### CONCRETE WASHOUT NOTE:

CONTRACTOR SHALL PROVIDE CONCRETE WASHOUT AS REQUIRED PER CODE. FINAL LOCATION TBD BY CONTRACTOR.

#### **SPOT ELEVATION NOTE:**

ALL SPOT ELEVATIONS NOTED ON THE PLAN REPRESENT FLOW LINE OF CURB UNLESS SPECIFICALLY NOTED OTHERWISE.

#### **GRADING NOTE:**

CONTRACTOR SHALL COORDINATE PROPOSED SITE GRADING AT PERIMETER OF BUILDING AND AT TUNNEL ENTRANCE/EXIT WITH ARCH/STRUCT PLANS AS NEEDED.

#### EROSION CONTROL/SWM COST ESTIMATE

(FOR REFERENCE ONLY)

LAND DISTURBANCE APPROX. 0.99 AC

#### <u>Itemized cost of Erosion Con</u>trol:

Tracking Pad = \$1500ea. x 1 = \$1500Inlet Protection = \$75 x 5 = \$375 Silt Fence = 325' x \$2/ lin. ft = \$650 Ditch Check = 3 x \$100ea. = \$300

Total Erosion Control Cost Estimate = \$2,825

## Itemized cost of Storm Water Management:

Rain Garden/Spillway =  $$10,000ea. \times 1 = $10,000$ 

Total Storm Water Cost = \$10,000



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PROJECT INFORMATION

53022

GERMANTOWN,

COUNTY LINE W17500

96N

PROFESSIONAL SEAL

**PRELIMINARY DATES** 

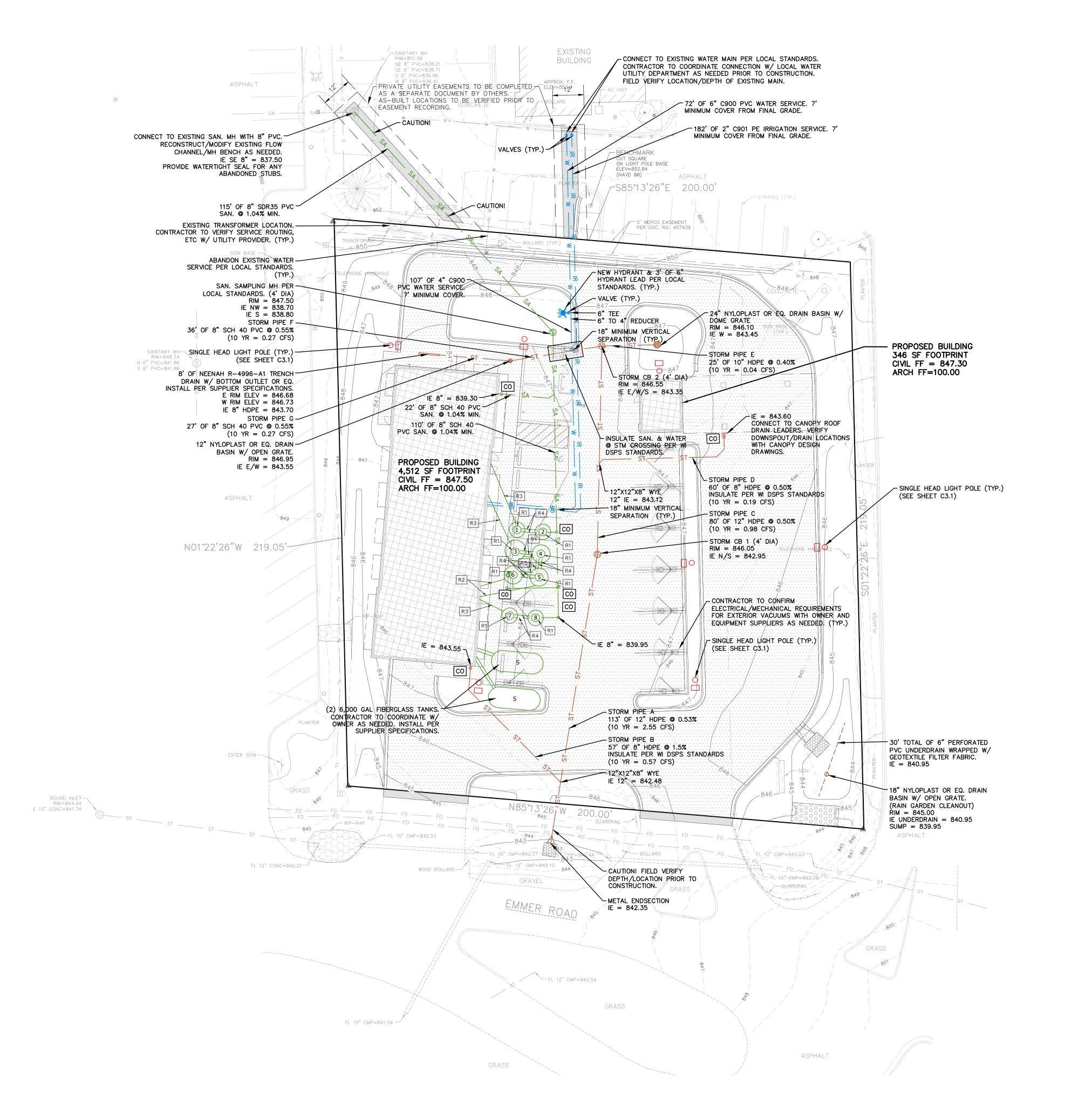
FEB. 12, 2024

**JOB NUMBER** 230022600

SHEET NUMBER

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NORTH CIVIL GRADING AND EROSION CONTROL PLAN



CLEANOUT NOTE:

= DENOTES LOCATIONS WHERE CONTRACTOR SHALL INSTALL CLEANOUTS, SEE CO.1 FOR SPECIFICATION.

#### UTILITY NOTE:

CONTRACTOR TO VERIFY FINAL SIZE, DESIGN, AND LOCATIONS OF ALL EXTERIOR SITE UTILITIES WITH INTERNAL MEP DESIGN AND OWNER AS NEEDED.

#### UTILITY NOTE:

CONTRACTOR TO ENSURE ADEQUATE SEPARATION IS PROVIDED BETWEEN DOMESTIC WATER SERVICE AND SANITARY/STORM SERVICE PER WI DSPS PLUMBING CODE STANDARDS.

#### DRY UTILITY SERVICE NOTES:

CONTRACTOR SHALL COORDINATE DRY UTILITY SERVICE ROUTING FOR ELECTRIC, GAS, ETC WITH APPLICABLE SERVICE PROVIDERS AS NEEDED

#### WATER RECLAMATION SYSTEM NOTES (R):

R1. ACCESS RISER AND OPERATING 38" DIAMETER STEEL PLAT LID, MODEL PER OWNER SPECIFICATIONS. STRUCTURE TOP TO HAVE A 36" DIAMETER OPENING CASTING. LID TO BE ALIGNED WITH LADDER RUNGS IN MANHOLE.

#### R2. 8" PVC, SCHEDULE 40, TO RECLAIM PIT.

R3. 8" PVC, SCHEDULE 80 CONVEYOR TRENCH DRAIN. CONVEYOR TRENCH DRAINS MUST BE RUN IN STRAIGHT LINES WITH NO TURNS.

R4. 8" PVC CONNECTOR TO SLEEVES, REFER TO TABLE FOR INVERT ELEVATIONS.

#### R5. 4" PVC CONNECTOR SLEEVES.

#### GENERAL SYSTEM NOTES:

- CONTRACTOR SHALL VERIFY WATER RECLAMATION SYSTEM LAYOUT, COMPONENTS, INVERT ELEVATIONS, AND PIPE ROUTING WITH OWNER AND INTERNAL PLUMBING DESIGNER PRIOR TO ORDERING MATERIALS.
- CONTRACTOR SHALL READ AND REVIEW GEOTECHNICAL REPORT PREPARED FOR THE SITE. IF HIGH GROUNDWATER IS NOTED OR ENCOUNTERED DURING CONSTRUCTION, CONTRACTOR SHALL REVIEW WITH TANK SUPPLIER & OWNER TO DETERMINE IF ANTI-BUOYANCY ACTIONS SHALL BE TAKEN.
- CONTRACTOR SHALL INSULATE RECLAMATION SYSTEM CONNECTOR PIPES W/ POLYSTYRENE INSULATION BOARDS OR OTHER APPROVED METHOD PER WI DSPS STANDARDS.

WATER RECLAIM SYSTEM (GRIT PIT) STRUCTURE TABLE								
	FFE = 847.50							
STRUCTURE	STRUCTURE						PROVIDED STORAGE	PROVIDED STORAGE
NUMBER	DIAMETER (IN)	RIM ELEV.	INVERT IN	INVERT OUT	SUMP	SUBGRADE	(CU FT)	(US GAL)
1	60	847.25	842.00	841.75	833.67	833.17	137.40	1028
2	60	846.87	841.75	841.50	833.67	833.17	132.54	991
3	84	847.22	842.00	841.75	833.67	833.17	298.25	2230
4	72	846.90	841.75	841.50	833.67	833.17	212.06	1586
5	72	846.87	841.50	841.25	833.67	833.17	205.00	1533
6	72	847.25	841.25	841.00	833.67	833.17	197.92	1480
7	60	847.13	842.00	841.75	833.67	833.17	142.35	1065
8	60	846.83	841.75	841.50	833.67	833.17	137.40	1028



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PROJECT INFORMATION

100 Camelot Drive

Fond du Lac, WI 54935

920-926-9800

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53022 GERMANTOWN, COUNT W17500

96N

**PRELIMINARY DATES** 

FEB. 12, 2024

PROFESSIONAL SEAL

**JOB NUMBER** 230022600

NORTH

CIVIL UTILITY PLAN

SCALE

**SHEET NUMBER** 

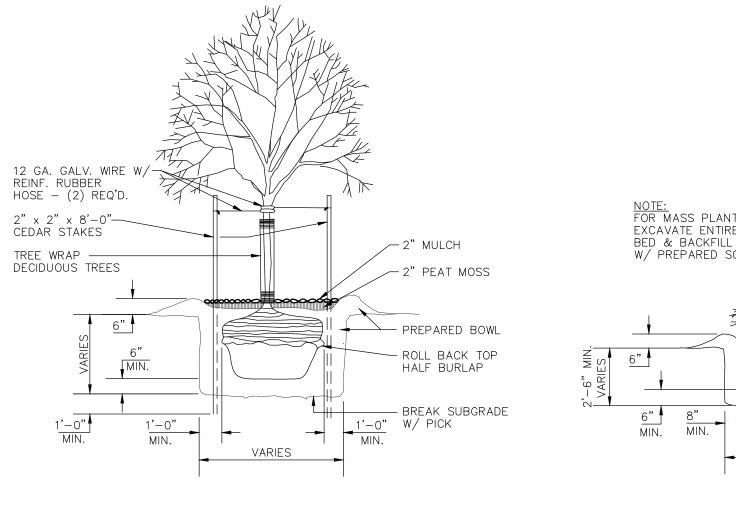
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	LANDSCAPIN	IG PLANTING SCHEDULE		
SYMBOL	COMMON NAME	BOTANICAL NAME	PLANTED SIZE	QUANTITY
	DECIDL	JOUS TREES		
0	Princeton Sentry Ginkgo	Ginkgo biloba	3"	2
€	Parkway Maple	Acer platanoides	3"	2
*	Jack Flowering Pear (Ornamental)	Pyrus calleryana 'Jaczam'	1.5"	2
$\overline{\mathbb{S}}$	DECIDU	OUS SHRUBS  Rhus aromatica 'Gro Low'	18"	6
	Goldmound Spirea	Spiraea x bumalda 'Goldmound'	15"-18"	12
	Weigela Carnaval	Weigela Florida 'courtalor'	24"	7
		EEN SHRUBS		
₩	Taunton Yew	Tauntonii	24"	26
<u> </u>	Emerald Green Arborvitae	Thuja occidentalis 'Emerald Green'	36"	7
	PEF	RENNIALS		
	Daylilies 'Stella de Oro'	Hemerocallis 'Stella de Oro'	1 gal pot	26
*	Dayimos stena as sis			

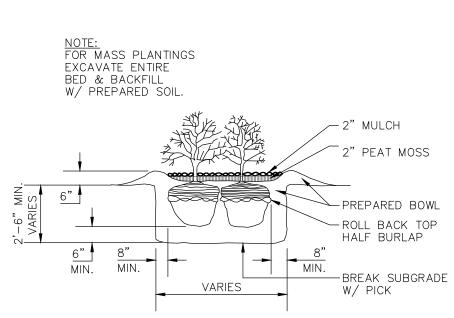
LANDSCAPING CALCULATIONS					
ZONE	REQ. PLANTS	PLANTS PROVIDED			
STREET	1 PER 50 LF FRONTAGE 200 LF FRONTAGE = 4 TREES	4 PROVIDED			
PARKING	1 TREE PER 10 SPACES 15 SPACES = 2 TREES	2 PROVIDED			
TOTAL	6 TOTAL TREES REQ.	6 TOTAL TREES PROVIDED			

IRRIGATION NOTE: PROVIDE IRRIGATION FOR ALL LAWN/LANDSCAPED AREAS IN ACCORDANCE WITH PLAN SPECIFICATIONS ON SHEET CO.1. DESIGN—BUILD LANDSCAPE/IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL DESIGN, LAYOUT, AND INSTALLATION. COORDINATE FINAL LAYOUT WITH OWNER/GC AS NEEDED.

NOTE: LANDSCAPE CONTRACTOR SHALL REVIEW FINAL PLANTING LOCATIONS AND SPECIES WITH OWNER PRIOR TO INSTALLATION.







SHRUB PLANTING DETAIL

NO SCALE





100 Camelot Drive
Fond du Lac, WI 54935
920-926-9800
excelengineer.com

PROJECT INFORMATION

CREW CARWASH FOR:
CREW CARWASH FOR:
COUNTY LINE RD • GERMANTOWN, WI 53022

PROFESSIONAL SEAL

N96 W17500

FEB. 12, 2024

OLON

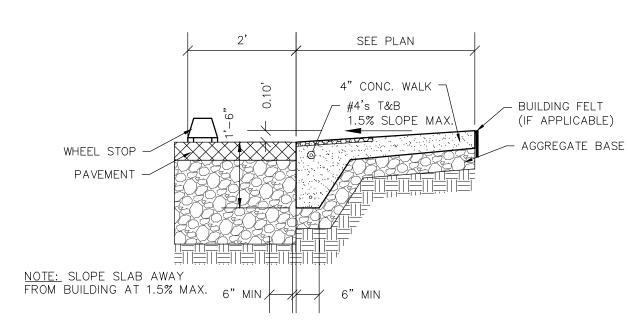
OLO

**10В NUMBER**230022600

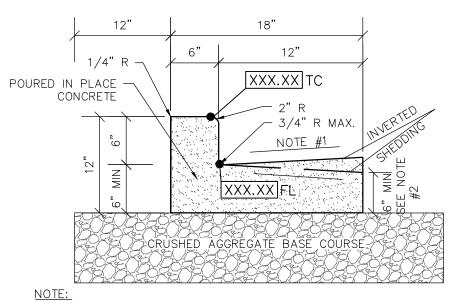
SHEET NUMBER

C1.4

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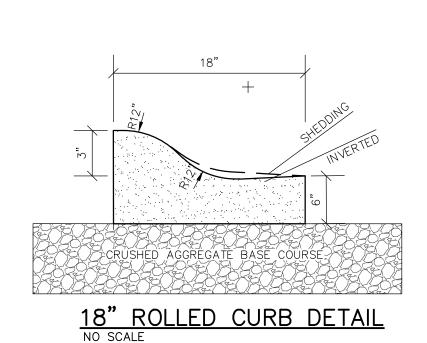


FLUSH WALK DETAIL
NO SCALE



USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
 THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MIN. GUTTER THICKNESS IS MAINTAINED.
 SEE SITE PLAN & GRADING PLAN FOR INVERTED & SHEDDING CURB LOCATIONS

## 18" CONCRETE CURB & GUTTER DETAIL NO SCALE



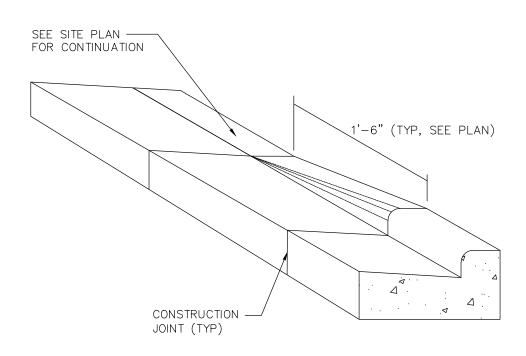
CONSTRUCTION
JOINT (TYP)

FLOW

1'-6"

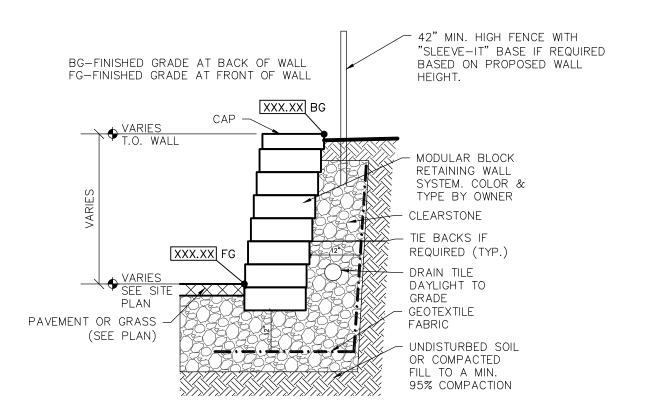
CONSTRUCTION
JOINT (TYP)

CURB CUT DETAIL
NO SCALE



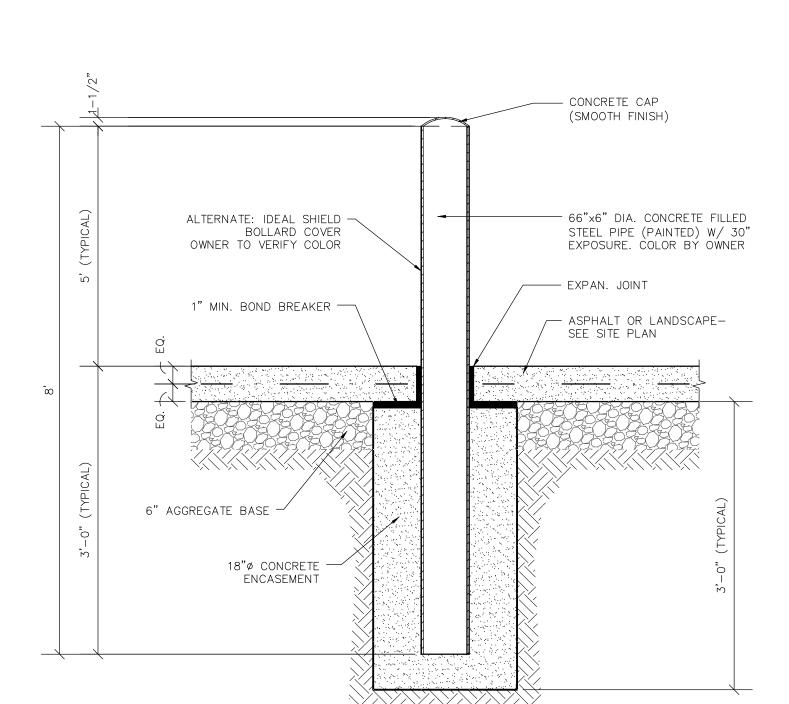
CURB TAPER DETAIL

NO SCALE

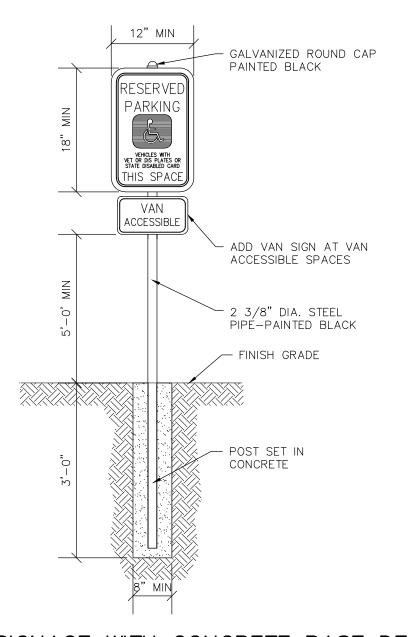


THIS DETAIL IS INFORMATIONAL ONLY AND IS NOT FOR CONSTRUCTION PURPOSES. THE WALL MANUFACTURER/SUPPLIER IS RESPONSIBLE FOR FINAL DESIGN AND CONSTRUCTION DETAILS.

RETAINING WALL DETAIL
NO SCALE



6" PIPE BOLLARD DETAIL
NO SCALE



HANDICAP SIGNAGE WITH CONCRETE BASE DETAIL
NO SCALE



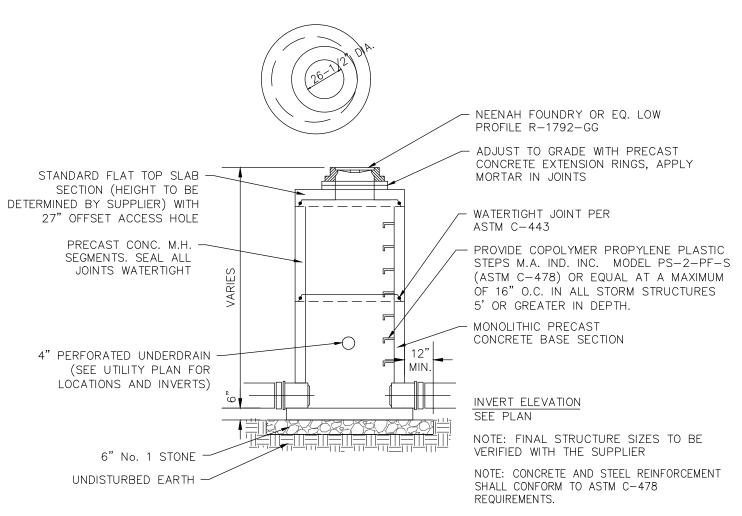
PROPOSED CAR WASH FOR: **CREW CARWASH**N96 W17500 COUNTY LINE RD • GERMANTOWN, WI 53022

PROFESSIONAL SEAL

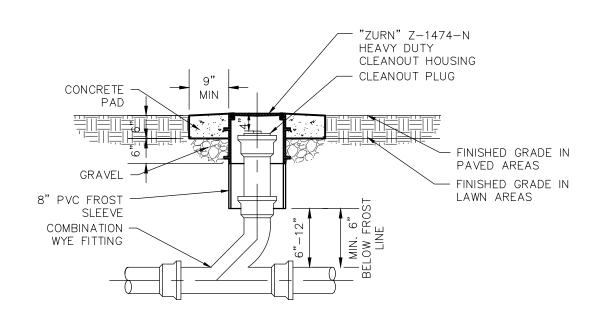
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C2.0

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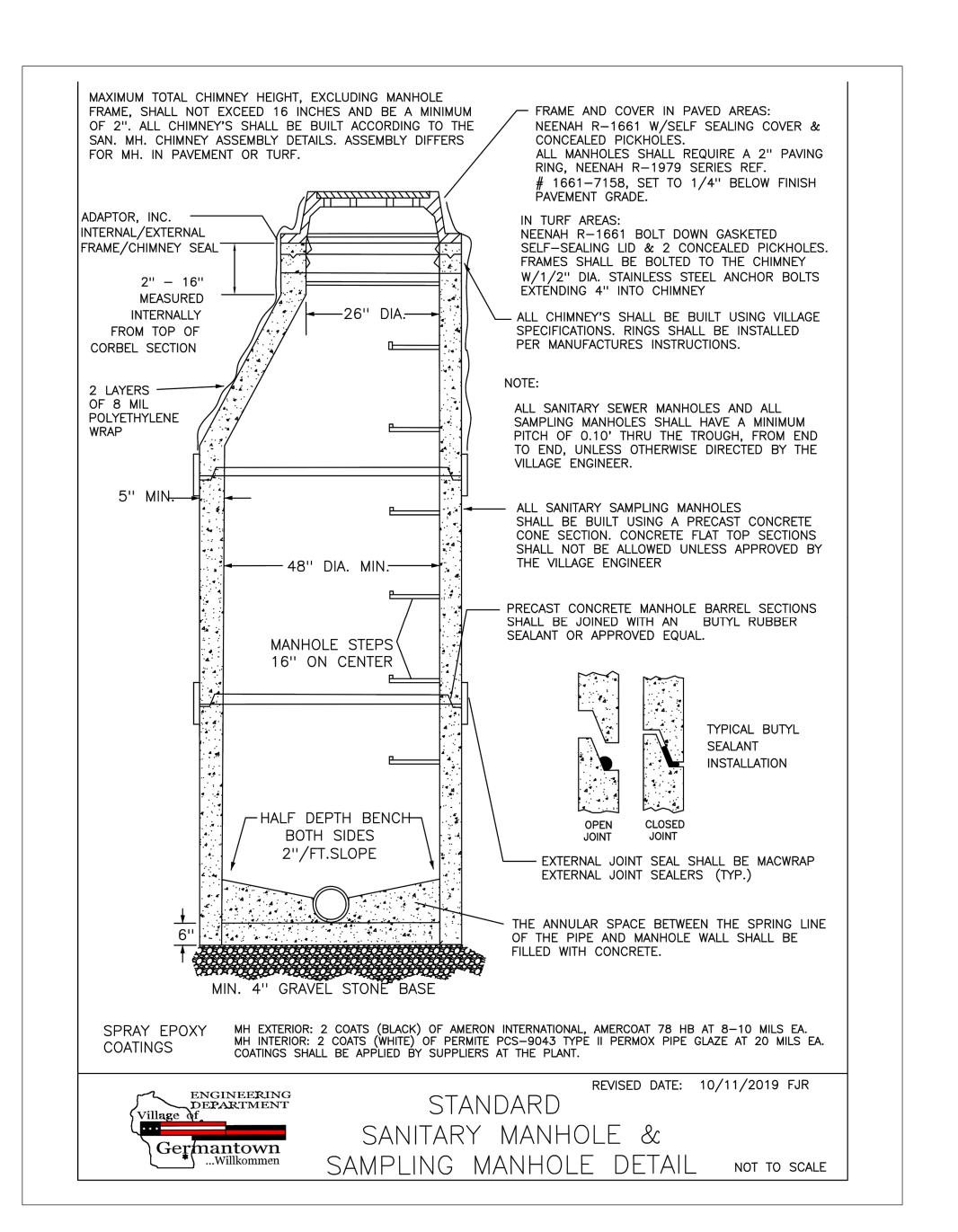


STORM CATCH BASIN DETAIL



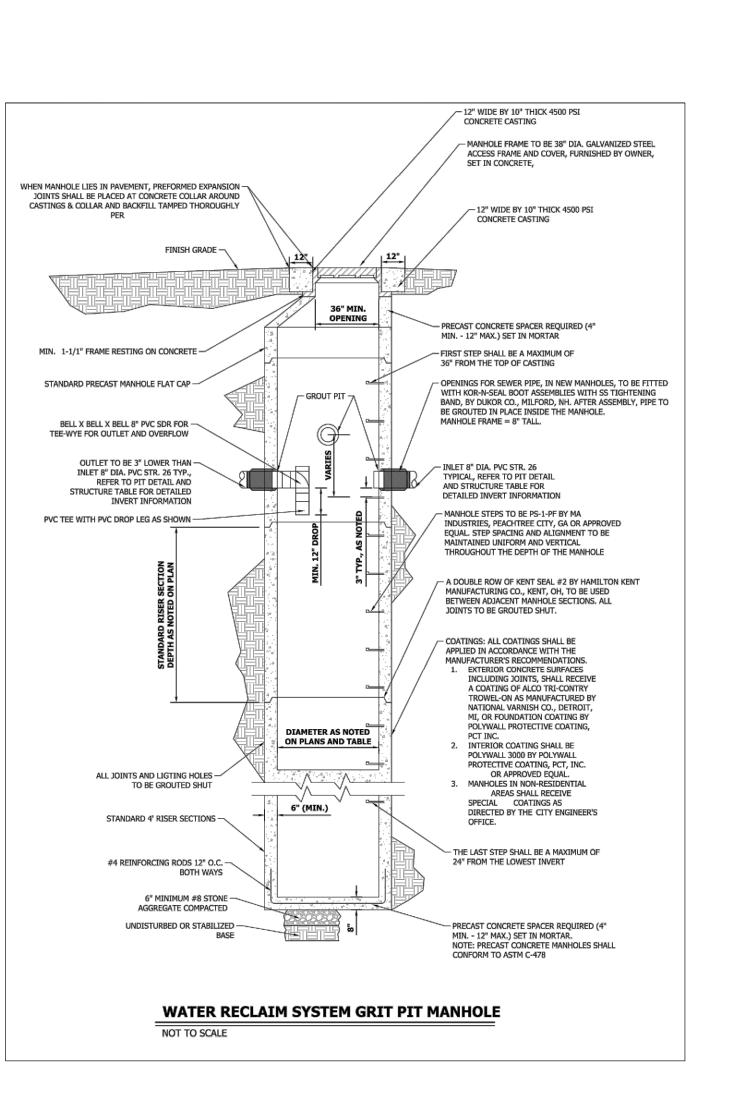
CLEANOUT TO GRADE DETAIL

NO SCALE





PROJECT INFORMATION



PROPOSED CAR WASH FOR: **CREW CARWASH**N96 W17500 COUNTY LINE RD • GERMANTOWN, WI 53022

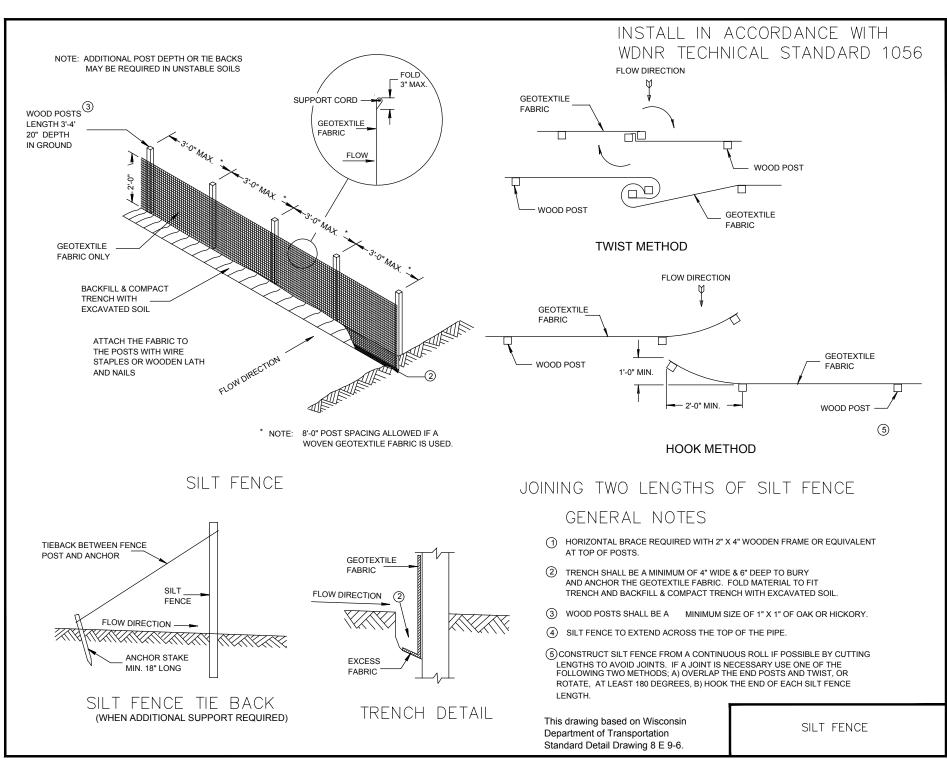
PRELIMINARY DATES	
FEB. 12, 2024	NOT FOR CONSTRUCTION
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230022600

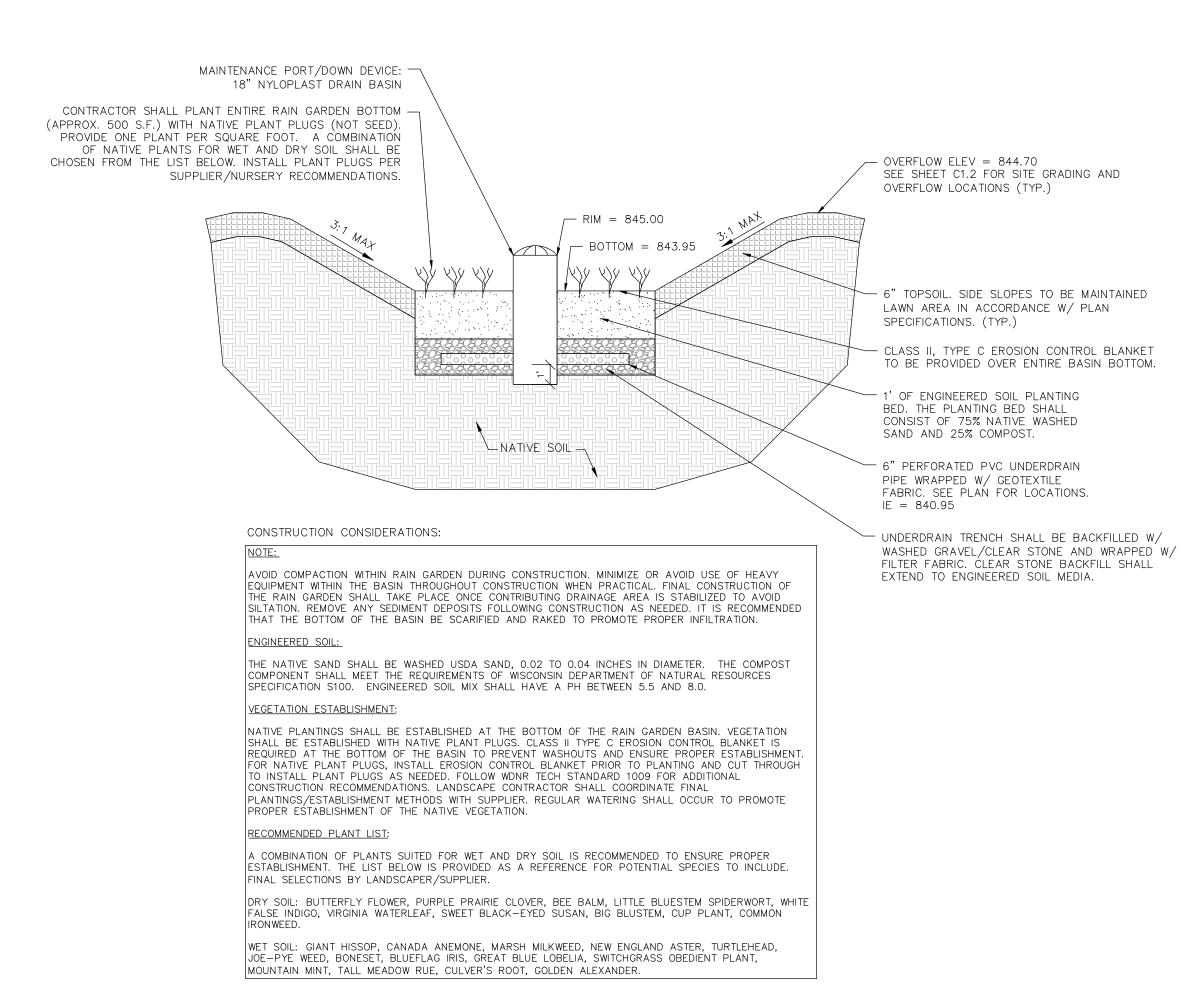
SHEET NUMBER

C2.1

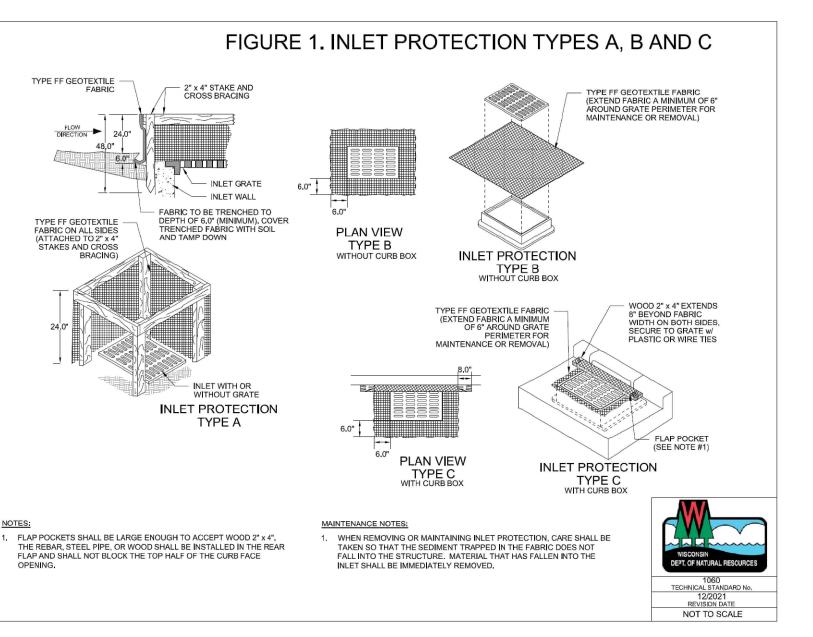
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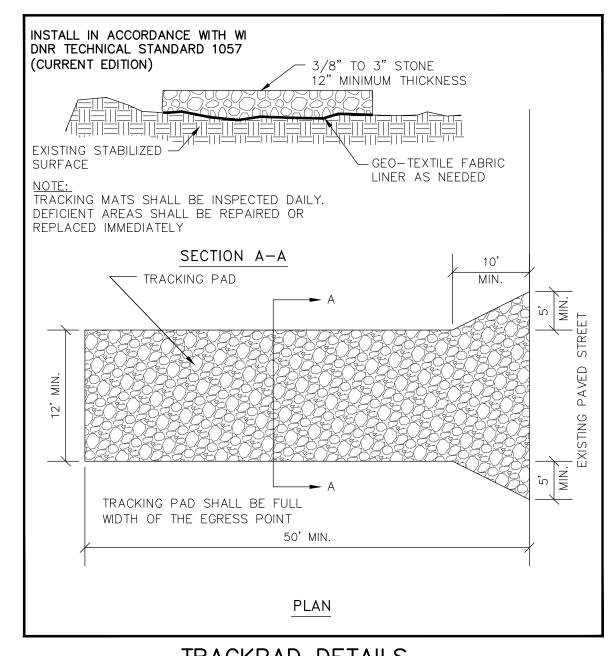
SILT FENCE — INSTALLATION DETAIL NO SCALE



RAIN GARDEN DETAIL



## INLET PROTECTION DETAIL



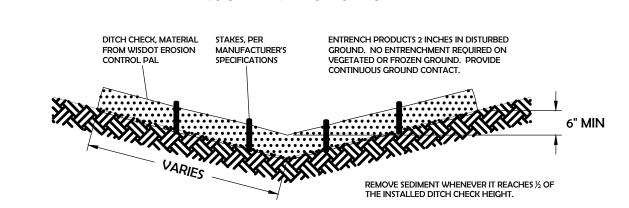
## TRACKPAD DETAILS NO SCALE

	CONSTRUCTION SEQUENCE			
PHASE	TYPE OF ACTION			
1. PRE-CONSTRUCTION	1. CONTRACTOR TO CALL DIGGERS HOTLINE AT A MINIMUM OF 3 DAYS PRIOR TO CONSTRUCTION.			
ACTION	2. CONTRACTOR TO FIELD VERIFY LOCATION AND DEPTH OF ALL UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION. NOTIFY ENGINEE OF DISCREPANCIES.			
	3. PLACE ALL SILT FENCE AND INLET PROTECTION.			
	4. CONSTRUCT TRACKING STONE ENTRANCES AND ANY TEMPORARY CONSTRUCTION ROADWAYS AS NEEDED.			
	5. CONSTRUCT PERMANENT STORMWATER CONVEYANCE SYSTEMS.			
	6. CONSTRUCT ANY TEMPORARY STORMWATER CONVEYANCE SYSTEMS AS NEEDED.			
	7. STABILIZE ALL TEMPORARY AND PERMANENT EROSION CONTROL AND STORMWATER CONVEYANCE SYSTEMS BEFORE TOPSOIL CAN BE STRIPPED			
2. CONSTRUCTION	1. SITE DEMOLITION AS REQUIRED.			
ACTION	2. STRIP AND RELOCATE TOPSOIL TO THE DESIGNATED TOPSOIL STOCKPILE. FINAL LOCATION BY CONTRACTOR/OWNER. PROVIDE PERIMETER SILT FENCE UNTIL STABILIZED.			
	3. BEGIN MASS EARTH WORK FOR THE BUILDING PAD AND PAVEMENT AREAS.			
	4. CONSTRUCT ANY REMAINING STORMWATER CONVEYANCE SYSTEMS, AND INSTALL ALL OTHER UTILITIES ON SITE.			
	5. DIG AND POUR ALL BUILDING FOOTINGS.			
	6. PLACE GRAVEL FOR ALL PROPOSED PAVEMENT AREAS.			
	7. TOPSOIL, SEED, AND MULCH ALL DISTURBED AREAS OUTSIDE THE BUILDING AND PROPOSED PAVEMENT AREAS.			
	8. CONSTRUCT BUILDING.			
	9. PAVE DRIVEWAYS AND PARKING AREAS.			
	10. TOPSOIL, SEED, AND MULCH ALL OTHER DISTURBED AREAS. PLACE EROSION MATTING AND RIP RAP AS NEEDED.			
	11. ONCE SITE IS STABILIZED, FINALIZE CONSTRUCTION OF RAIN GARDEN.			
	1. CONTRACTOR TO REMOVE TEMPORARY EROSION CONTROL MEASURES UPON SITE STABILIZATION.			
ACTION	2. SEE THE POST CONSTRUCTION MAINTENANCE PLAN FOR PERMANENT STORMWATER MANAGEMENT SYSTEMS.			

\*\*CONTRACTOR TO FOLLOW THE EROSION CONTROL SPECIFICATIONS FOR CONSTRUCTION EROSION CONTROL INSPECTION AND MAINTENANCE.\*\*

## DITCH CHECK DETAIL

LOG-TYPE DITCH CHECK



EXCEL

Always a Better Plan

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Fond du Lac, WI 54935
920-926-9800

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PROJECT INFORMATION

PROPOSED CAR WASH FOR:

CREW CARWASH

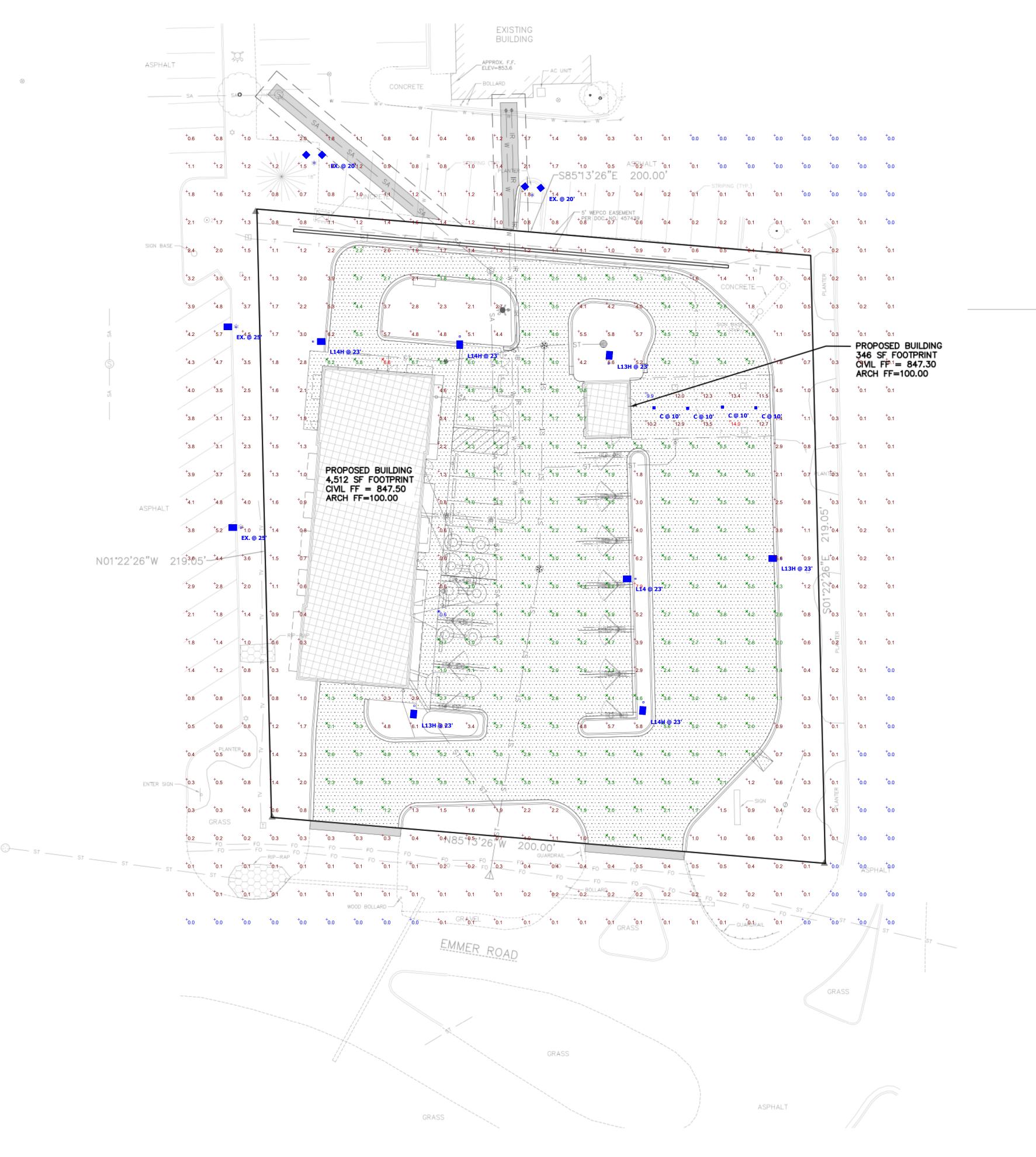
N96 W17500 COUNTY LINE RD • GERMANTOWN, WI 53022

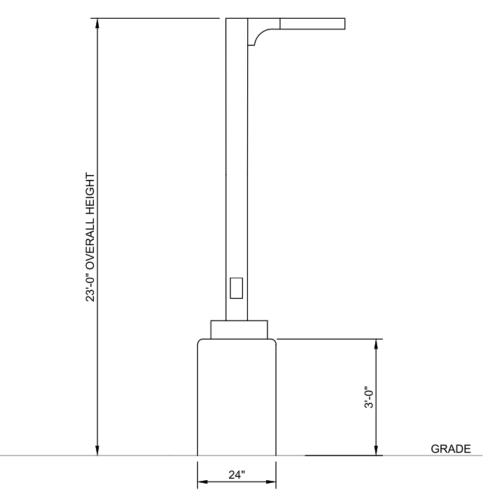
230022600

C2.2

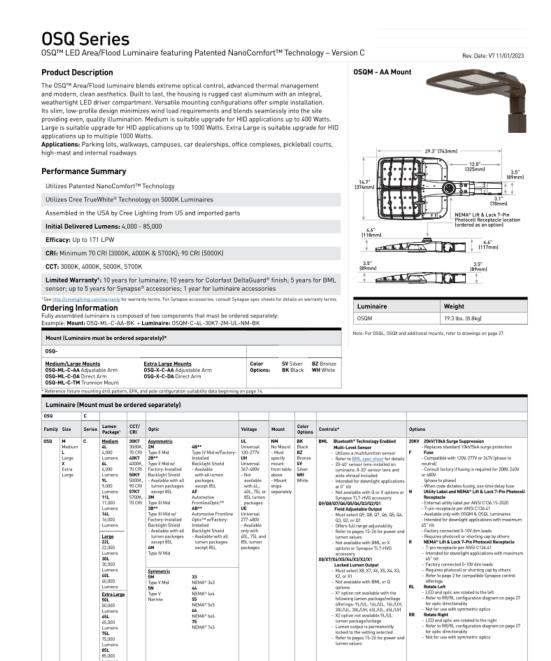
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CIVIL DETAILS



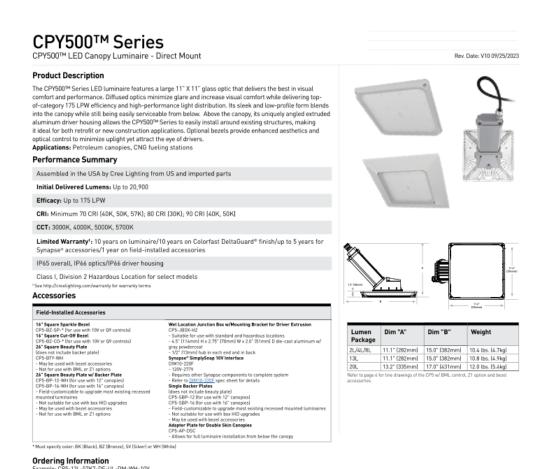


## LIGHT POLE DETAIL NO SCALE



CREE ÷

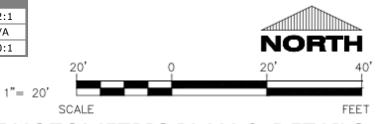
CREE 
LIGHTING



CREE 
LIGHTING

Schedule								
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Number Lamps	Lumens Per Lamp	Wattage
	С	4	Cree Lighting	CP5-4L-57K7-DF-UL-xx- xx-xxx	CP5 Canopy Luminaire, 8L Lumen Package, 5700K, 70 CRI, Diffuse Lambertian Distribution	1	8091	50.6
	L14	1	Cree Lighting	OSQL-C-22L-57K7-4M- Ux-xx-xx-xx CONFIGURED FROM OSQL-C-xxL-30K7-4M- UL-xx-xx-xx	CONFIGURED FROM OSQL-C Luminaire, 3000K, 70 CRI, Type IV Mid	1	20900	131
	L13H	3	Cree Lighting	OSQL-C-22L-57K7-3B- Ux-xx-xx-xx-xx CONFIGURED FROM OSQL-C-40L-30K7-3B- UL-xx-xx-xx	CONFIGURED FROM OSQL-C Luminaire, 40L Lumen Package, 3000K, 70CRI, Type III Mid Optic w/Internal BLS	1	14375	131
	L14H	3	Cree Lighting	OSQL-C-22L-57K7-4B- Ux-xx-xx-xx CONFIGURED FROM OSQL-C-xxL-40K7-4B- UL-xx-xx-xx	CONFIGURED FROM OSQL-C Luminaire, 3000K, 70 CRI, Type IV Mid w-Internal BLS	1	13175	131

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
POS CANOPY	+	12.2 fc	14.0 fc	9.9 fc	1.4:1	1.2:1
Calc Zone #1	+	1.8 fc	7.9 fc	0.0 fc	N/A	N/A
PARKING LOT	Ж	3.0 fc	6.8 fc	0.6 fc	11.3:1	5.0:1



CIVIL SITE PHOTOMETRIC PLAN & DETAILS

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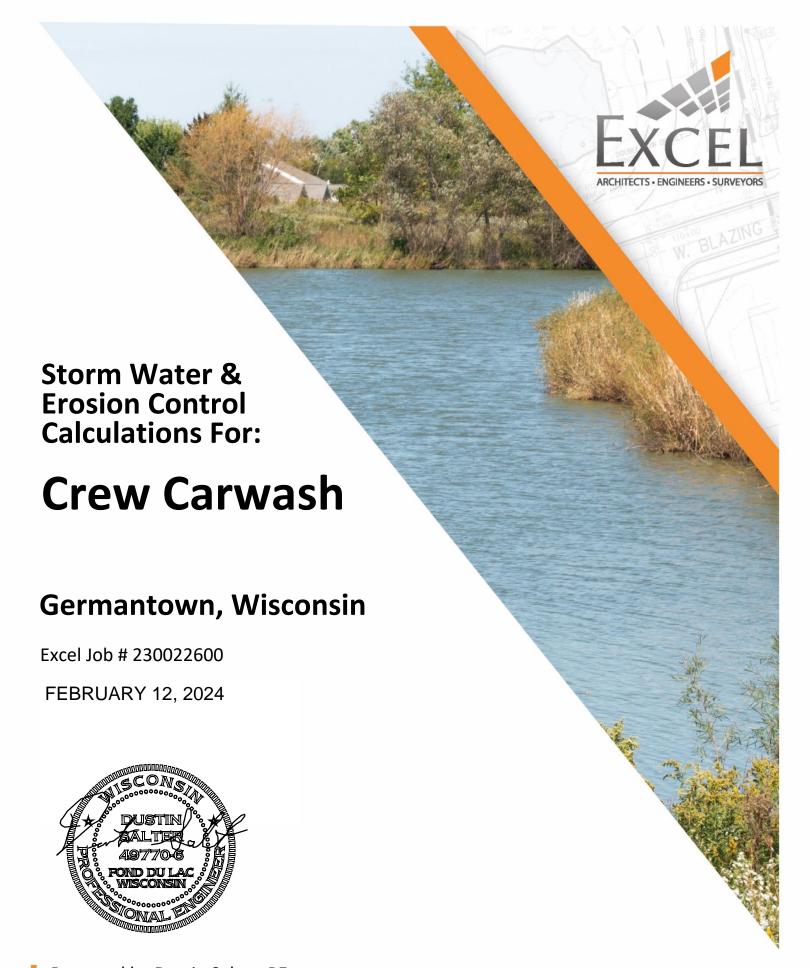
PROJECT INFORMATION

5302 CARWASH RD • GERMANTOWN, V CREW C 500 17 96N

PRELIMINARY DATES FEB. 12, 2024

JOB NUMBER 230022600

SHEET NUMBER



Prepared by Dustin Salter, PE 100 Camelot Drive • Fond du Lac, WI 54935 920-926-9800 • www.excelengineer.com

#### **Table of Contents**

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2.0	Stormwater Management Requirements	2
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#### **Appendices**

Appendix A: Existing Drainage Patterns

Appendix B: Green Infrastructure Drainage Exhibit

Appendix C: Storm Pipe Calculations Appendix D: Web Soil Survey Map

Appendix E: Post Construction Operation and Maintenance Plan

#### 0.0 Introduction

#### 0.1 Existing Conditions

The proposed redevelopment project site is located at N96W17500 County Line Road in the Village of Germantown, Wisconsin. The project site is approximately 1 acre in size. The site is bound by Emmer Road to the south and adjacent commercial properties to the north, east, and west. The existing site currently consists of a BP gas station along with a self-serve carwash and associated paved parking and drive lanes. The existing site will be completely razed as needed for the proposed new site improvements. The site currently sheet drains from north to south where stormwater is conveyed to a roadside ditch at the south end of the property. Stormwater is eventually conveyed via culverts to the Menomonee River located directly south of County Line Road. A representation of the existing site and current drainage patterns is provided in Appendix A.

#### 0.2 Proposed Project Overview

The proposed redevelopment project consists of constructing a new Crew Carwash facility along with associated site improvements. Site improvements include concrete parking areas, sidewalks, and drive aisles. The proposed site improvements will result in approximately 43,346 square feet (0.995 acres) of disturbed site area. Proposed drainage patterns will match the existing site drainage patterns. Stormwater will be conveyed via sheet flow to various new inlet structures that will convey stormwater to the same discharge point as the current condition at the south end of the site. Refer to the construction plan set for a representation of the proposed site and final drainage patterns.

#### 0.3 Stormwater Management Applicability

As previously mentioned, this project site is considered a redevelopment project site as defined by WDNR standards. Since the disturbed project area is less than one acre in total site disturbance, a construction site NOI is not required and the project is exempt from the WI DNR post construction stormwater management performance standards outlined in NR 151 for redevelopment sites. The project site will therefore be required to meet the local performance standards as required by the Village of Germantown and MMSD. Furthermore, since the redevelopment project site will disturb less than two acres of land and will add between 5,000 square feet and 21,780 square feet of new impervious area, the project site will be subject to meeting the green infrastructure requirements as defined by Chapter 13 of MMSD. The below sections of this report detail how the project site meets or exceeds the applicable requirements.

#### 1.0 Design Criteria

#### 1.1 Soils

Site specific geotechnical investigations have not yet been completed on the project site, therefore, soil characteristics were determined by utilizing available web soil survey information. See Table 1 below for a summary of the soils and hydrologic ratings indicated by the web soil survey map. Refer to Appendix D for the associated web soil survey map. Hydrologic soil group C soils were utilized for the site storm sewer sizing calculation.

Table 1: Web Soil Survey

MAP SYMBOL	SOIL TYPE	HYDROLOGIC RATING
Cw	Colwood silt loam	C/D
MtA	Mequon silt loam	C/D
OuB	Ozaukee silt loam	С

#### 1.2 Rainfall Data

NOAA Atlas 14, Washington County rainfall depths with an MSE3 distribution were used for the site stormwater calculations. See Table 2 below for the rainfall data used.

Table 2: NOAA Atlas 14 24-hour Rainfall Depth

DESIGN	RAINFALL DEPTH
STORM	(INCHES)
10-YEAR	3.82

#### 2.0 <u>Stormwater Management Requirements</u>

#### 2.1 Wisconsin DNR Summary

As previously stated, the project site will result in 43,346 square feet (0.995 acres) of disturbed site area. Therefore, a construction site NOI will not be required by WI DNR. Therefore, the performance standards relating to peak discharge, TSS removal, infiltration, etc do not apply to the proposed redevelopment project.

#### 2.2 Village of Germantown/MMSD Summary

Since the redevelopment project site will disturb less than two acres of land and will add between 5,000 square feet and 21,780 square feet of new impervious area, the project site will be subject to meeting the green infrastructure requirements as defined by Chapter 13.302(3)(c) of MMSD.

#### 2.3 Green Infrastructure

The redevelopment project site will utilize a rain garden BMP to meet the green infrastructure requirements as defined by Chapter 13.302(3)(c) of MMSD. A total of 432 square feet of rain garden area is required based upon the new impervious area added. The proposed rain garden will total approximately 500 square feet, therefore exceeding this requirement. See Table 3 below for a summary of the green infrastructure requirements. Refer to Appendix B for a green infrastructure drainage area exhibit. Refer to the construction plan set for design details of the proposed rain garden BMP.

Table 3. Rain Garden

Green Infrastructure Summary						
Total New Added Impervious	6093	sf				
Volume Required	254	cf				
(1/2" x New Impervious Area)	1899	gal				
Rain Garden Area Required	432	sf				
(Per Section 13.302(4)(b) Table)						
Rain Garden Area Provided	500	sf				

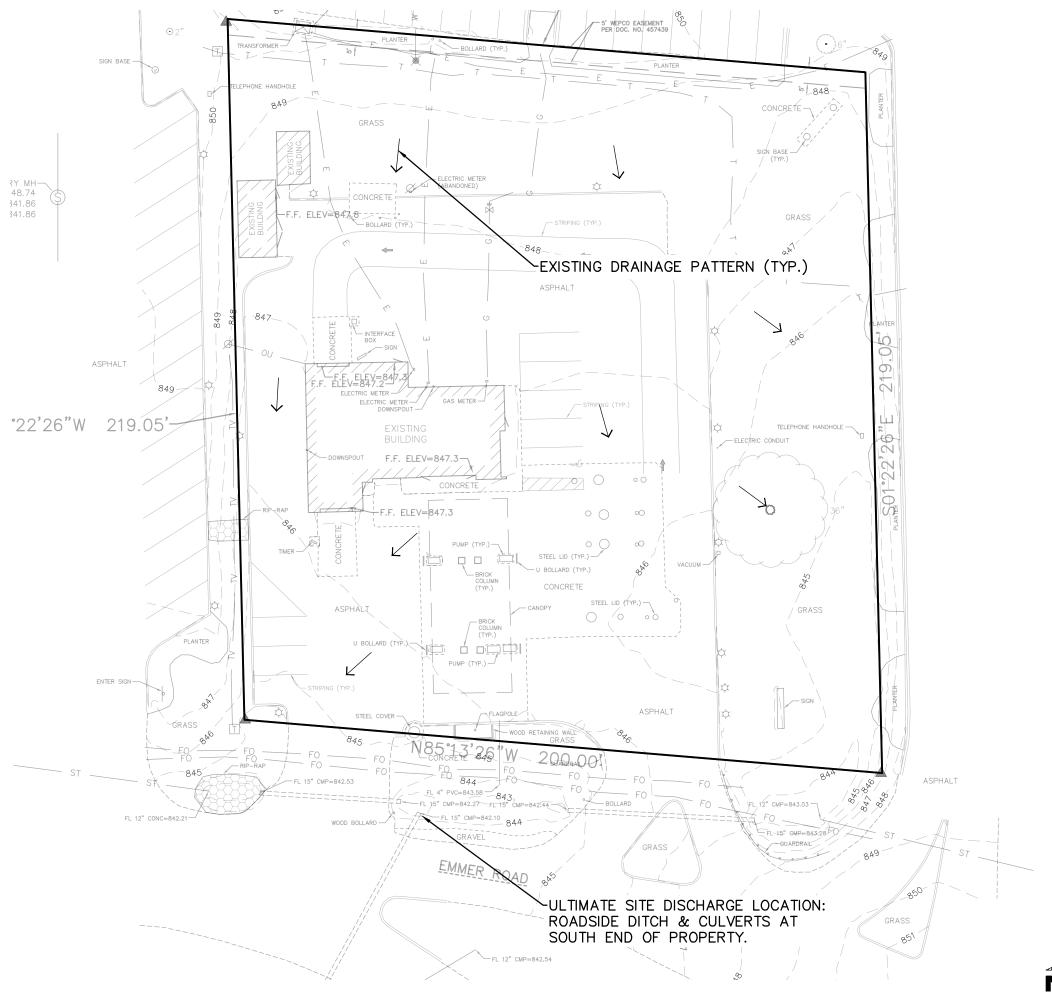
#### 3.0 Storm Sewer Design

All storm sewer has been designed to convey the 10-year 24-hour post development storm. Additional capacity has been provided as a safety factor. See Appendix C, for pipe drainage areas and calculations

#### 4.0 Erosion Control

The erosion control specifications, construction sequence, site stabilization notes, seeding notes, dewatering notes, and post construction and maintenance plan will be included on sheet C0.1, C1.2, and C2.2 of the construction plan set.

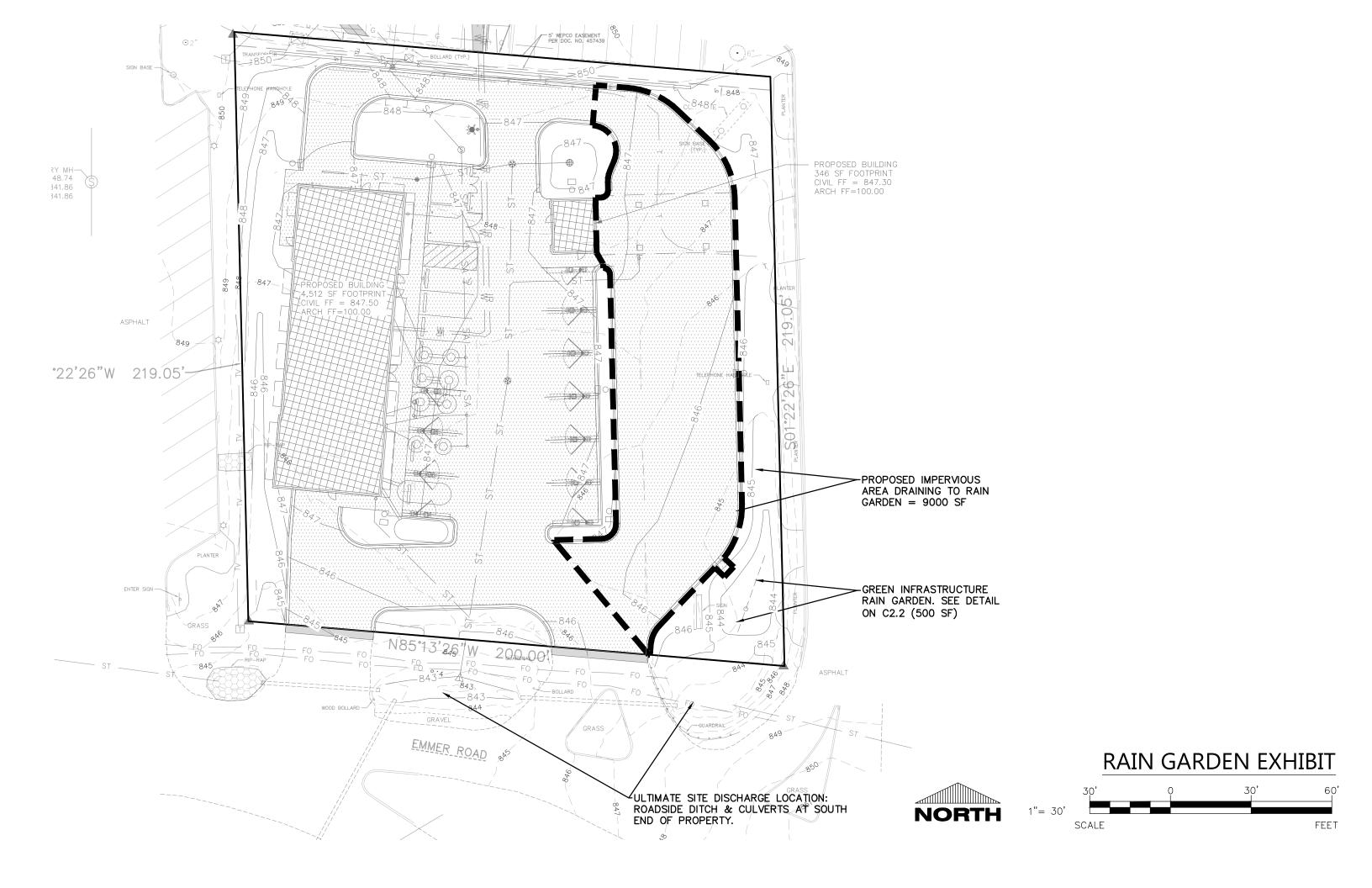
## **Appendix A: Existing Drainage Patterns**



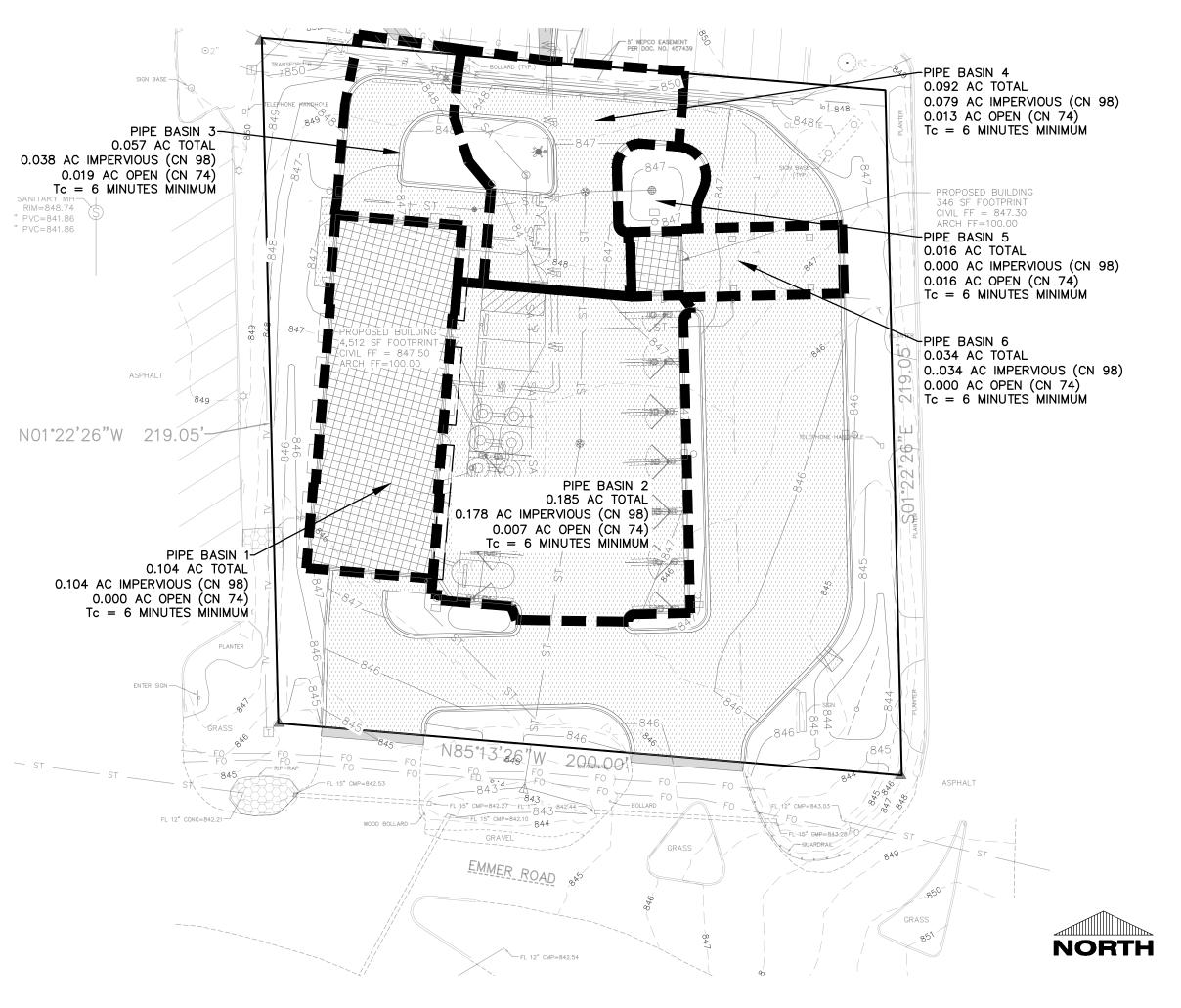
## **EXISTING SITE DRAINAGE PATTERNS**



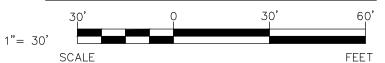
## Appendix B: Green Infrastructure Drainage Exhibit



## **Appendix C: Storm Pipe Calculations**



#### STORM SEWER BASIN MAP







PIPE BASIN 1 PIPE BASIN 4





PIPE BASIN 2 PIPE BASIN 5





PIPE BASIN 3 PIPE BASIN 6









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Pipe Calculations
Prepared by {enter your company name here}
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# **Area Listing (all nodes)**

0.488	95	TOTAL AREA
0.055	74	(2S, 3S, 4S, 5S)
0.433	98	(1S, 2S, 3S, 4S, 6S)
(acres)		(subcatchment-numbers)
Area	CN	Description

# **Pipe Calculations**

MSE 24-hr 3 10 YR Rainfall=3.82"

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Page 3

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: PIPE BASIN 1 Runoff Area=0.104 ac 100.00% Impervious Runoff Depth>3.58"

Tc=6.0 min CN=98 Runoff=0.57 cfs 0.031 af

Subcatchment2S: PIPE BASIN 2 Runoff Area=0.185 ac 96.22% Impervious Runoff Depth>3.47"

Tc=6.0 min CN=97 Runoff=1.00 cfs 0.054 af

Subcatchment3S: PIPE BASIN 3 Runoff Area=0.057 ac 66.67% Impervious Runoff Depth>2.75"

Tc=6.0 min CN=90 Runoff=0.27 cfs 0.013 af

Subcatchment4S: PIPE BASIN 4 Runoff Area=0.092 ac 85.87% Impervious Runoff Depth>3.25"

Tc=6.0 min CN=95 Runoff=0.48 cfs 0.025 af

Subcatchment5S: PIPE BASIN 5 Runoff Area=0.016 ac 0.00% Impervious Runoff Depth>1.47"

Tc=6.0 min CN=74 Runoff=0.04 cfs 0.002 af

Subcatchment6S: PIPE BASIN 6 Runoff Area=0.034 ac 100.00% Impervious Runoff Depth>3.58"

Tc=6.0 min CN=98 Runoff=0.19 cfs 0.010 af

Total Runoff Area = 0.488 ac Runoff Volume = 0.135 af Average Runoff Depth = 3.31" 11.27% Pervious = 0.055 ac 88.73% Impervious = 0.433 ac

Page 4

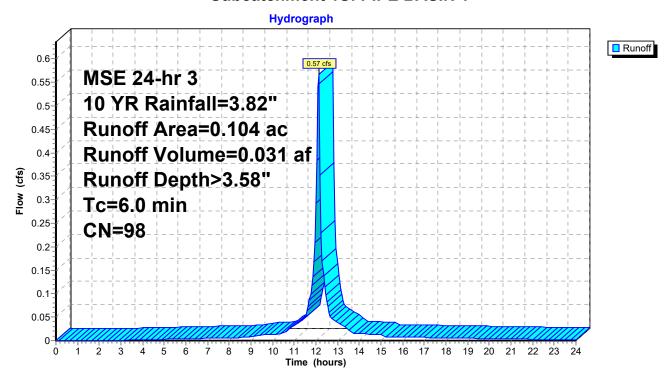
# **Summary for Subcatchment 1S: PIPE BASIN 1**

Runoff = 0.57 cfs @ 12.13 hrs, Volume= 0.031 af, Depth> 3.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs MSE 24-hr 3 10 YR Rainfall=3.82"

	Area	(ac)	CN	Desc	cription		
*	0.	.104	98				
	0.	104		100.	00% Impe	rvious Area	1
	Тс	Leng	th S	Slope	Velocity	Capacity	Description
_	(min)	(fee	et)	(ft/ft)	(ft/sec)	(cfs)	
	6.0						Direct Entry,

# Subcatchment 1S: PIPE BASIN 1



Page 5

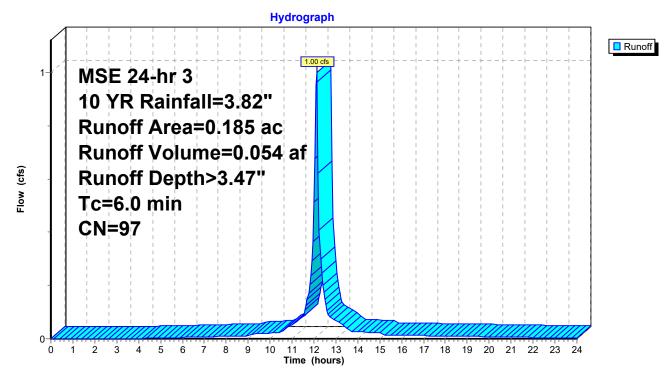
# **Summary for Subcatchment 2S: PIPE BASIN 2**

Runoff = 1.00 cfs @ 12.13 hrs, Volume= 0.054 af, Depth> 3.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs MSE 24-hr 3 10 YR Rainfall=3.82"

	Area	(ac)	CN	Desc	cription		
*	0.	178	98				
*	0.	007	74				
	0.	185	97	Weig	ghted Aver	age	
	0.	007		3.78	% Perviou	s Area	
	0.	178		96.2	2% Imper	ious Area	
	Тс	Leng	th	Slope	Velocity	Capacity	Description
	(min)	(fee	et)	(ft/ft)	(ft/sec)	(cfs)	
	6.0						Direct Entry,

# Subcatchment 2S: PIPE BASIN 2



Page 6

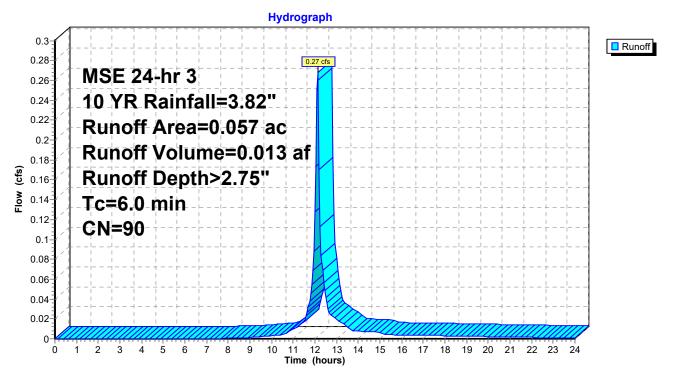
# **Summary for Subcatchment 3S: PIPE BASIN 3**

Runoff = 0.27 cfs @ 12.13 hrs, Volume= 0.013 af, Depth> 2.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs MSE 24-hr 3 10 YR Rainfall=3.82"

	Area	(ac)	CN	Desc	cription		
*	0.	038	98				
*	0.	019	74				
	0.	057	90	Weig	ghted Aver	age	
	0.	019		33.3	3% Pervio	us Area	
	0.	038		66.6	7% Imper	∕ious Area	
	Tc (min)	Leng (fee		Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	6.0	,	•		,	,	Direct Entry,

# **Subcatchment 3S: PIPE BASIN 3**



Page 7

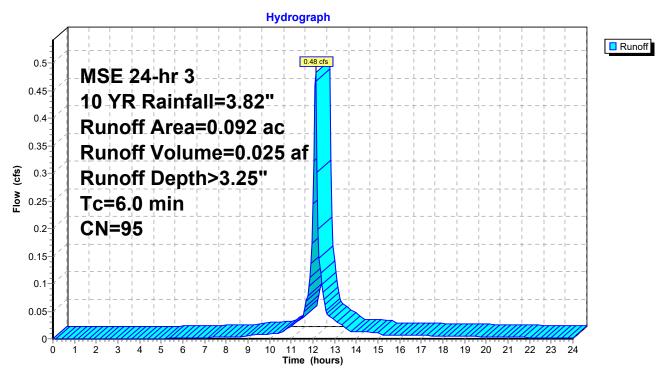
# **Summary for Subcatchment 4S: PIPE BASIN 4**

Runoff = 0.48 cfs @ 12.13 hrs, Volume= 0.025 af, Depth> 3.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs MSE 24-hr 3 10 YR Rainfall=3.82"

	Area	(ac)	CN	Desc	cription		
*	0.	079	98				
*	0.	013	74				
	0.	092	95	Weig	hted Aver	age	
	0.	013		14.1	3% Pervio	us Area	
	0.	079		85.8	7% Imper	ious Area	
	Тс	Leng		Slope	Velocity	Capacity	Description
_	(min)	(fee	et)	(ft/ft)	(ft/sec)	(cfs)	
	6.0						Direct Entry,

# Subcatchment 4S: PIPE BASIN 4



Page 8

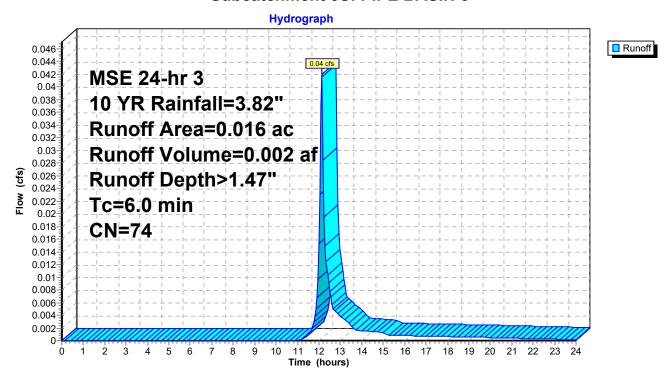
# **Summary for Subcatchment 5S: PIPE BASIN 5**

Runoff = 0.04 cfs @ 12.14 hrs, Volume= 0.002 af, Depth> 1.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs MSE 24-hr 3 10 YR Rainfall=3.82"

	Area	(ac)	CN	Desc	cription		
*	0.	016	74				
	0.	016		100.	00% Pervi	ous Area	
	Тс	Leng	jth :	Slope	Velocity	Capacity	Description
	(min)	(fee	et)	(ft/ft)	(ft/sec)	(cfs)	
	6.0						Direct Entry,

# Subcatchment 5S: PIPE BASIN 5



Page 9

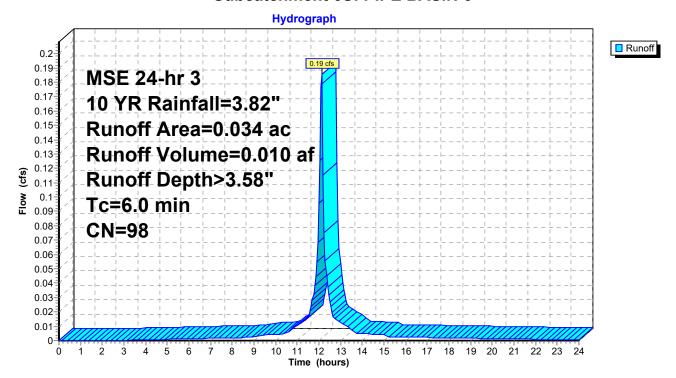
# **Summary for Subcatchment 6S: PIPE BASIN 6**

Runoff = 0.19 cfs @ 12.13 hrs, Volume= 0.010 af, Depth> 3.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs MSE 24-hr 3 10 YR Rainfall=3.82"

	Area	(ac)	CN	Desc	cription		
*	0.	034	98				
	0.	034		100.	00% Impe	rvious Area	a
	Тс	Leng	th :	Slope	Velocity	Capacity	Description
_	(min)	(fee	t)	(ft/ft)	(ft/sec)	(cfs)	
	6.0						Direct Entry,

# Subcatchment 6S: PIPE BASIN 6





Excel Engineering Project No. 230022600 Project Name Crew Carwash - Germantown

	Pip	oe Data		Pipe Capacity (10-yr)					
Pipe ID	Diameter (FT)	Slope (FT/FT)	Manning's n	Contributing Basin Numbers	Total Flow (cfs)	Total Flow (gpm)	Full Flow Capacity (cfs)	Full Flow Capacity (gpm)	
Α	1	0.0053	0.012	1,2,3,4,5,6	2.55	1144	2.82	1264	
В	0.67	0.0150	0.012	1	0.57	256	1.63	731	
С	1	0.0050	0.012	3,4,5,6	0.98	440	2.74	1228	
D	0.67	0.0050	0.012	6	0.19	85	0.94	422	
Е	0.83	0.0040	0.012	5	0.04	18	1.49	668	
F	0.67	0.0055	0.012	3	0.27	121	0.99	443	
G	0.67	0.0055	0.012	3	0.27	121	0.99	443	

Full Flow Capacity based off Manning's Equation

$Q = \frac{1.49}{n}$	$R^{2/3}S^{1/2}$ a
n	

Typical Manning's n HDPE

0.012 PVC 0.012

Concrete 0.013 CMP 0.024

Pipe Basin Number	10 Yr Flow (cfs)
1	0.57
2	1.00
3	0.27
4	0.48
5	0.04
6	0.19

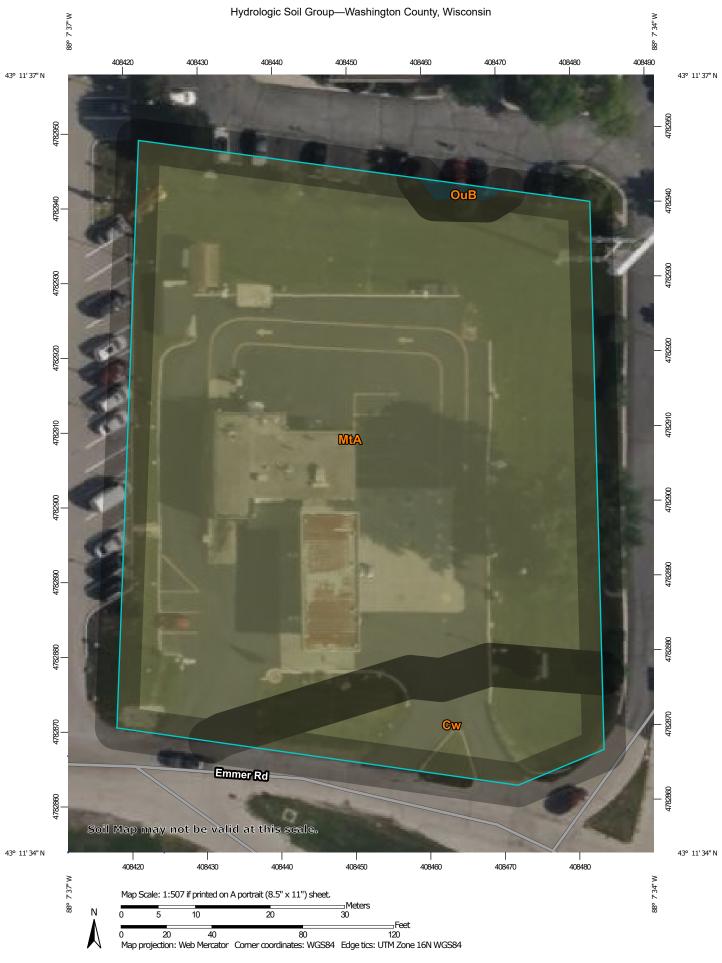
Where: Q = Full Flow Capacity of Pipe (cfs) n = manning's roughness coefficient

R = hydraulic radius (ft) (D/4)s = hydraulic gradient, slope (ft/ft)

a = flow area (sq. ft.)

<sup>\*</sup>Total Flow calculated via TR-55 hydrologic calculations. Reference Storm Pipe Basin Map & TR-55 Calculations

# Appendix D: Web Soil Survey Map



### MAP LEGEND MAP INFORMATION The soil surveys that comprise your AOI were mapped at Area of Interest (AOI) С 1:15.800. Area of Interest (AOI) C/D Soils Warning: Soil Map may not be valid at this scale. D Soil Rating Polygons Enlargement of maps beyond the scale of mapping can cause Not rated or not available Α misunderstanding of the detail of mapping and accuracy of soil **Water Features** line placement. The maps do not show the small areas of A/D contrasting soils that could have been shown at a more detailed Streams and Canals Transportation B/D Rails ---Please rely on the bar scale on each map sheet for map measurements. Interstate Highways C/D Source of Map: Natural Resources Conservation Service **US Routes** Web Soil Survey URL: D Major Roads Coordinate System: Web Mercator (EPSG:3857) Not rated or not available -Local Roads Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts Soil Rating Lines Background distance and area. A projection that preserves area, such as the Aerial Photography Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required. This product is generated from the USDA-NRCS certified data as of the version date(s) listed below. B/D Soil Survey Area: Washington County, Wisconsin Survey Area Data: Version 23, Sep 8, 2023 Soil map units are labeled (as space allows) for map scales 1:50.000 or larger. Not rated or not available Date(s) aerial images were photographed: Aug 4, 2022—Sep 13. 2022 **Soil Rating Points** The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background A/D imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident. B/D

# **Hydrologic Soil Group**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Cw	Colwood silt loam, 0 to 2 percent slopes	C/D	0.1	10.6%
MtA	Mequon silt loam, 1 to 3 percent slopes	C/D	1.1	89.0%
OuB	Ozaukee silt loam, high carbonate substratum, 2 to 6 percent slopes	С	0.0	0.4%
Totals for Area of Inter	rest	1.2	100.0%	

# **Description**

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

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

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

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

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

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

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

# **Rating Options**

Aggregation Method: Dominant Condition
Component Percent Cutoff: None Specified

Tie-break Rule: Higher

# Appendix E: Post Construction Operation and Maintenance Plan

The owner of the property affected shall inspect and maintain the following stormwater management systems frequently, especially after heavy rainfalls, but at least on an annual basis unless otherwise specified.

ODA 414/A TED T - 611 1TT	7/05 05 467/04
	TYPE OF ACTION
Lawn and Landscaped Areas	All lawn areas shall be kept clear of any materials that block the flow of stormwater. Rills and small gullies shall immediately be filled and seeded or have sod placed in them. The lawn shall be kept mowed, tree seedlings shall be removed, and litter shall be removed from landscaped areas.
Swales	All grassed swales showing signs of erosion, scour, or channelization shall be repaired, reinforced, and revegetated immediately. All swales shall be repaired to the original plan requirements. Mowing shall take place no less than twice per year at a height of no less than three inches. Grasses shall not be allowed to grow to a height that permits branching or bending. Mowing shall only take place when the ground is dry and able to support machinery.
Rip Rap	All rip rap showing signs of erosion or scour shall be repaired and reinforced immediately. Rip rap should be kept clean of vegetation and sediment. All rip rap shall be repaired to the construction plan requirements.
Catch Basin/Curb Inlet	The grate openings to these structures must be kept cleared of any
Grates	clogging or the blocking of stormwater flow.
Rain Garden	During the first 2-3 months of establishment, the garden will require, at a minimum, watering on a weekly basis depending on weather. Visual inspections of the garden shall be performed annually at a minimum and more frequently during establishment. Maintenance shall be required when standing water occurs 3 days after a rain event. Rain garden can be dewatered by utilizing a submersible pump in the maintenance port/drawdown device. Maintenance shall consist of the removal of sediment, and a 2 foot undercut. Replace the undercut material with 1/3 topsoil, 1/3 compost, and 1/3 sand. Restoration of plant material shall be by plugging 1 native perennial per square foot, not by seeding. In the spring of each growing year, dead vegetation shall be removed to allow for new growth. At least 2 times during the growing season, the garden should be weeded and additional hardwood mulch shall be added as needed to assist in weed suppression.
Record of Maintenance	The operation and maintenance plan shall remain onsite and be available for inspection when requested by the local governing agency. When requested, the owner shall make available for inspection all maintenance records to the department or agent for the life of the system.
	Swales  Rip Rap  Catch Basin/Curb Inlet Grates  Rain Garden  Record of



GERMANTOWN, WI







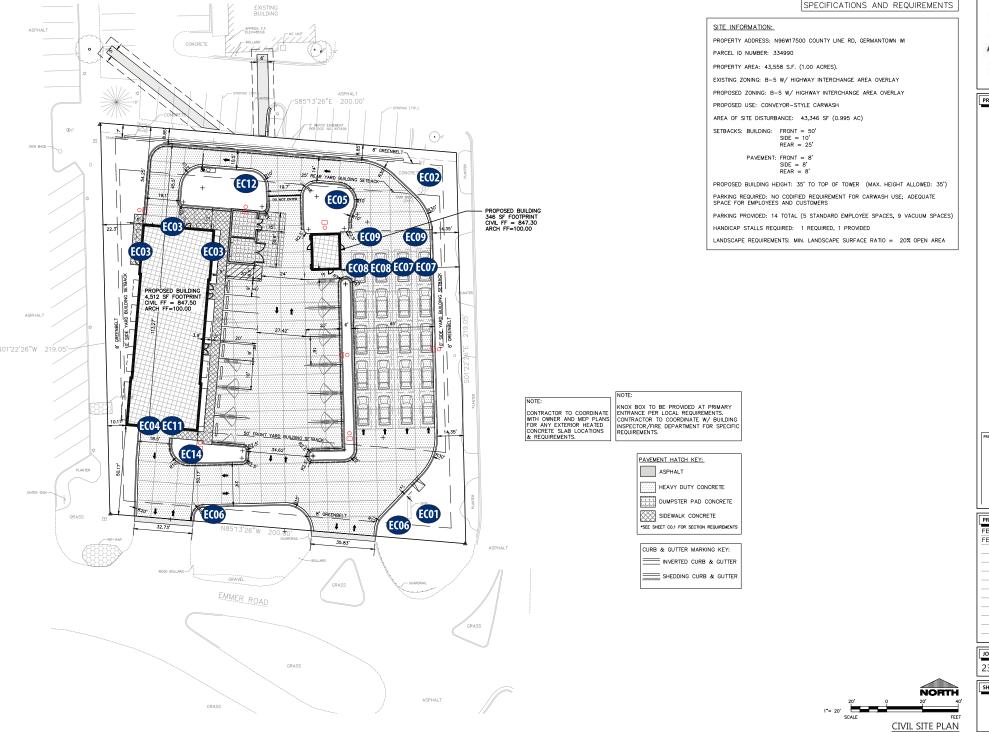








# **SITE MAP**



E	XCEL
Alv	vays a Better Plan
11000	100 Camelot Drive
F	ond du Lac, WI 54935 920-926-9800
	excelengineer.com

SPECIFICATION NOTE: SEE SHEET CO.1 FOR PLAN

PROPOSED CAR WASH FOR: **CREW CARWASH**COUNTY LINE RD • GERMANTOWN, WI 53022



230022600

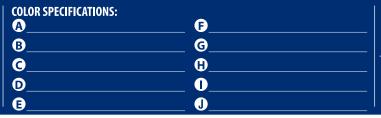
# **SIGN SPECIFICATIONS**

EC01	<b>EXISTING MONUMENT</b>
EC02	EXISTING PYLON
EC03	3 CHANNEL LETTERS
EC04	EXIT CHANNEL LETTERS
EC05	DIGITAL MENU BOARD
EC06	2 DIRECTIONAL SIGNS
EC07	2 UNLIMITED CLUB SETS
EC08	2 CASHIER SETS
EC09	4 SNAP FRAMES
EC10	2 SPECIAL SERVICE SIGNS
EC11	CLEAN CAR EXIT
EC12	WE ARE RESPONSIBLE SIGN
EC13	CLEARANCE BAR
EC14	VACUUMS SIGN
EC15	COMING SOON SITE SIGN









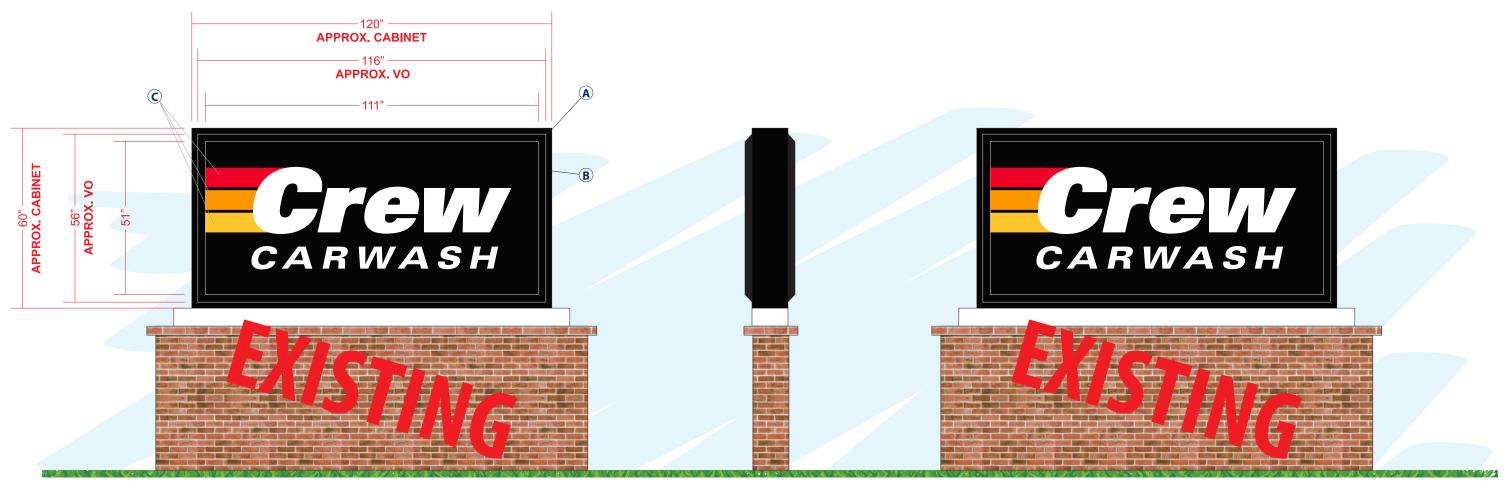
**NOTE**: THERE WILL BE COLOR VARIATIONS FROM THIS PRINTED DRAWING TO THE FINAL PRODUCT. COLORS | **SCI REP:** SPECIFIED WILL ALWAYS BE MATCHED AS CLOSELY AS POSSIBLE. RENDERING IS BASED ON ESTIMATED DIMENSIONS. A FINAL SURVEY MAY ALTER ILLUSTRATED REPRESENTATION AND PLACEMENT.

**IF ILLUM INATED**: WILL BE WIRED TO 120 VOLT UNLESS OTHERWISE SPECIFIED. THIS SIGN IS INTENDED TO BE **DATE:** INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 600 OF THE NATIONAL ELECTRICAL CODE AND/OR OTHER APPLICABLE LOCAL CODES. THIS INCLUDES PROPER GROUNDING AND BONDING OF THE SIGN.

**DESIGNER: PERMIT INFORMATION:** JR N/A

**REVISION DATE:** 01/29/2024

FINAL DATE & BY: | SHEET #: 0/0



\*NOTE: A SURVEY IS NEEDED TO DETERMINE SIZE OF NEW FACES

\*NOTE: CABINET TO BE REPAINTED BLACK

FABRICATE AND INSTALL QTY 2 NEW FACES FOR EXISTING D/F MONUMENT SIGN

**FACES** 

MATERIAL - PAN FORMED, EMBOSSED PLASTIC TO MATCH SPECS

**FLANGE** - 2 1/2" **PAN DEPTH** - 2"

**INSTALLATION** - MOUNTED INTO RIGID RETAINERS







PHOTO SCALE: 3/16" = 1' - 0"



ORLD SIGN SOCIATES	(ŲL)
AI	
CE ACCURACE	I SA MEMBER

ŲĮ)	COLOR SPECIFICATIONS:  A BLACK BODY	<b>G</b>
ÎTA	<b>B</b> BLACK RETAINERS	
	© MATCH COLOR SAMPLE	<b>(1)</b>
S <sup>A</sup> .	D	0
MEMBER	<b>(3</b>	

**NOTE:** THERE WILL BE COLOR VARIATIONS FROM THIS PRINTED DRAWING TO THE FINAL PRODUCT. COLORS SPECIFIED WILL ALWAYS BE MATCHED AS CLOSELY AS POSSIBLE. RENDERING IS BASED ON ESTIMATED DIMENSIONS. A FINAL SURVEY MAY ALTER ILLUSTRATED REPRESENTATION AND PLACEMENT.

**IF ILLUMINATED**: WILL BE WIRED TO 120 VOLT UNLESS OTHERWISE SPECIFIED. THIS SIGN IS INTENDED TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 600 OF THE NATIONAL ELECTRICAL CODE AND/OR OTHER APPLICABLE LOCAL CODES. THIS INCLUDES PROPER GROUNDING AND BONDING OF THE SIGN.

CI REP:	DE
3	JR

DESIGNER: PERMIT INFORMATION:
IR N/A

**DATE:** 01/29/2024

REVISION DATE: FINAL

FINAL DATE & BY: SHEET #:

DT CCALE, 2 /0// 1/ 0



\*NOTE: A SURVEY IS NEEDED TO DETERMINE SIZE OF NEW FACES

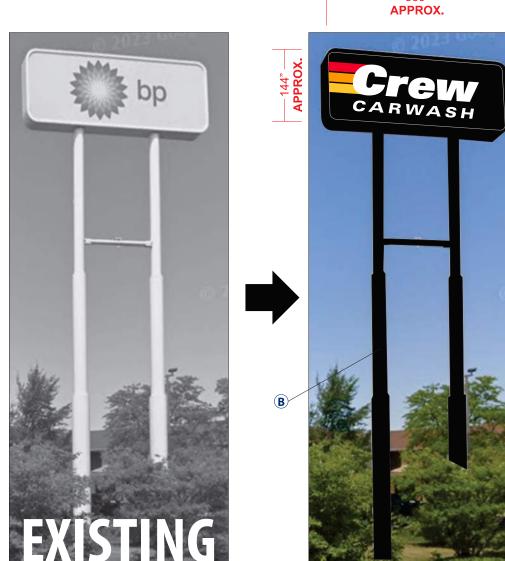
\*NOTE: PYLON TO BE REPAINTED BLACK

FABRICATE AND INSTALL QTY 2 NEW FACES FOR EXISTING D/F PYLON SIGN

**FACES** 

MATERIAL - FLEX FACE MATERIAL PRINTED TO MATCH SPECS

**INSTALLATION** - MOUNTED INTO EXISTING RIGID RETAINERS











COLOR SPECIFICATIONS:  A DIG. PRINT	G
B MP BLACK	
©	<b>(</b>
<b>D</b>	<b>0</b>
<b>3</b>	<b>J</b>

**NOTE**: THERE WILL BE COLOR VARIATIONS  $\,$  FROM THIS PRINTED DRAWING TO THE FINAL PRODUCT. COLORS  $\,$   $\,$  **SCI RE** PECIFIED WILL ALWAYS BE MATCHED AS CLOSELY AS POSSIBLE. RENDERING IS BASED ON ESTIMATED

EP:	DESIGNER:
	JR

PERMIT INFORMATION:

**REVISION DATE:** 01/29/2024

FINAL DATE & BY: SHEET #:

# 

# RENDERING #: 0124-0096 PRECOMED METAL CORNOC COLOR: PEWTER MICA COLOR

# ARCHITECTURAL ALIMINUM WALL PANEL SYSTEM COLOR: PEWIER MICA SE ELEVATION SE ELEVATION SE ELEVATION LO, PAR, HIGH OCCOR: PEWIER MICA LO, PAR, LIGH OCCOR: PEWIER MICA LO, PAR, LOW OCCOR: PEWIER MICA LO, CANOPY COLOR: SHP ALIMINUM STOREFRONT AND GLAZING SYSTEM COLOR: CLEAR ANDOLED COLOR: CLEAR ANDOLED

# FABRICATE AND INSTALL QTY 3 INTERNALLY ILLUMINATED FACE-LIT BUILDING SIGNS

**RIBBON CABINET** 

**BODY** - 1" ALUMINUM ANGLE SKINNED IN .090 ALUMINUM

**RETURNS** – 3"TO MATCH SPECS

**RETAINERS** – 1" RIGID RETAINERS TO MATCH SPECS

**LEDS** - WHITE - **ADD EXTRA LEDS** 

**INSTALLATION** - MOUNTED FLUSH TO FASCIA

**RIBBON FACES** 

MATERIAL - PAN FORMED, EMBOSSED PLASTIC PAINTED

**INSTALLATION** - MOUNTED INTO RIGID RETAINERS

SECOND SURFACE TO MATCH SPECS

**FLANGE** - 1 1/4" **PAN DEPTH** - 1"

"CREW" & "CARWASH"

**FACES** - 1/8" 2447 WHITE ACRYLIC

**RETURNS** – 4"TO MATCH SPECS

TRIM CAPS - 1"TO MATCH SPECS

BACKS - .063 ALUMINUM

**LEDS** – WHITE

**INSTALLATION** - MOUNTED FLUSH TO FASCIA



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

SignCraft SINDUSTRIES

WORLD SIGN
ASSOCIATES

SGIA

COLOR SPECIFICATIONS:

BLACK RETURNS

BLACK TRIM CAPS

BLACK RETAINERS

MATCH COLOR SAMPLE

MEMBER

D MATCH COLOR SAMPLE

D MATCH COLOR SAMPLE

NOTE: THERE WILL BE COLOR VARIATIONS FROM THIS PRINTED DRAWING TO THE FINAL PRODUCT. COLORS SPECIFIED WILL ALWAYS BE MATCHED AS CLOSELY AS POSSIBLE. RENDERING IS BASED ON ESTIMATED CB

CB

CB

IF ILLUMINATED: WILL BE WIRED TO 120 VOLT UNLESS OTHERWISE SPECIFIED. THIS SIGN IS INTENDED TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 600 OF THE NATIONAL ELECTRICAL CODE AND/OR OTHER APPLICABLE LOCAL CODES. THIS INCLUDES PROPER GROUNDING AND BONDING OF THE SIGN.

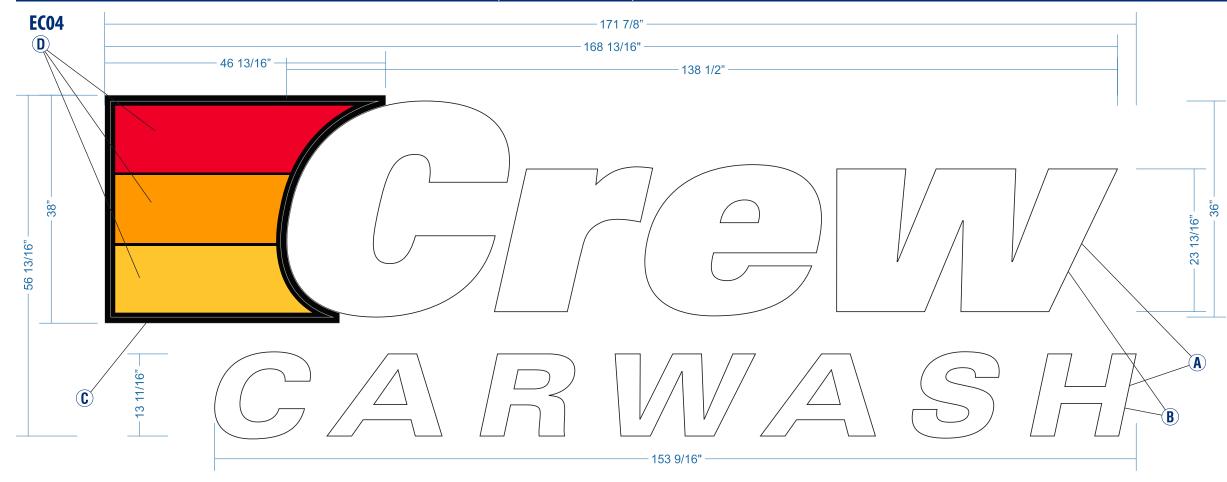
DATE: 01/29/

SCI REP:
CB
JR
PERMIT INFORMATION:
N/A

DATE:
01/29/2024

DESIGNER:
PERMIT INFORMATION:
N/A

FINAL DATE & BY:
SHEET #:
2 / 1



# FABRICATE AND INSTALL QTY 1 INTERNALLY ILLUMINATED FACE-LIT BUILDING SIGN

# **RIBBON CABINET**

**BODY** - 1" ALUMINUM ANGLE SKINNED IN .090 ALUMINUM

**RETURNS** – 3"TO MATCH SPECS

**RETAINERS** – 1" RIGID RETAINERS TO MATCH SPECS

**LEDS** - WHITE - **ADD EXTRA LEDS** 

**INSTALLATION** - MOUNTED FLUSH TO FASCIA

### RIBBON FACES

MATERIAL - PAN FORMED, EMBOSSED PLASTIC PAINTED

SECOND SURFACE TO MATCH SPECS

**FLANGE** - 1 1/4" PAN DEPTH - 1"

**INSTALLATION** - MOUNTED INTO RIGID RETAINERS

"CREW" & "CARWASH"

**FACES** - 1/8" 2447 WHITE ACRYLIC

**RETURNS** – 4"TO MATCH SPECS

TRIM CAPS - 1"TO MATCH SPECS

**BACKS** - .063 ALUMINUM

**LEDS** – WHITE

**INSTALLATION** - MOUNTED FLUSH TO FASCIA

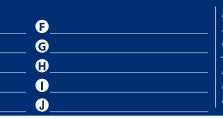


PHOTO SCALE: 1/16'' = 1' - 0''



WORLD SIGN ASSOCIATES	(į
GIA	
C.	T.
SIGN COUNCIL	MEN

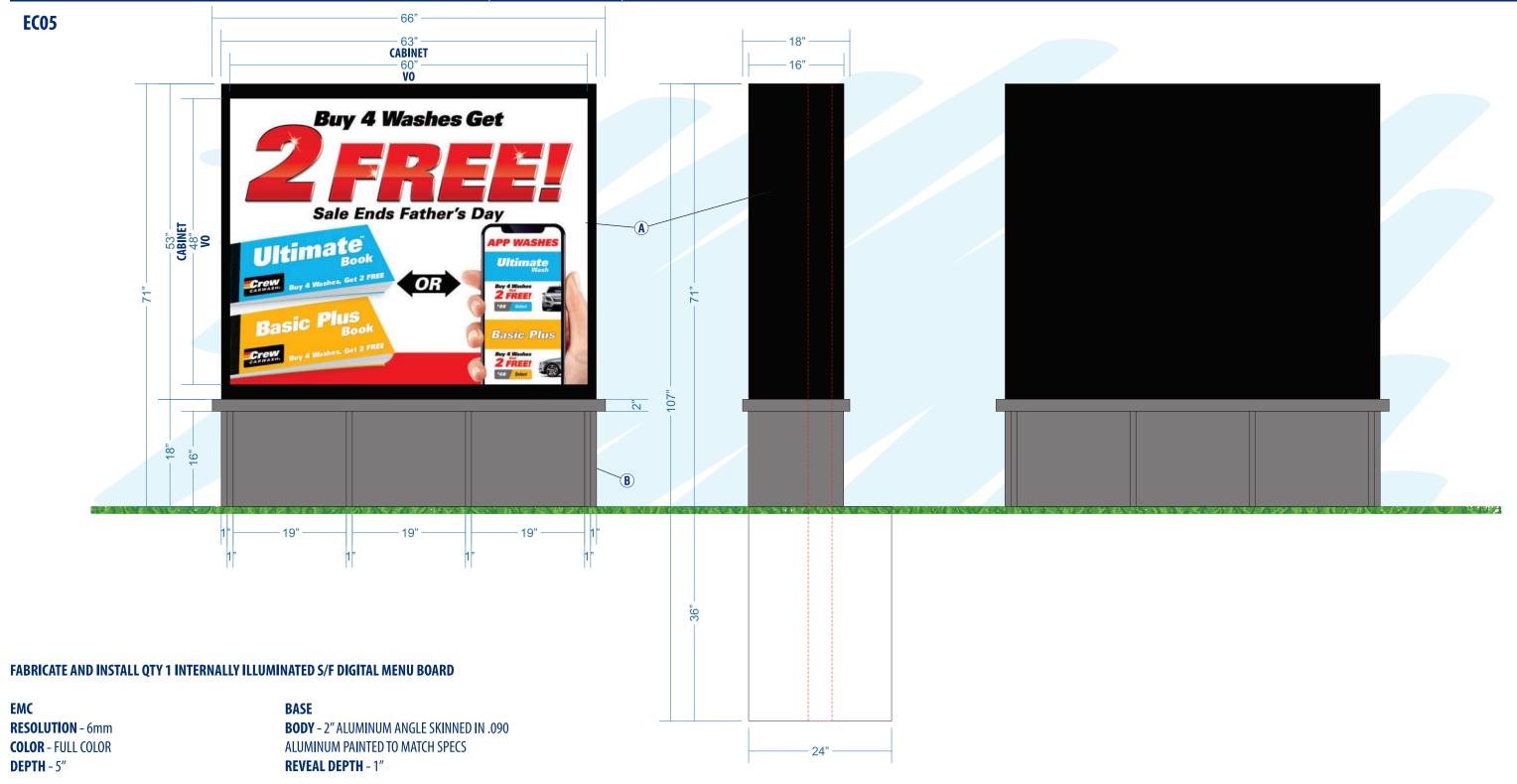
ZS (UL)	COLOR SPECIFICATIONS:  A BLACK RETURNS B BLACK TRIM CAPS BLACK RETAINERS D MATCH COLOR SAM E



**NOTE**: THERE WILL BE COLOR VARIATIONS FROM THIS PRINTED DRAWING TO THE FINAL PRODUCT. COLORS SPECIFIED WILL ALWAYS BE MATCHED AS CLOSELY AS POSSIBLE. RENDERING IS BASED ON ESTIMATED DIMENSIONS. A FINAL SURVEY MAY ALTER ILLUSTRATED REPRESENTATION AND PLACEMENT.

INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 600 OF THE NATIONAL ELECTRICAL CODE AND/OR OTHER APPLICABLE LOCAL CODES. THIS INCLUDES PROPER GROUNDING AND BONDING OF THE SIGN.

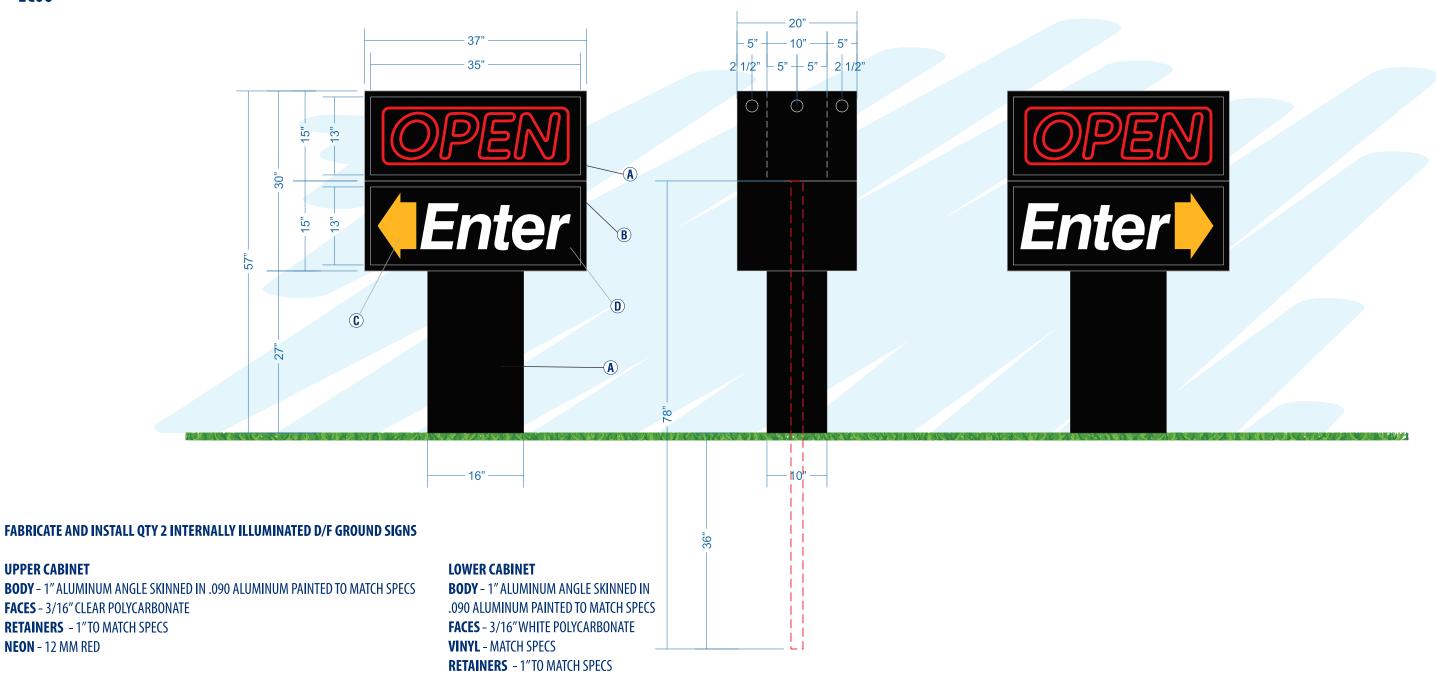
<b>SCI REP:</b> CB	<b>DESIGNER:</b> JR	PERMIT INFORMATION: N/A		
<b>DATE:</b> 01/29/2024	REVISION DATE:	FINAL DATE & BY:	SHEET #:	



**INSTALLATION** - MOUNTED TO SIGN BASE & POST

**INSTALLATION** - MOUNTED AROUND 4" SCH 40 PIPE BURIED INTO GRADE





**INSTALLATION** – BAFFLE & DIVIDER NEEDED BETWEEN TOP AND BOTTOM CABINETS

# **BASE**

**BODY** - 1" ALUMINUM ANGLE SKINNED IN .090 ALUMINUM PAINTED TO MATCH SPECS

**INSTALLATION** - INSTALLED AROUND 2" SQ ALUMINUM POST BURIED INTO GRADE

**INSTALLATION** - MOUNTED TO BASE & POST



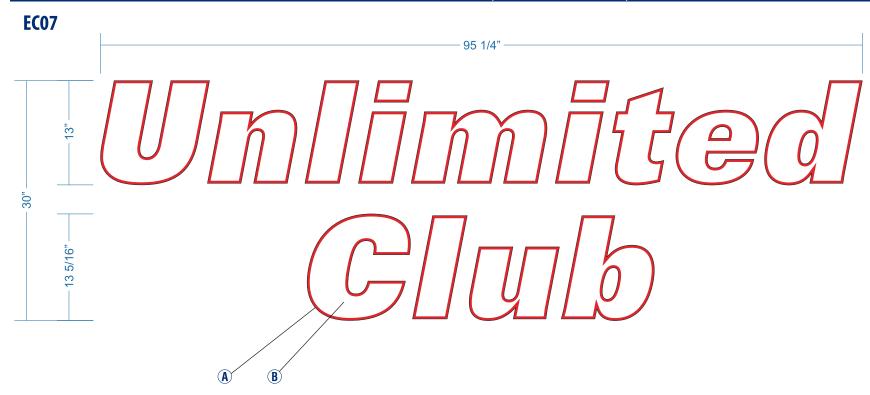


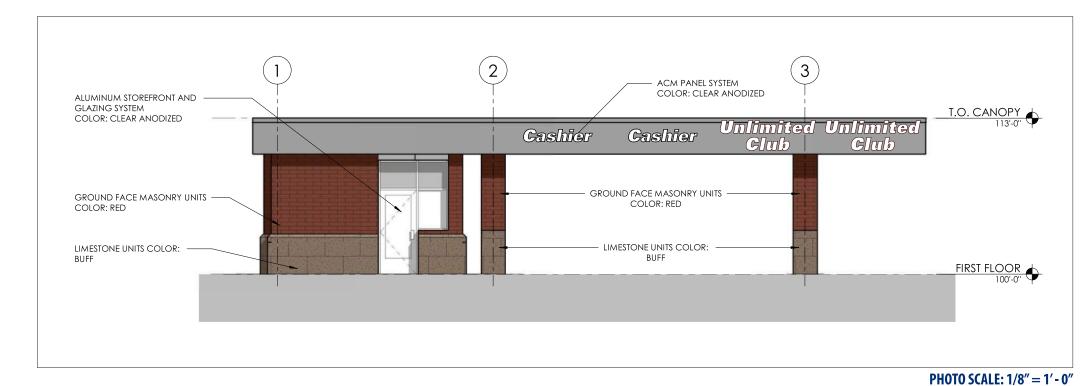
COLOR SPECIFICATIONS:  MP BLACK	(F)
B MP BLACK RETAINERS	G DI
© ORACAL 8500-020 GOLDEN YELLOW	T. I.
ORACAL 651-070 BLACK	
<b>3</b>	J AM

NOTE: THERE WILL BE COLOR VARIATIONS FROM THIS PRINTED DRAWING TO THE FINAL PRODUCT. COLORS SPECIFIED WILL ALWAYS BE MATCHED AS CLOSELY AS POSSIBLE. RENDERING IS BASED ON ESTIMATED DIMENSIONS. A FINAL SURVEY MAY ALTER ILLUSTRATED REPRESENTATION AND PLACEMENT.

**IF ILLUMINATED**: WILL BE WIRED TO 120 VOLT UNLESS OTHERWISE SPECIFIED. THIS SIGN IS INTENDED TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 600 OF THE NATIONAL ELECTRICAL CODE AND/OR OTHER APPLICABLE LOCAL CODES. THIS INCLUDES PROPER GROUNDING AND BONDING OF THE SIGN.

<b>SCI REP:</b> CB	<b>DESIGNER:</b> JR	<b>PERMIT INFORMATION:</b> N/A	
<b>DATE:</b> 01/29/2024	REVISION DATE:	FINAL DATE & BY:	SHEET #: 6 / 15



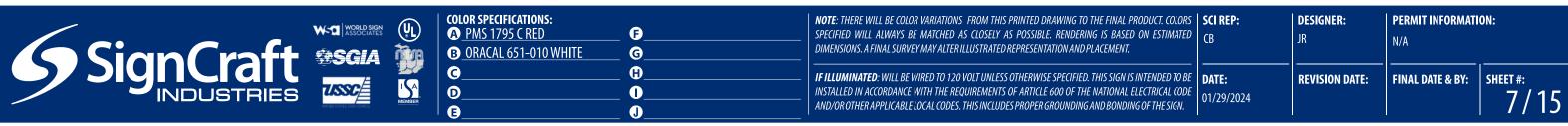


# FABRICATE AND INSTALL QTY 2 NON-ILLUMINATED LETTER SETS

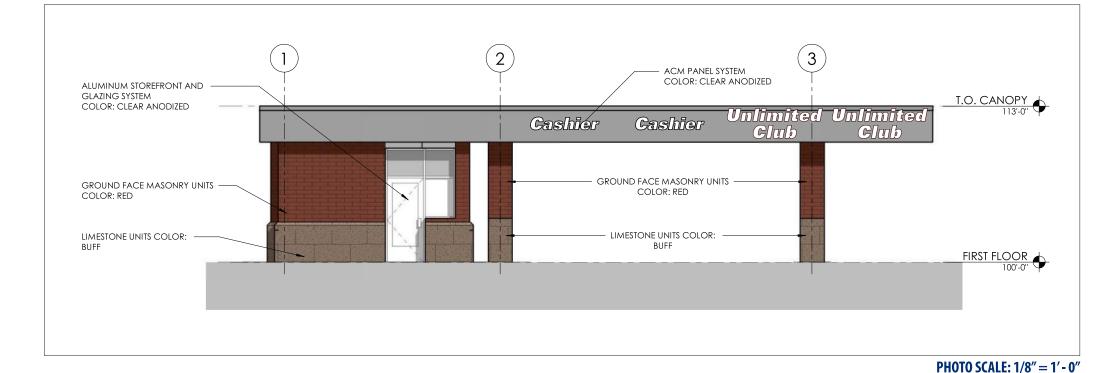
**FACES** – 1"WHITE PVC PAINTED TO MATCH SPECS

**VINYL** - MATCH SPECS

**INSTALLATION** - MOUNTED FLUSH TO CANOPY







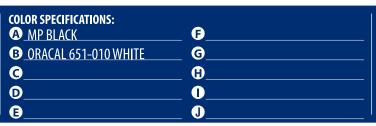
# FABRICATE AND INSTALL QTY 2 NON-ILLUMINATED LETTER SETS

**FACES** – 1" WHITE PVC PAINTED TO MATCH SPECS **VINYL** - MATCH SPECS

**INSTALLATION** - MOUNTED FLUSH TO CANOPY







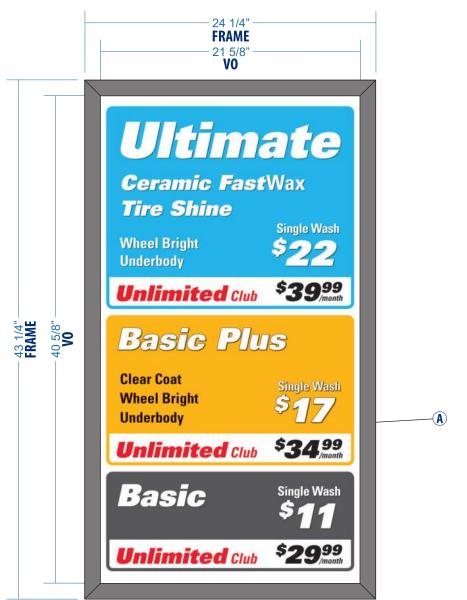
**NOTE**: THERE WILL BE COLOR VARIATIONS FROM THIS PRINTED DRAWING TO THE FINAL PRODUCT. COLORS | **SCI REP**: SPECIFIED WILL ALWAYS BE MATCHED AS CLOSELY AS POSSIBLE. RENDERING IS BASED ON ESTIMATED DIMENSIONS. A FINAL SURVEY MAY ALTER ILLUSTRATED REPRESENTATION AND PLACEMENT.

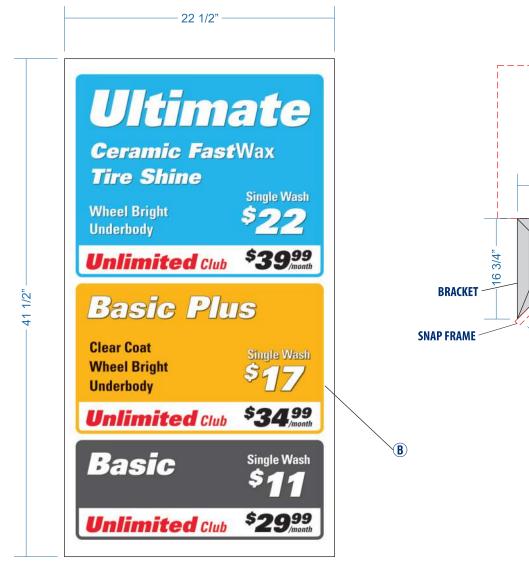
**IF ILLUM INATED**: WILL BE WIRED TO 120 VOLT UNLESS OTHERWISE SPECIFIED. THIS SIGN IS INTENDED TO BE **DATE:** INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 600 OF THE NATIONAL ELECTRICAL CODE AND/OR OTHER APPLICABLE LOCAL CODES. THIS INCLUDES PROPER GROUNDING AND BONDING OF THE SIGN.

**DESIGNER: PERMIT INFORMATION:** JR N/A **REVISION DATE:** 01/29/2024

FINAL DATE & BY: | SHEET #:







DIBOND FACE ONLY

# **FABRICATE AND INSTALL QTY 4 SNAP FRAMES**

BODY
SIGN COMP KIT – 1899 & 1869A PAINTED TO MATCH SPECS

**ASSEMBLED SIGN** 

**INSTALLATION** - QTY 2 FRAMES FLUSH MOUNTED TO COLUMNS, QTY 2 FRAMES ANGLED OFF COLUMNS

FACES
MATERIAL - 3MM WHITE DIBOND
VINYL - MATCH SPECS

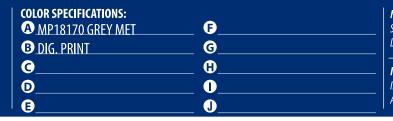
**INSTALLATION** - MOUNTED INTO SNAP FRAMES

ANGLED BRACKETS
BODY - 2" ALUMINUM ANGLE

**INSTALLATION** - MOUNTED TO SNAP FRAME AND COLUMN







NOTE: THERE WILL BE COLOR VARIATIONS FROM THIS PRINTED DRAWING TO THE FINAL PRODUCT. COLORS SPECIFIED WILL ALWAYS BE MATCHED AS CLOSELY AS POSSIBLE. RENDERING IS BASED ON ESTIMATED DIMENSIONS. A FINAL SURVEY MAY ALTER ILLUSTRATED REPRESENTATION AND PLACEMENT.

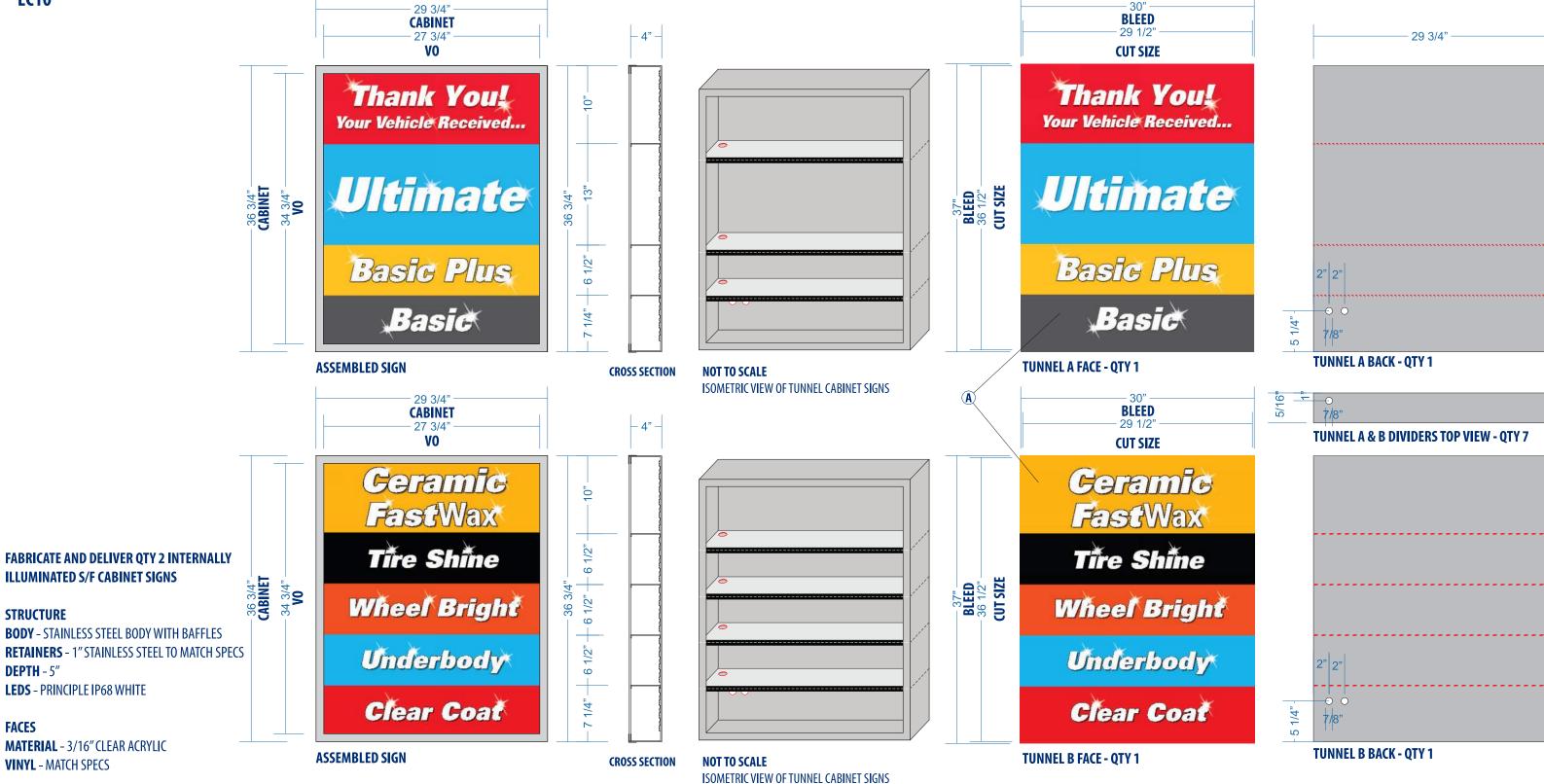
COLUMN

16 3/4" -

**IF ILLUMINATED**: WILL BE WIRED TO 120 VOLT UNLESS OTHERWISE SPECIFIED. THIS SIGN IS INTENDED TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 600 OF THE NATIONAL ELECTRICAL CODE AND/OR OTHER APPLICABLE LOCAL CODES. THIS INCLUDES PROPER GROUNDING AND BONDING OF THE SIGN.

SCI REP:	<b>DESIGNER:</b>	PERMIT INFORMATI	ON:
CB	JR	N/A	
<b>DATE:</b> 01/29/2024	REVISION DATE:	FINAL DATE & BY:	SHEET #: 9 / 1 <sup>4</sup>











NOTE: THERE WILL BE COLOR VARIATIONS FROM THIS PRINTED DRAWING TO THE FINAL PRODUCT. COLORS SPECIFIED WILL ALWAYS BE MATCHED AS CLOSELY AS POSSIBLE. RENDERING IS BASED ON ESTIMATED DIMENSIONS. A FINAL SURVEY MAY ALTER ILLUSTRATED REPRESENTATION AND PLACEMENT.

**IF ILLUMINATED:** WILL BE WIRED TO 120 VOLT UNLESS OTHERWISE SPECIFIED. THIS SIGN IS INTENDED TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 600 OF THE NATIONAL ELECTRICAL CODE AND/OR OTHER APPLICABLE LOCAL CODES. THIS INCLUDES PROPER GROUNDING AND BONDING OF THE SIGN.

SCI REP:

CB

JR

REVISION DATE:

01/29/2024

DESIGNER:

N/A

FINAL DATE & BY:

10/2



# **FABRICATE AND INSTALL QTY 1 NON-ILLUMINATED LETTER SET**

**FACES** – 1"WHITE PVC PAINTED TO MATCH SPECS

**INSTALLATION** - MOUNTED FLUSH TO FASCIA

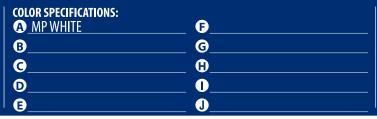


PHOTO SCALE: 1/16" = 1' - 0"





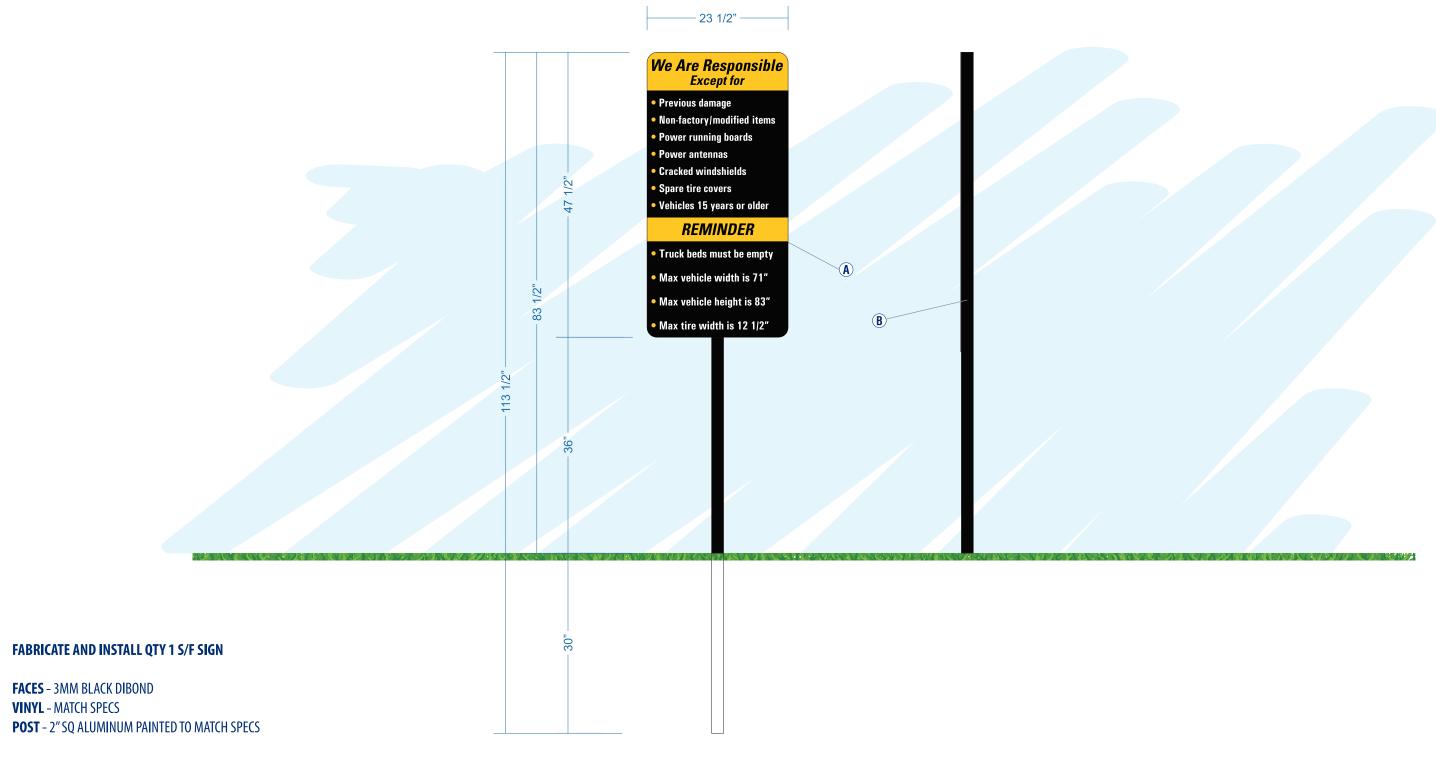




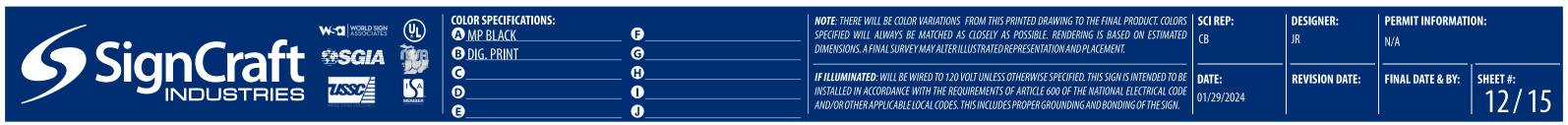
**NOTE:** THERE WILL BE COLOR VARIATIONS FROM THIS PRINTED DRAWING TO THE FINAL PRODUCT. COLORS SPECIFIED WILL ALWAYS BE MATCHED AS CLOSELY AS POSSIBLE. RENDERING IS BASED ON ESTIMATED DIMENSIONS. A FINAL SURVEY MAY ALTER ILLUSTRATED REPRESENTATION AND PLACEMENT.

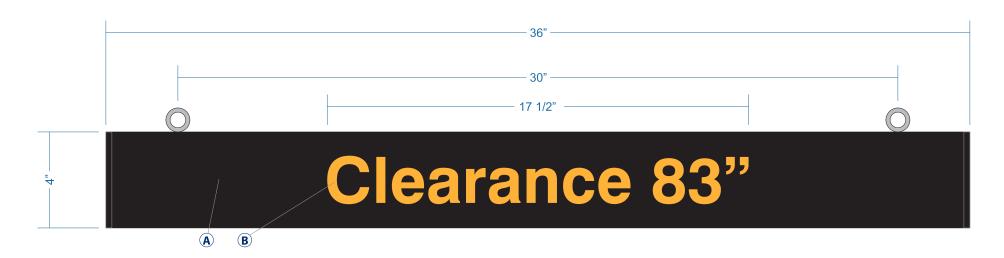
**IF ILLUMINATED**: WILL BE WIRED TO 120 VOLT UNLESS OTHERWISE SPECIFIED. THIS SIGN IS INTENDED TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 600 OF THE NATIONAL ELECTRICAL CODE AND/OR OTHER APPLICABLE LOCAL CODES. THIS INCLUDES PROPER GROUNDING AND BONDING OF THE SIGN.

<b>SCI REP:</b>	<b>DESIGNER:</b>	<b>PERMIT INFORMATI</b>	ON:
CB	JR	N/A	
<b>DATE:</b> 01/29/2024	REVISION DATE:	FINAL DATE & BY:	SHEET #:



**INSTALLATION** - FACE MOUNTED TO POST, POST BURIED INTO GRADE





# **FABRICATE AND INSTALL QTY 1 S/F CLEARANCE BAR**

MATERIAL - 4" ROUND PVC PIPE WITH CAPS ON ENDS AND PAINTED TO MATCH SPECS

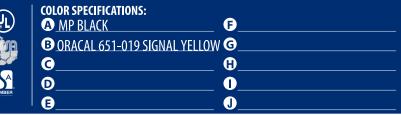
EYE HOOKS - STAINLESS STEEL

VINYL - TO MATCH SPECS

**INSTALLATION** - HUNG WITH AIRCRAFT CABLE 83" ABOVE GRADE







NOTE: THERE WILL BE COLOR VARIATIONS FROM THIS PRINTED DRAWING TO THE FINAL PRODUCT. COLORS

SPECIFIED WILL ALWAYS BE MATCHED AS CLOSELY AS POSSIBLE. RENDERING IS BASED ON ESTIMATED

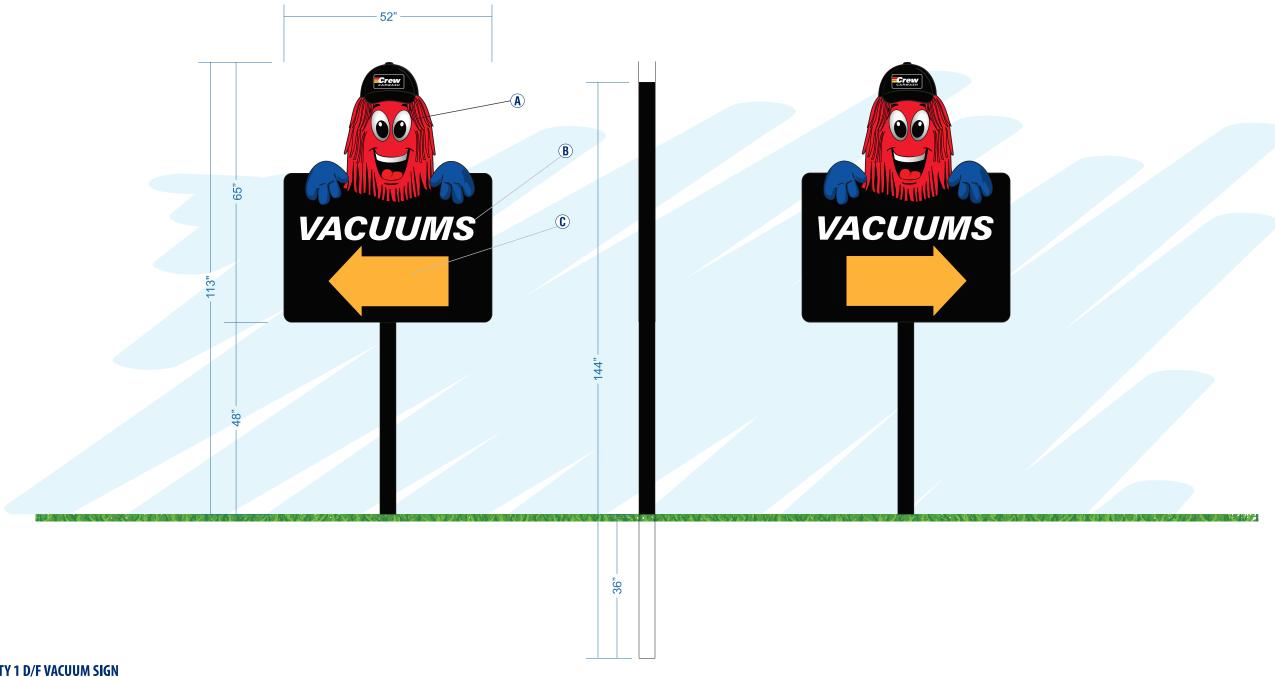
DIMENSIONS. A FINAL SURVEY MAY ALTER ILLUSTRATED REPRESENTATION AND PLACEMENT.

JEILIUMINATED: WILL BE WIRED TO 120 VOIT LINIESS OTHERWISE SPECIFIED. THIS SIGN IS INTENDED TO BE

**IF ILLUMINATED**: WILL BE WIRED TO 120 VOLT UNLESS OTHERWISE SPECIFIED. THIS SIGN IS INTENDED TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 600 OF THE NATIONAL ELECTRICAL CODE AND/OR OTHER APPLICABLE LOCAL CODES. THIS INCLUDES PROPER GROUNDING AND BONDING OF THE SIGN.

<b>SCI REP:</b> CB	<b>DESIGNER:</b> JR	<b>PERMIT INFORMATION:</b> N/A	
DATE: 01/29/2024	REVISION DATE:	FINAL DATE & BY:	SHEET #





# FABRICATE AND INSTALL QTY 1 D/F VACUUM SIGN

FACES – 3MM BLACK DIBOND VINYL – MATCH SPECS

**POST** - 4" SQ ALUMINUM PAINTED TO MATCH SPECS

**INSTALLATION** - FACES MOUNTED TO POST, POST BURIED INTO GRADE





(UL)	COLOR SPECIFICATIONS:  A DIG. PRINT	G
ANA	BORACAL 651-010 WHITE	<b>G</b>
	© ORACAL 651-019 SIG. YELLOW	<b>(</b> )
ISA.	<b>D</b>	0
MEMBER	<u> </u>	<b>. .</b>

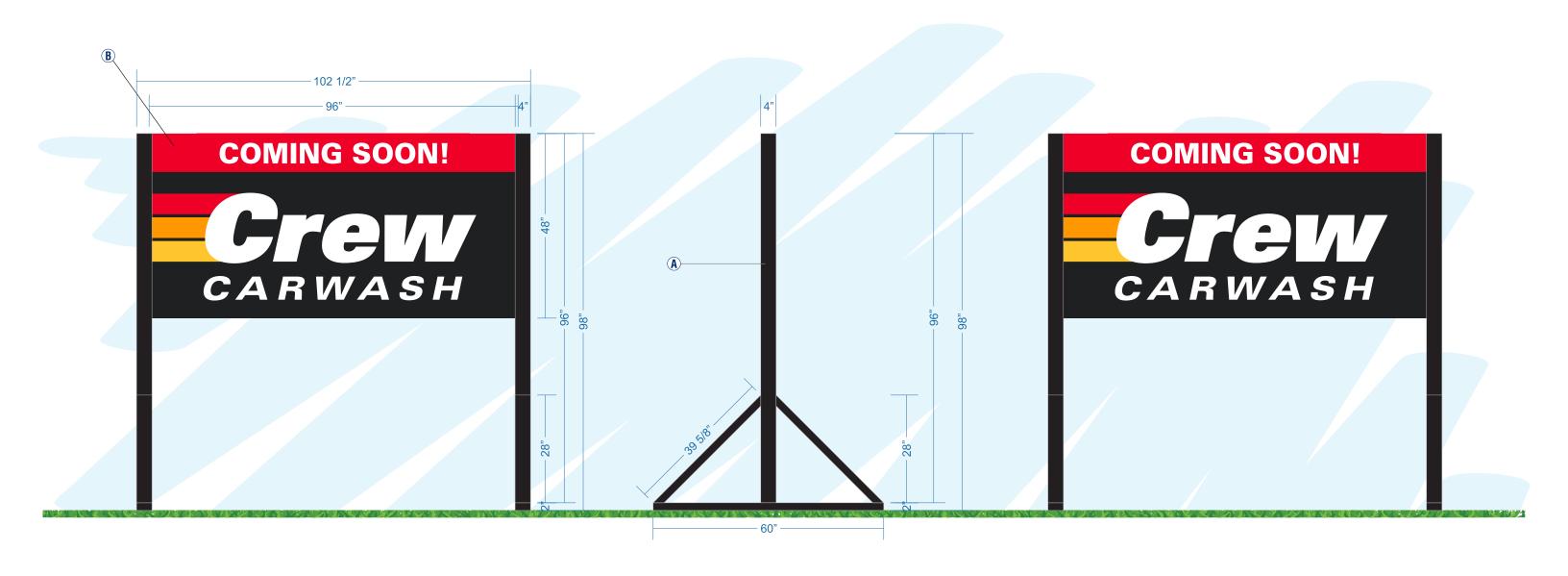
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IF ILLUMINATED: WILL BE WIRED TO 120 VOLT UNLESS OTHERWISE SPECIFIED. THIS SIGN IS INTENDED TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 600 OF THE NATIONAL ELECTRICAL CODE AND/OR OTHER APPLICABLE LOCAL CODES. THIS INCLUDES PROPER GROUNDING AND BONDING OF THE SIGN.

DATE:

01/29/2024

CB JR N/	'A
SCI REP: DESIGNER: PE	ERMIT INFORMATION:



## FABRICATE AND INSTALL QTY 1 D/F STANDING SIGN POSTS W/ SANDBAGS

**FACES** – 1/2" ALUMCORE PRINTED TO MATCH SPECS

**POSTS** – QTY 3 – 10'2x4 TREATED WOOD PAINTED TO MATCH SPECS QTY 2 – 8'4x4 POSTS PAINTED TO MATCH SPECS





(ŲL)	COLOR SPECIFICATIONS:  MP BLACK	<b>F</b>
ATTEN AND AND AND AND AND AND AND AND AND AN	<b>B</b> DIG. PRINT	
	<b>G</b>	<b>(</b>
ISA.	0	<b>0</b>
MEMBER	<b>(3</b>	<b>①</b>

NOTE: THERE WILL BE COLOR VARIATIONS FROM THIS PRINTED DRAWING TO THE FINAL PRODUCT. COLORS SPECIFIED WILL ALWAYS BE MATCHED AS CLOSELY AS POSSIBLE. RENDERING IS BASED ON ESTIMATED CB DIMENSIONS. A FINAL SURVEY MAY ALTER ILLUSTRATED REPRESENTATION AND PLACEMENT.

IF ILLUMINATED: WILL BE WIRED TO 120 VOLT UNLESS OTHERWISE SPECIFIED. THIS SIGN IS INTENDED TO BE

DATE:

D TO BE L CODE 01/29/2024

DESIGNER:

JR

N/A

REVISION DATE:

FINAL DATE & BY:

The state of the











