



Planning Commission
September 19, 2023 - 6:00 PM
233 South Main Street, Monroe, Ohio

Call to Order

Roll Call

Approval of Minutes

- August 15, 2023 meeting minutes

Old Business

New Business

- Case No. 2023-9-5- Consideration of Site Plan Application for Ohana Car Wash

Administrative Reports

Adjournment



Planning Commission Minutes
August 15, 2023
233 South Main Street, Monroe, Ohio

Call to Order

Mr. Frye, Vice Chair, called the meeting to order at 6:00 p.m.

Roll Call

Planning Commission members present: Matthew Frye, Christina McElfresh, Tony Marconi and Debbie Hagedorn. Members not present: David Kirkpatrick

Staff members present: Kameryn Jones, Assistant Director of Development; Jameson Cole, Planner

Mrs. McElfresh moved to excuse Mr. Kirkpatrick from the meeting; seconded by Mr. Marconi. Voice vote. Motion carried.

Approval of the Minutes

Mrs. McElfresh moved to approve the minutes of the June 20, 2023, meeting; seconded by Mr. Marconi. Voice vote. Motion carried.

Old Business

None.

New Business

Mr. Frye introduced Case No. 2023-8-4. Consideration of a Site Plan Application for Corken Steel

Mr. Cole presented the case. Mr. Cole stated the background as follows:

- Clarisey-Frank Architecture has submitted a site plan application for an expansion to the existing Corken Steel building located at 341 Brearden Drive.
- The expansion will be 12,290 square feet of additional warehousing space. The existing space is 24,561 square feet and is comprised of retail sales area and warehousing space. This is a 50 percent increase.
- The property is approximately 1.92 acres and is zoned C-1 Highway Commercial.
- The applicant anticipates a construction start date at the end of August and completion in March 2024.

Mr. Cole presented the Board of Zoning Appeals case as follows:

- Per 1207.05 (E) Expansion of a Nonconforming Use, nonconforming nonresidential uses must go before the Board of Zoning Appeals for approval of any expansions.
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- On July 10th Corken Steel went before the Board of Zoning Appeals to request a variance to proceed with the planned expansion of their use, which is considered legal non-conforming (industrial use in commercial district).
- During the 2010-2012 code update this property was rezoned from L-1 Light industrial to C-1 Highway Commercial.
- The Board voted to approve the expansion with no conditions, allowing the applicant to move forward with this site plan application before Planning Commission.

Mr. Cole stated staff comments as follows:

- Architectural:
 - The proposed expansion is required to meet current commercial architectural standards.
 - The applicant proposes the expansion match the existing materials of the principal building, which is considered to be corrugated metal. Corrugated metal is prohibited per code.
 - Further, the proposed expansion does not comply with commercial architectural guidelines in regards to material type, design elements such as base-body-cap, window requirements, etc.

- Parking:
 - Per section 1211.03 (A)(2)b) Change or Expanded Uses, the site is required to come into compliance with current code for parking given the size of the proposed building expansion:

b) If the proposed change, expansion or enlargement will increase the floor area, number of dwelling units, seating capacity, or other area to an extent larger than 35 percent of the building or use prior to the effective date of this code, then the entire site shall come into compliance with the requirements of this chapter and Chapter 1212.
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- For sales and display space use, 1 parking stall per 300 SF is required.
- Based on 2,028 square feet of sales and display space, 7 spaces are required.
- For storage/warehousing use, 1 parking stall per 1,250 SF is required. Based on 34,823 square feet, 28 spaces are required.
- The code permits the applicant by right to reduce or increase the parking count by 10%. Based on 36,851 square feet total, 35 spaces are required. 10% waiver by right would require an absolute maximum of 39 parking spaces. The applicant is proposing 36 parking spaces.

- Wheel stops or continuous curbs shall be provided in areas adjacent to sidewalks, walkways, and landscaping areas to protect such areas from damage or encroachment of vehicles and to provide necessary traffic control in the vehicular use area.
- Landscaping:
 - Per section 1211.03 (A)(2)b) Change or Expanded Uses, the site is required to come into compliance with current code for landscaping given the size of the proposed building expansion:

b) If the proposed change, expansion or enlargement will increase the floor area, number of dwelling units, seating capacity, or other area to an extent larger than 35 percent of the building or use prior to the effective date of this code, then the entire site shall come into compliance with the requirements of this chapter and Chapter 1212.
 - Landscape islands are required at the end of all internal parking rows. Each landscape island shall have a minimum size of 135 SF and be planted with one tree and three shrubs.
 - Based on the site plan the applicant would be required to have six landscape islands.
 - The applicant has not proposed any landscape islands.
 - A minimum of one canopy tree is required for every 5 parking spaces with a three (3) foot tall visual screen of shrubs required in front of all parking areas. For areas not directly visible from a right -of-way, perimeter requirements may be reduced to no less that one canopy tree and 5 shrubs for every five parking spaces.
 - No perimeter landscaping has been proposed.
 - The access drive is required to have one canopy tree per every 50 linear feet and three bushes for every 15 linear feet.
 - No landscaping along the access drive is proposed.
 - A minimum 20% of the required front yard must be landscaped, with a minimum 6-foot wide landscape bed along the right-of-way.
 - Street trees shall be planted 40 feet on center along all streets.
 - 6 trees are required along Breaden Drive. None have been proposed.
 - Truck docks shall be screened from public view. Screening elements shall include walls (same material and color as principle structure), landscaping, mounds or any combination thereof.
 - There are truck docks along the eastern side of the building directly facing Breaden Drive.
 - Although for the front yard landscaping, the street trees requirement, and service structure screening, the applicant is responsible for complying; the current site is entirely paved in the front yard areas with an access drive and loading dock area. The applicant would need to remove concrete and create green space along Breaden Drive to meet these requirements.

- Screening:
 - Buffer Type B is required along the north and west sides of the property (expansion portion of site only) as the north and west sides of the expansion area are surrounded by C-1 Highway Commercial zoned property.
 - The property adjacent to the expansion portion is zoned L-1 Light Industrial and would not require any buffering.

TABLE 1212-2: BUFFER TYPES		
BUFFER TYPE AND CONFIGURATION	OPTION 1: MINIMUM WIDTH 35 FEET	OPTION 2: MINIMUM WIDTH 20 FEET
Buffer Type B: Aesthetic - This perimeter buffer functions as an intermittent visual obstruction, and creates the impression of spatial separation without eliminating visual contact between uses.		
	8 ACI of canopy trees + 10 ACI of understory trees + 15 shrubs per 100 linear feet	2 ACI of canopy trees + 14 ACI understory trees + 35 shrubs per 100 linear feet

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- The applicant does not intend to put in any landscaping to meet this buffer requirement but instead is proposing to use existing landscaping that will not be altered as part of the expansion.
- In the pictures below, it appears as though the western property line is well screened with existing vegetation while the northern property line is not.
- Planning Commission may decide to enforce the required buffer on the western property line or to waive the buffer requirement in favor of maintaining the existing buffer on the western property line.

Mr. Cole presented the department comments as follows:

- Fire Department:
 - Corken Steel needs to verify that the current fire suppression can support the additional fire suppression as part of the expansion.
 - The screening to the south along the access drive needs to be trimmed.
 - The fence at the end of the access drive needs to be removed if parking will be taking place in the rear of the property as show on the site plan.
 - Fire reserves the right to comment during plans review.
- Police Department: No comment.
- Public Works/Engineering: Engineering under review.

Mr. Cole presented the staff recommendation as follows:

Staff recommends approval of the site plan and conditional use with the following conditions:



- Discussion and decision regarding whether the architectural elevations are acceptable as submitted or will be required to meet current commercial architectural standards.
- The landscape plan be revised based on staff comments to meet code standards.
- Discussion and decision regarding the buffer yard requirement for the northern property line.
- As a reminder, minimum size and species requirements related to landscaping must be met.
- As a reminder, if ground mounted or rooftop equipment becomes necessary in the future, screening will be required.
- All other Staff comments to be met and any future Engineering review requirements.
- A GIS compatible file of finalized plans be submitted.

Jake Rudemiller spoke on behalf of Corken Steel.

Planning Commission discussed the site plan application. It was determined that the site plan application would be approved based on the following conditions:

- The applicant will work with staff on the landscape plan, particularly regarding the rear northern buffer yard and front yard landscaping requirements.
- As a reminder, all landscaping must meet minimum species and size requirements.
- As a reminder, all ground mounted, and rooftop equipment must be appropriately screened as approved by Staff.
- All ongoing Engineering review comments be addressed.
- Digital files of finalized plans compatible with City GIS be submitted.

Mrs. McElfresh moved to approve Case No. 2023-8-4. Consideration of a site plan application for Corken Steel. Seconded by Mr. Marconi. Roll call vote. motion carried.

Adjournment

Mr. Marconi moved to adjourn; seconded by Mrs. Hagedorn. Voice vote. Motion carried.

The Planning Commission meeting adjourned at 6:49 p.m.

Respectfully submitted,

Michelle Layman
Planning and Zoning Specialist

Planning Commission
September 19, 2023 - 6:00 PM
233 South Main Street, Monroe, Ohio

1. Case No. 2023-9-5— Consideration of Site Plan Application for Ohana Car Wash

1. Background

- Nick Dobbs, on behalf of NJDS LLC, has submitted a site plan application for a car wash facility at the corner of State Route 63 and Gateway Boulevard.
- The applicant is proposing a 5,000 square foot car wash. The car wash is a 130 FT long single wash bay capable of washing five to six cars at one time.
- The site is approximately 3.1 acres currently zoned C-2 General Commercial.



Overhead View of Property



Zoning Map of Proposed Site and Surrounding Properties



Eastbound on State Route 63



Looking south from the corner of State Route 63 and Gateway Blvd



Southbound on Gateway Blvd



Northbound on Gateway Blvd

1. Staff Comments

- **Sidewalks—**

- A minimum 5-foot walk is required along private and public streets.
 1. A 5-foot walk has been shown along Gateway Blvd, but none is shown along State Route 63.
- Please provide sidewalk access to the office entrance to avoid pedestrian interference with oncoming stack lane traffic (see below):

- **Parking –**

- Code requires three parking spaces per washing bay. Considering the 6 stations that each car can be serviced by simultaneously as “bays”, 18 parking spots would be required with an absolute maximum of 20 spaces allowed.
 1. Staff would note there are only 6 dedicated parking spaces. Others function as vacuum spaces.

- **Landscaping—**

- Street trees shall be required every 40 foot on center at all new sites along all private and public streets. Street trees are required along Gateway Boulevard and State Route 63.
 1. The length along SR63 is approximately 500 FT, requiring 13 trees.
 2. The plan does not show any street trees along SR63. Please revise.
- **Architectural–**
- Building elevations that are visible from a public street are to contain windows that occupy at least 25% of the total wall surface area.
 1. This requirement is not met on the west and south elevations.
- Only 20% of each window area may be opaque or spandrel glass. This does not mean that 20% of all windows can be opaque but that 20% of each window segment can be opaque.
 1. Staff requests confirmation of any proposed opaque glass, the percentage, and where it is located.
- Service doors or overhead retractable doors shall not be visible from any public right-of-way. Screening shall be provided to achieve at least 50% opacity up to six feet in height if the door is unable to be located per the requirements above as determined by the Planning Commission or Code Enforcement Officer as applicable. Screening elements shall include walls (same material and color as principal structure), landscaping, mounds, or any combination thereof.
 1. Please address this requirement on the south side of the building.
 2. Service doors and wall mounted equipment must be painted to match the building. Please revise.

1. Department Comments

- **Fire Department:**
 - “No Parking- Fire Lane” signs shall be posted along the access drive.
 - Fire reserves the right to comment during the plans review process.
- **Police Department:** No comment.
- **Engineering/Public Works Department:**
 - If the intent is for this site to have fire service, please call out fire service line and show a dual fire service vault located adjacent to the right of way.
 - Plans need to be submitted to Butler County Water and Sewer for sanitary sewer review.
 - Engineering review is ongoing.

1. Staff Recommendation

- Staff recommends approval of the site plan application with the following conditions:
 - Discussion and decision regarding the sidewalk requirement along the site's ROW frontage on State Route 63.
 - Discussion and decision on the street tree requirement along State Route 63.
 - The applicant will revise architectural plans to address staff comments.
 - The applicant will screen the service doors on the south side of the building as approved by staff.
 - As a reminder, all landscaping must meet all minimum species and size requirements and be detailed appropriately on the plan.
 - As a reminder, all ground mounted, and rooftop equipment must be appropriately screened as approved by Staff.
 - All Engineering review comments be addressed.
 - The applicant will be responsible for maintenance (mowing, etc.) of the right-of-way adjacent to the developed site once improvements are complete.
 - Digital files of final plans compatible with City GIS be submitted.
 - All other Staff comments be met.



Application for Site Plan Review

Monroe Development Department
233 South Main Street, Monroe, Ohio 45050
Phone: 513-539-7374
www.monroehio.org

For Staff Use Only

Submittal Date:

Date Application Determined Complete:

Date of Planning Commission Review:

Fee Paid:

Staff Initials:

Application Number:

Site Plan Review Information

1. The site plan review procedure and applicability requirements are established in Section 1203.06 of the Monroe Planning and Zoning Code.
2. Prior to submitting this application, you are required to meet with staff from the Development Department for a pre-application conference. Please contact the department to schedule the conference.
3. The Monroe Planning Commission reviews all site plan review applications unless specifically exempted in Section 1203.06(B)(3).
4. Approval of a site plan does not constitute approval to begin construction. Applicants with approved site plans are required to submit all applicable zoning permit and building permit applications.
5. Unless an alternative timeline is approved by the Planning Commission, construction related to the approved site plan must begin within one year of the site plan approval or the approval shall be voided. See Section 1203.06(H) for additional information.

Basic Project and Site Information

Project Address: 401 Gateway Blvd. Monroe OH

County: ☐ Butler ☒ Warren Total Lot Area: 3.098

County Tax Parcel ID: 11052000370

Project/Development Name: Ohana Carwash

Existing Zoning District: C-2 General Commercial District

Project Type: ☒ New Building ☐ Expansion of Existing Structure
☐ Addition to Site (e.g., parking, landscaping, lighting, etc.)

Applicant Information

Applicant Name: NJDS LLC

Contact Person: Nicholas Dobbs

Contact Address: 6022 Deerfield Blvd. Unit 160

Contact Phone Number: 740-441-5518

Contact Fax Number:

Contact E-Mail: nick.b.dobbs@gmail.com

Property Owner Name: NJDS LLC

The applicant may attach a separate sheet of a paper with contact information for additional people, if necessary (e.g., additional owners, registered engineer, landscape architect, etc.). The same contact information shall be provided for each contact name.

Project Address or Tax Parcel ID: 11052000370

Additional Project Information

1) Please describe, in detail, any existing uses and/or buildings on the project site.

Farm use, no buildings

2) Please describe, in detail, the proposed uses and the proposed development. Provide a summary of the square footage related to each use and/or the total number of proposed dwelling units.

New Tunnel Carwash, see drawings

3) What are the anticipated start and completion dates for the project?

Start Date: 10/15/2023

Completion Date: 4/15/2023

4) What is the estimated value (in dollars) of the proposed property improvements?

3mm

5) Check any relevant procedural reviews applicable to this project (**previously approved only**):

☐ Conditional Use ☐ Variance ☐ Administrative Waiver ☐ Alternative Equivalent Compliance

If you checked any of the above procedures, please provide specific details on what waivers, variances, etc. were approved through the applicable review procedure? Provide the application/case numbers for any related applications.

Project Address or Tax Parcel ID: 11052000370

Additional Project Information Continued

6) Does the project require any addition permits, licenses, or reviews by outside agencies (e.g., Butler or Warren County, ODNR, OEPA, etc.). ☐ Yes ☐ No **If yes, please describe below.**

Oepa notice of intent, Butler county sanitary and sewer

Certification and Signatures

Applicant Signature - I certify that, to the best of my knowledge, the information contained in this form and within any attachments is correct and truthful. I understand that knowingly falsifying this information may be grounds for the denial or revoking of this application and any subsequent zoning permit or other review applications.

Print Name: Nicholas Dobbs

Signature:

Date: 7/25/2023

Property Owner Signature - If the property owner is not the named applicant on this form, the property owner shall sign the form below acknowledging that the applicant is an authorized agent of the property owner as it relates to proposed project. If the site plan review is for multiple properties, a signature from each property owner is required.

Print Name:

Signature:

Date:

Note: A letter signed by the property owner, authorizing the applicant to act on their behalf may be submitted in lieu of the property owner's signature on this form.

Submittal Requirement Checklist

**Submittals shall include 3 copies (minimum of 24" x 36") and electronic submittal as outlined below.
Final approved plans must be submitted electronically.**

Digital Submittal Requirements

☒	All document applications shall be submitted in an electronic format compatible (Adobe PDF) with the city's computer systems.
☒	All site plan materials, in map format, shall be submitted in a format compatible with the city's Geographic Information Systems (i.e. shapfile, geodatabase, or dwg) and shall be projected into NAD 1983 Ohio State Plane South - FIPS 3402 coordinate system using US Survey foot units.

General Information

☒	Site Plan Review Application form
☒	Application fee
☒	Copies of the plans and maps established below at a scale no smaller than 1 inch = 100 feet, on full-sized copies unless otherwise is required
☒	Any additional information determined to be necessary by the Development Department

Vicinity Map (Scale may be smaller than 1" = 100')

☒	Date, north arrow, scale, and a legend for all symbols
☒	Project location
☒	All surrounding properties, streets, and corporation limits within a minimum of 500' of the outer boundaries of the project site

Existing Conditions Map

☒	All existing zoning district classifications on the site and adjacent to the site
☒	Parcel boundaries of the site and all parcels adjacent to the site
☒	Names of all subdivisions and land owners owning lots adjacent to the site
☒	Existing streets within 200' of site with names and centerlines
☒	Existing watercourses and bodies of water including any applicable flood hazard areas
☒	Planned road network (including street names if available) within 500' of site (if different from existing streets)
☒	Existing land uses on the site and adjacent parcels (including across any streets)
☒	Railroad infrastructure and rights-of-way
☒	All existing easements (including drainage) with dimensions and designation as to type
☒	Location of existing curb cuts, private streets, parking and loading areas, pedestrian walks, lighting facilities, and outside trash storage facilities

Site Layout Plan

☒	Lot numbers and sizes
☒	Square footage (gross) of existing buildings to remain and proposed buildings
☒	Required front, side, and rear yard width/setbacks
☒	All existing and proposed easements, including dimensions and type (e.g., drainage, access, public utility, etc.)
☒	Location, width, and classification of all existing and proposed streets in the development
☒	Location of any outdoor storage area(s) that require screening
☒	Locations of all proposed external street connections (including street stubs)
☒	Location, width, and materials of all sidewalks, trails, and paths (including connections to the public sidewalk system and adjacent developments)

Submittal Requirement Checklist

Parking Plan and Traffic Control Plan

☒	Traffic impact study, if required
☒	Notation of total number of parking spaces, loading spaces, and stacking spaces required by ordinance
☒	Total number, dimensions, and location of parking spaces proposed off-street, on-street, and within parking structures, including information on handicapped parking spaces
☒	Total number of parking spaces to be provided through approval of shadow parking, off-site parking, or shared parking alternatives
☒	Number, location, and size of loading spaces provided
☒	Number and location of stacking spaces provided
☒	Location, arrangement, and dimensions of vehicular entrances, exits and parking lot aisles
☒	Location of pedestrian walkways and crossings
☒	Number and location of pervious parking spaces, if provided
☒	Proposed traffic control devices (in accordance with the Manual on Uniform Traffic Control Devices)
☒	Signing and striping plan
☒	Fire lanes and areas of parking prohibition
☒	Location of all sight triangles

Stormwater Management Sheet and Drainage Plan

☒	Drainage basin(s) where the site is located and drainage patterns
☒	Existing and proposed locations, types, and sizes of drainage structures and calculations demonstrating how post-development runoff will not exceed pre-development runoff
☒	Erosion and siltation control measures and devices with narrative, including location of outfall for stormwater to proper catch basin (indicated sizes and slopes of existing pipes)
☒	Drainage computations from proposed development to proper pickup point
☒	All proposed elevations and slopes for grading
☒	Description of maintenance procedures for stormwater management devices

Utilities Plan (May be included on Site Layout Plan)

☒	Existing and proposed locations, types, and sizes of all water, sanitary sewer, storm sewer, gas, telephone, power and other utility lines and meters, easements and any other utilities affected by the site (includes above ground utilities and grades and computations where appropriate)
☒	Notation that all new utilities (including cable television, electrical, natural gas, sewer, telephone, and water lines) shall be placed underground
☒	Locations where existing overhead utilities will be relocated underground (if applicable)
☒	Identification of any connections, above or below ground, that are located within the City of Monroe's right-of-way

Landscaping Plan

☒	Exact locations, dimensions, and counts of existing and proposed landscape materials provided within and around vehicular use areas, including the size of landscaping islands
☒	Exact locations and counts of existing and proposed landscape materials provided within any required buffer areas including the type of buffer used, the buffer width provided, the proposed configuration of trees, shrubs, and screening features
☒	Location, size, and species of all existing and proposed street trees
☒	The total number of trees and shrubs provided, and the total number of different species planted
☒	Notations for any existing landscape within sight triangles indicating maximum shrub height or tree canopy height

Submittal Requirement Checklist

Submittals shall include 8 copies (minimum of 24" x 36") and 8 copies (minimum of 11" x 17") Additional copies may be required based on project specifics. Final mylars and digital Files will be required after approval.

☒	Location and amount of credit towards landscape material requirements provided by existing landscaping
☒	Demarcation of existing trees to be removed
☒	Location and amount of all open space set-aside areas by development phase
☒	Details of all open space improvements and common features (e.g., fountains, benches, street furnishings, play equipment, etc.)
Architectural and Building Elevation Plans	
☒	Color elevations for each building (principal and accessory) side, illustrating compliance with the architectural standards of the applicable zoning district
☒	Dimensions, in feet, of all façade recesses or similar fenestration
☒	Preliminary floor plan for principal buildings
☒	Height of all buildings in feet, including number of building stories
☐	Accessory structure size(s), if applicable
☐	Accessory structure height(s), if applicable
☒	Description of the type of material(s) used on each façade elevation
☐	Illustrative elevation of all fencing, walls, and retaining walls visible from a street, open space, or public building that will be used for buffering or screening of adjacent residential uses, dumpsters, service structures, utilities, parking areas, loading areas, and similar activity areas
Lighting Plan	
☒	Location, type, and height of all lighting fixtures (including street lights)
☒	Details on colors and materials for all lighting fixtures
☒	Grid or photometric diagram showing maximum illumination values at the lot line, and uniformity ratios within parking lots, measured in footcandles
Signage Plan	
☒	All sign areas, dimensions and height (including shape)
☒	Position of all signs in relation to the use being advertised (may be identified on the site layout plan)
☒	Location and style of all address numbers, building numbers, or allowable building identifications
☒	Plan of illumination for the sign including information on message timing for electronic message centers
☒	Landscaping around base of sign (may be identified on the landscaping plan)

GENERAL NOTES

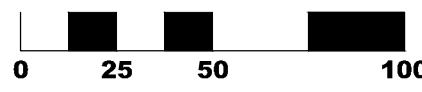
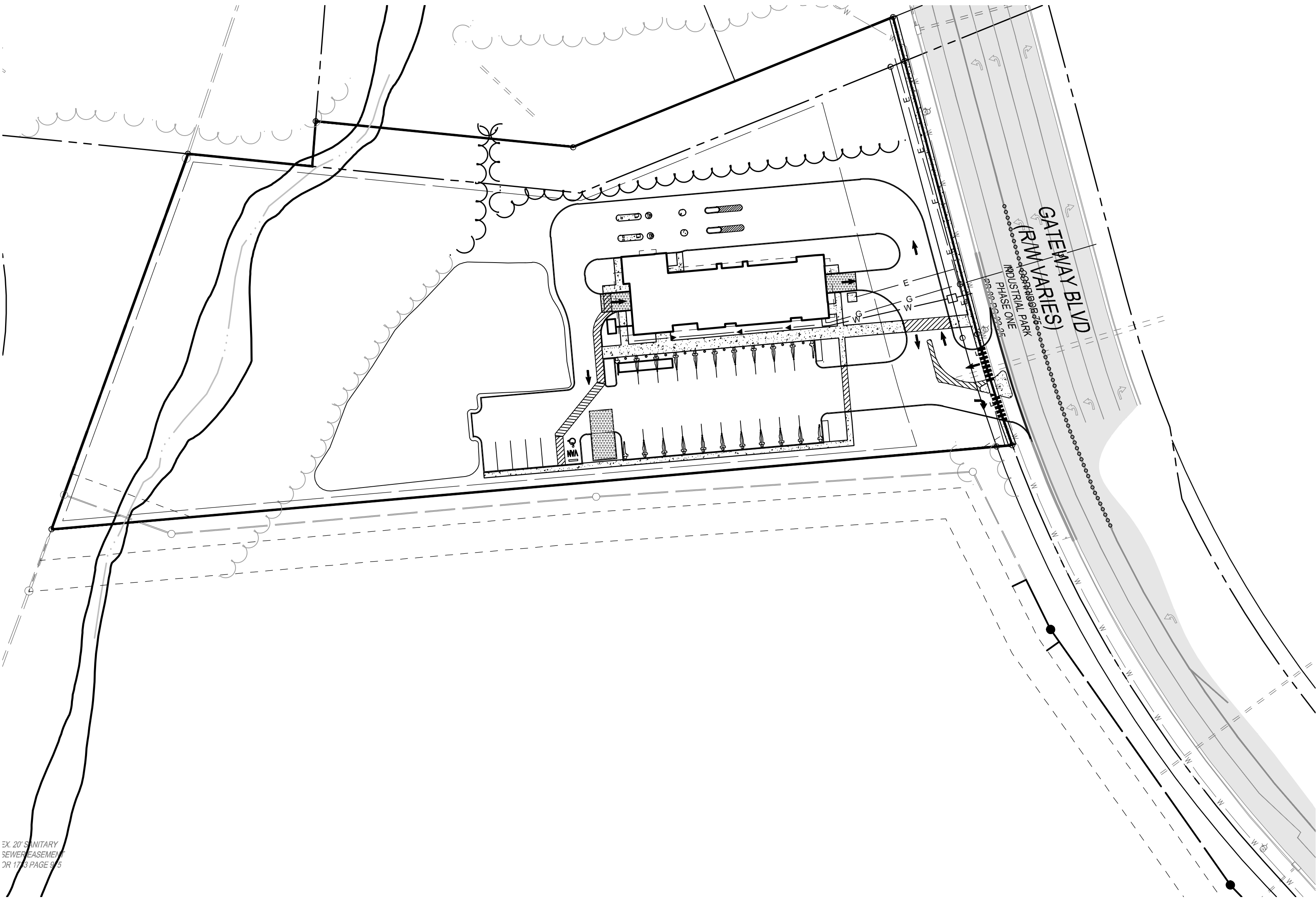
1. THE CITY OF MONROE, AND THE CURRENT EDITION OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS (ODOT CMS), INCLUDING ALL SUPPLEMENTS, SHALL GOVERN ALL MATERIALS AND WORKMANSHIP INVOLVED IN THE IMPROVEMENTS SHOWN ON THIS PLAN. IGNORE REFERENCES TO MEASUREMENT AND PAYMENT IN THE ODOT CMS UNLESS NOTED OTHERWISE. IN THE CASE OF CONFLICTS BETWEEN THE ODOT CMS AND THE CITY OF MONROE REQUIREMENTS, THE CITY OF MONROE REQUIREMENTS SHALL PREVAIL.
2. THE CONTRACTOR IS RESPONSIBLE FOR THE INVESTIGATION, LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THESE PLANS OR NOT. THE CONTRACTOR SHALL EXPOSE ALL UTILITIES OR STRUCTURES PRIOR TO CONSTRUCTION TO VERIFY THE VERTICAL AND HORIZONTAL EFFECT ON THE PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL CALL, TOLL FREE, THE OHIO UTILITIES PROTECTION SERVICE (1-800-362-2764) 48 HOURS PRIOR TO CONSTRUCTION AND SHALL NOTIFY ALL UTILITY COMPANIES WHO ARE NONMEMBERS OF THE OHIO UTILITIES PROTECTION SERVICE AT LEAST 48 HOURS PRIOR TO WORK IN THE VICINITY OF THEIR UNDERGROUND LINES.
3. CONTRACTOR SHALL OBTAIN A PERMIT FOR ALL CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH LOCAL, STATE, & FEDERAL REGULATIONS.
4. THE CONTRACTOR IS TO PERFORM ALL INSPECTIONS AS REQUIRED BY THE OHIO EPA FOR THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT AND FURNISH OWNERS REPRESENTATIVE WITH WRITTEN REPORTS.
5. THE CONTRACTOR IS REQUIRED TO VISIT THE SITE AND FULLY INFORM HIMSELF CONCERNING ALL CONDITIONS AFFECTING THE SCOPE OF THE WORK. FAILURE TO VISIT THE SITE SHALL NOT RELIEVE HIM FROM ANY RESPONSIBILITY IN THE PERFORMANCE OF THE CONTRACT.
6. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR EXPENSES INCURRED DUE TO SOIL CONDITIONS, GROUNDWATER, AND/OR ROCK EXCAVATION. ALL OF THESE ITEMS SHALL BE INCLUDED IN THE PRICE BID FOR THE PROJECT.
7. THE COST OF ALL DEWATERING REQUIRED FOR THE CONSTRUCTION OF THIS PROJECT SHALL BE INCLUDED IN THE PRICE BID FOR THE PROJECT.
8. THE DIRECT OR INDIRECT DISCHARGE OR PUMPING OF UNFILTERED SEDIMENT-LOADED WATER INTO THE STORM DRAINAGE SYSTEM OR WATERCOURSE IS ILLEGAL AND PROHIBITED.
9. ANY WELL, WELL POINT, PIT, OR OTHER DEVICE INSTALLED FOR THE PURPOSE OF LOWERING THE GROUND WATER TO FACILITATE CONSTRUCTION OF THIS PROJECT SHALL BE PROPERLY ABANDONED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 2345-9-10 OF THE OHIO ADMINISTRATIVE CODE OR IN ACCORDANCE WITH THE PROVISIONS OF THIS PLAN AS DIRECTED BY THE DIRECTOR OF PUBLIC UTILITIES OR HIS REPRESENTATIVE.
10. ANY CONTRACTOR INSTALLING ANY WELL, WELL POINT, PIT, OR OTHER DEVICE USED FOR THE PURPOSE OF REMOVING GROUND WATER FROM AN AQUIFER SHALL COMPLETE AND FILE A WELL LOG AND DRILLING REPORT FORM WITH THE OHIO DEPARTMENT OF NATURAL RESOURCES, DIVISION OF WATER, WITHIN 30 DAYS OF THE WELL COMPLETION IN ACCORDANCE WITH THE OHIO REVISED CODE SECTION 1521.01 AND 1521.09. IN ADDITION, ANY SUCH FACILITY IS COMPLETED IN ACCORDANCE WITH SECTION 1521.16 OF THE OHIO REVISED CODE. FOR COPIES OF THE NECESSARY WELL LOG, DRILLING REPORT, OR REGISTRATION FORMS, PLEASE CONTACT DIVISION OF WATER, OHIO DEPARTMENT OF NATURAL RESOURCES, FOUNTAIN SQUARE, COLUMBUS, OHIO 43224. (614)2056717.
11. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO THE ODNR FOR THE REGISTRY, MAINTENANCE AND ABANDONMENT OF ANY WITHDRAWAL DEVICE USED IN CONSTRUCTION OF THIS PROJECT.
12. ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT AND/OR FACE OF CURB, UNLESS OTHERWISE NOTED.
13. ALL SITE SIGNAGE, STRIPING COLOR AND WIDTH SHALL BE PER THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
14. ALL EXISTING PAVEMENTS, WALKS, CURBS, ETC. SHALL BE SAWCUT BEFORE REMOVAL. IF, DURING CONSTRUCTION, THE PAVEMENT, WALKWAY, CURB, ETC. IS DAMAGED BEYOND THE ORIGINAL SAWCUT, THE DAMAGED AREA SHALL BE RE-CUT TO NEAT LINES AS DIRECTED BY THE ENGINEER. PAYMENT FOR SAWCUTTING SHALL BE INCLUDED IN THE PRICE BID FOR THE PROJECT.
15. THE CONTRACTOR SHALL SAWCUT EXISTING PAVEMENT TO PROVIDE A SMOOTH VERTICAL FULL DEPTH BUTT JOINT BETWEEN THE EXISTING PAVEMENT OR CURB AND THE PROPOSED PAVEMENT. CONTRACTOR SHALL LOCATE SOUND PAVEMENT EDGE AND CUT AND TRIM PAVEMENT TO A NEAT LINE. INCLUDE THE COST OF PAVEMENT REMOVAL AND DISPOSAL IN THE PRICE BID FOR THE PROJECT.

GRADING NOTES

1. CONTRACTOR TO REMOVE TREES AND CLEAR AREAS AS NECESSARY TO PERFORM ALL SITE WORK INCLUDING GRADING AND UTILITY WORK.
2. PROTECTION OF EXISTING TREES AND VEGETATION: PROTECT EXISTING TREES AND OTHER VEGETATION INDICATED TO REMAIN IN PLACE AGAINST CUTTING, BREAKING OR SKINNING OF ROOTS, SKINNING OR BRUISING OF BARK, SMOTHERING OF TREES BY STOCKPILING CONSTRUCTION MATERIALS OR EXCAVATED MATERIALS WITHIN DRIP LINE, EXCESS FOOT OR VEHICULAR TRAFFIC, OR PARKING OF VEHICLES WITHIN DRIP LINE. PROVIDE TEMPORARY GUARDS TO PROTECT TREES AND VEGETATION TO BE LEFT STANDING.
3. ALL ELEVATIONS SHOWN ARE FINISHED GRADE ELEVATIONS.
4. SITE BUILDING PAD EXCAVATION AND CONSTRUCTION TO BE PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. BUILDING PAD PREPARATION SHALL BEGIN BY CLEARING & STRIPPING UNSUITABLE MATERIAL FROM PAD SITE. THEN PLACE A COMPACT BACKFILL MATERIAL AT GEOTECHNICAL ENGINEERS AND ARCHITECTS RECOMMENDATIONS. ALL BACKFILL MATERIAL MUST BE ACCEPTABLE TO THE GEOTECHNICAL ENGINEER.
5. ALL FILL UNDER PAVEMENT SHALL BE COMPACTED TO THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
6. THE CONTRACTOR IS RESPONSIBLE FOR BALANCING THE SITE EARTHWORK ON SITE. THE CONTRACTOR IS RESPONSIBLE FOR BURRYBORROW PITS AS NEEDED TO BALANCE THE SITE. GEOTECH AND ENGINEER MUST APPROVE AREAS PRIOR TO BURRYBORROW OPERATIONS. AS-BUILT OF BURRYBORROW PIT WILL BE REQUIRED AT COMPLETION OF CONTRACTOR WORK AND MUST BE SUBMITTED TO THE CONSTRUCTION MANAGER.
7. CONTRACTOR SHALL IMPLEMENT ALL SOIL AND EROSION CONTROL PRACTICES REQUIRED BY CITY OF MONROE AND THE OHIO EPA.
8. ALL GROUND SURFACE AREAS THAT HAVE BEEN EXPOSED OR LEFT BARE AS A RESULT OF CONSTRUCTION AND ARE TO FINAL GRADE AND ARE TO REMAIN SO, SHALL BE SEEDED AND MULCHED AS SOON AS PRACTICAL IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. IF NO SPECIFICATIONS ARE SUPPLIED, USE ODOT ITEM 659.
9. CONTRACTOR TO LAYOUT BUILDING BASED ON ARCHITECTURAL FOUNDATION PLANS. SITE PLAN IS FOR CONCEPTUAL PURPOSES ONLY.

UTILITY NOTES

1. ALL DRAIN TILE AND STORM SEWERS DAMAGED, DISTURBED OR REMOVED AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED WITH THE SAME QUALITY PIPE OR BETTER, MAINTAINING THE SAME GRADIENT AS EXISTING. THE DRAIN TILE AND/OR STORM SEWER SHALL BE CONNECTED TO THE CURB SUBDRAIN, STORM SEWER SYSTEM OR OUTLETTED INTO THE ROADWAY DITCH AS APPLICABLE. REPLACED DRAIN TILES/STORM SEWER SHALL BE LAID ON COMPACTED BEDDING EQUAL IN DENSITY TO SURROUNDING STRATUM. REPLACEMENT SHALL BE DONE AT THE TIME OF THE BACKFILL OPERATION. COST OF THIS WORK TO BE INCLUDED IN THE PRICE BID FOR THE PROJECT.
2. ALL EXISTING UTILITIES KNOWN TO EXIST HAVE BEEN SHOWN ON THESE PLANS IN THEIR APPROXIMATE LOCATION. PRIOR TO THE BEGINNING OF CONSTRUCTION OR EARTH MOVING OPERATIONS, THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF THE UTILITIES SHOWN. THE CONTRACTOR IS ALSO RESPONSIBLE FOR THE PROTECTION AND/OR RELOCATION OF ANY UTILITIES THAT MAY EXIST AND ARE NOT SHOWN.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE RELOCATION AND/OR PROTECTION OF ANY UTILITIES AS REQUIRED BY THE PLAN WITH THE OWNER OF THE AFFECTED UTILITY.
4. UTILITY POLES WITHIN INFLUENCE OF THE UTILITY OPERATIONS SHALL BE REINFORCED BY THE UTILITY COMPANY PRIOR TO THESE CONSTRUCTION ACTIVITIES. NOTIFICATION OF THE UTILITY COMPANY PRIOR TO CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
5. COMPACTED FILLS ARE TO BE MADE TO A MINIMUM OF THREE FEET ABOVE THE CROWN OF ANY PROPOSED SEWER PRIOR TO CUTTING OF TRENCHES FOR PLACEMENT OF SAID SEWERS. ALL FILLS SHALL BE CONTROLLED, COMPACTED, AND INSPECTED BY AN APPROVED TESTING LABORATORY OR AN INSPECTOR FROM THE APPROPRIATE GOVERNMENTAL AGENCY.
6. CONTRACTOR TO REPLACE ANY PAVEMENT OR UTILITIES DAMAGED WHICH ARE NOT SPECIFIED TO BE REMOVED ON THESE PLANS.
7. ALL CATCH BASINS PLACED WITHIN THE PAVEMENT SHALL HAVE HEAVY DUTY FRAMES AND GRATES AND CONFORM TO ADA REQUIREMENTS.
8. ADJUST ALL EXISTING CASTINGS AND CLEANOUTS WITHIN PROJECT AREA TO GRADE AS REQUIRED.
9. ALL CATCH BASINS WITH DEPTH GREATER THAN 4.5' SHALL BE PROVIDED WITH STEPS. STEPS SHALL MEET THE REQUIREMENTS OF ODOT ITEM 611.
10. ALL STORM AND SANITARY SEWER MANHOLES WITH A DEPTH GREATER THAN 4' SHALL BE PROVIDED WITH STEPS. STEPS SHALL MEET THE REQUIREMENTS OF ODOT ITEM 611.
11. DISTANCES SHOWN FOR BOTH SANITARY AND STORM SEWER PIPES ARE MEASURED FROM CENTER OF STRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR ACTUAL FIELD CUT LENGTH. COORDINATES FOR STORM AND SANITARY STRUCTURES ARE SHOWN TO THE CENTER OF STRUCTURE, UNLESS OTHERWISE NOTED.
12. IMMEDIATELY AFTER PLACEMENT OF ANY CONDUITS, THE CONTRACTOR SHALL CONSTRUCT THE END TREATMENTS REQUIRED BY THE PLANS AT BOTH THE OUTLET AND INLET ENDS. THIS SHALL INCLUDE HEADWALLS, CONCRETE, RIP RAP, ROCK CHANNEL PROTECTION, SODDING, POURING BOTTOMS, MUDDING LIFT HOLES, ETC.
13. ALL PROPOSED STORM SEWERS, SURFACE OR OTHER DRAINAGE FACILITIES ARE TO BE PRIVATE AND MAINTAINED BY THE OWNER. EROSION CONTROL MEASURES MUST PROVIDE PROTECTION UNTIL COMPLETION OF THE PROJECT AND VEGETATIVE STABILIZATION.
14. THE CONTRACTOR IS TO CONSTRUCT CURBS, CATCH BASINS, DOWNSPOUTS, PIPING AND CONNECTIONS ETC. AS REQUIRED TO CONVEY THE ROOF AND PAVED SURFACE DRAINAGE TO THE DETENTION BASIN.
15. ROOF DRAINS, FOUNDATION DRAINS AND ALL OTHER CLEAR WATER CONNECTIONS TO THE SANITARY SEWER SYSTEMS ARE PROHIBITED.
16. SITE CONTRACTOR SHALL PICK UP ALL UTILITIES, WITH THE EXCEPTION OF DOWNSPOUTS, 5' OUTSIDE BUILDING WALL. COORDINATE WITH CONSTRUCTION MANAGER.
17. ALL STORM STRUCTURES ARE ODOT TYPES UNLESS OTHERWISE INDICATED.
18. STORM SEWER PIPE LABELED "STM" SHALL BE ONE OF THE FOLLOWING: PVC SDR-35 PER ODOT ITEM 707.45, PVC PROFILE PIPE PER ODOT ITEM 707.43, HIGH DENSITY POLYETHYLENE PER ODOT ITEM 707.33, ALUMINIZED CORRUGATED METAL, ODOT ITEM 707.41, 707.02, OR REINFORCED CONCRETE PIPE, ODOT ITEM 708.02 CLASS IV. STORM SEWER PIPE LABELED "RCP" SHALL BE REINFORCED CONCRETE PIPE, ODOT ITEM 706.02 CLASS IV. ALL STORM IS TO BE INSTALLED PER ODOT ITEM 611. ALL STORM PIPE USED MUST HAVE A MANUFACTURER SPECIFIED FRICTION FACTOR OF 0.013 (Hd=0.15) OR LESS.
19. ALL CATCH BASINS IN THE PAVEMENT ARE TO HAVE 4" PERFORATED UNDERDRAINS EXTENDING 10 LF FROM THE CATCH BASIN IN THE UPHILL DIRECTION AND CAPPED. ALL CATCH BASINS IN THE CURB ARE TO HAVE 2" PERFORATED UNDERDRAINS EXTENDING 10 LF FROM THE CATCH BASIN IN THE UPHILL DIRECTION AND CAPPED.
20. FOR EXACT LOCATION OF DOWN SPOUTS & ROOF DRAINS, COORDINATE WITH CONSTRUCTION MANAGER. ALL ROOF DRAINS ARE TO BE 8" UNLESS OTHERWISE NOTED.
21. ALL YARD DRAINS SHALL BE ONE OF THE FOLLOWING: NYLOPLAST-ADS DRAIN BASIN, NDS DURACAST FABRICATED PVC CATCH BASIN, AGRICRAIN CATCH BASIN, OR APPROVED EQUAL.
22. ALL EXISTING INVERTS ALONG PROPOSED PIPE ALIGNMENTS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION OF THE SEWER.
23. ANY FIELD TILE CUT IN EXCAVATION WHICH DRAINS IN AN OFFSITE AREA MUST BE TIED INTO THE STORM DRAINAGE SYSTEM.
24. THE FLOW IN ALL SEWERS, DRAINS, FIELD TILES AND WATERCOURSES ENCOUNTERED SHALL BE MAINTAINED BY THE CONTRACTOR AT HIS OWN EXPENSE, AND WHENEVER SUCH WATERCOURSES AND DRAINS ARE DISTURBED OR DESTROYED DURING THE PROSECUTION OF THE WORK, THEY SHALL BE RESTORED BY THE CONTRACTOR AT HIS OWN EXPENSE TO A CONDITION SATISFACTORY TO THE ENGINEER.
25. SANITARY SEWER SHALL BE SDR-35 OR APPROVED EQUAL AND CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE BUTLER COUNTY. PIPE MUST MEET MINIMUM SLOPE REQUIREMENTS OF THE BUTLER COUNTY AND OHIO EPA. SANITARY SEWER SHALL BE INSTALLED AT A MINIMUM DEPTH OF FOUR FEET (4') UNLESS OTHERWISE NOTED. A MINIMUM OF 18" CLEARANCE SHALL BE MAINTAINED AT ALL WATERLINE CROSSINGS. SANITARY SERVICE JOINTS SHALL CONFORM TO ASTM D-2512.
26. SANITARY SEWER IS TO BE BEDDED WITH CLEAN GRANULAR MATERIAL-AGGREGATES NOT TO BE LARGER THAN 3/4" AND NOT SMALLER THAN NO. 8 SIEVE, FREE OF SILT AND FINES, ASHSTO M43 SIZE #67, 7 OR 8. BEDDING TO BE MINIMUM OF 6" BELOW & 12" ABOVE THE PIPE.
27. ALL WATERLINE CROSSINGS SHALL MAINTAIN A VERTICAL SEPARATION OF 18" MINIMUM. SANITARY SEWER SHALL BE LOCATED A MINIMUM OF 18" BELOW WATERLINE AT ALL CROSSINGS. WATERLINE SHALL BE LOCATED A MINIMUM OF 18" HORIZONTALLY FROM ANY SANITARY SEWER. ALL MEASUREMENTS SHALL BE TAKEN FROM OUTSIDE OF SEWER PIPE TO THE OUTSIDE OF WATERLINE PIPE. ONE FULL LENGTH OF WATERLINE PIPE SHALL BE LOCATED AT ALL CROSSINGS TO ENABLE BOTH JOINTS TO BE LOCATED AS FAR FROM SEWER AS POSSIBLE. ALL WATER SHALL HAVE A MINIMUM OF 4" OF COVER.
28. WATERLINE SHALL BE DUCTILE IRON PIPE CLASS 52, MINIMUM 250 PSI. (ADD SPECIAL NOTE FOR WATERLINE 2 INCHES AND UNDER TO BE "K" COPPER OR POLYTUBING, MAKE SURE SPEC FOLLOWS)



VICINITY MAP
N.T.S.

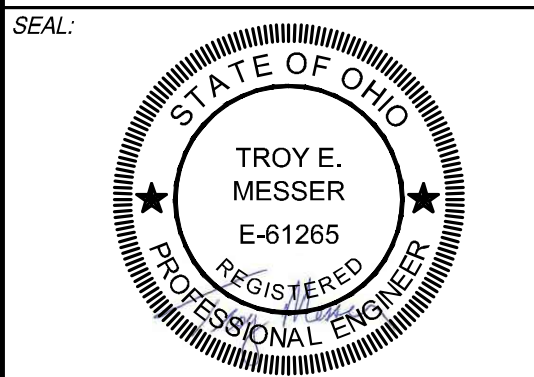
Sheet List Table	
Sheet Number	Sheet Title
C000	TITLE SHEET
C100	GENERAL DETAILS
C101	UTILITY DETAILS
C200	EXISTING CONDITIONS AND DEMOLITION PLAN
C300	LOCATION PLAN
C400	GRADING AND EROSION CONTROL PLAN
C500	UTILITY PLAN
C502	UTILITY PROFILES
C600	EROSION CONTROL NOTES
C601	EROSION CONTROL DETAILS
L100	LANDSCAPE PLAN
L101	LANDSCAPE DETAILS
L102	LANDSCAPE SPECIFICATIONS
L103	LANDSCAPE SPECIFICATIONS



THE KLEINGERS GROUP

CIVIL ENGINEERING
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ARCHITECTURE

www.kleingers.com
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West Chester, OH 45069
513.770.7651



NO.	DATE	DESCRIPTION
01	09-19-2022	CITY PLANNING SITE REVIEW
02	11-09-2022	PERMIT SET
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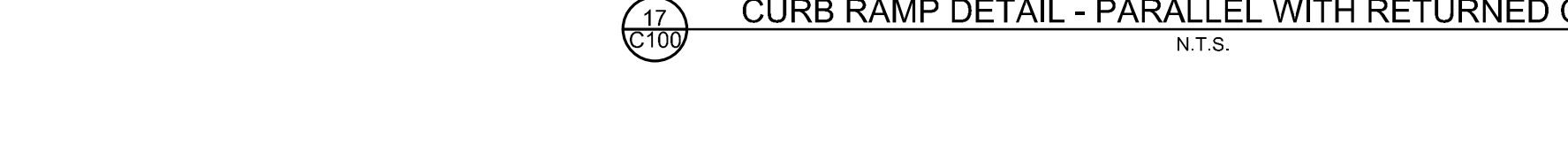
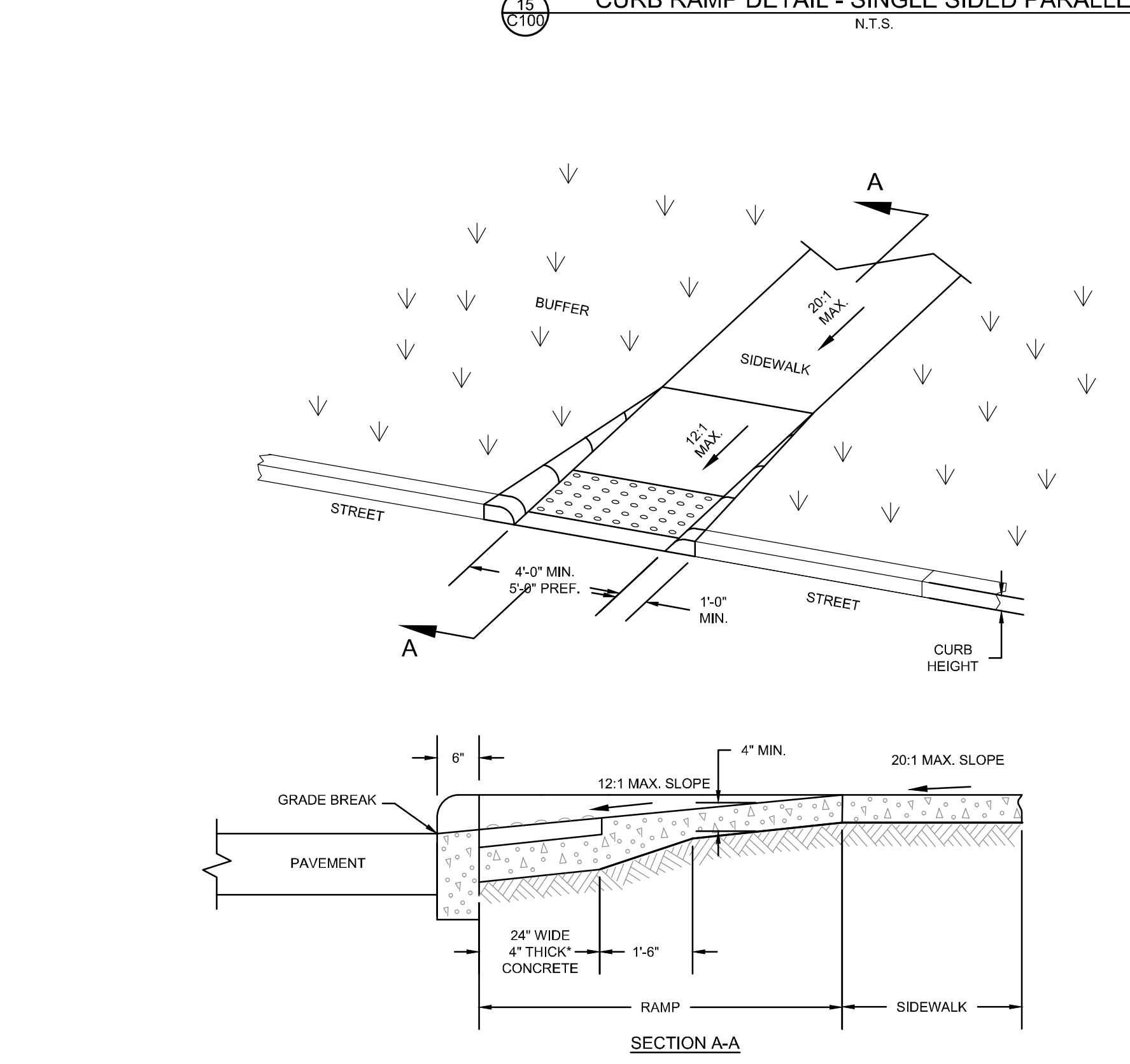
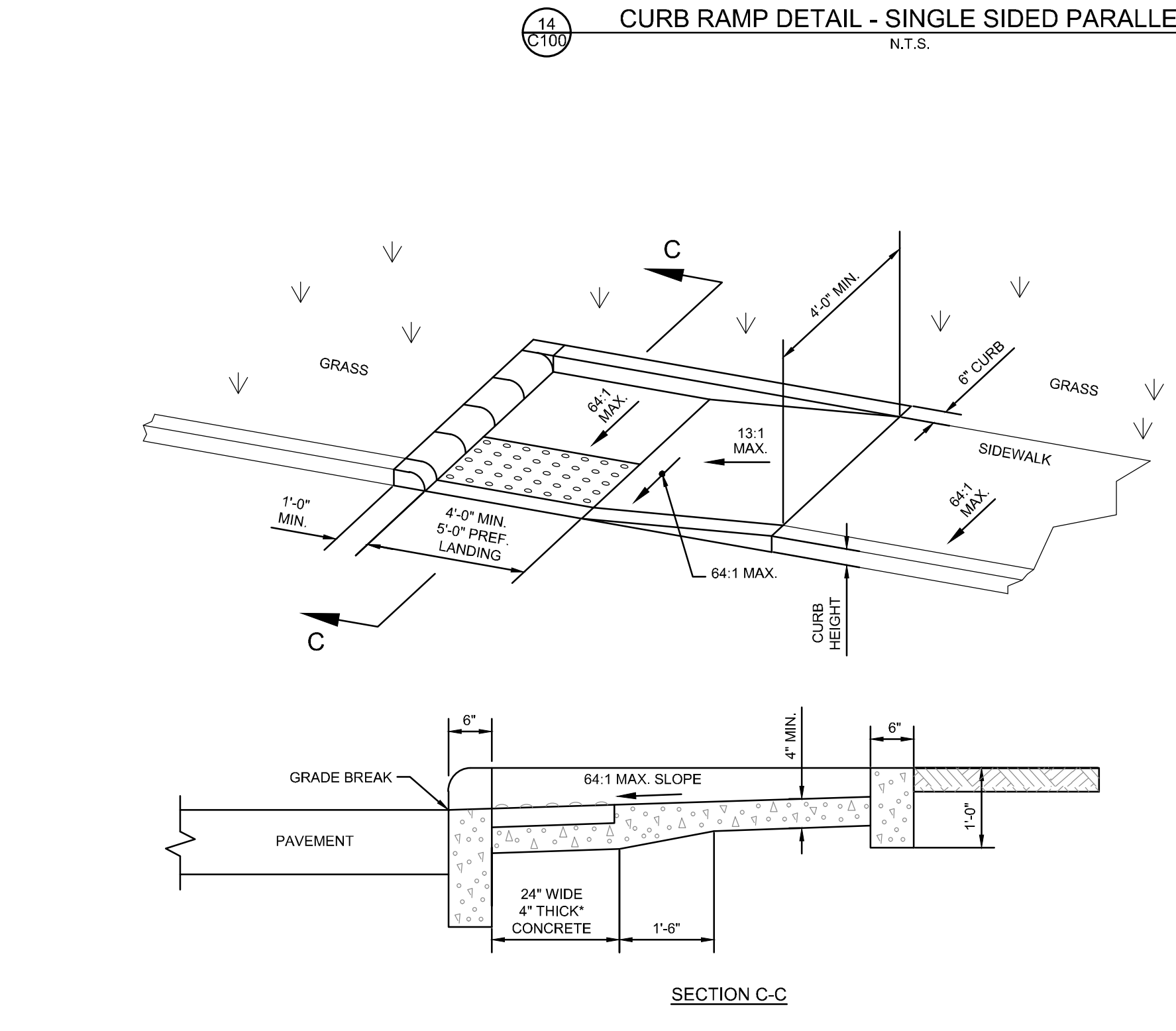
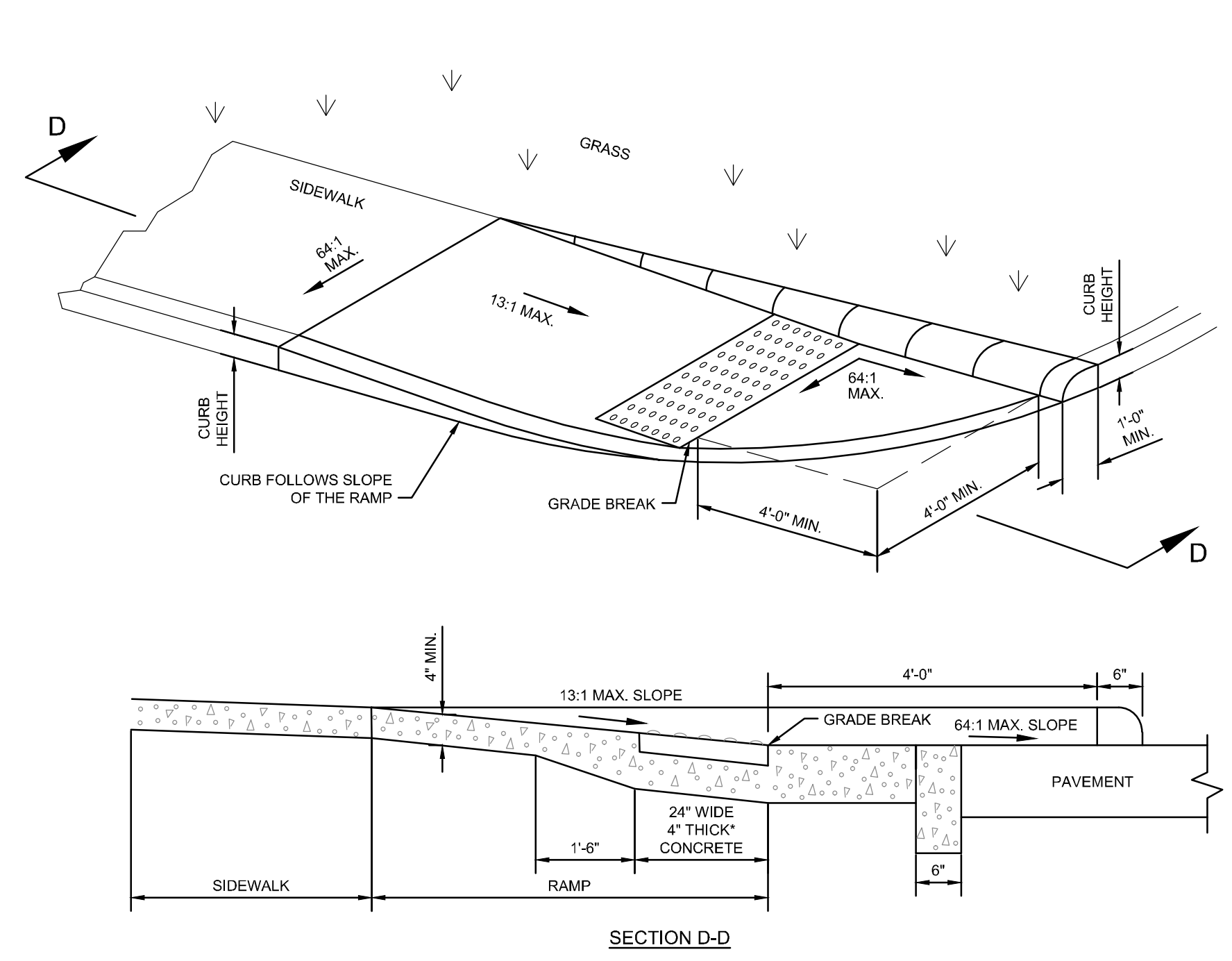
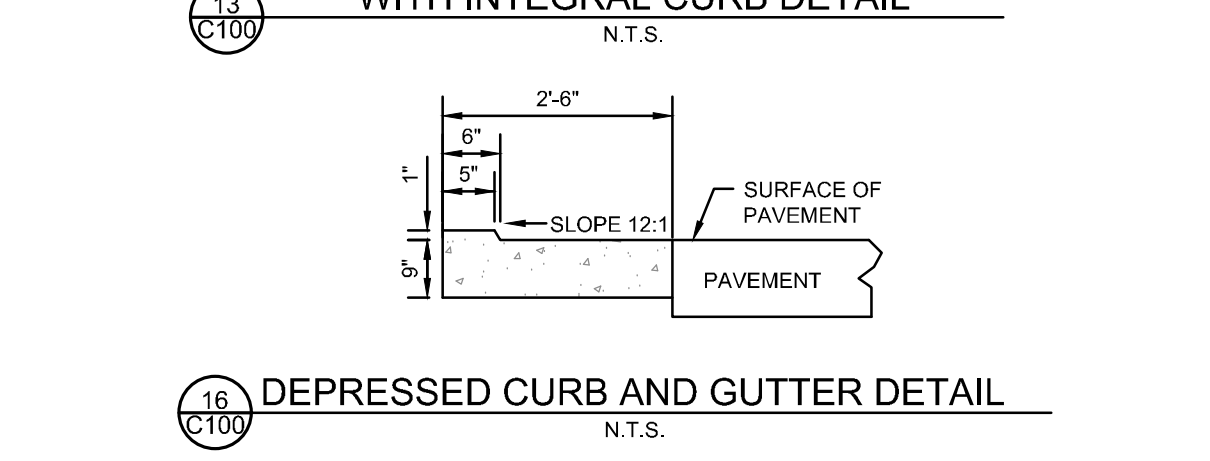
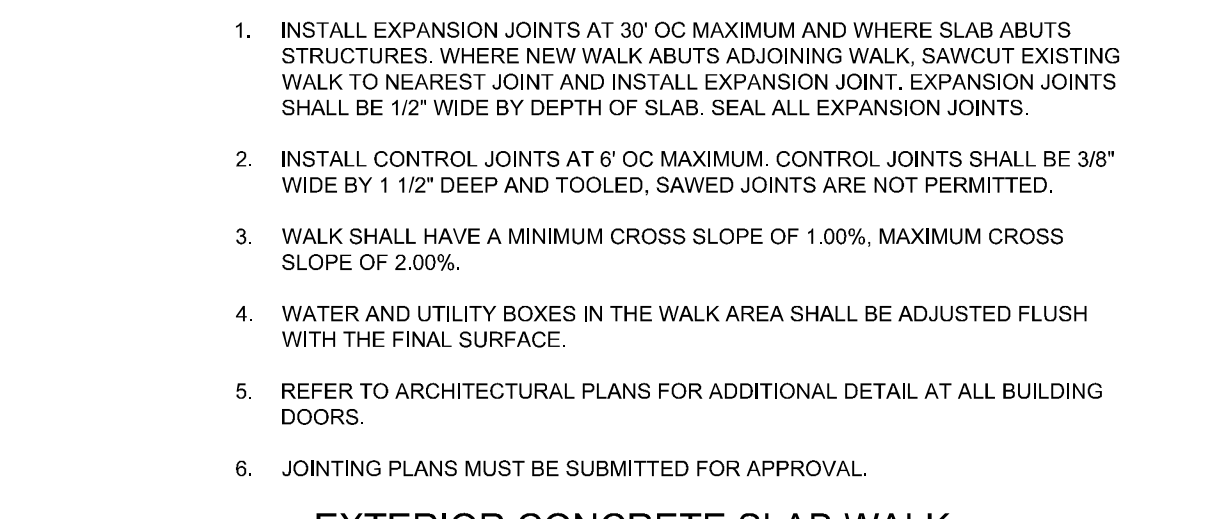
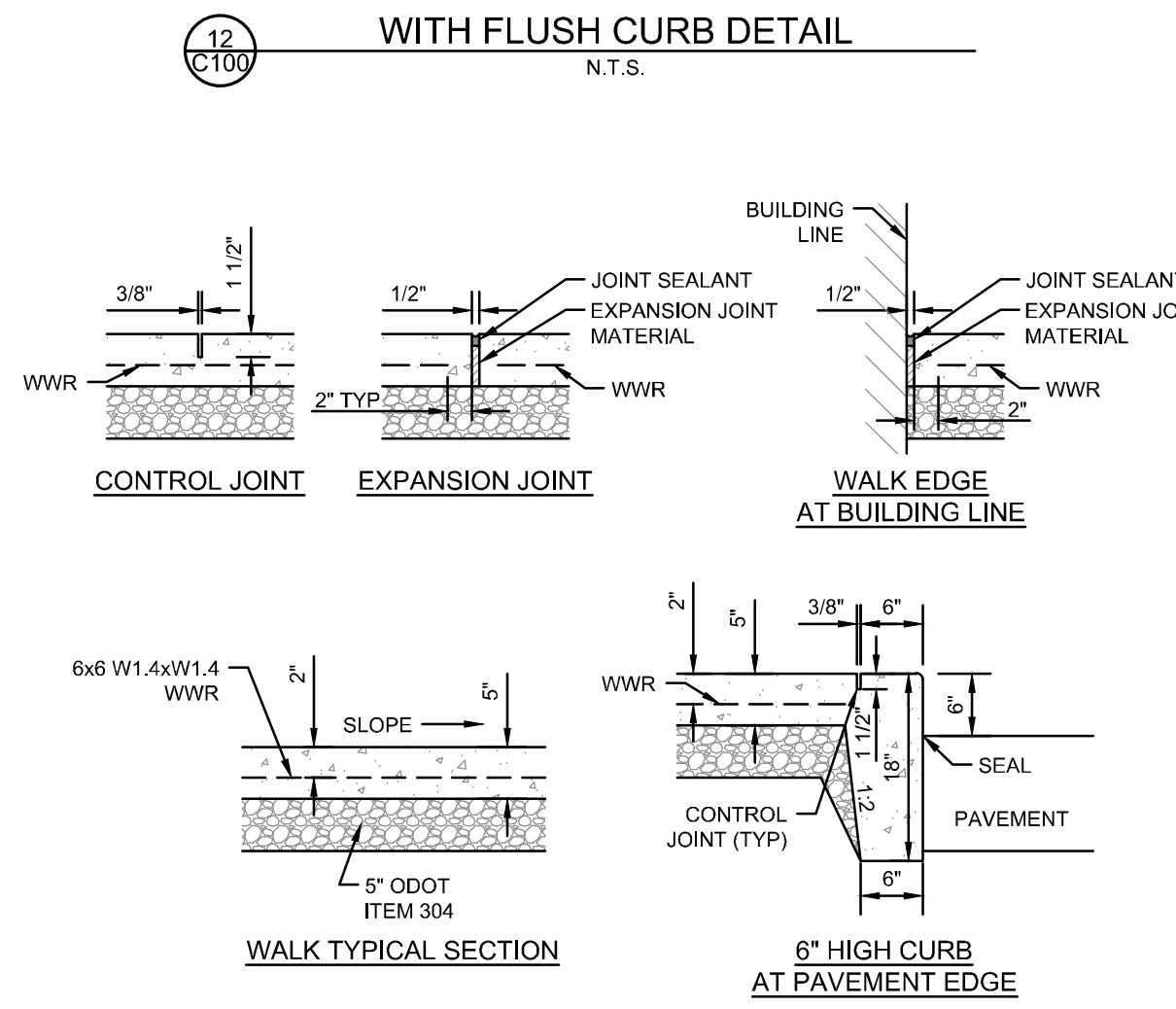
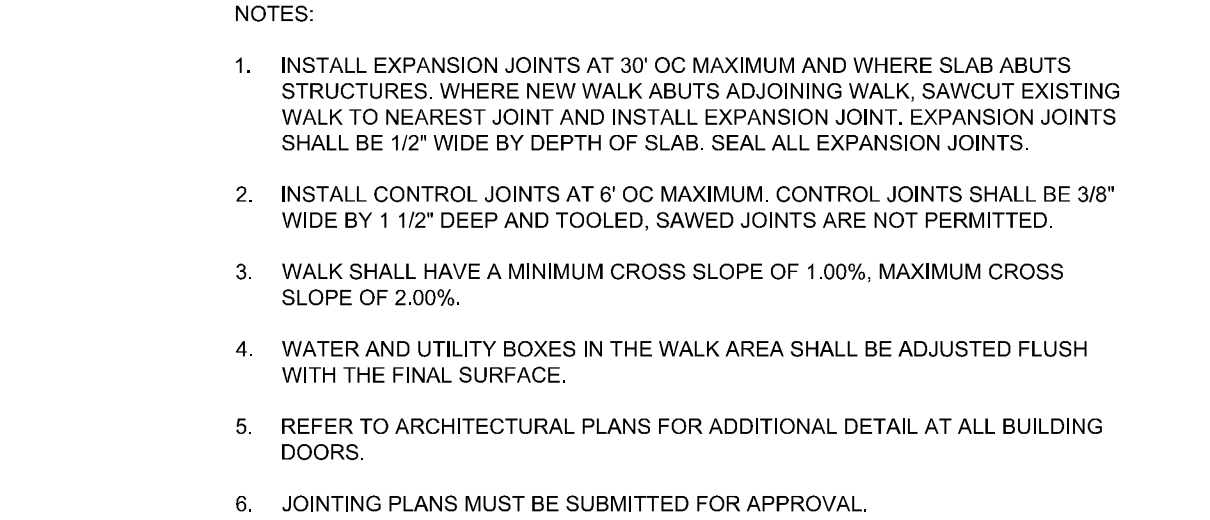
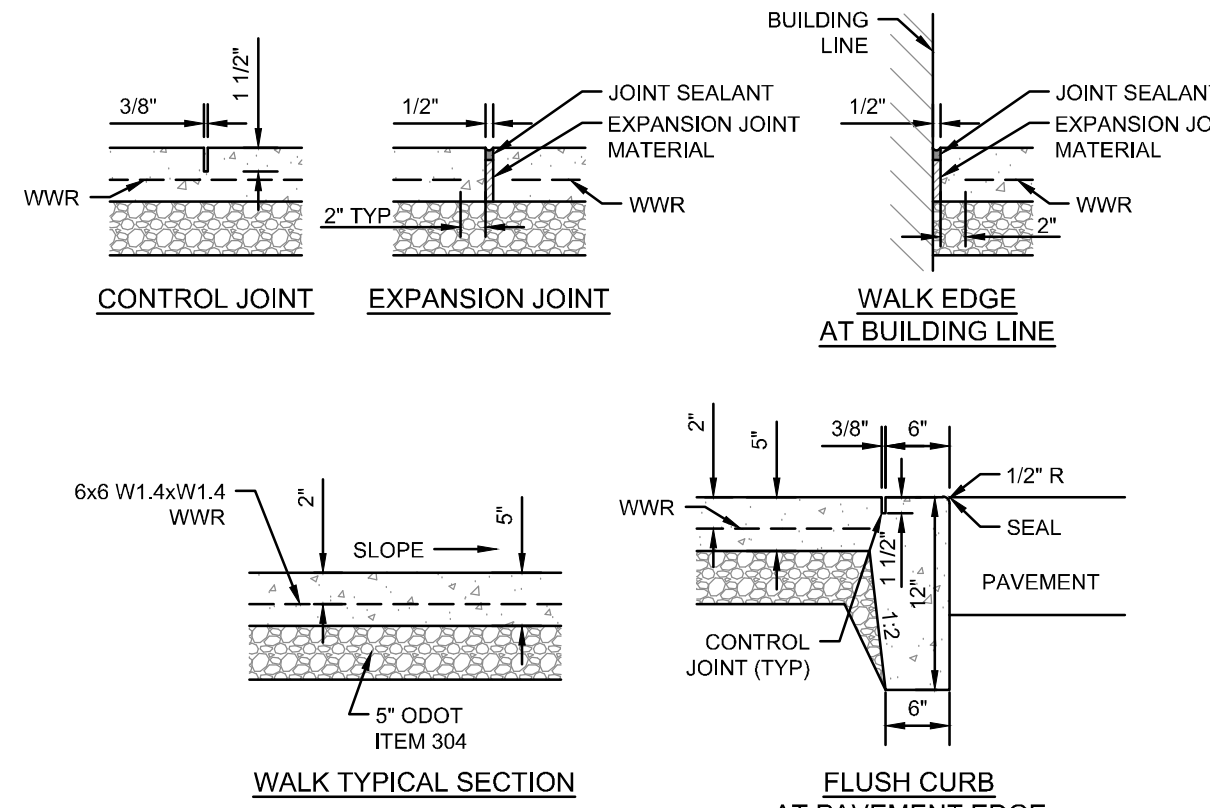
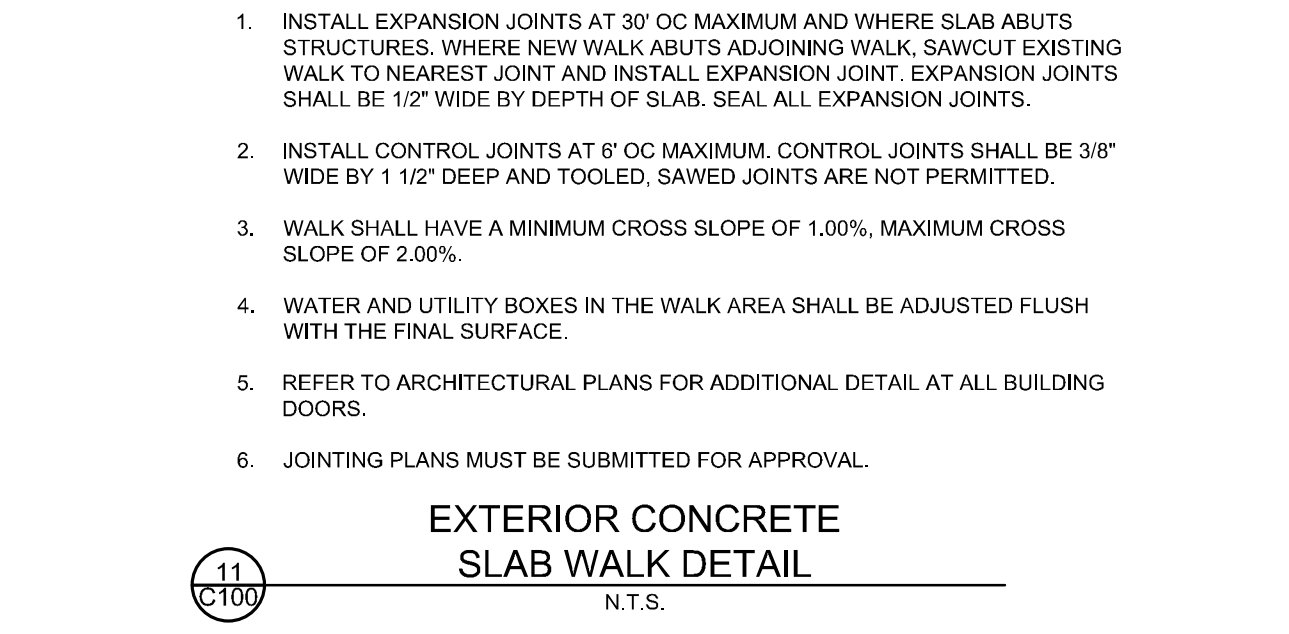
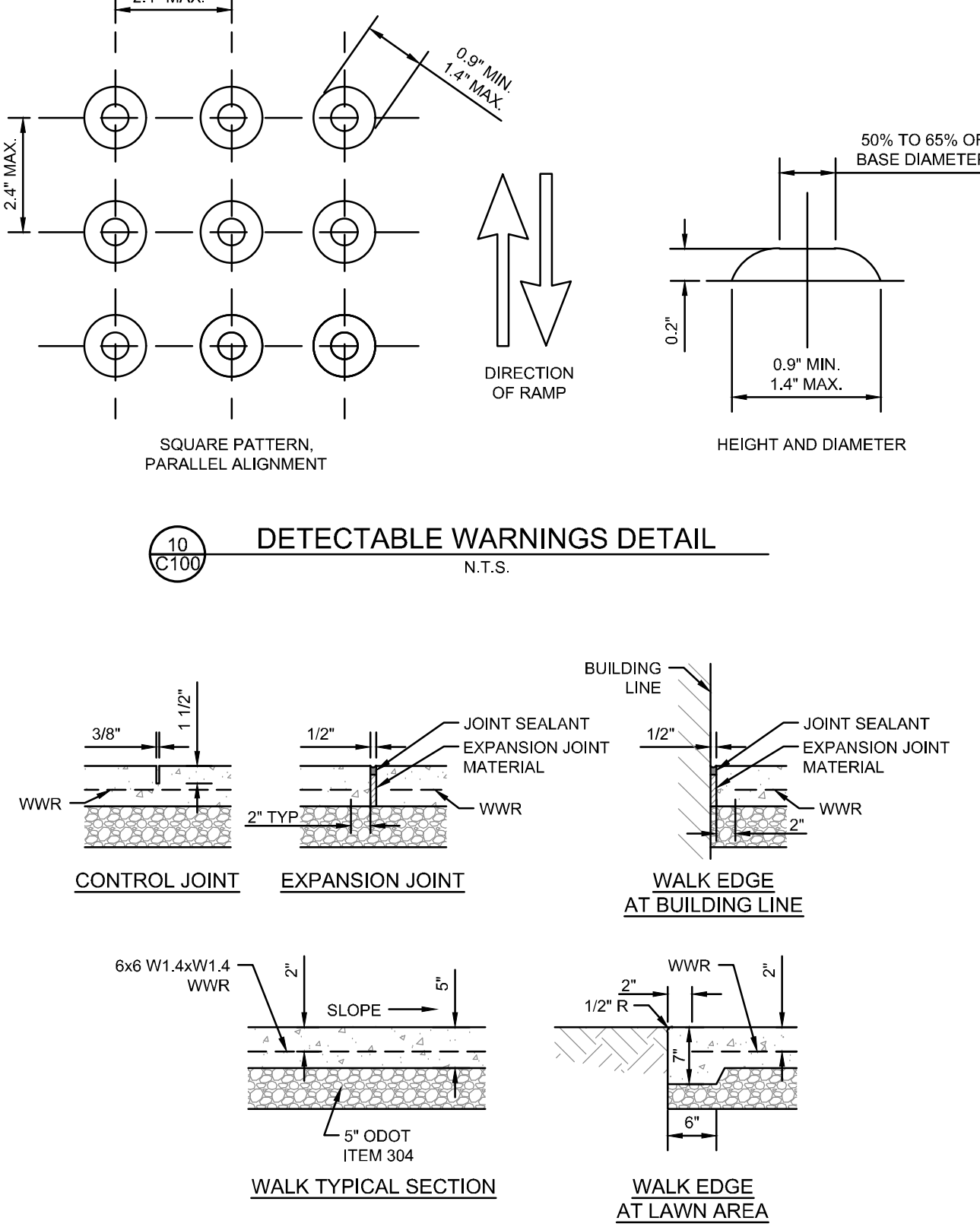
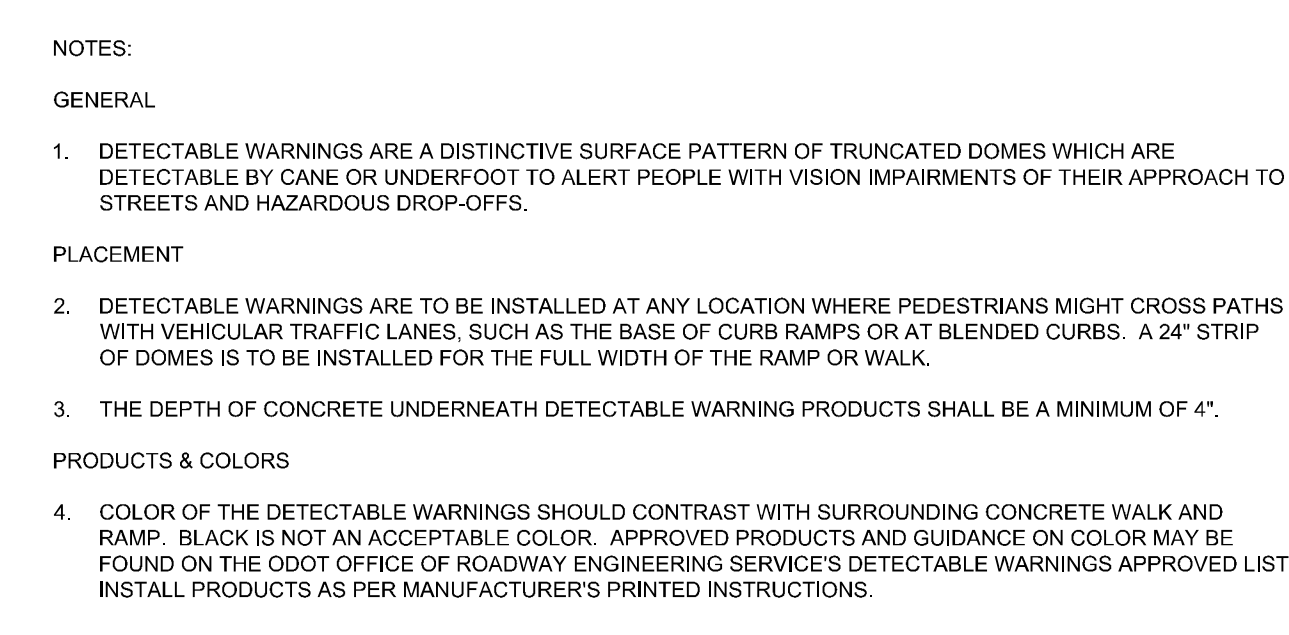
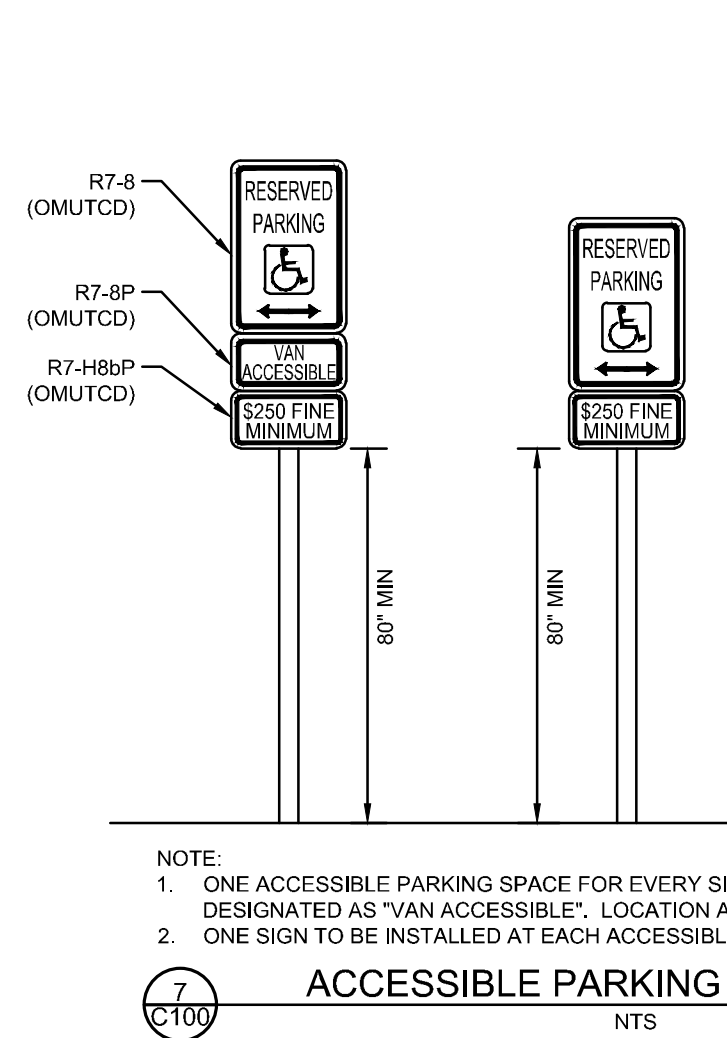
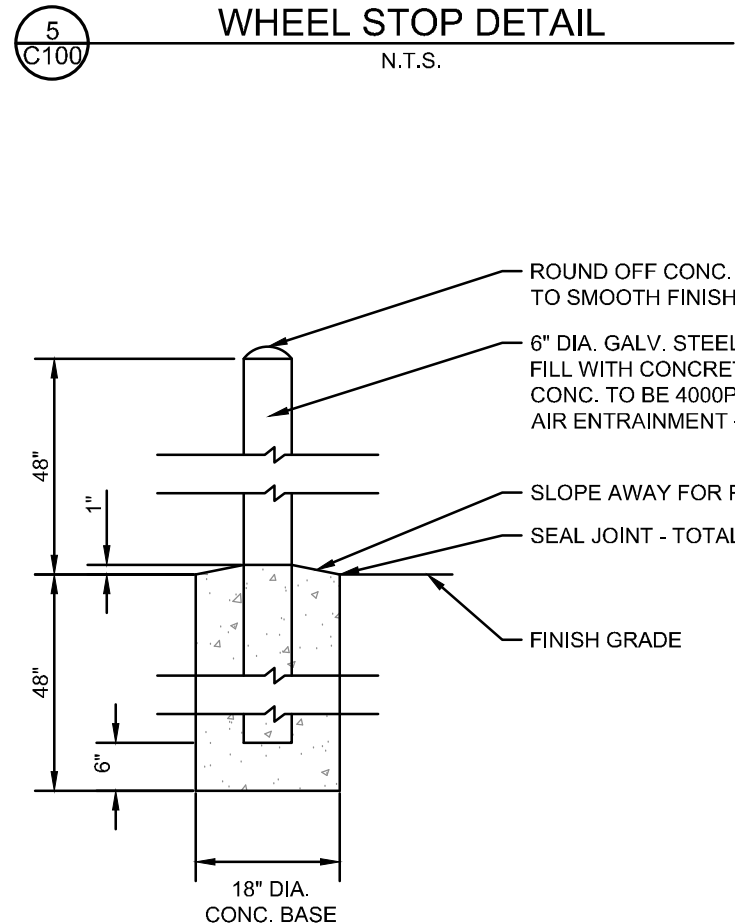
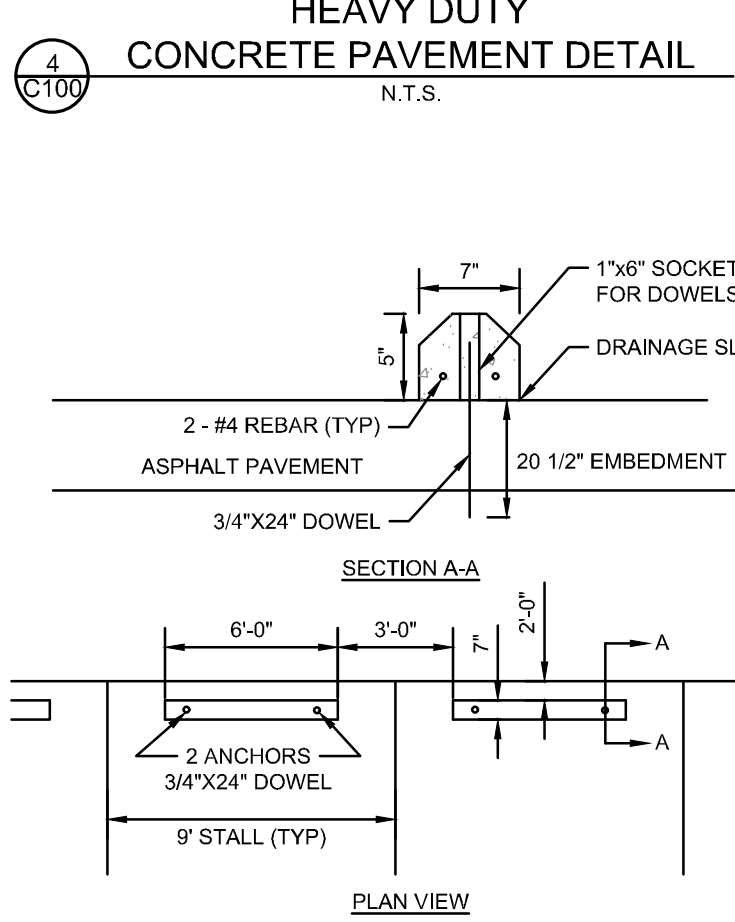
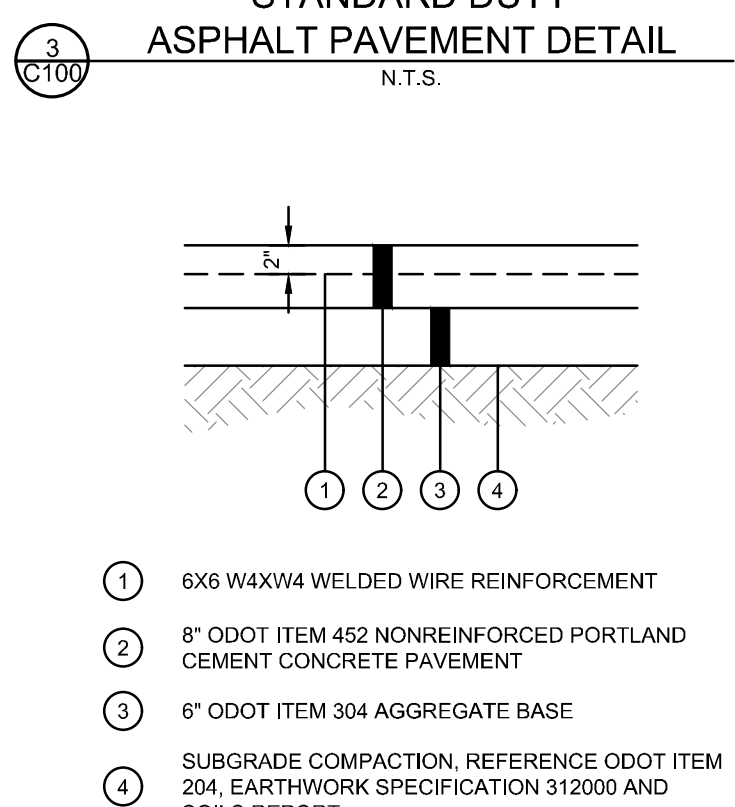
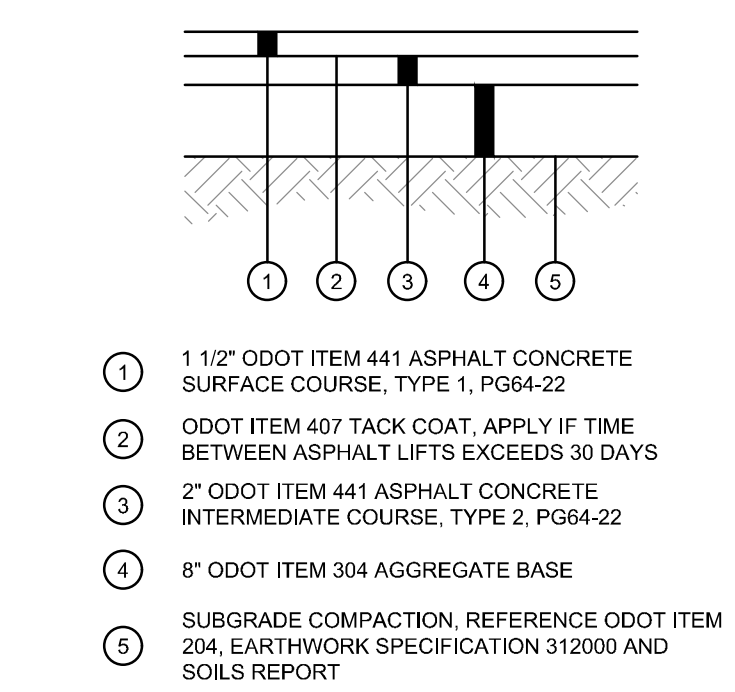
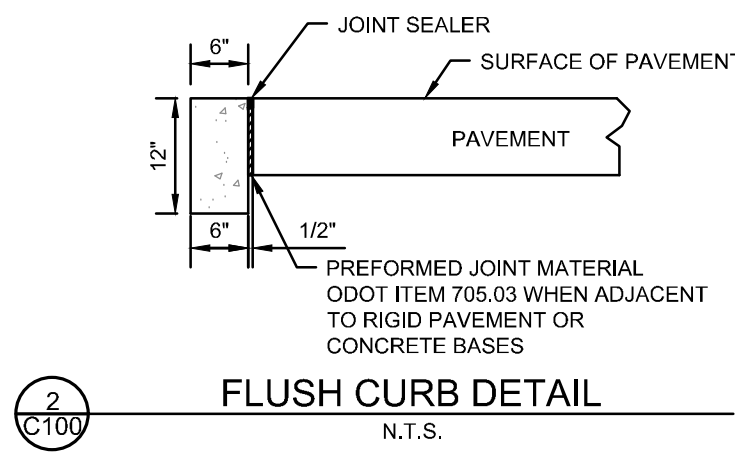
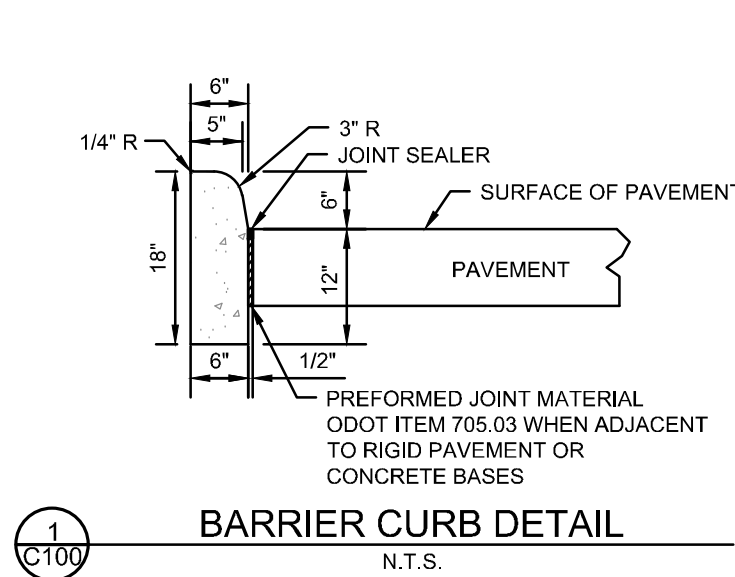
GATEWAY CARWASH
CITY OF MONROE
TURTLECREEK TOWNSHIP
WARREN COUNTY, OHIO

PROJECT NO:	070803.065
DATE:	09-19-2022
SCALE:	

SHEET NAME:

TITLE SHEET

SHEET NO.
C000



NOTES:

- WHILE RAMPS MAY BE SKEWED TO THE CROSSWALK, THE ENTIRE LOWER LANDING AREA MUST FALL WITHIN THE CROSS WALK THAT THE RAMP SERVES AND CANNOT BE LOCATED IN THE TRAVELED LANE OF OPPOSING TRAFFIC.
- THE COUNTER SLOPE OF THE GUTTER OR STREET AT THE FOOT OF A CURB RAMP, LANDING, OR BLENDED TRANSITIONS SHALL BE 20:1 OR FLATTER.
- THE BOTTOM EDGE OF THE RAMP SHALL CHANGE PLANES PERPENDICULAR TO THE LANDING.
- THE EDGE OF THE CURB SHALL BE FLUSH WITH THE EDGE OF THE ADJACENT PAVEMENT AND GUTTER AND SURFACE SLOPES THAT MEET GRADE BREAKS SHALL ALSO BE FLUSH.
- RAMP LANDINGS SHALL BE 4' MIN. X 4' MIN. WITH A 64:1 OR FLATTER CROSS SLOPE AND RUNNING SLOPE.
- DETECTABLE WARNINGS:** INSTALL DETECTABLE WARNINGS ON EACH CURB RAMP WITH APPROVED MATERIALS, AS SHOWN IN SEPARATE DETAIL. INSTALL THESE PROPRIETARY PRODUCTS AS PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
- DRAINAGE:** CONTRACTOR IS TO ENSURE THE BASE OF EACH CONSTRUCTED CURB RAMP ALLOWS FOR PROPER DRAINAGE, WITHOUT EXCEEDING ALLOWABLE CROSS SLOPE OR RAMP SLOPES. VERTICAL CHANGE IN LEVEL EXCEEDING 1/8" BETWEEN THE 1) PAVEMENT AND GUTTER, AND 2) GUTTER AND RAMP, ARE NOT ALLOWED.
- SURFACE TEXTURE:** TEXTURE CONCRETE SURFACES BY COARSE BROOMING TRANSVERSE TO THE RAMP SLOPES TO BE ROUGHER THAN THE ADJACENT WALK.
- JOINTS:** PROVIDE EXPANSION JOINTS IN THE CURB RAMP AS EXTENSIONS OF WALK JOINTS AND CONSISTENT WITH ITEM 608.03 REQUIREMENTS FOR A NEW CONCRETE WALK. PROVIDE A 1/2" ITEM 705.03 EXPANSION JOINT FILLER AROUND THE EDGE OF RAMPS BUILT IN EXISTING CONCRETE WALKS. LINES SHOWN ON THIS DRAWING INDICATE THE RAMP EDGES AND SLOPE CHANGES, AND DO NOT NECESSARILY INDICATE JOINT LINES.

*WHERE POSSIBLE, POUR RAMP AREA INTEGRAL WITH THE CURB, OTHERWISE USE 6" THICK WALK.

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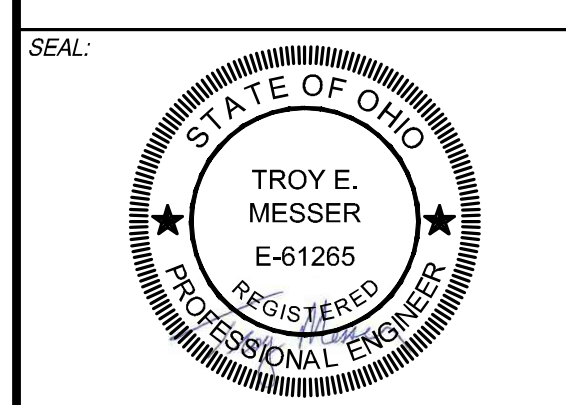
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CITY OF MONROE
TURTLECREEK TOWNSHIP
WARREN COUNTY, OHIO

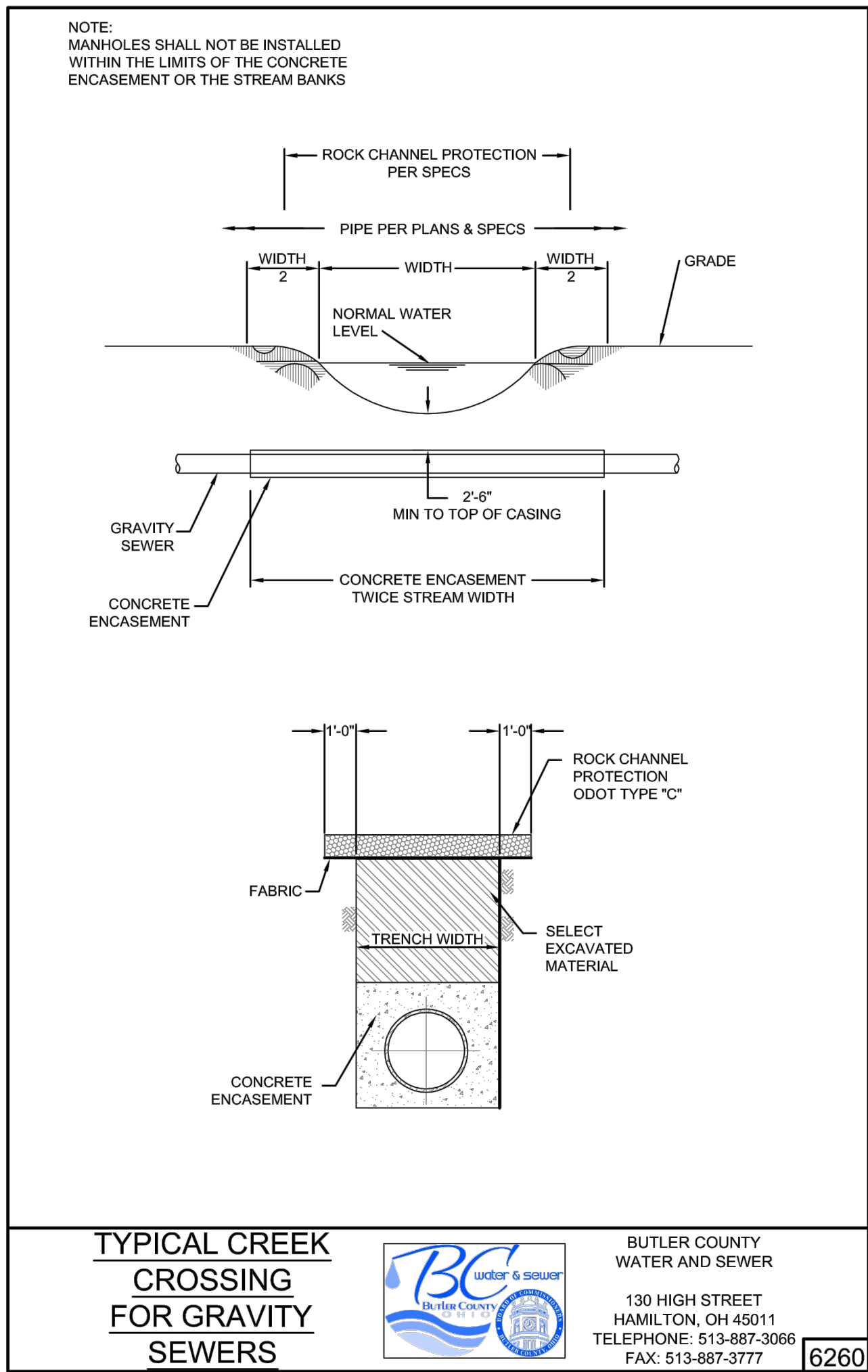
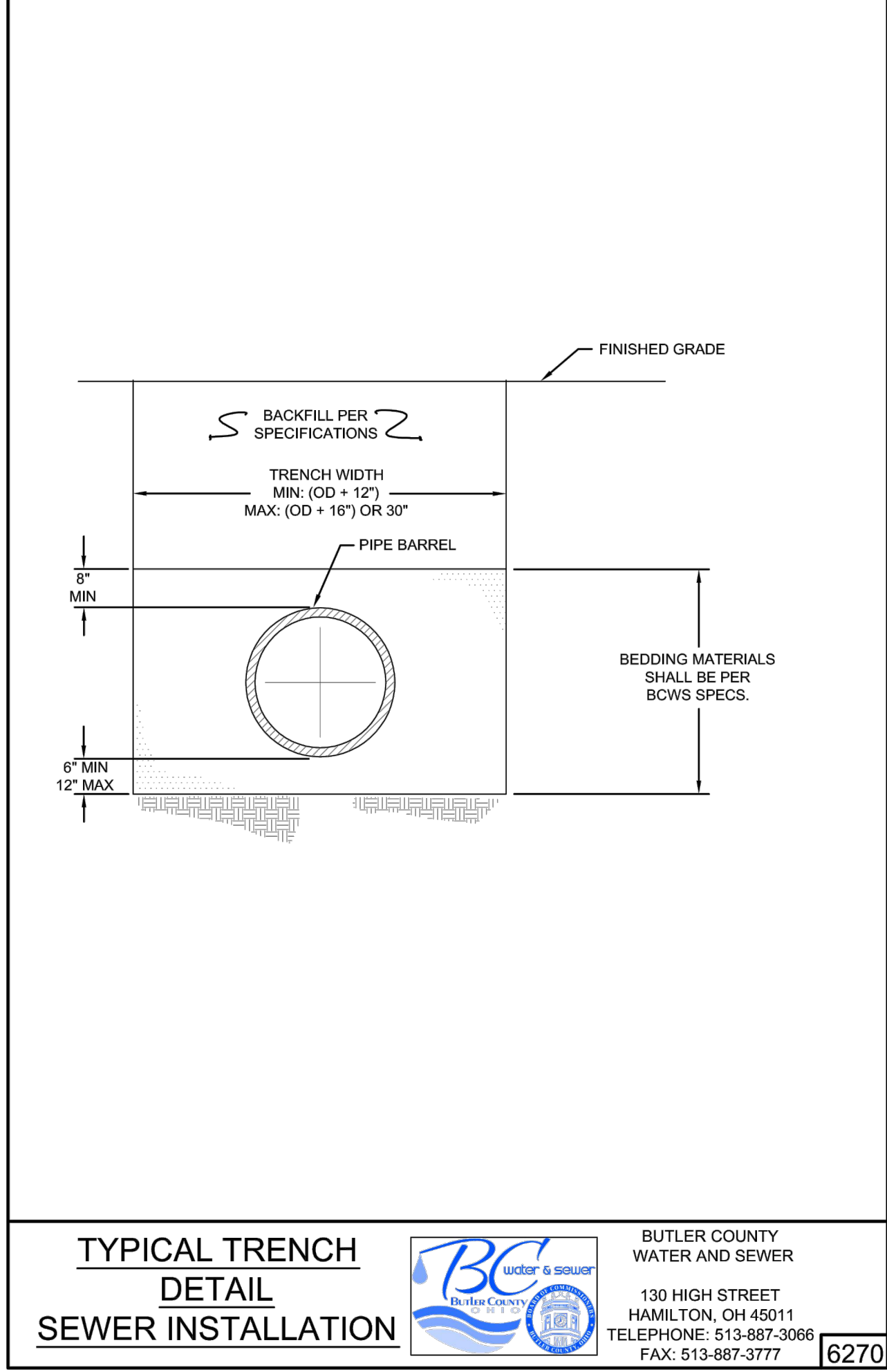
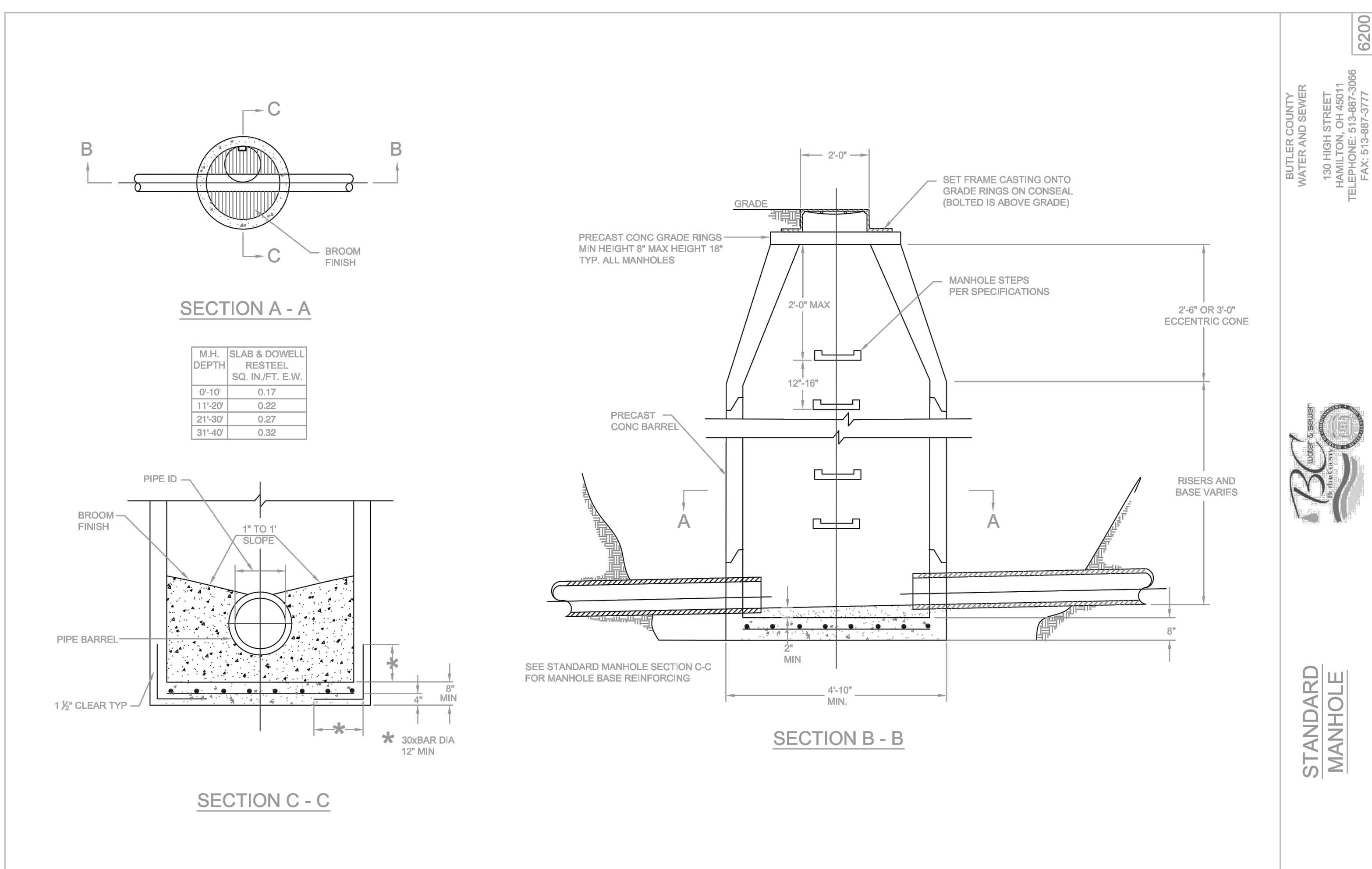
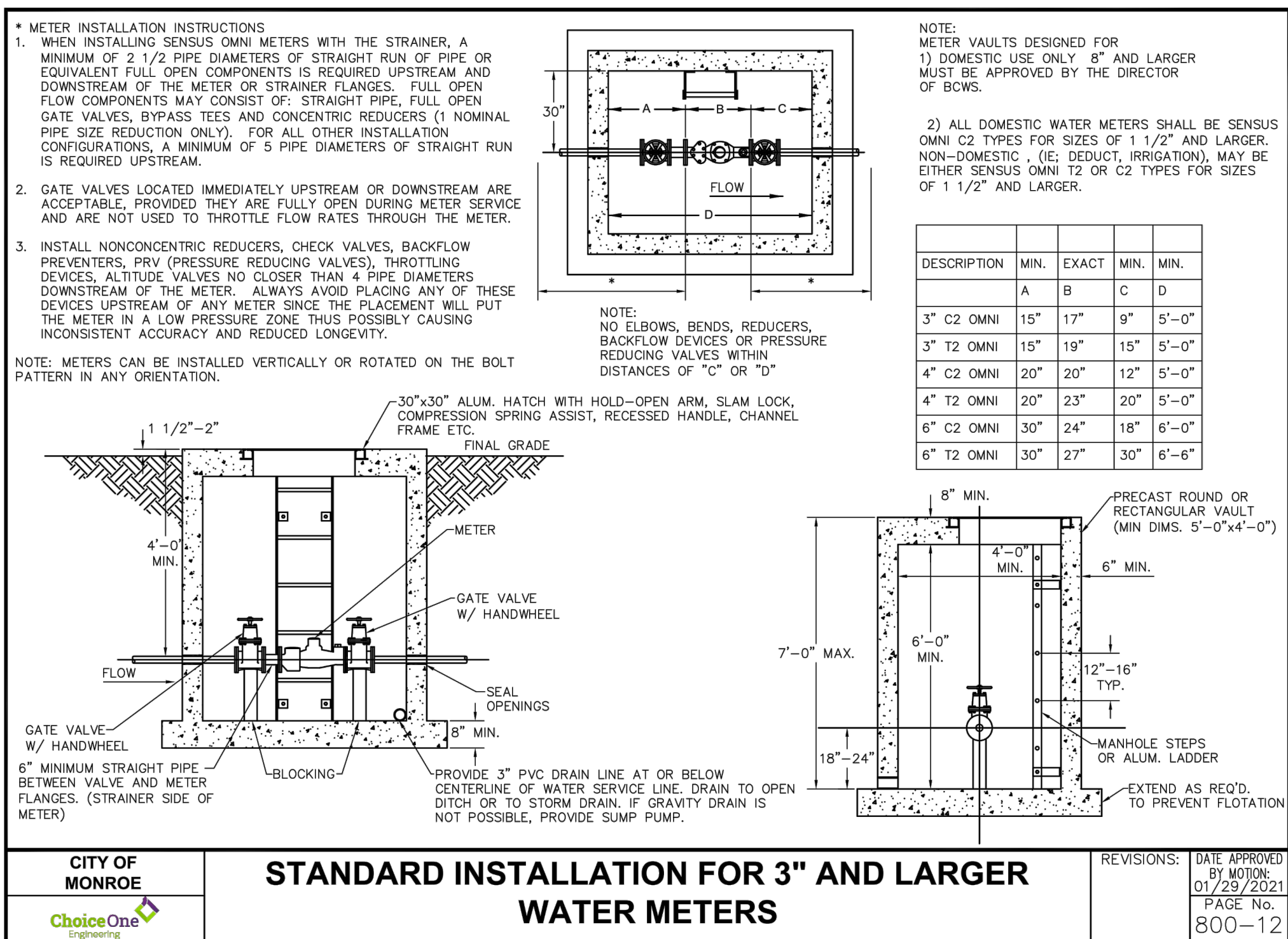
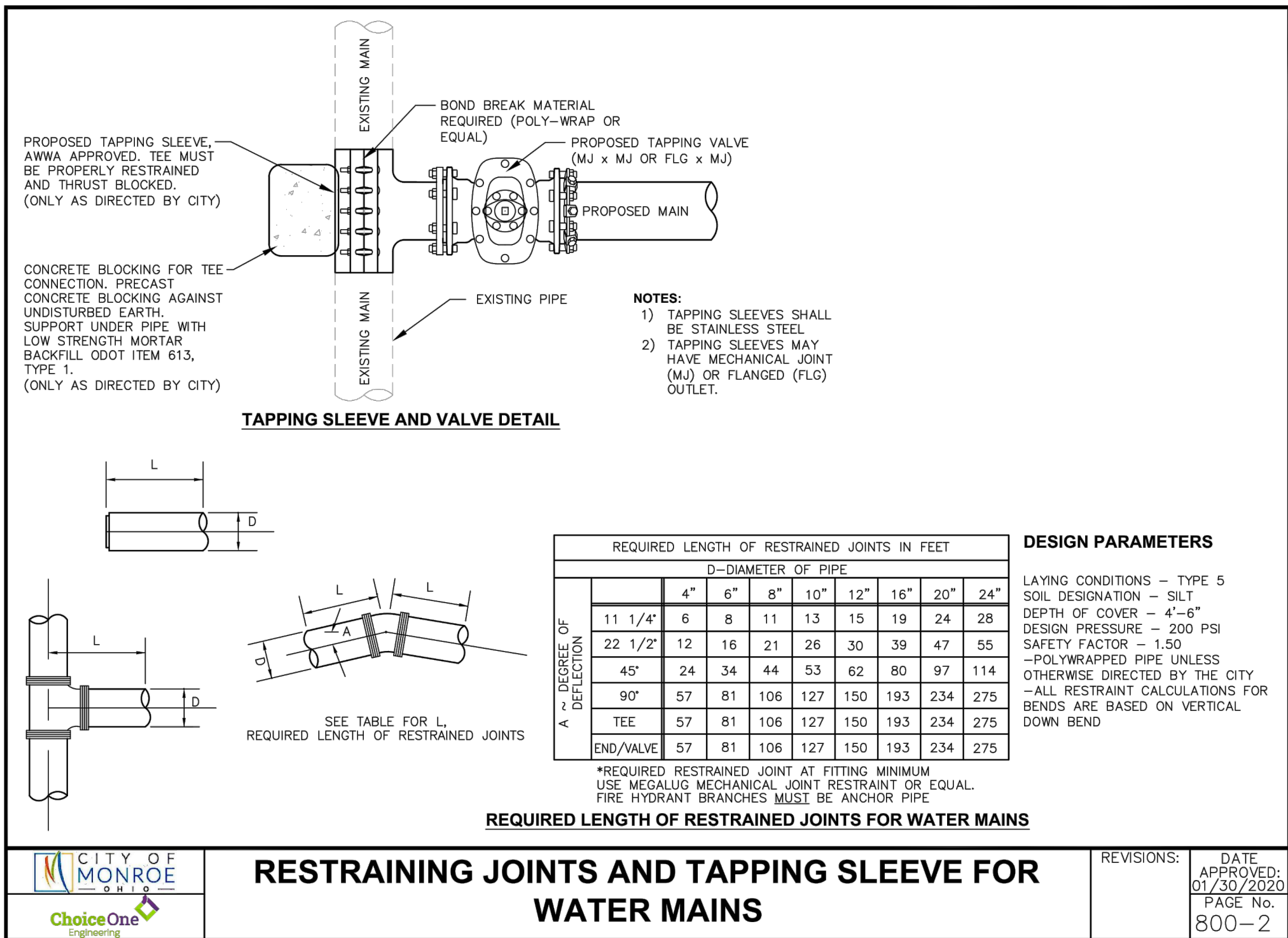
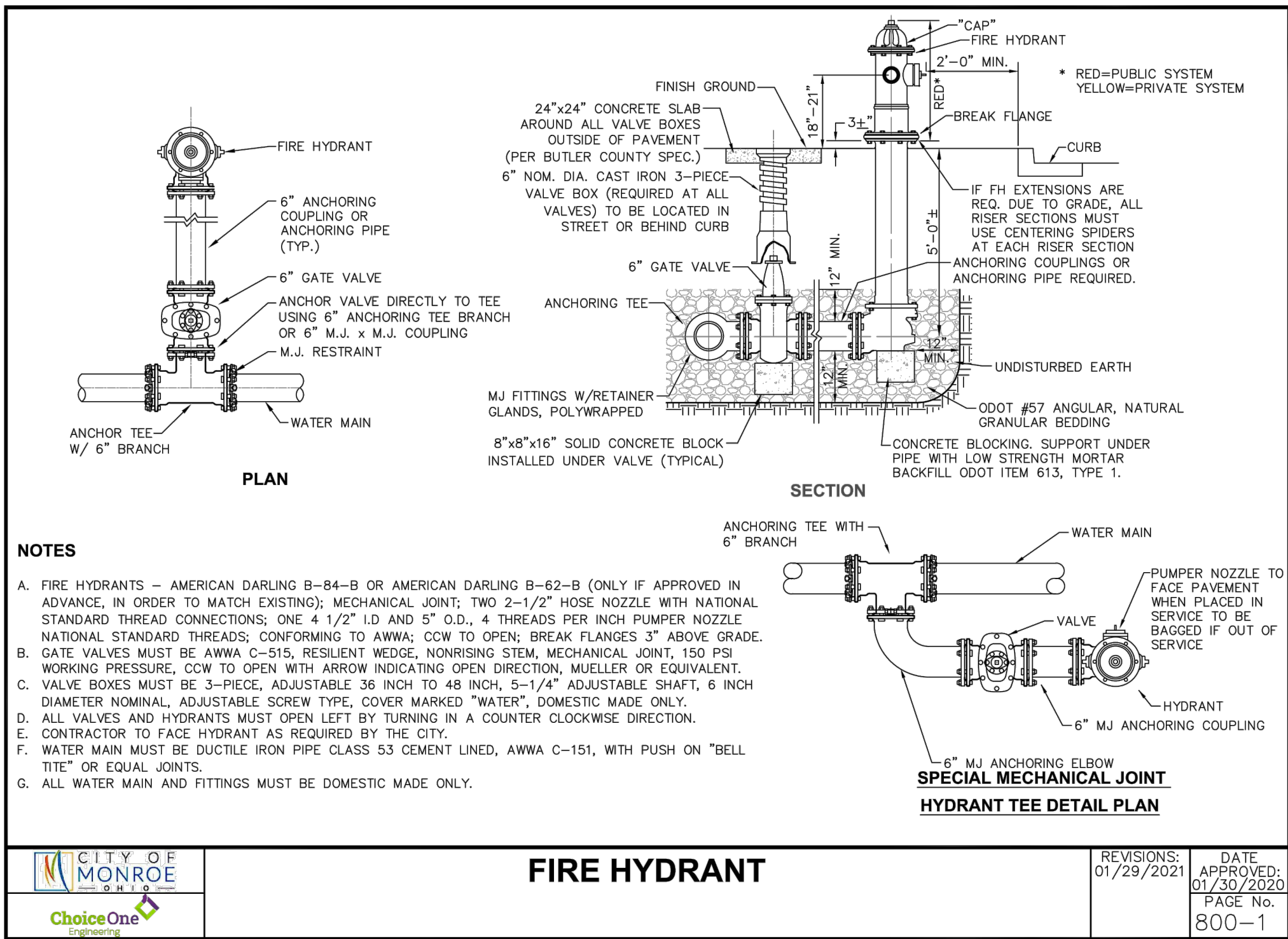
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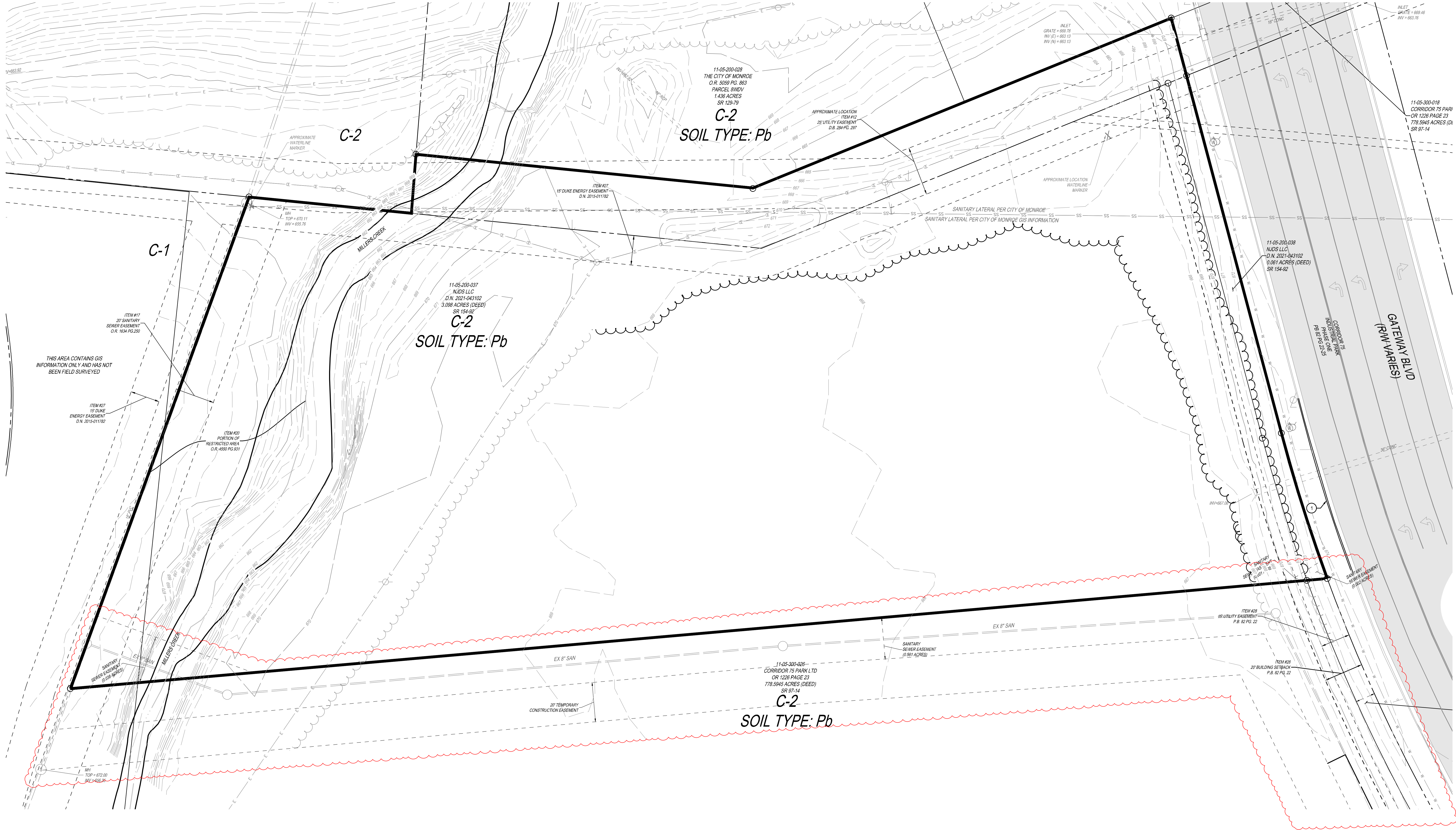
SHEET NAME:

GENERAL DETAILS

SHEET NO.

C100





- LEGEND:**
- BENCHMARK
 - SANITARY MANHOLE
 - STORM MANHOLE
 - INLET
 - UTILITY POLE
 - GUY WIRE
 - PULL BOX
 - GROUND LIGHT
 - LIGHT POLE
 - WATER VALVE
 - FIRE HYDRANT
 - TRAFFIC SIGNAL POLE
 - TRAFFIC BOX
 - SINGLE POST SIGN
 - DOUBLE POST SIGN
 - TREE LINE
 - UNDERGROUND ELECTRIC
 - OVERHEAD UTILITY
 - WATER LINE (PER RECORD)
 - STORM SEWER
 - SANITARY SEWER
 - ASPHALT

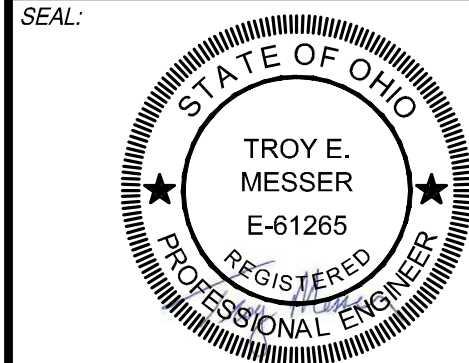
- DEMOLITION LEGEND**
- REMOVE EXISTING TREELINE

- DEMOLITION KEY NOTES**
- EXISTING CURB & GUTTER TO BE REPLACED WITH DEPRESSED CURB & GUTTER

NOTE:
UNDERGROUND UTILITIES ARE PLOTTED FROM A
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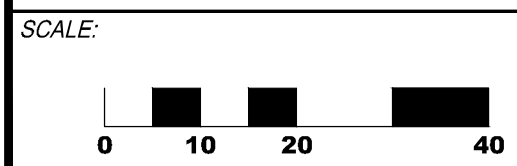
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513.779.7851



NO.	DATE	DESCRIPTION
01	09-19-2022	CITY PLANNING SITE REVIEW
02	11-09-2022	PERMIT SET
03	01-19-2023	PERMIT SET
04	08-03-2023	SANITARY REVISIONS

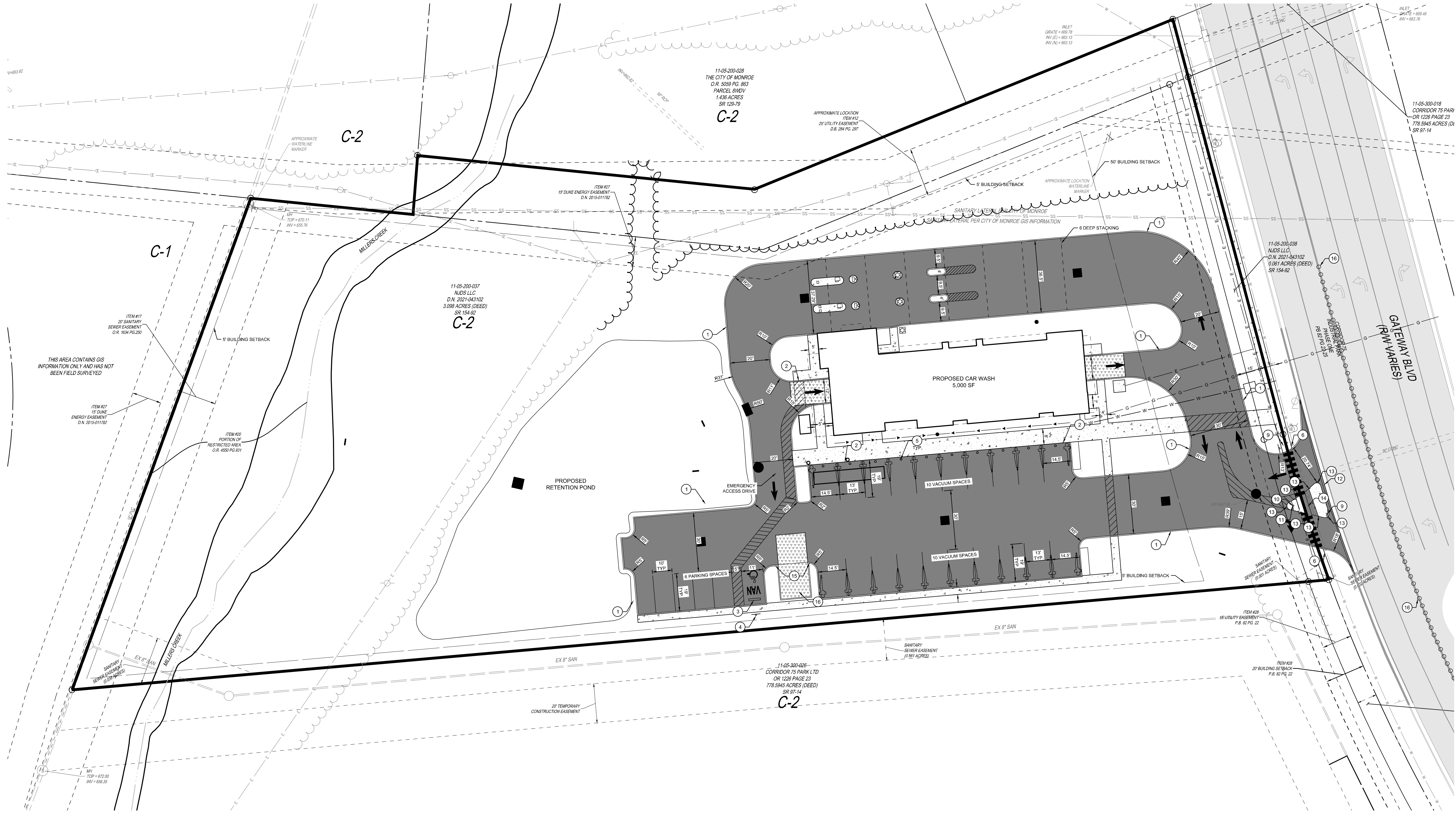
GATEWAY CARWASH
CITY OF MONROE
TURTLE CREEK TOWNSHIP
WARREN COUNTY, OHIO

PROJECT NO: 070803.065
DATE: 09-19-2022



SHEET NAME:
**EXISTING
CONDITIONS AND
DEMOLITION PLAN**

SHEET NO.
C200



LOCATION PLAN LEGEND

- CATCH BASIN
- CURB INLET
- YARD DRAIN
- HEADWALL
- MANHOLE
- STORM SEWER CLEANOUT
- DOWNSPOUT
- SANITARY SEWER MANHOLE
- SANITARY SEWER CLEANOUT
- FIRE HYDRANT
- WATER VALVE
- POST INDICATOR VALVE
- FIRE DEPARTMENT CONNECTION
- ASPHALT PAVEMENT
- CONCRETE WALK
- HEAVY DUTY CONCRETE PAVEMENT

PARKING SPACES LEGEND

- PROPOSED PARKING SPACES
- REQUIRED PARKING SPACES (3 SPACES PER WASHING BAY)
- PROPOSED ADA ACCESSIBLE SPACES
- REQUIRED ADA ACCESSIBLE SPACES
- PROPOSED ADA VAN ACCESSIBLE SPACES
- REQUIRED ADA VAN ACCESSIBLE SPACES

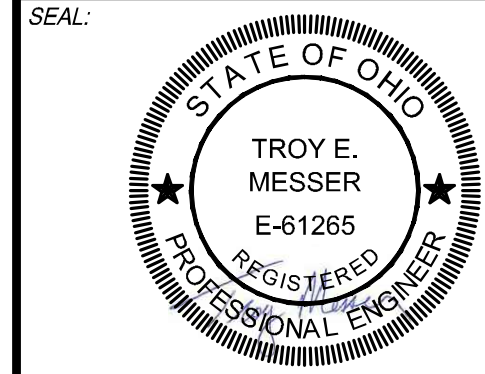
LOCATION PLAN KEY NOTES

- PROPOSED BARRIER CURB
- PROPOSED FLUSH CURB
- PROPOSED WHEEL STOP
- PROPOSED ACCESSIBLE PARKING SIGN
- PROPOSED BOLLARD
- PROPOSED ACCESSIBLE RAMP
- "NO PARKING-FIRE LANE" SIGN
- "STOP" SIGN
- "DO NOT ENTER" SIGN
- "RIGHT TURN ONLY" SIGN
- "NO LEFT TURN" SIGN
- DEPRESSED CURB & GUTTER
- ALL CORNERS OF ISLAND TO BE FLARED DOWN FROM 6" TO 1 1/2" CURB HEIGHT
- WALK TO SPLIT CURB ISLANDS FOR ADA COMPLIANT WALK
- TRANSITION FROM 6" BARRIER CURB TO FLUSH CURB OVER 1'
- ROADWAY DELINEATOR POSTS, "NO LEFT TURN" SIGN TO BE ADDED ON EAST SIDE OF NORTHBOUND GATEWAY BLVD. LOCATION TO BE COORDINATED WITH CITY OF MONROE.
- TRASH ENCLOSURE. SEE ARCHITECTURAL PLANS FOR DETAILS.

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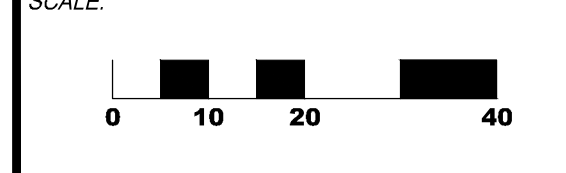
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GATEWAY CARWASH
CITY OF MONROE
TURTLE CREEK TOWNSHIP
WARREN COUNTY, OHIO

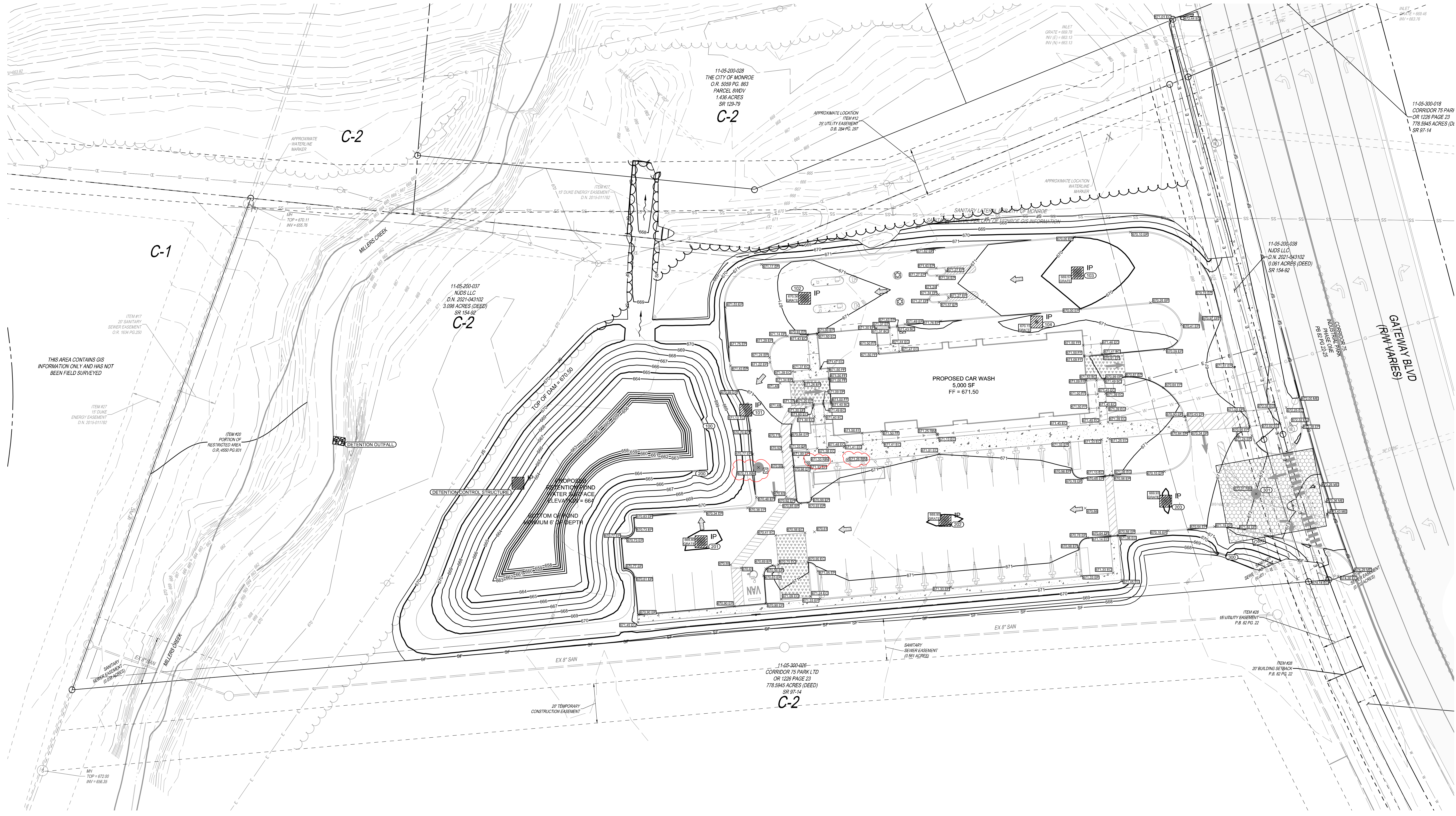
PROJECT NO: 070803.065
DATE: 09-19-2022



SHEET NAME:

LOCATION PLAN

SHEET NO:
C300

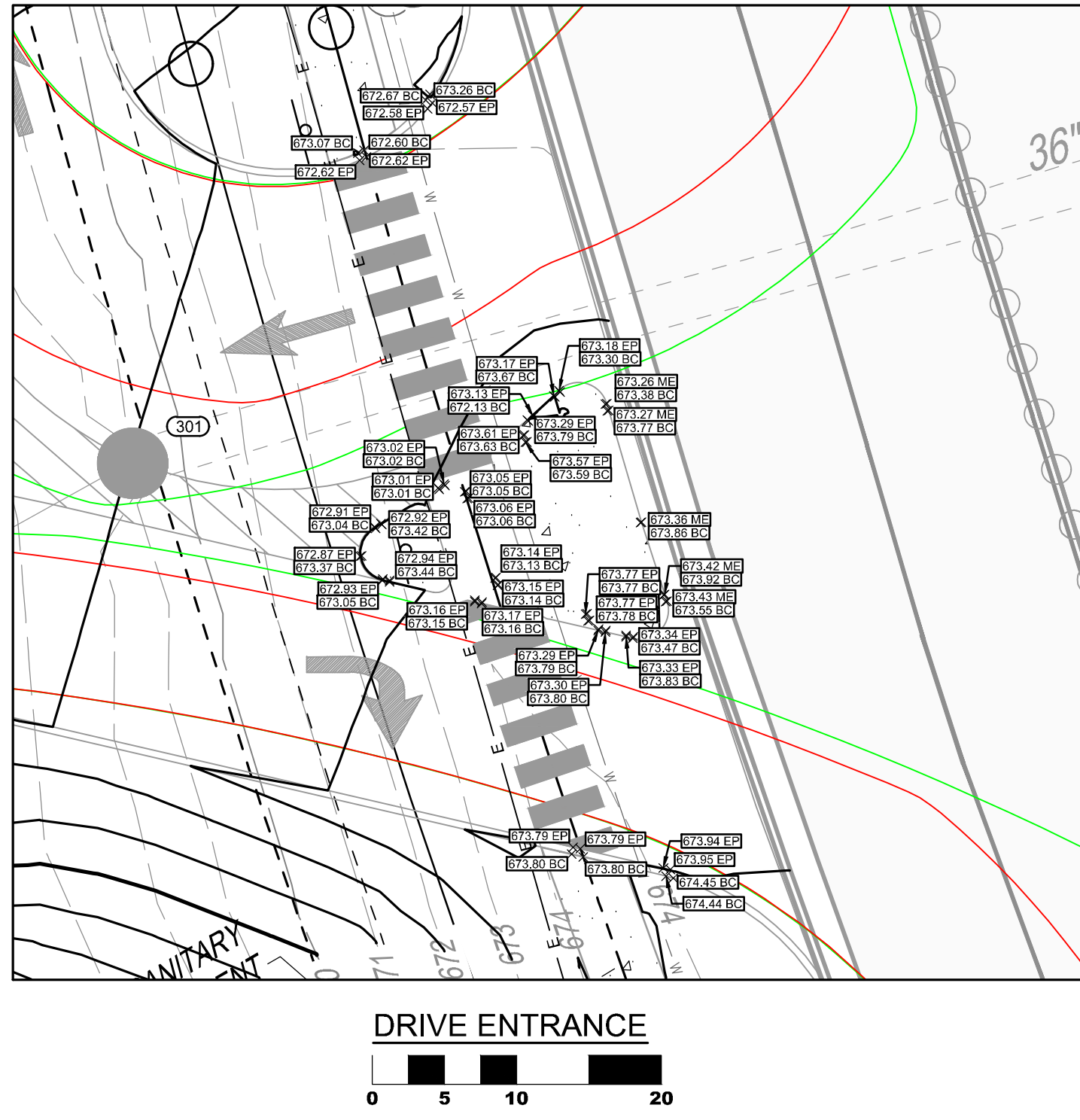
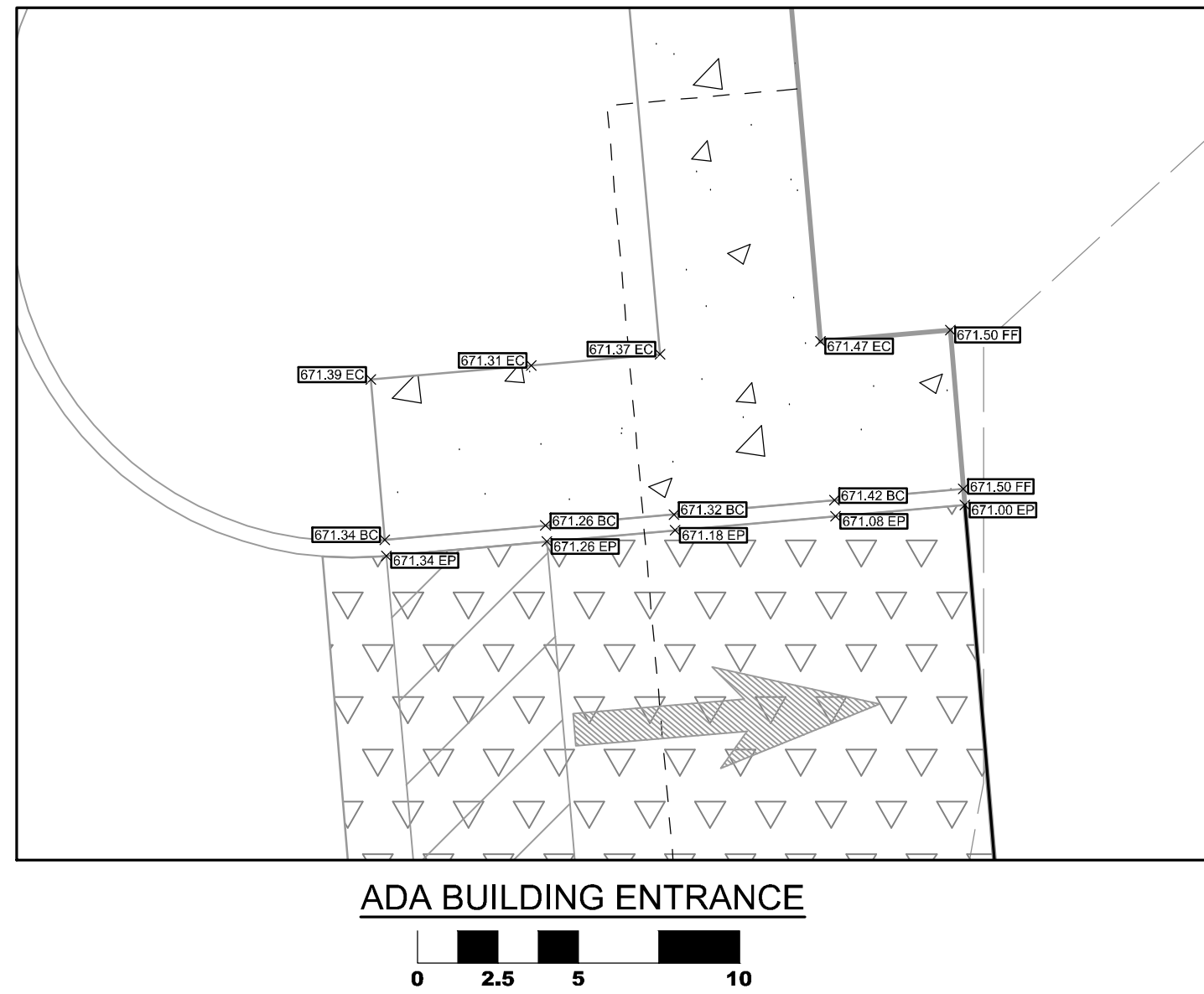


GRADING & EROSION CONTROL LEGEND

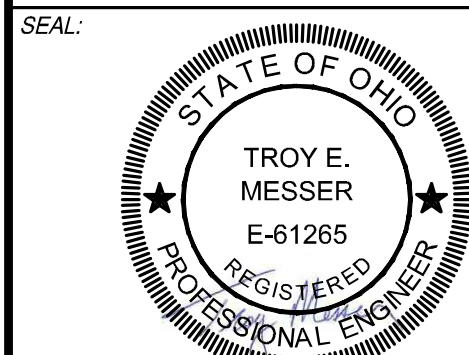
- 1215 — EXISTING MAJOR CONTOUR
- 1216 — EXISTING MINOR CONTOUR
- 1215 — PROPOSED MAJOR CONTOUR
- 1216 — PROPOSED MINOR CONTOUR
- 1215.00 — PROPOSED SPOT ELEVATION
- PROPOSED SWALE
- 100-YEAR FLOOD ROUTE
- INLET PROTECTION
- SILT FENCE
- CONCRETE WASHOUT
- CONSTRUCTION ENTRANCE
- 4'X8'X18" OF 12" RCP

SPOT ELEVATION LEGEND

- 1215.00 — FINISHED GRADE ELEVATION
- 1215.00 BC — BACK OF CURB ELEVATION
- 1215.00 EC — EDGE OF CONCRETE ELEVATION
- 1215.00 EP — EDGE OF PAVEMENT ELEVATION
- 1215.00 EG — EDGE OF GRAVEL ELEVATION
- 1215.00 SB — BOTTOM OF STAIR ELEVATION
- 1215.00 ST — TOP OF STAIR ELEVATION
- 1215.00 WB — FINISHED GRADE AT WALL BOTTOM
- 1215.00 WT — FINISHED GRADE AT WALL TOP
- 1215.00 RM — MANHOLE / CLEANOUT RIM ELEVATION
- 1215.00 TC — STORM INLET TOP OF CASTING ELEVATION
- 1215.00 — GRATE
- 1215.00 — CATCH BASIN GRATE ELEVATION



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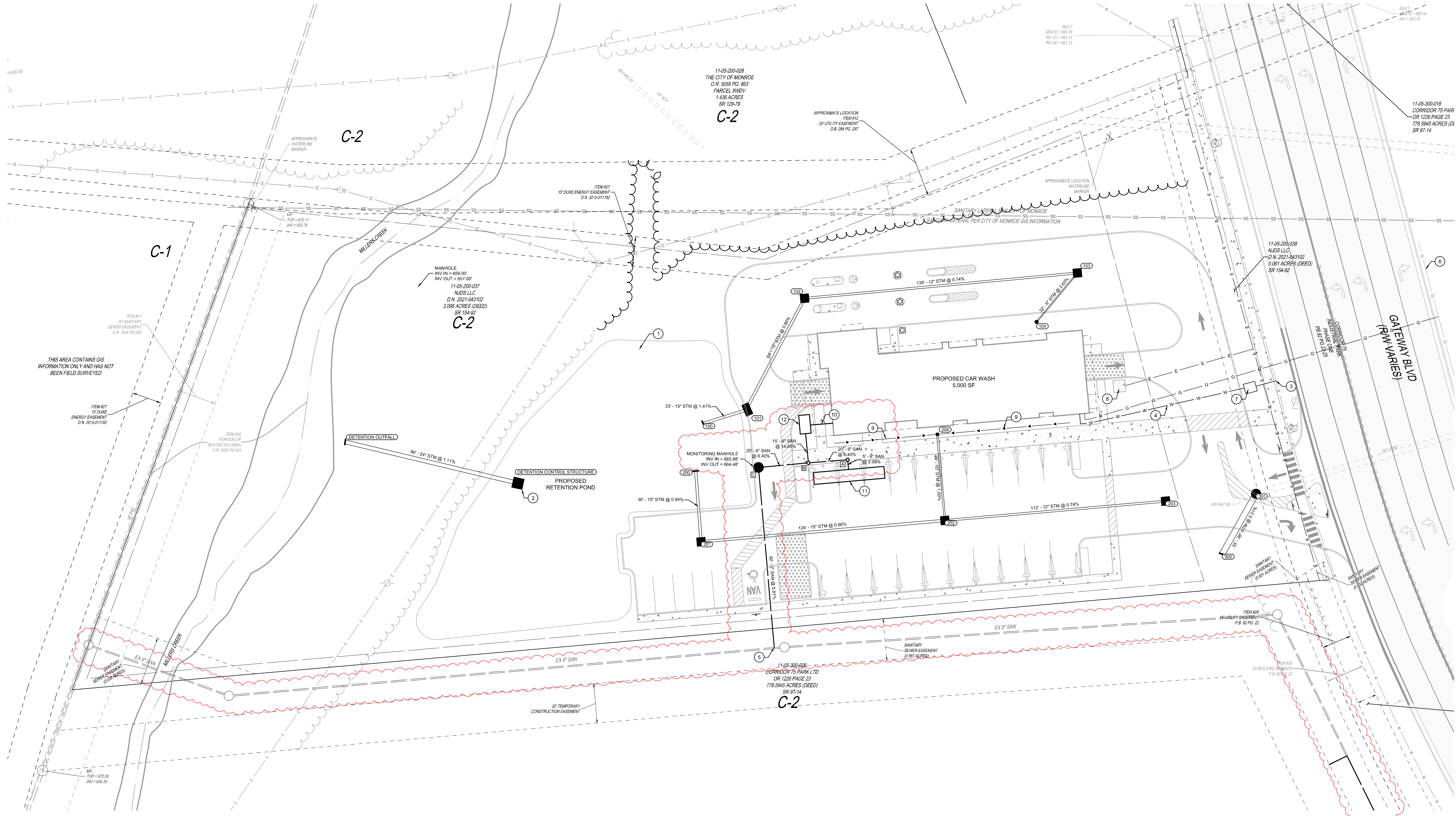
GATEWAY CARWASH
CITY OF MONROE
TURTLECREEK TOWNSHIP
WARREN COUNTY, OHIO

PROJECT NO: 070803.065
DATE: 09-19-2022

SCALE: 0 10 20 40

GRADING AND EROSION CONTROL PLAN
C400

SHEET NO.



UTILITY PLAN LEGEND

- STM STORM SEWER PIPE
- CATCH BASIN
- CURB INLET
- YARD DRAIN
- HEADWALL
- MANHOLE
- STORM SEWER CLEANOUT
- DOWNSPOUT
- SAN SANITARY SEWER PIPE
- SANITARY SEWER MANHOLE
- SANITARY SEWER CLEANOUT
- 3" WATERLINE PIPE
- FIRE HYDRANT
- WATER VALVE
- POST INDICATOR VALVE
- FIRE DEPARTMENT CONNECTION
- 4" GAS MAIN
- UNDERGROUND ELECTRIC

UTILITY PLAN KEY NOTES

- PROPOSED EMERGENCY SPILLWAY
- PROPOSED CONTROL STRUCTURE
- 3" DUCTILE IRON PIPE USED FOR WATER SERVICE TO VAULT.
- 3" COPPER PIPE USED FOR WATER SERVICE FROM VAULT TO BUILDING
- TAP INTO PUBLIC SANITARY EXTENSION
- EXISTING 6" HIGH PRESSURE GAS PER RECORD. CONTRACTOR TO COORDINATE SERVICE WITH DUKE ENERGY. CROSSING OF GATEWAY BLVD SHALL BE BORED/PUSHED UNDER ROADWAY.
- WATER METER PIT. SEE DETAIL 800-12 ON SHEET C101.
- 6"x6" TRANSFORMER PAD. SEE MEP PLANS FOR DETAILS.
- 6" DOWNSPOUT CONNECTION @ 1.00% MINIMUM
- 4" CONNECTION FROM INTERIOR FLOOR DRAINS. SEE SHEET P-1.2 IN PLUMBING PLANS FOR DETAILS.
- RECLAIM TANK. SEE MANUFACTURER FOR PAVEMENT LOAD APPLICATIONS.
- OIL/WATER SEPARATOR. SEE OLDCASTLE PRECAST DETAIL ON SHEET C101.

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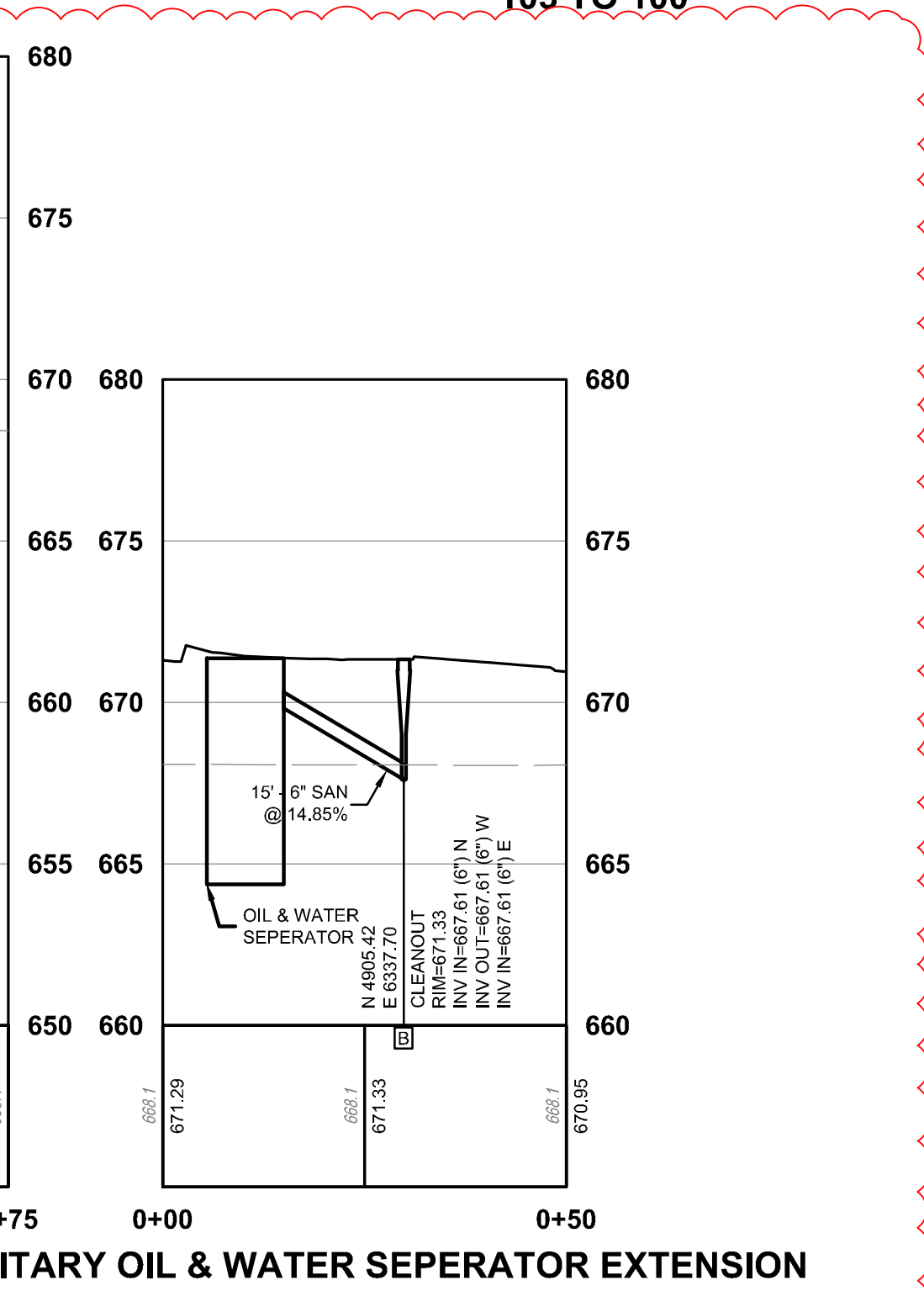
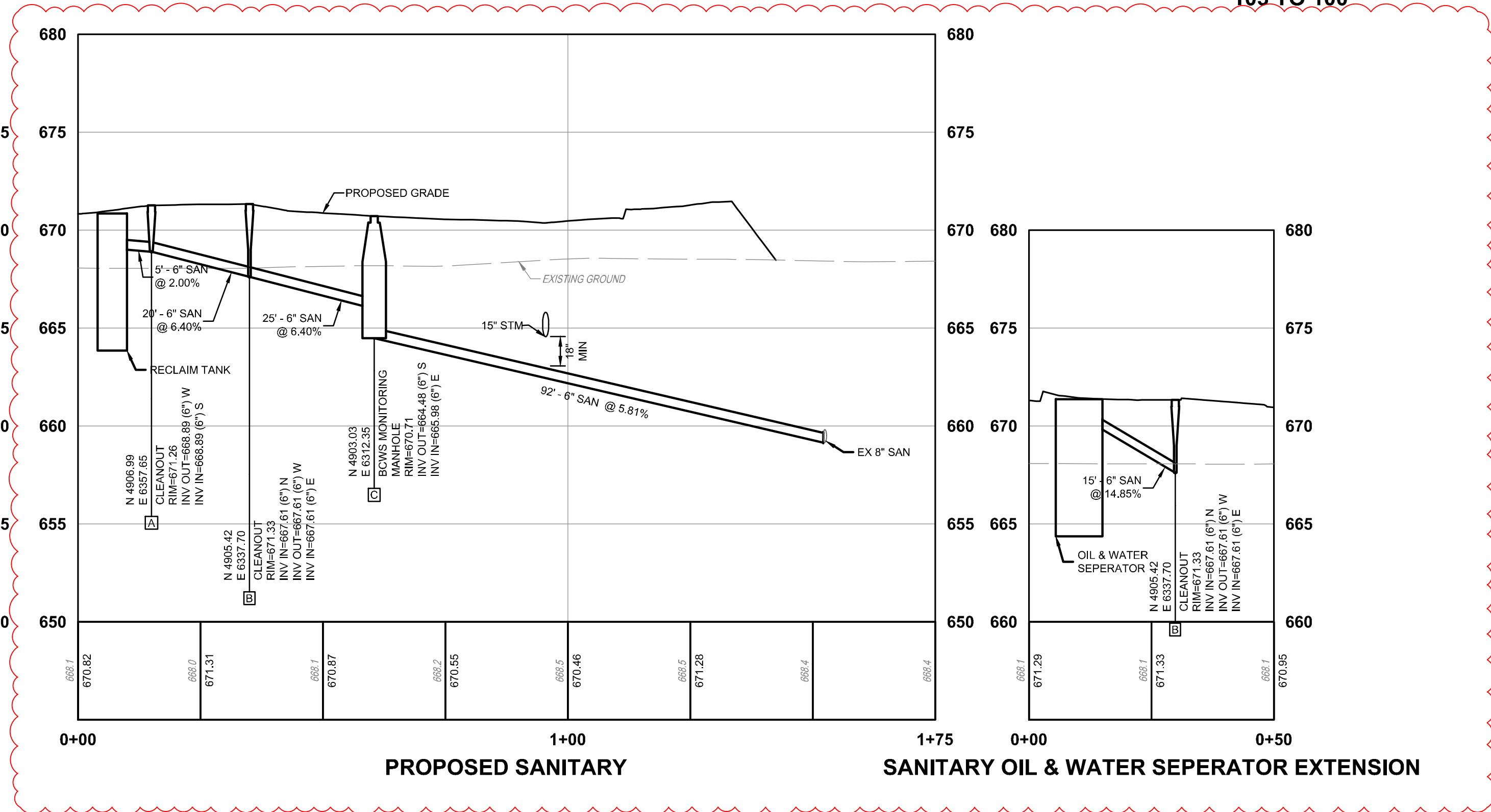
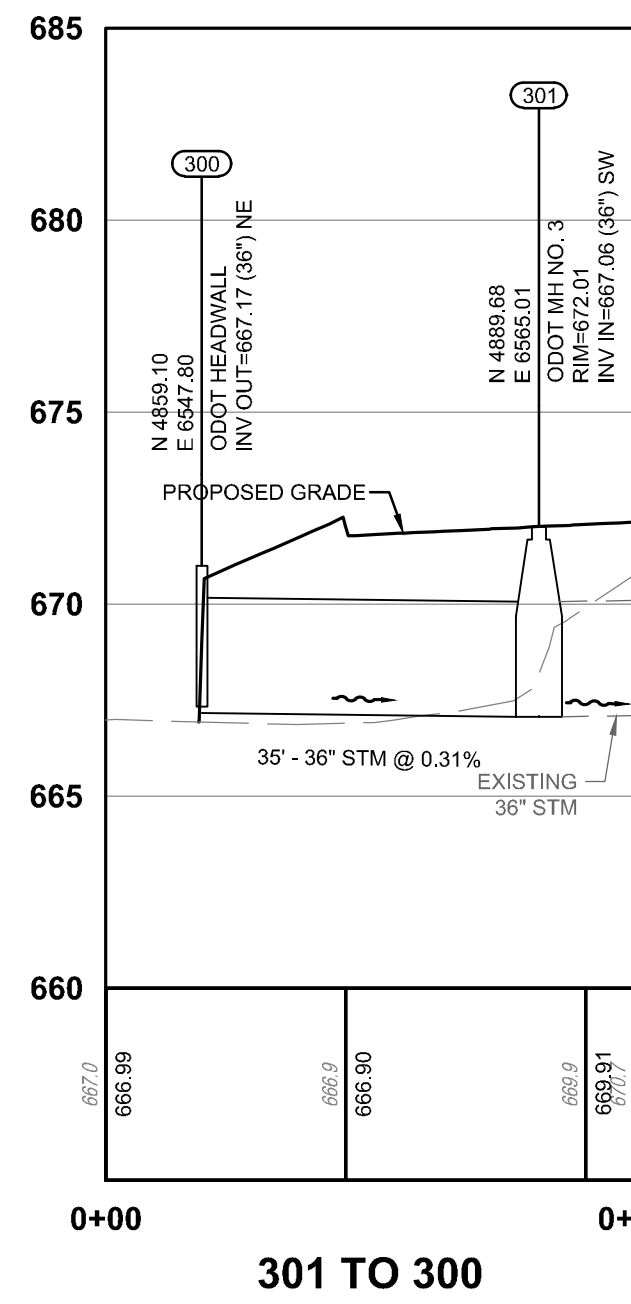
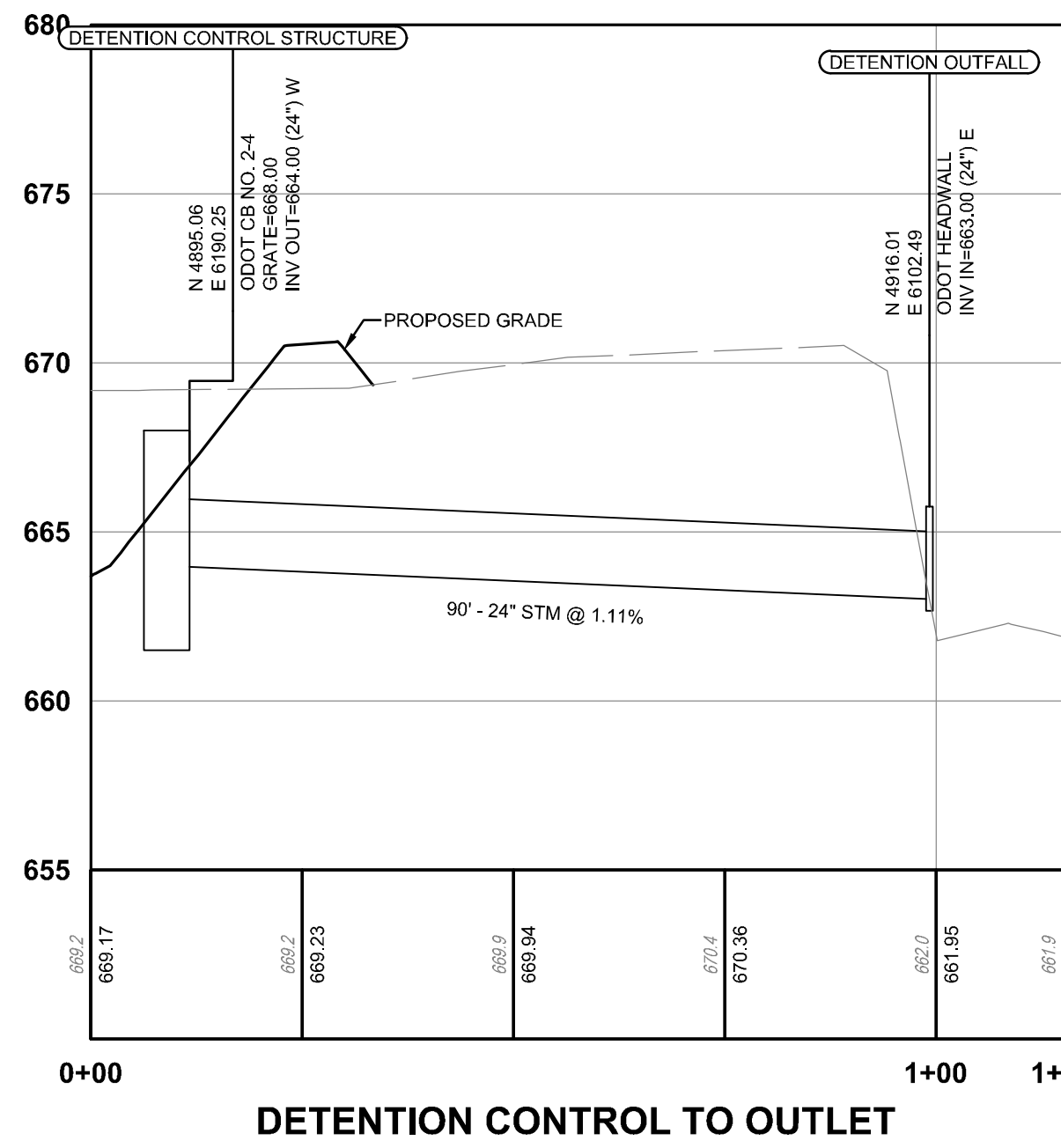
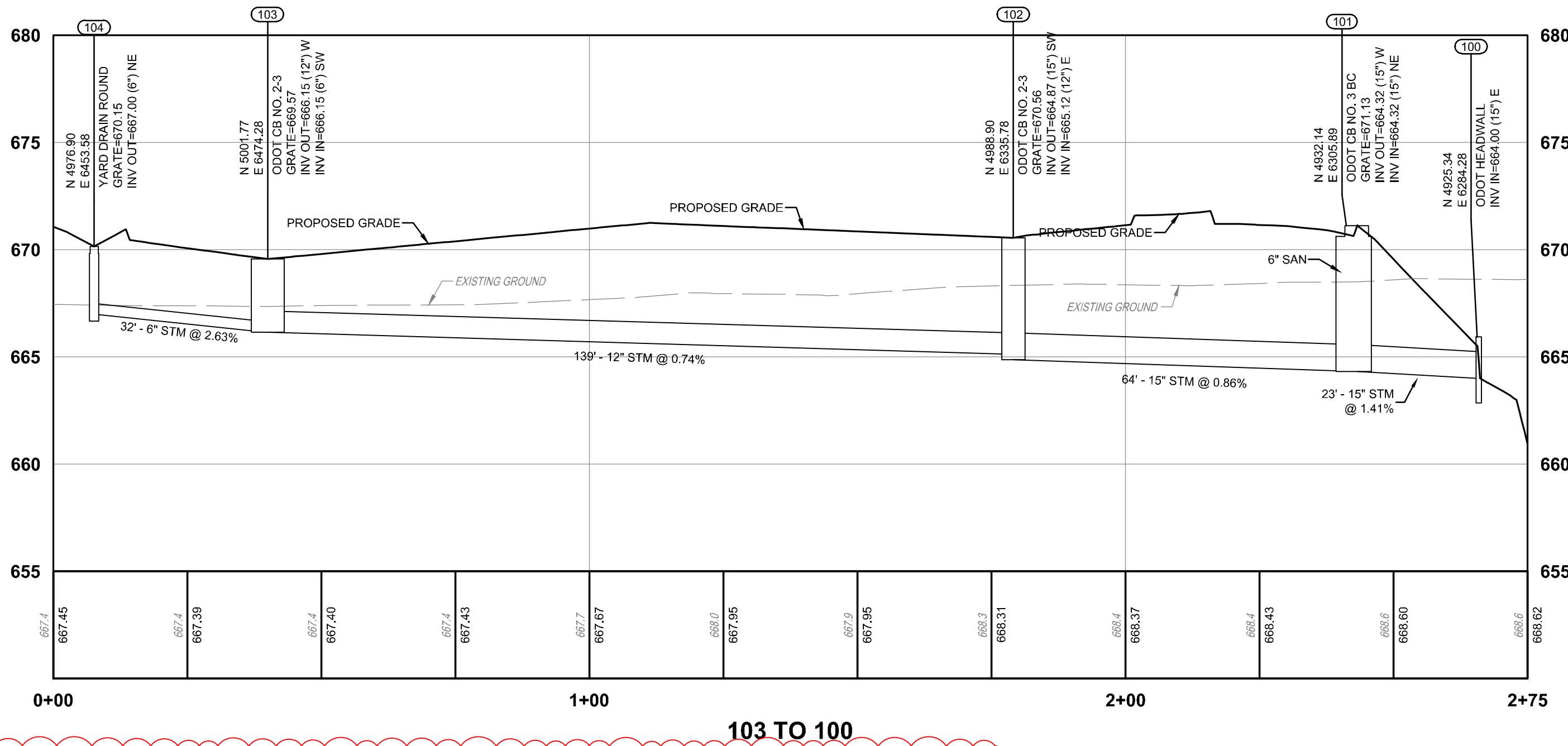
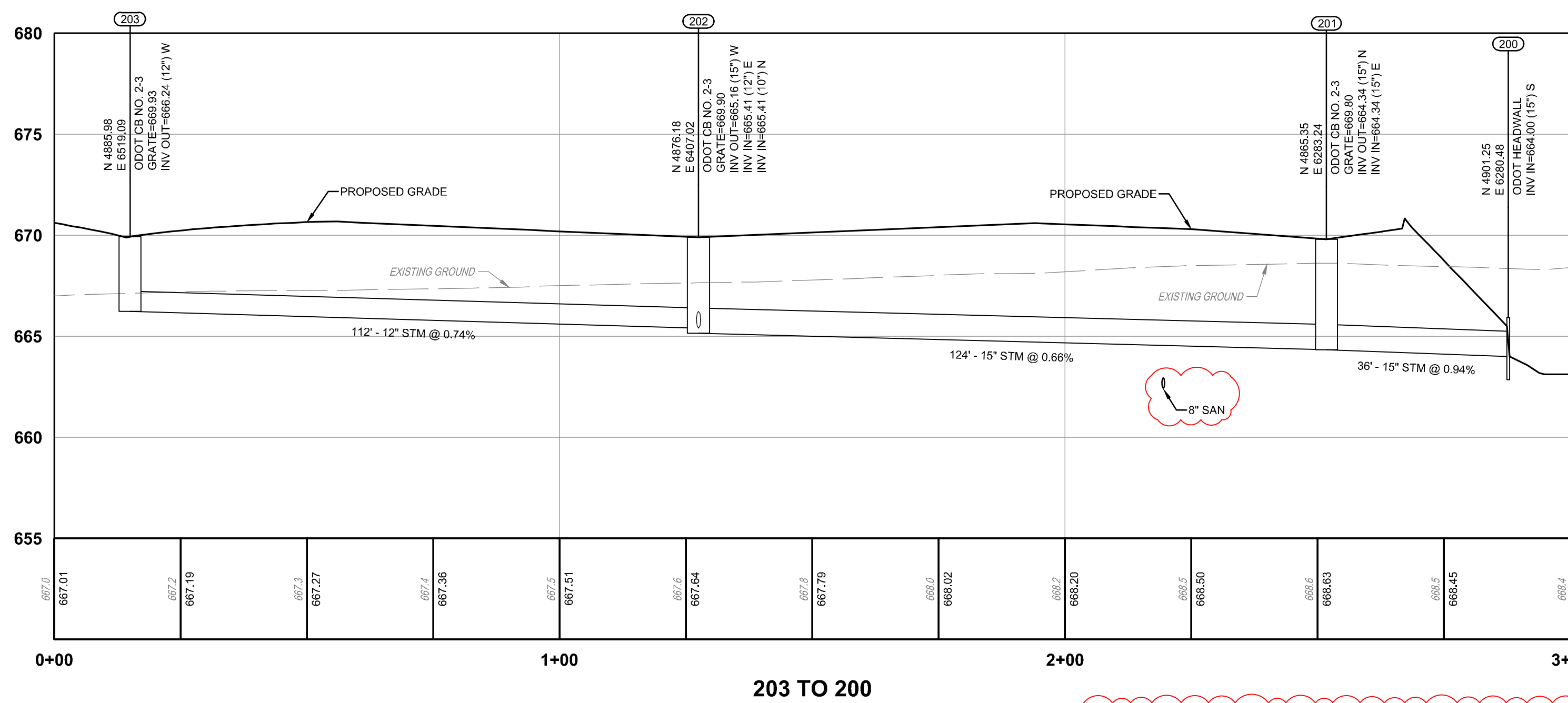
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GATEWAY CARWASH
CITY OF MONROE
TURTLECREEK TOWNSHIP
WARREN COUNTY, OHIO

PROJECT NO: 070803.065
DATE: 09-19-2022
SCALE:
0 10 20 40
SHEET NAME:
UTILITY PLAN
SHEET NO:
C500

SEAL:
STATE OF OHIO
TROY E. MESSER
E-61265
REGISTERED PROFESSIONAL ENGINEER



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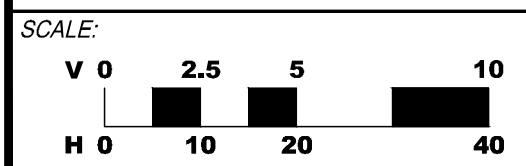
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GATEWAY CARWASH
CITY OF MONROE
TURTLECREEK TOWNSHIP
WARREN COUNTY, OHIO

PROJECT NO: 070803.065
DATE: 09-19-2022



SHEET NAME:

UTILITY PROFILES

SHEET NO.

C502

PROJECT DATA

PROJECT DESCRIPTION
NEW PROPOSED CAR WASH BUILDING WITH ASSOCIATED UTILITIES, DRIVES, PARKING, AND WALKS.

LATITUDE:	N 39°26'17.0"
LONGITUDE:	W 84°19'34.1"
ESTIMATED CONSTRUCTIONS DATES:	MARCH 2023-DECEMBER 2023
TOTAL SITE AREA:	3.10 ACRES
TOTAL DISTURBED AREA:	2.93 ACRES
EXISTING IMPERVIOUS AREA:	0.00 ACRES
PROPOSED IMPERVIOUS AREA:	1.50 ACRES
PRE-CONSTRUCTION RUNOFF COEFFICIENT :	C=0.40
POST-CONSTRUCTION RUNOFF COEFFICIENT:	C=0.65
IMMEDIATE RECEIVING WATER/MS4:	MILLERS CREEK
EXISTING LAND USE:	AGRICULTURE
SOILS:	Pb - PATTON SILT LOAM, SILTED

CONSTRUCTION SEQUENCE

TO COMPLETE THE EXCAVATION AND CONSTRUCTION OF THE PROPOSED JOB IMPROVEMENTS, COORDINATION OF THE CONTRACTOR'S WORK CREWS WILL BE REQUIRED. THE EXISTING DITCHES WILL PERFORM TEMPORARY SEDIMENT CONTROL AND STORAGE DURING THE PROPOSED CONSTRUCTION. WORK WILL GENERALLY PROCEED FROM DOWNSTREAM TO UPSTREAM IN THESE WORK AREAS. THE GENERAL CONSTRUCTION SEQUENCE IS AS FOLLOWS:

- A) INSTALL EROSION CONTROL ITEMS.
- B) STRIP TOPSOIL AND ANY UNSUITABLE MATERIAL THROUGH THE INCREMENTAL WORK AREA.
- C) INSTALL TEMPORARY DITCH CHECKS IN DOWNSTREAM END OF EXISTING DITCH WITHIN 24 HOURS FOLLOWING THE STRIPPING OPERATION.
- D) IF U/G PIPE IS CALLED FOR IN THIS PORTION OF WORK AREA, PIPE CREW WILL INSTALL PIPE AS WELL AS MANHOLES.
- E) AS PIPE INSTALLATION PROGRESSES, REPAIR OF THE ROADWAY WILL PROCEED BEHIND IT.
- F) ANY DISTURBED OR EXPOSED AREAS SHALL BE STABILIZED PER OEPA TEMPORARY AND PERMANENT STABILIZATION REGULATIONS INCLUDING:
 1. SEEDING
 2. DITCH MATTING
 3. INLET PROTECTION
 4. MULCHING
 5. WATERING

EMERGENCY ACTION & SPILL PREVENTION PLAN

THE SCOPE OF WORK COVERED BY THIS PLAN INCLUDES EMERGENCY RESPONSE TO SPILLS, CONTAINMENT OF SPILLED LIQUIDS, EMERGENCY NOTIFICATION NUMBERS, AND SOIL EXCAVATION FOR SPILL CLEAN-UP.

IN THE EVENT OF A SPILL, EVENT THE EMPLOYEE SHALL ASSESS THE SPILL AND IMMEDIATELY NOTIFY THE SAFETY OFFICER AND SUPERVISOR IN CHARGE, OR OTHER INDIVIDUALS AS LISTED BELOW.

TITLE	NAME	PHONE NUMBER
SITE SUPERINTENDENT		
PROJECT ENGINEER		

IMMEDIATELY AFTER NOTIFICATION, THE EMPLOYEE WILL BE DIRECTED BY THE SAFETY OFFICER, OR RESPONSIBLE PARTY TO START CONTAINMENT PROCEDURES TO PREVENT THE MATERIAL FROM REACHING THE STORM SEWERS, DRAINAGE DITCH, AND OTHER OUTLETS USING THE FOLLOWING ACTIONS OR ANY OTHER MEANS NECESSARY WITHOUT COMPROMISING WORKER SAFETY:

- 1) CLEAR PERSONNEL FROM THE SPILL AREA AND ROPE OFF AREA.
- 2) STOP THE SPILL.
- 3) USE SORBENT MATERIALS, PLUG PUTTY, OR HOLE PUTTY AS NECESSARY TO CONTROL THE SPILL AT THE SOURCE.
- 4) CONSTRUCT A TEMPORARY CONTAINMENT DIKE OF SORBENT MATERIALS OR DIRT TO CONTAIN SPILL.

SPILL KITS WILL BE LOCATED ON THE PROJECT AS DESIGNATED ON THE SWPPP PLAN.

UPON COMPLETION OF CONTAINMENT OPERATIONS, PROPER CLEAN-UP PROCEDURES WILL BE IMPLEMENTED IN ACCORDANCE WITH REGULATORY PROCEDURES.

ADDITIONAL EMERGENCY CONTACT NUMBERS:	24 HOUR PHONE NO.:
OHIO EPA	614-728-3898

GENERAL NOTES

THE CONTRACTOR IS HEREBY ADVISED THAT STRICTER POLLUTION CONTROL STANDARDS AND ENFORCEMENT HAVE BEEN IMPOSED BY THE OHIO EPA SINCE MARCH 10, 2003 AND WITH A REVISION IN APRIL 2018. ALSO, MANY PRIVATE CITIZEN ENVIRONMENTAL GROUPS, WHO HAVE BEEN KNOWN TO FILE CIVIL LEGAL ACTIONS, ARE PRESENT IN THE AREA AND OBSERVE ALL CONSTRUCTION OPERATIONS.

THE CONTRACTOR SHALL INFORM ALL SUBCONTRACTORS OF THE REQUIREMENTS AND RESPONSIBILITIES OF THE SWPPP AND SHALL DOCUMENT ALL SUCH NOTIFICATIONS AND/OR DISCUSSIONS.

THE CONTRACTOR WILL BE REQUIRED TO PARTICIPATE IN SEDIMENT AND EROSION CONTROL INSPECTIONS ON A WEEKLY BASIS AND SIGN AN APPROVED INSPECTION SHEET THAT SHALL BE KEPT ON FILE AT THE JOB SITE.

UNLESS OTHERWISE NOTED, STANDARDS AND SPECIFICATIONS ESTABLISHED IN THE LATEST EDITION OF THE OEPA "RAINWATER AND LAND DEVELOPMENT" HANDBOOK SHALL GOVERN THE EROSION AND SEDIMENT CONTROL INSTALLATIONS SPECIFIED ON THIS PLAN.

THIS PROJECT WILL INVOLVE SEVERAL CONSTRUCTION PHASES AND SEQUENCING THROUGHOUT ITS LIFETIME. IT IS VERY IMPORTANT THAT ALL TEMPORARY SEDIMENT AND EROSION CONTROL (S&EC) FIELD METHODS ALONG WITH THIS PLAN, ARE UPDATED TO REFLECT THE ACTUAL FIELD CONDITIONS, CURRENT WEATHER CONDITIONS AND SITE GRADE CHANGES. THE ENGINEER OR THE OHIO EPA CAN AND WILL MODIFY THIS PLAN AS NECESSARY.

THE CONTRACTOR WILL VOLUNTARILY SELF REPORT ANY POTENTIAL VIOLATIONS OF THE OEPA NPDES PERMIT TO THE ENGINEER AND THE OEPA.

THE CONTRACTOR SHALL REMOVE EXISTING GROUND COVER ONLY AS NECESSARY FOR THE PROJECT PHASE CURRENTLY UNDER CONSTRUCTION.

CONSTRUCTION AND DEMOLITION DEBRIS SHALL BE PROPERLY DISPOSED OF ACCORDING TO OHIO EPA REQUIREMENTS.

THE CONTRACTOR WILL BE REQUIRED TO BUILD SEDIMENT BASINS OR SEDIMENT TRAPS OR USE EQUAL METHODS TO DETAIN AND CLEAN WATER TO ACCEPTABLE EPA STANDARDS BEFORE RELEASING THE WATER BACK INTO THE STREAM.

THERE SHALL BE NO TURBID DISCHARGES TO SURFACE WATERS, RESULTING FROM DEWATERING ACTIVITIES. SEDIMENT-LADEN WATER MUST PASS THROUGH A SETTLING POND, FILTER BAG, OR OTHER COMPARABLE PRACTICE, PRIOR TO DISCHARGE.

NO SOLID OR LIQUID WASTE SHALL BE DISCHARGED INTO STORM WATER RUNOFF.

ALL PROCESS WASTEWATER (EQUIPMENT WASHING, LEACHATE FROM ON-SITE WASTE DISPOSAL, ETC.) SHALL BE COLLECTED AND DISPOSED OF AT A PUBLICLY OWNED TREATMENT WORKS.

ALL CONSTRUCTION ACTIVITIES MUST COMPLY WITH ALL LOCAL EROSION/SEDIMENT CONTROL, WASTE DISPOSAL, SANITARY AND HEALTH REGULATIONS.

OTHER EROSION CONTROL ITEMS MAY BE NECESSARY DUE TO ENVIRONMENTAL CONDITIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION AND IMPLEMENTATION OF ADDITIONAL EROSION CONTROL ITEMS, AT THE ENGINEER'S DISCRETION.

NO SOIL, ROCK, DEBRIS OR OTHER MATERIAL SHALL BE DUMPED OR PLACED IN ANY AREAS NOT ADEQUATELY PROTECTED BY EROSION CONTROL INSTALLATIONS.

IT IS PREFERRED TO USE PERMANENT EROSION CONTROL ITEMS AS SHOWN IN THE PLANS TO CONTROL CONSTRUCTION POLLUTION WHEN POSSIBLE. OTHERWISE, THE TEMPORARY POLLUTION PREVENTION ITEMS ARE TO BE USED.

MOST TEMPORARY S&EC METHODS, INCLUDING BUT NOT LIMITED TO, SILT FENCE AND DITCH CHECKS MAY ALL HAVE TO BE PERIODICALLY REMOVED AND REPLACED, OR MOVED FROM THE EXISTING ROAD DITCH OR STRIPPED AREAS AS WORK PROGRESSES. ANY CHANGES SHALL BE NOTED IN THE PLAN BY RED LINE AND DATED ON A CORRECTIVE ACTION LOG.

ALL TEMPORARY SEDIMENT CONTROLS AND STORM WATER QUALITY METHODS WILL BE BUILT/INSTALLED AS THE PROJECT PROGRESSES TO ELIMINATE UNNECESSARY DISTURBANCE AND REDUNDANCY. ALL TEMPORARY CONTROLS SHALL BE IN PLACE AND FUNCTIONING PROPERLY WHEN THREATENING WEATHER IS IMMINENT.

"TEMPORARY STABILIZATION" MEANS THE ESTABLISHMENT OF TEMPORARY VEGETATION, MULCHING, GEOTEXTILES, SOD, PRESERVATION OF EXISTING VEGETATION AND OTHER TECHNIQUES CAPABLE OF QUICKLY ESTABLISHING COVER OVER DISTURBED AREAS TO PROVIDE EROSION CONTROL BETWEEN CONSTRUCTION OPERATIONS.

"PERMANENT STABILIZATION" MEANS THE ESTABLISHMENT OF PERMANENT VEGETATION, DECORATIVE LANDSCAPE MULCHING, MATTING, SOD, RIP RAP AND LANDSCAPING TECHNIQUES TO PROVIDE PERMANENT EROSION CONTROL ON AREAS WHERE CONSTRUCTION OPERATIONS ARE COMPLETE OR WHERE NO FURTHER DISTURBANCE IS EXPECTED FOR AT LEAST A YEAR.

OFF-SITE TRACKING OF SEDIMENTS SHALL BE MINIMIZED. A STABILIZED CONSTRUCTION ENTRANCE WILL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. ALL PAVED STREETS ADJACENT TO THE SITE WILL BE SWEEP DAILY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARP.

STABILIZATION PRACTICES

PERMANENT SEEDING AND MULCHING STABILIZATION SHALL BE PROVIDED PER OEPA GUIDELINES AS SET FORTH IN PART II.B OF OHIO EPA PERMIT NO.: OHC000005. (SEE TABLE 1)

TABLE 1: PERMANENT STABILIZATION	
AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY AREAS THAT WILL LIE DORMANT FOR ONE YEAR OR MORE	WITHIN SEVEN DAYS OF THE MOST RECENT DISTURBANCE
ANY AREAS WITHIN 50 FEET OF A SURFACE WATER OF THE STATE AND AT FINAL GRADE	WITHIN TWO DAYS OF REACHING FINAL GRADE
ANY OTHER AREAS AT FINAL GRADE	WITHIN SEVEN DAYS OF REACHING FINAL GRADE WITHIN THAT AREA

TEMPORARY SEEDING AND MULCHING STABILIZATION SHALL BE PROVIDED PER OEPA GUIDELINES AS SET FORTH IN PART II.B OF OHIO EPA PERMIT NO.: OHC000005. (SEE TABLE 2)

TABLE 2: TEMPORARY STABILIZATION	
AREA REQUIRING TEMPORARY STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY DISTURBED AREAS WITH 50 FEET OF A SURFACE WATER OF THE STATE AND NOT AT FINAL GRADE	WITHIN TWO DAYS OF THE MOST RECENT DISTURBANCE IF THE AREA WILL REMAIN IDLE FOR MORE THAN 14 DAYS
FOR ALL CONSTRUCTION ACTIVITIES, ANY DISTURBED AREAS THAT WILL BE DORMANT FOR MORE THAN 14 DAYS BUT LESS THAN ONE YEAR, AND NOT WITHIN 50 FEET OF A SURFACE WATER OF THE STATE	WITHIN SEVEN DAYS OF THE MOST RECENT DISTURBANCE WITHIN THE AREA FOR RESIDENTIAL SUBDIVISIONS, DISTURBED AREAS MUST BE STABILIZED AT LEAST SEVEN DAYS PRIOR TO TRANSFER OF PERMIT COVERAGE FOR THE INDIVIDUAL LOT(S).
DISTURBED AREAS THAT WILL BE IDLE OVER WINTER	PRIOR TO THE ONSET OF WINTER WEATHER

ALL TEMPORARY EROSION AND SEDIMENT CONTROL INSTALLATIONS SHALL BE REMOVED WHEN 70% VEGETATION HAS BEEN REACHED.

SEEDING & MULCHING

MULCH AND/OR OTHER APPROPRIATE VEGETATIVE PRACTICES SHALL BE APPLIED TO DISTURBED AREAS WITHIN 7 DAYS OF GRADING IF THE AREA IS TO REMAIN DORMANT (UNDISTURBED) FOR MORE THAN 14 DAYS OR ON AREAS AND PORTIONS OF THE SITE WHICH CAN BE BROUGHT TO FINAL GRADE.

MULCH SHALL CONSIST OF UNROTTED SMALL GRAIN STRAW APPLIED AT THE RATE OF 2 TONS/AC. OR 90 LB./1000 SQ. FT. (TWO TO THREE BALES). THE STRAW MULCH SHALL BE SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1000-SQ.-FT. SECTIONS AND PLACE TWO 45-LB. BALES OF STRAW IN EACH SECTION.

MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR RUNOFF. THE FOLLOWING ARE ACCEPTABLE METHODS FOR ANCHORING MULCH:

- 1) MECHANICAL-USE A DISK, CRIMPER, OR SIMILAR TYPE TOOL SET STRAIGHT TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL. STRAW MECHANICALLY ANCHORED SHALL NOT BE FINELY CHOPPED BUT BE LEFT GENERALLY LONGER THAN 6 IN.
- 2) MULCH NETTINGS-USE ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS, FOLLOWING ALL PLACEMENT AND ANCHORING SUGGESTIONS. USE IN AREAS OF WATER CONCENTRATION AND STEEP SLOPES TO HOLD MULCH IN PLACE.
- 3) SYNTHETIC BINDERS-FOR STRAW MULCH, SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI-TAC), DCA-70, PETROSET, TERRA TACK OR EQUAL MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER. ALL APPLICATIONS OF SYNTHETIC BINDERS MUST BE CONDUCTED IN SUCH A MANNER WHERE THERE IS NO CONTACT WITH WATERS OF THE STATE.
- 4) WOOD CELLULOSE FIBER - WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. THE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 LB./ACRE. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LB./100 GAL. OF WOOD CELLULOSE FIBER.

TEMPORARY SEEDING & MULCHING FOR EROSION CONTROL		
SEED TYPE	PER 1,000 SQ.FT.	PER ACRE
PERENNIAL RYEGRASS	1 POUND	40 POUNDS
TALL FESCUE	1 POUND	40 POUNDS
ANNUAL RYEGRASS	1 POUND	40 POUNDS
SMALL GRAIN STRAW	90 POUNDS	2 TONS
FERTILIZER	6 POUNDS OF 10-10-10 OR 12-12-12	250 POUNDS OF 10-10-10 OR 12-12-12

NOTE: OTHER APPROVED SPECIES MAY BE SUBSTITUTED

STOCKPILE

SILT FENCING SHALL BE INSTALLED AROUND TEMPORARY SPOIL STOCKPILES. THESE STOCKPILES SHALL BE STRAW MULCHED AND/OR TEMPORARILY SEEDDED WITHIN 7 WORKING DAYS IF LEFT DORMANT FOR 14 DAYS OR LONGER.

TIMING OF CONTROLS/MEASURES

AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES, CONSTRUCTION ENTRANCE(S) AND SILT FENCE WILL BE CONSTRUCTED PRIOR TO CLEARING OR GRADING OF ANY OTHER PORTIONS OF THE SITE. SEDIMENT CONTROL DEVICES SHALL BE IMPLEMENTED FOR ALL AREAS REMAINING DISTURBED LONGER THAN 14 DAYS AND/OR WITHIN 7 DAYS OF ANY GRUBBING ACTIVITIES. AREAS WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR MORE THAN 14 DAYS WILL BE STABILIZED WITH A TEMPORARY SEED AND MULCH WITHIN 2 DAYS OF THE LAST DISTURBANCE; IF THE AREA IS WITHIN 50 FEET OF A STREAM, AND WITHIN 7 DAYS OF THE LAST DISTURBANCE IF THE AREA IS MORE THAN 50 FEET AWAY FROM A STREAM. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, THAT AREA WILL BE STABILIZED WITH PERMANENT SEED AND MULCH. AFTER THE ENTIRE SITE IS STABILIZED, THE ACCUMULATED SEDIMENT WILL BE REMOVED FROM THE BASIN.

STABILIZATION TYPE	J	F	M	A	M	J	J	A	S	O	N	D	
PERMANENT SEEDING						*	*	*	*	*	*	*	* IRRIGATION NEEDED
DORMANT SEEDING	*	*	*	*	*	*	*	*	*	*	*	*	** IRRIGATION NEEDED FOR 2-3 WEEKS AFTER SOD IS APPLIED
TEMPORARY SEEDING			*	*	*	*	*	*	*	*	*	*	
SODDING			**	**	**	**	**	**	**	**	**	**	
MULCHING	*	*	*	*	*	*	*	*	*	*	*	*	

INSPECTIONS

ALL BMPs ON THIS SITE SHALL BE INSPECTED BY "QUALIFIED INSPECTION PERSONNEL" ASSIGNED BY THE CONTRACTOR OR DESIGNATED REPRESENTATIVE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND BY THE END OF THE NEXT CALENDAR DAY, EXCLUDING WEEKENDS AND HOLIDAYS UNLESS WORK IS SCHEDULED, AFTER A RAIN EVENT OF 0.5 INCHES PER 24 HOUR PERIOD. A RECORD OF THESE INSPECTIONS SHALL BE MAINTAINED IN THE CONSTRUCTION OFFICE WITH THE SWPPP FOR PUBLIC VIEWING. ANY VIOLATIONS WILL BE REPORTED THROUGH THE PROJECT PERSONNEL. A RAIN GAUGE WILL BE LOCATED WITHIN THE PROJECT LIMITS.

FOLLOWING EACH INSPECTION, A CHECKLIST MUST BE COMPLETED AND SIGNED BY THE QUALIFIED INSPECTION PERSONNEL REPRESENTATIVE. AT A MINIMUM, THE INSPECTION REPORT SHALL INCLUDE:

1. THE INSPECTION DATE;
2. NAMES, TITLES, AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION;
3. WEATHER INFORMATION FOR THE PERIOD SINCE THE LAST INSPECTION (OR SINCE COMMENCEMENT OF CONSTRUCTION ACTIVITY IF THE FIRST INSPECTION) INCLUDING A BEST ESTIMATE OF THE BEGINNING OF EACH STORM EVENT, DURATION OF EACH STORM EVENT, APPROXIMATE AMOUNT OF RAINFALL FOR EACH STORM EVENT (IN INCHES), AND WHETHER ANY DISCHARGES OCCURRED;
4. WEATHER INFORMATION AND A DESCRIPTION OF ANY DISCHARGES OCCURRING AT THE TIME OF THE INSPECTION;
5. LOCATION(S) OF DISCHARGES OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE;
6. LOCATION(S) OF BMPs THAT NEED TO BE MAINTAINED;
7. LOCATION(S) OF BMPs THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION;
8. LOCATION(S) WHERE ADDITIONAL BMPs ARE NEEDED THAT DID NOT EXIST AT THE TIME OF INSPECTION; AND
9. CORRECTIVE ACTION REQUIRED INCLUDING ANY CHANGES TO THE SWP3 NECESSARY AND IMPLEMENTATION DATES.

MAINTENANCE

THE CONTRACTOR SHALL MAINTAIN, REPAIR, OR REPLACE ALL EROSION CONTROL INSTALLATIONS AS NEEDED TO ENSURE THE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. ALL REPAIRS TO BMPs SHALL BE MADE WITHIN 3 DAYS (OR SOONER IF POSSIBLE) OF NOTIFICATION OF DEFICIENCIES. IF THE CORRECTIONS ARE NOT MADE WITHIN THE 3 DAY PERIOD, LIQUIDATED DAMAGES MAY BE ASSESSED AS PER THE ODOT CMS SECTION 108.27.

ONGOING INSPECTION OF INSTALLATIONS WILL BE PERFORMED BY THE CONTRACTOR OR DESIGNATED REPRESENTATIVE.

ANY TRAPPED SEDIMENT OR DEBRIS REMOVED DURING CLEANING OF OR REMOVAL OF BMP INSTALLATIONS SHALL BE PLACED IN AREAS NOT SUBJECT TO EROSION AND PERMANENTLY STABILIZED.

DUST CONTROL

DUST CONTROL INVOLVES PREVENTING OR REDUCING DUST FROM EXPOSED SOILS OR OTHER SOURCES DURING LAND DISTURBING, DEMOLITION AND CONSTRUCTION ACTIVITIES TO REDUCE THE PRESENCE OF AIRBORNE SUBSTANCES WHICH MAY PRESENT HEALTH HAZARDS, TRAFFIC SAFETY PROBLEMS OR HARM ANIMAL OR PLANT LIFE.

THE FOLLOWING SPECIFICATIONS FOR DUST CONTROL SHALL BE FOLLOWED ONSITE:

1. VEGETATIVE COVER AND MULCH - APPLY TEMPORARY OR PERMANENT SEEDING AND MULCH TO AREAS THAT WILL REMAIN IDLE FOR OVER 14 DAYS. SAVING EXISTING TREES AND LARGE SHRUBS WILL ALSO REDUCE SOIL AND AIR MOVEMENT ACROSS DISTURBED AREAS. SEE TEMPORARY SEEDING, PERMANENT SEEDING, MULCHING PRACTICES; AND TREE AND NATURAL AREA PROTECTION PRACTICES.
2. WATERING - SPRAY SITE WITH WATER UNTIL THE SURFACE IS WET BEFORE AND DURING GRADING AND REPEAT AS NEEDED, ESPECIALLY ON HAUL ROADS AND OTHER HEAVY TRAFFIC ROUTES. WATERING SHALL BE DONE AT A RATE THAT PREVENTS DUST BUT DOES NOT CAUSE SOIL EROSION. WETTING AGENTS SHALL BE UTILIZED ACCORDING TO MANUFACTURERS INSTRUCTIONS.
3. SPRAY-ON ADHESIVES - APPLY ADHESIVE ACCORDING TO THE FOLLOWING TABLE OR MANUFACTURERS' INSTRUCTIONS.

ADHESIVE	WATER DILUTION (ADHESIVE: WATER)	NOZZLE TYPE	APPLICATION RATE (GAL/AC)
LATEX EMULSION	12.5:1	FINE	235
RESIN IN WATER ACRYLIC EMULSION (NO TRAFFIC)	4:1	FINE	300
ACRYLIC EMULSION (NO TRAFFIC)	7:1	COARSE	450
ACRYLIC EMULSION (TRAFFIC)	3.5:1	COARSE	350

PERMITTEE

NAME
ADDRESS1
ADDRESS2
PHONE:
FAX:
CONTACT:
EMAIL:

GENERAL PERMIT: OHC000005

NPDES PERMIT: XXXXXXXX

DATE OF ISSUE: XX/XX/XXXX



SEAL:



NO.	DATE	DESCRIPTION
01	09-19-2022	CITY PLANNING SITE REVIEW
02	11-09-2022	PERMIT SET
03	01-19-2023	PERMIT SET

GATEWAY CARWASH
CITY OF MONROE
TURTLE CREEK TOWNSHIP
WARREN COUNTY, OHIO

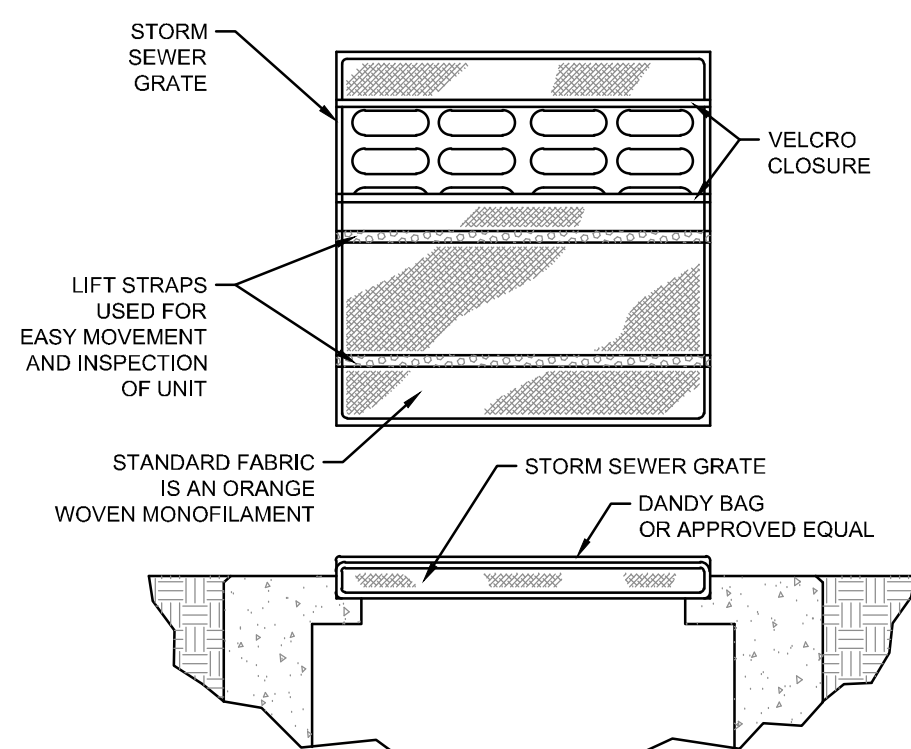
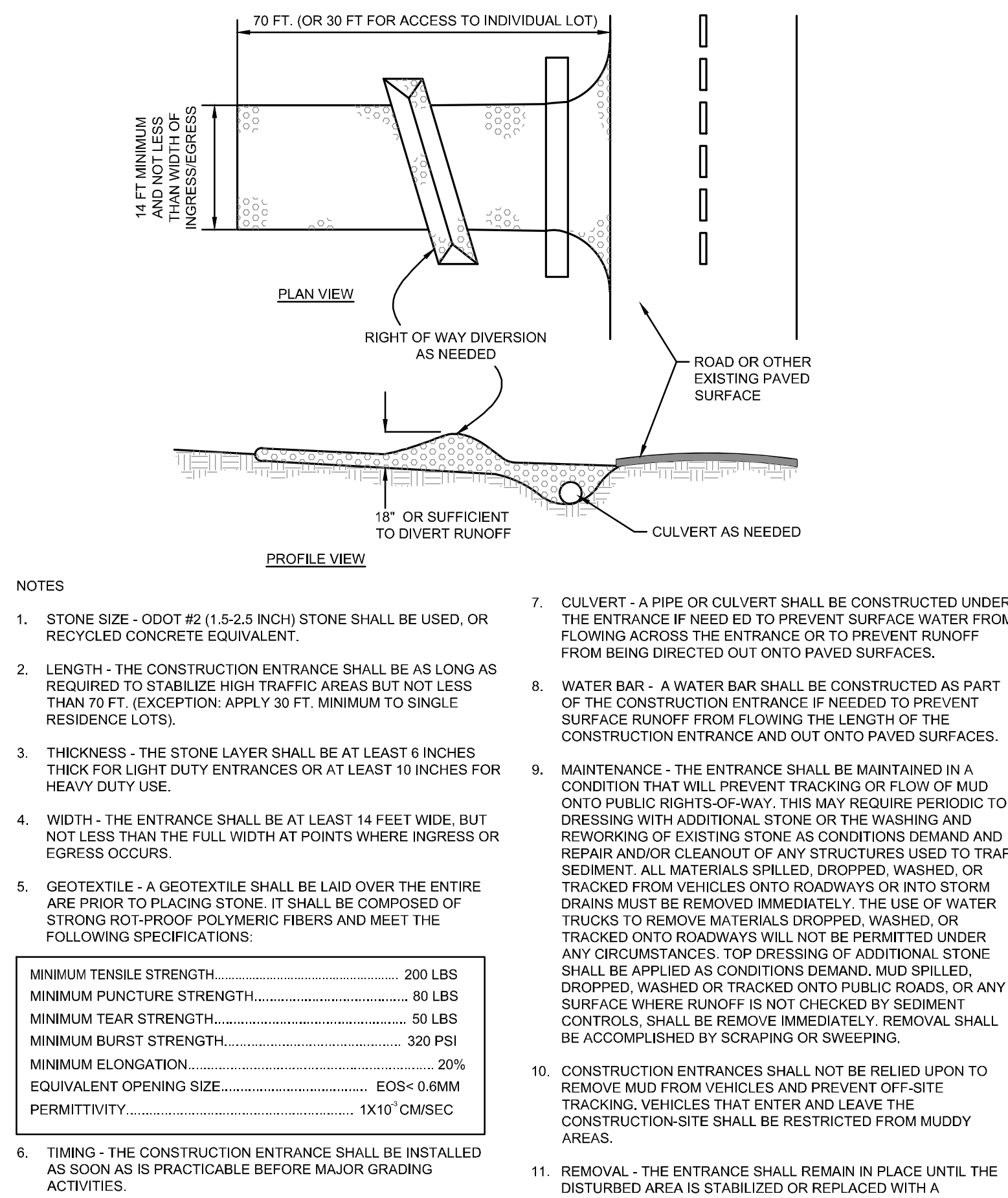
PROJECT NO:	070803.065
DATE:	09-19-2022
SCALE:	

SHEET NAME:

EROSION
CONTROL NOTES

SHEET NO.

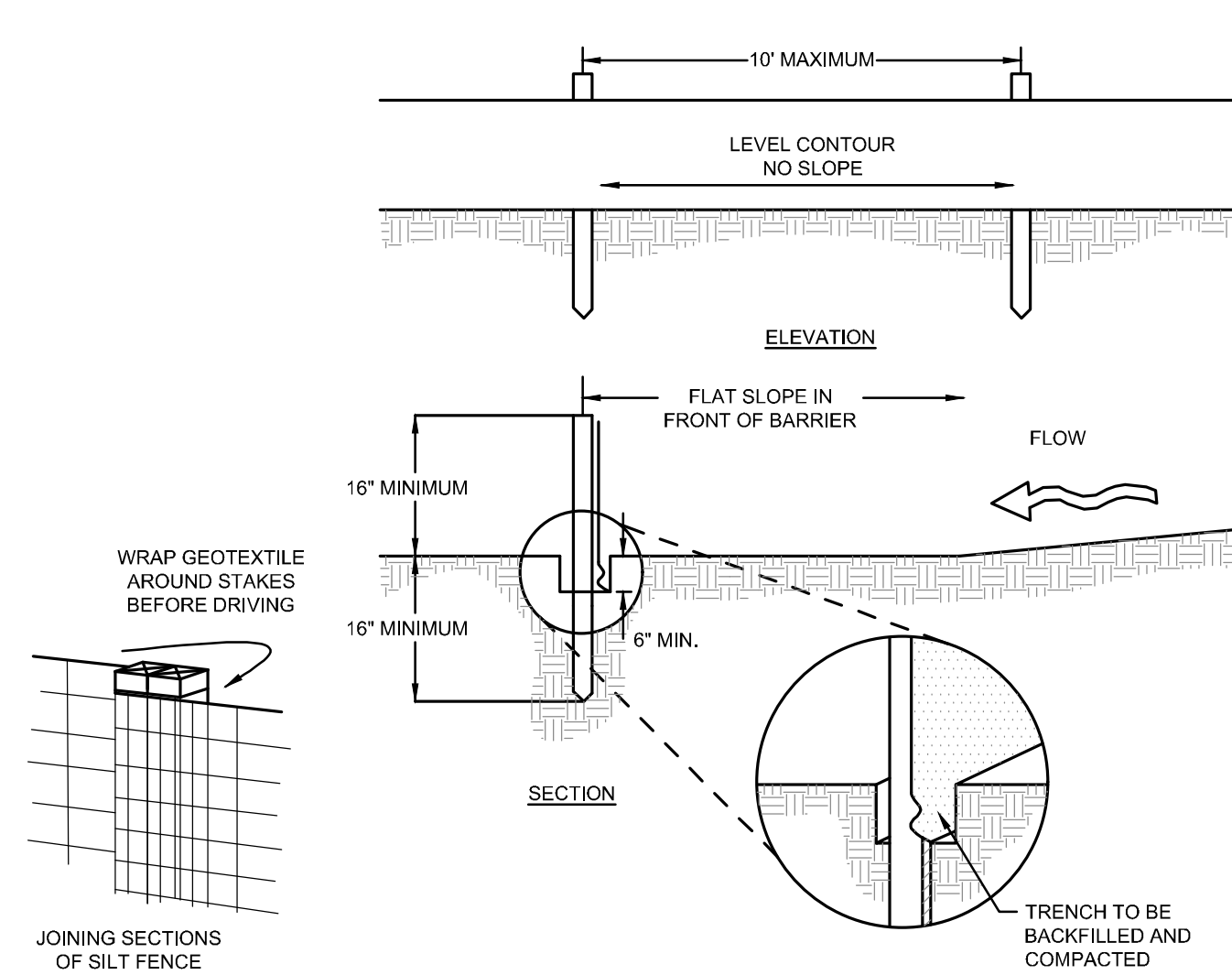
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SPECIFICATIONS			
MECHANICAL PROPERTIES	TEST METHOD	UNITS	MARV
GRAB TENSILE STRENGTH	ASTM D 4832	KN (LBS)	1.82 (365) X 0.89 (200)
GRAB TENSILE ELONGATION	ASTM D 4832	%	24 X 10
PUNCTURE STRENGTH	ASTM D 4833	KN (LBS)	0.40 (90)
MULLEN BURST STRENGTH	ASTM D 3786	KPA (PSI)	3097 (450)
TRAPEZOID TEAR STRENGTH	ASTM D 4533	KN (LBS)	0.51 (115) X 0.33 (75)
UV RESISTANCE	ASTM D 4355	%	60
APPARENT OPENING SIZE	ASTM D 4751	MM (LBS/GAL MIN/FT)	0.125 (40)
FLOW RATE	ASTM D 4491	1 MIN/IN (GAL/MIN/FT)	5907 (145)
PERMITTIVITY	ASTM D 4491	SEC	2.1

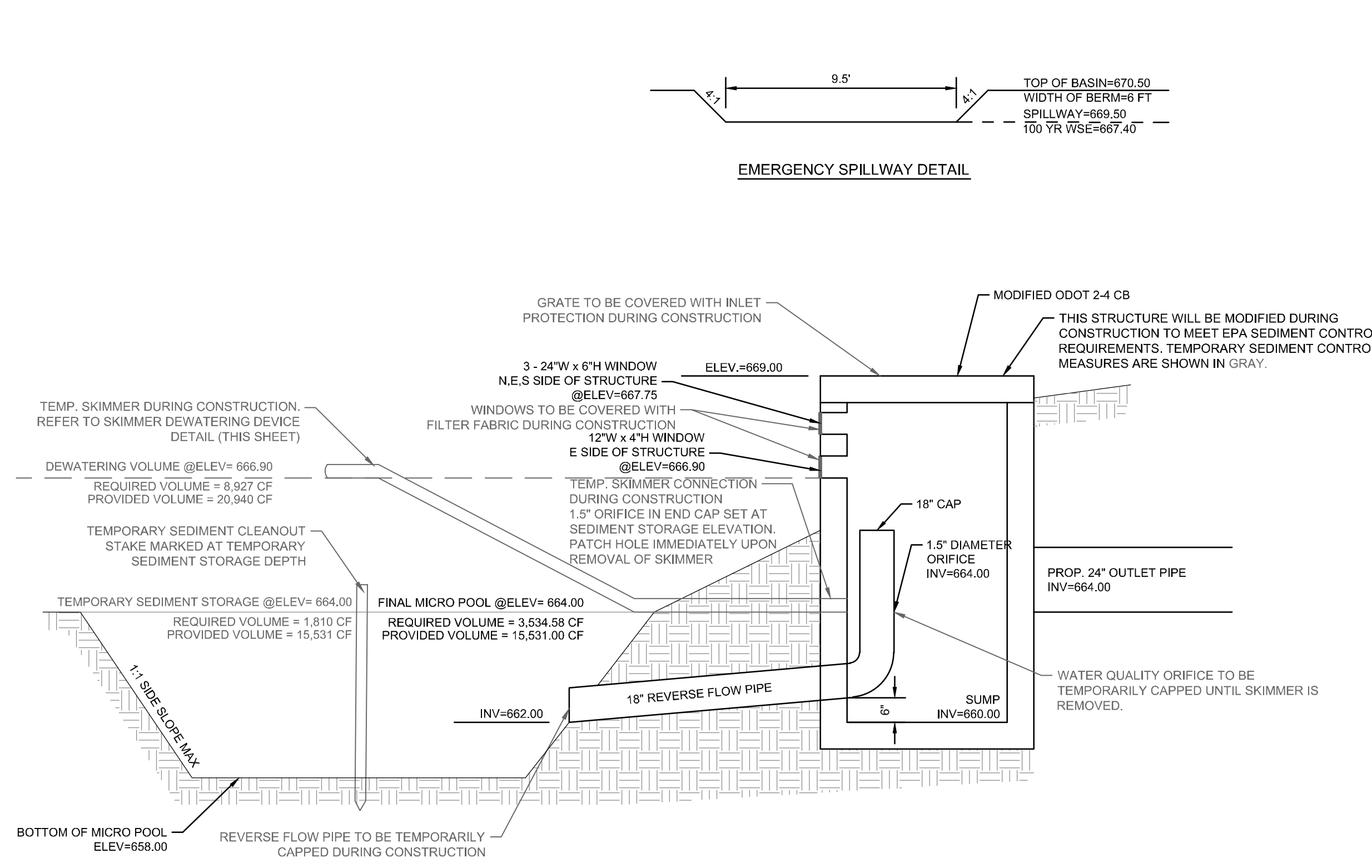
INSTALLATION: THE EMPTY DANDY BAG SHOULD BE PLACED OVER THE GRATE AS THE GRATE STANDS ON END. IF USING OPTIONAL OIL ABSORBENTS, PLACE ABSORBENT PILLow IN POUCH ON THE BOTTOM (BELOW GRATE SIDE) OF THE UNIT. ATTACH ABSORBENT PILLow TO TETHER LOOP. TUCK THE ENCLOSURE FLAP INSIDE TO COMPLETELY ENCLOSE THE GRATE. HOLDING THE LIFTING DEVICES (DO NOT RELY ON LIFTING DEVICES TO SUPPORT THE ENTIRE WEIGHT OF THE GRATE), PLACE THE GRATE INTO ITS FRAME.

MAINTENANCE: REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM SURFACE AND VICINITY OF UNIT AFTER EACH STORM EVENT. REMOVE SEDIMENT THAT HAS ACCUMULATED WITHIN THE CONTAINMENT AREA OF THE DANDY BAG AS NEEDED. IF USING OPTIONAL OIL ABSORBENTS, REMOVE AND REPLACE ABSORBENT PILLow WHEN NEAR SATURATION.

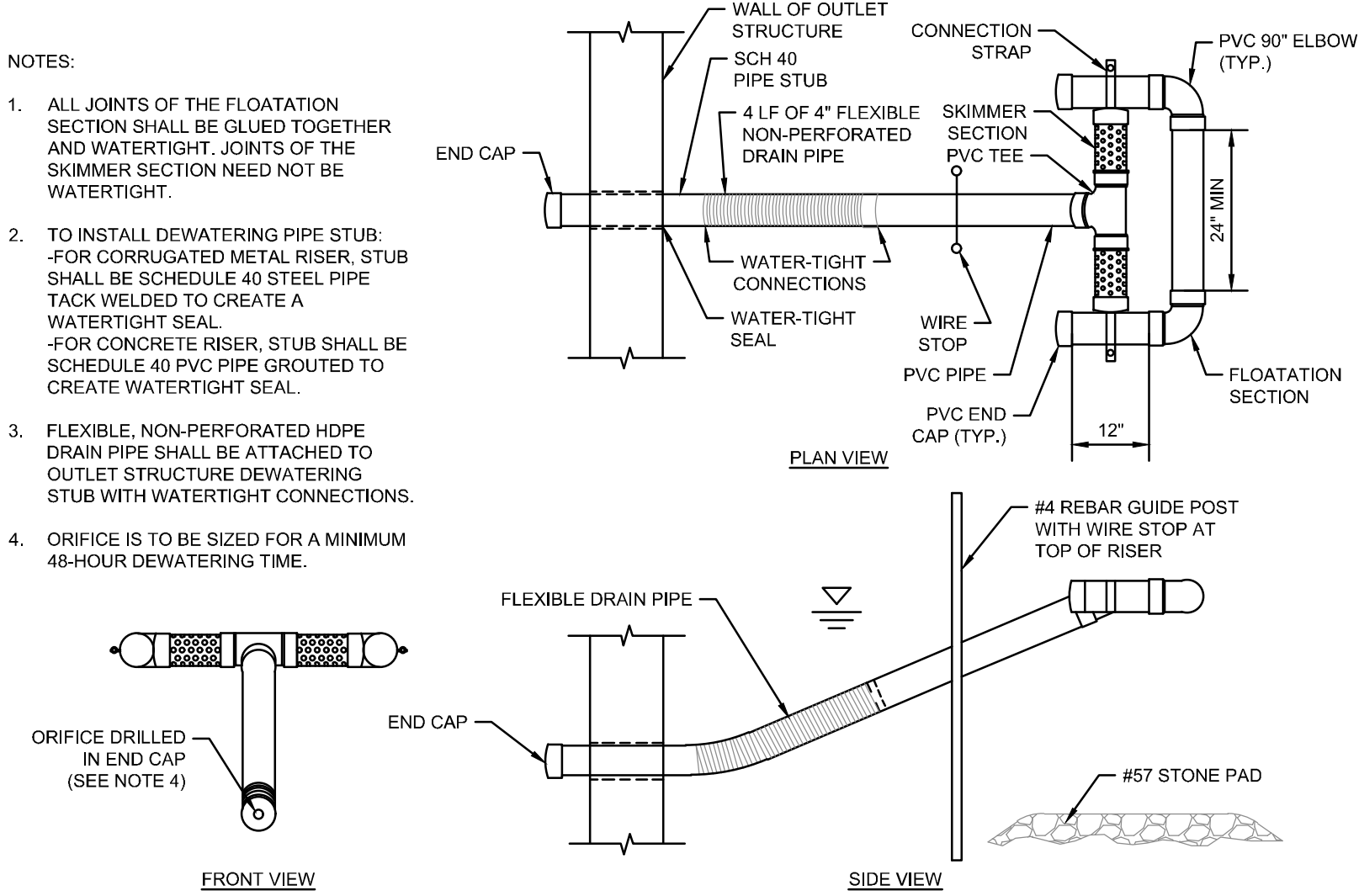


- NOTES:**
- SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE LAND DISTURBANCE BEGINS.
 - ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS THAT MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.
 - ENDS OF THE SILT FENCES SHALL BE BROUGHT UPSLOPE SLIGHTLY SO THAT WATER PONDED BY THE SILT FENCE WILL BE PREVENTED FROM FLOWING AROUND THE ENDS.
 - SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE.
 - WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5 FEET (OR AS MUCH AS POSSIBLE) UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE REESTABLISHED WITHIN 7 DAYS FROM THE INSTALLATION OF THE SILT FENCE.
 - THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 16 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
 - THE SILT FENCE SHALL BE PLACED IN AN EXCAVATED OR SLICED TRENCH CUT A MINIMUM OF 6 INCHES DEEP. THE TRENCH SHALL BE MADE WITH A TRENCHER, CABLE LAYING MACHINE, SLICING MACHINE, OR OTHER SUITABLE DEVICE THAT WILL ENSURE AN ADEQUATELY UNIFORM TRENCH DEPTH.
 - THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWNSLOPE SIDE OF THE GEOTEXTILE. A MINIMUM OF 8 INCHES OF GEOTEXTILE MUST BE BELOW THE GROUND SURFACE. EXCESS MATERIAL SHALL LAY ON THE BOTTOM OF THE 6-INCH DEEP TRENCH. THE TRENCH SHALL BE BACK-FILLED AND COMPACTED ON BOTH SIDES OF THE FABRIC.
 - SEAMS BETWEEN SECTIONS OF SILT FENCE SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST WITH A MINIMUM 6-IN. OVERLAP PRIOR TO DRIVING INTO THE GROUND.
- CRITERIA FOR SILT FENCE MATERIALS**
- FENCE POST - THE LENGTH SHALL BE A MINIMUM OF 32 INCHES. WOOD POSTS WILL BE 2.8X2-IN. NOMINAL DIMENSIONED HARDWOOD OF SOUND QUALITY. THEY SHALL BE FREE OF KNOTS, SPLITS AND OTHER VISIBLE IMPERFECTIONS. THAT WILL WEAKEN THE POSTS. THE MAXIMUM SPACING BETWEEN POSTS SHALL BE 10 FT. POSTS SHALL BE DRIVEN A MINIMUM 16 INCHES INTO THE GROUND. WHERE POSSIBLE, IF NOT POSSIBLE, THE POSTS SHALL BE ADEQUATELY SECURED TO PREVENT OVERTURNING OF THE FENCE DUE TO SEDIMENT/WATER LOADING.
 - SILT FENCE FABRIC - SEE CHART BELOW.

FABRIC PROPERTIES	VALUES	TEST METHOD
MINIMUM TENSILE STRENGTH	120 LBS. (53 N)	ASTM D 4832
MAXIMUM ELONGATION AT 60 LBS	20%	ASTM D 4832
MINIMUM PUNCTURE STRENGTH	50 LBS. (220 N)	ASTM D 4833
MINIMUM TEAR STRENGTH	40 LBS. (180 N)	ASTM D 4533
APPARENT OPENING SIZE	0.09 MM	ASTM D 4751
MINIMUM PERMITTIVITY	1X10 ⁻² SEC-1	ASTM D 4491
UV EXPOSURE STRENGTH RETENTION	70%	ASTM G 4335



- OPERATION & MAINTENANCE:**
- BASINS SHALL BE CONSTRUCTED AND OPERATIONAL BEFORE UPSLOPE LAND DISTURBANCE BEGINS.
 - SEDIMENT BASINS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. NECESSARY ACTIVITIES ARE SHOWN AS FOLLOWS:
 - ESTABLISH VEGETATIVE COVER AND FERTILIZE AS NECESSARY TO MAINTAIN A VIGOROUS COVER IN AND AROUND THE SEDIMENT BASIN.
 - REMOVE UNDESIRABLE VEGETATION PERIODICALLY TO PREVENT GROWTH OF TREES AND SHRUBS ON THE EMBANKMENT AND SPILLWAY AREAS.
 - PROMPTLY REPAIR ERODED AREAS. REESTABLISH VEGETATIVE COVER IMMEDIATELY WHERE SCOUR EROSION HAS REMOVED ESTABLISHED SEEDING.
 - PROMPTLY REMOVE ANY BURROWING RODENTS THAT MAY INVADE AREAS OF THE EMBANKMENT.
 - REMOVE TRASH AND DEBRIS THAT MAY BLOCK SPILLWAYS AND ACCUMULATE IN THE POND.
 - REMOVE SEDIMENT FROM BASIN WHEN IT FILLS THE DESIGN DEPTH OF THE SEDIMENT STORAGE ZONE. THIS ELEVATION SHALL BE MARKED ON A CLEANOUT STAKE NEAR THE CENTER OF THE SEDIMENT STORAGE ZONE. SEDIMENT REMOVED FROM THE BASIN SHALL BE PLACED SO THAT IT WILL NOT ERODE.
 - CHECK SPILLWAY OUTLETS AND POINTS OF INFLOW TO ENSURE DRAINAGE IS NOT CAUSING EROSION AND THAT OUTLETS ARE NOT CLOGGED. REPLACE DISPLACED RIPRAP IMMEDIATELY.
 - AFTER THE ENTIRE CONSTRUCTION PROJECT IS COMPLETED, TEMPORARY SEDIMENT BASIN MEASURES SHALL BE REMOVED AFTER THE UPSTREAM DRAINAGE AREA IS STABILIZED OR AS INDICATED IN THE PLANS. THE BASIN IS TO BE DEWATERED AND HAVE EXCESS SEDIMENT REMOVED TO ACHIEVE FINAL DESIGN CONTOURS. DEWATERING AND SEDIMENT REMOVAL SHALL NOT CAUSE SEDIMENT TO BE DISCHARGED. THE SEDIMENT BASIN SITE AND SEDIMENT REMOVED FROM THE BASIN SHALL BE SEED, MULCHED AND STABILIZED AS NECESSARY. ALL RELATED TEMPORARY SEDIMENT CONTROL MEASURES ARE TO BE REMOVED. ANY TEMPORARY CONNECTIONS TO THE OUTFALL STRUCTURE MUST BE REMOVED AND/OR SEALED. ANY TEMPORARY PIPE CAPS ARE TO BE REMOVED PER FINAL DESIGN CONDITIONS.



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01 09-19-2022 CITY PLANNING SITE REVIEW
02 11-09-2022 PERMIT SET
03 01-19-2023 PERMIT SET

GATEWAY CARWASH
CITY OF MONROE
TURTLE CREEK TOWNSHIP
WARREN COUNTY, OHIO

PROJECT NO: 070803.065
DATE: 09-19-2022
SCALE:

SHEET NAME:
EROSION CONTROL DETAILS

SHEET NO.
C601



- | CITY OF MONROE LANDSCAPE ZONING REQUIREMENTS | | REQUIRED | PROPOSED |
|---|---|--|----------|
| CHAPTER 1212: LANDSCAPING AND BUFFERING STANDARDS | | | |
| 1212.06 - STREET TREE REQUIREMENTS, (E): | STREET TREES SHALL BE PLANTED 40 FEET ON CENTER ALONG ALL FRONTTAGES

GATEWAY BLVD. FRONTAGE, 234 LF = 6 TREES REQUIRED | 6 TREES PROVIDED. | |
| 1212.07 - LANDSCAPING FOR VEHICULAR USE AREAS, ISLAND STANDARDS, (B) (2) d): | THERE SHALL BE A MINIMUM OF (1) TREE PLANTED WITHIN EACH LANDSCAPE ISLAND ABUTTING A SINGLE ROW OF PARKING SPACES. SHRUBS MUST BE PROVIDED IN LANDSCAPE ISLANDS AT A RATE OF (3) SHRUBS PER REQUIRED TREE

4 TREES REQUIRED.
12 SHRUBS REQUIRED | 4 TREES PROVIDED,
15 SHRUBS PROVIDED. | |
| 1212.07 - LANDSCAPING FOR VEHICULAR USE AREAS, PERIMETER STANDARDS, (B) (3) b): | A MINIMUM OF (1) CANOPY TREE AND (5) SHRUBS ARE REQUIRED FOR EVERY (5) PARKING SPACES. ALL NON-PARKING SPACE VEHICULAR USE AREAS ARE REQUIRED (1) CANOPY TREE FOR EVERY 50 LINEAR FEET AND (3) SHRUBS FOR EVERY 15 LINEAR FEET.

15 TREES REQUIRED.
118 SHRUBS REQUIRED. | 17 TREES PROVIDED,
127 SHRUBS PROVIDED. | |
| 1212.08 - FRONT YARD LANDSCAPING FOR NONRESIDENTIAL USES, (A): | A MINIMUM OF 20% OF THE REQUIRED FRONT YARD AREA WITH A MIN. 6 FOOT WIDE AREA ADJACENT TO THE RIGHT OF WAY FOR ALL NONRESIDENTIAL USES SHALL BE CONTINUOUSLY LANDSCAPED WITH TREES, SHRUBS, PLANTING BEDS. | PROVIDED. | |
| 1212.09 - LANDSCAPING OR SCREENING FOR SERVICE STRUCTURES, (B) (2): | ALL RETENTION FACILITIES SHALL INCLUDE A WATER FEATURE. | PROVIDED, SEE MEP DRAWINGS. | |
| CHAPTER 1214: SIGNAGE STANDARDS | | | |
| 1214.10 - PERMANENT SIGNS IN BUSINESS ZONING DISTRICTS, (C) (3) a): | BOTH POLE SIGNS AND MONUMENT SIGNS SHALL BE LOCATED IN A MULCHED AND LANDSCAPED AREA EQUAL TO OR LARGER THAN THE TOTAL SIGN AREA OF THE APPLICABLE SIGN. | PROVIDED. | |

— PROPERTY LINE

S1		STANDARD CONCRETE TYP, SEE CIVIL DRAWINGS
S2		MOIST MEADOW SEED MIX

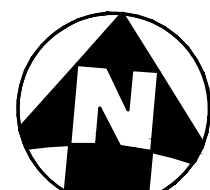
 DECIDUOUS TREE, TYP.

 SHRUBS, TYP.

 PERENNIALS & ORNAMENTAL GRASSES, TYP.

 EXISTING TREES TO REMAIN, PROTECT IN PLACE

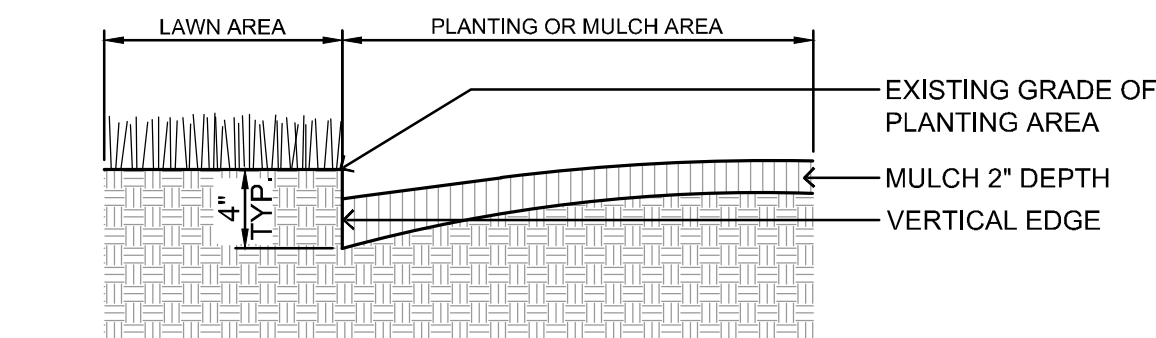
KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
LARGE DECIDUOUS TREES:					
GLE TRI	GLEDITSIA TRIACANTHOS 'SHADEMASTER'	SHADEMASTER HONEY LOCUST	2.5' CAL.	B&B	SPACE PER PLAN
MEDIUM DECIDUOUS TREES:					
ACE FRE	ACER x FREEMANI 'CELEBRATION'	CELEBRATION MAPLE	2.5' CAL.	B&B	SPACE PER PLAN
GIN BIL	GINKGO BILOBA 'AUTUMN GOLD'	AUTUMN GOLD GINKGO	2.5' CAL.	B&B	SPACE PER PLAN
ULM FRO	ULMUS X 'FRONTIER'	FRONTIER ELM	2.5' CAL.	B&B	SPACE PER PLAN
SMALL DECIDUOUS TREES:					
CER CAN	CERCIS CANADENSIS	EASTERN REDBUD	2' CAL.	B&B	SPACE PER PLAN
SYR RET	SYRINGA RETICULATA	JAPANESE TREE LILAC	2' CAL.	B&B	SPACE PER PLAN
EVERGREEN SHRUBS:					
CHA PIS	CHAMAECYPARIS PISIFERA 'GOLDEN MOP'	GOLD MOP CYPRESS	36" HT. MIN.	CONT.	SPACE 4' O.C.
JUN CHI	JUNIPERUS CHINENSIS 'SEA GREEN'	SEA GREEN JUNIPER	36" HT. MIN.	B&B	SPACE 6' O.C.
TAX MED	TAXUS x MEDIA 'DENSIFORMIS'	DENSE YEW	36" HT. MIN.	B&B	SPACE 5' O.C.
DECIDUOUS SHRUBS:					
HYD PAN	HYDRANGEA PANICULATA 'LVOBO'	BOBO HYDRANGEA	12" HT. MIN.	CONT.	SPACE 4' O.C.
ITE VIR	ITEA VIRGINICA 'SPRICH'	LITTLE HENRY VIRGINIA SWEETSPIRE	12" HT. MIN.	CONT.	SPACE 3' O.C.
RIB ALP	RIBES ALPINUM 'GREEN MOUND'	GREEN MOUND ALPINE CURRANT BUSH	12" HT. MIN.	CONT.	SPACE 3' O.C.
SPI JAP	SPIRAEA JAPONICA 'GOLDMOUND'	GOLDMOUND SPIREA	18" HT. MIN.	CONT.	SPACE 3' O.C.
SPI NIP	SPIRAEA NIPPONICA 'SNOWMOUND'	SNOWMOUND SPIREA	18" HT. MIN.	CONT.	SPACE 3' O.C.
VIB CAR	VIBURNUM CARLESII 'COMPACTUM'	COMPACT KOREAN SPICE VIBURNUM	36" HT. MIN.	B&B	SPACE 5' O.C.
PERENNIALS:					
LIR MUS	LIRIOPE MUSCARI 'VARIEGATA'	VARIEGATED LIRIOPE	#1	CONT.	SPACE 1.5' O.C.
TURFGRASS SEED: SEE SPECIFICATIONS					



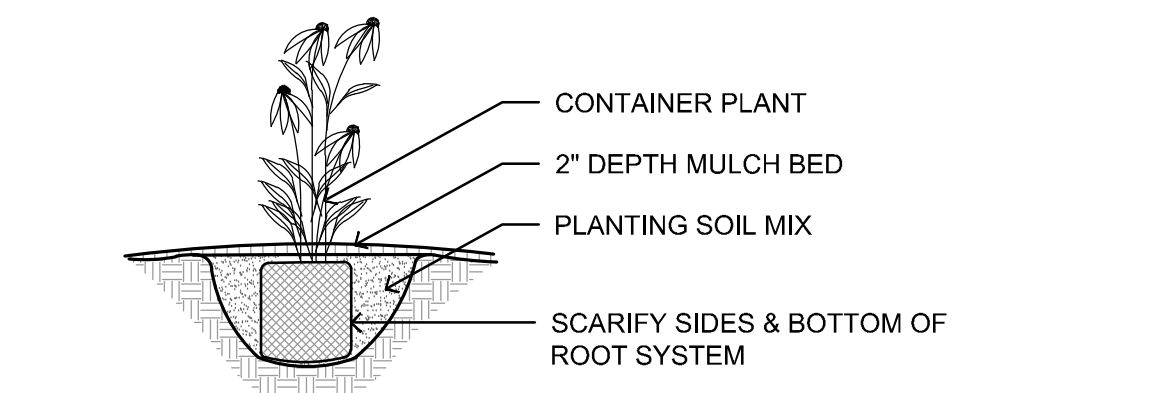
**GATEWAY
CARWASH**
CITY OF MONROE
MIDDLECREEK TOWNSHIP
WARREN COUNTY, OHIO

LANDSCAPE PLAN

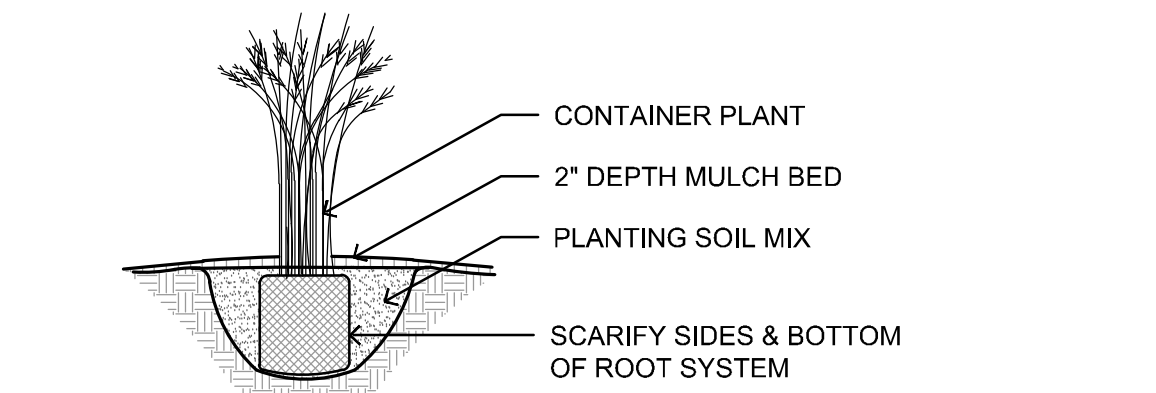
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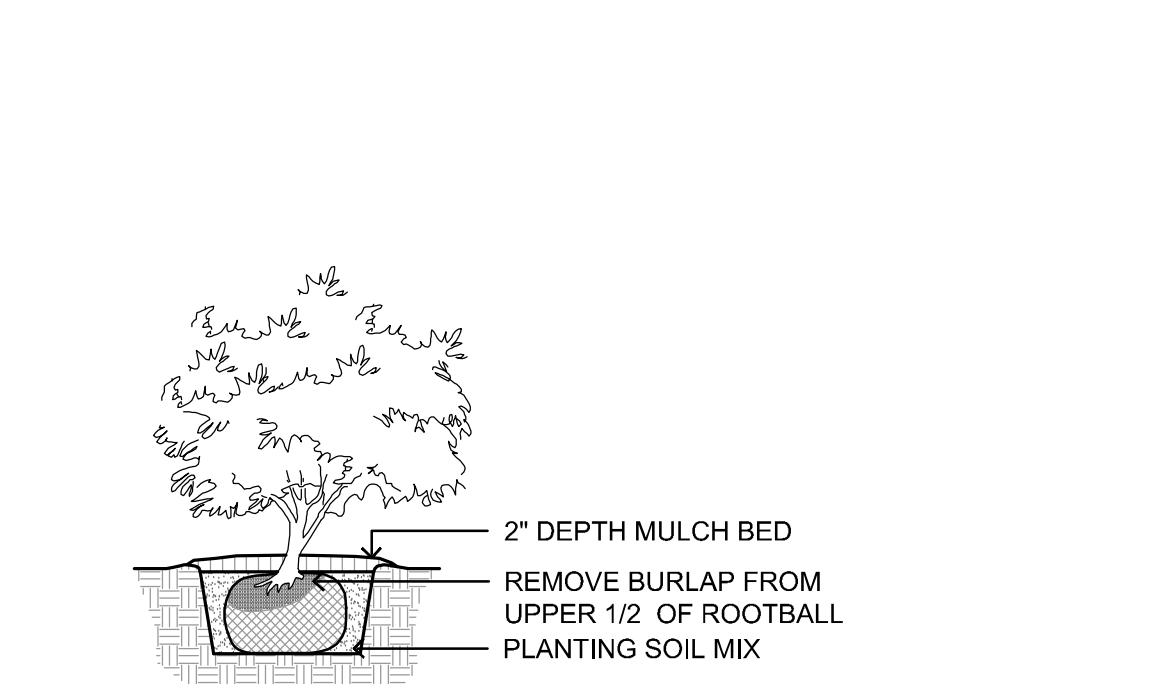
1 PLANTING BED EDGING DETAIL
N.T.S.



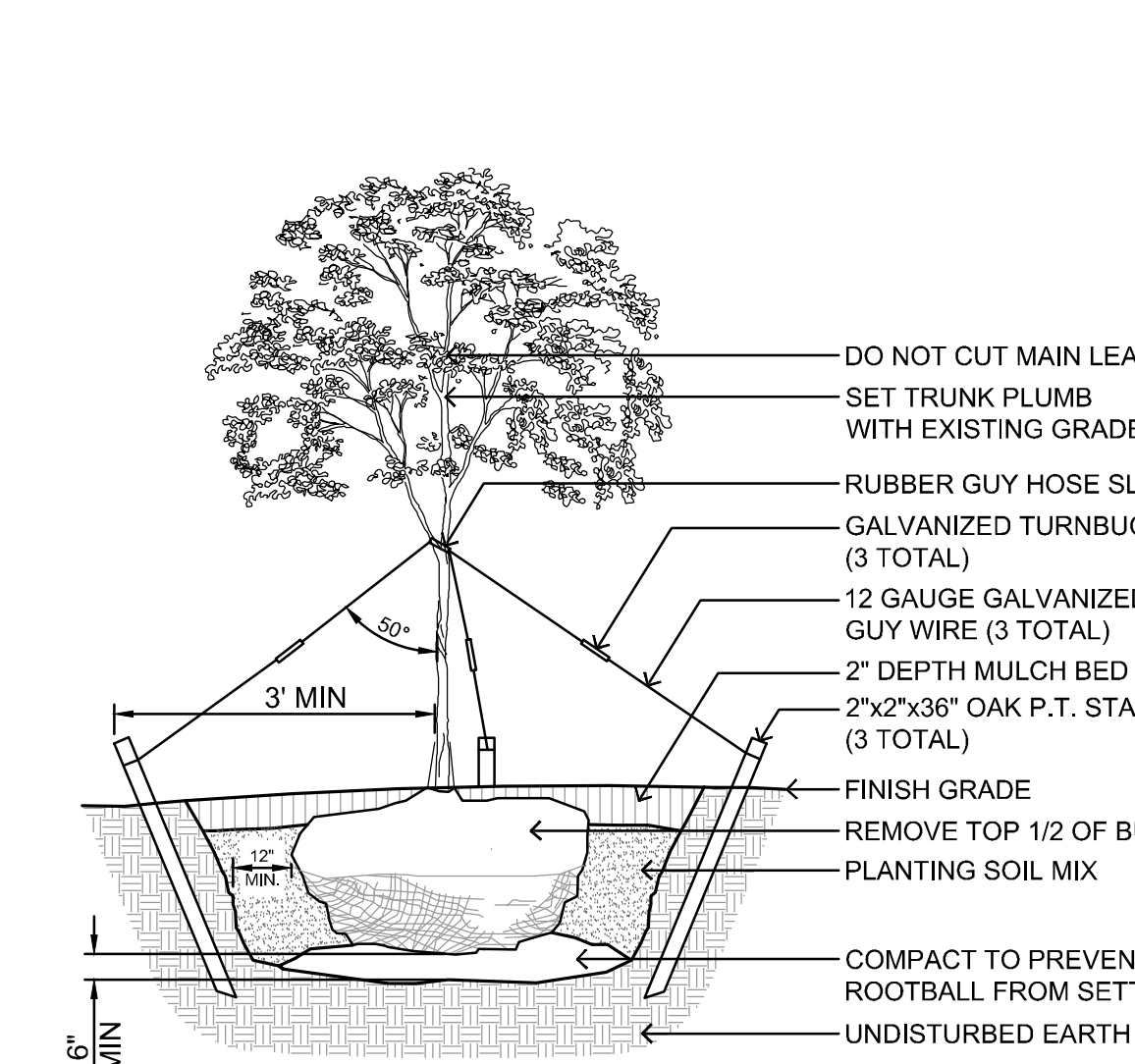
2 PERENNIAL PLANTING
N.T.S.



3 ORNAMENTAL GRASS PLANTING
N.T.S.



4 SHRUB PLANTING
N.T.S.



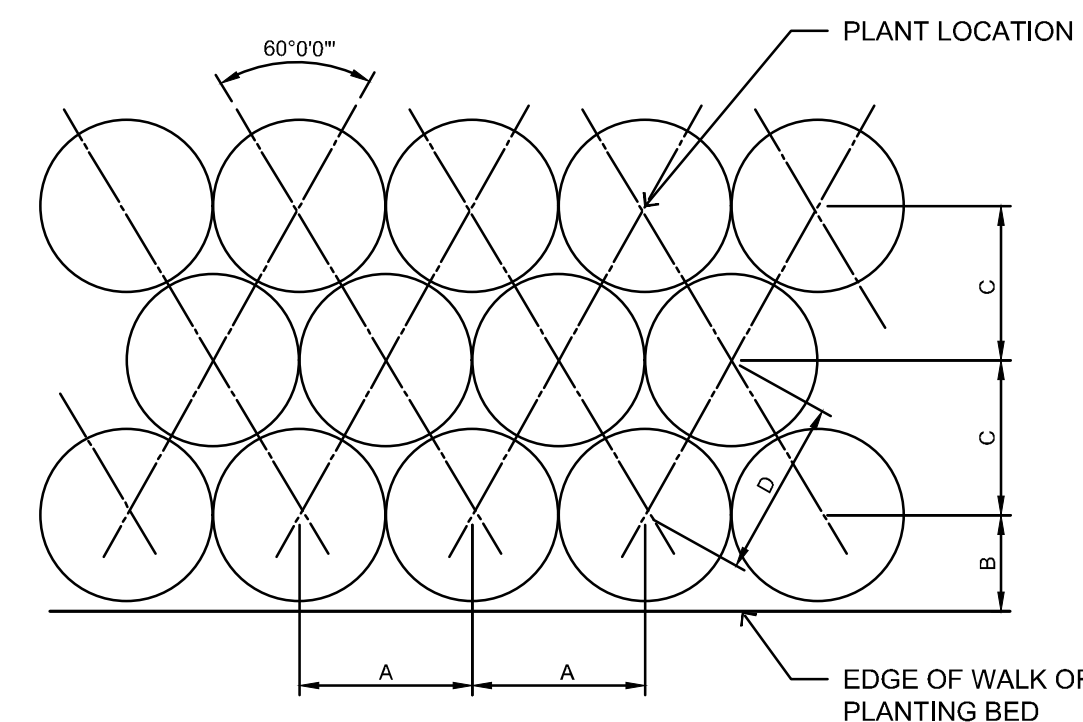
- NOTES:
1. TOP OF ROOT BALL TO BE 2"-3" ABOVE ADJACENT FINISHED GRADE.
 2. REMOVE ALL LABELS, TAGS, OR OTHER FOREIGN MATERIALS FROM LIMBS.
 3. REMOVE GUY WIRES, TURNBUCKLES, HOSE AND STAKES 1 YEAR AFTER PLANTING.
 4. THE AMOUNT OF PRUNING SHALL BE LIMITED TO THE MINIMUM NECESSARY TO REMOVE DEAD OR INJURED TWIGS AND BRANCHES AND TO COMPENSATE FOR THE LOSS OF ROOTS DURING TRANSPLANTING. RETAIN NORMAL SHAPE OF TREE. OWNER'S REPRESENTATIVE WILL DETERMINE AMOUNT OF PRUNING NECESSARY. PLANT TREES AT SAME GRADE AS GROWN IN THE NURSERY.

5 DECIDUOUS TREE PLANTING
N.T.S.

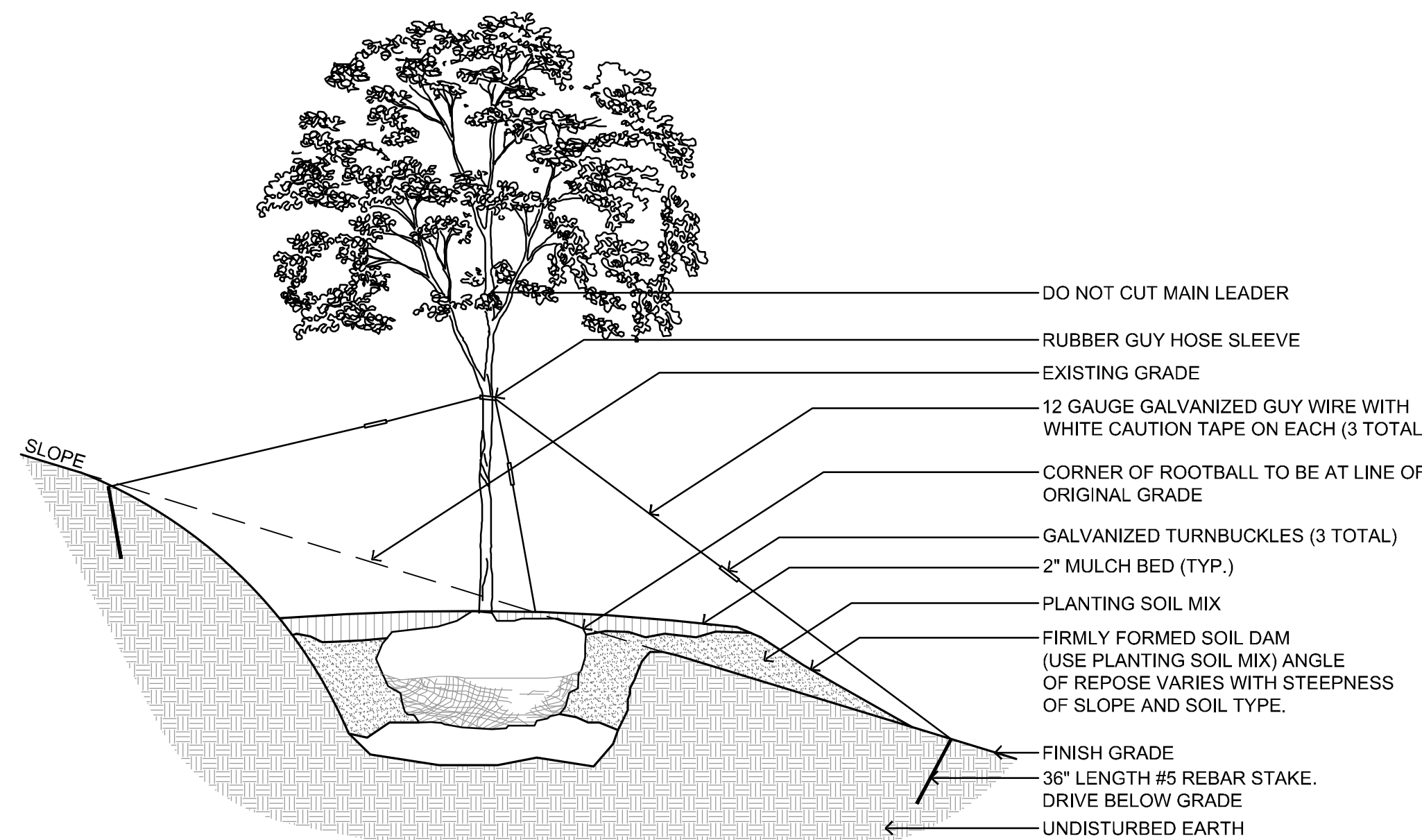
- MOIST MEADOW SEED MIX NOTES:
1. MOIST MEADOW PRAIRIE SEED MIX TO BE MIXED WITH WITH REGREEN COVER CROP PER SEED SUPPLIERS RECOMMENDATIONS. MIXES AVAILABLE FROM OHIO PRAIRIE NURSERY, PO BOX 174 HIRAM, OHIO, 44234. (886) 569-3380.
 2. SOW SEED WITH SPREADER OR SEEDING MACHINE. DO NOT BROADCAST OR DROP SEED WHEN WIND VELOCITY EXCEEDS 5 MPH.
 3. BEFORE SOWING, MIX SEED WITH SEED CARRIER AT A RATIO OF NOT LESS THAN FOUR PARTS SEED CARRIER TO ONE PART SEED.
 4. EVENLY DISTRIBUTE SEED BY SOWING EQUAL QUANTITIES IN TWO DIRECTIONS AT RIGHT ANGLES TO EACH OTHER.
 5. DO NOT USE WET SEED OR SEED THAT IS MOLDY OR OTHERWISE DAMAGED.
 6. SOW MOIST MEADOW PRAIRIE SEED MIX AT A TOTAL RATE OF 10 LBS. PER ACRE. OVERSEED WITH REGREEN COVER CROP SEED MIX AT 30 LBS. PER ACRE.
 7. BRUSH SEED INTO TOP 1/16 INCH OF SOIL. ROLL LIGHTLY, AND WATER WITH FINE SPRAY.
 8. PROTECT SEEDED AREAS BY SPREADING STRAW MULCH. SPREAD UNIFORMLY AT A MINIMUM RATE OF 2 TONS/ACRE TO FORM A CONTINUOUS BLANKET 1-1/2 INCHES IN LOOSE THICKNESS OVER SEEDED AREAS. SPREAD BY HAND, BLOWER, OR OTHER SUITABLE EQUIPMENT.
 9. ANCHOR STRAW MULCH BY CRIMPING INTO SOIL WITH SUITABLE MECHANICAL EQUIPMENT.
 10. WATER NEWLY PLANTED AREAS AND KEEP MOIST UNTIL MEADOW IS ESTABLISHED.

- MOIST MEADOW PRAIRIE MAINTENANCE
1. MAINTAIN AND ESTABLISH PRAIRIE BY WATERING, WEEDING, MOWING, TRIMMING, REPLANTING, AND PERFORMING OTHER OPERATIONS AS REQUIRED TO ESTABLISH A HEALTHY, VIABLE PRAIRIE. ROLL, REGRADE, AND REPLANT BARE OR ERODED AREAS AND REMULCH. PROVIDE MATERIALS AND INSTALLATION THE SAME AS THOSE USED IN THE ORIGINAL INSTALLATION.
 2. FILL IN AS NECESSARY SOIL SUBSIDENCE THAT MAY OCCUR BECAUSE OF SETTLING OR OTHER PROCESSES. REPLACE MATERIALS AND MEADOW DAMAGED OR LOST IN AREAS OF SUBSIDENCE.
 3. IN AREAS WHERE MULCH HAS BEEN DISTURBED BY WIND OR MAINTENANCE OPERATIONS, ADD NEW MULCH AND ANCHOR AS REQUIRED TO PREVENT DISPLACEMENT.
 4. APPLY TREATMENTS AS REQUIRED TO KEEP PRAIRIE AND SOIL FREE OF PESTS AND PATHOGENS OR DISEASE. USE INTEGRATED PEST MANAGEMENT PRACTICES WHENEVER POSSIBLE TO MINIMIZE THE USE OF PESTICIDES AND REDUCE HAZARDS.
 5. WATERING. INSTALL AND MAINTAIN TEMPORARY PIPING, HOSES, AND WATERING EQUIPMENT TO CONVEY WATER FROM SOURCES AND TO KEEP PRAIRIE UNIFORMLY MOIST.
 6. SCHEDULE WATERING TO PREVENT WILTING, PUDDLING, EROSION, AND DISPLACEMENT OF SEED OR MULCH. LAY OUT TEMPORARY WATERING SYSTEM TO AVOID WALKING OVER MUDDY OR NEWLY PLANTED AREAS.
 7. WATER PRAIRIE WITH FINE SPRAY AT A MINIMUM RATE OF 1/2 INCH PER WEEK FOR EIGHT WEEKS AFTER PLANTING UNLESS RAINFALL PRECIPITATION IS ADEQUATE.

SPACING	A	B	C	D	
12"	12"	6"	10"	12"	A = SPACING
18"	18"	8"	15"	18"	B = SP/2
24"	24"	10"	20"	24"	C = SP/1.2
30"	30"	15"	25"	30"	D = SPACING
36"	36"	18"	31"	36"	
48"	48"	21"	41"	48"	



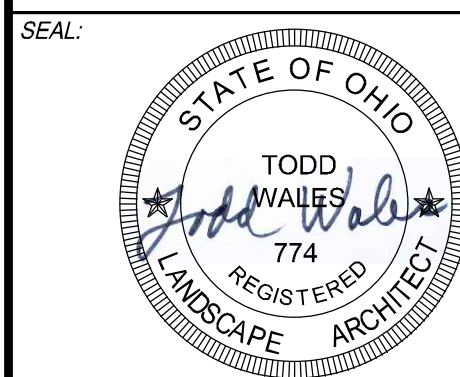
6 PERENNIAL SPACING
N.T.S.



- NOTES:
1. FOR PLANTING INSTRUCTIONS SEE DECIDUOUS TREE PLANTING DETAIL, THIS SHEET.

7 DECIDUOUS TREE PLANTING ON A SLOPE
N.T.S.

NOTE:
UNDERGROUND UTILITIES ARE PLOTTED FROM A
COMPILATION OF AVAILABLE RECORD INFORMATION AND
SURFACE INDICATIONS OF UNDERGROUND STRUCTURES AND
MAY NOT BE INCLUSIVE. PRECISE LOCATIONS AND THE
EXISTENCE OR NON-EXISTENCE OF UNDERGROUND UTILITIES
CANNOT BE VERIFIED. PLEASE NOTIFY THE OHIO UTILITY
PROTECTION SERVICE AT 811 OR 1-800-362-2164 BEFORE ANY
PERIOD OF EXCAVATION OR CONSTRUCTION ACTIVITY.



NO.	DATE	DESCRIPTION
01	09-19-2022	CITY PLANNING SITE REVIEW
02	11-09-2022	PERMIT SET
03	01-19-2023	PERMIT SET

GATEWAY CARWASH
CITY OF MONROE
TURTLECREEK TOWNSHIP
WARREN COUNTY, OHIO

PROJECT NO:	070803.065
DATE:	09-19-2022
SCALE:	

SHEET NAME:

LANDSCAPE DETAILS

SHEET NO.

L101

PLANTS SPECIFICATION DEFINITIONS

1. BACKFILL: THE EARTH USED TO REPLACE OR THE ACT OF REPLACING EARTH IN AN EXCAVATION.
2. BALLED AND BURLAPPED STOCK: PLANTS DUG WITH FIRM, NATURAL BALLS OF EARTH IN WHICH THEY WERE GROWN, WITH A BALL SIZE NOT LESS THAN 10 INCHES IN DIAMETER AND DEPTH RECOMMENDED BY ANSI Z60.1 FOR TYPE AND SIZE OF PLANT REQUIRED. WRAPPED WITH BURLAP, TIED, RIGIDLY SUPPORTED, AND DRUM LACED WITH TWINE WITH THE ROOT FLARE VISIBLE AT THE SURFACE OF THE BALL AS RECOMMENDED BY ANSI Z60.1.
3. CONTAINER-GROWN STOCK: HEALTHY, VIGOROUS, WELL-ROOTED PLANTS GROWN IN A CONTAINER, WITH A WELL-ESTABLISHED ROOT SYSTEM REACHING SIDES OF CONTAINER AND MAINTAINING A FIRM BALL WHEN REMOVED FROM CONTAINER. CONTAINER SHALL BE RIGID ENOUGH TO HOLD BALL SHAPE AND PROTECT ROOT MASS DURING SHIPPING AND BE SIZED ACCORDING TO ANSI Z60.1 FOR TYPE AND SIZE OF PLANT REQUIRED.
4. FINISH GRADE: ELEVATION OF FINISHED SURFACE OF PLANTING SOIL.
5. PESTICIDE: A SUBSTANCE OR MIXTURE INTENDED FOR PREVENTING, DESTROYING, REPELLEING, OR MITIGATING A PEST. PESTICIDES INCLUDE INSECTICIDES, MITICIDES, HERBICIDES, FUNGICIDES, RODENTICIDES, AND MOLLUSCICIDES. THEY ALSO INCLUDE SUBSTANCES OR MIXTURES INTENDED FOR USE AS A PLANT REGULATOR, DEFOLIANT, OR DESICCANT. SOME SOURCES CLASSIFY HERBICIDES SEPARATELY FROM PESTICIDES.
6. PESTS: LIVING ORGANISMS THAT OCCUR WHERE THEY ARE NOT DESIRED OR THAT CAUSE DAMAGE TO PLANTS, ANIMALS, OR PEOPLE. PESTS INCLUDE INSECTS, MITES, GRUBS, MOLLUSKS (SNAILS AND SLUGS), RODENTS (GOPHERS, MOLES, AND MICE), UNWANTED PLANTS (WEEDS), FUNGI, BACTERIA, AND VIRUSES.
7. PLANTING AREA: AREAS TO BE PLANTED.
8. PLANTING SOIL: EXISTING, ON-SITE SOIL; IMPORTED SOIL; OR MANUFACTURED SOIL THAT HAS BEEN MODIFIED WITH SOIL AMENDMENTS AND PERHAPS FERTILIZERS TO PRODUCE A SOIL MIXTURE BEST FOR PLANT GROWTH.
9. PLANT: PLANTS; PLANT MATERIALS: THESE TERMS REFER TO VEGETATION IN GENERAL, INCLUDING TREES, SHRUBS, VINES, GROUND COVERS, ORNAMENTAL GRASSES, BULBS, CORMS, TUBERS, OR HERBACEOUS VEGETATION.
10. ROOT FLARE: ALSO CALLED "TRUNK FLARE," THE AREA AT THE BASE OF THE PLANT'S STEM OR TRUNK WHERE THE STEM OR TRUNK BROADENS TO FORM ROOTS; THE AREA OF TRANSITION BETWEEN THE ROOT SYSTEM AND THE STEM OR TRUNK.
11. STEM GIRDLING ROOTS: ROOTS THAT ENCIROLE THE STEMS (TRUNKS) OF TREES BELOW THE SOIL SURFACE.
12. SUBGRADE: THE SURFACE OR ELEVATION OF SUBSOIL REMAINING AFTER EXCAVATION IS COMPLETE, OR THE TOP SURFACE OF A FILL OR BACKFILL BEFORE PLANTING SOIL IS PLACED.

COORDINATION

COORDINATION WITH TURF AREAS (LAWNS): PLANT TREES, SHRUBS, AND OTHER PLANTS AFTER FINISH GRADES ARE ESTABLISHED AND BEFORE PLANTING TURF AREAS UNLESS OTHERWISE INDICATED.

1. WHEN PLANTING TREES, SHRUBS, AND OTHER PLANTS AFTER PLANTING TURF AREAS, PROTECT TURF AREAS, AND PROMPTLY REPAIR DAMAGE CAUSED BY PLANTING OPERATIONS.

PREINSTALLATION CONFERENCE: CONDUCT CONFERENCE AT PROJECT SITE.

ACTION SUBMITTALS

PRODUCT DATA: FOR EACH TYPE OF PRODUCT.

1. PLANT PHOTOGRAPHS: INCLUDE COLOR PHOTOGRAPHS IN DIGITAL FORMAT OF EACH REQUIRED SPECIES AND SIZE OF PLANT MATERIAL AS IT WILL BE FURNISHED TO PROJECT. TAKE PHOTOGRAPHS FROM AN ANGLE DEPICTING TRUE SIZE AND CONDITION OF THE TYPICAL PLANT TO BE FURNISHED. INCLUDE A SCALE ROD OR OTHER MEASURING DEVICE IN EACH PHOTOGRAPH. FOR SPECIES WHERE MORE THAN 20 PLANTS ARE REQUIRED, INCLUDE A MINIMUM OF THREE PHOTOGRAPHS SHOWING THE AVERAGE PLANT, THE BEST QUALITY PLANT, AND THE WORST QUALITY PLANT TO BE FURNISHED. IDENTIFY EACH PHOTOGRAPH WITH THE FULL SCIENTIFIC NAME OF THE PLANT, PLANT SIZE, AND NAME OF THE GROWING NURSERY.
2. SAMPLES FOR VERIFICATION: FOR EACH OF THE FOLLOWING:
 - a. ORGANIC MULCH: 1-QUART VOLUME OF EACH ORGANIC MULCH REQUIRED; IN SEALED PLASTIC BAGS LABELED WITH COMPOSITION OF MATERIALS BY PERCENTAGE OF WEIGHT AND SOURCE OF MULCH. EACH SAMPLE SHALL BE TYPICAL OF THE LOT OF MATERIAL TO BE FURNISHED; PROVIDE AN ACCURATE REPRESENTATION OF COLOR, TEXTURE, AND ORGANIC MAKEUP.
 - b. SLOW-RELEASE, TREE-WATERING DEVICE: ONE UNIT OF EACH SIZE REQUIRED.

INFORMATIONAL SUBMITTALS

1. QUALIFICATION DATA: FOR LANDSCAPE INSTALLER, INCLUDE LIST OF SIMILAR PROJECTS COMPLETED BY INSTALLER DEMONSTRATING INSTALLER'S CAPABILITIES AND EXPERIENCE. INCLUDE PROJECT NAMES, ADDRESSES, AND YEAR COMPLETED, AND INCLUDE NAMES AND ADDRESSES OF OWNERS' CONTACT PERSONS.
2. PRODUCT CERTIFICATES: FOR EACH TYPE OF MANUFACTURED PRODUCT, FROM MANUFACTURER, AND COMPLYING WITH THE FOLLOWING:
 - a. MANUFACTURER'S CERTIFIED ANALYSIS OF STANDARD PRODUCTS.
 - b. ANALYSIS OF OTHER MATERIALS BY A RECOGNIZED LABORATORY MADE ACCORDING TO METHODS ESTABLISHED BY THE ASSOCIATION OF OFFICIAL ANALYTICAL CHEMISTS, WHERE APPLICABLE.
2. PESTICIDES AND HERBICIDES: PRODUCT LABEL AND MANUFACTURER'S APPLICATION INSTRUCTIONS SPECIFIC TO PROJECT.
3. SAMPLE WARRANTY: FOR SPECIAL WARRANTY.

CLOSEOUT SUBMITTALS

1. MAINTENANCE DATA: RECOMMENDED PROCEDURES TO BE ESTABLISHED BY OWNER FOR MAINTENANCE OF PLANTS DURING A CALENDAR YEAR. SUBMIT BEFORE EXPIRATION OF REQUIRED MAINTENANCE PERIODS.

QUALITY ASSURANCE

INSTALLER QUALIFICATIONS: A QUALIFIED LANDSCAPE INSTALLER WHOSE WORK HAS RESULTED IN SUCCESSFUL ESTABLISHMENT OF PLANTS.

1. PROFESSIONAL MEMBERSHIP: INSTALLER SHALL BE A MEMBER IN GOOD STANDING OF EITHER THE PROFESSIONAL LANDSCAPE NETWORK OR THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.
2. EXPERIENCE: FIVE YEARS' EXPERIENCE IN LANDSCAPE INSTALLATION IN ADDITION TO REQUIREMENTS IN SECTION "QUALITY REQUIREMENTS."
3. INSTALLER'S FIELD SUPERVISION: REQUIRE INSTALLER TO MAINTAIN AN EXPERIENCED FULL-TIME SUPERVISOR ON PROJECT SITE WHEN WORK IS IN PROGRESS.
4. PERSONNEL CERTIFICATIONS: INSTALLER'S FIELD SUPERVISOR SHALL HAVE CERTIFICATION IN ALL OF THE FOLLOWING CATEGORIES FROM THE PROFESSIONAL LANDSCAPE NETWORK:
 - a. LANDSCAPE INDUSTRY CERTIFIED TECHNICIAN - EXTERIOR
 - b. LANDSCAPE INDUSTRY CERTIFIED HORTICULTURAL TECHNICIAN.

5. PESTICIDE APPLICATOR: STATE LICENSED, COMMERCIAL.

PROVIDE QUALITY, SIZE, GENUS, SPECIES, AND VARIETY OF PLANTS INDICATED, COMPLYING WITH APPLICABLE REQUIREMENTS IN ANSI Z60.1.

MEASUREMENTS: MEASURE ACCORDING TO ANSI Z60.1. DO NOT PRUNE TO OBTAIN REQUIRED SIZES.

1. TREES AND SHRUBS: MEASURE WITH BRANCHES AND TRUNKS OR CANES IN THEIR NORMAL POSITION. TAKE HEIGHT MEASUREMENTS FROM OR NEAR THE TOP OF THE ROOT FLARE FOR FIELD-GROWN STOCK AND CONTAINER-GROWN STOCK. MEASURE MAIN BODY OF TREE OR SHRUB FOR HEIGHT AND SPREAD. DO NOT MEASURE BRANCHES OR ROOTS TIP TO TIP. TAKE CALIPER MEASUREMENTS 6 INCHES ABOVE THE ROOT FLARE FOR TREES UP TO 4-INCH CALIPER SIZE, AND 12 INCHES ABOVE THE ROOT FLARE FOR LARGER SIZES.
2. OTHER PLANTS: MEASURE WITH STEMS, PETIOLES, AND FOLIAGE IN THEIR NORMAL POSITION.

PLANT MATERIAL OBSERVATION: ARCHITECT MAY OBSERVE PLANT MATERIAL EITHER AT PLACE OF GROWTH OR AT SITE BEFORE PLANTING FOR COMPLIANCE WITH REQUIREMENTS FOR GENUS, SPECIES, VARIETY, CULTIVAR, SIZE, AND QUALITY. ARCHITECT MAY ALSO OBSERVE TREES AND SHRUBS FURTHER FOR SIZE AND CONDITION OF BALLS AND ROOT SYSTEMS, PESTS, DISEASE SYMPTOMS, INJURIES, AND LATENT DEFECTS AND MAY REJECT UNSATISFACTORY OR DEFECTIVE MATERIAL AT ANY TIME DURING PROGRESS OF WORK. REMOVE REJECTED TREES OR SHRUBS IMMEDIATELY FROM PROJECT SITE.

1. NOTIFY ARCHITECT OF SOURCES OF PLANTING MATERIALS SEVEN DAYS IN ADVANCE OF DELIVERY TO SITE.

DELIVERY, STORAGE, AND HANDLING

PACKAGED MATERIALS: DELIVER PACKAGED MATERIALS IN ORIGINAL, UNOPENED CONTAINERS SHOWING WEIGHT, CERTIFIED ANALYSIS, NAME AND ADDRESS OF MANUFACTURER, AND INDICATION OF COMPLIANCE WITH STATE AND FEDERAL LAWS IF APPLICABLE.

BULK MATERIALS:

1. DO NOT DUMP OR STORE BULK MATERIALS NEAR STRUCTURES, UTILITIES, WALKWAYS AND PAVEMENTS, OR ON EXISTING TURF AREAS OR PLANTS.
2. PROVIDE EROSION-CONTROL MEASURES TO PREVENT EROSION OR DISPLACEMENT OF BULK MATERIALS; DISCHARGE OF SOIL-BEARING WATER RUNOFF; AND AIRBORNE DUST REACHING ADJACENT PROPERTIES, WATER CONVEYANCE SYSTEMS, OR WALKWAYS.
3. ACCOMPANY EACH DELIVERY OF BULK MATERIALS WITH APPROPRIATE CERTIFICATES.

DO NOT PRUNE TREES AND SHRUBS BEFORE DELIVERY. PROTECT BARK, BRANCHES, AND ROOT SYSTEMS FROM SUN SCALD, DRYING, WIND BURN, SWEATING, WHIPPING, AND OTHER HANDLING AND TYING DAMAGE. DO NOT BEND OR BIND-TIE TREES OR SHRUBS IN SUCH A MANNER AS TO DESTROY THEIR NATURAL SHAPE. PROVIDE PROTECTIVE COVERING OF PLANTS DURING SHIPPING AND DELIVERY. DO NOT DROP PLANTS DURING DELIVERY AND HANDLING.

HANDLE PLANTING STOCK BY ROOT BALL.

WRAP TREES AND SHRUBS WITH BURLAP FABRIC OVER TRUNKS, BRANCHES, STEMS, TWIGS, AND FOLIAGE TO PROTECT FROM WIND AND OTHER DAMAGE DURING DIGGING, HANDLING, AND TRANSPORTATION.

DELIVER PLANTS AFTER PREPARATIONS FOR PLANTING HAVE BEEN COMPLETED, AND INSTALL IMMEDIATELY. IF PLANTING IS DELAYED MORE THAN SIX HOURS AFTER DELIVERY, SET PLANTS AND TREES IN THEIR APPROPRIATE ASPECT (SUN, FILTERED SUN, OR SHADE), PROTECT FROM WEATHER AND MECHANICAL DAMAGE, AND KEEP ROOTS MOIST.

1. ACCEPTABLE MATERIAL: PLANTING STOCK ON GROUND AND COVER BALL WITH SOIL, PEAT MOSS, SAWDUST, OR OTHER ACCEPTABLE MATERIAL.
2. DO NOT REMOVE CONTAINER-GROWN STOCK FROM CONTAINERS BEFORE TIME OF PLANTING.
3. WATER ROOT SYSTEMS OF PLANTS STORED ON-SITE DEEPLY AND THOROUGHLY WITH A FINE-MIST SPRAY. WATER AS OFTEN AS NECESSARY TO MAINTAIN ROOT SYSTEMS IN A MOIST, BUT NOT OVERLY WET CONDITION.

FIELD CONDITIONS

FIELD MEASUREMENTS: VERIFY ACTUAL GRADE ELEVATIONS, SERVICE AND UTILITY LOCATIONS, IRRIGATION SYSTEM COMPONENTS, AND DIMENSIONS OF PLANTINGS AND CONSTRUCTION CONTIGUOUS WITH NEW PLANTINGS BY FIELD MEASUREMENTS BEFORE PROCEEDING WITH PLANTING WORK.

PLANTING RESTRICTIONS: PLANT DURING ONE OF THE FOLLOWING PERIODS, COORDINATE PLANTING PERIODS WITH MAINTENANCE PERIODS TO PROVIDE REQUIRED MAINTENANCE FROM DATE OF SUBSTANTIAL COMPLETION.

1. SPRING PLANTING: MARCH 15 TO JUNE 1.
2. FALL PLANTING: SEPTEMBER 1 TO NOVEMBER 1.

WEATHER LIMITATIONS: PROCEED WITH PLANTING ONLY WHEN EXISTING AND FORECASTED WEATHER CONDITIONS PERMIT PLANTING TO BE PERFORMED WHEN BENEFICIAL AND OPTIMUM RESULTS MAY BE OBTAINED. APPLY PRODUCTS DURING FAVORABLE WEATHER CONDITIONS ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS AND WARRANTY REQUIREMENTS.

WARRANTY

SPECIAL WARRANTY: INSTALLER AGREES TO REPAIR OR REPLACE PLANTINGS AND ACCESSORIES THAT FAIL IN MATERIALS, WORKMANSHIP, OR GROWTH WITHIN SPECIFIED WARRANTY PERIOD.

1. FAILURES INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
 - a. DEATH AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM ABUSE, LACK OF ADEQUATE MAINTENANCE, OR NEGLIGENCE BY OWNER.
 - b. STRUCTURAL FAILURES INCLUDING PLANTINGS FALLING OR BLOWING OVER.
 - c. FAULTY PERFORMANCE OF TREE STABILIZATION.
 - d. DETERIORATION OF METALS, METAL FINISHES, AND OTHER MATERIALS BEYOND NORMAL WEATHERING.

2. WARRANTY PERIODS: FROM DATE OF SUBSTANTIAL COMPLETION.
 - a. TREES, SHRUBS, VINES, AND ORNAMENTAL GRASSES: 12 MONTHS.
 - b. GROUND COVERS, BIENNIALS, PERENNIALS, AND OTHER PLANTS: 12 MONTHS..

3. INCLUDE THE FOLLOWING REMEDIAL ACTIONS AS A MINIMUM:
 - a. IMMEDIATELY REMOVE DEAD PLANTS AND REPLACE UNLESS REQUIRED TO PLANT IN THE SUCCEEDING PLANTING SEASON.
 - b. REPLACE PLANTS THAT ARE MORE THAN 25 PERCENT DEAD OR IN AN UNHEALTHY CONDITION AT END OF WARRANTY PERIOD.
 - c. A LIMIT OF ONE REPLACEMENT OF EACH PLANT IS REQUIRED EXCEPT FOR LOSSES OR REPLACEMENTS DUE TO FAILURE TO COMPLY WITH REQUIREMENTS.
 - d. PROVIDE EXTENDED WARRANTY FOR PERIOD EQUAL TO ORIGINAL WARRANTY PERIOD, FOR REPLACED PLANT MATERIAL.

PLANT MATERIAL

GENERAL: FURNISH NURSERY-GROWN PLANTS TRUE TO GENUS, SPECIES, VARIETY, CULTIVAR, STEM FORM, SHEARINGS, AND OTHER FEATURES INDICATED IN PLANT LIST, PLANT SCHEDULE, OR PLANT LEGEND INDICATED ON DRAWINGS AND COMPLYING WITH ANSI Z60.1, AND WITH HEALTHY ROOT SYSTEMS DEVELOPED BY TRANSPLANTING OR ROOT PRUNING, PROVIDE WELL-SHAPED, FULLY BRANCHED, HEALTHY, VIGOROUS STOCK, DENSELY FOLIATED WHEN IN LEAF AND FREE OF DISTORTIONS, DEFECTS, DISEASES, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT.

1. TREES WITH DAMAGED, CROOKED, OR MULTIPLE LEADERS; TIGHT VERTICAL BRANCHES WHERE BARK IS SQUEEZED BETWEEN TWO BRANCHES OR BETWEEN BRANCH AND TRUNK ("INCLUDED BARK"); CROSSING TRUNKS; CUT-OFF LIMBS MORE THAN 3/4 INCH IN DIAMETER; OR WITH STEM GIRDLING ROOTS ARE UNACCEPTABLE.
2. COLLECTED STOCK: DO NOT USE PLANTS HARVESTED FROM THE WILD, FROM NATIVE STANDS, FROM AN ESTABLISHED LANDSCAPE PLANTING, OR NOT GROWN IN A NURSERY UNLESS OTHERWISE INDICATED.

PROVIDE PLANTS OF SIZES, GRADES, AND BALL OR CONTAINER SIZES COMPLYING WITH ANSI Z60.1 FOR TYPES AND FORM OF PLANTS REQUIRED. PLANTS OF A LARGER SIZE MAY BE USED IF ACCEPTABLE TO ARCHITECT, WITH A PROPORTIONATE INCREASE IN SIZE OF ROOTS OR BALLS.

ROOT-BALL DEPTH: FURNISH TREES AND SHRUBS WITH ROOT BALLS MEASURED FROM TOP OF ROOT BALL, WHICH BEGINS AT ROOT FLARE ACCORDING TO ANSI Z60.1. ROOT FLARE SHALL BE VISIBLE BEFORE PLANTING.

LABELING: LABEL EACH PLANT OF EACH VARIETY, SIZE, AND CALIPER WITH A SECURELY ATTACHED, WATERPROOF TAG BEARING LEGIBLE DESIGNATION OF COMMON NAME AND FULL SCIENTIFIC NAME, INCLUDING GENUS AND SPECIES, INCLUDE NOMENCLATURE FOR HYBRID, VARIETY, OR CULTIVAR, IF APPLICABLE FOR THE PLANT.

IF FORMAL ARRANGEMENTS OR CONSECUTIVE ORDER OF PLANTS IS INDICATED ON DRAWINGS, SELECT STOCK FOR UNIFORM HEIGHT AND SPREAD, AND NUMBER THE LABELS TO ASSURE SYMMETRY IN PLANTING.

FERTILIZERS: REFER TO PLANTING SOIL SPECIFICATION.

MULCHES

ORGANIC MULCH: FREE FROM DELETERIOUS MATERIALS AND SUITABLE AS A TOP DRESSING OF TREES AND SHRUBS, CONSISTING OF ONE OF THE FOLLOWING:

1. TYPE: DOUBLE-SHREDDED HARDWOOD.
2. SIZE RANGE: 3 INCHES MAXIMUM, 1/2 INCH MINIMUM.
3. COLOR: NATURAL.

PESTICIDES

GENERAL: PESTICIDE REGISTERED AND APPROVED BY THE EPA, ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION, AND OF TYPE RECOMMENDED BY MANUFACTURER FOR EACH SPECIFIC PROBLEM AND AS REQUIRED FOR PROJECT CONDITIONS AND APPLICATION. DO NOT USE RESTRICTED PESTICIDES UNLESS AUTHORIZED IN WRITING BY AUTHORITIES HAVING JURISDICTION.

PRE-EMERGENT HERBICIDE (SELECTIVE AND NONSELECTIVE): EFFECTIVE FOR CONTROLLING THE GERMINATION OR GROWTH OF WEEDS WITHIN PLANTED AREAS AT THE SOIL LEVEL DIRECTLY BELOW THE MULCH LAYER.

POST-EMERGENT HERBICIDE (SELECTIVE AND NONSELECTIVE): EFFECTIVE FOR CONTROLLING WEED GROWTH THAT HAS ALREADY GERMINATED.

TREE-STABILIZATION MATERIALS

TRUNK-STABILIZATION MATERIALS:

1. UPRIGHT AND GUY STAKES: ROUGH-SAWN, SOUND, NEW HARDWOOD, FREE OF KNOTS, HOLES, CROSS GRAIN, AND OTHER DEFECTS, 2-BY-2-INCH NOMINAL BY LENGTH INDICATED, POINTED AT ONE END.
2. FLEXIBLE TIES: WIDE RUBBER OR ELASTIC BANDS OR STRAPS OF LENGTH REQUIRED TO REACH STAKES OR TURNBUCKLES.
3. GUYS AND THE WIRES: ASTM A 641/A 641M, CLASS 1, GALVANIZED-STEEL WIRE, TWO-STRAND, TWISTED, 0.108 INCH IN DIAMETER.
4. TREE-TIE WEBBING: UV-RESISTANT POLYPROPYLENE OR NYLON WEBBING WITH BRASS GROMMETS.
5. GUY CABLES: FIVE-STRAND, 3/16-INCH-DIAMETER, GALVANIZED-STEEL CABLE, WITH ZINC-COATED TURNBUCKLES, A MINIMUM OF 3 INCHES LONG, WITH TWO 3/8-INCH GALVANIZED EYEBOLTS.
6. FLAGS: STANDARD SURVEYOR'S PLASTIC FLAGGING TAPE, WHITE, 6 INCHES LONG.

SLOW-RELEASE WATERING DEVICE: STANDARD PRODUCT MANUFACTURED FOR DRIP IRRIGATION OF PLANTS AND EMPTYING ITS WATER CONTENTS OVER AN EXTENDED TIME PERIOD; MANUFACTURED FROM UV-LIGHT-STABILIZED NYLON-REINFORCED POLYETHYLENE SHEET, PVC, OR HOPE PLASTIC.

1. PRODUCT: TREEGATOR ORIGINAL SLOW RELEASE WATERING BAG
 - a. COLOR: GREEN.

MISCELLANEOUS PRODUCTS

BURLAP: NON-SYNTHETIC, BIODEGRADABLE.

EXAMINATION

EXAMINE AREAS TO RECEIVE PLANTS, WITH INSTALLER PRESENT, FOR COMPLIANCE WITH REQUIREMENTS AND CONDITIONS AFFECTING INSTALLATION AND PERFORMANCE OF THE WORK.

1. VERIFY THAT NO FOREIGN OR DELETERIOUS MATERIAL OR LIQUID SUCH AS PAINT, PAINT WASHOUT, CONCRETE SLURRY, CONCRETE LAYERS OR CHUNKS, GROUT, PLASTER, OILS, GASOLINE, DIESEL FUEL, PAINT THINNER, TURPENTINE, TAR, ROOFING COMPOUND, OR ACID HAS BEEN DEPOSITED IN SOIL WITHIN A PLANTING AREA.
2. VERIFY THAT PLANTS AND VEHICLES LOADED WITH PLANTS CAN TRAVEL TO PLANTING LOCATIONS WITH ADEQUATE OVERHEAD CLEARANCE.
3. SUSPEND PLANTING OPERATIONS DURING PERIODS OF EXCESSIVE SOIL MOISTURE UNTIL THE MOISTURE CONTENT REACHES ACCEPTABLE LEVELS TO ATTAIN THE REQUIRED RESULTS.
4. UNIFORMLY MOISTEN EXCESSIVELY DRY SOIL THAT IS NOT WORKABLE OR WHICH IS DUSTY.

IF CONTAMINATION BY FOREIGN OR DELETERIOUS MATERIAL OR LIQUID IS PRESENT IN SOIL WITHIN A PLANTING AREA, REMOVE THE SOIL AND CONTAMINATION AS DIRECTED BY ARCHITECT AND REPLACE WITH NEW PLANTING SOIL.

PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

PREPARATION

PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES AND TURF AREAS AND EXISTING PLANTS FROM DAMAGE CAUSED BY PLANTING OPERATIONS.

INSTALL EROSION-CONTROL MEASURES TO PREVENT EROSION OR DISPLACEMENT OF SOILS AND DISCHARGE OF SOIL-BEARING WATER RUNOFF OR AIRBORNE DUST TO ADJACENT PROPERTIES AND WALKWAYS.

PLANTING AREA ESTABLISHMENT

GENERAL: PREPARE PLANTING AREA FOR SOIL PLACEMENT AND MIX PLANTING SOIL ACCORDING TO PLANTING SOIL SPECIFICATIONS.

PLACING PLANTING SOIL: PLACE AND MIX PLANTING SOIL ACCORDING TO PLANTING SOIL SPECIFICATION

BEFORE PLANTING, OBTAIN ARCHITECT'S ACCEPTANCE OF FINISH GRADING; RESTORE PLANTING AREAS IF ERODED OR OTHERWISE DISTURBED AFTER FINISH GRADING.

EXCAVATION FOR TREES AND SHRUBS

PLANTING PITS AND TRENCHES: EXCAVATE CIRCULAR PLANTING PITS.

1. EXCAVATE PLANTING PITS WITH SIDES SLOPING INWARD AT A 45-DEGREE ANGLE. EXCAVATIONS WITH VERTICAL SIDES ARE UNACCEPTABLE. TRIM PERIMETER OF BOTTOM LEAVING CENTER AREA OF BOTTOM RAISED SLIGHTLY TO SUPPORT ROOT BALL AND ASSIST IN DRAINAGE AWAY FROM CENTER. DO NOT FURTHER DISTURB BASE. ENSURE THAT ROOT BALL WILL SIT ON UNDISTURBED BASE SOIL TO PREVENT SETTLING. SCARIFY SIDES OF PLANTING PIT SMOOTHED DURING EXCAVATION.
2. EXCAVATE APPROXIMATELY THREE TIMES AS WIDE AS BALL DIAMETER FOR BALLED AND BURLAPPED AND CONTAINER-GROWN STOCK.
3. DO NOT EXCAVATE DEEPER THAN DEPTH OF THE ROOT BALL, MEASURED FROM THE ROOT FLARE TO THE BOTTOM OF THE ROOT BALL.
4. IF AREA UNDER THE PLANT WAS INITIALLY DUG TOO DEEP, ADD SOIL TO RAISE IT TO THE CORRECT LEVEL AND THOROUGHLY TAMP THE ADDED SOIL TO PREVENT SETTLING.
5. MAINTAIN ANGLES OF REPOSE OF ADJACENT MATERIALS TO ENSURE STABILITY. DO NOT EXCAVATE SUBGRADES OF ADJACENT PAVING, STRUCTURES, HARDSCAPES, OR OTHER NEW OR EXISTING IMPROVEMENTS.
6. MAINTAIN SUPERVISION OF EXCAVATIONS DURING WORKING HOURS.
7. KEEP EXCAVATIONS COVERED OR OTHERWISE PROTECTED WHEN UNATTENDED BY INSTALLER'S PERSONNEL.

BACKFILL SOIL: SUBSOIL AND TOPSOIL REMOVED FROM EXCAVATIONS MAY NOT BE USED AS BACKFILL SOIL UNLESS OTHERWISE INDICATED.

OBSTRUCTIONS: NOTIFY ARCHITECT IF UNEXPECTED ROCK OR OBSTRUCTIONS DETRIMENTAL TO TREES OR SHRUBS ARE ENCOUNTERED IN EXCAVATIONS.

1. HARDPAN LAYER: DRILL 6-INCH-DIAMETER HOLES, 24 INCHES APART, INTO FREE-DRAINING STRATA OR TO A DEPTH OF 10 FEET, WHICHEVER IS LESS, AND BACKFILL WITH FREE-DRAINING MATERIAL.

DRAINAGE: NOTIFY ARCHITECT IF SUBSOIL CONDITIONS EVIDENCE UNEXPECTED WATER SEEPAGE OR RETENTION IN TREE OR SHRUB PLANTING PITS.

TREE, SHRUB, AND VINE PLANTING

INSPECTION: AT TIME OF PLANTING, VERIFY THAT ROOT FLARE IS VISIBLE AT TOP OF ROOT BALL ACCORDING TO ANSI Z60.1. IF ROOT FLARE IS NOT VISIBLE, REMOVE SOIL IN A LEVEL MANNER FROM THE ROOT BALL TO WHERE THE TOP-MOST ROOT EMERGES FROM THE TRUNK, AFTER SOIL REMOVAL, TO EXPOSE THE ROOT FLARE, VERIFY THAT ROOT BALL STILL MEETS SIZE REQUIREMENTS.

ROOTS: REMOVE STEM GIRDLING ROOTS AND KINKED ROOTS. REMOVE INJURED ROOTS BY CUTTING CLEANLY; DO NOT BREAK.

BALLED AND BURLAPPED STOCK: SET EACH PLANT PLUMB AND IN CENTER OF PLANTING PIT OR TRENCH WITH ROOT FLARE 1 INCH ABOVE ADJACENT FINISH GRADES.

1. BACKFILL: PLANTING SOIL PER PLANTING SOILS SPECIFICATION.
2. AFTER PLACING SOME BACKFILL AROUND ROOT BALL TO STABILIZE PLANT, CAREFULLY CUT AND REMOVE BURLAP, ROPE, AND WIRE BASKETS FROM TOPS OF ROOT BALLS AND FROM SIDES, BUT DO NOT REMOVE FROM UNDER ROOT BALLS. REMOVE PALLETS, IF ANY, BEFORE SETTING. DO NOT USE PLANTING STOCK IF ROOT BALL IS CRACKED OR BROKEN BEFORE OR DURING PLANTING OPERATION.
3. BACKFILL AROUND ROOT BALL IN LAYERS, TAMPING TO SETTLE SOIL AND ELIMINATE VOIDS AND AIR POCKETS. WHEN PLANTING PIT IS APPROXIMATELY ONE-HALF FILLED, WATER THOROUGHLY BEFORE PLACING REMAINDER OF BACKFILL. REPEAT WATERING UNTIL NO MORE WATER IS ABSORBED.
4. CONTINUE BACKFILLING PROCESS. WATER AGAIN AFTER PLACING AND TAMPING FINAL LAYER OF SOIL.

CONTAINER-GROWN STOCK: SET EACH PLANT PLUMB AND IN CENTER OF PLANTING PIT OR TRENCH WITH ROOT FLARE 1 INCH ABOVE ADJACENT FINISH GRADES.

1. BACKFILL: PLANTING SOIL PER PLANTING SOILS SPECIFICATION.
2. CAREFULLY REMOVE ROOT BALL FROM CONTAINER WITHOUT DAMAGING ROOT BALL OR PLANT.
3. BACKFILL AROUND ROOT BALL IN LAYERS, TAMPING TO SETTLE SOIL AND ELIMINATE VOIDS AND AIR POCKETS. WHEN PLANTING PIT IS APPROXIMATELY ONE-HALF FILLED, WATER THOROUGHLY BEFORE PLACING REMAINDER OF BACKFILL. REPEAT WATERING UNTIL NO MORE WATER IS ABSORBED.
4. CONTINUE BACKFILLING PROCESS. WATER AGAIN AFTER PLACING AND TAMPING FINAL LAYER OF SOIL.

SLOPES: WHEN PLANTING ON SLOPES, SET THE PLANT SO THE ROOT FLARE ON THE UPHILL SIDE IS FLUSH WITH THE SURROUNDING SOIL ON THE SLOPE; THE EDGE OF THE ROOT BALL ON THE DOWNHILL SIDE WILL BE ABOVE THE SURROUNDING SOIL. APPLY ENOUGH SOIL TO COVER THE DOWNHILL SIDE OF THE ROOT BALL.

MECHANIZED TREE-SPADE PLANTING

1. TREES MAY BE PLANTED WITH AN APPROVED MECHANIZED TREE SPADE AT THE DESIGNATED LOCATION. DO NOT USE TREE SPADE TO MOVE TREES LARGER THAN THE MAXIMUM SIZE ALLOWED FOR A SIMILAR FIELD-GROWN, BALLED-AND-BURLAPPED ROOT-BALL DIAMETER ACCORDING TO ANSI Z60.1, OR LARGER THAN MANUFACTURER'S MAXIMUM SIZE RECOMMENDATION FOR THE TREE SPADE BEING USED, WHICHEVER IS SMALLER.
2. USE THE SAME TREE SPADE TO EXCAVATE THE PLANTING HOLE AS WILL BE USED TO EXTRACT AND TRANSPORT THE TREE.
3. WHEN EXTRACTING THE TREE, CENTER THE TRUNK WITHIN THE TREE SPADE AND MOVE TREE WITH A SOLID BALL OF EARTH.
4. CUT EXPOSED ROOTS CLEANLY DURING TRANSPLANTING OPERATIONS.
5. PLANT TREES FOLLOWING PROCEDURES IN "TREE, SHRUB, AND VINE PLANTING" ARTICLE.
6. WHERE POSSIBLE, ORIENT THE TREE IN THE SAME DIRECTION AS IN ITS ORIGINAL LOCATION.

TREE, SHRUB, AND VINE PRUNING

1. REMOVE ONLY DEAD, DYING, OR BROKEN BRANCHES. DO NOT PRUNE FOR SHAPE.
2. DO NOT APPLY PRUNING PAINT TO WOUNDS.

TREE STABILIZATION

TRUNK STABILIZATION BY STAKING AND GUYING: INSTALL TRUNK STABILIZATION AS FOLLOWS UNLESS OTHERWISE INDICATED ON DRAWINGS. STAKE AND GUY TREES MORE THAN 12 FEET IN HEIGHT AND MORE THAN 3 INCHES IN CALIPER UNLESS OTHERWISE INDICATED.

1. SITE-FABRICATED, STAKING-AND-GUYING METHOD: INSTALL NO FEWER THAN THREE GUYS SPACED EQUALLY AROUND TREE.
 - a. SECURELY ATTACH GUYS TO STAKES 36 INCHES LONG, DRIVEN TO GRADE. ADJUST SPACING TO AVOID PENETRATING ROOT BALLS OR ROOT MASSES. PROVIDE TURNBUCKLE FOR EACH GUY WIRE AND TIGHTEN SECURELY.
2. SUPPORT TREES WITH BANDS OF FLEXIBLE TIES AT CONTACT POINTS WITH TREE TRUNK AND REACHING TO TURNBUCKLE. ALLOW ENOUGH SLACK TO AVOID RIGID RESTRAINT OF TREE.
3. SUPPORT TREES WITH GUY CABLE OR MULTIPLE STRANDS OF TIE WIRE, CONNECTED TO THE ADJACENT GROMMETS OF TREE-TIE WEBBING AT CONTACT POINTS WITH TREE TRUNK AND REACHING TO TURNBUCKLE. ALLOW ENOUGH SLACK TO AVOID RIGID RESTRAINT OF TREE.
4. ATTACH FLAGS TO EACH GUY WIRE, 30 INCHES ABOVE FINISH GRADE.

GROUND COVER AND PLANT PLANTING

1. SET OUT AND SPACE GROUND COVER AND PLANTS OTHER THAN TREES, SHRUBS, AND VINES AS INDICATED ON DRAWINGS IN EVEN ROWS WITH TRIANGULAR SPACING.
2. USE PLANTING SOIL PER PLANTING SOIL SPECIFICATION FOR BACKFILL.
3. DIG HOLES LARGE ENOUGH TO ALLOW SPREADING OF ROOTS.
4. FOR ROOTED CUTTING PLANTS SUPPLIED IN FLATS, PLANT EACH IN A MANNER THAT MINIMALLY DISTURBS THE ROOT SYSTEM BUT TO A DEPTH NOT LESS THAN TWO NODES.
5. WORK SOIL AROUND PLANTS, REPAIRING AND FILLING AIR POCKETS AND LEAVE A SLIGHT SLOPE INDENTATION AROUND PLANTS TO HOLD WATER.
6. WATER THOROUGHLY AFTER PLANTING, TAKING CARE NOT TO COVER PLANT CROWNS WITH WET SOIL.
7. PROTECT PLANTS FROM HOT SUN AND WIND; REMOVE PROTECTION IF PLANTS SHOW EVIDENCE OF RECOVERY FROM TRANSPLANTING SHOCK.

PLANTING AREA MULCHING

MULCH BACKFILLED SURFACES OF PLANTING AREAS AND OTHER AREAS INDICATED.

1. TREES IN TURF AREAS: APPLY ORGANIC MULCH RING OF 2-INCH AVERAGE THICKNESS, WITH 18-INCH RADIUS AROUND TRUNKS OR STEMS. DO NOT PLACE MULCH WITHIN 3 INCHES OF TRUNKS OR STEMS.

2. ORGANIC MULCH IN PLANTING AREAS: APPLY 2-INCH AVERAGE THICKNESS OF ORGANIC MULCH OVER WHOLE SURFACE OF PLANTING AREA, AND FINISH LEVEL WITH ADJACENT FINISH GRADES. DO NOT PLACE MULCH WITHIN 3 INCHES OF TRUNKS OR STEMS.

INSTALLING SLOW-RELEASE WATERING DEVICE

1. PROVIDE ONE DEVICE FOR EACH TREE.
2. PLACE DEVICE ON TOP OF THE MULCH AT BASE OF TREE STEM AND FILL WITH WATER ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.

PLANT MAINTENANCE

1. MAINTAIN PLANTINGS BY PRUNING, CULTIVATING, WATERING, WEEDING, FERTILIZING, MULCHING, RESTORING PLANTING SAUCERS, ADJUSTING AND REPAIRING TREE-STABILIZATION DEVICES, RESETTling TO PROPER GRADES OR VERTICAL POSITION, AND PERFORMING OTHER OPERATIONS AS REQUIRED TO ESTABLISH HEALTHY, VIABLE PLANTINGS.
2. FILL IN, AS NECESSARY, SOIL SUBSIDENCE THAT MAY OCCUR BECAUSE OF SETTLING OR OTHER PROCESSES. REPLACE MULCH MATERIALS DAMAGED OR LOST IN AREAS OF SUBSIDENCE.
3. APPLY TREATMENTS AS REQUIRED TO KEEP PLANT MATERIALS, PLANTED AREAS, AND SOILS FREE OF PESTS AND PATHOGENS OR DISEASE. USE INTEGRATED PEST MANAGEMENT PRACTICES WHEN POSSIBLE TO MINIMIZE USE OF PESTICIDES AND REDUCE HAZARDS. TREATMENTS INCLUDE PHYSICAL CONTROLS SUCH AS HOSSING OFF FOLIAGE, MECHANICAL CONTROLS SUCH AS TRAPS, AND BIOLOGICAL CONTROL AGENTS.

PESTICIDE APPLICATION

1. APPLY PESTICIDES AND OTHER CHEMICAL PRODUCTS AND BIOLOGICAL CONTROL AGENTS ACCORDING TO AUTHORITIES HAVING JURISDICTION AND MANUFACTURER'S WRITTEN RECOMMENDATIONS. COORDINATE APPLICATIONS WITH OWNER'S OPERATIONS AND OTHERS IN PROXIMITY TO THE WORK. NOTIFY OWNER BEFORE EACH APPLICATION IS PERFORMED.
2. PRE-EMERGENT HERBICIDES (SELECTIVE AND NONSELECTIVE): APPLY TO TREE, SHRUB, AND GROUND-COVER AREAS ACCORDING TO MANUFACTURER'S WRITTEN RECOMMENDATIONS. DO NOT APPLY TO SEEDBED AREAS.
3. POST-EMERGENT HERBICIDES (SELECTIVE AND NONSELECTIVE): APPLY ONLY AS NECESSARY TO TREAT ALREADY-GERMINATED WEEDS AND ACCORDING TO MANUFACTURER'S WRITTEN RECOMMENDATIONS.

REPAIR AND REPLACEMENT

GENERAL: REPAIR OR REPLACE EXISTING OR NEW TREES AND OTHER PLANTS THAT ARE DAMAGED BY CONSTRUCTION OPERATIONS, IN A MANNER APPROVED BY ARCHITECT.

1. SUBMIT DETAILS OF PROPOSED PRUNING AND REPAIRS.
2. PERFORM REPAIRS OF DAMAGED TRUNKS, BRANCHES, AND ROOTS WITHIN 24 HOURS, IF APPROVED.
3. REPLACE TREES AND OTHER PLANTS THAT CANNOT BE REPAIRED AND RESTORED TO FULL-GROWTH STATUS, AS DETERMINED BY ARCHITECT.

REMOVE AND REPLACE TREES THAT ARE MORE THAN 25 PERCENT DEAD OR IN AN UNHEALTHY CONDITION BEFORE THE END OF THE CORRECTIONS PERIOD OR ARE DAMAGED DURING CONSTRUCTION OPERATIONS THAT ARCHITECT DETERMINES ARE INCAPABLE OF RESTORING TO NORMAL GROWTH PATTERN.

TURF AND GRASSES SPECIFICATION

DEFINITIONS

1. FINISH GRADE: ELEVATION OF FINISHED SURFACE OF PLANTING SOIL.
2. PESTICIDE: A SUBSTANCE OR MIXTURE INTENDED FOR PREVENTING, DESTROYING, REPELLING, OR MITIGATING A PEST. PESTICIDES INCLUDE INSECTICIDES, MITICIDES, HERBICIDES, FUNGICIDES, RODENTICIDES, AND MOLLUSCICIDES. THEY ALSO INCLUDES SUBSTANCES OR MIXTURES INTENDED FOR USE AS A PLANT REGULATOR, DEFOLIANT, OR DESICCANT.
3. PESTS: LIVING ORGANISMS THAT OCCUR WHERE THEY ARE NOT DESIRED OR THAT CAUSE DAMAGE TO PLANTS, ANIMALS, OR PEOPLE. PESTS INCLUDE INSECTS, MITES, GRUBS, MOLLUSKS (SNAILS AND SLUGS), RODENTS (GOPHERS, MOLES, AND MICE), UNWANTED PLANTS (WEEDS), FUNGI, BACTERIA, AND VIRUSES.
4. PLANTING SOIL: EXISTING, ON-SITE SOIL, IMPORTED SOIL, OR MANUFACTURED SOIL THAT HAS BEEN MODIFIED WITH SOIL AMENDMENTS AND PERHAPS FERTILIZERS TO PRODUCE A SOIL MIXTURE BEST FOR PLANT GROWTH. SEE SECTION 329113 "SOIL PREPARATION."
5. SUBGRADE: THE SURFACE OR ELEVATION OF SUBSOIL REMAINING AFTER EXCAVATION IS COMPLETE, OR THE TOP SURFACE OF A FILL OR BACKFILL BEFORE PLANTING SOIL IS PLACED.

PREINSTALLATION MEETINGS: PREINSTALLATION CONFERENCE: CONDUCT CONFERENCE AT PROJECT SITE.

SUBMITTALS

1. QUALIFICATION DATA: FOR LANDSCAPE INSTALLER.
2. CERTIFICATION OF GRASS SEED: FROM SEED VENDOR FOR EACH GRASS-SEED MONOSTAND OR MIXTURE, STATING THE BOTANICAL AND COMMON NAME, PERCENTAGE BY WEIGHT OF EACH SPECIES AND VARIETY, AND PERCENTAGE OF PURITY, GERMINATION, AND WEED SEED. INCLUDE THE YEAR OF PRODUCTION AND DATE OF PACKAGING.
3. CERTIFICATION OF EACH SEED MIXTURE FOR TURFGRASS SOD. INCLUDE IDENTIFICATION OF SOURCE AND NAME AND TELEPHONE NUMBER OF SUPPLIER.
4. PRODUCT CERTIFICATES: FOR FERTILIZERS, FROM MANUFACTURER.
5. PESTICIDES AND HERBICIDES: PRODUCT LABEL AND MANUFACTURER'S APPLICATION INSTRUCTIONS SPECIFIC TO PROJECT.
6. MAINTENANCE DATA: RECOMMENDED PROCEDURES TO BE ESTABLISHED BY OWNER FOR MAINTENANCE OF TURF DURING A CALENDAR YEAR. SUBMIT BEFORE EXPIRATION OF REQUIRED MAINTENANCE PERIODS.

QUALITY ASSURANCE

INSTALLER QUALIFICATIONS: A QUALIFIED LANDSCAPE INSTALLER WHOSE WORK HAS RESULTED IN SUCCESSFUL TURF ESTABLISHMENT.

1. PROFESSIONAL MEMBERSHIP: INSTALLER SHALL BE A MEMBER IN GOOD STANDING OF EITHER THE PROFESSIONAL LANDSCAPE NETWORK OR THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.
2. EXPERIENCE: FIVE YEARS' EXPERIENCE IN TURF INSTALLATION.
3. INSTALLER'S FIELD SUPERVISION: REQUIRE INSTALLER TO MAINTAIN AN EXPERIENCED FULL-TIME SUPERVISOR ON PROJECT SITE WHEN WORK IS IN PROGRESS.
4. PERSONNEL CERTIFICATIONS: INSTALLER'S FIELD SUPERVISOR SHALL HAVE CERTIFICATION IN ALL OF THE FOLLOWING CATEGORIES FROM THE PROFESSIONAL LANDSCAPE NETWORK:
 - a. LANDSCAPE INDUSTRY CERTIFIED TECHNICIAN - EXTERIOR.
 - b. LANDSCAPE INDUSTRY CERTIFIED LANDSCAPE MANAGER.
 - c. LANDSCAPE INDUSTRY CERTIFIED LAWN CARE TECHNICIAN.

5. PESTICIDE APPLICATOR: STATE LICENSED, COMMERCIAL.

DELIVERY, STORAGE, AND HANDLING

SEED AND OTHER PACKAGED MATERIALS: DELIVER PACKAGED MATERIALS IN ORIGINAL, UNOPENED CONTAINERS SHOWING WEIGHT, CERTIFIED ANALYSIS, NAME AND ADDRESS OF MANUFACTURER, AND INDICATION OF COMPLIANCE WITH STATE AND FEDERAL LAWS, AS APPLICABLE.

BULK MATERIALS:

1. DO NOT DUMP OR STORE BULK MATERIALS NEAR STRUCTURES, UTILITIES, WALKWAYS AND PAVEMENTS, OR ON EXISTING TURF AREAS OR PLANTS.
2. PROVIDE EROSION-CONTROL MEASURES TO PREVENT EROSION OR DISPLACEMENT OF BULK MATERIALS, DISCHARGE OF SOIL-BEARING WATER RUNOFF, AND AIRBORNE DUST REACHING ADJACENT PROPERTIES, WATER CONVEYANCE SYSTEMS, OR WALKWAYS.
3. ACCOMPANY EACH DELIVERY OF BULK MATERIALS WITH APPROPRIATE CERTIFICATES.

FIELD CONDITIONS

PLANTING RESTRICTIONS: PLANT DURING ONE OF THE FOLLOWING PERIODS. COORDINATE PLANTING PERIODS WITH INITIAL MAINTENANCE PERIODS TO PROVIDE REQUIRED MAINTENANCE FROM DATE OF SUBSTANTIAL COMPLETION.

1. SPRING PLANTING: MARCH 15 TO JUNE 1.
2. FALL PLANTING: AUGUST 15 TO OCTOBER 15.

WEATHER LIMITATIONS: PROCEED WITH PLANTING ONLY WHEN EXISTING AND FORECASTED WEATHER CONDITIONS PERMIT PLANTING TO BE PERFORMED WHEN BENEFICIAL AND OPTIMUM RESULTS MAY BE OBTAINED. APPLY PRODUCTS DURING FAVORABLE WEATHER CONDITIONS ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.

SEED

GRASS SEED: FRESH, CLEAN, DRY, NEW-CROP SEED COMPLYING WITH AOSA'S "RULES FOR TESTING SEEDS" FOR PURITY AND GERMINATION TOLERANCES.

SEED MIX: SEED OF GRASS SPECIES AS FOLLOWS, WITH NOT LESS THAN 95 PERCENT GERMINATION, NOT LESS THAN 100 PERCENT PURE SEED, AND COMPLETELY FREE OF NOXIOUS WEEDS AND GRASSES. THE MIXTURE SHALL BE AS FOLLOWS OR AN APPROVED EQUAL: (MIXTURE SHALL RATE IN NTEP'S TOP TEN, CONTRACTOR TO PROVIDE INFORMATION ON GRASS SEED STATING IT MEETS NTEP'S TOP TEN LIST)

1. 80-90 PERCENT TURF-TYPE TALL FESCUE, MINIMUM 3 VARIETIES (15 PERCENT MINIMUM FOR ANY VARIETY).
2. 5-10 PERCENT PERENNIAL RYEGRASS.
3. 5-10 PERCENT KENTUCKY BLUEGRASS.

TURFGRASS SPECIES: SEED OF GRASS SPECIES AS FOLLOWS, WITH NOT LESS THAN 95 PERCENT GERMINATION, NOT LESS THAN 100 PERCENT PURE SEED, AND COMPLETELY FREE OF NOXIOUS WEEDS AND GRASSES. THE MIXTURE SHALL BE AS FOLLOWS OR AN APPROVED EQUAL: (MIXTURE SHALL RATE IN NTEP'S TOP TEN, CONTRACTOR TO PROVIDE INFORMATION ON GRASS SEED STATING IT MEETS NTEP'S TOP TEN LIST)

1. 80-90 PERCENT TURF-TYPE TALL FESCUE, MINIMUM 3 VARIETIES (15 PERCENT MINIMUM FOR ANY VARIETY).
2. 10-20 PERCENT KENTUCKY BLUEGRASS.

FERTILIZERS

1. COMMERCIAL FERTILIZER: COMMERCIAL-GRADE COMPLETE FERTILIZER OF NEUTRAL CHARACTER, CONSISTING OF QUICK RELEASE NITROGEN SOURCE, PHOSPHATE, AND POTASH. APPLY NITROGEN, PHOSPHATE AND POTASH IN THE AMOUNTS RECOMMENDED IN THE SOIL REPORTS FROM A QUALIFIED TESTING AGENCY.
2. SLOW-RELEASE FERTILIZER: GRANULAR FERTILIZER CONSISTING OF A MINIMUM OF 50 PERCENT WATER-INSOLUBLE NITROGEN OR COATED NITROGEN SOURCE, PHOSPHATE, AND POTASH. APPLY NITROGEN, PHOSPHATE AND POTASH IN THE AMOUNTS RECOMMENDED IN THE SOIL REPORTS FROM A QUALIFIED TESTING AGENCY.

MULCHES

1. STRAW MULCH: PROVIDE AIR-DRY, CLEAN, MILDEW- AND SEED-FREE, SALT HAY OR THRESHED STRAW OF WHEAT, RYE, OATS, OR BARLEY.

PESTICIDES

GENERAL: PESTICIDE, REGISTERED AND APPROVED BY THE EPA, ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION, AND OF TYPE RECOMMENDED BY MANUFACTURER FOR EACH SPECIFIC PROBLEM AND AS REQUIRED FOR PROJECT CONDITIONS AND APPLICATION. DO NOT USE RESTRICTED PESTICIDES UNLESS AUTHORIZED IN WRITING BY AUTHORITIES HAVING JURISDICTION.

1. PRE-EMERGENT HERBICIDE (SELECTIVE AND NONSELECTIVE): EFFECTIVE FOR CONTROLLING THE GERMINATION OR GROWTH OF WEEDS WITHIN PLANTED AREAS AT THE SOIL LEVEL DIRECTLY BELOW THE MULCH LAYER.
2. POST-EMERGENT HERBICIDE (SELECTIVE AND NONSELECTIVE): EFFECTIVE FOR CONTROLLING WEED GROWTH THAT HAS ALREADY GERMINATED.

EROSION-CONTROL MATERIALS

1. EROSION-CONTROL BLANKETS: BIODEGRADABLE WOOD EXCELSIOR, STRAW, OR COCONUT-FIBER MAT ENCLOSED IN A PHOTODEGRADABLE PLASTIC MESH. INCLUDE MANUFACTURER'S RECOMMENDED STEEL WIRE STAPLES, 6 INCHES LONG.
2. EROSION-CONTROL FIBER MESH: BIODEGRADABLE BURLAP OR SPUN-COIR MESH, A MINIMUM OF 0.32 LB/SQ. YD. WITH 50 TO 65 PERCENT OPEN AREA. INCLUDE MANUFACTURER'S RECOMMENDED STEEL WIRE STAPLES, 6 INCHES LONG.

EXAMINATION

EXAMINE AREAS TO BE PLANTED FOR COMPLIANCE WITH REQUIREMENTS AND OTHER CONDITIONS AFFECTING INSTALLATION AND PERFORMANCE OF THE WORK.

1. VERIFY THAT NO FOREIGN OR DELETERIOUS MATERIAL OR LIQUID SUCH AS PAINT, PAINT WASHOUT, CONCRETE SLURRY, CONCRETE LAYERS OR CHUNKS, CEMENT, PLASTER, OILS, GASOLINE, DIESEL FUEL, PAINT THINNER, TURPENTINE, TAR, ROOFING COMPOUND, OR ACID HAS BEEN DEPOSITED IN SOIL WITHIN A PLANTING AREA.
2. SUSPEND PLANTING OPERATIONS DURING PERIODS OF EXCESSIVE SOIL MOISTURE UNTIL THE MOISTURE CONTENT REACHES ACCEPTABLE LEVELS TO ATTAIN THE REQUIRED RESULTS.
3. UNIFORMLY MOISTEN EXCESSIVELY DRY SOIL THAT IS NOT WORKABLE OR WHICH IS DUSTY.
4. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
5. IF CONTAMINATION BY FOREIGN OR DELETERIOUS MATERIAL OR LIQUID IS PRESENT IN SOIL WITHIN A PLANTING AREA, REMOVE THE SOIL AND CONTAMINATION AS DIRECTED BY ARCHITECT AND REPLACE WITH NEW PLANTING SOIL.

PREPARATION

1. PROTECT STRUCTURES; UTILITIES; SIDEWALKS; PAVEMENTS; AND OTHER FACILITIES, TREES, SHRUBS, AND PLANTINGS FROM DAMAGE CAUSED BY PLANTING OPERATIONS.
2. PROTECT ADJACENT AND ADJOINING AREAS FROM HYDROSEEDING AND HYDROMULCHING OVERSPRAY.
3. PROTECT GRADE STAKES SET BY OTHERS UNTIL DIRECTED TO REMOVE THEM.
4. INSTALL EROSION-CONTROL MEASURES TO PREVENT EROSION OR DISPLACEMENT OF SOILS AND DISCHARGE OF SOIL-BEARING WATER RUNOFF OR AIRBORNE DUST TO ADJACENT PROPERTIES AND WALKWAYS.

TURF AREA PREPARATION

GENERAL: PREPARE PLANTING AREA FOR SOIL PLACEMENT AND MIX PLANTING SOIL PER "PLANTING SOIL" SPECIFICATION.

1. PLACING PLANTING SOIL: PLACE AND MIX PLANTING SOIL PER "PLANTING SOIL" SPECIFICATION.

2. GRADE PLANTING AREAS TO A SMOOTH, UNIFORM SURFACE PLANE WITH LOOSE, UNIFORMLY FINE TEXTURE. GRADE TO WITHIN PLUS OR MINUS 1/2 INCH OF FINISH ELEVATION. ROLL AND RAKE. REMOVE RIDGES, AND FILL DEPRESSIONS TO MEET FINISH GRADES. LIMIT FINISH GRADING TO AREAS THAT CAN BE PLANTED IN THE IMMEDIATE FUTURE. MOISTEN PREPARED AREA BEFORE PLANTING IF SOIL IS DRY. WATER THOROUGHLY AND ALLOW SURFACE TO DRY BEFORE PLANTING. DO NOT CREATE MUDDY SOIL. BEFORE PLANTING, OBTAIN FIELD ENGINEER'S ACCEPTANCE OF FINISH GRADING. RESTORE PLANTING AREAS IF ERODED OR OTHERWISE DISTURBED AFTER FINISH GRADING.
3. BEFORE PLANTING, OBTAIN ARCHITECT'S ACCEPTANCE OF FINISH GRADING; RESTORE PLANTING AREAS IF ERODED OR OTHERWISE DISTURBED AFTER FINISH GRADING.

PREPARATION FOR EROSION-CONTROL MATERIALS

1. PREPARE AREA AS SPECIFIED ABOVE.
2. FOR EROSION-CONTROL BLANKET OR MESH, INSTALL FROM TOP OF SLOPE, WORKING DOWNWARD, AND AS RECOMMENDED BY MATERIAL MANUFACTURER FOR SITE CONDITIONS. FASTEN AS RECOMMENDED BY MATERIAL MANUFACTURER.
3. MOISTEN PREPARED AREA BEFORE PLANTING IF SURFACE IS DRY. WATER THOROUGHLY AND ALLOW SURFACE TO DRY BEFORE PLANTING. DO NOT CREATE MUDDY SOIL.

SEEDING

1. SOW SEED WITH SPREADER OR SEEDING MACHINE. DO NOT BROADCAST OR DROP SEED WHEN WIND VELOCITY EXCEEDS 5 MPH.
 - a. EVENLY DISTRIBUTE SEED BY SOWING EQUAL QUANTITIES IN TWO DIRECTIONS AT RIGHT ANGLES TO EACH OTHER.
 - b. DO NOT USE WET SEED OR SEED THAT IS MOLDY OR OTHERWISE DAMAGED.
 - c. DO NOT SEED AGAINST EXISTING TREES. LIMIT EXTENT OF SEED TO OUTSIDE EDGE OF PLANTING SAUCER.
2. SOW SEED AT A TOTAL RATE OF 6 TO 8 LB/1000 SQ. FT..
3. RAKE SEED LIGHTLY INTO TOP 1/8 INCH OF SOIL. ROLL LIGHTLY, AND WATER WITH FINE SPRAY.
4. PROTECT SEEDED AREAS WITH SLOPES EXCEEDING 1:4 WITH EROSION-CONTROL BLANKETS AND 1:6 WITH EROSION-CONTROL FIBER MESH INSTALLED AND STAPLED ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.
5. PROTECT SEEDED AREAS WITH SLOPES NOT EXCEEDING 1:6 BY SPREADING STRAW MULCH. SPREAD UNIFORMLY AT A MINIMUM RATE OF 2 TONS/ACRE TO FORM A CONTINUOUS BLANKET 1-1/2 INCHES IN LOOSE THICKNESS OVER SEEDED AREAS. SPREAD BY HAND, BLOWER, OR OTHER SUITABLE EQUIPMENT.
 - a. ANCHOR STRAW MULCH BY CRIMPING INTO SOIL WITH SUITABLE MECHANICAL EQUIPMENT.
6. OVERSEED TURF AREA EIGHT (8) WEEKS AFTER INITIAL SEEDING OPERATION AT A RATE OF 5 LBS/1000 SQ. FT., IF INITIAL SEEDING HAS NOT PROVIDED A MINIMUM OF 90% COVERAGE OVER ANY 10 SQ. FT., OR IF BARE AREAS GREATER THE 5 B Y 5 INCHES ARE PRESENT.

TURF RENOVATION

1. RENOVATE EXISTING TURF WHERE INDICATED.
2. RENOVATE TURF DAMAGED BY CONTRACTOR'S OPERATIONS, SUCH AS STORAGE OF MATERIALS OR EQUIPMENT AND MOVEMENT OF VEHICLES.
 - a. REESTABLISH TURF WHERE SETTLEMENT OR WASHOUTS OCCUR OR WHERE MINOR REGRADING IS REQUIRED.
 - b. INSTALL NEW PLANTING SOIL AS REQUIRED.

3. REMOVE SOD AND VEGETATION FROM DISEASED OR UNSATISFACTORY TURF AREAS; DO NOT BURY IN SOIL.
4. REMOVE TOPSOIL CONTAINING FOREIGN MATERIALS, SUCH AS OIL DRIPPINGS, FUEL SPILLS, STONES, GRAVEL, AND OTHER CONSTRUCTION MATERIALS RESULTING FROM CONTRACTOR'S OPERATIONS, AND REPLACE WITH NEW PLANTING SOIL.
5. MOW, DETHATCH, CORE, EERATE, AND RAKE EXISTING TURF.
6. REMOVE WEEDS BEFORE SEEDING. WHERE WEEDS ARE EXTENSIVE, APPLY SELECTIVE HERBICIDES AS REQUIRED. DO NOT USE PRE-EMERGENCE HERBICIDES.
7. REMOVE WASTE AND FOREIGN MATERIALS, INCLUDING WEEDS, SOIL CORES, GRASS, VEGETATION, AND TURF, AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY.
8. TILL STRIPPED, BARE, AND COMPACTED AREAS THOROUGHLY TO A SOIL DEPTH OF 6 INCHES.
9. APPLY INITIAL FERTILIZER REQUIRED FOR ESTABLISHING NEW TURF AND MIX THOROUGHLY INTO TOP 4 INCHES OF EXISTING SOIL. INSTALL NEW PLANTING SOIL TO FILL LOW SPOTS AND MEET FINISH GRADES.
 - a. INITIAL FERTILIZER: COMMERCIAL FERTILIZER APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

10. APPLY SEED AND PROTECT WITH STRAW MULCH AS REQUIRED FOR NEW TURF.
11. WATER NEWLY PLANTED AREAS AND KEEP MOIST UNTIL NEW TURF IS ESTABLISHED.

TURF MAINTENANCE

GENERAL: MAINTAIN AND ESTABLISH TURF BY WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING, REPLANTING, AND PERFORMING OTHER OPERATIONS AS REQUIRED TO ESTABLISH HEALTHY, VIABLE TURF. ROLL, REGRADE, AND REPLANT BARE OR ERODED AREAS AND REMULCH TO PRODUCE A UNIFORMLY SMOOTH TURF. PROVIDE MATERIALS AND INSTALLATION THE SAME AS THOSE USED IN THE ORIGINAL INSTALLATION.

1. FILL IN AS NECESSARY SOIL SUBSIDENCE THAT MAY OCCUR BECAUSE OF SETTLING OR OTHER PROCESSES. REPLACE MATERIALS AND TURF DAMAGED OR LOST IN AREAS OF SUBSIDENCE.
2. IN AREAS WHERE MULCH HAS BEEN DISTURBED BY WIND OR MAINTENANCE OPERATIONS, ADD NEW MULCH AND ANCHOR AS REQUIRED TO PREVENT DISPLACEMENT.
3. APPLY TREATMENTS AS REQUIRED TO KEEP TURF AND SOIL FREE OF PESTS AND PATHOGENS OR DISEASE. USE INTEGRATED PEST MANAGEMENT PRACTICES WHENEVER POSSIBLE TO MINIMIZE THE USE OF PESTICIDES AND REDUCE HAZARDS.

WATERING: INSTALL AND MAINTAIN TEMPORARY PIPING, HOSES, AND TURF-WATERING EQUIPMENT TO CONVEY WATER FROM SOURCES AND TO KEEP TURF UNIFORMLY MOIST TO A DEPTH OF 4 INCHES.

1. SCHEDULE WATERING TO PREVENT WILTING, PUDDLING, EROSION, AND DISPLACEMENT OF SEED OR MULCH. LAY OUT TEMPORARY WATERING SYSTEM TO AVOID WALKING OVER MUDDY OR NEWLY PLANTED AREAS.
2. WATER TURF WITH FINE SPRAY AT A MINIMUM RATE OF 1 INCH PER WEEK UNLESS RAINFALL PRECIPITATION IS ADEQUATE.

MOW TURF AS SOON AS TOP GROWTH IS TALL ENOUGH TO CUT. REPEAT MOWING TO MAINTAIN SPECIFIED HEIGHT WITHOUT CUTTING MORE THAN ONE-THIRD OF GRASS HEIGHT. REMOVE NO MORE THAN ONE-THIRD OF GRASS-LEAF GROWTH IN INTIAL OR SUBSEQUENT MOWINGS. DO NOT DELAY MOWING UNTIL GRASS BLADES BEND OVER AND BECOME MATTED. DO NOT MOW WHEN GRASS IS WET. SCHEDULE INTIAL AND SUBSEQUENT MOWINGS TO MAINTAIN THE FOLLOWING GRASS HEIGHT:

1. MOW TURF TO A HEIGHT OF 2 TO 3 INCHES.

TURF POST-FERTILIZATION: APPLY FERTILIZER AFTER INITIAL MOWING AND WHEN GRASS IS DRY.

1. USE FERTILIZER THAT PROVIDES ACTUAL NITROGEN OF 1 LB/1000 SQ. FT. TO TURF AREA.
2. SECOND APPLICATION FERTILIZER: APPLY SIX (6) WEEKS AFTER SEEDING OPERATIONS. PROVIDE A HIGH NITROGEN SLOW RELEASE FERTILIZER WITH AN ANALYSIS OF 30-5-10 OR SIMILAR. APPLY AT A RATE TO PROVIDE ACTUAL NITROGEN OF 1 LB/1000 SQ. FT. TO TURF AREA.

SATISFACTORY TURF

TURF INSTALLATIONS SHALL MEET THE FOLLOWING CRITERIA AS DETERMINED BY ARCHITECT:

1. SATISFACTORY SEEDED TURF: AT END OF MAINTENANCE PERIOD, A HEALTHY, UNIFORM, CLOSE STAND OF GRASS HAS BEEN ESTABLISHED, FREE OF WEEDS AND SURFACE IRREGULARITIES, WITH COVERAGE EXCEEDING 90 PERCENT OVER ANY 10 SQ. FT. AND BARE SPOTS NOT EXCEEDING 5 BY 5 INCHES.

USE SPECIFIED MATERIALS TO REESTABLISH TURF THAT DOES NOT COMPLY WITH REQUIREMENTS, AND CONTINUE MAINTENANCE UNTIL TURF IS SATISFACTORY.

PESTICIDE APPLICATION

1. APPLY PESTICIDES AND OTHER CHEMICAL PRODUCTS AND BIOLOGICAL CONTROL AGENTS ACCORDING TO REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION AND MANUFACTURER'S WRITTEN RECOMMENDATIONS. COORDINATE APPLICATIONS WITH OWNER'S OPERATIONS AND OTHERS IN PROXIMITY TO THE WORK. NOTIFY OWNER BEFORE EACH APPLICATION IS PERFORMED.
2. POST-EMERGENT HERBICIDES (SELECTIVE AND NONSELECTIVE): APPLY ONLY AS NECESSARY TO TREAT ALREADY-GERMINATED WEEDS AND ACCORDING TO MANUFACTURER'S WRITTEN RECOMMENDATIONS.

CLEANUP AND PROTECTION

1. PROMPTLY REMOVE SOIL AND DEBRIS CREATED BY TURF WORK FROM PAVED AREAS. CLEAN WHEELS OF VEHICLES BEFORE LEAVING SITE TO AVOID TRACKING SOIL ONTO ROADS, WALKS, OR OTHER PAVED AREAS.

2. REMOVE SURPLUS SOIL AND WASTE MATERIAL, INCLUDING EXCESS SUBSOIL, UNSUITABLE SOIL, TRASH, AND DEBRIS, AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY.
3. ERECT TEMPORARY FENCING OR BARRICADES AND WARNING SIGNS AS REQUIRED TO PROTECT NEWLY PLANTED AREAS FROM TRAFFIC. MAINTAIN FENCING AND BARRICADES THROUGHOUT INITIAL MAINTENANCE PERIOD AND REMOVE AFTER PLANTINGS ARE ESTABLISHED.
4. REMOVE NONDEGRADABLE EROSION-CONTROL MEASURES AFTER GRASS ESTABLISHMENT PERIOD.

MAINTENANCE SERVICE

TURF MAINTENANCE SERVICE: PROVIDE FULL MAINTENANCE BY SKILLED EMPLOYEES OF LANDSCAPE INSTALLER. MAINTAIN AS REQUIRED IN "TURF MAINTENANCE" ARTICLE. BEGIN MAINTENANCE IMMEDIATELY AFTER EACH AREA IS PLANTED AND CONTINUE UNTIL ACCEPTABLE TURF IS ESTABLISHED, BUT FOR NOT LESS THAN THE FOLLOWING PERIODS:

1. SEEDED TURF: 90 DAYS FROM DATE OF [PLANTING COMPLETION] [SUBSTANTIAL COMPLETION].
 - a. WHEN INITIAL MAINTENANCE PERIOD HAS NOT ELAPSED BEFORE END OF PLANTING SEASON, OR IF TURF IS NOT FULLY ESTABLISHED, CONTINUE MAINTENANCE DURING NEXT PLANTING SEASON.

NOTE: UNDERGROUND UTILITIES ARE PLOTTED FROM A COMPIATION OF AVAILABLE RECORD INFORMATION AND SURFACE INDICATIONS OF UNDERGROUND STRUCTURES AND MAY NOT BE INCLUSIVE. PRECISE LOCATIONS AND THE EXISTENCE OR NON-EXISTENCE OF UNDERGROUND UTILITIES CANNOT BE VERIFIED. PLEASE NOTIFY THE OHIO UTILITY PROTECTION SERVICE AT 811 OR 1-800-362-2164 BEFORE ANY PERIOD OF EXCAVATION OR CONSTRUCTION ACTIVITY.





THE
KLEINGERS
GROUP

CIVIL ENGINEERING SURVEYING LANDSCAPE ARCHITECTURE
www.kleingers.com
6219 Centre Park Dr.
West Chester, OH 45389
513.770.7851

SEAL:	
	
NO.	DATE DESCRIPTION
01	09-19-2022 CITY PLANNING SITE REVIEW
11	09-20-2022 PERMIT SET
03	01-19-2023 PERMIT SET

GATEWAY CARWASH
CITY OF MONROE
TURTLE CREEK TOWNSHIP
WARREN COUNTY, OHIO

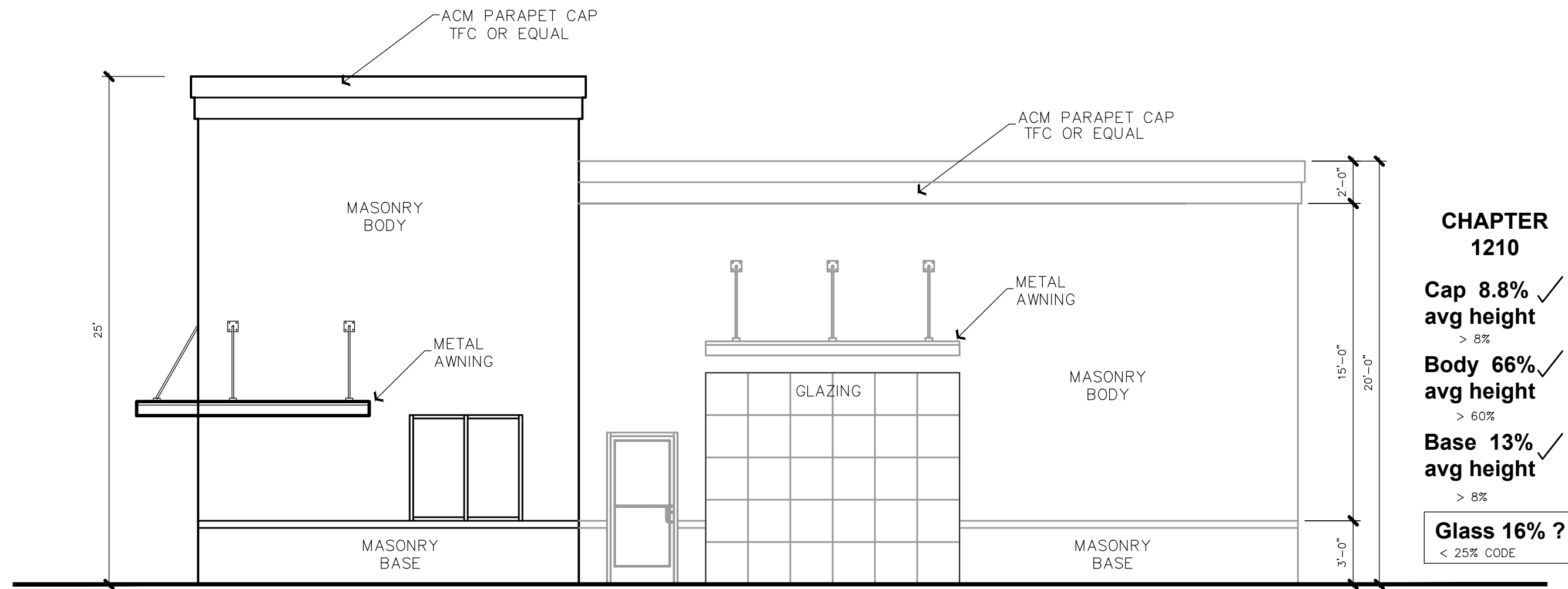
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DATE:	09-19-2022
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SHEET NAME:

LANDSCAPE SPECIFICATIONS

SHEET NO.

L103

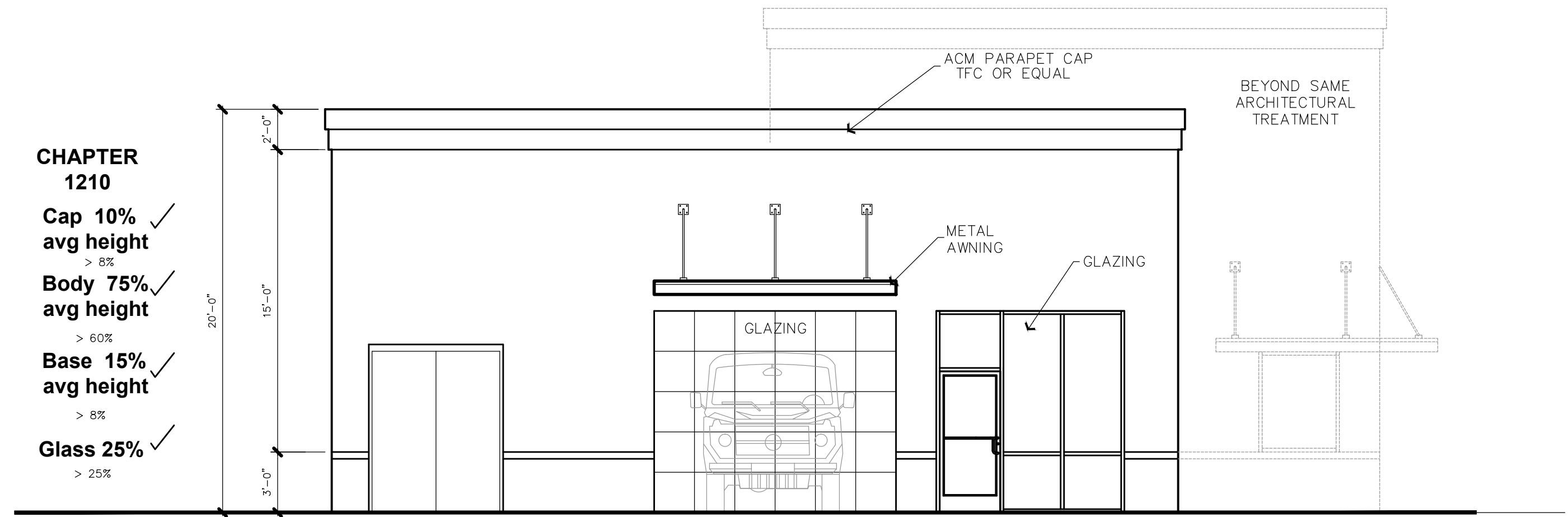


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WEST 4 ENTRY ELEVATION

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

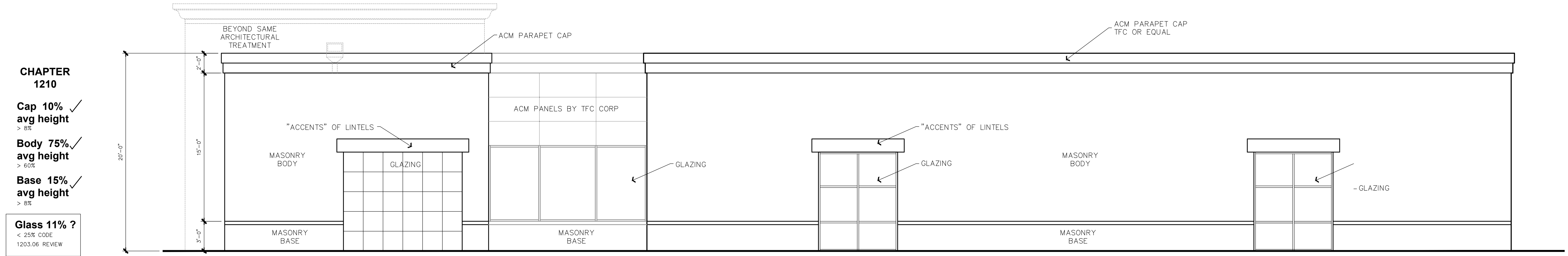
Faces Premium Outlets Drive
with intervening Creek



EAST 3 EXIT ELEVATION

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

Faces Gateway Blvd.



Offset

Offset

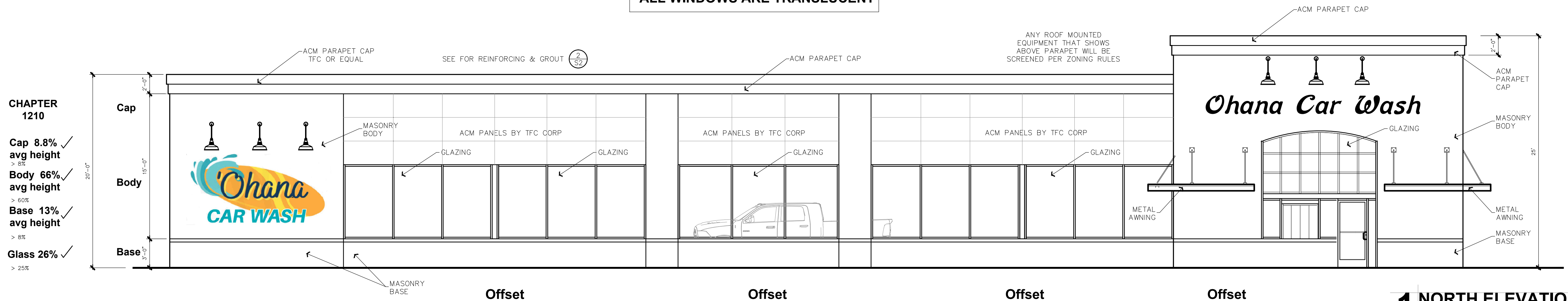
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2 SOUTH ELEVATION

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

Faces Gateway Blvd 1000' DISTANCE

ALL WINDOWS ARE TRANSLUCENT



Offset

Offset

Offset

Offset

1 NORTH ELEVATION

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

Faces Ohio State Road 63

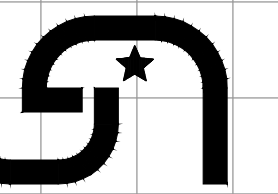
T&W
DESIGN & BUILD

OHANA CAR WASH

401 GATEWAY BLVD

MONROE OHIO 45050

EXTERIOR ELEVATIONS



9200 W. SMITH STREET
YORKTOWN, INDIANA 47396
TELEPHONE: 765-405-1220
FAX: 765-405-1219
WEB: usarchitectsmuncie.com

JERRY G. HOFFMAN,
PARTNER
KEITH L. GARY,
PARTNER

DRAWN:

CHECKED:

REVISIONS:

DATES

CD PHASE

START DATE: 00/00/00

FINISH DATE: 00/00/00

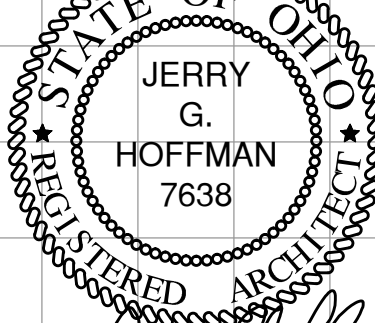
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CAD OPER.: HP TWO

SEAL



SHEET

A-2



North Elevation

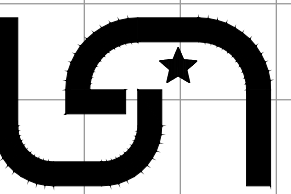
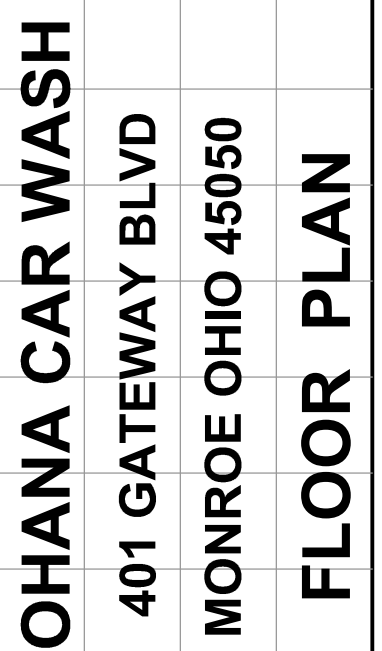




South Elevation



West Elevation



200 W. SMITH STREET	
WORKTOWN, INDIANA 47396	
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WEB	usarchitectsmuncie.com

ERRY G. HOFFMAN,	
PARTNER	
ETH L. GARY,	
PARTNER	

RAWN:

CHECKED:

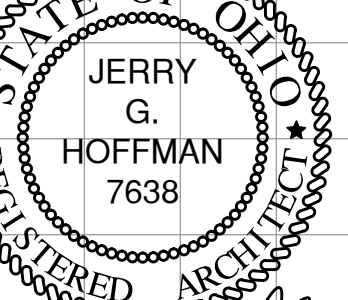
REVISIONS:

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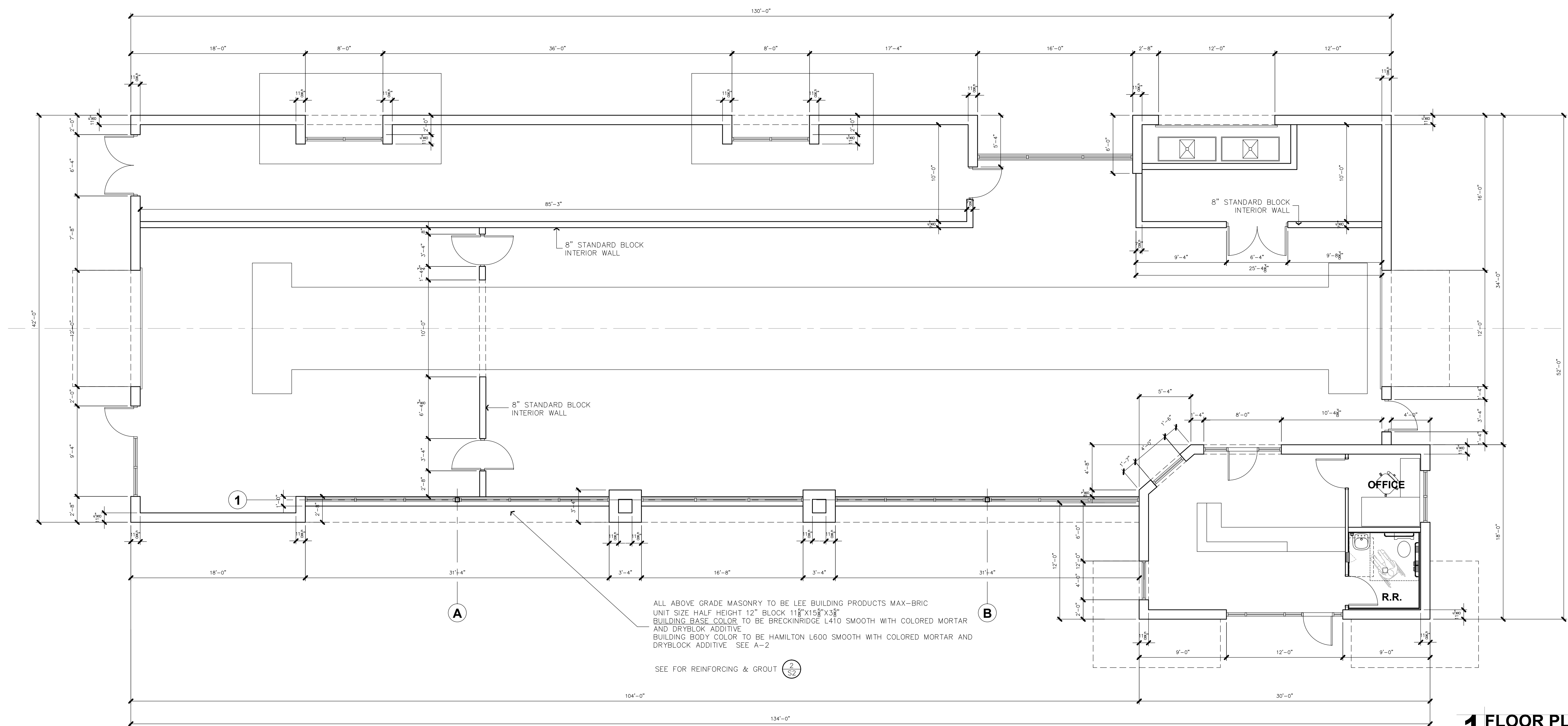
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REAL



SHEET }

A-1



1 FLOOR PLAN

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





