



**Planning Commission
Council Chambers
January 18, 2022 – 6:00 p.m.
233 South Main Street, Monroe, Ohio**

Swearing in of Matthew Frye and Brian Richards

Call to Order

Roll Call

Appointment of Officers

Appointment of Chair, Vice Chair, and Secretary officer positions

Approval of the Minutes – October 28, 2021

Old Business

Case No. 2021-1-1. Consideration of Site Plan Application for Thornton's. Tabled 4/20/21

New Business

Case No. 2022-1-1. Consideration of Site Plan Application for O'Reilly Auto Parts.

Case No. 2022-1-2. Consideration of Site Plan Application for CCC- North.

Administrative Reports

Adjournment



**City of Monroe Planning Commission
October 28, 2021 – 5:00 pm
233 South Main Street, Monroe, Ohio**

The Planning Commission of the City of Monroe met in work session at 5:00 PM on Thursday, October 28th, 2021. The meeting was held at Monroe City Hall.

Call to Order

Mr. Pyron called the meeting to order at 5:05 pm.

Roll Call

Members present: Lindsey Pyron, Christina McElfresh, and Matthew Frye

Staff members present: Bill Brock, City Manager/ acting Director of Development; Kameryn Jones, Assistant Development Director; and Alaina Hagenseker, Planning & Zoning Specialist

Business

**I. Discussion for Consideration of a Site Plan for Hyde Park at the Crossings
Residential Development**

Ms. Jones gave an explanation of the application, staff recommendation, and what the Planning Commission would need to consider when making their decision.

Mr. Pyron inquired about the use of vinyl. Mrs. McElfresh stated that there is room for leeway in a PUD and it might be permitted. She stated that the current architectural standard of vinyl not being allowed. Ms. Jones said that 25% of siding is allowed but vinyl type is still prohibited.

Mr. Pyron asked about the residential density. Ms. Jones said that the code of (R-4) multi-family is 8 units per acre.

Mr. Pyron asked about the street width. Ms. Jones stated that the one-way is not acceptable for emergency services. Mr. Pyron asked if street parking would be allowed. Mr. Brock said standards and stormwater sections require a curb and gutter. Mrs. McElfresh stated that she agreed and they should have a 6" curb to have the edge. Mr. Brock stated that fire needs to be able to get to the subdivisions in case of an emergency.



Ms. McElfresh asked about the sidewalk plan. Scott Willis, representative of the development, stated that they plan to have a sidewalk on one side of the road. Ms. McElfresh stated that she would like to see connectivity which would mean sidewalks on both sides of the road.

Etta Reed, of Bayer Becker, explained the density is compliant of the comprehensive plan and explained the buffer and sidewalks along Roden and Crossings.

Mr. Frye asked what the yard would look like. Ms. Jones showed the group examples of the yards.

Ms. Jones stated that the sidewalk on Jerry Crouch to Bicentennial Commons Park to continue to Roden Park and Crossings for connectivity later.

Mr. Pyron asked about the roofs. Ms. McElfresh said it needed to be contiguous. Mr. Willis said it is recessed, so it wouldn't look like a sea of homes. Ms. Jones stated said the staggering of the buildings will be like Maulhauser.

Ms. Jones summarized the refined sidewalk and connectivity plan, information on vinyl material, street design, curb and gutter. Ms. McElfresh asked if it is 25% per unity. Mr. Pyron stated that he wasn't sure if he could look individual at each house or would look at the building as a whole.

Ms. McElfresh asked if the school was ready for growth. Mr. Brock said the schools knew when the City had meetings about the future growth of the City. Mr. Pyron said the 21 acres will have possibly 150+ families will impact the school.

Mr. Pyron moved to adjourn the meeting. Seconded by Mrs. McElfresh. Voice vote. Motion carried.

The Planning Commission meeting adjourned at 6:16 PM.

Respectfully submitted,

Alaina Hagenseker
Planning and Zoning Specialist
hagensekera@monroecohio.org



CITY OF MONROE
Inter-Office Correspondence

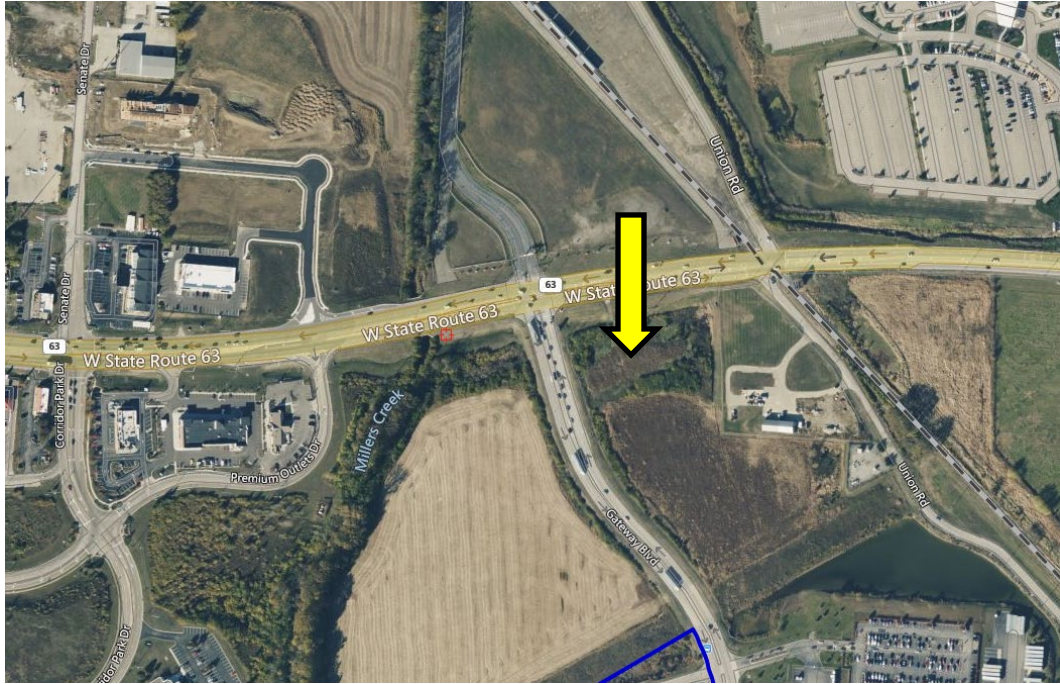
TO: Members of the Monroe Planning Commission
FROM: Kameryn Jones
Assistant Development Director

DATE: January 18, 2022
RE: Information Packet for January 18, 2022 Planning Commission Meeting at 6:00 p.m.

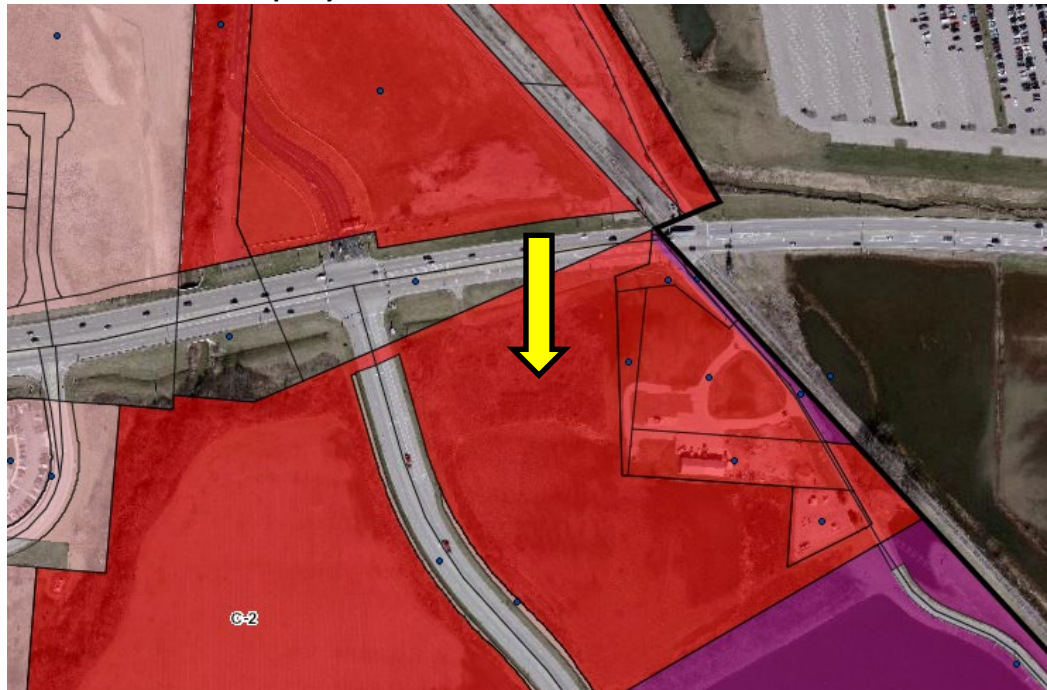
I. Case No. 2021-1-1 (TABLED)—Consideration of a Site Plan for Thornton's

A. Background

- Gregg Bennett, on behalf of Thornton's LLC, has submitted a site plan application for a gas station and convenience store to be located at the southeast corner of State Route 63 and Gateway Boulevard.
- The applicant is proposing a 5,500 square foot building with convenience store, auto and semi refuel stations, and CAT scale.
- The site is approximately 6.22 acres currently zoned C-2 General Commercial.



Overhead View of Property



Zoning Map of Proposed Site and Surrounding Properties



Eastbound on State Route 63



Westbound on State Route 63



Northbound on Gateway Boulevard



Facing South at Traders World Entrance at State Route 63

B. Staff Comments

- **Landscaping—**

1. Access drives are required one canopy tree for every 50 linear feet and three bushes for every 15 linear feet. This requirement would apply to both access drives located off the southern entrance.
 - Please revise plans to meet this requirement.

- **Architectural—**

1. 25% of wall area visible from a right-of-way/public road must contain windows. As the site has visibility from multiple points on Gateway Blvd and State Route 63, this window requirement applies to the south, east, and west sides in addition to the north side. The south side of the building shows 20% window area on the south side. While this is an improvement from the original submittal, it is still noncompliant.
 - Please revise plans to meet this requirement.

C. Department Comments

- **Fire Department:** Fire has the right to comment during plans review.

- **Police Department:** No comment.

- **Engineering/Public Works Department:**

1. General:
 - Show fire pit location.
 - Will need a staged SWP3 plan.
 - Will need a full set of SWP3 documents.
2. Sheet C5.3 (including any sheets showing sidewalks)
 - Request locations shown of ADA ramps on Gateway.
 - Adjust walk in NW corner (intersection) to avoid the overflow Catch basin for the detention basin.
 - Request locations shown for pavement markings including but not limited to crosswalks and lane striping adjustments.
3. Sheet C5.4: (including any sheets showing pavement markings and signage)
 - Request that advance lane usage signage and required lane signage for traffic control / turn lanes etc... to be shown for all Eb and Wb traffic flows.
 - Concern of painted island shown on SR63, (in front of exit on SR63) which is actually a Eb left turn storage lane for Union Rd, being confused with a Wb left turn into Thornton's. May advise signage. Even though there is a double yellow and island striping w Eb left turn arrow, on snow days etc., could be potential conflict with Wb traffic crossing into Eb turn lane to turn into Thornton's.
 - Request signage for the north driveway ingress / egress and the driveway on SR63 to show signage for right turn only out.
 - Request signage for Sb Gateway to show/restrict left turn restrictions into north ingress/egress.
 - Request adjustments to traffic striping at Gateway (SR63) to include removal of lane lines permitting a crosswalk/stop bars and any adjustments (if required) to lane arrows.

D. Staff Recommendation

- As Planning Commission recalls, Case No. 2021-1-1 has been tabled for nearly a year after a recommendation for denial by Staff due to the number of significant zoning and engineering issues that remained unresolved at the time.
- Staff recommends approval of the site plan with the following conditions:
 1. As a reminder, all ground mounted and rooftop equipment must be appropriately screened as approved by Staff.
 2. The landscaping plan be revised to address the staff report comments.
 3. As a reminder, all landscaping must meet all minimum species and size requirements and detailed appropriately on the plan.
 4. All Engineering review comments be addressed.
 5. The applicant will be responsible for maintenance (mowing, etc.) of the right-of-way adjacent to the developed site once improvements are complete.
 6. Digital files of final plans compatible with City GIS be submitted.
 7. All other Staff comments be met.

II. Case No. 2022-1-1— Consideration of a Site Plan for O'Reilly Auto Parts

A. Background

- Jake Tuckerman, on behalf of O'Reilly Auto, has submitted an application for a single tenant retail building located at 301 North Main Street, approximately 1,700 feet north of the intersection of Main Street and State Route 63.
- The applicant is proposing a 7,626 square foot building for auto part sales and a 34-space parking lot.
- The site is 2.99 acres zoned C-2 General Commercial. The developer will develop 1.95 acres of the property and is proposing to split off the western (rear) portion of the lot.
- In previous conversations with the City, the developer expressed interested in combining this remainder parcel to the City cemetery property. As the City does not permit landlocked parcels, this lot split cannot occur unless in conjunction with a lot combination to an adjacent property.
- The applicant's anticipated construction start date is early this year with an end date of 7/5/2022.



Overhead View of Property



Zoning Map of Proposed Site and Surrounding Properties



Looking Northeast towards the site from Overbrook Park



Looking North towards the site from Overbrook Park



Looking West towards the site from North Main Street



Southbound on Main Street

B. Staff Comments

- **Street Trees—**

1. Street trees are required every 40' on center in the tree lawn.
 - Based on approximately 290 FT of frontage, 7 street trees are required. 6 street trees are currently proposed.
 - Any required street tree that does not fit along the road frontage due to access drive issues, line of sight concerns, etc. may be approved to be placed elsewhere on site.

- **Landscaping—**

1. The English Laurel shrub species proposed for northern (right side) parking row hedge must be 36" tall at installation.
2. 20% of the required front yard area must be landscaped with a minimum 6 FT landscape bed directly adjacent to the right-of-way. This requirement may be used to help fulfill the perimeter landscaping requirement.
 - As C-2 lots are required a 50-foot front yard building setback, the front yard landscaped area must be a minimum of 10 feet deep times the width of the lot. The applicant will need to provide a calculation to show this requirement is met.

- **Buffer/Screening—**

1. Buffer Type C required along entire length of the northern property line adjacent to A-1 property/use (City cemetery).
 - Staff understands the intent to split off the undeveloped rear of the site for other purposes. However, Staff must evaluate requirements based on the existing site.
 - Buffering would be required against this development if the property is joined to the cemetery property to the north, whether that is ultimately on the west property line (proposed condition) or the north property line (existing condition).
2. The Redbud tree species may not meet minimum height requirement for canopy tree. Minimum mature height for a canopy tree is 40 FT.
3. Staff requests some evergreen trees be incorporated into the required buffer yard for year-round screening.
4. As a reminder note, any rooftop and ground-mounted equipment must be screened from view.

- **Architectural—**

1. As a reminder, elevations visible from a right-of-way are required to contain at least 25% windows. Calculated by overall wall area.
 - A maximum of 20% of any window area is permitted to be spandrel or blackout glass.

C. Department Comments

- **Fire Department:** Fire reserves the right for further review with formal building permit submittal.
- **Police Department:** No comment.
- **Engineering/Public Works Department:**
 1. General:
 - Show fire pit location.
 - Drainage calculations and SWP3 has been submitted for review, when comments are returned / if any will forward to all for review
 2. Cover Sheet:
 - Add City of Monroe as owner of water main
 - Revise / adjust gas ownership
 3. Sheet C201/C204 (and affected others)
 - Existing storm structure #21 (42" stm inlet) may require field corrections to stabilize open swale at outlet, potential concrete inlet structure placed.
 - Request sanitary review by Butler Co.
 - Should this entrance require a Sb right turn lane similar to the facility to the south at Overlook?
 4. Sheet C300/301 (and other swp3 storm sheets)
 - Drainage calculations and SWP3 has been submitted for review, when comments are returned / if any will forward to all for review
 - The construction entrance requires revisions to meet OEPA / City specification of 70' long and 8" thickness of #2 stone
 - Plans may not show an emergency overflow weir

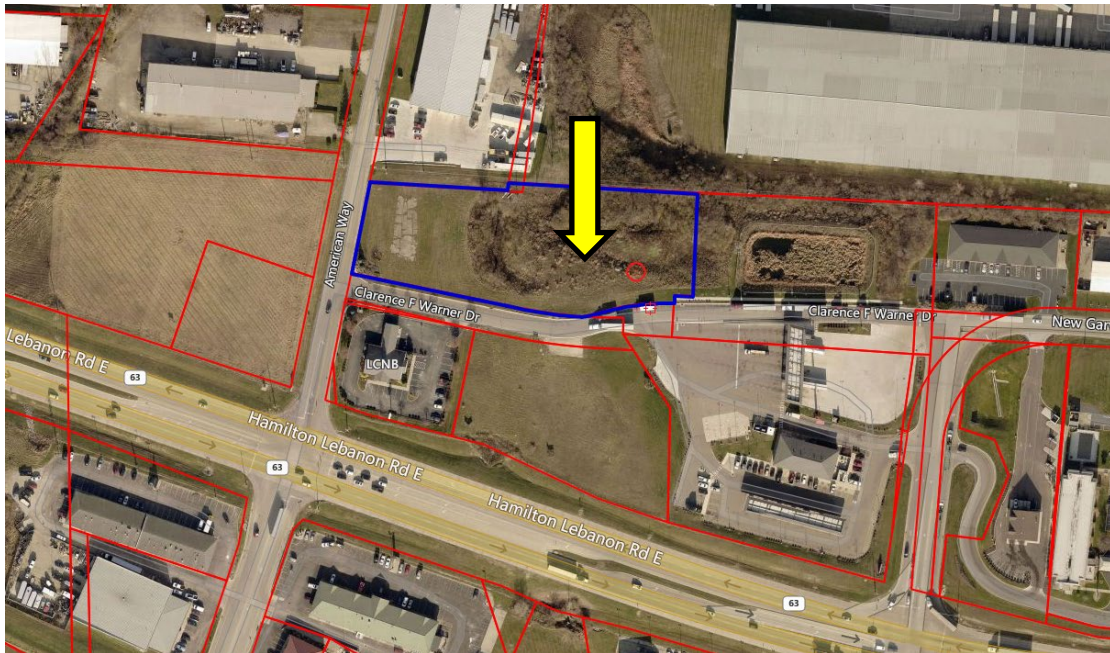
D. Staff Recommendation

- Staff recommends approval of the site plan application with the following conditions:
 1. As a reminder, all ground mounted and rooftop equipment must be appropriately screened as approved by Staff.
 2. The landscaping plan be revised to address staff report comments.
 3. All landscaping must meet all minimum species and size requirements and detailed appropriately on the plan.
 4. All Engineering review comments be addressed.
 5. The applicant will be responsible for maintenance (mowing, etc.) of the right-of-way adjacent to the developed site once improvements are complete.
 6. Digital files of final plans compatible with City GIS be submitted.
 7. All other Staff comments be met.

III. Case No. 2022-1-2— Consideration of a Site Plan for CCC- North

A. Background

- Christian Stone, on behalf of Cincinnati Commercial Contracting, has submitted a site plan application for a new single story office and speculative commercial space to be located at Clarence F. Warner Drive.
- The applicant is proposing a 6,254 square foot single story office building with 27-space parking lot.
- The site is approximately 2.4 acres currently zoned C-2 General Commercial.
- The applicant anticipates a March construction start date and May finish date.



Overhead View of Property



Zoning Map of Proposed Site and Surrounding Properties



Looking Northwest towards the site from Clarence F. Warner Dr near Speedway



Heading Eastbound on Clarence F. Warner Dr



Looking East towards the site from American Way

B. Staff Comments

- **Parking –**

1. As the site is multiuse, parking calculations are based on sum of all anticipated uses. The applicant has one use currently identified, categorized as Office, with the remaining space categorized as retail/commercial.
2. 22 total parking stalls are required. With 10% variance granted by right, this site is permitted no more than 24 parking stalls. The applicant has proposed 27 parking spaces.

- **Sidewalks—**

1. Code requires sidewalks along all portions of a parcel that front a public or private street as well as a sidewalk connection to the building/use.
 - A 5-foot wide sidewalk is required along American Way frontage.

- **Landscaping –**

1. Street trees shall be required every 40 foot on center in the ROW at all new sites along all frontages.
 - The applicant currently shows approximately 13 canopy trees that could be/appear to be placed to meet this requirement, though all are shown outside the public right-of-way.
 - Based on approximately 720 feet of frontage, 18 street trees are required in the tree lawn on American Way and Clarence F. Warner Drive.
2. 20% of front yard area to be landscaped with a minimum 6 FT landscape bed directly adjacent to the right-of-way along Clarence F. Warner Drive and American Way. This requirement may be used to help fulfill the perimeter landscaping requirement.
 - As C-2 lots are required a 50-foot front yard building setback, the front yard landscaped area must be a minimum of 10 feet deep times the width of the lot on both Clarence F Warner Drive and American Way frontages. The applicant will need to provide a calculation for this requirement.
3. Please provide installation height of the Japanese Spirea proposed for the landscape islands.

C. Department Comments

- **Fire Department:** Fire reserves the right for further review with building permit submittal.
- **Police Department:** No comment.
- **Engineering/Public Works Department:**
 1. General:
 - Show fire pit location.
 - Drainage calculations and SWP3 has been submitted for review, when comments are returned/if any will forward to all for review.
 2. Cover Sheet:
 - Update utility table to include City of Monroe for water/storm and swp3.
 - Index will need to include water main crossing at Clarence F Warner Dr and American Way.
 - Index will need to include MOT plans for American and Clarence F Warner Dr.
 - Notes will need to include MOT.
 - Notes will need to include water main.
 - Std Drawings: City will supply a list and copy of supplemental standard drawings for attachment/reference (more than currently listed).
 - Construction sequence will need to be revised to show construction drive entrance constructed first.
 3. Sheet C-1.1:
 - Revise ODOT CMS specs to 2019 or latest revision/edition.
 - Storm sewer notes potential revisions.
 4. Sheet C-1.2:
 - This sheet is in need of revisions to meet City specifications on inspections, roadway excavations, materials, etc.
 5. Sheet C-2:
 - Existing conditions plan need revisions to show actual water main locations at American Way and include all perimeter valving, etc. LCNB bank plans completed by CCC previously show water main loop across Clarence F Warner Dr Drive, actual locations do not support this as evidenced during installation of Arby's water line. Revisions needed to plans or confirmation of completion needs to be shown and provided.
 - Revise plans to include walk on south side of Clarence F Warner Dr.
 6. Sheet C-3/C-3.1 (and other affected sheets)
 - Plan need revisions to show actual water main locations at American Way and include all perimeter valving, etc.
 - Revise plans to correct driveway apron to City std.
 - Plans need to include corrections on ADA ramp at SE corner of Clarence F Warner Drive.
 - Plans need to include extension of public walk along American Way from Clarence F Warner Drive to north property line.

D. Staff Recommendation

- Staff recommends approval of the site plan application with the following conditions:
 1. As a reminder, all ground mounted and rooftop equipment must be appropriately screened as approved by Staff.
 2. The landscaping plan be revised to address the staff report comments.
 3. All landscaping must meet all minimum species and size requirements and detailed appropriately on the plan.
 4. All Engineering review comments be addressed.
 5. The applicant will be responsible for maintenance (mowing, etc.) of the right-of-way adjacent to the developed site once improvements are complete.
 6. Digital files of final plans compatible with City GIS be submitted.
 7. 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/Case 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: Gateway Blvd. & S.R. 63, Monroe, OH 45036

County: ☐ Butler ☒ Warren

Total Lot Area: 6.53 AC.

County Tax Parcel ID: 11-05-300-018

Project/Development Name: Thorntons - Monroe

Existing Zoning District: C-2

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

Applicant Information

Applicant Name: Thorntons, LLC

Contact Person: Gregg Bennett

Contact Address: 1100 Envoy Circle, Louisville, KY 40299

Contact Phone Number: 502-365-9950

Contact Fax Number: 513-779-7852

Contact E-Mail: gregg.bennett@kleingers.com

Property Owner Name: Corridor 75 Park, LTD

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: 11-05-300-018

Additional Project Information

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

No existing use, vacant land.

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.

Proposed 5,600 S.F. Thorntons Travel Center Pump 'n Go with Deisel fueling options. Proposed 32 Auto spaces including 2 ADA spaces. Proposed 0 truck parking spaces. Proposed construction of shared use entrance for the property adjoining to the south. Relocation of existing electric and gas infrastructure and easements is proposed.

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

Start Date: May 2022

Completion Date: May 2023

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

\$30,000,000

5) Check any relevant procedural reviews applicable to this project:

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

If you checked any of the above procedures, please provide specific details on what you are seeking to have approved through the applicable review procedure? Provide the application/case numbers for any related applications.

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.

ODOT - Encroaching ROW with RI/RO entrance/exit
OEPA - Water Quality Approvals

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: Gregg Bennett

Signature:

Date: 12/20/2021

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: LENNY ROBINSON, Agent

Signature:

Date: 12/20/2021

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 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.

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 on 11" x 17" or otherwise noted
☐	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

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.

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

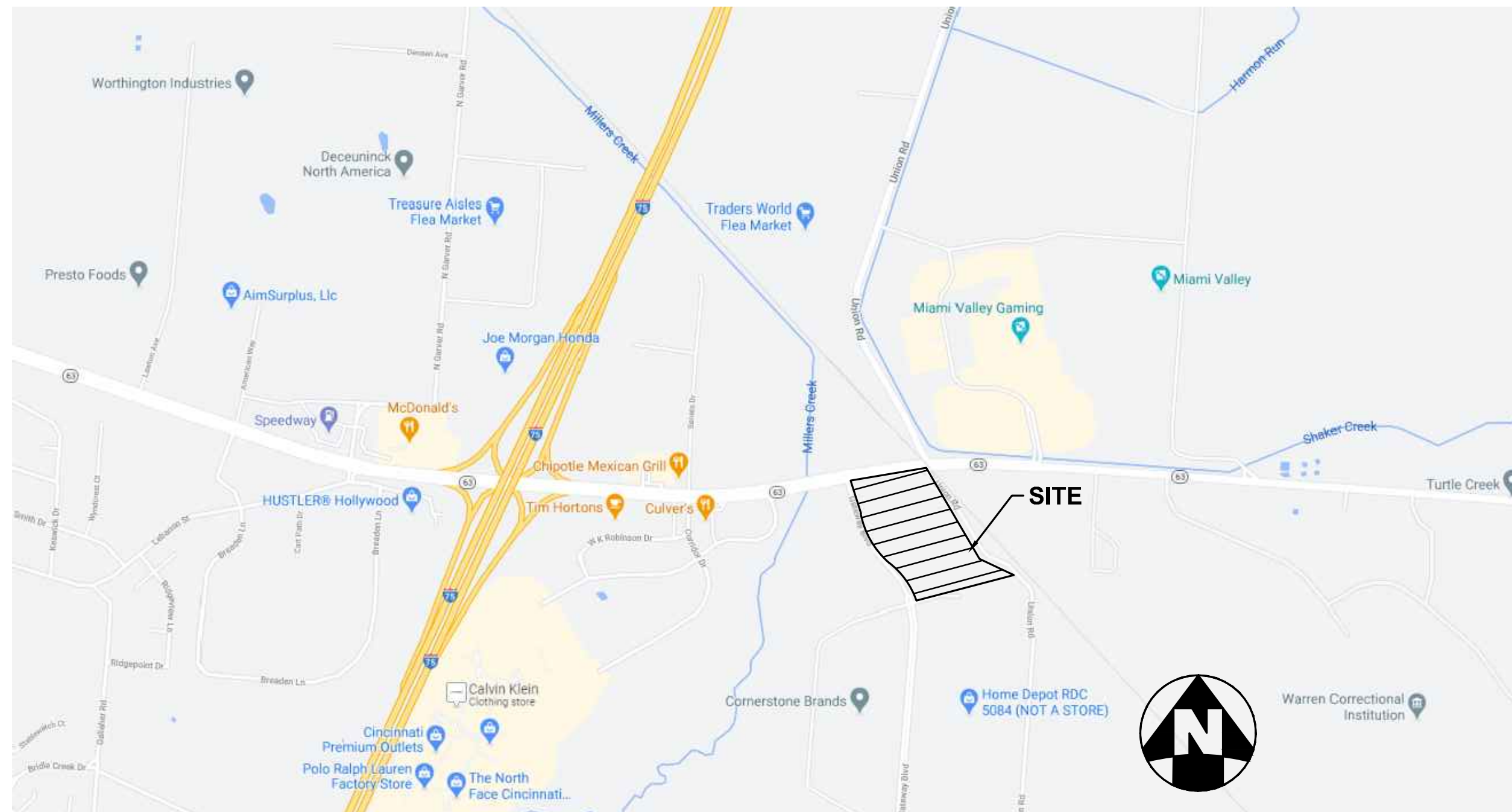
Submittal Requirement Checklist

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 side facing a public street, alley, public open space, or public building, 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)

THORNTONS

GATEWAY BLVD. & S.R. 63
CITY OF MONROE
WARREN COUNTY, OH 45036



SITE LOCATION MAP
N.T.S.

ENGINEER:



CIVIL ENGINEERING
SURVEYING
LANDSCAPE
ARCHITECTURE

www.kleingers.com
1100 Envoy Circle
Louisville, KY 40299
502.365.9950

ARCH

LUCKETT & FARLEY
JIM VAUGHN
737 S. 3rd St.
LOUISVILLE, KY 40202
(502) 585-4181

GEO

PROFESSIONAL
SERVICE INDUSTRIES,
INC.
4960 VULCAN AVE.
COLUMBUS, OH 43228

MEP

LUCKETT & FARLEY
JIM VAUGHN
737 S. 3rd St.
LOUISVILLE, KY 40202
(502) 585-4181

STRC

LUCKETT & FARLEY
JIM VAUGHN
737 S. 3rd St.
LOUISVILLE, KY 40202
(502) 585-4181

SURVEY

CESO
3601 RIGBY ROAD
SUITE 300
MIAMISBURG, OH 45342
(936) 435-8584

ENVRN

PROFESSIONAL
SERVICE INDUSTRIES,
INC.
4960 VULCAN AVE.
COLUMBUS, OH 43228
(513) 574-9500

LIGHTING

RED LEONARD
TODD SHIELDS
1340 KEMPER
MEADOW DRIVE
FOREST PARK, OH
(513) 574-9500

SIGNAGE

TEXAS REPUBLIC
SIGNS
TODD HALTOM
2211 PECH RD
HOUSTON, TX 77055
(832) 727-5415

FUEL

DIAMOND Z
ENGINEERING
JASON HRABUSA
5670 STATE ROAD
CLEVELAND, OH 44134
(440) 842-6501

CANOPY

McGEE CORPORATION
TOM HAGOOD
1921 FAIRGROVE AVE
INDEPENDENCE BLVD,
MATTHEWS, NC 28106
PO BOX 1375
(704) 882-3263

OWNER:

THORNTONS LLC.
2600 JAMES THORNTON WAY
LOUISVILLE, KY 40245
PHONE (502) 425-8022

WATER

CITY OF MONROE -
PUBLIC WORKS
DEPARTMENT
JOHN BODIKER
1000 HOLMAN DRIVE,
MONROE, OH 45050
(513) 727-8953

SANITARY

BUTLER COUNTY
RICHARD SMITH
130 HIGH ST.,
HAMILTON, OH 45011
(513) 887-3064
Richard.Smith@bcchoio.us

STORM

CITY OF MONROE -
PUBLIC WORKS
DEPARTMENT
JOHN BODIKER
1000 HOLMAN DR.,
MONROE, OH 45050
(513) 727-8953

EROSION

CITY OF MONROE -
PUBLIC WORKS
DEPARTMENT
JOHN BODIKER
1000 HOLMAN DR.,
MONROE, OH 45050
(513) 727-8953

ZONING

CITY OF MONROE
DEPARTMENT OF
DEVELOPMENT
KEVIN CHESAR
233 S. MAIN ST.,
MONROE, OH 45050
(513) 539-7374
chesark@monroeohio.org

LIST OF CONTACTS

ELECTRICAL

DUKE ENERGY
GORDON THOMSON
(513) 458-3804
Gordon.Thomson@
duke-energy.com

TELECOM.

AT&T
(888) 994-0447

GAS

DUKE ENERGY
GORDON THOMSON
(513) 458-3804
Gordon.Thomson@
duke-energy.com

BUILDING

CITY OF MONROE
BUILDING AND ZONING
DEPARTMENT
233 S. MAIN ST.,
P.O. BOX 330,
MONROE, OH 45050-0330
(513) 539-7374
planning@monroeohio.org

ROAD

BUTLER COUNTY
ENGINEERING OFFICE
1921 FAIRGROVE AVE
(OHIO 4), HAMILTON,
OHIO 54011-1965
GREG WILKENS
(513) 867-5744
info@bceo.org

HIGHWAY

OHIO DEPARTMENT OF
TRANSPORTATION
DISTRICT NO. 8
505 SOUTH S.R. 741,
LEBANON, OH 45036
DOUG GRUVER
(513) 933-6606
Doug.Gruver@dot.ohio.gov

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C2.0	DEMOLITION PLAN
C3.0	OVERALL SITE PLAN
C4.0	EROSION CONTROL PLAN
C4.1	EROSION CONTROL NOTES
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C4.3	EROSION CONTROL DETAILS
C5.0	GRADING & DRAINAGE PLAN
C5.3	ADA PLAN
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C5.6	SIGHT TRIANGLES
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REVISIONS	
NO.	DATE DESCRIPTION

DESIGN PROFESSIONAL:	REGISTRATION NUMBER:	DATE:

MONROE THORNTONS		DESIGN: JPS	DRAFTING: PDT
		SCALE: 1" = 20'	DATE: 10/16/2020
COVER SHEET			



GATEWAY BLVD. & SR-63
MONROE, OH 45036



C0.0



UTILITY NOTE
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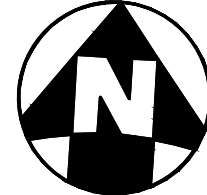
- LEGEND**
- BENCHMARK
 - IRON PIN FOUND (SIZE SHOWN HEREON)
 - 5/8" IRON PIN SET (WITH CAP STAMPED)
 - PROPERTY LINE
 - CONCRETE MONUMENT FOUND
 - SOIL BORING
 - BASKET BALL HOOP
 - STUMP
 - DOUBLE POST SIGN
 - UTILITY POLE
 - GUY WIRE
 - A/C UNIT
 - ELECTRIC BOX
 - LIGHT POLE
 - ELECTRIC MANHOLE
 - PULL BOX
 - TELEPHONE MANHOLE
 - GAS VALVE
 - GAS METER
 - WATER METER
 - WATER VALVE
 - FIRE HYDRANT
 - IRRIGATION CONTROL VALVE
 - DOWNSPOUT
 - CATCH BASIN
 - INLET
 - STORM MANHOLE
 - YARD DRAIN
 - SANITARY MANHOLE
 - CLEAN OUT
 - TRAFFIC SIGNAL POLE
 - FENCE LINE
 - TREE LINE
 - UNDERGROUND ELECTRIC
 - OVERHEAD UTILITIES
 - GAS LINE
 - WATERLINE
 - SANITARY SEWER
 - STORM SEWER
 - BUSH
 - HARDWOOD TREE
 - SOFTWOOD TREE
 - ASPHALT
 - CONCRETE
 - GRAVEL
 - LANDSCAPE
 - EASEMENT LINE
 - SETBACK LINE
 - FLOODPLAIN LINE

NOTES:
1. SURVEY WAS PREPARED BY OTHERS. ANY QUESTIONS REGARDING CONTROL POINTS, ACCURACY, OR OTHER ISSUES SHOULD BE DIRECTED TO BAUMANN LAND SURVEY INCORPORATED.

HORIZONTAL DATUM:
DRAWING BEARINGS ARE AT STATE PLANE GRID (NAD83, 2011, OHIO SOUTH ZONE 3402) BASED ON MULTIPLE STATIC GPS OBSERVATIONS DATED 07.01.2020 AS PROCESSED BY THE NGS OPUS-RS WEBSITE.

COORDINATES ARE AT GROUND SCALED FROM THE STATE PLANE COORDINATE AT 0.0 USING THE AVERAGE COMBINED FACTOR 0.999909787

VERTICAL DATUM:
NAVD88 BASED ON NETWORK RTK GPS OBSERVATIONS AT WARREN COUNTY CONTROL MONUMENT NO. 169



REVISIONS	
NO.	DATE DESCRIPTION

DESIGN PROFESSIONAL:	REGISTRATION NUMBER:
	DATE:

MONROE THORNTONS		DESIGN: JPS	DRAFTING: PDT
		SCALE: 1" = 20'	DATE: 10/16/2020
EXISTING CONDITIONS			

Thorntons

GATEWAY BLVD. & SR-63
MONROE, OH 45036



C1.0



UTILITY NOTE
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DEMOLITION KEY

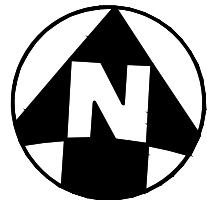
- SAWCUT PAVEMENT/CONCRETE EDGE WHERE PROPOSED CONCRETE APRON IS TO MATCH EX. ASPHALT PAVEMENT, SAWCUT CRACKED OR DAMAGED EX. PAVEMENT IN NEAT, STRAIGHT LINES TO CREATE A CLEAN BUTT JOINT AND REMOVE DAMAGED PAVEMENT. COAT EDGE OF EX. PAVEMENT WITH ASPHALT PRIOR TO PLACING AND COVER JOINT WITH SEALANT.
- [Pattern] REMOVE EXISTING TREES

DEMOLITION KEY NOTES

- 1 REMOVE EXISTING TREES
- 2 REMOVE EXISTING STORM PIPE/STORM STRUCTURE
- 3 REMOVE EXISTING CONCRETE
- 4 REMOVE/RELOCATE EXISTING UTILITIES
- 5 EASEMENT TO BE ABANDONED
- 6 REMOVE/RELOCATE LIGHT POLE TO BE COORDINATED WITH ODOT
- 7 REMOVE/RELOCATE EXISTING SIGN TO BE COORDINATED WITH ODOT
- 8 REMOVE/RELOCATE EXISTING EASEMENT 25'

DEMOLITION GENERAL NOTES:

- 1. CONTRACTOR IS TO REMOVE ALL ABANDONED UTILITIES AND BACKFILL/COMPACT EXCAVATION.
- 2. CONTRACTOR SHALL ARRANGE FOR A SURVEYOR TO STAKE NEW SERVICE LOCATIONS.
- 3. CONTRACTOR SHALL COORDINATE ALL NECESSARY UTILITY VACATIONS AND CONNECTIONS WITH ALL ASSOCIATED UTILITY COMPANIES.
- 4. CONTRACTOR TO COORDINATE ANY WORK WITHIN RIGHT-OF-WAY WITH ODOT AND WARREN COUNTY HIGHWAY DEPARTMENT.
- 5. CONTRACTOR TO REMOVE, CAP, AND PLUG ALL EXISTING RESIDENTIAL/COMMERCIAL BUILDING UTILITY SERVICES AS NECESSARY. REPORT ANY DISCREPANCIES TO ENGINEER.
- 6. CONTRACTOR SHALL FIELD LOCATE ALL UTILITIES PRIOR TO COMMENCING DEMOLITION AND EXCAVATION ACTIVITY.



REVISIONS	
NO.	DATE DESCRIPTION

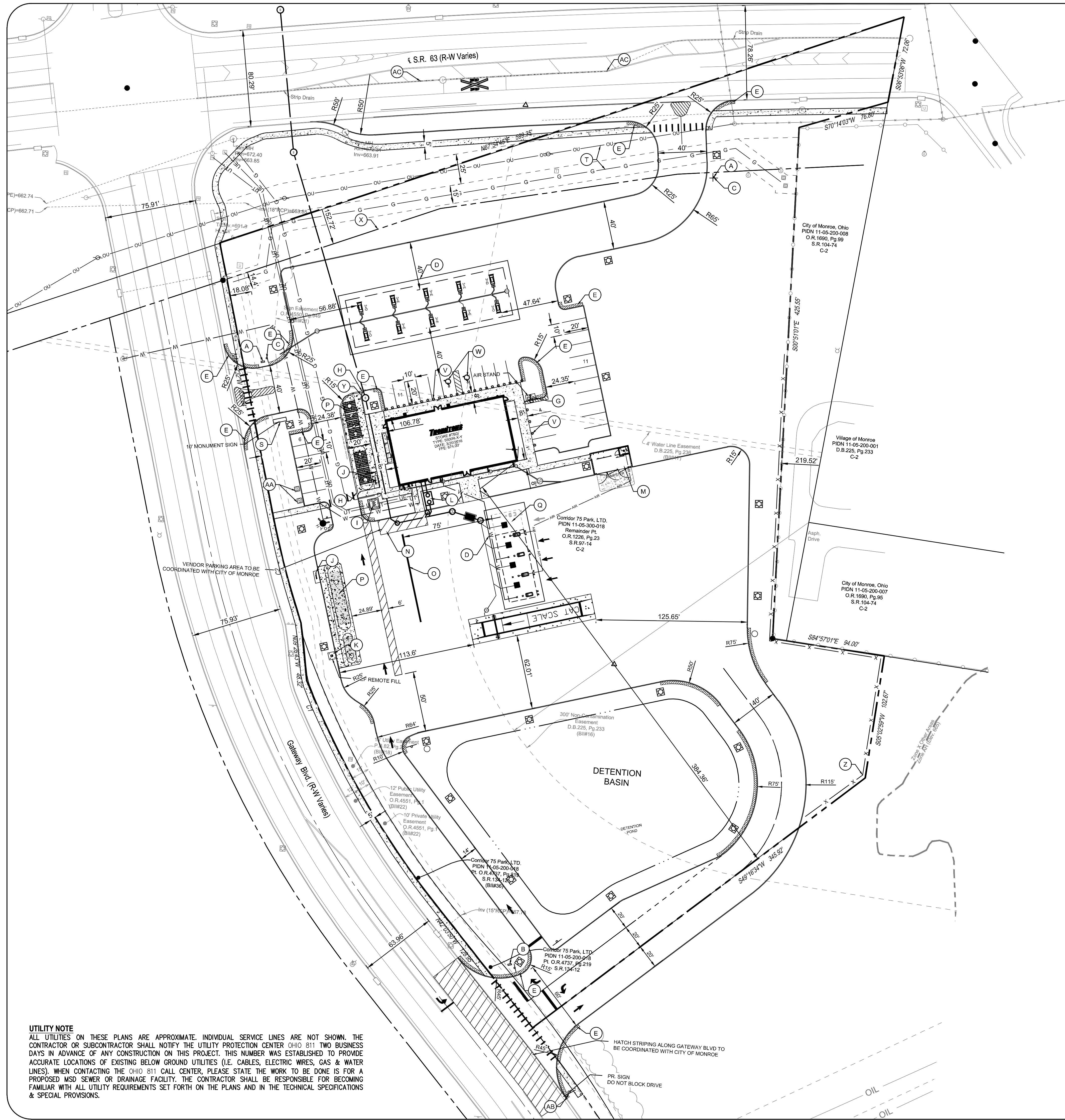
DESIGN PROFESSIONAL:	REGISTRATION NUMBER:

MONROE THORNTONS		DRAFTING: PDT	DATE: 10/16/2020
DESIGN: JPS		SCALE: 1" = 20'	
DEMOLITION PLAN			

GATEWAY BLVD. & SR-63
MONROE, OH 45036



C2.0



UTILITY NOTE
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SITE LEGEND

- A. DIRECTIONAL SIGNAGE - AUTO ENTRANCE - NO TRUCKS.
- B. DIRECTIONAL SIGNAGE - TRUCK ENTRANCE & EXIT
- C. MUTCD SIGNAGE - RIGHT OUT ONLY.
- D. HEAVY-DUTY CONCRETE REINFORCED SLAB WITH 5' BUFFER AROUND THE OUTSIDE BEYOND CANOPY DRIP EDGE.
- E. PROPOSED HARDSCAPE. REFER TO THORNTONS STANDARD DETAIL.
- F. BEGIN/END TRUCK CURB. REFER TO THORNTONS STANDARD DETAIL.
- G. PROPOSED AIR SERVICE ISLAND.
- H. BEGIN/END MOUNTABLE CURB. REFER TO THORNTONS STANDARD DETAIL.
- I. PROPOSED TRANSFORMER LOCATION.
- J. UST VENT STACK LOCATION.
- K. REMOTE FILL LOCATION.
- L. PROPOSED GREASE TRAP.
- M. PROPOSED THORNTONS DUMPSTER ENCLOSURE.
- N. VENDOR DELIVERY PARKING.
- O. PROPOSED DIESEL PULL FORWARD LINE.
- P. UNDERGROUND STORAGE TANKS.
- Q. FUTURE CANOPY EXPANSION.
- R. NOT USED.
- S. 10' MONUMENT SIGN.
- T. PROPOSED UTILITY RELOCATION, INCLUDING RELOCATION OF GAS & ELECTRIC EASEMENTS.
- U. PROPOSED RETAINING WALL.
- V. PIPE BOLLARDS.
- W. ADA ACCESSIBLE PARKING SPACE.
- X. ROW LINE.
- Y. TYPE "D" CURB. REFER TO THORNTONS STANDARD DETAIL.
- Z. 8' CHAIN LINK FENCE.
- AA. FUTURE ELECTRIC VEHICLE CHARGING STATION.
- AB. MUTCD SIGNAGE - DO NOT BLOCK DRIVE
- AC. BEGIN/END FLEXIBLE DELINEATOR POSTS.

PROPOSED 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
- PROPOSED LIGHT POLE
- ADDITIONAL HARDSCAPE

LOCATION NOTES

- ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT AND/OR BACK OF CURB, UNLESS OTHERWISE NOTED.
- ALL RADII ARE 5' AND TO FACE OF CURB UNLESS OTHERWISE NOTED.
- PARKING LOT STRIPING SHALL BE 4" WIDE YELLOW HIGHWAY-TYPE STRIPING APPLIED IN ACCORDANCE WITH THE PLAN.
- REFER TO LANDSCAPE PLAN FOR PROPOSED LANDSCAPING LOCATION AND DETAILS.
- LIGHT POLES AND LANDSCAPE LIGHTING ARE SHOWN FOR COORDINATION PURPOSES ONLY. SEE ELECTRICAL/PHOTOMETRIC PLAN FOR DETAILS.

	Required	Provided
Building Setback		
Front: NORTH	50	152.72
Rear: SOUTH	5	384.36
Side: WEST	50	106.78
Side: EAST	5	219.52
Parking		
Minimum	39	32
Maximum	N/A	N/A
Truck/Trailer Parking	N/A	N/A
Accessible/Van Accessible	2	2
Land Use Data		
Max. Building Height	1 STORY	1 STORY
Zoning Category/Zoning Agency	C-2	C-2
Zoning Category 1	N/A	N/A
Zoning Category 2	N/A	N/A
Total Site Area	N/A	6.53 AC.
Building Area	N/A	5,635 S.F.
Existing Building Area	N/A	0 S.F.
Onsite Vehicular Circulation (paved)	N/A	109,690 S.F.
Onsite Open Space	N/A	134,245 S.F.
Onsite Site Sidewalk	N/A	5,425 S.F.
Tank Pad Area	N/A	3,310 S.F.
Canopy Area	N/A	6,728 S.F.
Off-site sidewalk area	N/A	4,966 S.F.
Driveway apron/turnout area	N/A	6,962 S.F.
Off-site roadway improvements	N/A	7,726 S.F.

REVISIONS	
NO.	DESCRIPTION

DESIGN PROFESSIONAL:	REGISTRATION NUMBER:

DATE:

MONROE THORNTONS

DESIGN: JPS
DRAFTING: PJD
DATE: 10/16/2020

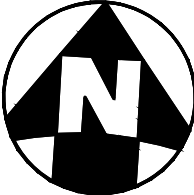
OVERALL SITE PLAN

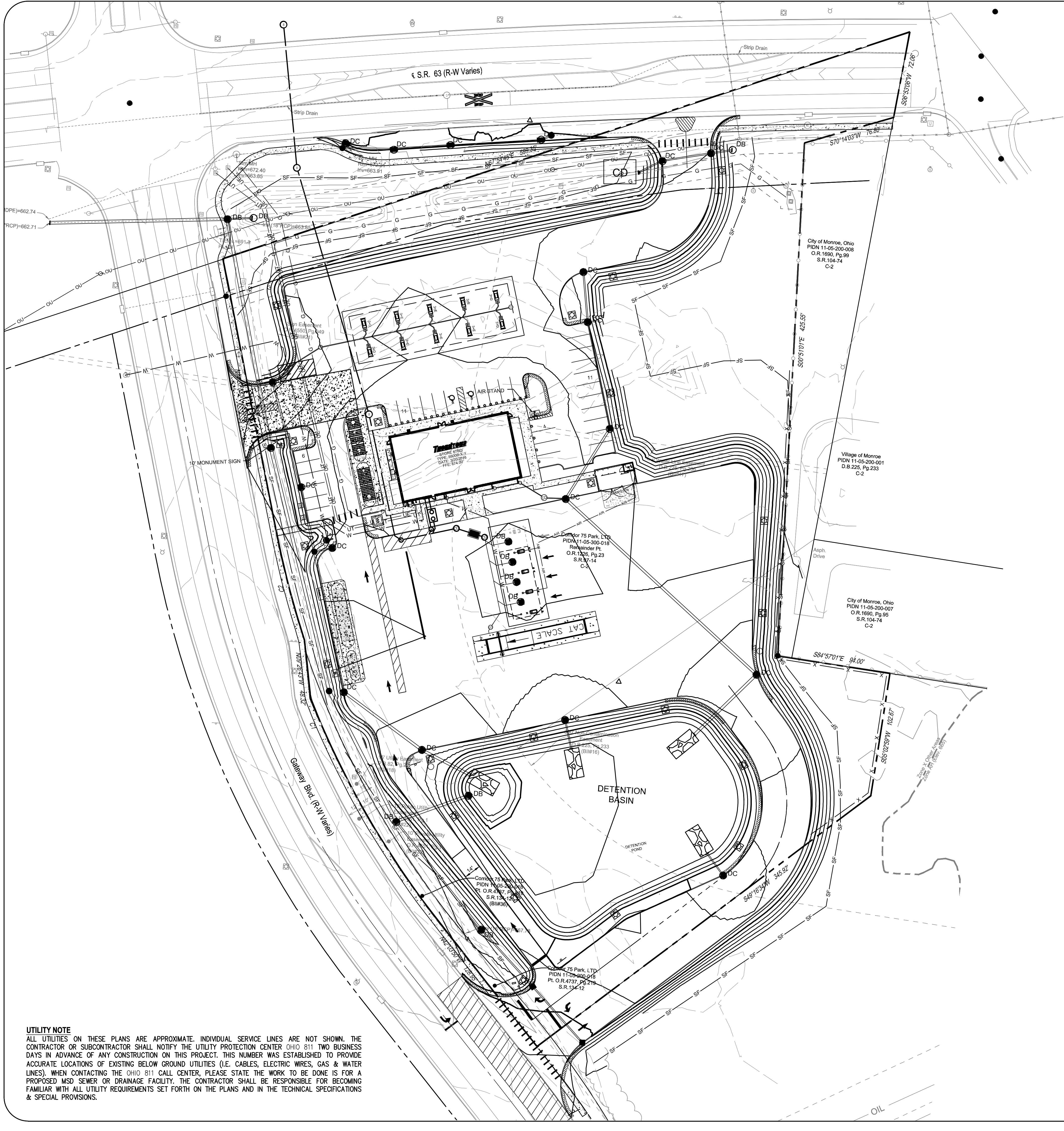
Thorntons

GATEWAY BLVD. & SR-63
MONROE, OH 45036

STATE OF OHIO
PATRICK S. WARNEUM
REGISTERED PROFESSIONAL ENGINEER
Peter Warner

C3.0





UTILITY NOTE
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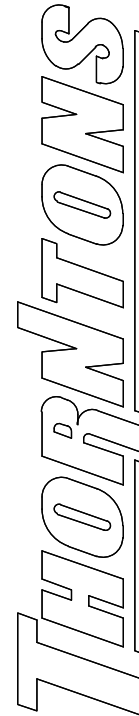
EROSION CONTROL LEGEND

- SF SILT FENCE (2/C4.3)
- STABILIZED CONSTRUCTION ENTRANCE (1/C4.2)
- DB INLET PROTECTION (3/C4.2)
- DC CURB INLET PROTECTION (7/C4.2)
- CONCRETE WASHOUT (2/C4.2)
- CD ROCK CHECK DAM (1/C4.3)
- ROCK OUTLET PROTECTION (6/C4.2)

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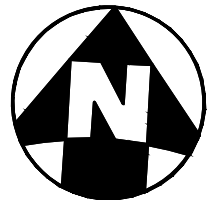
MONROE THORNTONS		
EROSION CONTROL PLAN		DRAFTING: PDT
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GATEWAY BLVD. & SR-63
MONROE, OH 45036



C4.0



PROJECT DESCRIPTION
THORNTONS IN CITY OF MONROE, TURTLECREEK TOWNSHIP, WARREN COUNTY, OHIO INCLUDING BUILDING, PARKING LOT, SIDEWALK, AND ASSOCIATED UTILITIES.

PROJECT DATA	
TOTAL SITE AREA:	6.53 ACRES
TOTAL DISTURBED AREA:	6.94 ACRES
PROPOSED IMPERVIOUS AREA:	4.52 ACRES
PERCENTAGE OF CREATED IMPERVIOUS AREA:	100%
RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION:	C=0.35
RUNOFF COEFFICIENT FOR POST-CONSTRUCTION:	C=0.64
PRIOR LAND USE:	OPEN FIELD
RECEIVING WATER:	MILLERS CREEK
ESTIMATED CONSTRUCTIONS DATES:	JUNE 2021 - JUNE 2022
SOIL TYPES, DESCRIPTIONS:	PATTON SILT LOAM (PB), SILTED; PATTON SILT CLAY LOAM (Po), 0-2% SLOPES

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 2008. 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. ALL SUBCONTRACTORS SHALL SIGN THE NOI.

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 ODMR "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 OWNER 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.

OPERATION SEQUENCE FOR TEMPORARY AND PERMANENT BMP INSTALLATION

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:

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

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.: OHC000004. (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.: OHC000004. (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
DISTURBED AREAS THAT WILL BE IDLE OVER WINTER	FOR RESIDENTIAL SUBDIVISIONS, DISTURBED AREAS MUST BE STABILIZED AT LEAST SEVEN DAYS PRIOR TO TRANSFER OF PERMIT COVERAGE FOR THE INDIVIDUAL LOT(S).
	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 3 TONS/AC, OR 138 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 THREE 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:

- 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.
- 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.
- ASPHALT EMULSION-FOR STRAW MULCH, APPLY AT THE RATE OF 160 GAL./AC. (0.1 GAL./SY) INTO THE MULCH AS IT IS BEING APPLIED OR AS RECOMMENDED BY THE MANUFACTURER.
- 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.

TEMPORARY SEEDING & MULCHING FOR EROSION CONTROL		
SEED TYPE	PER 1000 SQ FT	PER ACRE
PERENNIAL RYEGRASS	1 POUND	40 POUNDS
TAI 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

WINTER SEEDING & MULCHING

WINTER SEED AND MULCH IS REQUIRED FOR EARTH DISTURBANCE ACTIVITY OPERATIONS OCCURRING BETWEEN OCTOBER 15 AND MARCH 15 AND CAN ONLY BE INSTALLED DURING THAT TIME. ALL STRAW MULCH INCLUDED IN THIS WORK MUST BE EITHER CRIMPED IN PLACE OR INSTALLED WITH A BIODEGRADABLE BONDED FIBER MATRIX. CRIMPED MULCH IS REQUIRED TO BE ANCHORED INTO THE SOIL SURFACE WITH A MECHANICAL CRIMPING IMPLEMENT OR OTHER SUITABLE IMPLEMENT APPROVED BY THE ENGINEER. THE MULCH INCLUDED IN THIS WORK MUST BE CAPABLE OF PROVIDING SUFFICIENT DURABLE PROTECTIVE COVER THAT PROVIDES OEPA NPDES PERMIT COMPLIANT EROSION CONTROL FOR A MINIMUM OF 6 MONTHS. THE USE OF OTHER SEED AND/OR MULCH MATERIALS IN THIS TIME PERIOD REQUIRES SPECIFIC APPROVAL BY THE ENGINEER. THE USE OF WINTER SEEDING AND MULCHING IS NOT AN ACCEPTABLE PRACTICE FOR PROTECTING THE SUBGRADE SURFACE.

STOCKPILE

SILT FENCING SHALL BE INSTALLED AROUND TEMPORARY SPOIL STOCKPILES. THESE STOCKPILES SHALL BE STRAW MULCHED AND/OR TEMPORARILY SEEDED 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.

INSPECTIONS

ALL BMPs ON THIS SITE SHALL BE INSPECTED BY THE CONTRACTOR OR DESIGNATED REPRESENTATIVE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS 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:

- THE INSPECTION DATE;
- NAMES, TITLES, AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION;
- WEATHER INFORMATION FOR THE PERIOD SINCE THE LAST INSPECTION (OR SINCE COMMENCEMENT OF ONSTRUCTION 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;
- WEATHER INFORMATION AND A DESCRIPTION OF ANY DISCHARGES OCCURRING AT THE TIME OF THE INSPECTION;
- LOCATION(S) OF DISCHARGES OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE;
- LOCATION(S) OF BMPs THAT NEED TO BE MAINTAINED;
- LOCATION(S) OF BMPs THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION;
- LOCATION(S) WHERE ADDITIONAL BMPs ARE NEEDED THAT DID NOT EXIST AT THE TIME OF INSPECTION; AND
- CORRECTIVE ACTION REQUIRED INCLUDING ANY CHANGES TO THE SWP3 NECESSARY AND IMPLEMENTATION DATES.

THE PERMITTEE SHALL MAINTAIN A RECORD OF ALL INSPECTIONS FOR A PERIOD OF 3 YEARS FOLLOWING THE SUBMITTAL OF THE NOTICE OF TERMINATION.

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.

SPILL PREVENTION

MATERIAL MANAGEMENT PRACTICES:

THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF.

GOOD HOUSEKEEPING:

THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ONSITE DURING THE CONSTRUCTION PROJECT.

- AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.
- ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
- PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.
- SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
- WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
- MANUFACTURERS' RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
- THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ONSITE.

HAZARDOUS PRODUCTS:

THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS.

- PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
- ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED; THEY CONTAIN IMPORTANT PRODUCT INFORMATION.
- IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURERS' OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

SPILL CONTROL PRACTICES

IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

- ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY. MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.
- MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ONSITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.
- THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
- SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE. SPILLS OF 25 OR MORE GALLONS OF PETROLEUM WASTE MUST BE REPORTED TO OHIO EPA (1-800-282-9378), THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE WITHIN 30 MINUTES OF THE SPILL.
- SOILS CONTAMINATED BY PETROLEUM OR OTHER CHEMICAL SPILLS MUST BE TREATED/DISPOSED AT AN OHIO EPA APPROVED SOLID WASTE MANAGEMENT FACILITY OR HAZARDOUS WASTE TREATMENT, STORAGE OR DISPOSAL FACILITY (TSDF).
- THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.
- THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY-TO-DAY SITE OPERATIONS, WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. HE WILL DESIGNATE SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IN THE OFFICE TRAILER ONSITE.

PRODUCT SPECIFIC PRACTICES

THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ONSITE:

PETROLEUM PRODUCTS - ALL ONSITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ONSITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

FUEL STORAGE TANKS SHALL BE LOCATED AWAY FROM SURFACE WATERS AND STORM SEWER SYSTEM INLETS. FUEL TANKS SHALL BE STORED IN A DIKED AREA CAPABLE OF HOLDING 150% OF THE TANK CAPACITY.

FERTILIZERS - FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A COVERED SHED. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

PAINTS - ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURERS' INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

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.

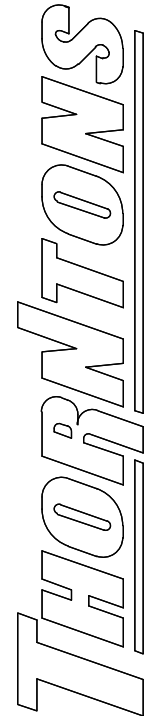
THE FOLLOWING SPECIFICATIONS FOR DUST CONTROL SHALL BE FOLLOWED ONSITE:

- 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.
- 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.
- SPRAY-ON ADHESIVES** - APPLY ADHESIVE ACCORDING TO THE FOLLOWING TABLE OR MANUFACTURERS' INSTRUCTIONS.

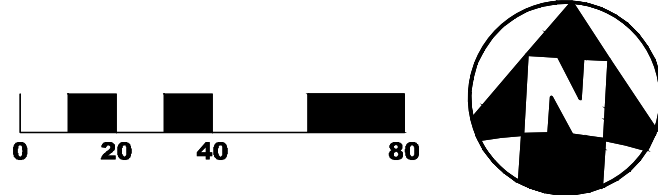
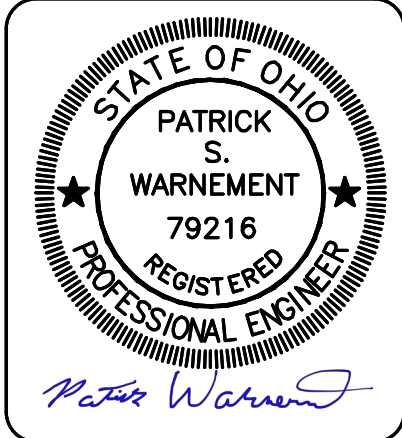
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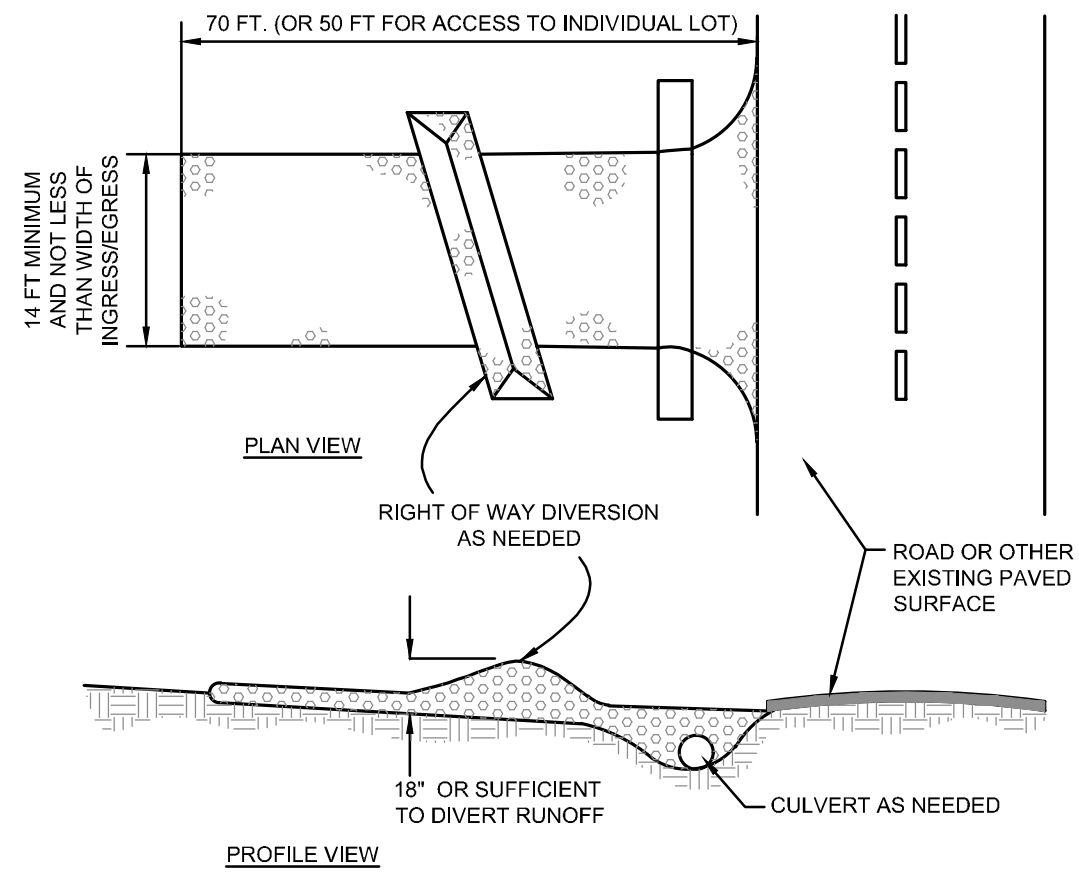
DESIGN PROFESSIONAL:	REGISTRATION NUMBER:	DATE:

MONROE THORNTONS	DRAFTING: PDT	DATE: 10/16/2020
	DESIGN: JPS	SCALE: 1" = 20'
EROSION CONTROL NOTES		



GATEWAY BLVD. & SR-63
MONROE, OH 45036

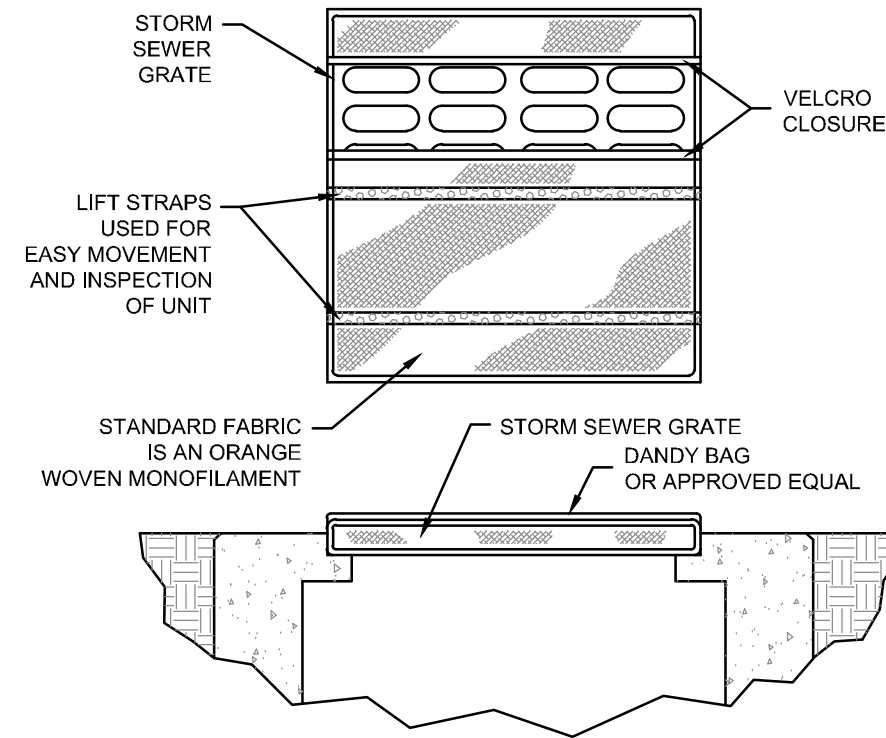




NOTES

- STONE SIZE - 1.5-2.5 INCH STONE SHALL BE USED, OR RECYCLED CONCRETE EQUIVALENT.
- LENGTH - THE CONSTRUCTION ENTRANCE SHALL BE AS LONG AS REQUIRED TO STABILIZE HIGH TRAFFIC AREAS BUT NOT LESS THAN 70 FT. (EXCEPTION: APPLY 30 FT. MINIMUM TO SINGLE RESIDENCE LOTS).
- THICKNESS - THE STONE LAYER SHALL BE AT LEAST 6 INCHES THICK FOR LIGHT DUTY ENTRANCES OR AT LEAST 10 INCHES FOR HEAVY DUTY USE.
- WIDTH - THE ENTRANCE SHALL BE AT LEAST 14 FEET WIDE, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
- GEOTEXTILE - A GEOTEXTILE SHALL BE LAID OVER THE ENTIRE AREA PRIOR TO PLACING STONE. IT SHALL BE COMPOSED OF STRONG ROT-PROOF POLYMERIC FIBERS AND MEET THE FOLLOWING SPECIFICATIONS:

MINIMUM TENSILE STRENGTH.....	200 LBS
MINIMUM PUNCTURE STRENGTH.....	80 LBS
MINIMUM TEAR STRENGTH.....	50 LBS
MINIMUM BURST STRENGTH.....	320 PSI
MINIMUM ELONGATION.....	20%
EQUIVALENT OPENING SIZE.....	EOS= 0.6MM
PERMITTIVITY.....	1X10 ⁻⁶ CM/SEC
- TIMING - THE CONSTRUCTION ENTRANCE SHALL BE INSTALLED AS SOON AS IS PRACTICABLE BEFORE MAJOR GRADING ACTIVITIES.
- CULVERT - A PIPE OR CULVERT SHALL BE CONSTRUCTED UNDER THE ENTRANCE IF NEEDED TO PREVENT SURFACE WATER FROM FLOWING ACROSS THE ENTRANCE OR TO PREVENT RUNOFF FROM BEING DIRECTED OUT ONTO PAVED SURFACES.
- WATER BAR - A WATER BAR SHALL BE CONSTRUCTED AS PART OF THE CONSTRUCTION ENTRANCE IF NEEDED TO PREVENT SURFACE RUNOFF FROM FLOWING THE LENGTH OF THE CONSTRUCTION ENTRANCE AND OUT ONTO PAVED SURFACES.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR THE WASHING AND REWORKING OF EXISTING STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY. THE USE OF WATER TRUCKS TO REMOVE MATERIALS DROPPED, WASHED, OR TRACKED ONTO ROADWAYS WILL NOT BE PERMITTED UNDER ANY CIRCUMSTANCES. TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITIONS DEMAND. MUD SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADS, OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS, SHALL BE REMOVED IMMEDIATELY. REMOVAL SHALL BE ACCOMPLISHED BY SCRAPING OR SWEEPING.
- CONSTRUCTION ENTRANCES SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES AND PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION-SITE SHALL BE RESTRICTED FROM MUDDY AREAS.
- REMOVAL - THE ENTRANCE SHALL REMAIN IN PLACE UNTIL THE DISTURBED AREA IS STABILIZED OR REPLACED WITH A PERMANENT ROADWAY OR ENTRANCE.



SPECIFICATIONS

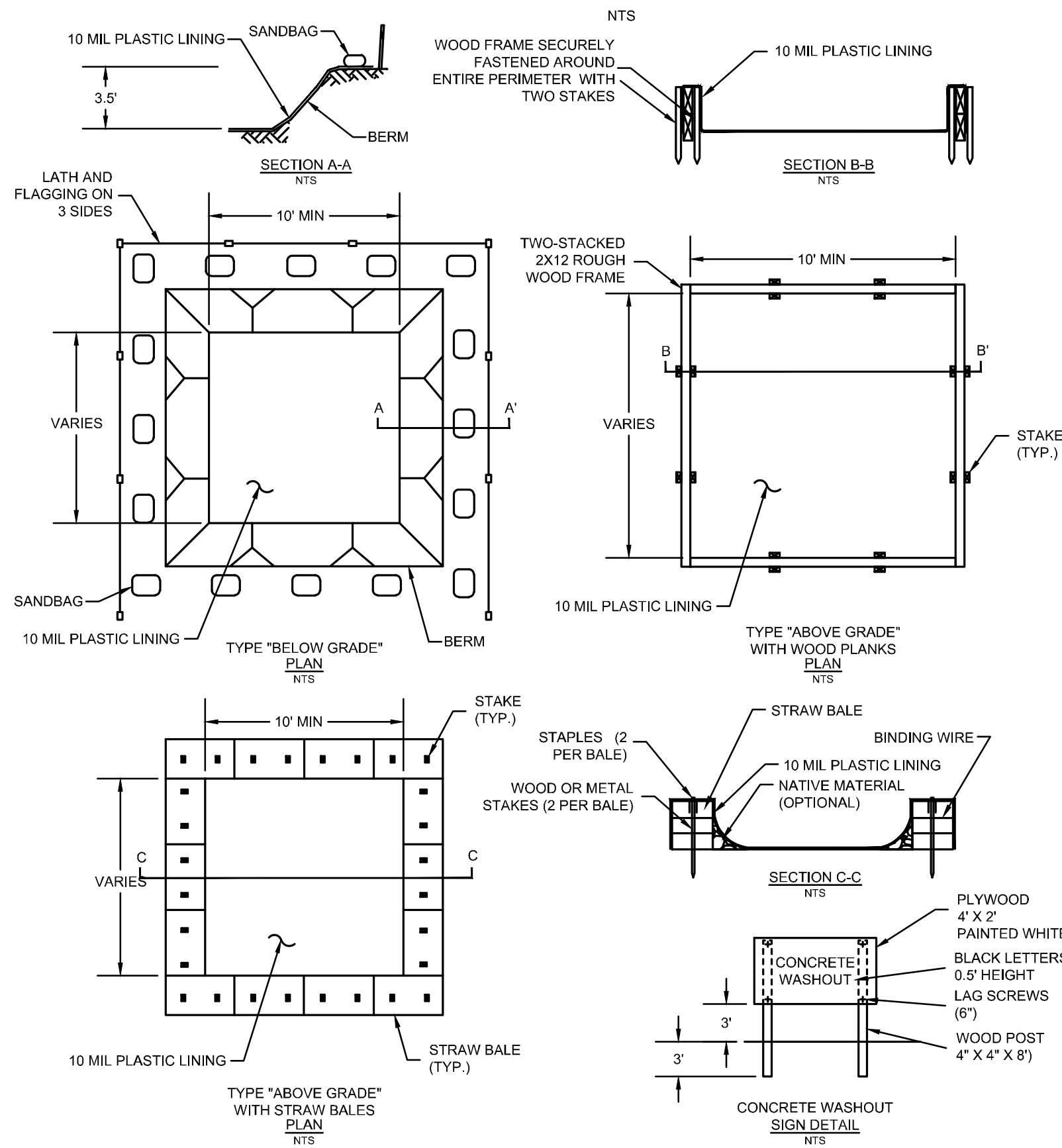
MECHANICAL PROPERTIES	TEST METHOD	UNITS	MARV
GRAB TENSILE STRENGTH	ASTM D 4632	KN (LBS)	1.62 (365) X 0.89 (200)
GRAB TENSILE ELONGATION	ASTM D 4632	%	24 X 10
PUNCTURE STRENGTH	ASTM D 4833	KN (LBS)	0.40 (90)
MULLEN BURST STRENGTH	ASTM D 3786	KPA (PSI)	3097 (450)
TRAPEZOID TEAR STRENGTH	ASTM D 4533	KN (LBS)	0.51 (115) X 0.33 (75)
UV RESISTENCE	ASTM D 4355	%	90
APPARENT OPENING SIZE	ASTM D 4751	MM (US STD SIEVE)	0.425 (40)
FLOW RATE	ASTM D 4491	1/MIN/M ² (GAL/MIN/FT ²)	5907 (145)
PERMITTIVITY	ASTM D 4491	SEC ⁻¹	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-GRADE 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.

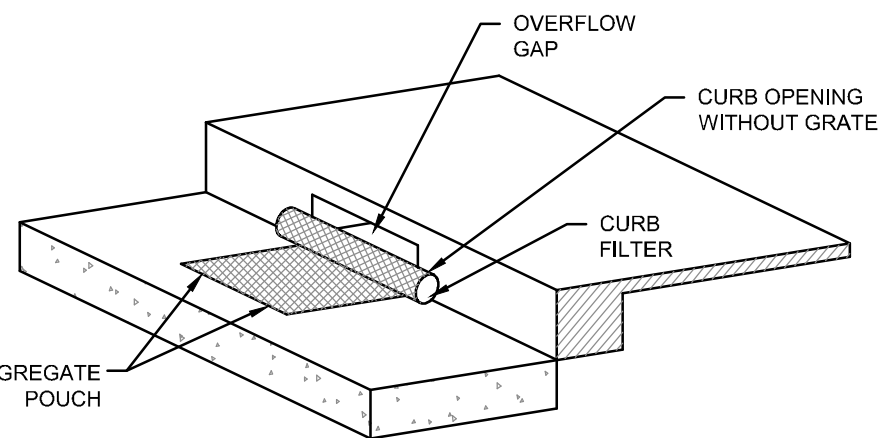
3 C4.2 DANDY BAG DETAIL NTS

1 C4.2 CONSTRUCTION ENTRANCE DETAIL NTS



- NOTES:
- ACTUAL LAYOUT DETERMINED IN THE FIELD.
 - THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

2 C4.2 CONCRETE WASHOUT DETAIL NTS



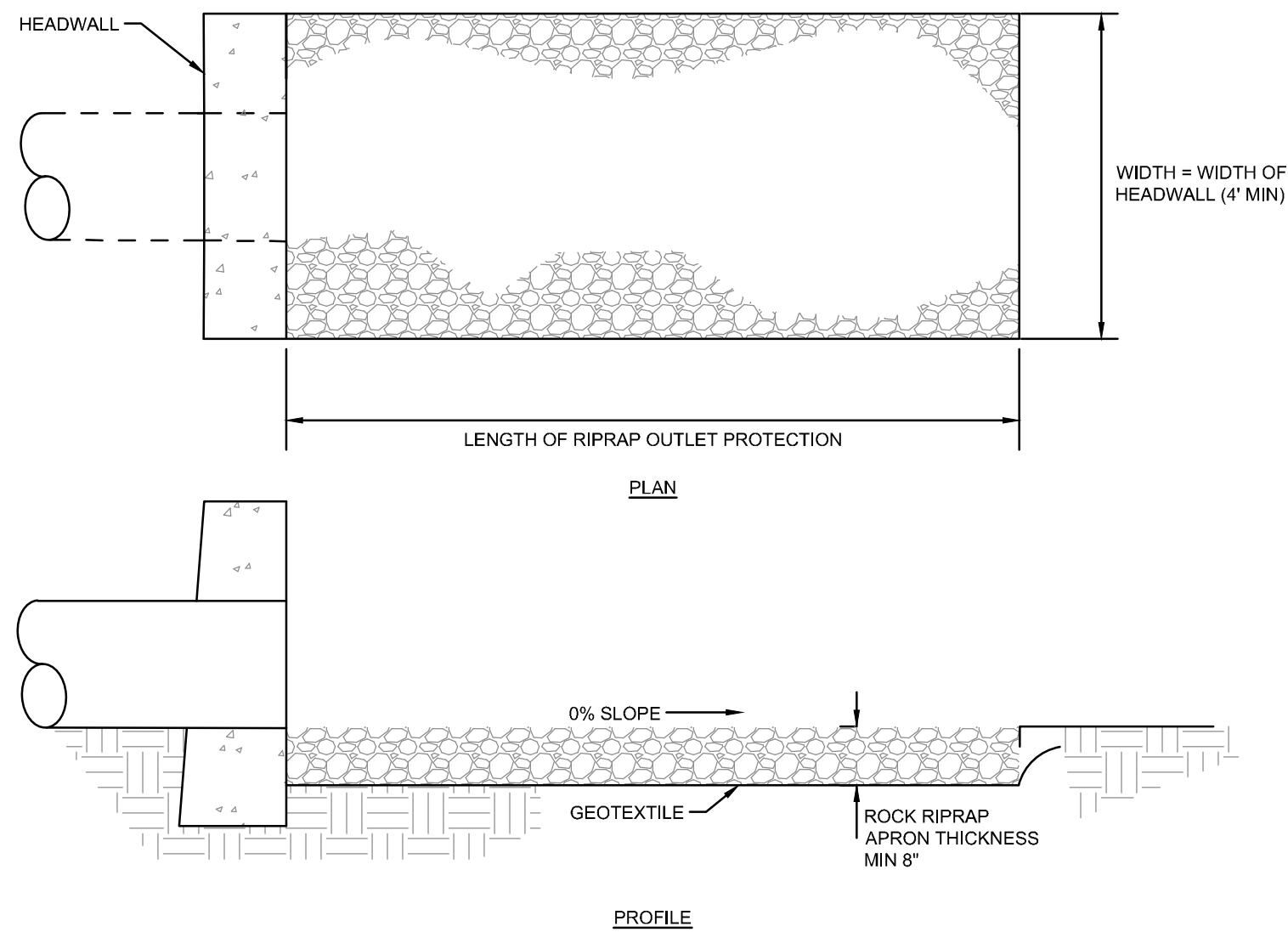
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FLOW RATE	ASTM D 4491	1/MIN/M ² (GAL/MIN/FT ²)	5907 (145)
PERMITTIVITY	ASTM D 4491	SEC ⁻¹	2.1

INSTALLATION: PLACE DANDY CURB INLET PROTECTION UNIT ON GROUND WITH AGGREGATE POUCH ON STREET SIDE NEAR INLET IT WILL BE INSTALLED ON. TO INSTALL ABSORBENT, PLACE ABSORBENT SOCK IN POUCH, FILL POUCH WITH AGGREGATE SUCH AS #5-7, 8'S OR SIMILAR TO A LEVEL (AT LEAST 1/2 FULL) THAT WILL KEEP UNIT IN PLACE DURING A RAIN EVENT AND CREATE A SEAL BETWEEN THE DANDY CURB AND THE SURFACE OF THE STREET. RESEAL VELCRO ACCESS. CENTER THE UNIT AGAINST THE CURB OR MEDIAN INLET OPENING SO THAT THE CURB SIDE OF THE UNIT CREATES A SEAL WITH THE CURB OR MEDIAN BARRIER AND INLET STRUCTURE.

MAINTENANCE: WITH A STIFF BRISTLE BROOM OR SQUARE POINT SHOVEL REMOVE SILT & OTHER DEBRIS OFF SURFACE AFTER EACH EVENT. REMOVE FINE MATERIAL FROM INSIDE ENVELOPE AS NEEDED. REMOVE AND REPLACE ABSORBENT WHEN NEAR SATURATION.

7 C4.2 DANDY CURB DETAIL NTS



NOTES:

- SUBGRADE FOR THE FILTER OR BEDDING AND RIPRAP SHALL BE PREPARED TO THE REQUIRED LINES AND GRADES AS SHOWN ON THE PLAN. THE SUBGRADE SHALL BE CLEARED OF ALL TREES, STUMPS, ROOTS, SOD, LOOSE ROCK, OR OTHER MATERIAL.
- RIPRAP SHALL CONFORM TO THE GRADING LIMITS AS SHOWN ON THE PLAN.
- GEOTEXTILE SHALL BE SECURELY ANCHORED ACCORDING TO MANUFACTURERS' RECOMMENDATIONS.
- GEOTEXTILE SHALL BE LAID WITH THE LONG DIMENSION PARALLEL TO THE DIRECTION OF FLOW AND SHALL BE LAID LOOSELY BUT WITHOUT WRINKLES AND CREASES. WHERE JOINTS ARE NECESSARY, STRIPS SHALL BE PLACED TO PROVIDE A 12-IN. MINIMUM OVERLAP, WITH THE UPSTREAM STRIP OVERLAPPING THE DOWNSTREAM STRIP.
- RIPRAP MAY BE PLACED BY EQUIPMENT BUT SHALL BE PLACED IN A MANNER TO PREVENT SLIPPAGE OR DAMAGE TO THE GEOTEXTILE.
- RIPRAP SHALL BE PLACED BY A METHOD THAT DOES NOT CAUSE SEGREGATION OF SIZES. EXTENSIVE PUSHING WITH A DOZER CAUSES SEGREGATION AND SHALL BE AVOIDED BY DELIVERING RIPRAP NEAR ITS FINAL LOCATION WITHIN THE CHANNEL.
- CONSTRUCTION SHALL BE SEQUENCED SO THAT OUTLET PROTECTION IS PLACED AND FUNCTIONAL WHEN THE STORM DRAIN, CULVERT, OR OPEN CHANNEL ABOVE IT BECOMES OPERATIONAL.
- ALL DISTURBED AREAS WILL BE VEGETATED AS SOON AS PRACTICAL.

6 C4.2 ROCK OUTLET PROTECTION DETAIL NTS

MONROE THORNTONS

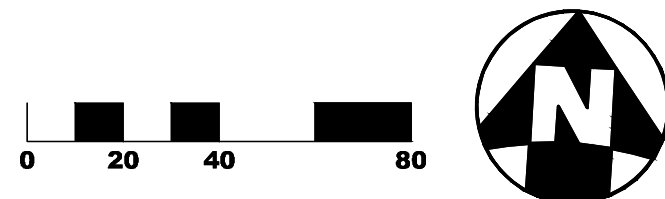
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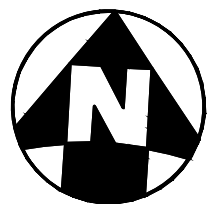
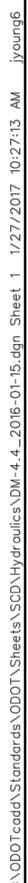
EROSION CONTROL DETAILS

GATEWAY BLVD. & SR-63
MONROE, OH 45036



C4.2

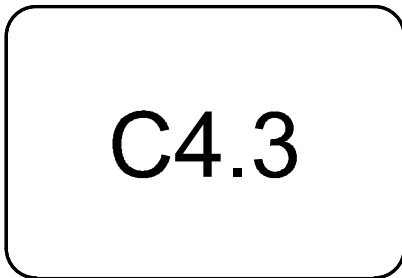


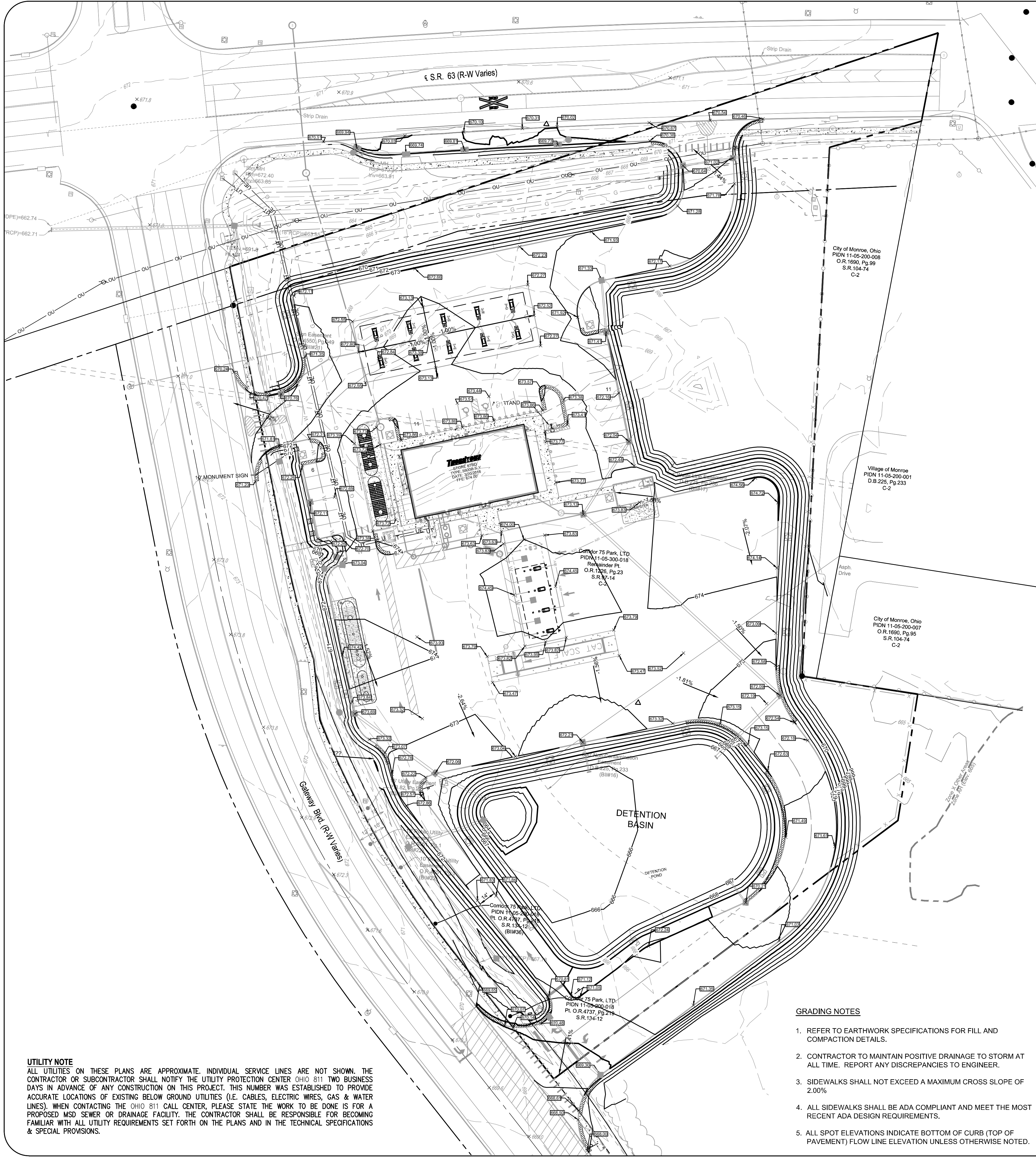


C4.3

DESIGN PROFESSIONAL:
REGISTRATION NUMBER:
DATE:

ThornTons
GATEWAY BLVD. & SR-63
MONROE, OH 45036





UTILITY NOTE
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- GRADING NOTES**
1. REFER TO EARTHWORK SPECIFICATIONS FOR FILL AND COMPACTION DETAILS.
 2. CONTRACTOR TO MAINTAIN POSITIVE DRAINAGE TO STORM AT ALL TIME. REPORT ANY DISCREPANCIES TO ENGINEER.
 3. SIDEWALKS SHALL NOT EXCEED A MAXIMUM CROSS SLOPE OF 2.00%.
 4. ALL SIDEWALKS SHALL BE ADA COMPLIANT AND MEET THE MOST RECENT ADA DESIGN REQUIREMENTS.
 5. ALL SPOT ELEVATIONS INDICATE BOTTOM OF CURB (TOP OF PAVEMENT) FLOW LINE ELEVATION UNLESS OTHERWISE NOTED.

GRADING LEGEND

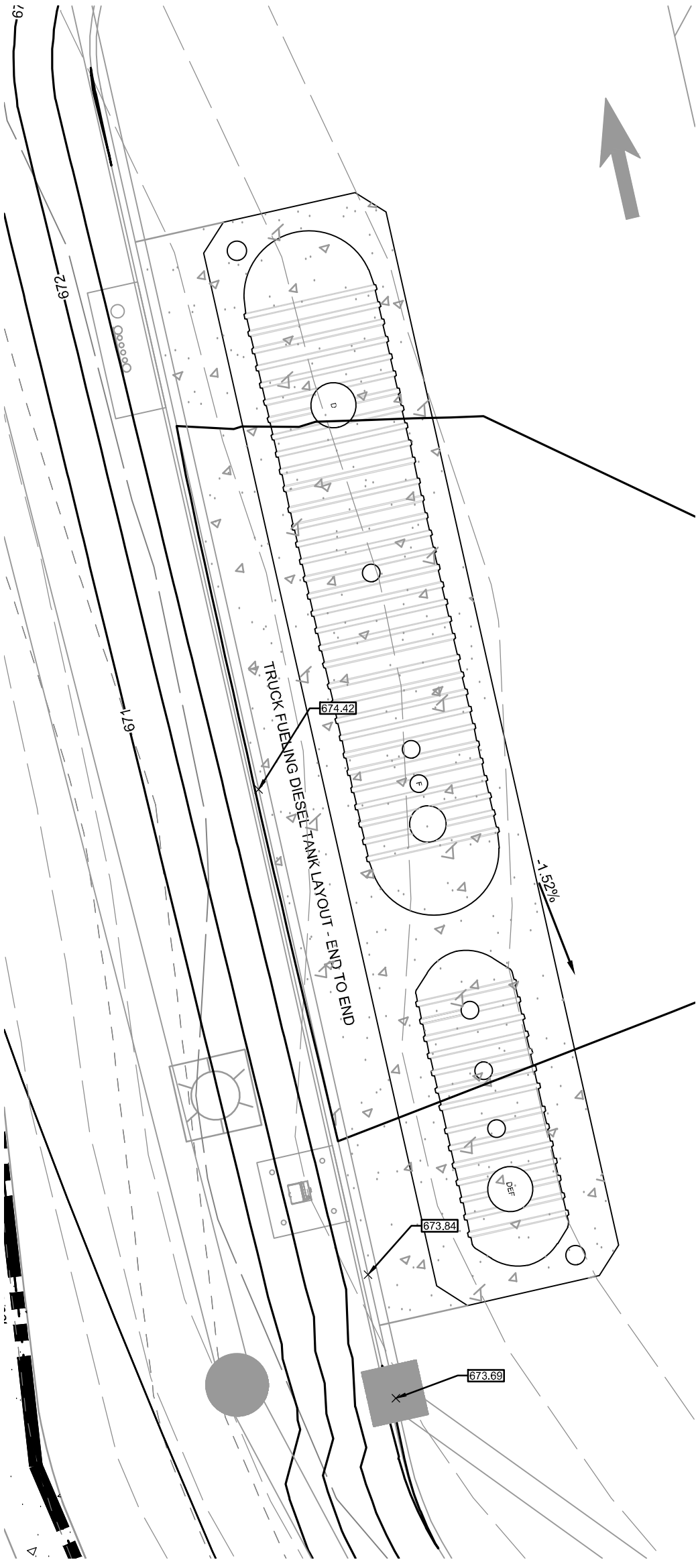
- 1215 — EXISTING MAJOR CONTOUR
- 1216 — EXISTING MINOR CONTOUR
- 1215 — PROPOSED MAJOR CONTOUR
- 1216 — PROPOSED MINOR CONTOUR
- × 1215.00 PROPOSED SPOT ELEVATION
- ~ ~ ~ PROPOSED SWALE
- 100-YEAR FLOOD ROUTE

SPOT ELEVATION LEGEND

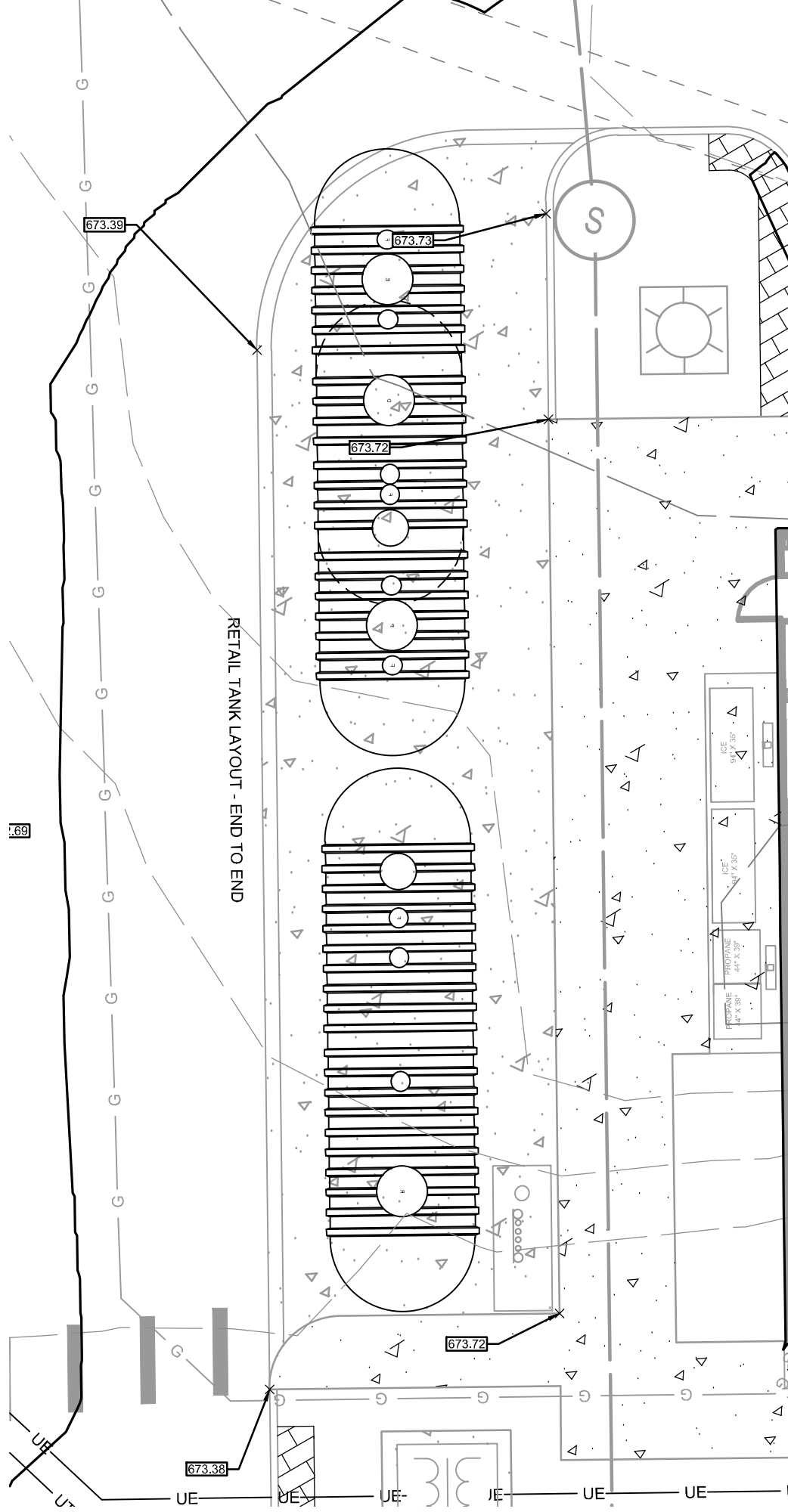
- × 1215.00 FINISHED GRADE ELEVATION
- × 1215.00 BC BACK OF CURB ELEVATION
- × 1215.00 EC EDGE OF CONCRETE ELEVATION
- × 1215.00 EP EDGE OF PAVEMENT ELEVATION
- × 1215.00 EG EDGE OF GRAVEL ELEVATION
- × 1215.00 BS BOTTOM OF STAIR ELEVATION
- × 1215.00 TS TOP OF STAIR ELEVATION
- × 1215.00 WB FINISHED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

CRITICAL ELEVATIONS FOR CANOPY DESIGNER	
Highest Pavement Elevation (Auto)	673.38
Lowest Pavement Elevation (Auto)	672.27
Highest Pavement Elevation (Truck)	674.45
Lowest Pavement Elevation (Truck)	673.82

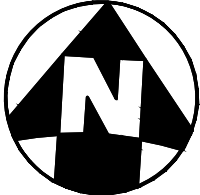
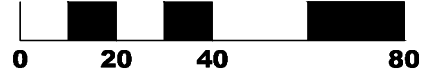
- PROPOSED LEGEND**
- ⊕ BENCHMARK
 - IRON PIN FOUND (SIZE SHOWN HEREON)
 - 5/8" IRON PIN SET WITH CAP STAMPED
 - PROPERTY LINE
 - CONCRETE MONUMENT FOUND
 - ⊕ SOIL BORING
 - ⊕ BASKET BALL HOOP
 - ⊕ STUMP
 - DOUBLE POST SIGN
 - UTILITY POLE
 - ← GUY WIRE
 - ⊕ A/C UNIT
 - ⊕ ELECTRIC BOX
 - ⊕ PROPOSED EV CHARGING STATION (FUTURE)
 - ⊕ PROPOSED LIGHT POLE
 - ⊕ ELECTRIC MANHOLE
 - ⊕ PULL BOX
 - ⊕ TELEPHONE MANHOLE
 - ⊕ GAS VALVE
 - ⊕ GAS METER
 - ⊕ WATER METER
 - ⊕ WATER VALVE
 - ⊕ FIRE HYDRANT
 - ⊕ IRRIGATION CONTROL VALVE
 - ⊕ DOWNSPOUT
 - CATCH BASIN
 - INLET
 - ⊕ STORM MANHOLE
 - ⊕ YARD DRAIN



DIESEL TANK PAD DETAIL
SCALE: 1" = 10'



AUTO TANK PAD DETAIL
SCALE: 1" = 10'



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NO.	DATE DESCRIPTION

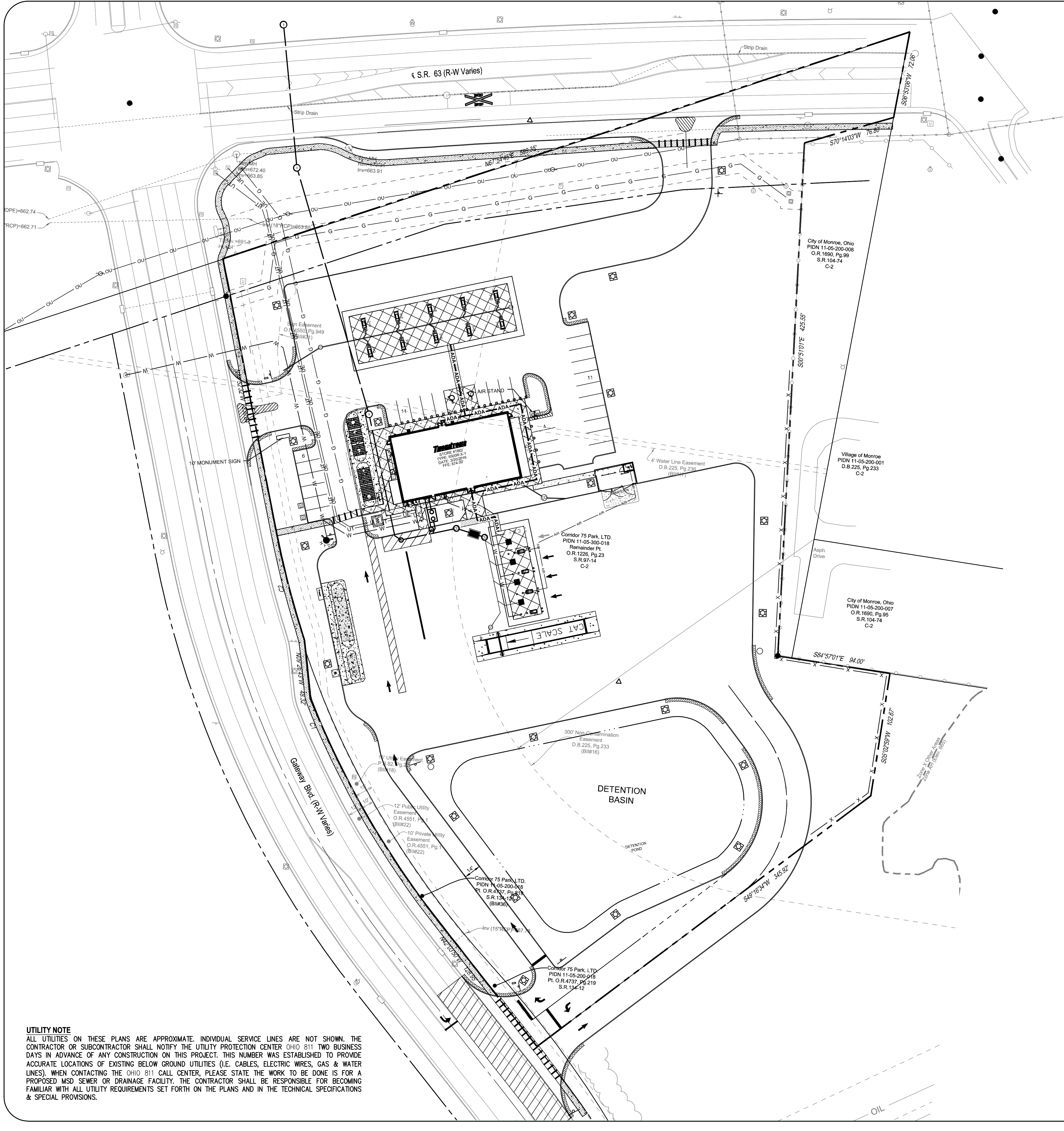
DESIGN PROFESSIONAL:	REGISTRATION NUMBER:

MONROE THORNTONS	
GRADING & DRAINAGE PLAN	
DESIGN: JPS	DRAFTING: PDT
SCALE: 1" = 20'	DATE: 10/16/2020

Thorntons
GATEWAY BLVD. & SR-63
MONROE, OH 45036



C5.0



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PROPOSED LEGEND

2% MAX GRADE IN ALL DIRECTIONS

2% MAX CROSS SLOPE & 5% MAX RUNNING SLOPE

ADA

ADA PATH OF TRAVEL

REVISIONS	
NO.	DATE DESCRIPTION

DESIGN PROFESSIONAL:	REGISTRATION NUMBER:
	DATE:

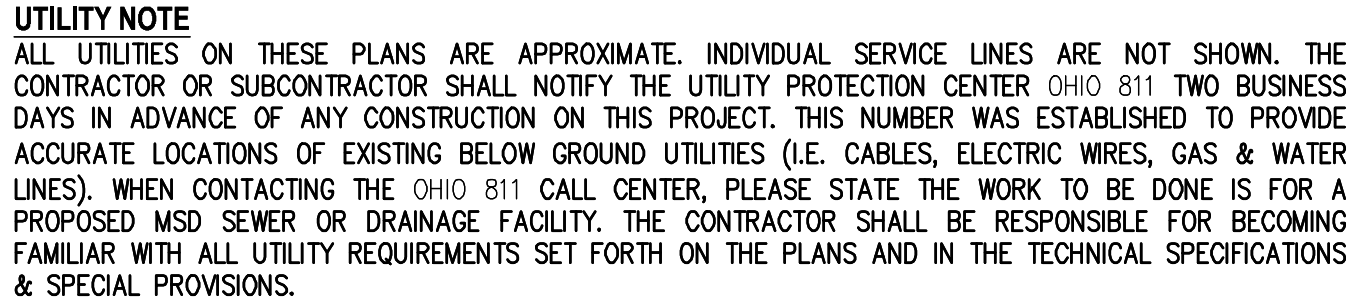
MONROE THORNTONS		DESIGN: JPS	DRAFTING: PDT
		SCALE: 1" = 20'	DATE: 10/16/2020
ADA PLAN			

GATEWAY BLVD. & SR-63
MONROE, OH 45036



0204080

C5.3



A. DO NOT BLOCK DRIVEWAY

B. KEEP OUR LOT CLEAN
NO LITTERING DUMPING CIGARETTE BUTTS

C. NO TRAILER PARKING
VIOLATORS WILL BE TOWED AWAY AT VEHICLE OWNER'S EXPENSE

D. Thank you for your business!
Safe travels!

E. NO PARKING TOWING ENFORCED
UNAUTHORIZED VEHICLES WILL BE TOWED AT THE DRIVER'S EXPENSE
VEHICLES WILL BE IMPOUNDED TO:
TOWING CO. NAME
ADDRESS
PHONE NUMBER
POLICE PH. (555) 555-5555

F. PLEASE PULL FORWARD

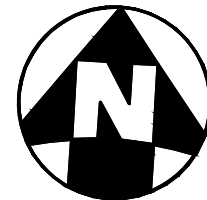
G. NOT A TRUCK EXIT

H. NO PARKING

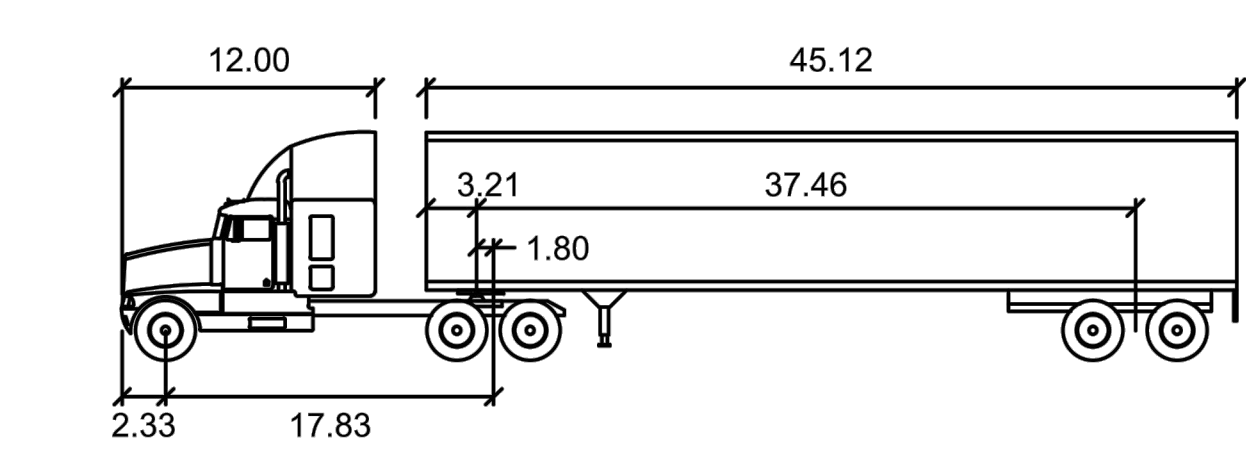
I. NO PARKING

J. NO PARKING

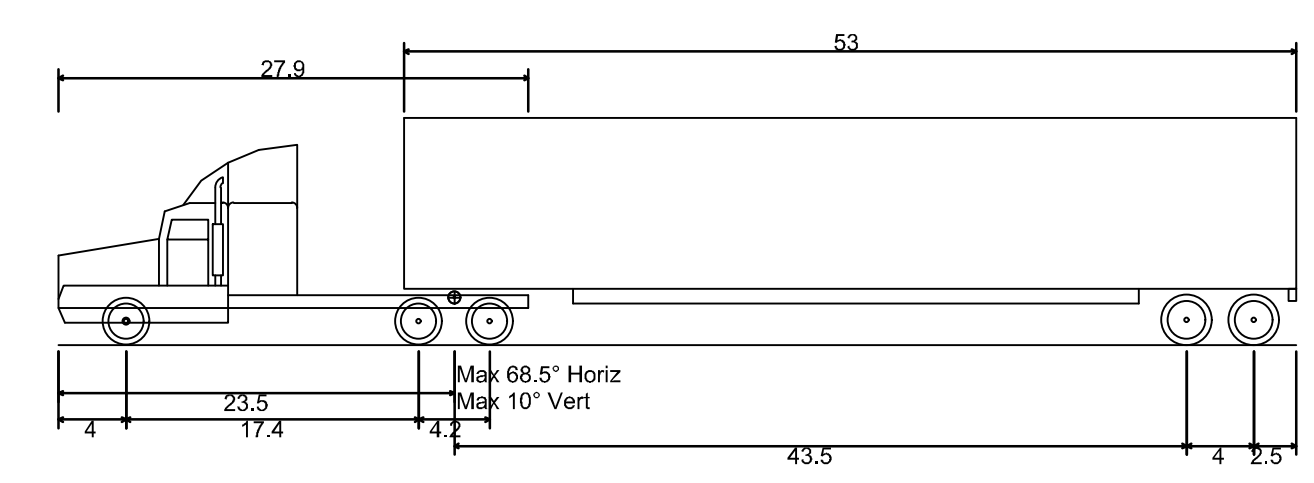
C5.4



C5.4



Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.00	Steering Angle	: 40.0
Tractor Track	: 8.50	Articulating Angle	: 70.0
Trailer Track	: 8.50		

[illegible]

DESIGN PROFESSIONAL:
REGISTRATION NUMBER:
DATE:

AUTOTURN PLAN	DESIGN: JPS	DRAFTING: PDT
	SCALE: 1" = 20'	DATE: 10/16/2020

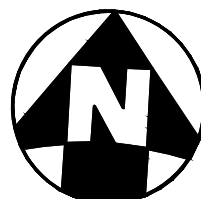
THORNIONS



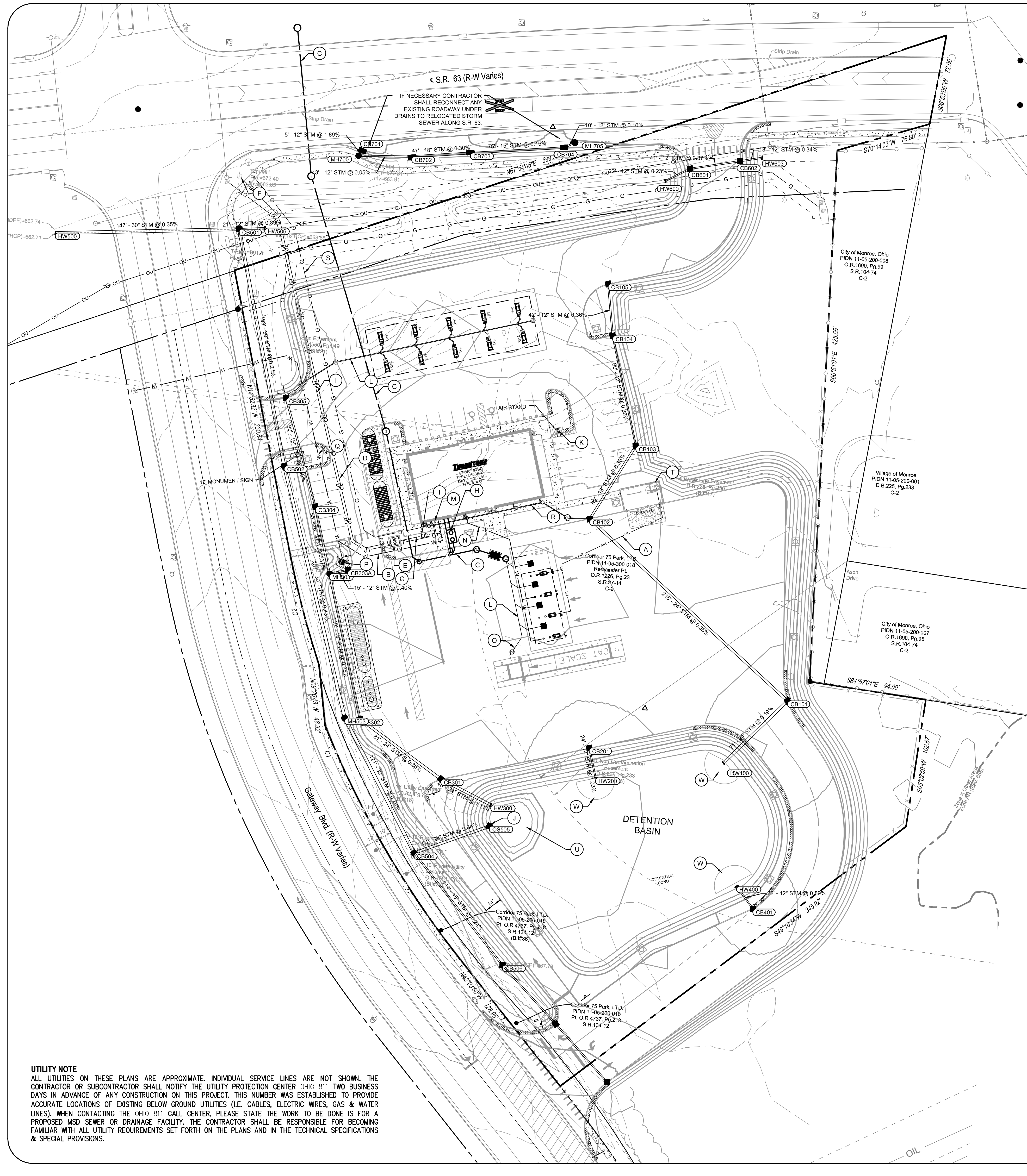
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Country	Percentage
United States	75
Germany	65
France	60
Italy	55
Spain	50



C5.6



UTILITY NOTE
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STORM SEWER SCHEDULE

(HW100) N 529280.84 E 1453516.98 ODOT HEADWALL INV OUT=666.39 (24") NE	(CB302) N 529296.55 E 1453324.81 ODOT CB NO. 2-3 T/C=669.34 INV OUT=666.56 (24") SE INV IN=666.56 (18") N	(CB502) N 529494.60 E 1453250.30 ODOT CB NO. 2-3 GRATE=670.58 INV OUT=663.74 (30") N INV IN=663.74 (30") S	(MH700) N 529746.19 E 1453293.50 MH RIM=669.55 INV IN=663.91 (12") NE INV IN=667.55 (12") E
(CB101) N 529333.88 E 1453684.91 ODOT CB NO. 2-3 T/C=669.28 INV OUT=666.53 (24") SW INV IN=666.53 (24") NW	(MH303) N 529410.90 E 1453292.67 MH T/C=671.27 INV OUT=666.97 (18") S INV IN=666.97 (18") E	(MH503) N 529296.55 E 1453312.56 ODOT MH NO. 3 GRATE=672.35 INV OUT=664.63 (30") N INV IN=664.63 (30") SE	(CB700) N 529750.05 E 1453296.27 ODOT CB NO. 3 T/C=669.94 INV OUT=664.00 (12") SW INV IN=663.91 (18") E
(CB102) N 529468.52 E 1453497.40 ODOT CB NO. 2-3 T/C=673.13 INV OUT=667.29 (24") SE INV IN=667.29 (18") NE	(CB303A) N 529414.99 E 1453307.11 ODOT CB NO. 2-3 T/C=673.04 INV OUT=667.75 (12") W	(CB504) N 529192.60 E 1453375.14 ODOT CB NO. 2-3 GRATE=670.72 INV OUT=664.98 (30") NW INV IN=664.99 (24") NE	(CB702) N 529748.24 E 1453336.06 ODOT CB NO. 3 FC GRATE=669.74 INV OUT=667.57 (12") W INV IN=663.91 (18") E
(CB103) N 529629.30 E 1453530.27 ODOT CB NO. 2-3 T/C=671.28 INV OUT=667.54 (18") SW INV IN=667.54 (12") N	(CB304) N 529463.63 E 1453277.85 ODOT CB NO. 2-3 T/C=670.04 INV OUT=667.17 (18") S INV IN=667.17 (15") N	(OS505) N 529218.04 E 1453433.72 ODOT CB NO. 2-3 GRATE=672.00 INV OUT=665.40 (24") SW	(CB703) N 529754.29 E 1453382.71 ODOT CB NO. 3 T/C=669.81 INV OUT=664.05 (18") W INV IN=664.05 (15") E
(CB104) N 529615.94 E 1453505.92 ODOT CB NO. 2-3 T/C=671.55 INV OUT=667.86 (12") S INV IN=667.86 (12") N	(CB305) N 529548.87 E 1453248.71 ODOT CB NO. 2-3 T/C=670.32 INV OUT=667.49 (15") S	(HW506) N 529633.38 E 1453222.88 ODOT HEADWALL RIM=666.31 INV OUT=664.64 (12") W	(CB704) N 529763.51 E 1453457.11 ODOT CB NO. 3 T/C=669.73 INV OUT=664.16 (15") W INV IN=664.16 (12") NE
(CB105) N 529687.09 E 1453499.55 ODOT CB NO. 2-3 INV OUT=668.01 (12") S	(HW400) N 529183.25 E 1453634.09 ODOT HEADWALL INV IN=666.64 (12") SE	(HW600) N 529742.27 E 1453339.53 ODOT HEADWALL INV IN=665.15 (12") NE	(MH705) N 529768.13 E 1453465.47 ODOT MH NO. 3 RIM=669.92 INV OUT=664.17 (12") SW
(HW200) N 529262.30 E 1453515.88 ODOT HEADWALL T/C=667.44 INV IN=665.90 (12") N	(CB401) N 529165.97 E 1453648.46 ODOT CB NO. 2-3 GRATE=670.21 INV OUT=666.84 (12") NW	(CB601) N 529753.48 E 1453568.88 ODOT CB NO. 2-3 GRATE=670.64 INV IN=665.20 (12") E INV OUT=665.20 (12") SW	(CB506) N 529107.79 E 1453451.57 ODOT CB NO. 2-3 GRATE=666.69 INV OUT=665.25 (15") NW INV IN=665.25 (12") SE
(CB201) N 529285.73 E 1453509.21 ODOT CB NO. 2-3 T/C=672.21 INV OUT=666.15 (12") S	(HW300) N 529234.98 E 1453433.72 ODOT HEADWALL INV OUT=665.77 (24") NW	(CB602) N 529688.22 E 1453055.77 ODOT HEADWALL INV OUT=662.71 (30") E	
(CB202) N 529252.97 E 1453392.56 ODOT CB NO. 2-3 T/C=672.00 INV OUT=666.27 (24") SE INV IN=666.27 (24") NW	(CB300) N 529254.98 E 1453433.72 ODOT HEADWALL INV OUT=663.23 (30") W INV IN=663.23 (30") E	(HW500) N 529681.15 E 1453202.28 ODOT CB NO. 2-3 GRATE=668.82 INV OUT=663.23 (30") W INV IN=664.46 (12") E	

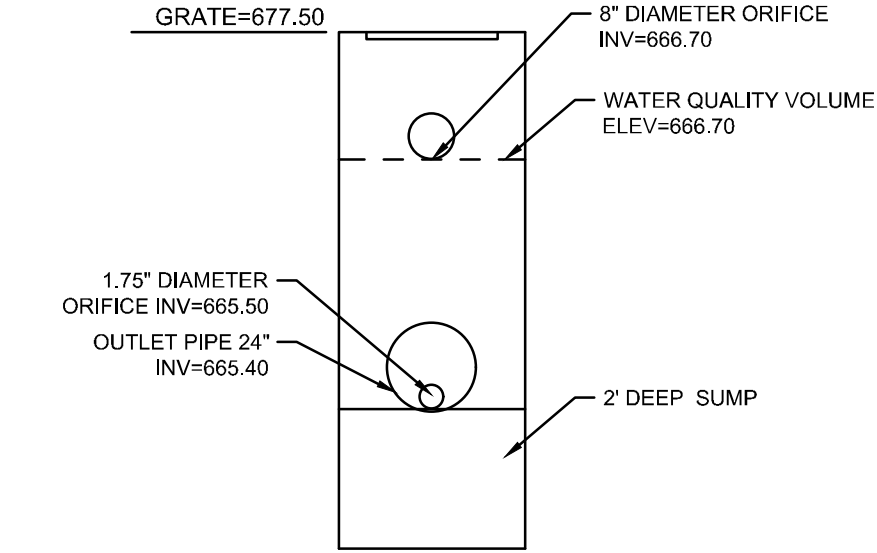
*INV. ELEVATION TO BE VERIFIED IN FIELD.
NOTIFY ENGINEER OF DISCREPANCIES.

LEGEND

EX.	EXISTING
PR.	PROPOSED
APPROX.	APPROXIMATE
L.F.	LINEAR FEET
M.H.	MANHOLE
⊙	SANITARY CLEANOUT
⊙	SANITARY MANHOLE
⊞	3PH TRANSFORMER

UTILITY LEGEND

- A. 3/4" AIR LINES TO DIESEL FUEL SERVICE.
- B. 2" DOMESTIC WATER SERVICE
- C. 6" SANITARY SEWER LINE
- D. PRIMARY ELECTRICAL SERVICE (MINIMIZE BENDS)
- E. PROPOSED TRANSFORMER LOCATION.
- F. APPROXIMATE LOCATION FOR PRIMARY ELECTRIC SERVICE TIE IN POINT.
- G. SECONDARY ELECTRICAL SERVICE.
- H. PROPOSED GREASE TRAP.
- I. PROPOSED TELECOMMUNICATIONS CONDUIT.
- J. PROPOSED DETENTION POND OUTLET STRUCTURE.
- K. PROPOSED AIR SERVICE STATION
- L. 6" AUTO/TRUCK CANOPY STORM DRAINAGE LINES.
- M. 1" IRRIGATION LINE STUBBED 5' BEYOND FOUNDATION
- N. 3/4" WATER LINES TO DIESEL FUEL SERVICE.
- O. PROPOSED CAT SCALE 4" STORM DRAIN.
- P. PROPOSED FIRE HYDRANT.
- Q. 6" FIRE WATER LINE FOR PROPOSED FIRE HYDRANTS.
- R. 4" DRAINAGE LINE WITH DOWNSPOUTS.
- S. PROPOSED GAS LINE.
- T. PROPOSED HOSE BIBB.
- U. MICRO POOL, DESIGNED PER OHIO EPA STANDARDS. TO HAVE DEDICATED 0.1WQV = 1,477 C.F. VOLUME. AT LEAST 3 FT DEEP PER OHIO EPA REQUIREMENTS.
- V. NOT USED.
- W. FOREBAY, DESIGNED PER OHIO EPA STANDARDS. TO HAVE DEDICATED 0.1WQV = 1,477 C.F. VOLUME. AT LEAST 3 FT DEEP PER OHIO EPA REQUIREMENTS.



- NOTES:
- 1.) TRASH RACK WILL BE REQUIRED FOR ALL ORIFICES, WINDOWS, AND OPENINGS FOR DEBRIS CONTROL.
 - 2.) A NON-CLOGGING OUTLET APPARATUS SHALL BE USED ON WATER QUALITY ORIFICES AS RECOMMENDED IN SECTION 2.6.5 OF THE OHIO EPA'S 'RAINWATER & LAND DEVELOPMENT MANUAL'.

REVISIONS	
NO.	DATE DESCRIPTION

DESIGN PROFESSIONAL:	REGISTRATION NUMBER:

MONROE THORNTONS

DESIGN: JPS

SCALE: 1" = 20'

DRAFTING: PDT

DATE: 10/16/2020

UTILITY PLAN

GATEWAY BLVD. & SR-63

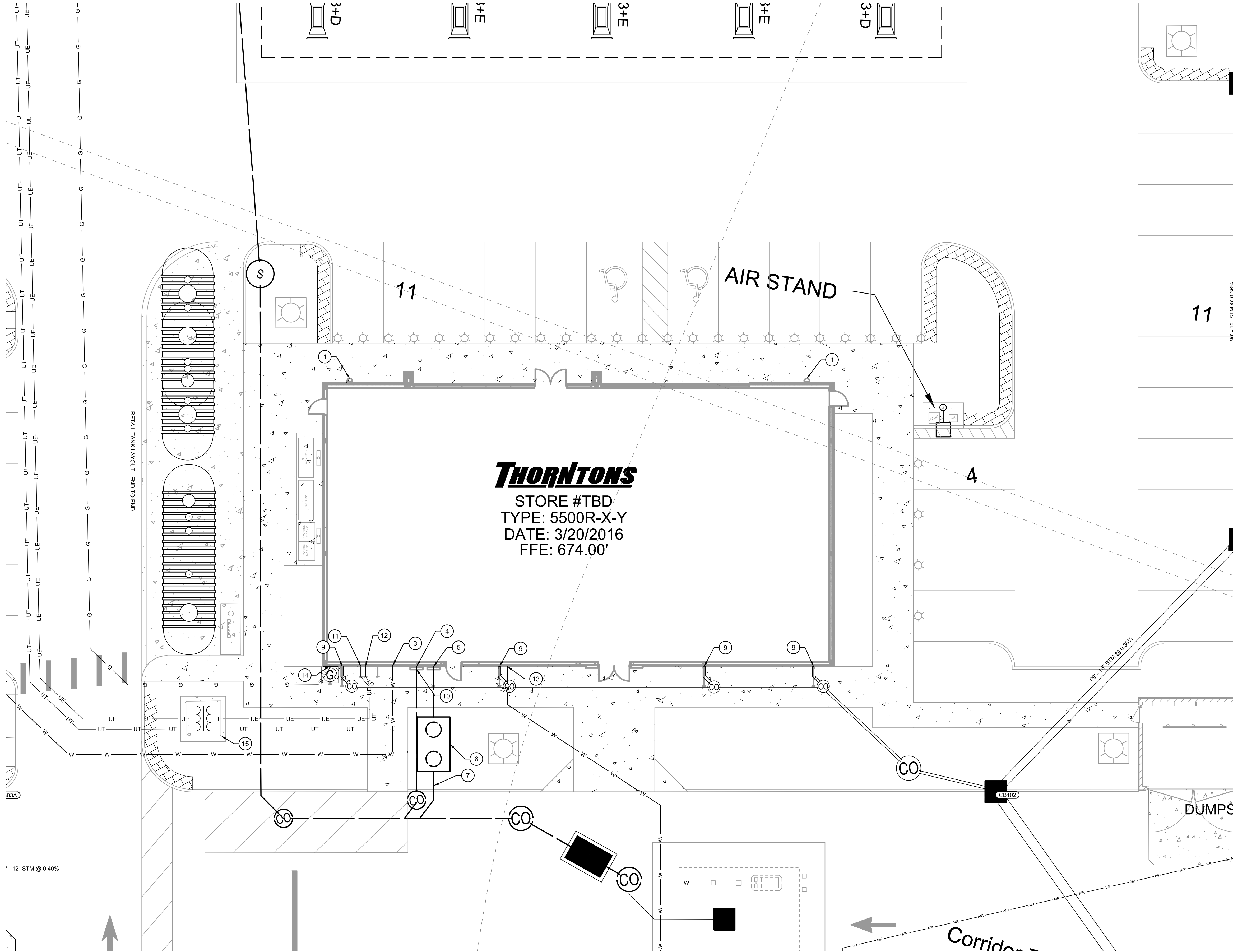
MONROE, OH 45036

MONROE THORNTONS



C6.0

0 20 40 80



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- UTILITY LEGEND**
1. RED NORMALLY CLOSED, MAINTAINED EMERGENCY FUEL SHUT-OFF PUSH BUTTON. MOUNT AT 40" ABOVE GRADE AT BUILDING EXTERIOR WALL.
 2. 1" IRRIGATION WATER ENTRY. REFER TO IRRIGATION PLANS FOR DETAILS.
 3. 2" DOMESTIC WATER ENTRY. REFER TO WATER SERVICE PLANS FOR DETAILS.
 4. 6" SANITARY SEWER.
 5. 4" GREASE WASTE ENTRY.
 6. APPROXIMATE LOCATION OF 1000 GALLON GREASE INTERCEPTOR. REFER TO CIVIL ENGINEERING PLANS FOR FINAL LOCATION OF GREASE INTERCEPTOR. CONFIRM VOLUME OF INTERCEPTOR WITH LOCAL AHJ.
 7. 4" GREASE WASTE OUT TO SITE 5'-0".
 8. OVER FLOWN SCUPPER (16" WIDE BY 8" TALL).
 9. METAL SCUPPER AND DOWNSPOUT (4"X6").
 10. CPI ENCLOSURE WITH PANELS, METER /CT CABINET, AUTOMATIC TRANSFER SWITCH (OWNER FURNISHED, CONTRACTOR INSTALLED), MAIN DISTRIBUTION PANEL BOARD RATED FOR 800 AMPS.
 11. UNDERGROUND SERVICE LATERAL - EXTEND TO UTILITY TRANSFORMER. COORDINATE WITH LOCAL UTILITY FOR REQUIREMENTS.
 12. 4" C. SCH. 40 PVC FOR TELEPHONE SERVICE PROPERTY LINE. REFER TO SITE PLAN. CONTRACTOR SHALL SEAL CONDUIT PENETRATIONS THRU EXTERIOR WALL WATER TIGHT.
 13. 6" FIRE SERVICE WHERE REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION. REFER TO WATER SERVICE PLANS FOR DETAILS.
 14. NATURAL GAS LINE UP ON WALL. PROVIDE STAND-OFF CLAMPS AND SECURE GAS LINE TO WALL. ALL GAS PIPING EXPOSED TO WEATHER SHALL BE PAINTED WITH (2) COATS OF RUSTOLEUM OR EQUAL PAINT. FLORIDA STORES WILL NOT INCLUDE GAS.
 15. TRANSFORMER. REFER TO CIVIL ENGINEERING PLANS FOR FINAL LOCATION OF TRANSFORMER

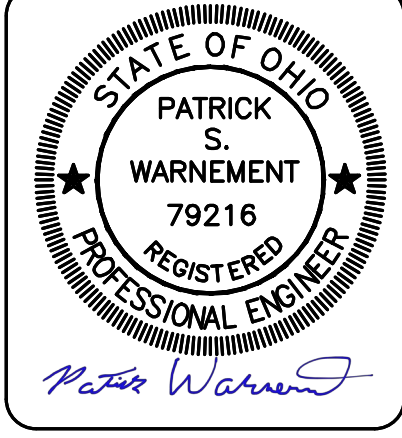
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NO.	DESCRIPTION

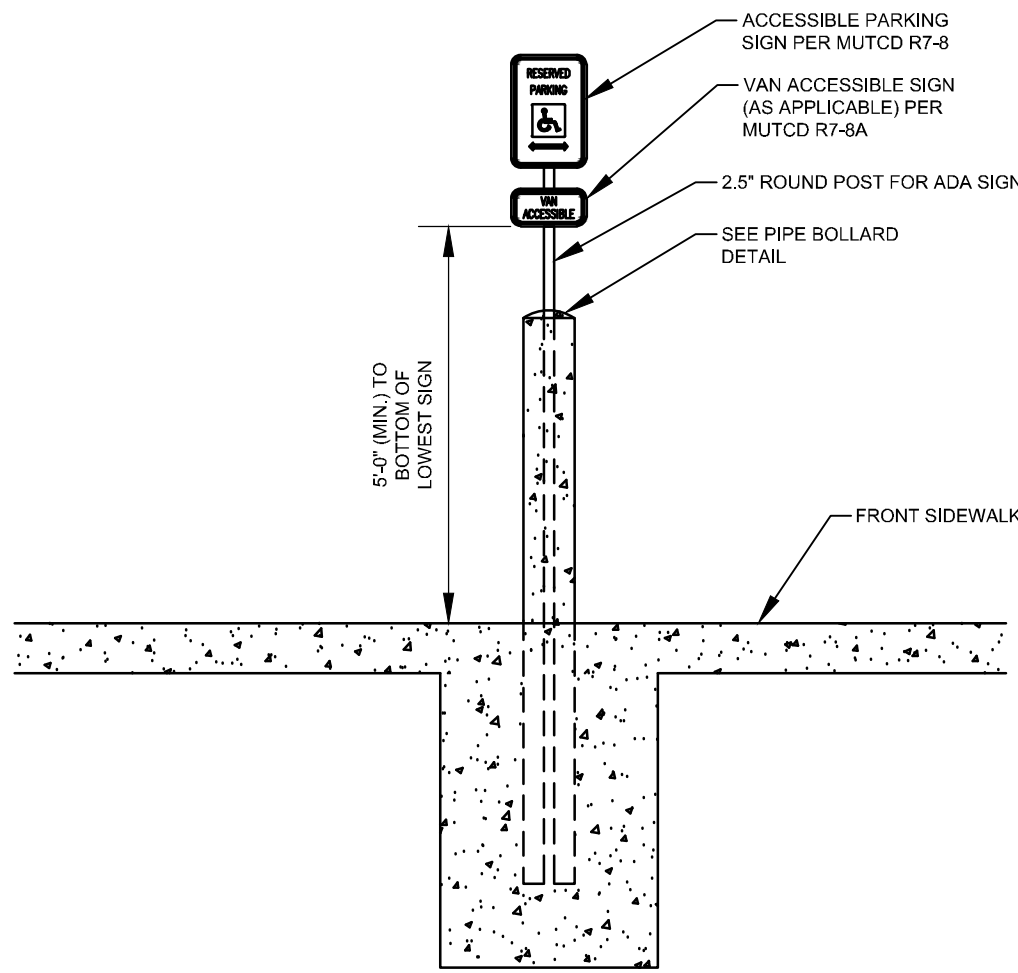
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MONROE THORNTONS		DRAFTING: PDT	DATE: 10/16/2020
		DESIGN: JPS	SCALE: 1" = 20'
BUILDING UTILITY DETAIL			

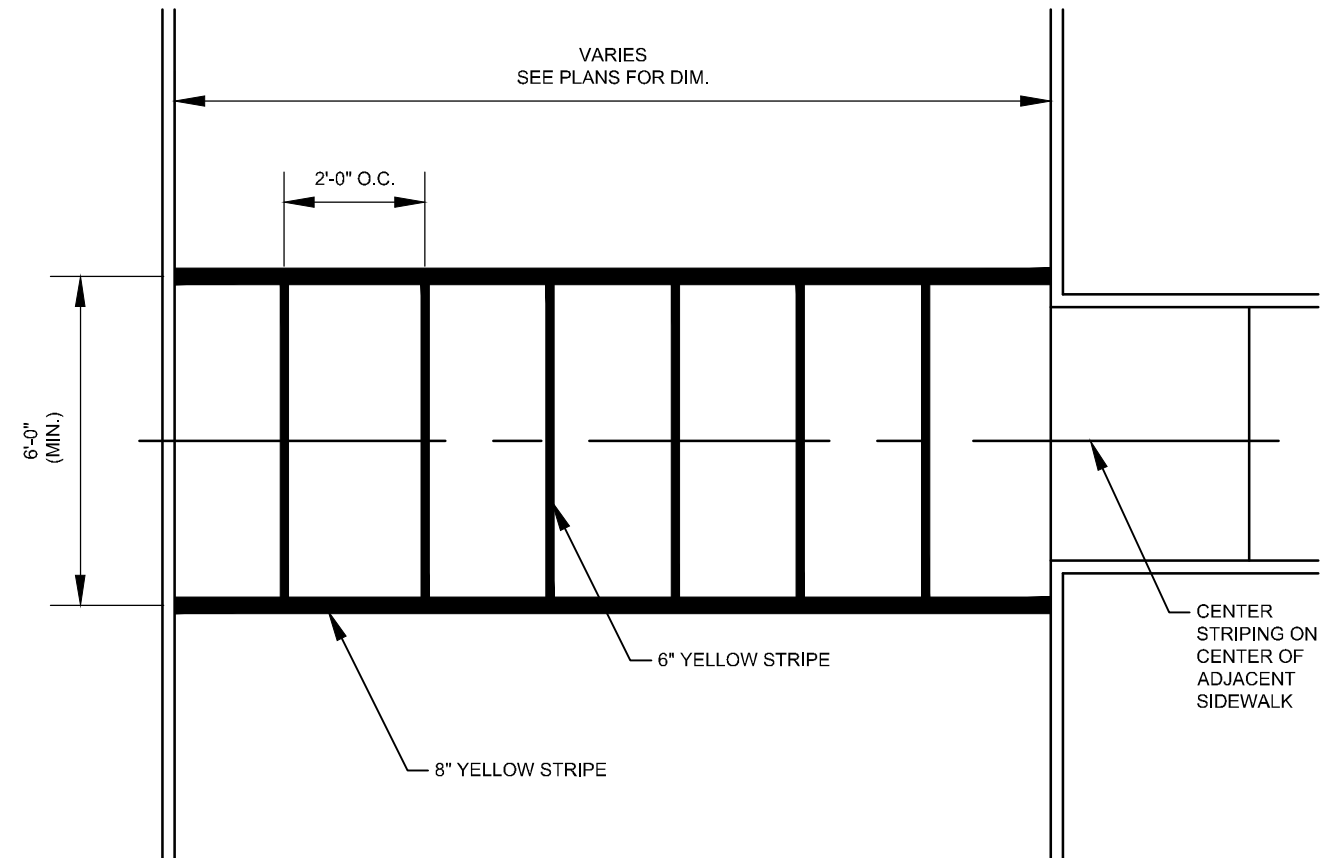
Thorntons

GATEWAY BLVD. & SR-63
MONROE, OH 45036





- SPECIFICATIONS:
1. VAN ACCESSIBLE SIGNAGE AND ASSOCIATED FINES SHALL BE POSTED WHERE APPLICABLE.
 2. GENERAL CONTRACTOR SHALL VERIFY WITH THE LOCAL MUNICIPALITY PRIOR TO INSTALLING ACCESSIBLE SIGNAGE. IF LOCAL JURISDICTIONS DO NOT APPLY THE CONTRACTOR SHALL FOLLOW MUTCD AND SHALL MOUNT SIGNS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.



- SPECIFICATIONS:
1. THIS DETAIL IS TO BE USED INTERNAL TO THE PARKING LOT ONLY.
 2. ALL PAINT SHALL BE APPLIED TO A MINIMUM WET FILM THICKNESS OF 5 MILS. AND APPLIED WITH GLASS BEADS TO MANUFACTURERS RECOMMENDATIONS.
 3. THE ENGINEERING CONSULTANT SHALL REVIEW THE CROSSWALKS USED IN THE RIGHT OF WAY TO INSURE CONFORMANCE WITH LOCAL CODES AND DETAILS. SOME JURISDICTIONS DO NOT ALLOW CROSS WALKS IN THE RIGHT OF WAY.

ACCESSIBLE PARKING SIGN DETAIL

Thorntons

P-004-002

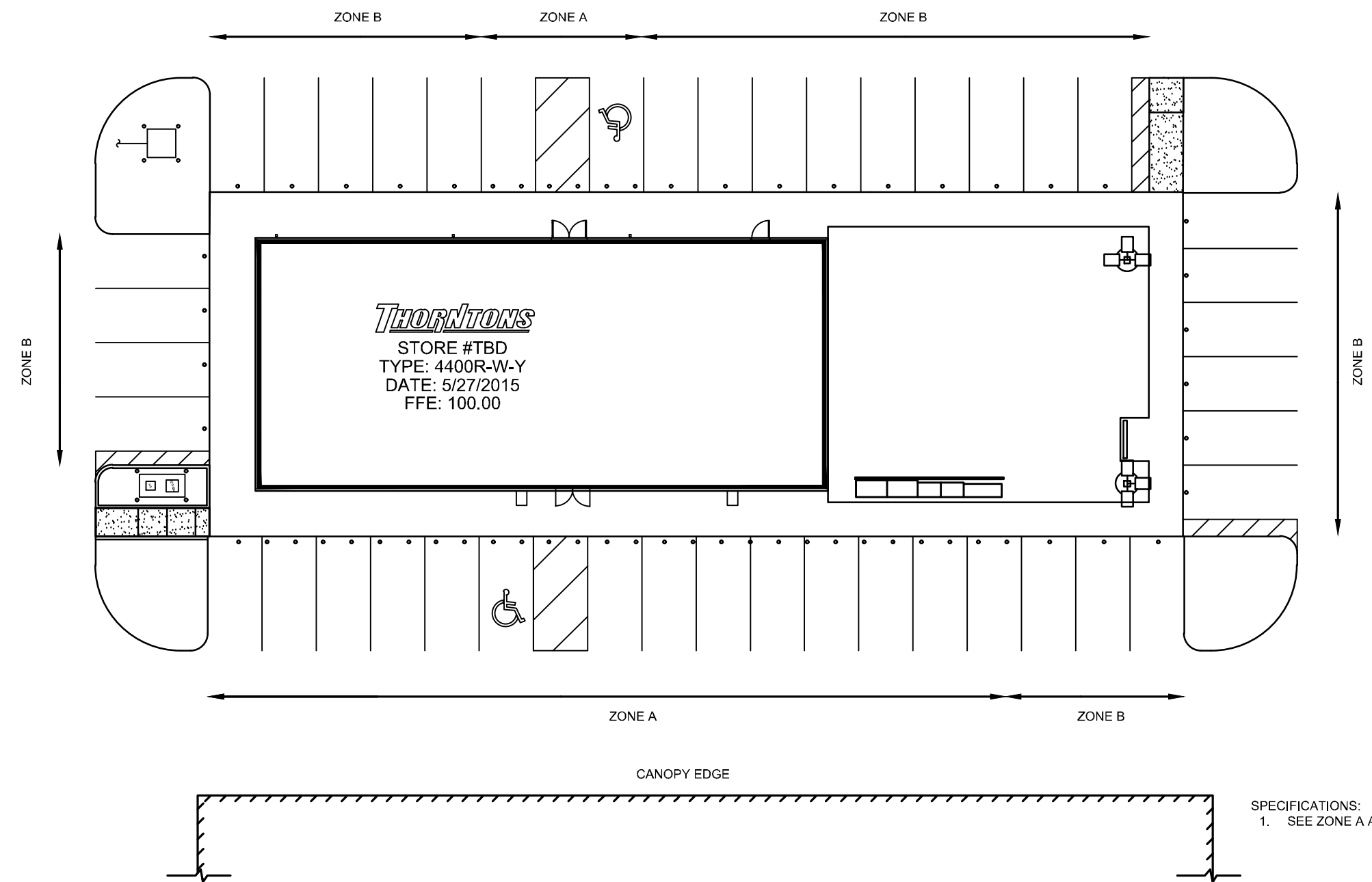
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CROSSWALK DETAIL

Thorntons

P-003-001

NTS



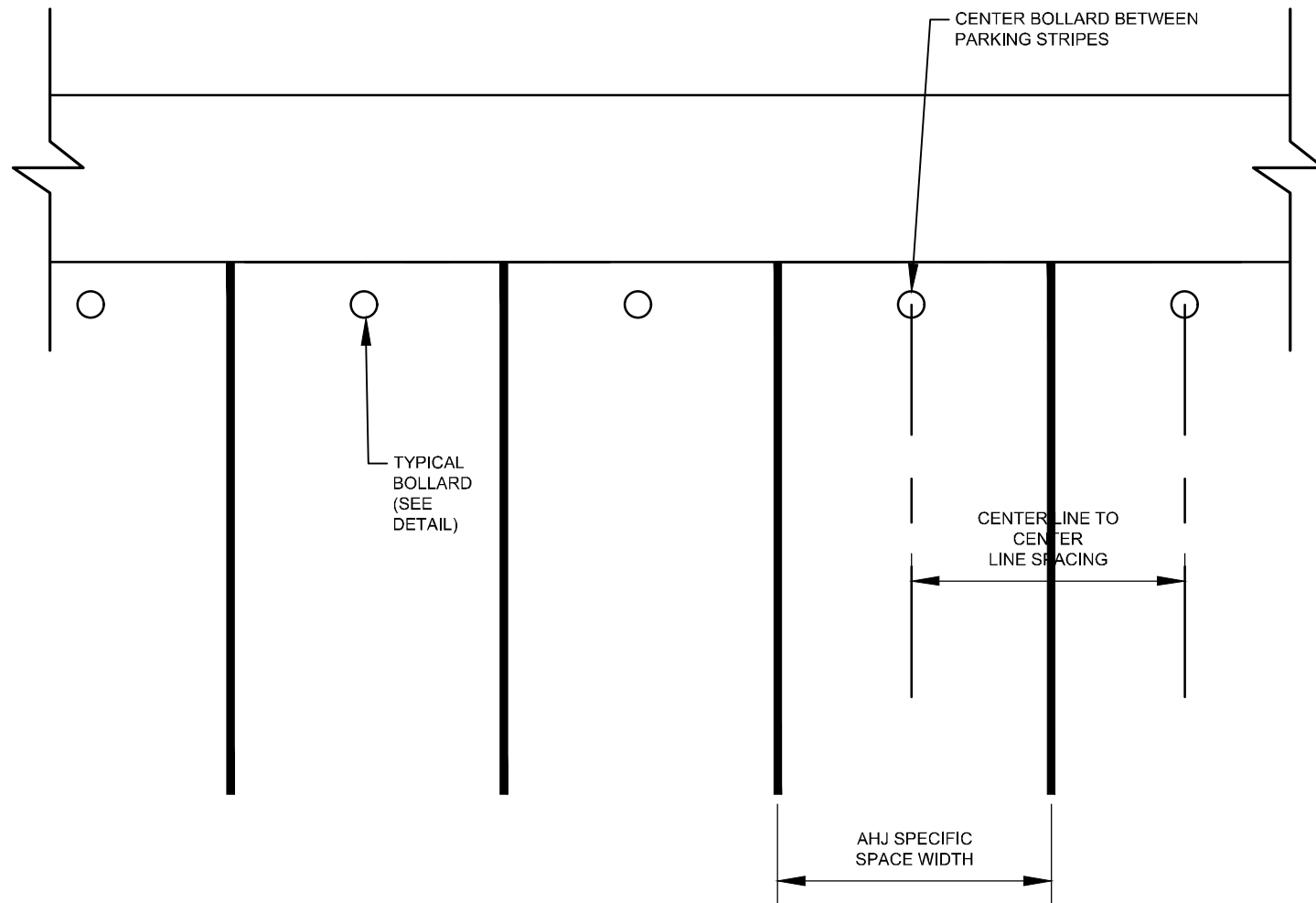
- SPECIFICATIONS:
1. SEE ZONE A AND B DETAILS FOR BOLLARD SPACING.

BOLLARD SCHEMATIC

Thorntons

P-007-001

NTS



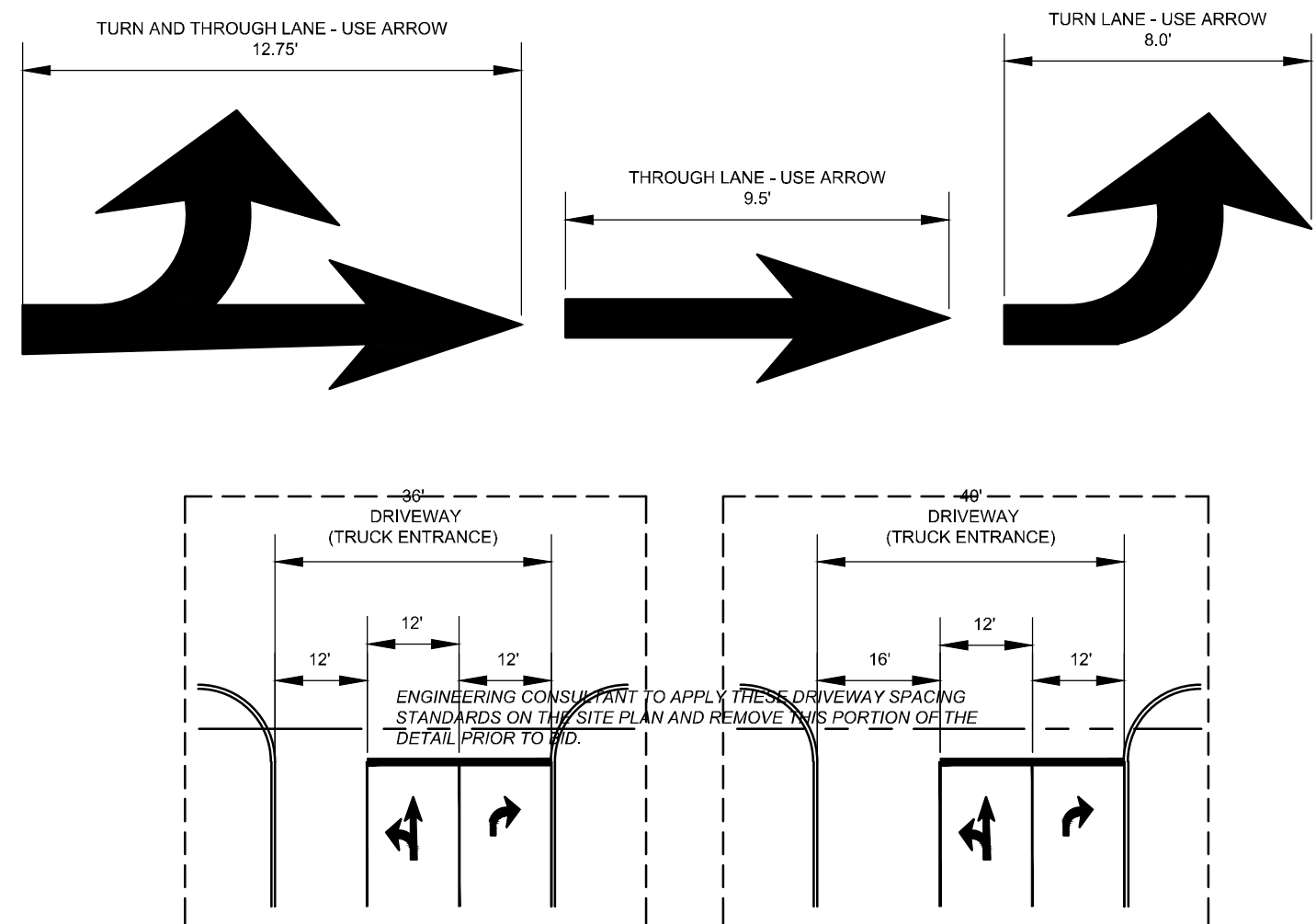
- SPECIFICATIONS:
1. ENGINEERING CONSULTANT SHALL REFERENCE THE THORNTONS DESIGN STANDARDS FOR MIN., PREF. AND MAX. PARKING SPACE DIMENSIONS. LOCAL JURISDICTIONS SHALL SUPERCEDE THESE REQUIREMENTS IF MORE STRINGENT.

ZONE B BOLLARD DETAIL

Thorntons

P-006-001

NTS



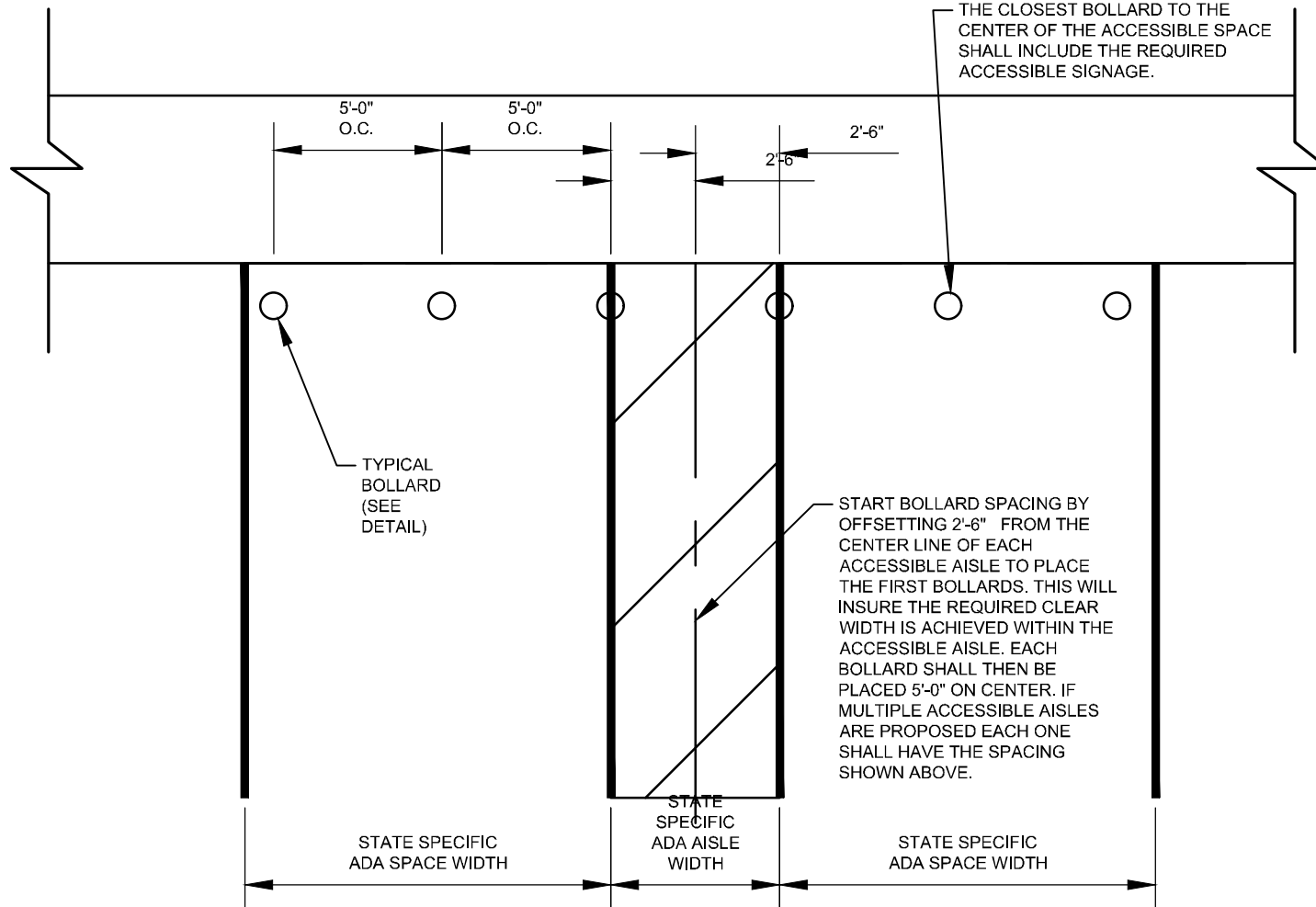
- SPECIFICATIONS:
1. SIZE OF ARROWS LEADING TO PUBLIC RIGHT OF WAY SHALL BE DETERMINED BY THE AUTHORITY HAVING JURISDICTION. IF SMALLER OR HOLLOW ARROWS CAN BE UTILIZED, PLEASE ADJUST DETAIL AS NECESSARY.
 2. PAVEMENT WORD, SYMBOL, AND ARROW MARKINGS SHALL BE INSTALLED PER MUTCD SECTION 3.8.20. THIS INCLUDES STRIPING COLOR AND PLACEMENT WITHIN PARKING LOT.
 3. ALL PAINT SHALL BE APPLIED TO A MINIMUM WET FILM THICKNESS OF 5 MILS. AND APPLIED WITH GLASS BEADS TO MANUFACTURERS RECOMMENDATIONS.
 4. ARROW DIRECTIONS AND TURN MOVEMENTS ARE PROJECT SPECIFIC AND MUST BE SPECIFIED BY THE ENGINEERING CONSULTANT AT EACH DRIVEWAY LOCATION.

STANDARD ARROWS AND DRIVEWAY STRIPING

Thorntons

P-001-001

NTS



- SPECIFICATIONS:
1. ENGINEERING CONSULTANT SHALL REFERENCE THE THORNTONS DESIGN STANDARDS FOR MIN., PREF. AND MAX. PARKING SPACE DIMENSIONS. LOCAL JURISDICTIONS SHALL SUPERCEDE THESE REQUIREMENTS IF MORE STRINGENT.

ZONE A BOLLARD DETAIL

Thorntons

P-005-001

NTS

Thorntons

P-012-001

NTS

Thorntons

P-011-001

NTS

Thorntons

P-010-001

NTS

Thorntons

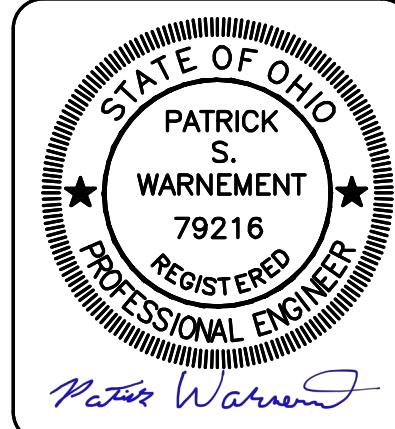
P-009-001

NTS

MONROE THORNTONS

Thorntons

GATEWAY BLVD. & SR-63
MONROE, OH 45036

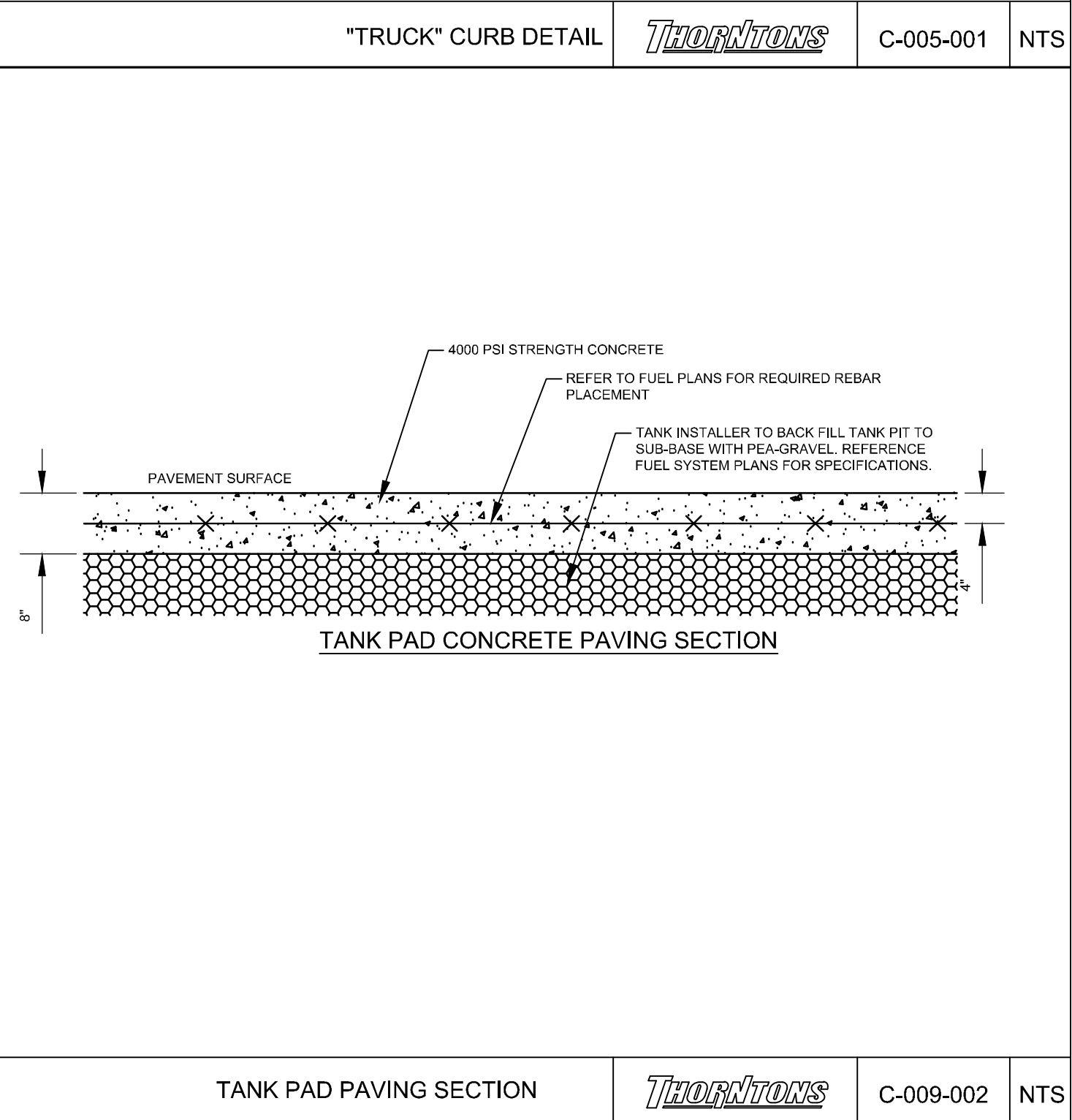
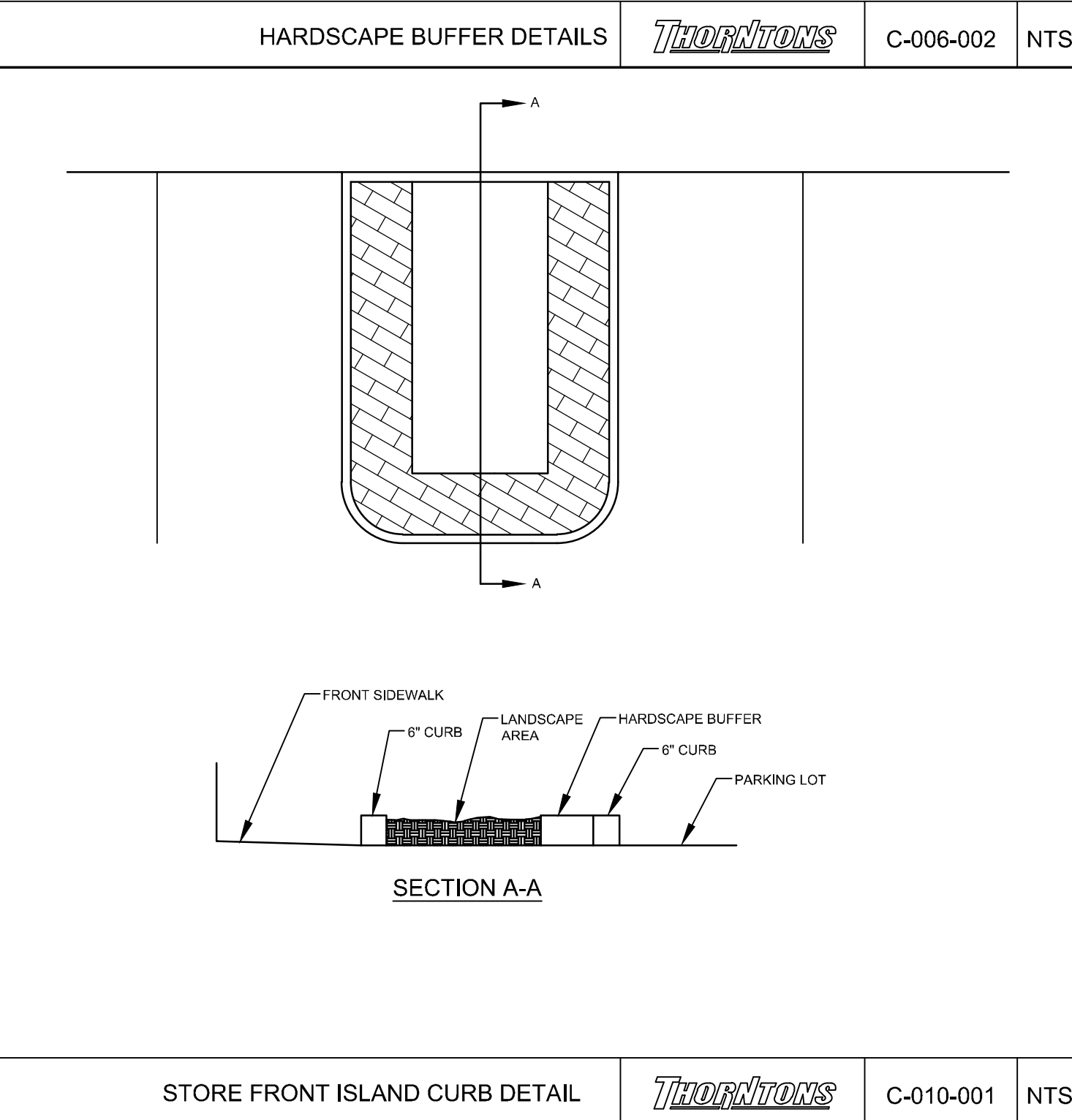
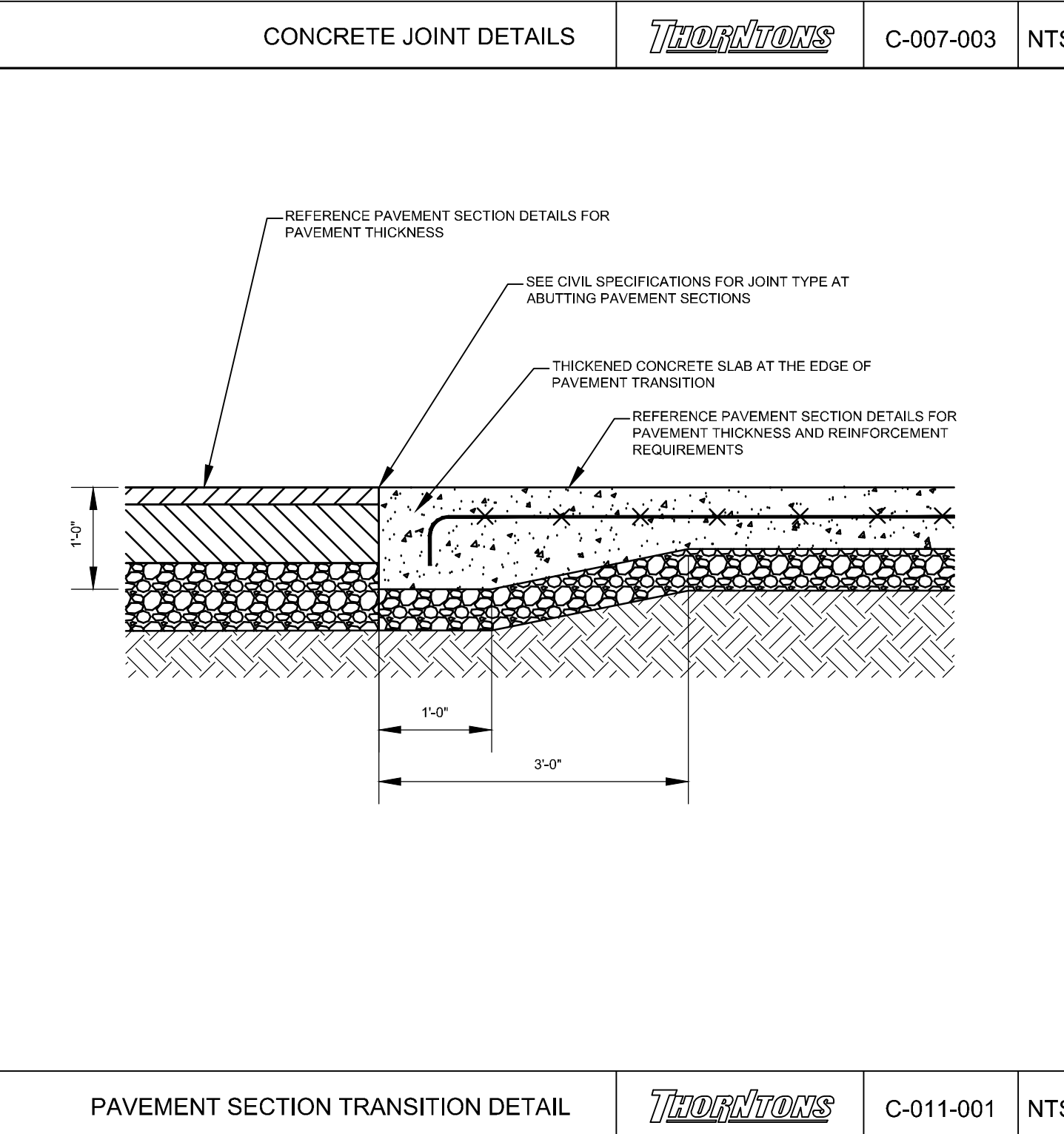
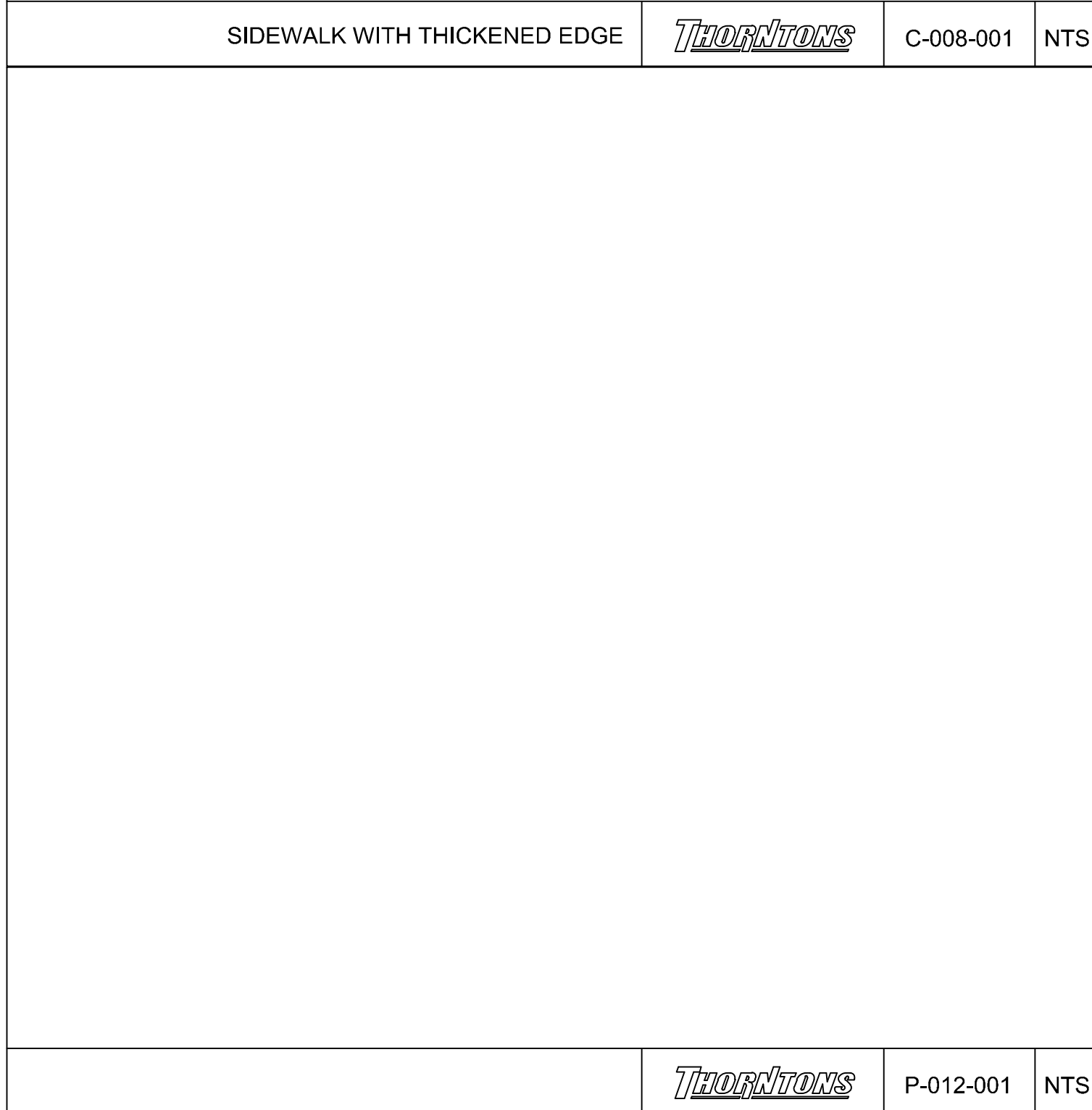
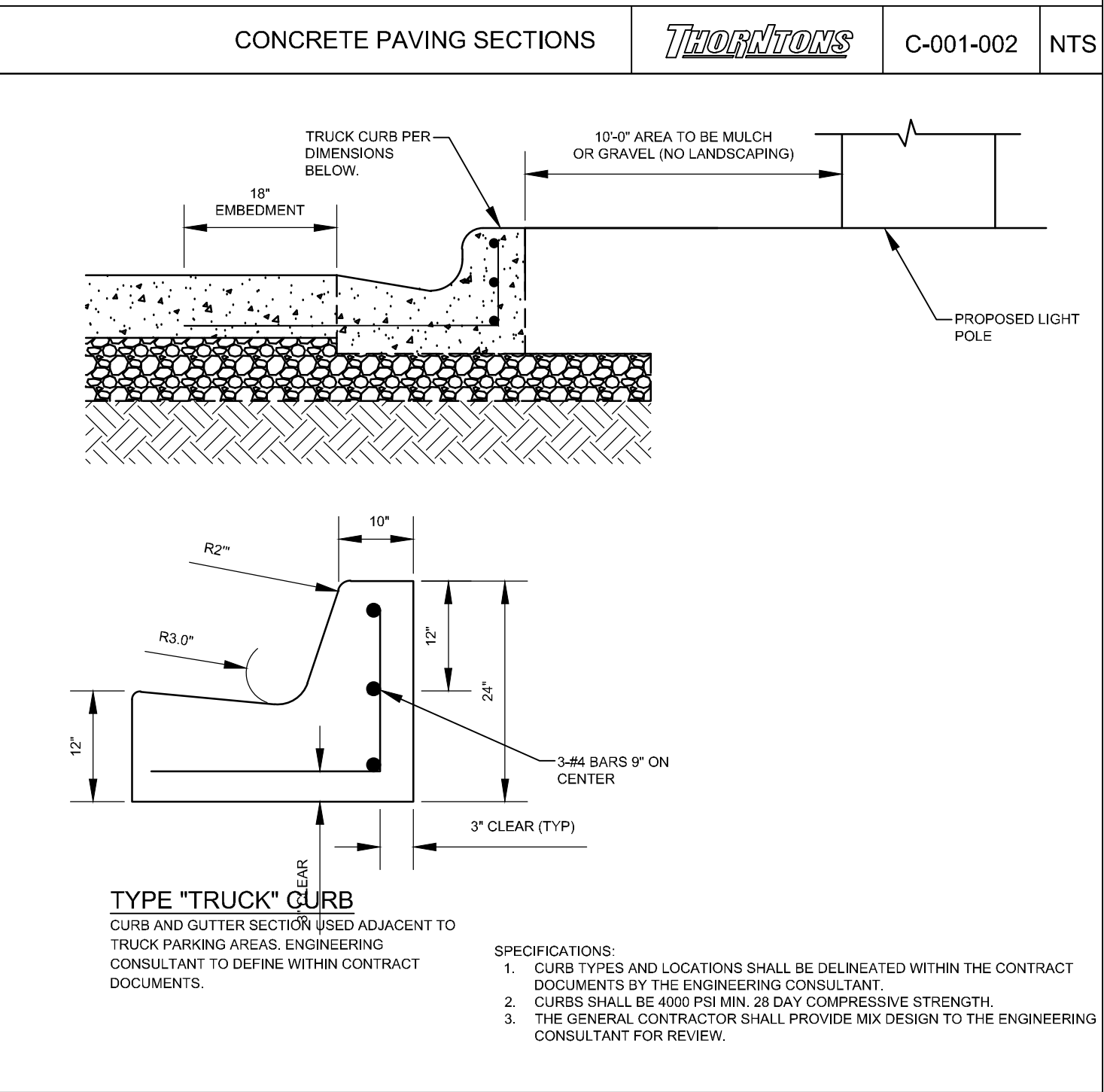
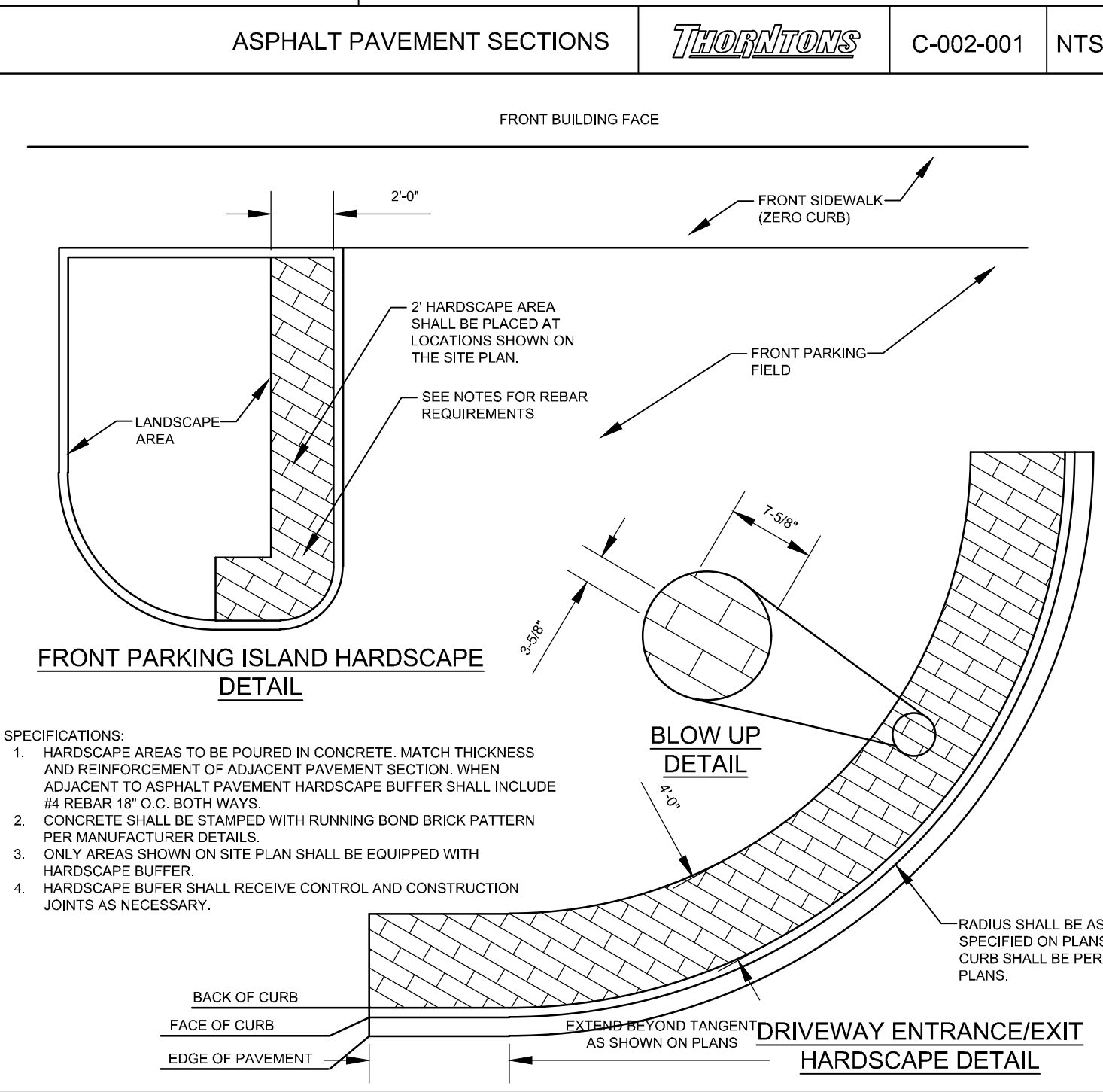
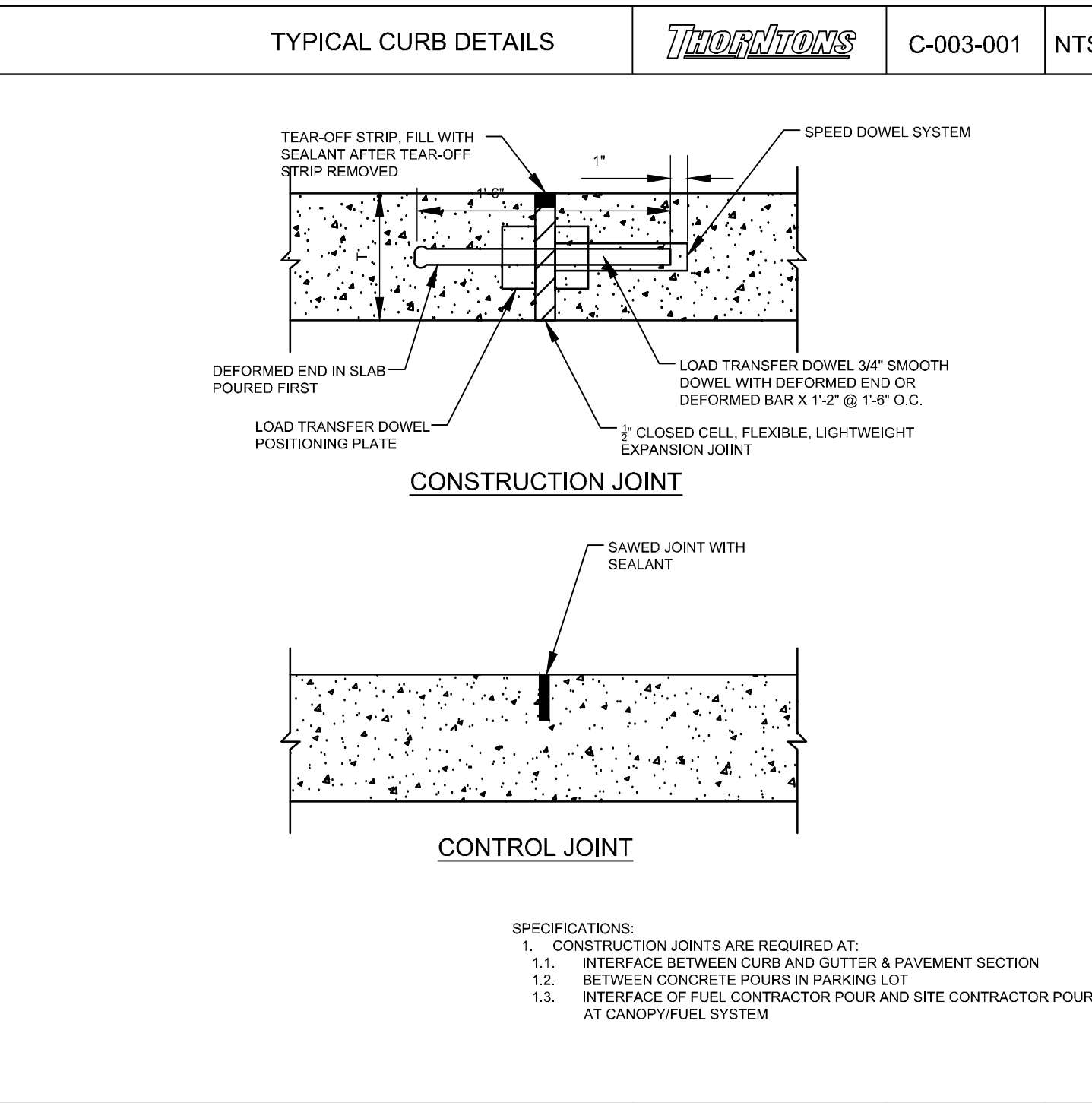
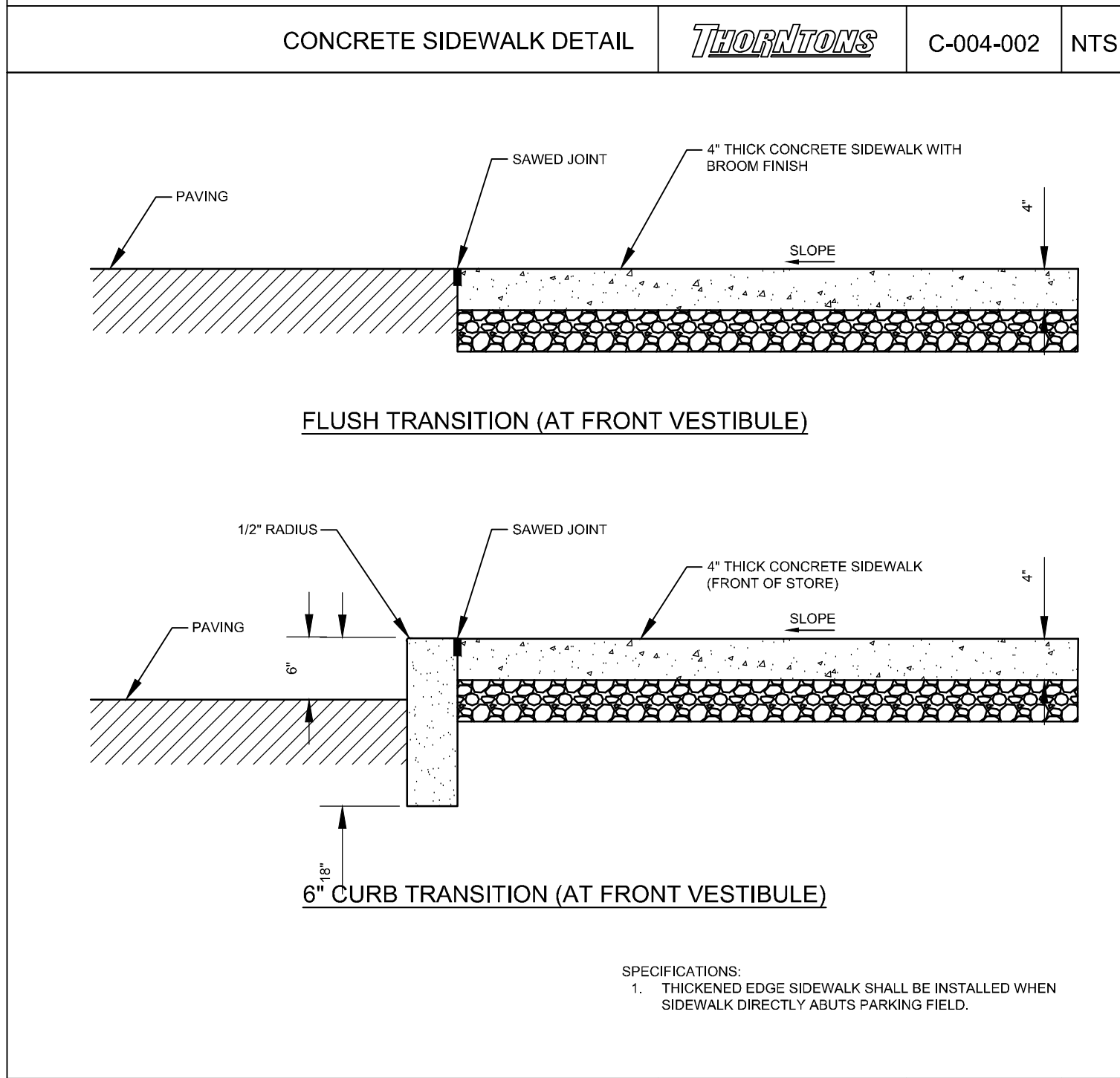
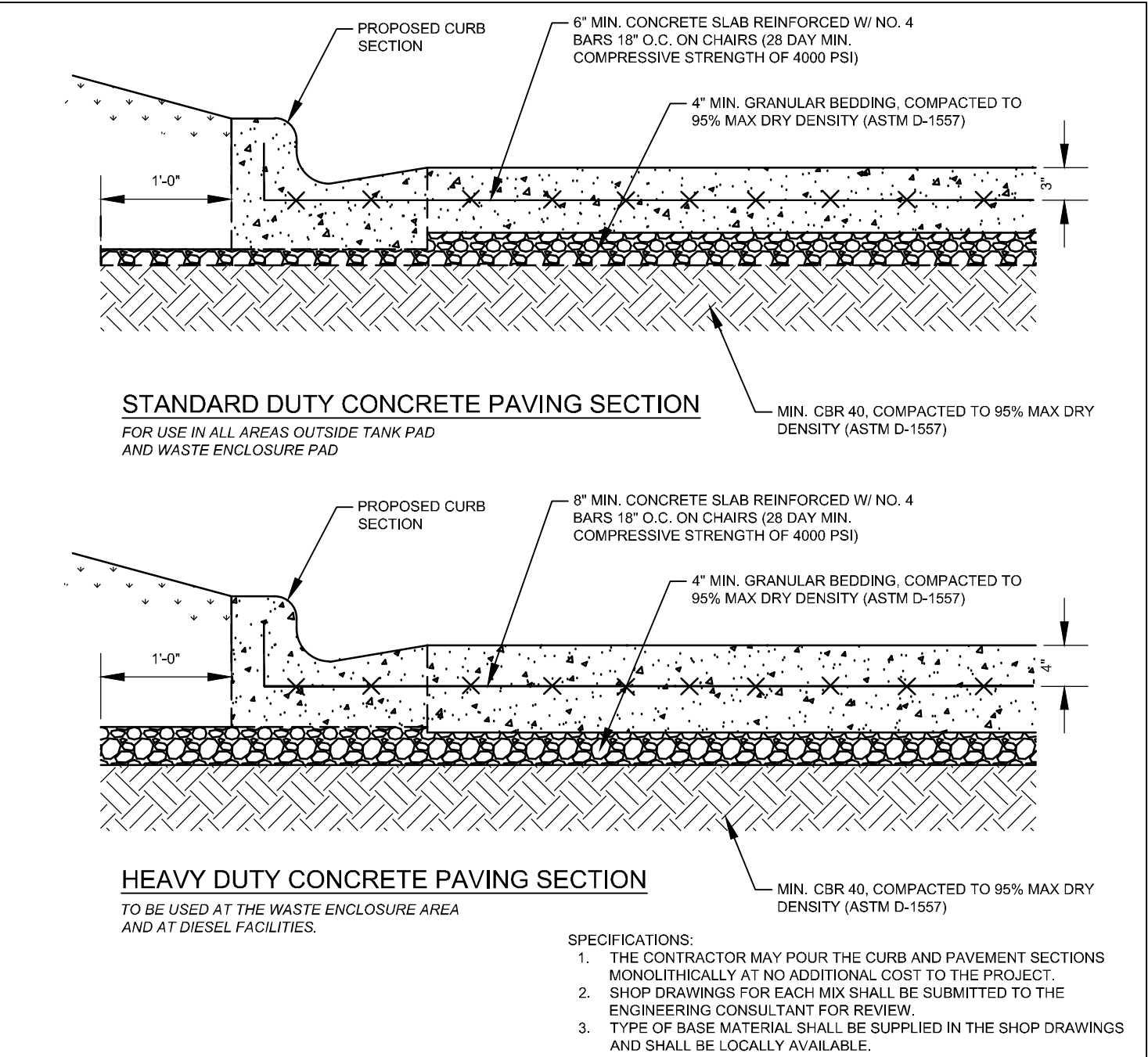
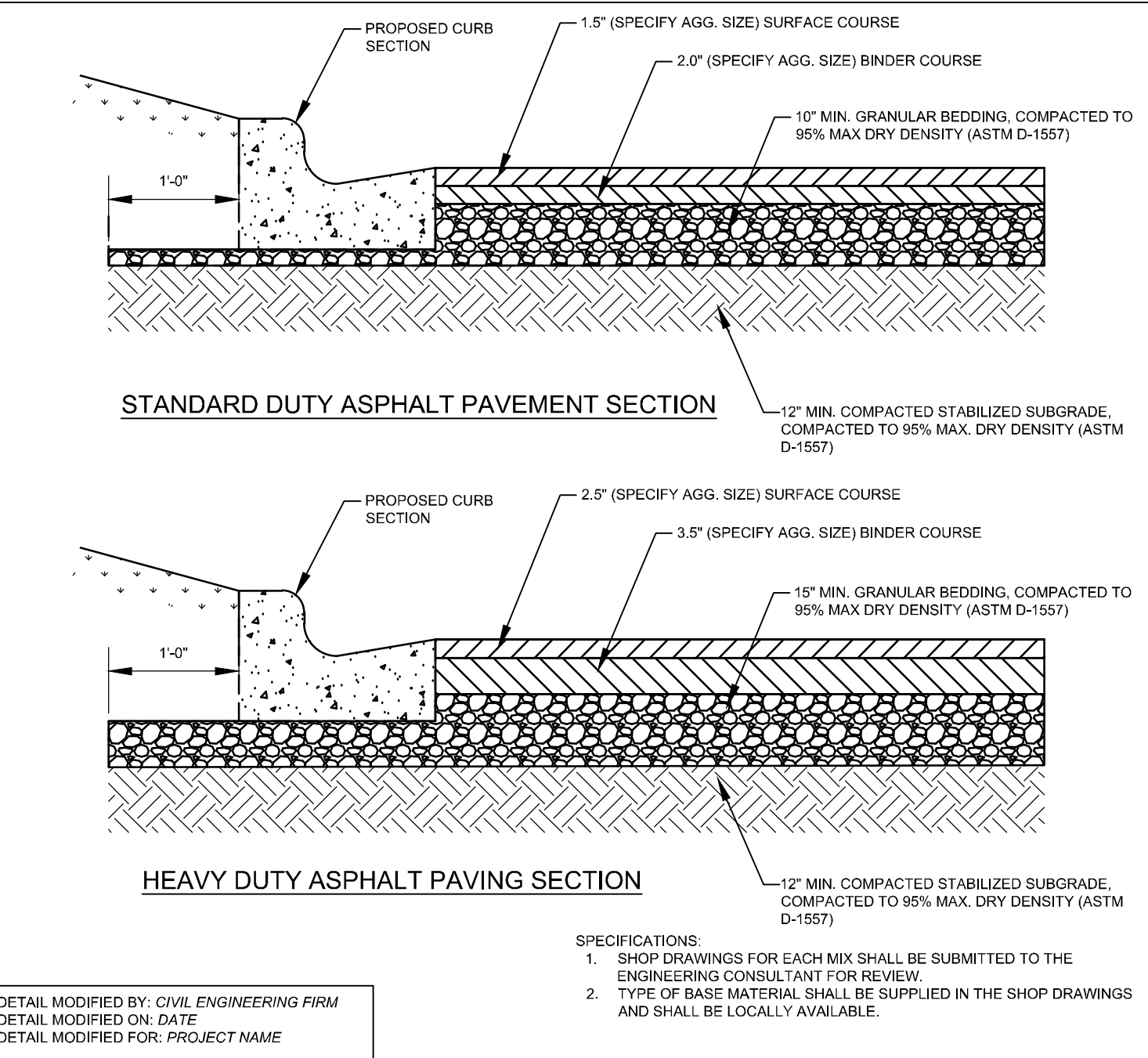
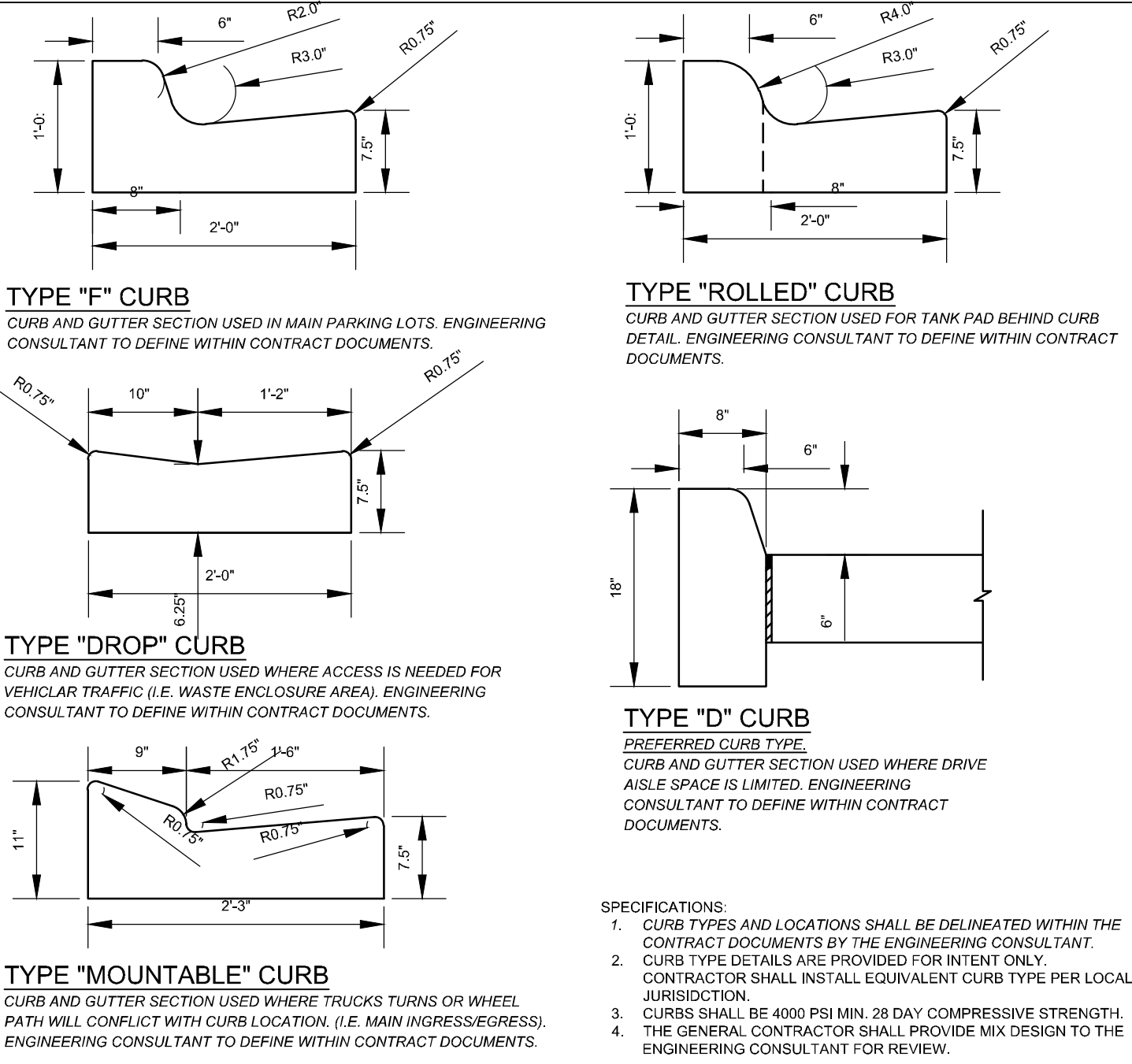
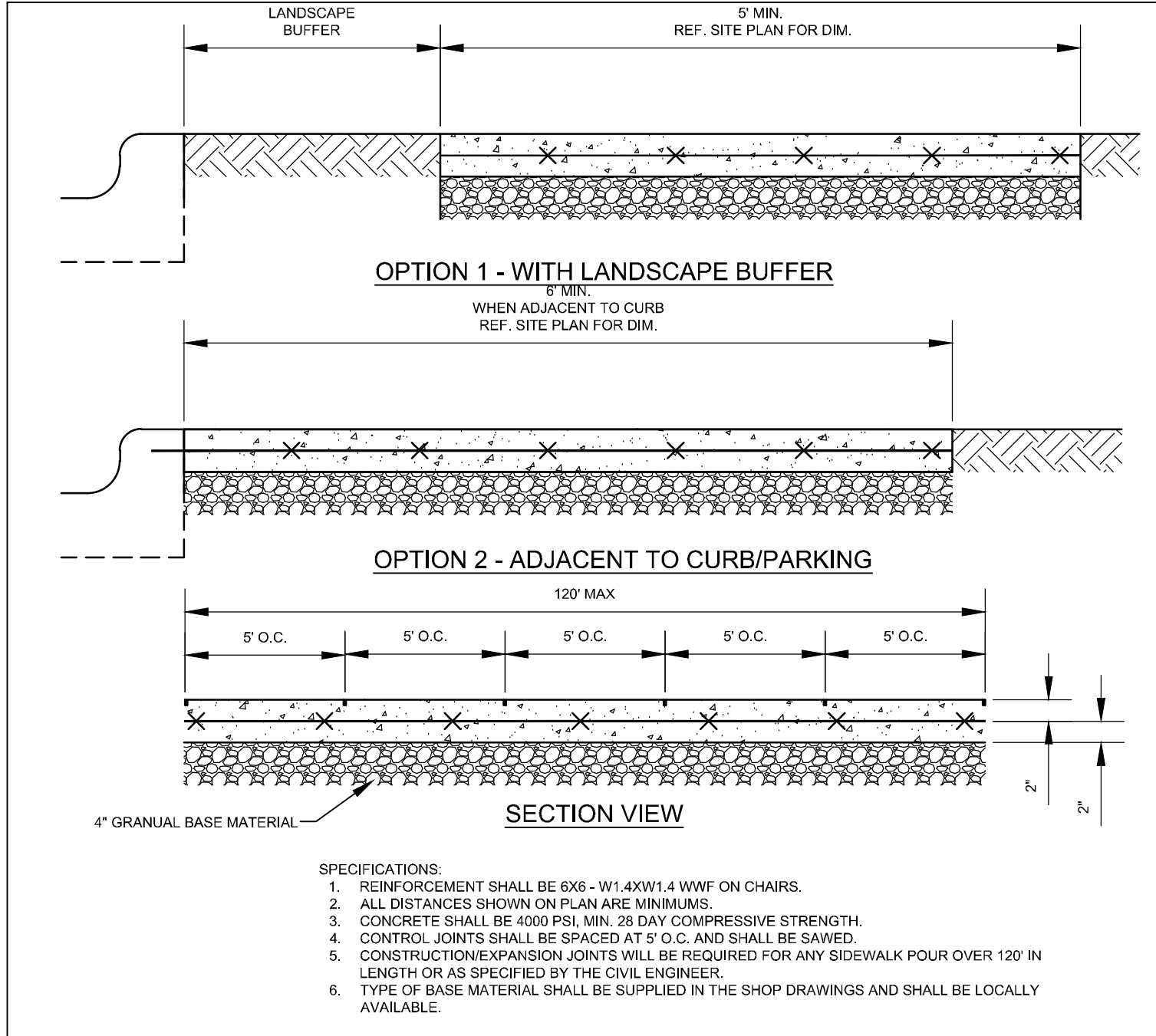


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REVISIONS	
NO.	DESCRIPTION

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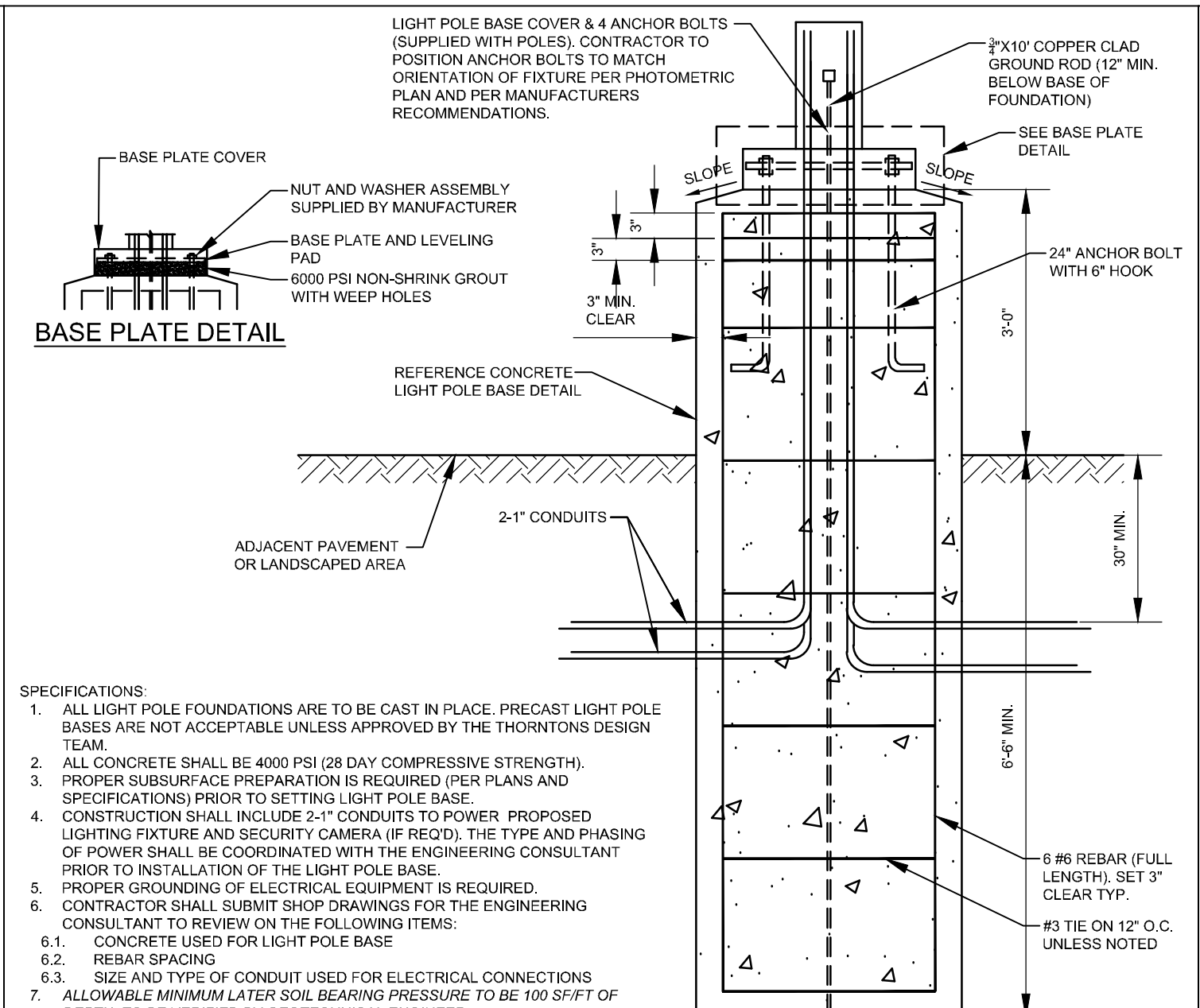
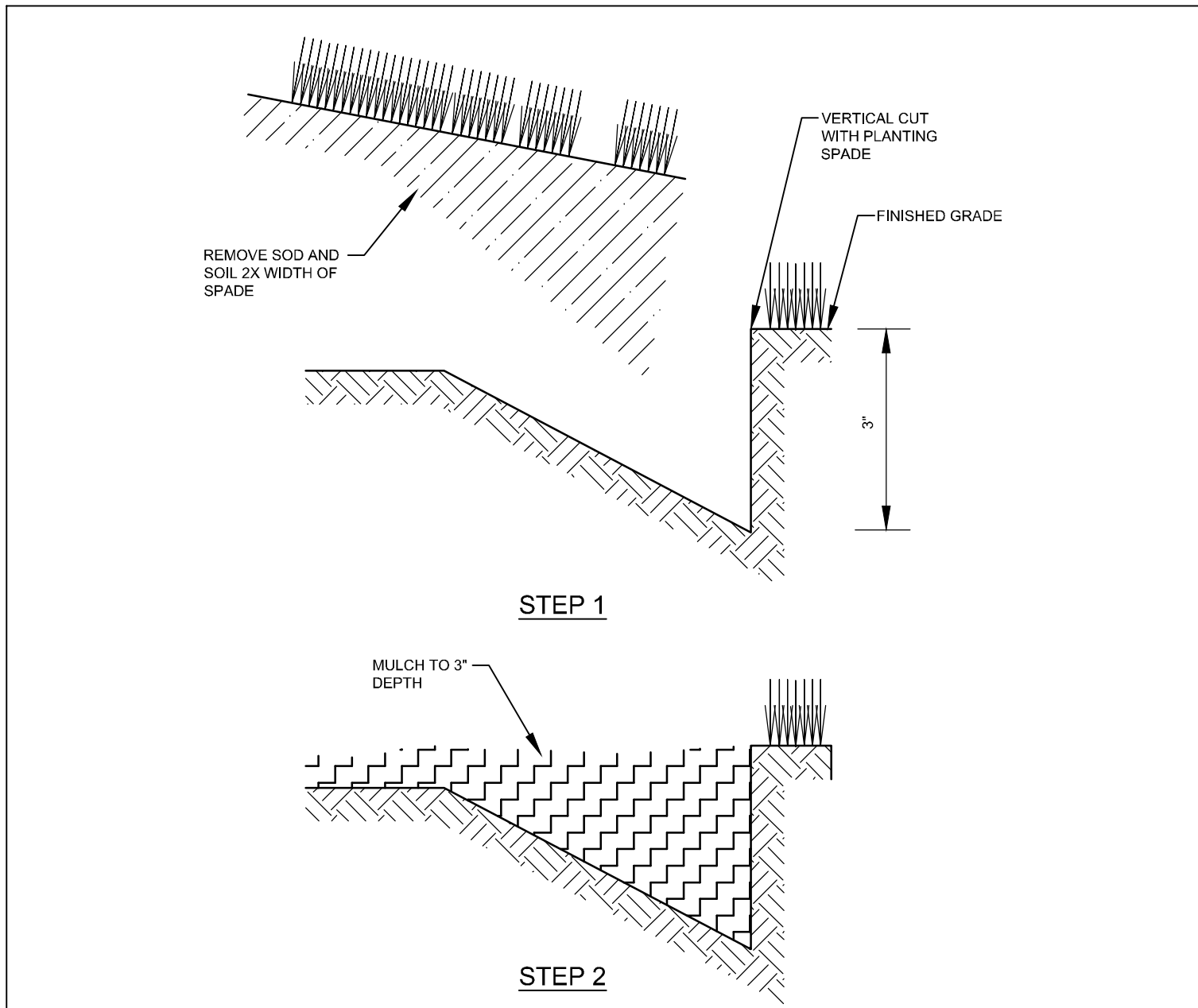
REVISIONS	
NO.	DESCRIPTION

DESIGN PROFESSIONAL:	REGISTRATION NUMBER:

MONROE THORNTONS	
DESIGN: JPS	DRAFTING: PDT
SCALE: 1" = 20'	DATE: 10/16/2020
THORNTONS STANDARD DETAILS CONT.	

GATEWAY BLVD. & SR-63 MONROE, OH 45036





LANDSCAPE (MECHANICAL) EDGING

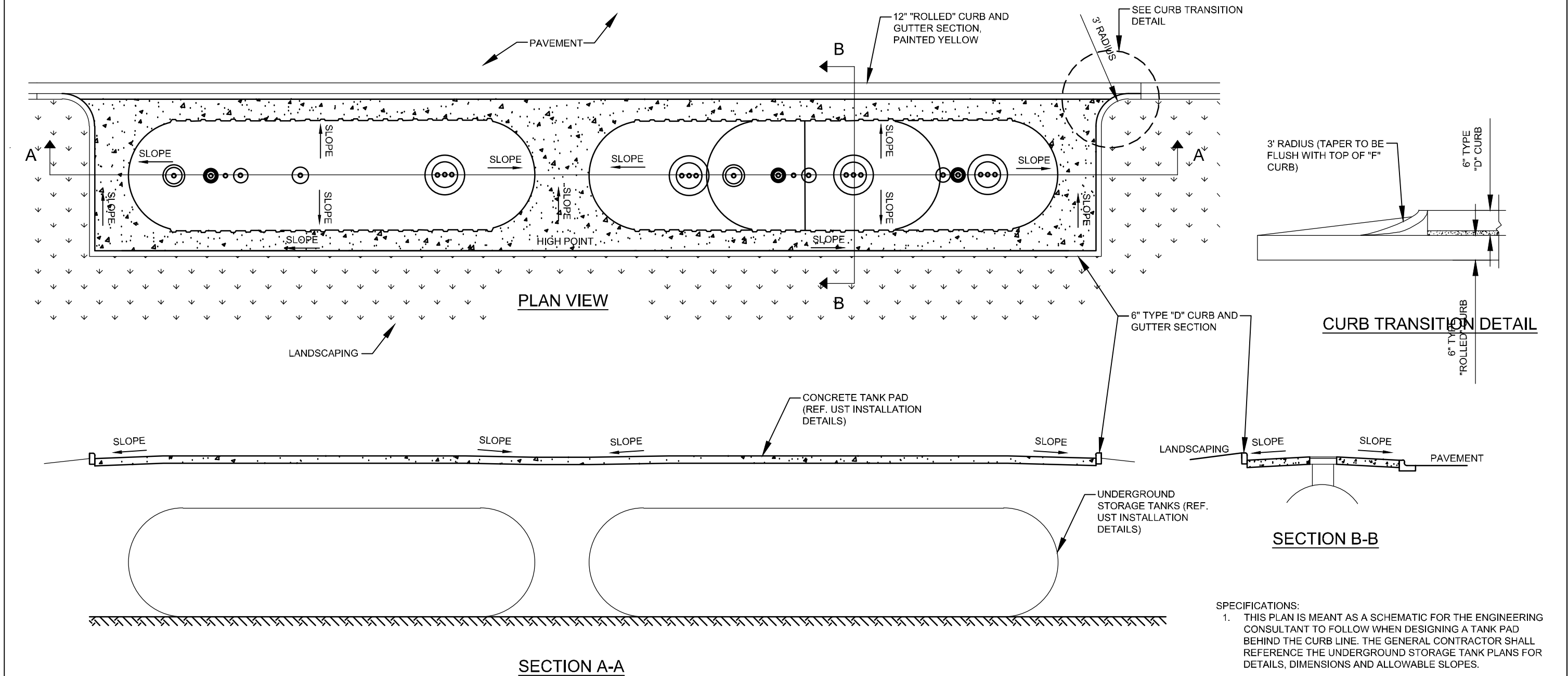
Thorntons

M-011-001 NTS

CONCRETE LIGHT POLE FOUNDATION DETAIL

Thorntons

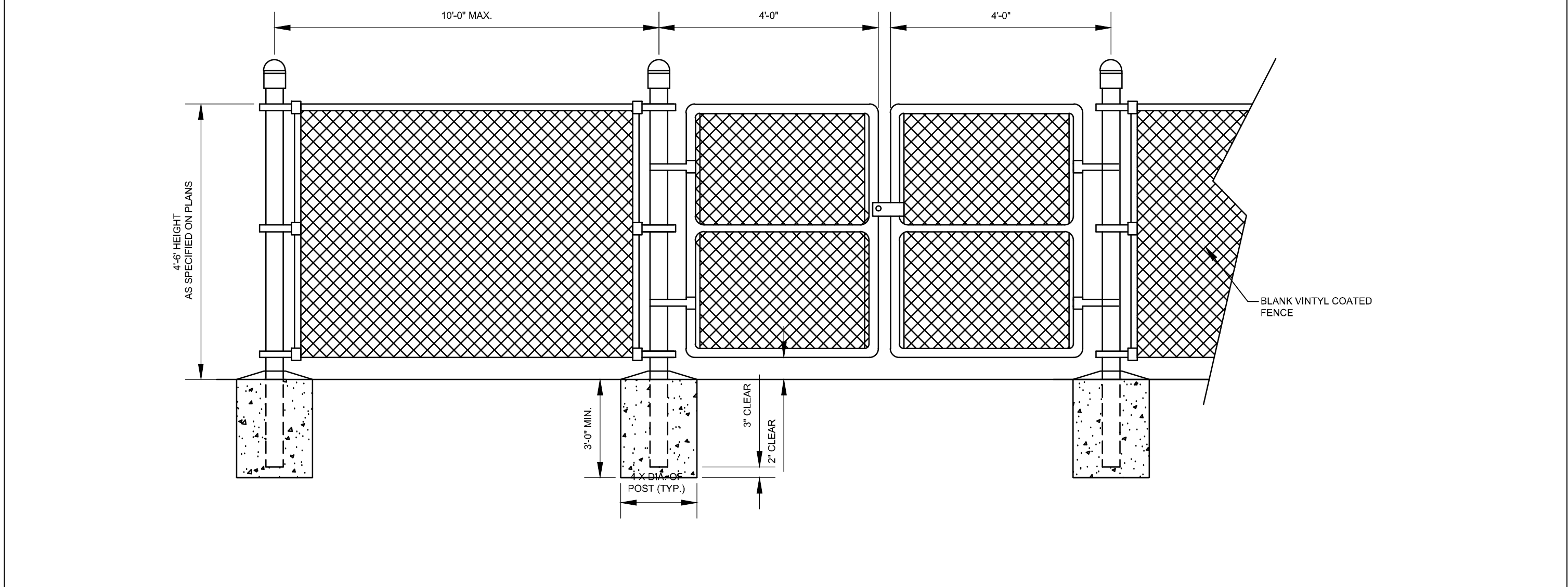
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UST TANK PAD (BEHIND CURB) DETAIL

Thorntons

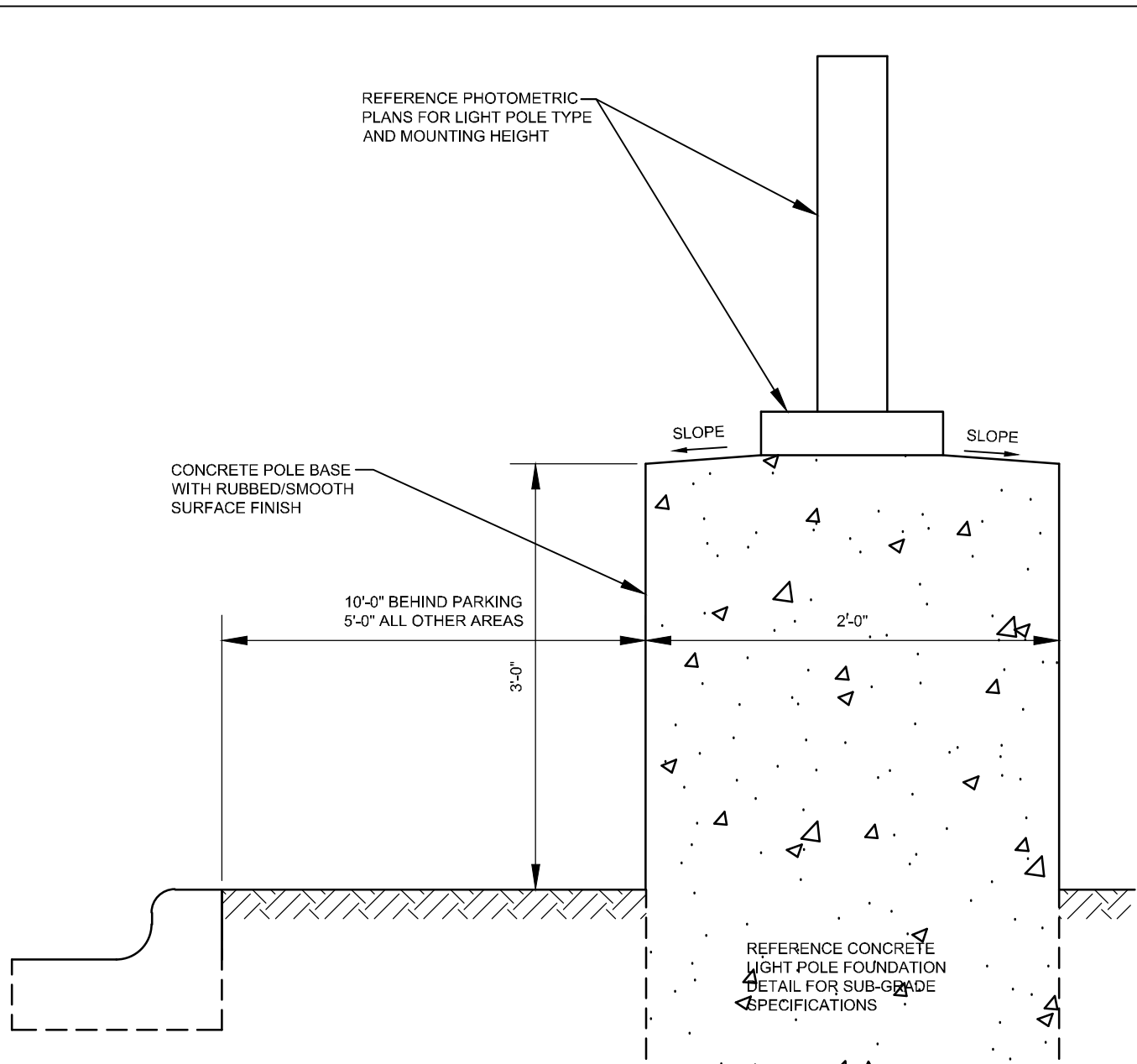
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CHAIN LINK FENCE WITH GATE

Thorntons

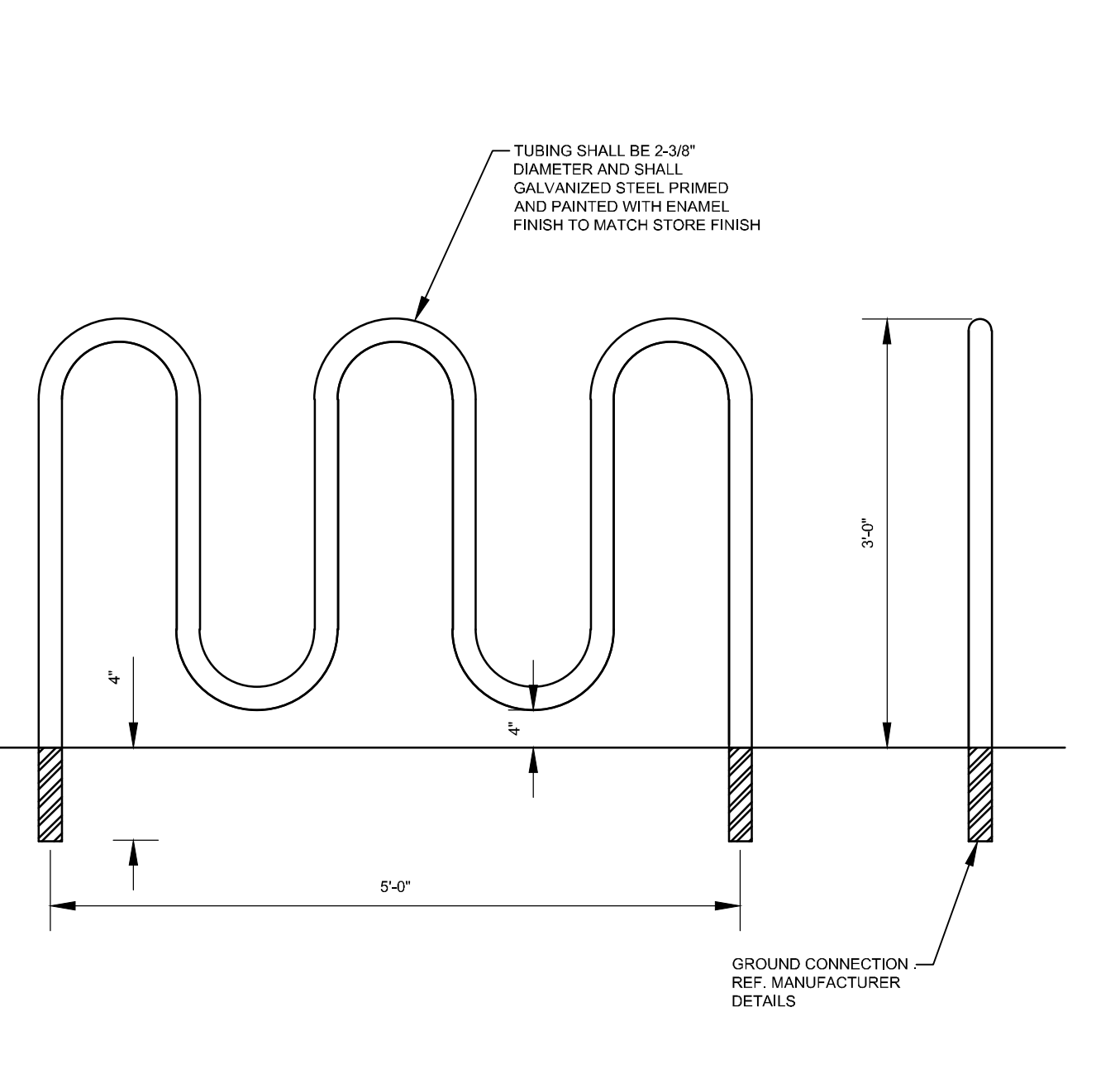
M-010-001 NTS



DIESEL FACILITY LIGHT POLE BASE DETAIL

Thorntons

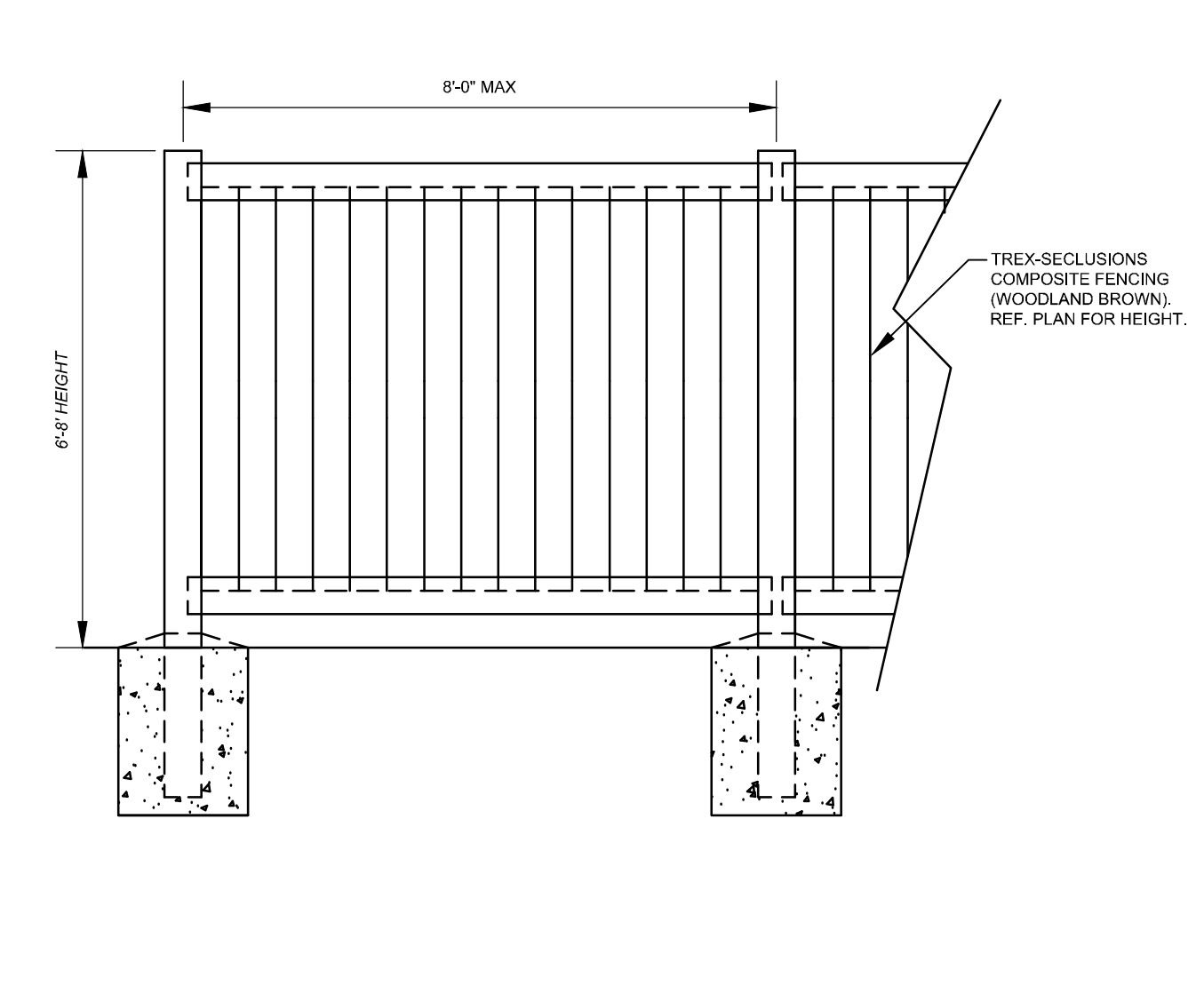
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BIKE RACK DETAIL

Thorntons

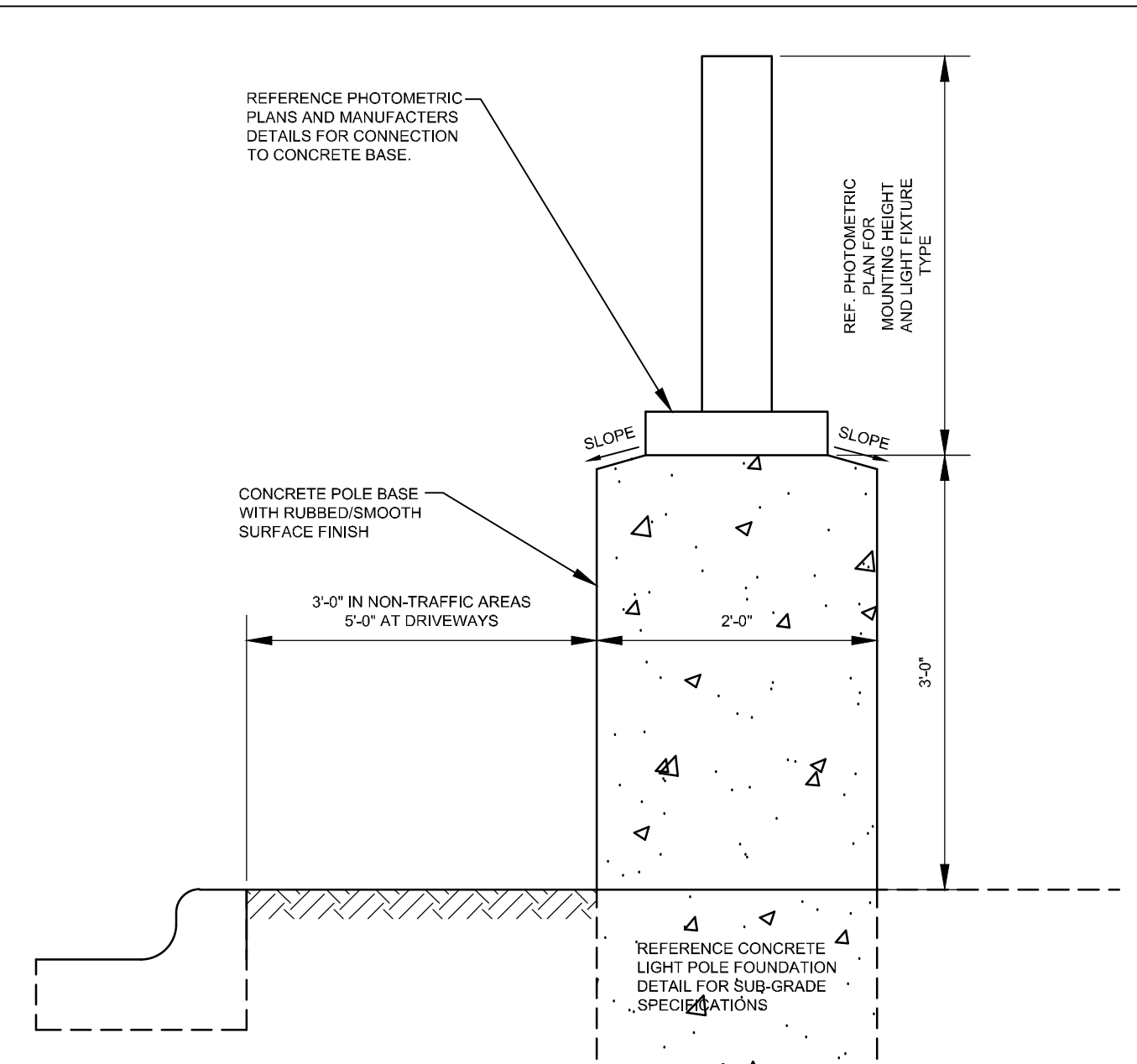
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COMPOSITE (PRIVACY) FENCE DETAIL

Thorntons

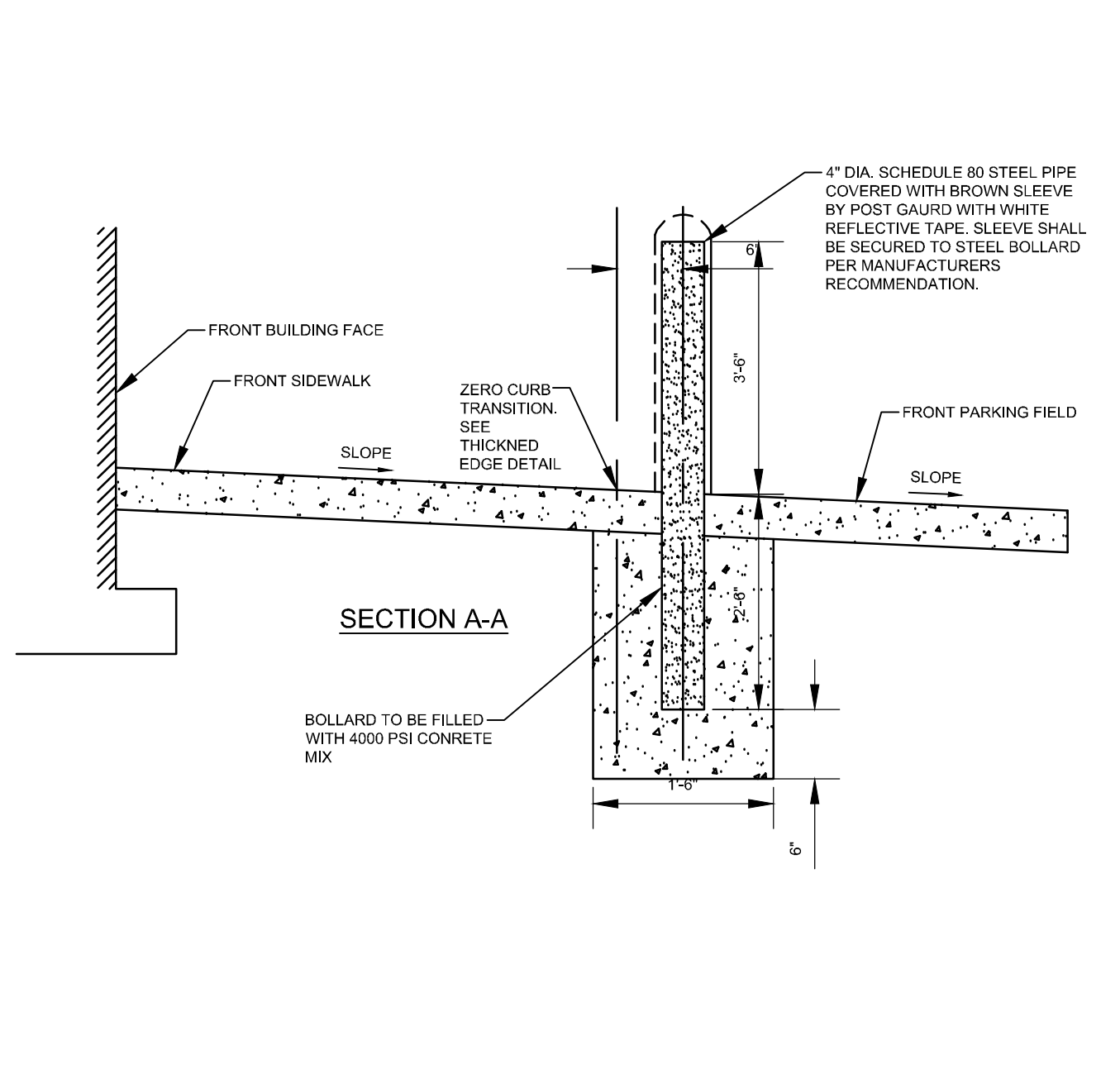
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STANDARD LIGHT POLE BASE DETAIL

Thorntons

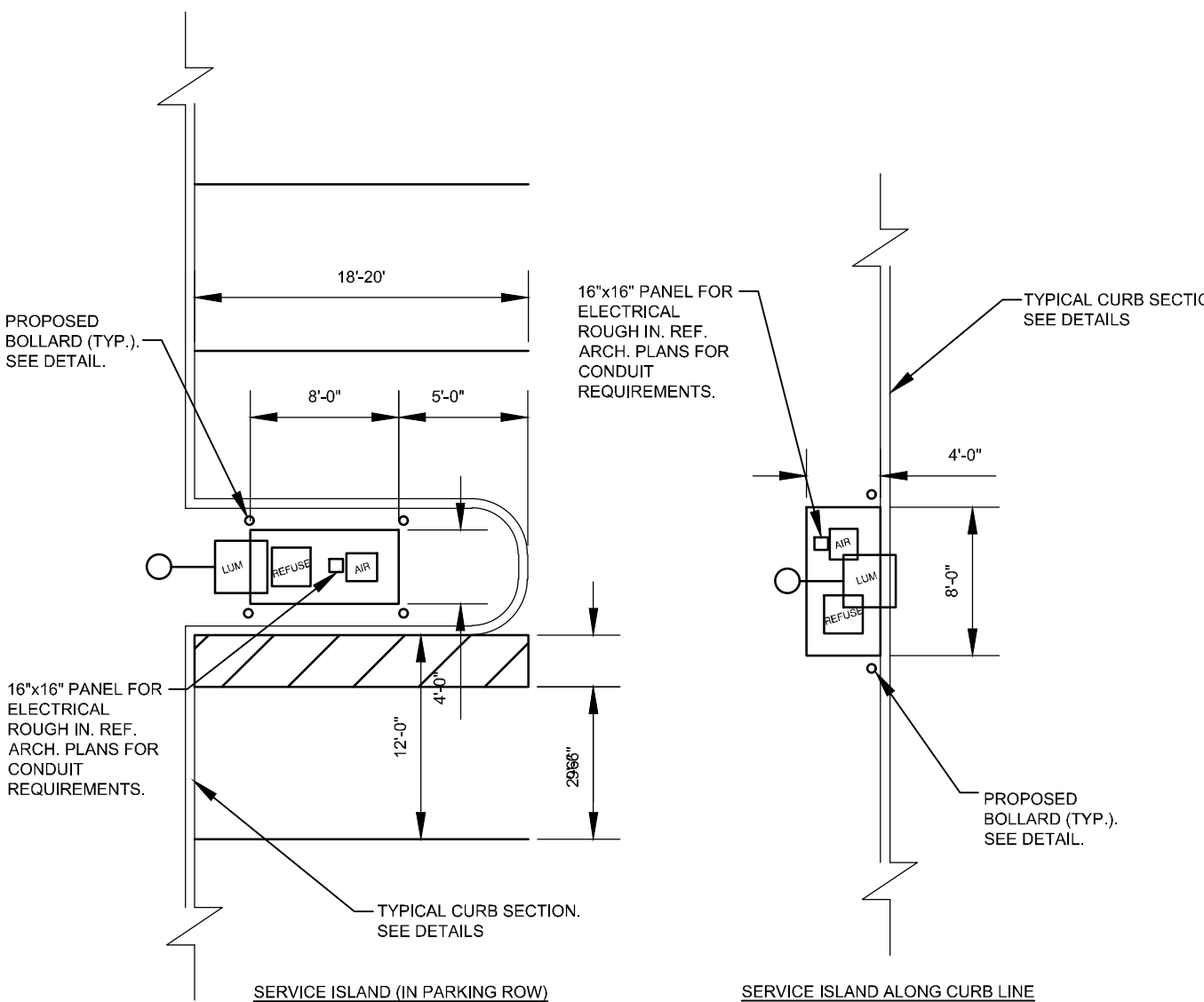
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PIPE BOLLARD (ZERO CURB)

Thorntons

M-005-002 NTS



SERVICE ISLAND DETAILS

Thorntons

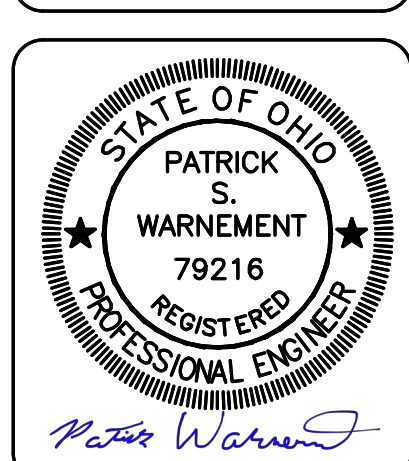
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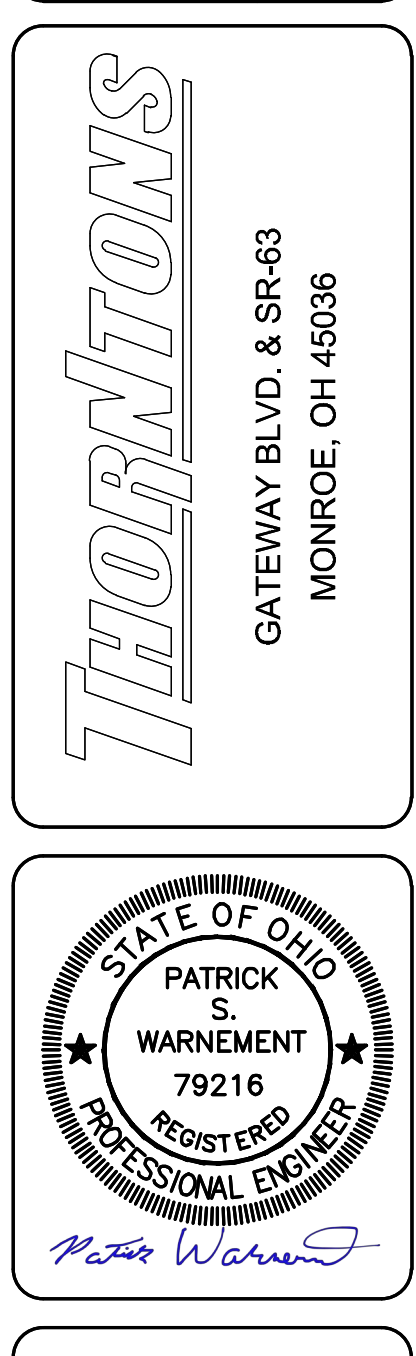
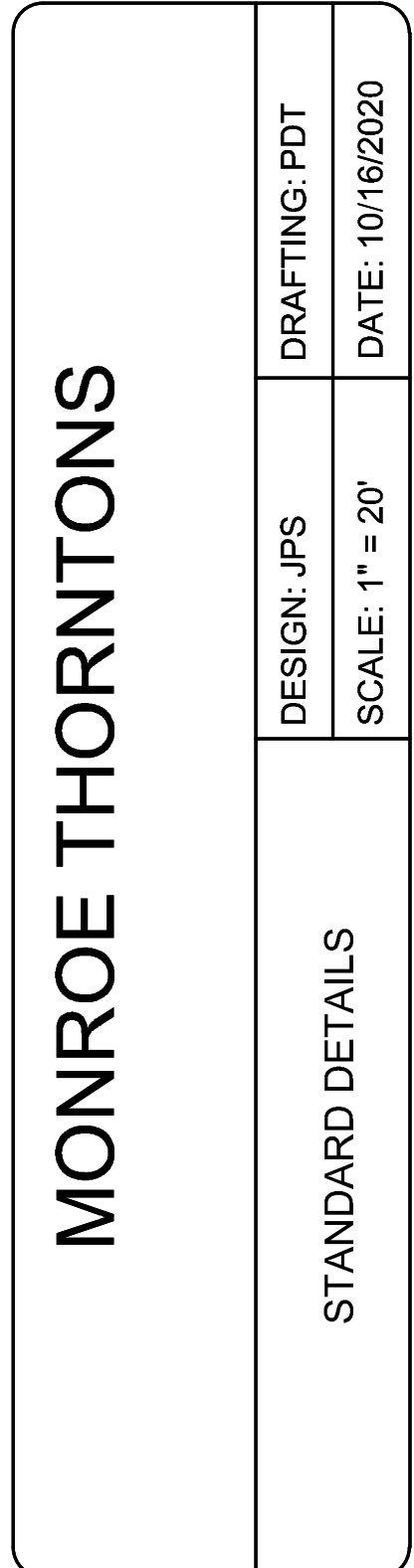
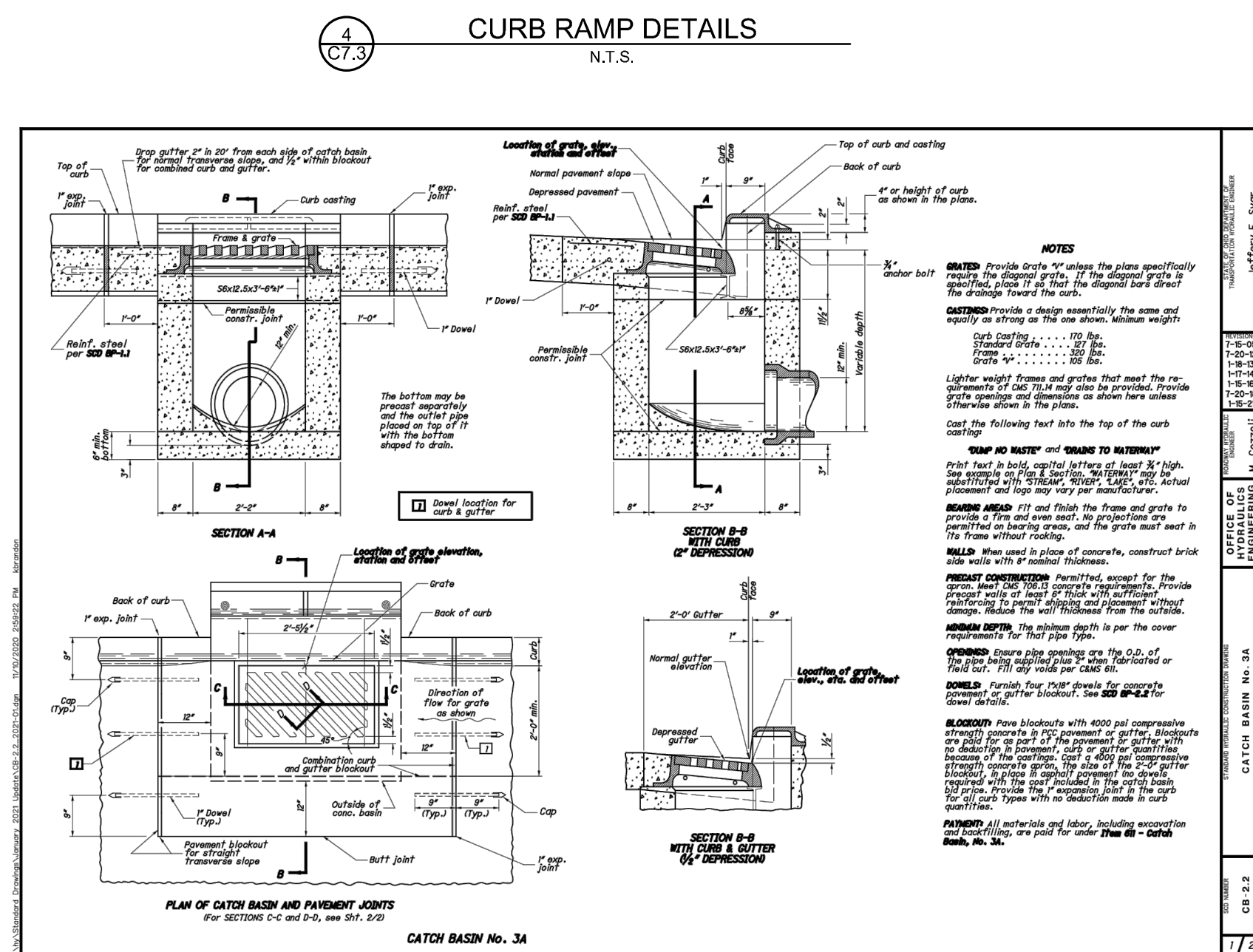
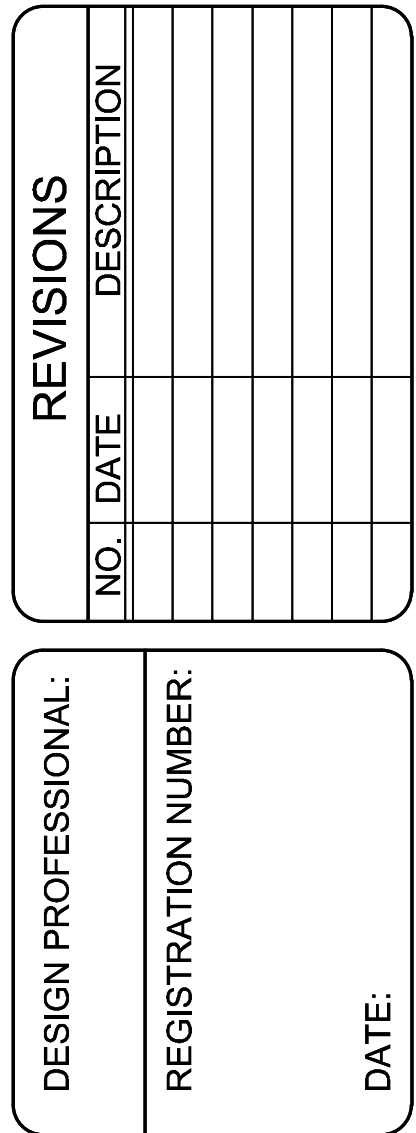
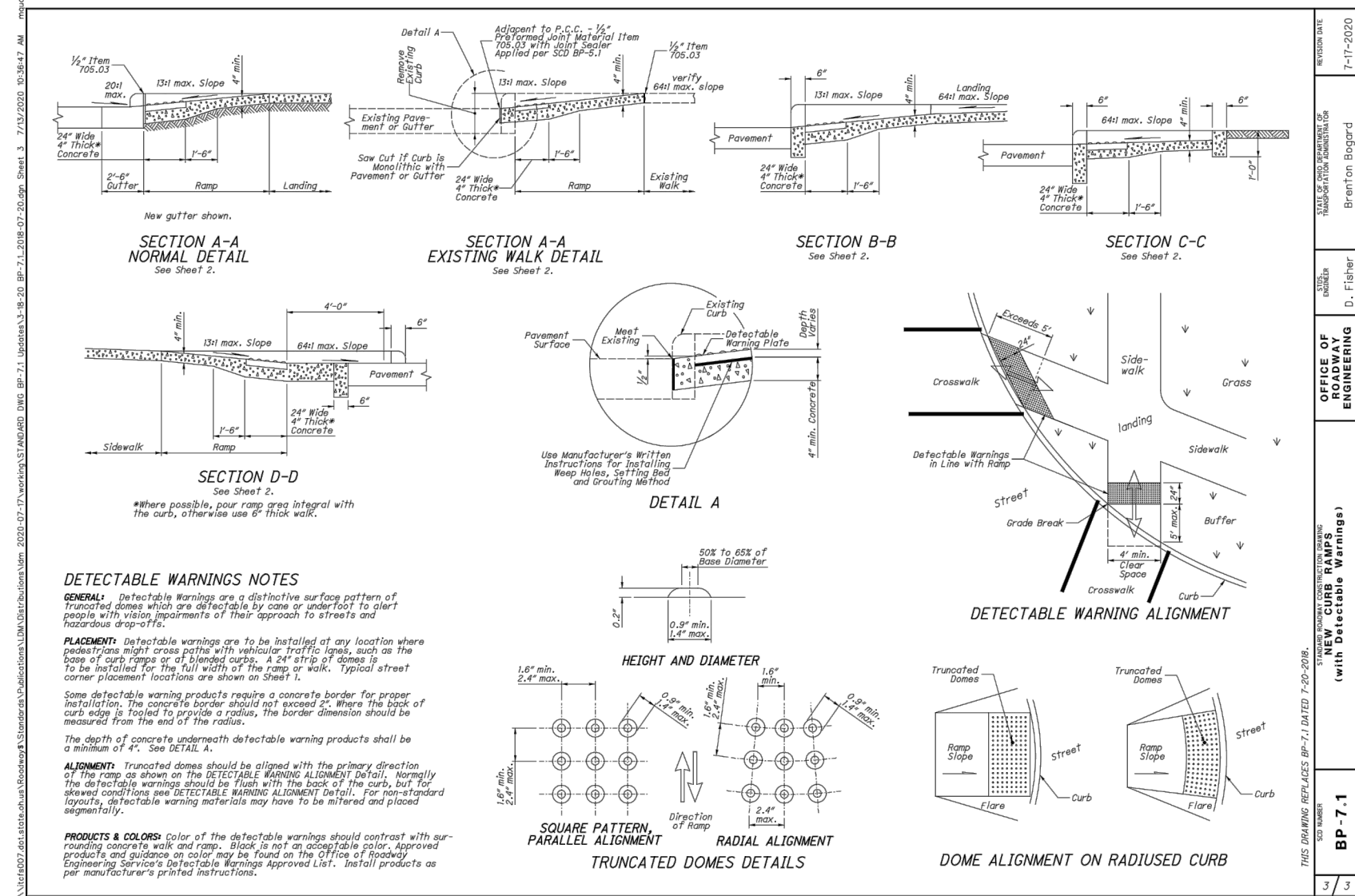
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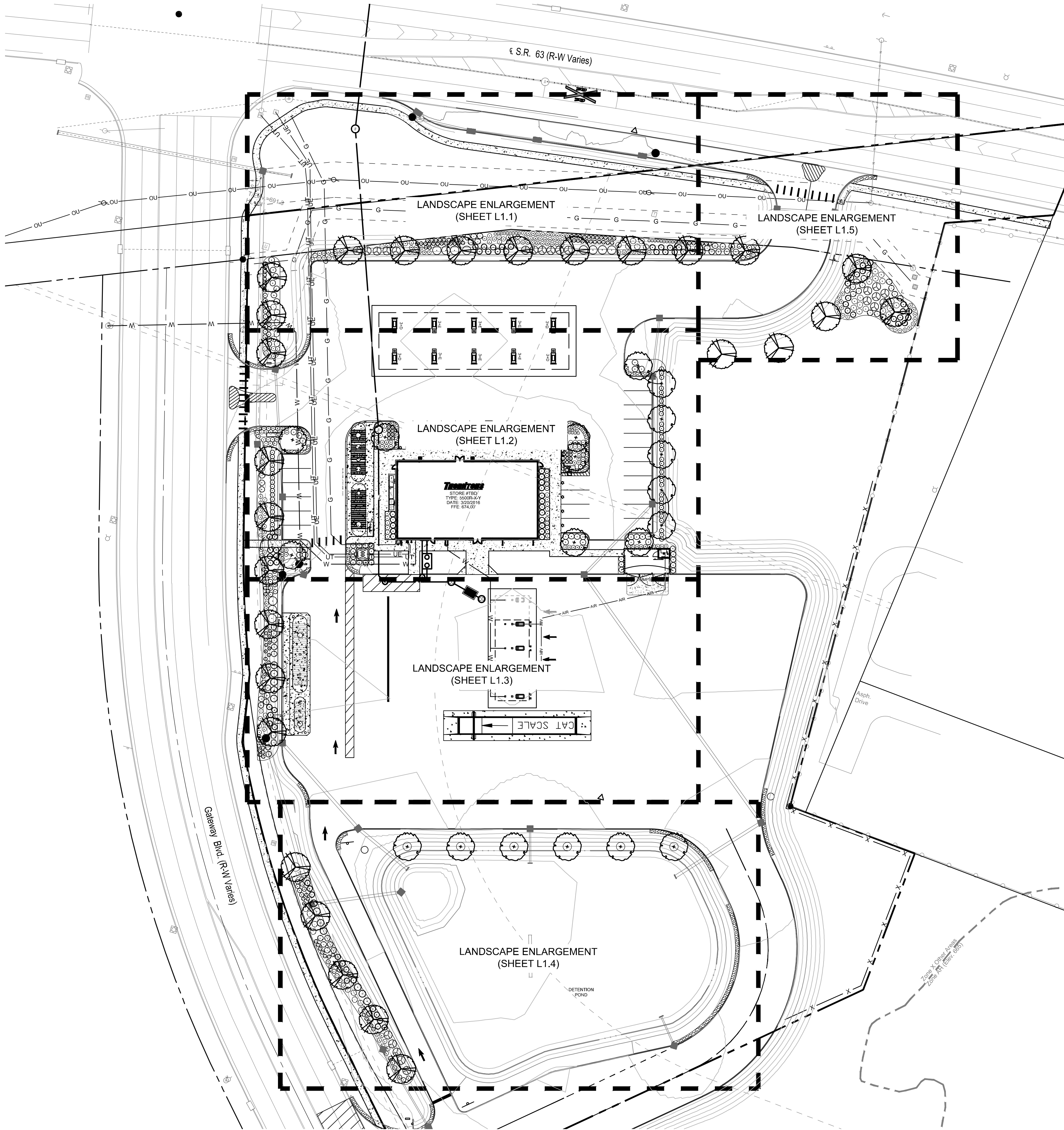
MONROE THORNTONS	
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SCALE: 1" = 20'	DATE: 10/16/2020
THORNTONS STANDARD DETAILS CONT.	

GATEWAY BLVD. & SR-63 MONROE, OH 45036





UTILITY NOTE
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ZONING REQUIREMENTS (MONROE, OHIO ZONING CODE)

LANDSCAPING AND BUFFER STANDARDS (CHAPTER 1212)		
	REQUIRED	PROPOSED
STREET TREE REQUIREMENTS (CHAPTER 1212.06)	STREET TREES ARE REQUIRED ALONG PUBLIC AND PRIVATE STREETS SPACED 40 LF O.C. AT 2" MIN. CALIPER DBH. S.R. 63: +/- 444 LF = 11 TREES GATEWAY BLVD: +/- 538 LF = 14 TREES	S.R. 63: 11 TREES PROVIDED GATEWAY BLVD: 14 TREES PROVIDED
LANDSCAPING FOR INTERIOR VEHICULAR USE AREAS (CHAPTER 1212.07)	LANDSCAPE ISLANDS SHALL HAVE A MINIMUM SIZE OF 135 SF FOR SINGLE-LOADED PARKING ROWS & A MINIMUM SIZE OF 270 SF FOR DOUBLE-LOADED PARKING ROWS. EACH SINGLE-LOADED LANDSCAPE ISLAND SHALL HAVE ONE TREE, EACH DOUBLE-LOADED LANDSCAPE ISLAND SHALL HAVE TWO TREES, EACH LANDSCAPE ISLAND SHALL HAVE SHRUBS AT THE RATE OF 3 SHRUBS PER REQUIRED TREE.	THE REQUIRED TREES AND SHRUBS ARE PROVIDED IN EACH LANDSCAPE ISLAND.
LANDSCAPING FOR PERIMETER VEHICULAR USE AREAS (CHAPTER 1212.07)	A MINIMUM OF ONE CANOPY TREE FOR EVERY FIVE PARKING SPACES AND A CONTINUOUS 3' TALL HEDGE OF SHRUBS IS REQUIRED. ALL NON-PARKING VEHICULAR USE AREAS ARE REQUIRED ONE CANOPY TREE PER 50 LF AND THREE SHRUBS PER 15 LF. 32 PARKING SPACES = 7 TREES REQ. + CONTINUOUS 3' TALL HEDGE REQUIRED 1,545 LF OF NON-PARKING SPACE VUA PERIMETER = 31 TREES + 309 SHRUBS REQUIRED	7 TREES + CONTINUOUS 3' TALL HEDGE PROVIDED AT ALL PARKING SPACE PERIMETER AREAS. 31 TREES (INCLUDING STREET TREES) + 337 SHRUBS PROVIDED AT NON-PARKING VUA PERIMETER AREAS.
FRONT YARD LANDSCAPING (CHAPTER 1212.08)	A MINIMUM OF TWENTY PERCENT OF THE REQUIRED FRONT YARD AREA SHALL BE CONTINUOUSLY LANDSCAPED WITH TREES, SHRUBS, AND PLANTING BEDS. THIS REQUIREMENT MAY BE USED TO FULFILL THE VUA PERIMETER USE LANDSCAPE REQUIREMENT. S.R. 63: 26,092 SF FRONT YARD AREA X 20% = 5,219 SF LANDSCAPE AREA REQUIRED GATEWAY BLVD.: 25,612 SF FRONT YARD AREA X 20% = 5,123 SF LANDSCAPE AREA REQUIRED	S.R. 63: 5,296 SF LANDSCAPE AREA PROVIDED GATEWAY BLVD.: 6,169 SF LANDSCAPE AREA PROVIDED
LANDSCAPING FOR SERVICE STRUCTURES (CHAPTER 1212.09)	SERVICE STRUCTURES SHALL BE SCREENED FROM PUBLIC VIEW.	WALLED DUMPSTER ENCLOSURE PROVIDED. REFER TO ARCHITECTURAL PLANS.

GENERAL & PLANTING NOTES

- ANY UTILITY STRUCTURE, LIGHT POLES, SIGN, OR OTHER FEATURE MAY NOT BE ADDED TO ANY REQUIRED LANDSCAPE ISLAND IN SUCH A MANNER THAT WOULD DISPLACE THE REQUIRED LANDSCAPE ELEMENT(S) (TREES, SHRUBS, ETC.).
- LOCATION OF HOSE ATTACHMENTS AND/OR PERMANENT AUTOMATIC IRRIGATION SYSTEM IS A ZONING CODE REQUIREMENT. THESE FEATURES ARE TO BE DETERMINED.
- EACH CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES.
- ALL SHRUB MASSES TO BE INCORPORATED BY A CONTINUOUS MULCH BED TO LIMITS SHOWN AND AS SPECIFIED. MULCH BEDS TO HAVE A NEAT, EDGED APPEARANCE.
- SUBSURFACE IMPROVEMENTS SHALL BE OBSERVED. THE CONTRACTOR SHALL CONTACT THE TENNESSEE UTILITIES PROTECTION SERVICE 48 HOURS PRIOR TO ANY EXCAVATION OR DIGGING TO ENSURE THE LOCATION OF UNDERGROUND UTILITIES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT SUCH UNDERGROUND UTILITIES.
- ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS SHALL BE FINE GRADED AND SEEDED.
- ALL TREES WITHIN A SPECIES SHALL HAVE MATCHING FORM.
- THE CONTRACTOR SHALL ENSURE THAT ALL NEWLY PLANTED TREES ARE PERFECTLY ALIGNED AND SET PLUMB WITH PROPER RELATIONSHIP TO THE SURROUNDING GRADE. CONFIRM FINISHED GRADE PRIOR TO PLANTING.
- ALL PLANT MATERIAL SHALL BE OF THE SIZE AND TYPE SPECIFIED. IF SUBSTITUTIONS ARE APPROVED BY THE OWNER'S REPRESENTATIVE, THE SIZE AND GRADING STANDARDS SHALL CONFORM TO THOSE OF THE AMERICAN ASSOCIATION OF NURSERYMEN.
- CONTRACTOR SHALL NOT PLANT ANY TREES WITHIN THE PIPELINE EASEMENT.
- REFER TO SHEET L1.6 FOR PLANT SCHEDULE AND PLANTING DETAILS.

PLANT MATERIAL

- DECIDUOUS TREE, TYP.
- EVERGREEN TREE, TYP.
- SHRUBS, TYP.
- PERENNIALS & ORNAMENTAL GRASSES, TYP.
- EXISTING TREES TO REMAIN, PROTECT IN PLACE
-
-
-
-



REVISIONS		
NO.	DATE	DESCRIPTION
	09/20/21	PER STAFF REVIEW

DESIGN PROFESSIONAL:	REGISTRATION NUMBER:

DATE:

MONROE THORNTONS

LANDSCAPE PLAN

DESIGN: JPS
SCALE: 1" = 20'

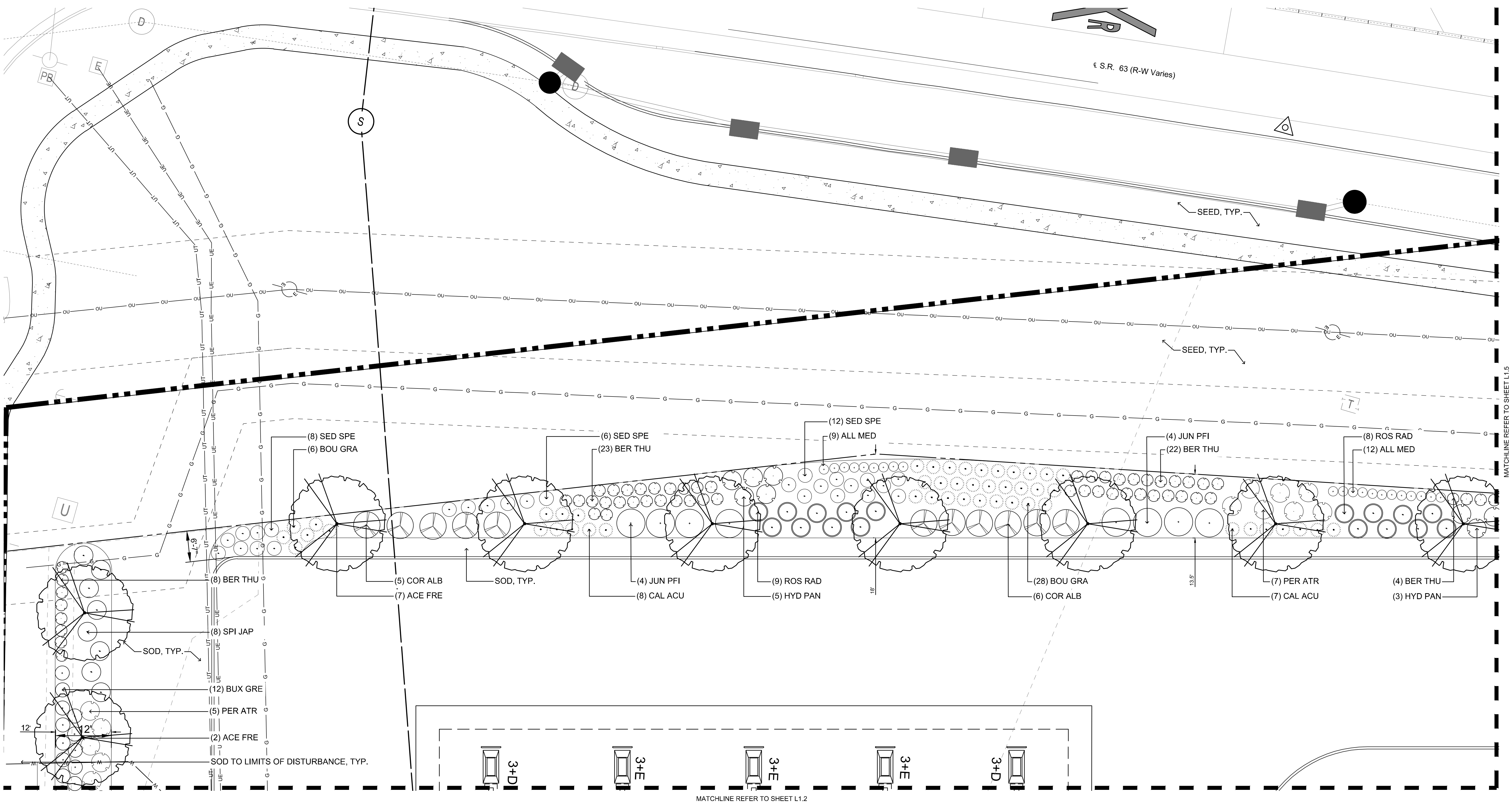
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DATE: 10/16/2020

Thorntons

GATEWAY BLVD. & SR-63
MONROE, OH 45036

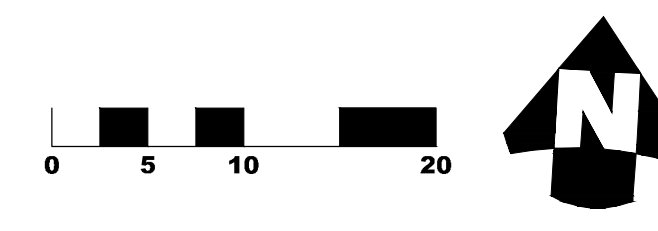


L1.0



UTILITY NOTE
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- PLANT MATERIAL
- DECIDUOUS TREE, TYP.
 - EVERGREEN TREE, TYP.
 - SHRUBS, TYP.
 - PERENNIALS & ORNAMENTAL GRASSES, TYP.
 - EXISTING TREES TO REMAIN, PROTECT IN PLACE
- 5-6
L1.6
- 6-7
L1.6
- 4
L1.6
- 2-3
L1.6



REVISIONS	
NO.	DATE

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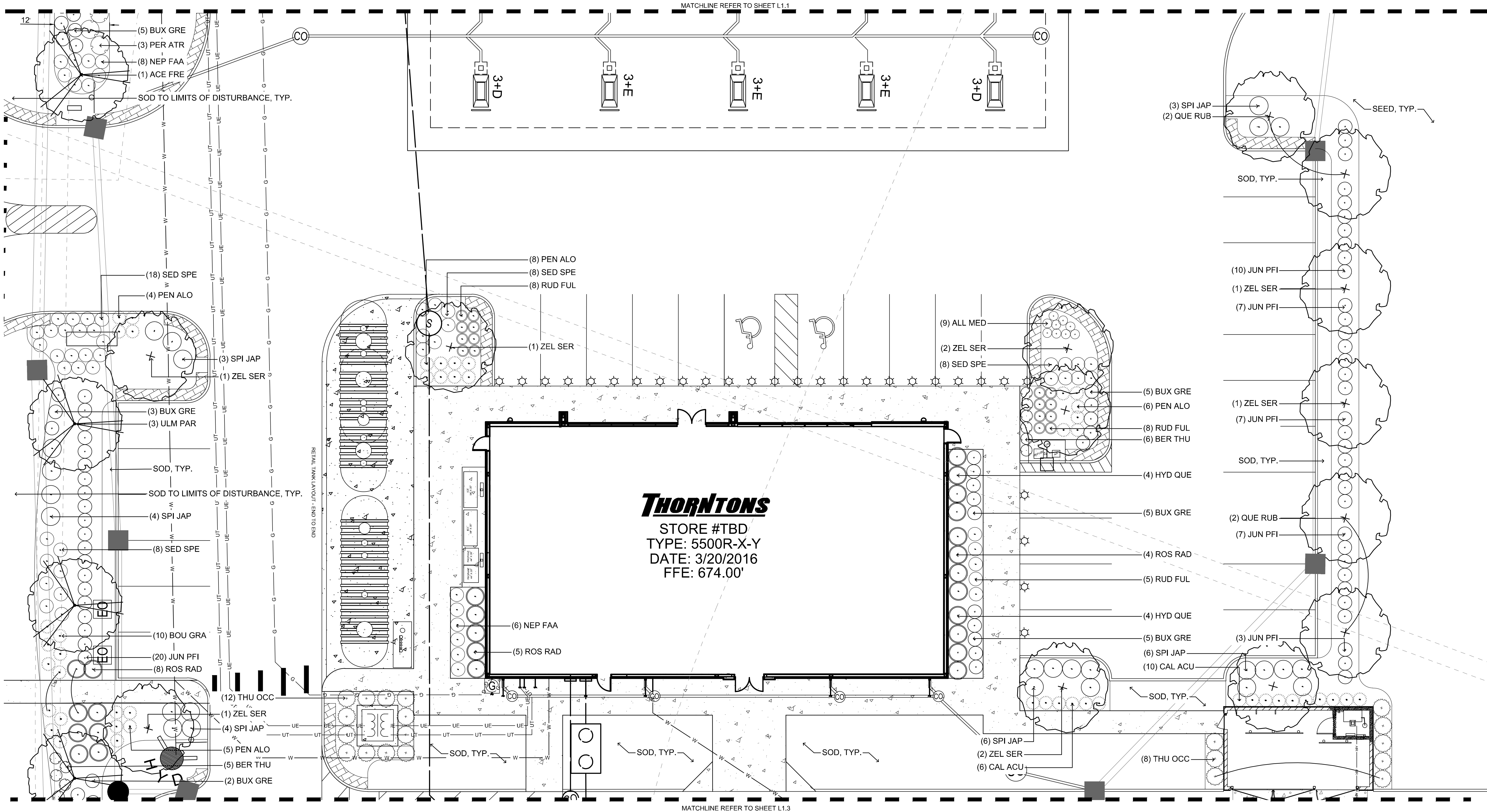
MONROE THORNTONS	
LANDSCAPE PLAN ENLARGEMENT	DRAFTING: PDT
	DATE: 10/16/2020
	DESIGN: JPS
	SCALE: 1" = 20'

Thorntons

GATEWAY BLVD. & SR-63
MONROE, OH 45036



L1.1



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PLANT MATERIAL

- DECIDUOUS TREE, TYP.
- EVERGREEN TREE, TYP.
- SHRUBS, TYP.
- PERENNIALS & ORNAMENTAL GRASSES, TYP.
- EXISTING TREES TO REMAIN, PROTECT IN PLACE

5-6 LT.6
6-7 LT.6
4 LT.6
2-3 LT.6



REVISIONS	
NO.	DESCRIPTION
09/20/21	PER STAFF REVIEW

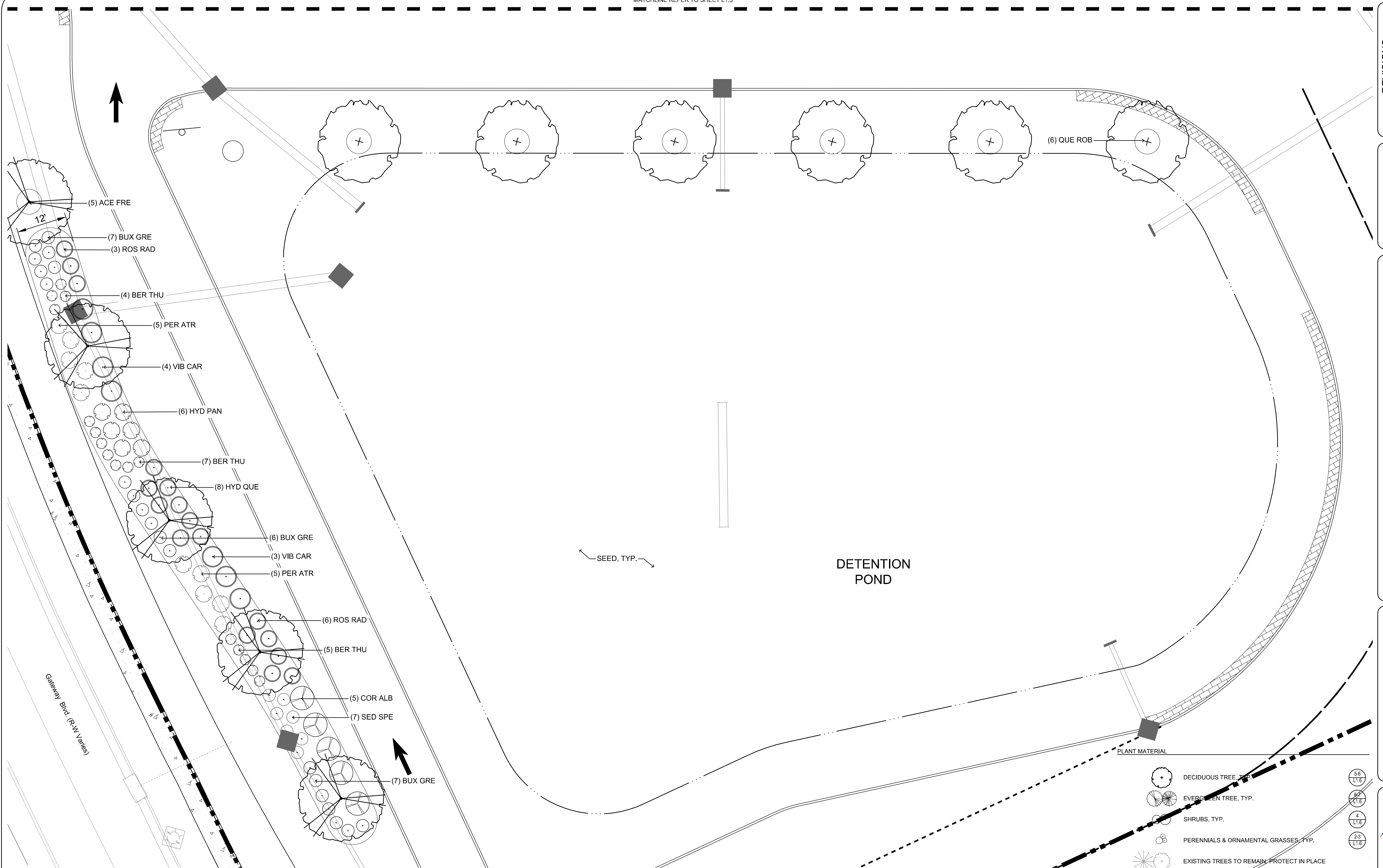
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MONROE THORNTONS		DRAFTING: PDT	DATE: 10/16/2020
		DESIGN: JPS	SCALE: 1" = 20'
LANDSCAPE PLAN ENLARGEMENT			

Thorntons

GATEWAY BLVD. & SR-63
MONROE, OH 45036

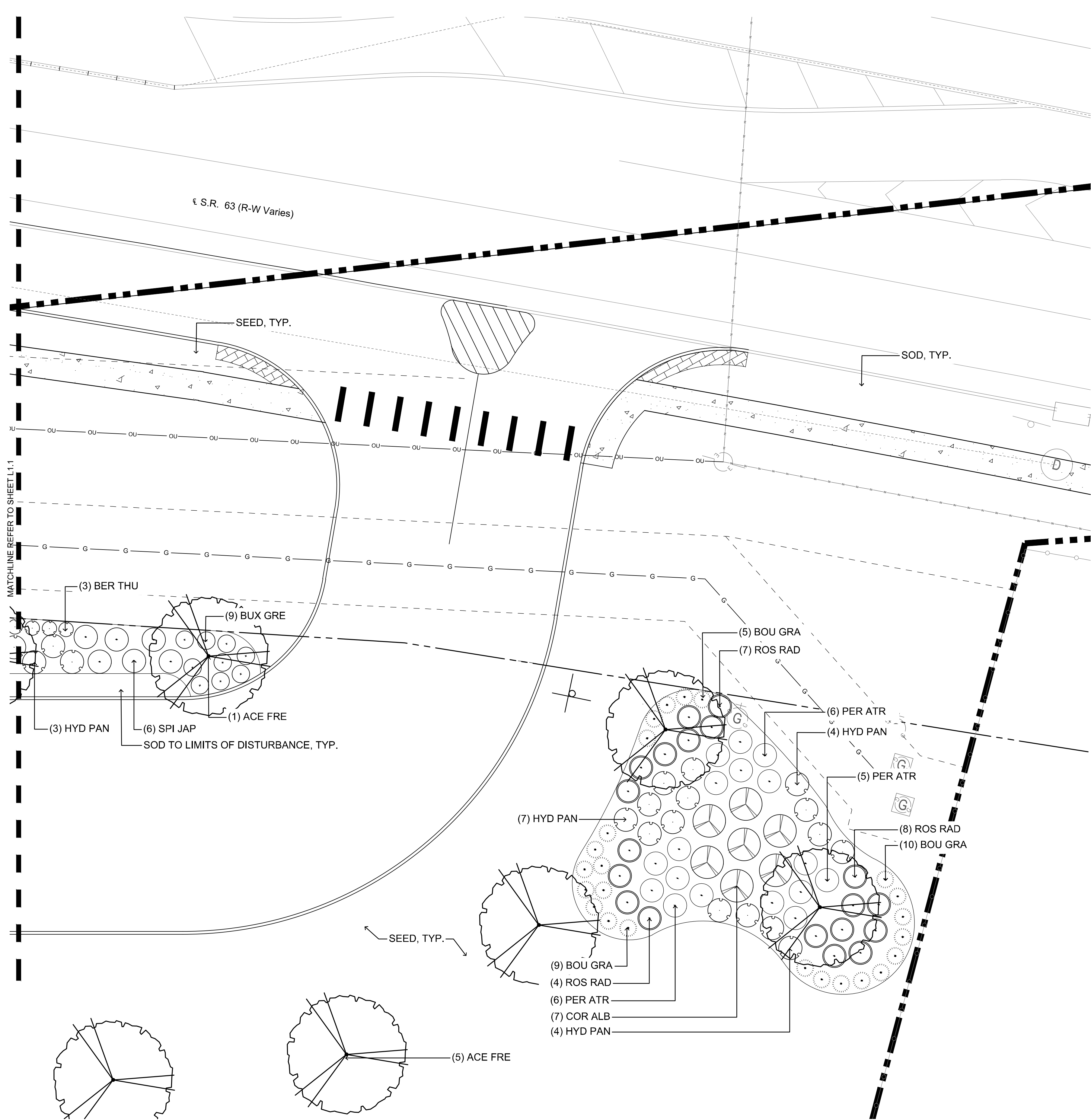




UTILITY NOTE

ALL UTILITIES ON THESE PLANS ARE APPROXIMATE. INDIVIDUAL SERVICE LINES ARE NOT SHOWN. THE CONTRACTOR OR SUBCONTRACTOR SHALL NOTIFY THE UTILITY PROTECTION CENTER (OHIO 811) TWO BUSINESS DAYS IN ADVANCE OF ANY CONSTRUCTION ON THIS PROJECT. THIS NUMBER WAS ESTABLISHED TO PROVIDE ACCURATE LOCATIONS OF EXISTING BELOW GROUND UTILITIES (I.E. CABLES, ELECTRIC WIRES, GAS & WATER LINES). WHEN CONTACTING THE OHIO 811 CALL CENTER, PLEASE STATE THE WORK TO BE DONE IS FOR A PROJECT AND THE SEWER OR DRAINAGE FACILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR BECOMING FAMILIAR WITH ALL UTILITY REQUIREMENTS SET FORTH ON THE PLANS AND IN THE TECHNICAL SPECIFICATIONS & SPECIAL PROVISIONS.





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- PLANT MATERIAL
- DECIDUOUS TREE, TYP.
 - EVERGREEN TREE, TYP.
 - SHRUBS, TYP.
 - PERENNIALS & ORNAMENTAL GRASSES, TYP.
 - EXISTING TREES TO REMAIN, PROTECT IN PLACE

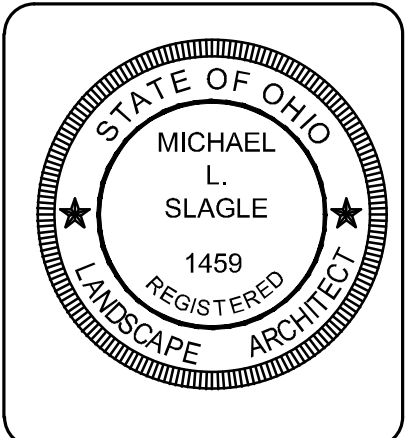


REVISIONS	
NO.	DESCRIPTION
09/20/21	PER STAFF REVIEW

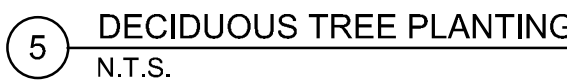
DESIGN PROFESSIONAL:	REGISTRATION NUMBER:	DATE:

MONROE THORNTONS		DRAFTING: PDT	DATE: 10/16/2020
LANDSCAPE PLAN ENLARGEMENT		DESIGN: JPS	SCALE: 1" = 20'

Thorntons
GATEWAY BLVD. & SR-63
MONROE, OH 45036



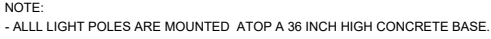
L1.5



TURFGRASS SEED / SOD: SEE SPECIFICATION SECTIONS.

L1.6

ALL UTILITIES ON THESE PLANS ARE APPROXIMATE. INDIVIDUAL SERVICE LINES ARE NOT SHOWN. THE CONTRACTOR OR SUBCONTRACTOR SHALL NOTIFY THE UTILITY PROTECTION CENTER (OHIO 811) TWO BUSINESS DAYS IN ADVANCE OF ANY CONSTRUCTION ON THIS PROJECT. THIS NUMBER WAS ESTABLISHED TO PROVIDE ACCURATE LOCATIONS OF EXISTING BELOW GROUND UTILITIES (I.E. CABLES, ELECTRIC WIRES, GAS & WATER LINES). WHEN CONTACTING THE OHIO 811 CALL CENTER, PLEASE STATE THE WORK TO BE DONE IS FOR A PROPOSED MSD SEWER OR DRAINAGE FACILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR BECOMING FAMILIAR WITH ALL UTILITY REQUIREMENTS SET FORTH ON THE PLANS AND IN THE TECHNICAL SPECIFICATIONS & SPECIAL PROVISIONS.



LABEL	AVG	MAX	MIN	AVG/MIN	MAX/MIN
RETAIL CANOPY	32.65	42	14	2.33	3.00
RETAIL PAVED AREA	3.55	10.9	1.1	3.23	9.91
TRUCK CANOPY	38.86	51	25	1.55	2.04
TRUCK PAVED AREA	4.59	22.7	1.4	3.28	16.21
UNDEFINED AREA	1.53	14.1	0.0	N.A.	N.A.

WATERMANS SCHEDULE 4									
OWNER	LOT#	TR	LABEL	ARRANGEMENT	1/16" INCH	1/4" INCH	1/2" INCH	3/4" INCH	1" INCH
	20	CR	SINGLE		13521	1000	13521-01	134	2680
	8	CR	SINGLE		13521	1000	13521-01	134	1072
	10	CR	SINGLE		13521	1000	13521-01	134	1000
	6	TA	SINGLE		16100	1000	16100-01	104	624
	1	TA	SINGLE		16100	1000	16100-01	104	624
	1	TA	SINGLE		30516	1000	30516-01	341	341
	3	TA	SINGLE		42702	1000	42702-01	341	3009
	7	TR	BACKBUSH		42702	1000	42702-01	341	405
	4	TR	SINGLE		33735	1000	33735-01	341	1364
	1	TR	SINGLE		3683	1000	3683-01	89	544
	1	WS1	SINGLE		N/A	1000	N/A	277	804

[illegible]

PROJECT NAME:
THORNTONS
MONROE, OHIO
DRAWING NUMBER:
RL-7022-S1-R3



QTY	LABEL	DESCRIPTION
AREA	20	CR CAN-304-SL-RS-06-E-UL-WH-700-57K
8	CT	CAN-304-SL-RS-06-E-UL-BK-700-57K

QTY	LABEL	DESCRIPTION
FLOOD	10	FLD -EDG-N6-AA-06-E-UL-XX-525-57K

QTY	LABEL	DESCRIPTION
AREA	6	RA OSQ-ML-DA-XX + OSQM-B-16L-57K7-3M-UL-XX-Q9
1	RA1	OSQ-ML-DA-XX + OSQM-B-16L-57K7-3M-UL-XX-Q9

QTY	LABEL	DESCRIPTION
AREA	1	TA5 OSQ-HO-DA-XX + OSQ-HO-NM-3ME-40L-57K-UL-XX-Q9 + OSQ-HO-BLSF
9	TB	OSQ-HO-DA-XX + OSQ-HO-A-NM-4ME-40L-57K-UL-XX-Q9
1	TB2	OSQ-HO-DA-XX + OSQ-HO-A-NM-4ME-40L-57K-UL-XX-Q9
4	TB5	OSQ-HO-DA-XX + OSQ-HO-A-NM-4ME-40L-57K-UL-XX-Q9 , OSQ-HO-BLSF

QTY	LABEL	DESCRIPTION
WALL MOUNTED	8	W SEC-EDG-3M-WM-04-E-ULXX-525-57K

QTY	LABEL	DESCRIPTION
AREA	6	RA OSQ-ML-DA-XX + OSQM-B-16L-57K7-3M-UL-XX-Q9
1	RA1	OSQ-ML-DA-XX + OSQM-B-16L-57K7-3M-UL-XX-Q9

QTY	LABEL	DESCRIPTION
AREA	1	TA5 OSQ-HO-DA-XX + OSQ-HO-NM-3ME-40L-57K-UL-XX-Q9 + OSQ-HO-BLSF
9	TB	OSQ-HO-DA-XX + OSQ-HO-A-NM-4ME-40L-57K-UL-XX-Q9
1	TB2	OSQ-HO-DA-XX + OSQ-HO-A-NM-4ME-40L-57K-UL-XX-Q9
4	TB5	OSQ-HO-DA-XX + OSQ-HO-A-NM-4ME-40L-57K-UL-XX-Q9 , OSQ-HO-BLSF

QTY	LABEL	DESCRIPTION
WALL MOUNTED	8	W SEC-EDG-3M-WM-04-E-ULXX-525-57K

304 Series™

LED Recessed Canopy Luminaire

Product Description

Luminaire housing is constructed from rugged die cast aluminum components (RS Mount or CA cast and extruded aluminum components (RS Mount). LED driver is mounted in a sealed, watertight center chamber that allows for access from below the luminaire. Luminaire mounts directly to the canopy deck and is secured in place with die cast aluminum trim frame. Luminaire housing is provided with factory applied paint that provides a watertight seal between luminaire housing and canopy deck. Suitable for use in single or double size canopies with 1/8" thick panels. **Applications:** Perimeter lighting, convenience stores, drive-thru banks and restaurants, retail and grocery.

Performance Summary

Patented NanoDip® Product Technology
Assembled in the U.S.A. of U.S. and imported parts
CRI: Minimum 70 CRI
CRI: Minimum 70 CRI
CCT: 4000K (-/-) 3000K, 5700K (+/-) 5000K standard
Limited Warranty: 10 years on luminaires/10 years on Colorfast DataGuard® finish

* See lighting.org for warranty terms

Accessories

Field-Installed
Head-End Remote (H-EDR)
For successful implementation of the programmable multi-level option, a minimum of one head-end remote is required.

Weight: 22.0 lbs (9.9 kg)

Ordering Information
Example: CAN-304-SL-RS-06-E-UL-WH-700-57K

Product	Size	Mounting	LED Count	System	Voltage	Color Options	Drive Current	Options
CAN-304	34"	RS Mounting	64	E	UL	BK	350	DM - 8-10V Dimming CA - Cast and extruded aluminum components (RS Mount) P - Programmable Multi-Level P - Programmable Multi-Level P - Programmable Multi-Level

* All LED luminaires are shipped with a 2" x 2" x 1/8" (50.8mm x 50.8mm x 3.2mm) of 1/2" (12.7mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs.

US lighting.org/canada 1 800 234-4800 / 1 (242) 564-5415
Canada: www.cree.com/canada 1 800 473-1234 / 1 (800) 890-7507

Cree Edge™ Series

LED Area/Flood Luminaire

Product Description

The Cree Edge™ Series has a slim, low profile design. Its rugged cast aluminum housing minimizes wind load requirements and features an integral, weatherlight LED driver compartment and high performance aluminum heat sink. Versatile mounting options. Adjustable Arm, Direct Arm, Direct Arm, or 1/2" (12.7mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. **Applications:** Parking lots, walkways, campuses, car dealerships, office complexes, tunnels, universities, and interior restrooms.

Performance Summary

Patented NanoDip® Product Technology
Assembled in the U.S.A. of U.S. and imported parts
CRI: Minimum 70 CRI
CRI: Minimum 70 CRI
CCT: 4000K (-/-) 3000K, 5700K (+/-) 5000K standard
Limited Warranty: 10 years on luminaires/10 years on Colorfast DataGuard® finish

* See lighting.org for warranty terms

Accessories

Field-Installed
Head-End Remote (H-EDR)
For successful implementation of the programmable multi-level option, a minimum of one head-end remote is required.

Weight: 22.0 lbs (9.9 kg)

Ordering Information
Example: CEE-204-AA-12-E-UL-S-250

Product	Size	Mounting	LED Count	System	Voltage	Color Options	Drive Current	Options
CAN-304	34"	RS Mounting	64	E	UL	BK	350	DM - 8-10V Dimming CA - Cast and extruded aluminum components (RS Mount) P - Programmable Multi-Level P - Programmable Multi-Level P - Programmable Multi-Level

* All LED luminaires are shipped with a 2" x 2" x 1/8" (50.8mm x 50.8mm x 3.2mm) of 1/2" (12.7mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs.

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Canada: www.cree.com/canada 1 800 473-1234 / 1 (800) 890-7507

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Patented NanoDip® Product Technology
Assembled in the U.S.A. of U.S. and imported parts
CRI: Minimum 70 CRI
CRI: Minimum 70 CRI
CCT: 4000K (-/-) 3000K, 5700K (+/-) 5000K standard
Limited Warranty: 10 years on luminaires/10 years on Colorfast DataGuard® finish

* See lighting.org for warranty terms

Accessories

Field-Installed
Head-End Remote (H-EDR)
For successful implementation of the programmable multi-level option, a minimum of one head-end remote is required.

Weight: 22.0 lbs (9.9 kg)

Ordering Information
Example: CEE-204-AA-12-E-UL-S-250

Product	Size	Mounting	LED Count	System	Voltage	Color Options	Drive Current	Options
CAN-304	34"	RS Mounting	64	E	UL	BK	350	DM - 8-10V Dimming CA - Cast and extruded aluminum components (RS Mount) P - Programmable Multi-Level P - Programmable Multi-Level P - Programmable Multi-Level

* All LED luminaires are shipped with a 2" x 2" x 1/8" (50.8mm x 50.8mm x 3.2mm) of 1/2" (12.7mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs.

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Cree Edge™ Series

LED Area/Flood Luminaire

Product Description

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Performance Summary

Patented NanoDip® Product Technology
Assembled in the U.S.A. of U.S. and imported parts
CRI: Minimum 70 CRI
CRI: Minimum 70 CRI
CCT: 4000K (-/-) 3000K, 5700K (+/-) 5000K standard
Limited Warranty: 10 years on luminaires/10 years on Colorfast DataGuard® finish

* See lighting.org for warranty terms

Accessories

Field-Installed
Head-End Remote (H-EDR)
For successful implementation of the programmable multi-level option, a minimum of one head-end remote is required.

Weight: 22.0 lbs (9.9 kg)

Ordering Information
Example: CEE-204-AA-12-E-UL-S-250

Product	Size	Mounting	LED Count	System	Voltage	Color Options	Drive Current	Options
CAN-304	34"	RS Mounting	64	E	UL	BK	350	DM - 8-10V Dimming CA - Cast and extruded aluminum components (RS Mount) P - Programmable Multi-Level P - Programmable Multi-Level P - Programmable Multi-Level

* All LED luminaires are shipped with a 2" x 2" x 1/8" (50.8mm x 50.8mm x 3.2mm) of 1/2" (12.7mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs.

US lighting.org/canada 1 800 234-4800 / 1 (242) 564-5415
Canada: www.cree.com/canada 1 800 473-1234 / 1 (800) 890-7507

OSQ Series

OSQ™ LED Area/Flood Luminaire featuring Cree TrueWhite® Technology - Medium & Large

Product Description

The OSQ™ Area/Flood luminaire blends extreme optical control, advanced thermal management and modern, clean aesthetics. Built to last, the housing is rugged cast aluminum with an integral, weatherlight LED driver compartment. Versatile mounting configurations offer simple installation. Its slim, low-profile design minimizes wind load requirements and blends seamlessly into the site providing even, quality illumination. The OSQ luminaire package is suitable upgrade for HID applications up to 250 Watts, and the 1/2" (12.7mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. **Applications:** Parking lots, walkways, campuses, car dealerships, office complexes, tunnels, universities, and interior restrooms.

Performance Summary

Utilizes Cree TrueWhite® Technology on 5000K Luminaires
NanoDip® Precision Delivery Grid™ optics
Assembled in the U.S.A. of U.S. and imported parts
Initial Delivered Luminaires: 1,000 - 30,000
Efficiency up to 170 LPW
CRI: Minimum 70 CRI 4000K, 4000K (+/-) 3000K, 5700K (+/-) 5000K
Limited Warranty: 10 years on luminaires/10 years on Colorfast DataGuard® finish, up to 5 years for Synapse® accessories, 1 year on luminaire accessories

* See lighting.org for warranty terms

Accessories

Field-Installed
Head-End Remote (H-EDR)
For successful implementation of the programmable multi-level option, a minimum of one head-end remote is required.

Weight: 22.0 lbs (9.9 kg)

Ordering Information
Example: OSQ-ML-DA-XX + OSQM-B-16L-57K7-3M-UL-XX-Q9

Product	Size	Mounting	LED Count	System	Voltage	Color Options	Drive Current	Options
CAN-304	34"	RS Mounting	64	E	UL	BK	350	DM - 8-10V Dimming CA - Cast and extruded aluminum components (RS Mount) P - Programmable Multi-Level P - Programmable Multi-Level P - Programmable Multi-Level

* All LED luminaires are shipped with a 2" x 2" x 1/8" (50.8mm x 50.8mm x 3.2mm) of 1/2" (12.7mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs.

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Canada: www.cree.com/canada 1 800 473-1234 / 1 (800) 890-7507

OSQ Series

OSQ™ LED Area/Flood Luminaire featuring Cree TrueWhite® Technology - Medium & Large

Product Description

The OSQ™ Area/Flood luminaire blends extreme optical control, advanced thermal management and modern, clean aesthetics. Built to last, the housing is rugged cast aluminum with an integral, weatherlight LED driver compartment. Versatile mounting configurations offer simple installation. Its slim, low-profile design minimizes wind load requirements and blends seamlessly into the site providing even, quality illumination. The OSQ luminaire package is suitable upgrade for HID applications up to 250 Watts, and the 1/2" (12.7mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. **Applications:** Parking lots, walkways, campuses, car dealerships, office complexes, tunnels, universities, and interior restrooms.

Performance Summary

Utilizes Cree TrueWhite® Technology on 5000K Luminaires
NanoDip® Precision Delivery Grid™ optics
Assembled in the U.S.A. of U.S. and imported parts
Initial Delivered Luminaires: 1,000 - 30,000
Efficiency up to 170 LPW
CRI: Minimum 70 CRI 4000K, 4000K (+/-) 3000K, 5700K (+/-) 5000K
Limited Warranty: 10 years on luminaires/10 years on Colorfast DataGuard® finish, up to 5 years for Synapse® accessories, 1 year on luminaire accessories

* See lighting.org for warranty terms

Accessories

Field-Installed
Head-End Remote (H-EDR)
For successful implementation of the programmable multi-level option, a minimum of one head-end remote is required.

Weight: 22.0 lbs (9.9 kg)

Ordering Information
Example: OSQ-ML-DA-XX + OSQM-B-16L-57K7-3M-UL-XX-Q9

Product	Size	Mounting	LED Count	System	Voltage	Color Options	Drive Current	Options
CAN-304	34"	RS Mounting	64	E	UL	BK	350	DM - 8-10V Dimming CA - Cast and extruded aluminum components (RS Mount) P - Programmable Multi-Level P - Programmable Multi-Level P - Programmable Multi-Level

* All LED luminaires are shipped with a 2" x 2" x 1/8" (50.8mm x 50.8mm x 3.2mm) of 1/2" (12.7mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs.

US lighting.org/canada 1 800 234-4800 / 1 (242) 564-5415
Canada: www.cree.com/canada 1 800 473-1234 / 1 (800) 890-7507

OSQ Series

OSQ™ High Output LED Area/Flood Luminaire featuring Cree TrueWhite® Technology

Product Description

The OSQ™ High Output Area/Flood luminaire blends extreme optical control, advanced thermal management and modern, clean aesthetics. Built to last, the housing is rugged cast aluminum with an integral, weatherlight LED driver compartment. Versatile mounting configurations offer simple installation. Its slim, low-profile design minimizes wind load requirements and blends seamlessly into the site providing even, quality illumination. The OSQ luminaire package is suitable upgrade for HID applications up to 250 Watts, and the 1/2" (12.7mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. **Applications:** Airports, parking lots, walkways, campuses, car dealerships, office complexes, tunnels, universities, and interior restrooms.

Performance Summary

Utilizes Cree TrueWhite® Technology on 5000K Luminaires
NanoDip® Precision Delivery Grid™ optics
Assembled in the U.S.A. of U.S. and imported parts
Initial Delivered Luminaires: 1,000 - 30,000
Efficiency up to 125 LPW
CRI: Minimum 70 CRI 4000K, 4000K (+/-) 3000K, 5700K (+/-) 5000K
Limited Warranty: 10 years on luminaires/10 years on Colorfast DataGuard® finish, up to 5 years for Synapse® accessories, 1 year on luminaire accessories

* See lighting.org for warranty terms

Accessories

Field-Installed
Head-End Remote (H-EDR)
For successful implementation of the programmable multi-level option, a minimum of one head-end remote is required.

Weight: 22.0 lbs (9.9 kg)

Ordering Information
Example: OSQ-ML-DA-XX + OSQM-B-16L-57K7-3M-UL-XX-Q9

Product	Size	Mounting	LED Count	System	Voltage	Color Options	Drive Current	Options
CAN-304	34"	RS Mounting	64	E	UL	BK	350	DM - 8-10V Dimming CA - Cast and extruded aluminum components (RS Mount) P - Programmable Multi-Level P - Programmable Multi-Level P - Programmable Multi-Level

* All LED luminaires are shipped with a 2" x 2" x 1/8" (50.8mm x 50.8mm x 3.2mm) of 1/2" (12.7mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs.

US lighting.org/canada 1 800 234-4800 / 1 (242) 564-5415
Canada: www.cree.com/canada 1 800 473-1234 / 1 (800) 890-7507

OSQ Series

OSQ™ High Output LED Area/Flood Luminaire featuring Cree TrueWhite® Technology

Product Description

The OSQ™ High Output Area/Flood luminaire blends extreme optical control, advanced thermal management and modern, clean aesthetics. Built to last, the housing is rugged cast aluminum with an integral, weatherlight LED driver compartment. Versatile mounting configurations offer simple installation. Its slim, low-profile design minimizes wind load requirements and blends seamlessly into the site providing even, quality illumination. The OSQ luminaire package is suitable upgrade for HID applications up to 250 Watts, and the 1/2" (12.7mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. **Applications:** Airports, parking lots, walkways, campuses, car dealerships, office complexes, tunnels, universities, and interior restrooms.

Performance Summary

Utilizes Cree TrueWhite® Technology on 5000K Luminaires
NanoDip® Precision Delivery Grid™ optics
Assembled in the U.S.A. of U.S. and imported parts
Initial Delivered Luminaires: 1,000 - 30,000
Efficiency up to 125 LPW
CRI: Minimum 70 CRI 4000K, 4000K (+/-) 3000K, 5700K (+/-) 5000K
Limited Warranty: 10 years on luminaires/10 years on Colorfast DataGuard® finish, up to 5 years for Synapse® accessories, 1 year on luminaire accessories

* See lighting.org for warranty terms

Accessories

Field-Installed
Head-End Remote (H-EDR)
For successful implementation of the programmable multi-level option, a minimum of one head-end remote is required.

Weight: 22.0 lbs (9.9 kg)

Ordering Information
Example: OSQ-ML-DA-XX + OSQM-B-16L-57K7-3M-UL-XX-Q9

Product	Size	Mounting	LED Count	System	Voltage	Color Options	Drive Current	Options
CAN-304	34"	RS Mounting	64	E	UL	BK	350	DM - 8-10V Dimming CA - Cast and extruded aluminum components (RS Mount) P - Programmable Multi-Level P - Programmable Multi-Level P - Programmable Multi-Level

* All LED luminaires are shipped with a 2" x 2" x 1/8" (50.8mm x 50.8mm x 3.2mm) of 1/2" (12.7mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs. 2" (50.8mm) from center to center of adjustment lugs.

US lighting.org/canada 1 800 234-4800 / 1 (242) 564-5415
Canada: www.cree.com/canada 1 800 473-1234 / 1 (800) 890-7507

Cree Edge™ Series

LED Security Wall Pack Luminaire

Product Description

The Cree Edge™ wall mount luminaire has a slim, low profile design. The luminaire end caps are mounted on rugged die cast aluminum with integral, weatherlight LED driver components and high performance aluminum heat sink specifically designed for LED applications. Housing is rugged aluminum. Includes a lightweight mounting bracket for installation over standard and multi-ring single gang J-boxes. Secure to wall with four 3/16" (4.8mm) screws by others. Conduit entry from top, bottom, sides and rear.

AREA	QTY	LABEL	DESCRIPTION
	2	WS1	CL-P5642-31-30K + CL-P8798-31



18" Cylinder LED Sconce

Outdoor Wall Mount Series - Dimmable

Performance Summary
Distribution: Uplight/Downlight
Lumens: 1,300 uplight lumens, 1,242 downlight lumens
Rated Power: 29 watts
CRI: 90 CRI
CCT: 3000K
Voltage: 120V, 60Hz
Finish Options: Black, White or Metallic Gray
Construction: Die cast aluminum construction, metal shade
Operating Temperature: -30°C to 30°C
Dimensions: 6.9"W x 18.0"H x 8.88"D
Compliance: cCSAus Wet location listed
Warranty: Contact factory for warranty information

Accessories
Field Installation
Top Cover Lens (required with sconce)
CL-P8798-31
- Meets all code requirements for wet location use
- Clear polycarbonate lens with clear seal
- Black finish
- 1.67" Dia. x 1.5" H

Ordering Information Example: CL-P5642-31-30K			
CL-P5642	31	30K	
Product	Finish	CCT	Voltage
CL-P5642	31 35 42 Metallic Gray	30K 3500K	Black 120 Volt

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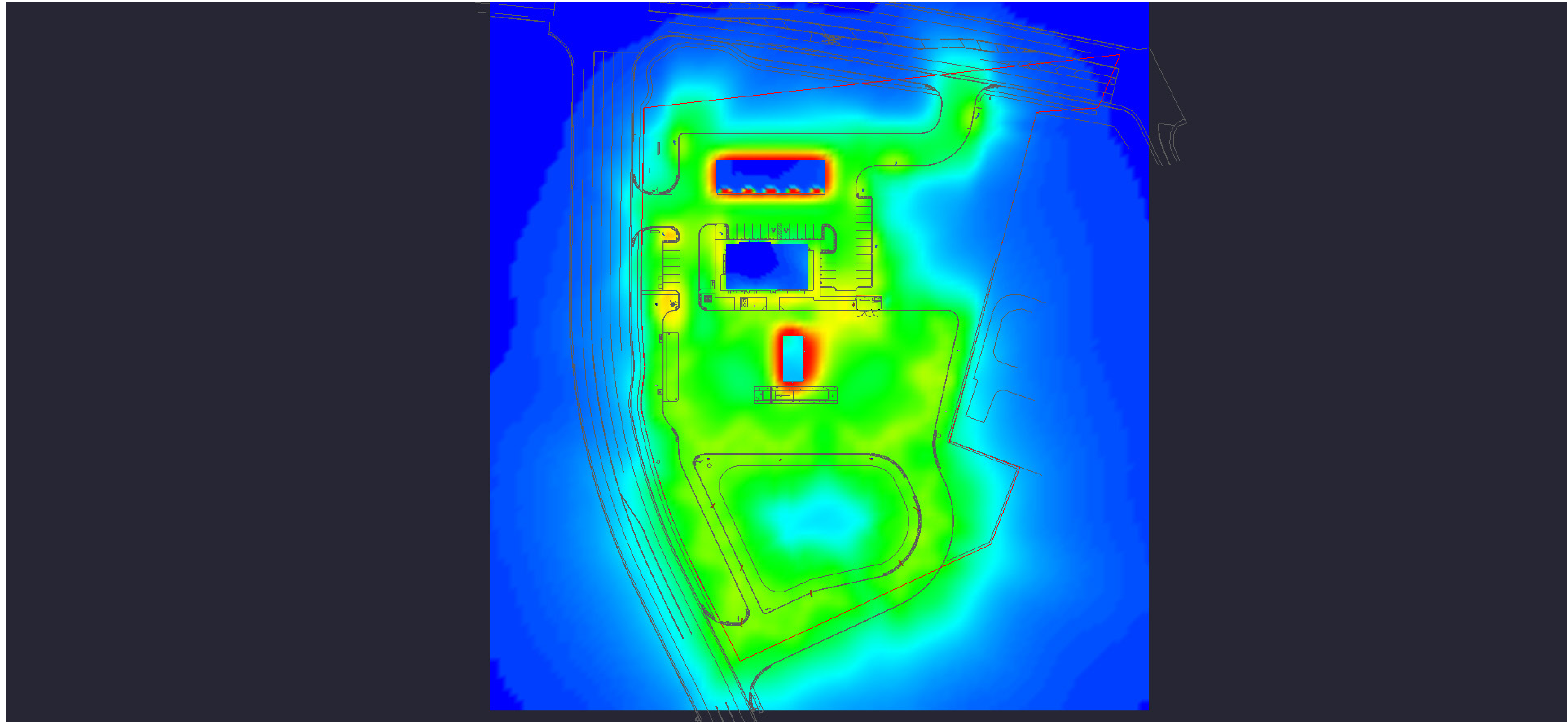
Black

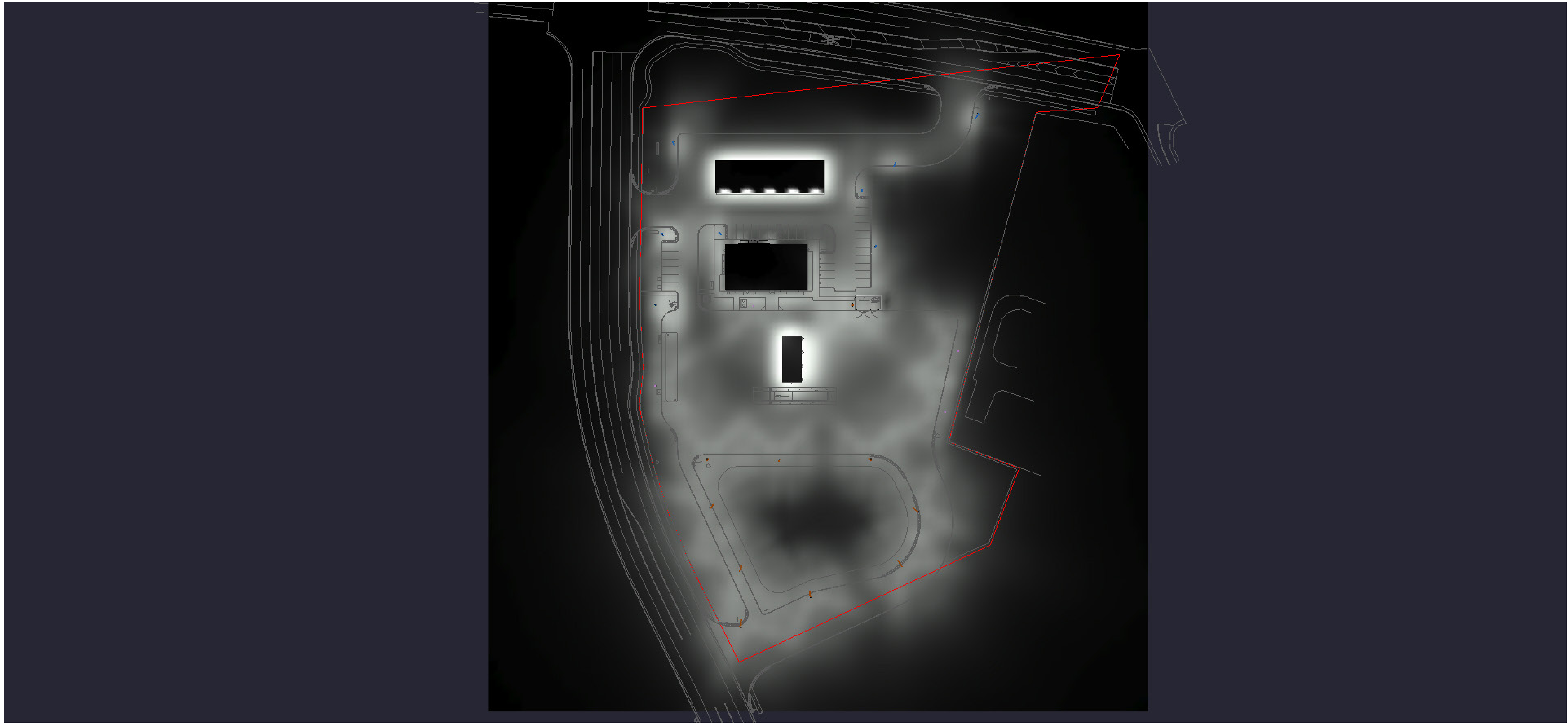


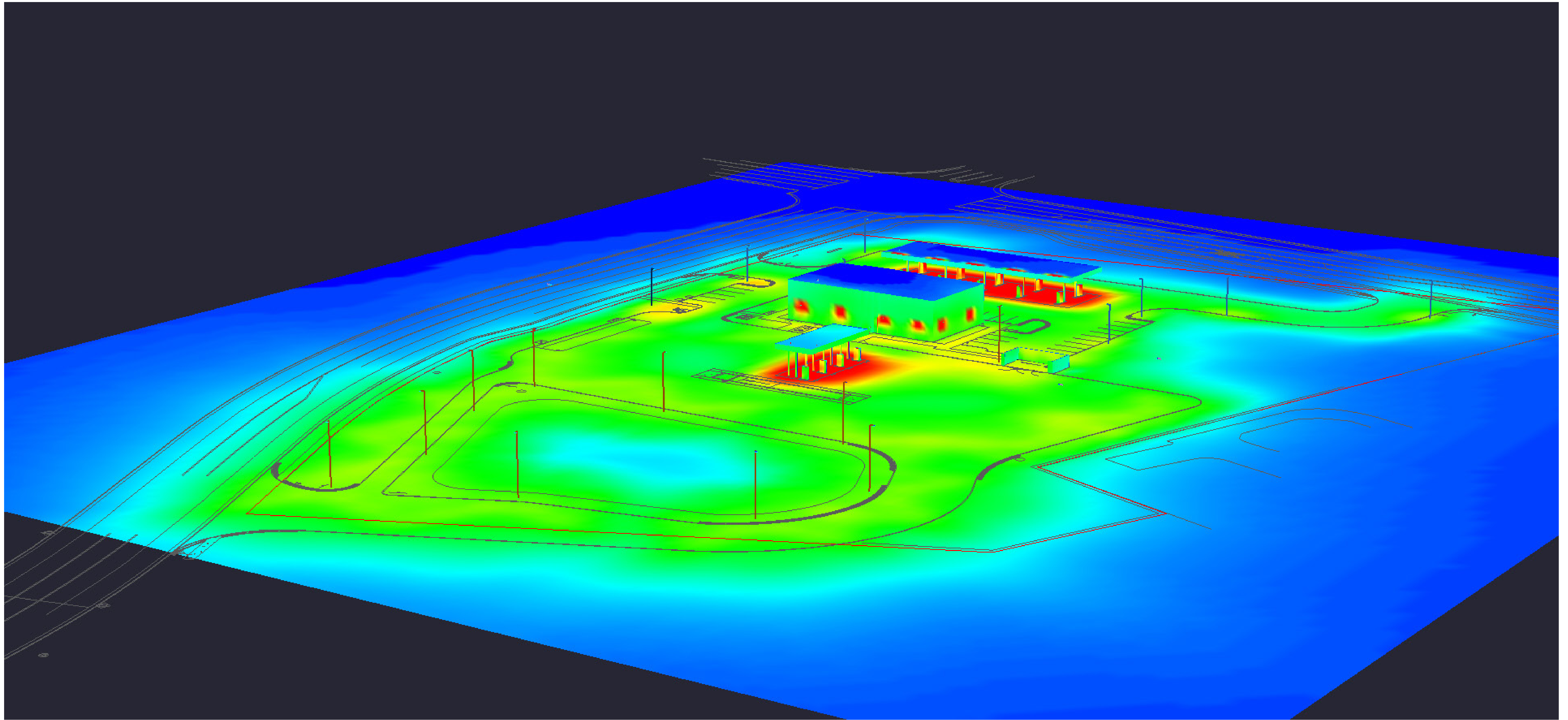
White

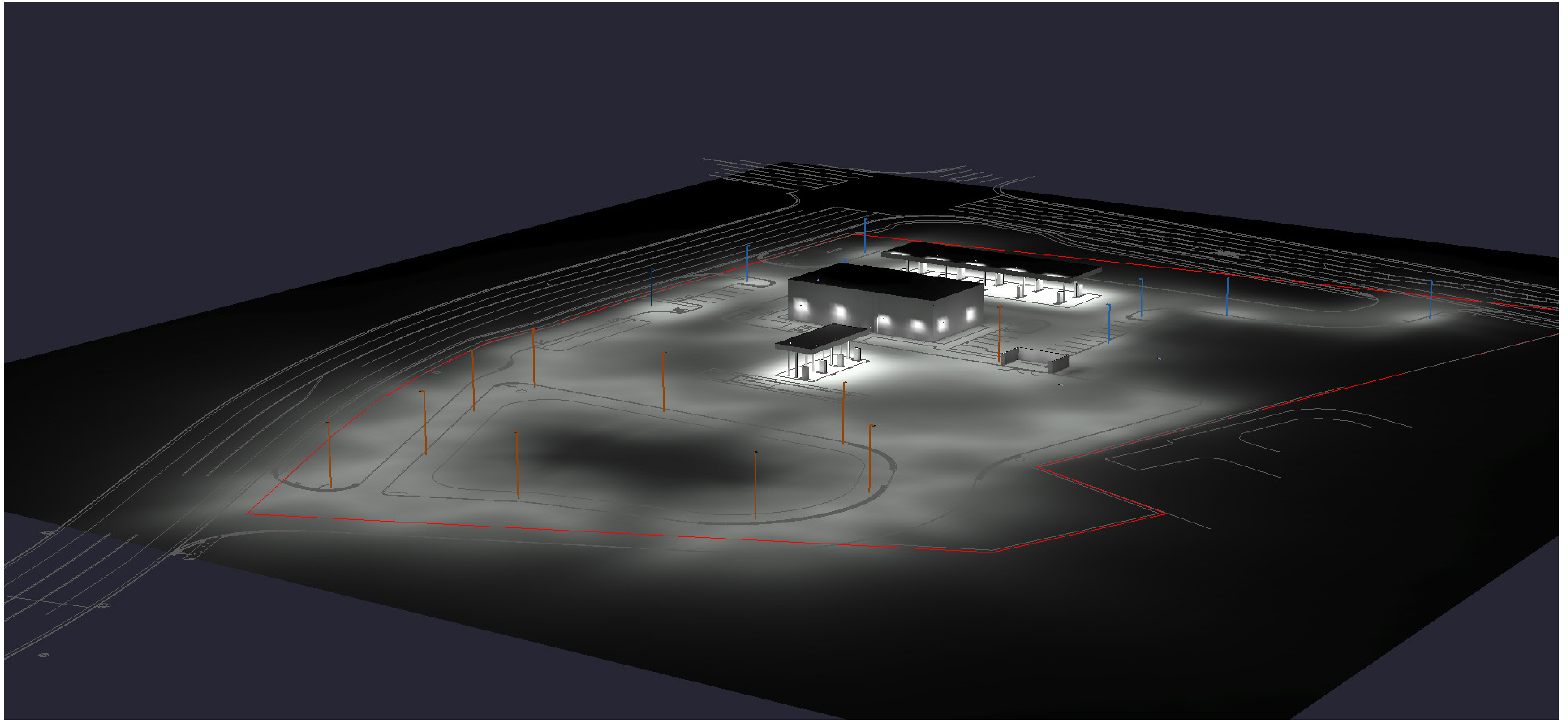


Metallic Gray









SITE PLAN

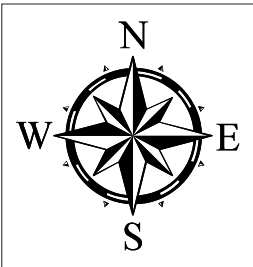
THORNTONS # 2014

GATEWAY BLVD. & SR-63
MONROE, OH 45036

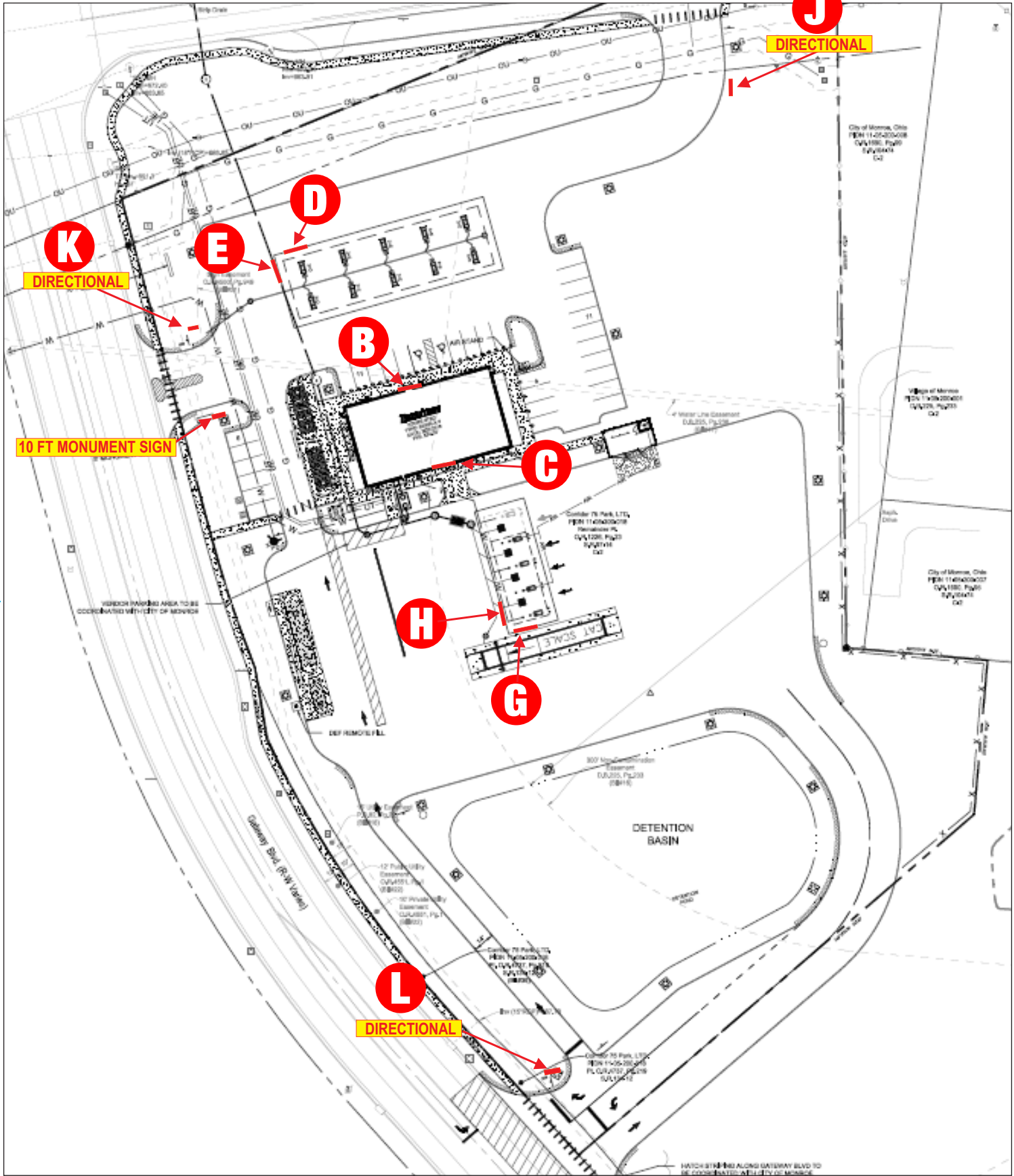
REVISION 7

Removed ST A per
client redlines.

- A** NOT USED
- B** BLDG SIGN - FRONT (NORTH ELEV.)
- C** BLDG SIGN - REAR (SOUTH ELEV.)
- D** GAS CANOPY SIGN - NORTH
- E** GAS CANOPY SIGN - WEST
- F** NOT USED
- G** DIESEL CANOPY SIGN - LEFT SIDE
- H** DIESEL CANOPY SIGN - EXIT
- I** 10 FT MONUMENT SIGN
- J** DIREC MON SIGN - (AUTO ENTRANCE)
- K** DIREC MON SIGN - (AUTO ENTRANCE)
- L** DIREC MON SIGN - (TRUCK ENTRANCE)



SITE PLAN



REVISION 7

Added updated site
plan layout
provided by client.

TEXAS REPUBLIC
SIGNS

2211 PECH RD HOUSTON TX 77055
832-727-5415
TEXASREPUBLICSIGNS.COM

Customer:

THORNTON - # 2014

Address:

GATEWAY BLVD & SR-63
MONROE, OH 45036

City of Jurisdiction:

MONROE

Designer:

JORGE

Date Created:

10.30.20

W.O. #:

File Path:

P:\2021
JOBS\Thornton's\Thornton's - Monroe,
OH\PRELIM DRAWINGS

REVISIONS

Rev 2: 12-12-20 Added 50 ft sign option
for ST A - used "&" on ST L per client

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& diesel canopy dimensions Revised monument
and directional signs-to meet city code

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Rev 5: REV5: REDUCE CANOPY SIGN SQ
FT 10-12-21 PER TODD

Rev 6: 10-12-21 Added new "unleaded 88
Logo.

Rev 7: 12-17-21 Revised drawing per client
redlines. Added new site plan provided by client.

CUSTOMER APPROVAL

Todd Signature:

Date:

THIS SIGN IS INTENDED TO BE INSTALLED IN
ACCORDANCE WITH THE REQUIREMENTS OF
ARTICLE 6000F OF THE NEC AND/OR OTHER
APPLICABLE LOCAL CODE. THIS INCLUDES
PROPER GROUNDING AND BONDING OF SIGN.

ELECTRICAL REQUIREMENTS

AMPS: VOLTS: CIRCUITS:

NOT TO SCALE

FRONT LIT CHANNEL LETTERS QUANTITY :1



B

Channel Letter Area
38.31 ft²

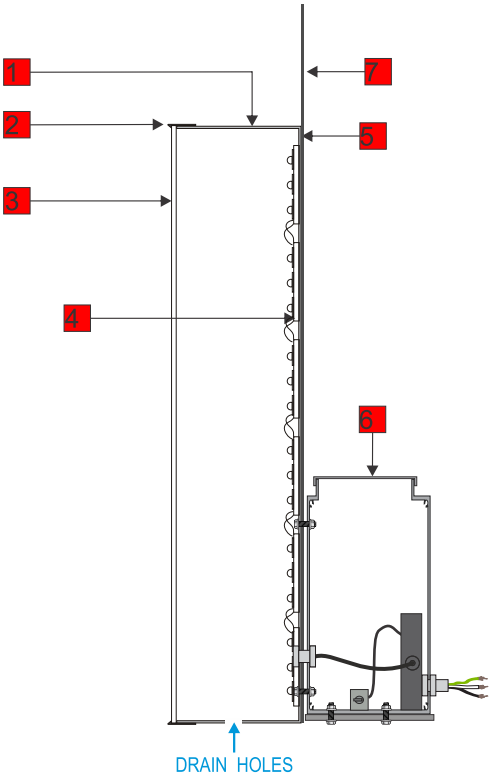
COLOR CHARTER

#7328 WHITE ACRYLIC

METALLIC SILVER
MP 33172 SILVER SURF

RACEWAY: BLACK

B FRONT OF BUILDING - NORTH
SCALE: 1/2" = 1'-0"



1	SIDEWALLS:	0.040" X 5" DEEP ALUMINUM PRE-FINISHED WHITE	5	BACKS:	0.063 ALUMINUM PRE-FINISH WHITE ALL SIDES
2	TRIMCAP:	1" JEWELITE COLOR: WHITE	6	MOUNTING:	12"x6" ALUMINUM RACEWAY PAINTED BLACK ALL SIDES
3	FACES:	3/16" #7328 ACRYLIC COLOR: WHITE	7	BACKER:	.080 PERFORATED ALUM. SCREEN BACKER, HOLES TO BE .5" DIAMETER AND ARE 11/16" PAINTED METALLIC SILVER FRONT AND BACK, BACKER TO BE MOUNTED BEHIND LETTERS
4	ILLUMINATION:	PRINCIPAL LED STREETFIGHTER HEAVYWEIGHT			

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MONROE, OH 45036

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REVISIONS

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for ST A - used "&" on ST L per client

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redlines. Added new site plan provided by client.

CUSTOMER APPROVAL

Todd Signature:

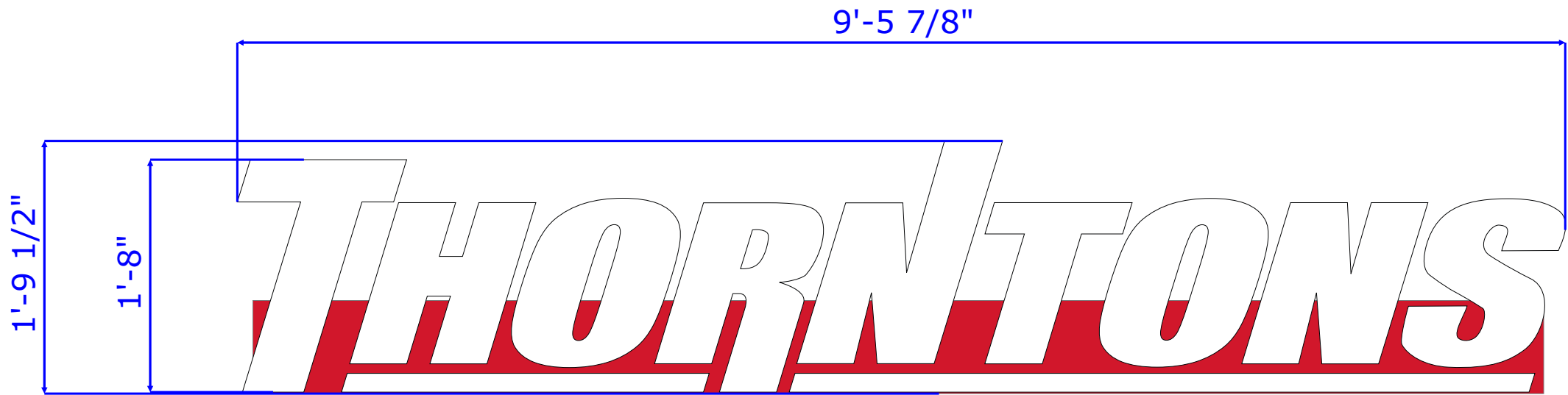
Date:

THIS SIGN IS INTENDED TO BE INSTALLED IN
ACCORDANCE WITH THE REQUIREMENTS OF
ARTICLE 800OF THE NEC AND/OR OTHER
APPLICABLE LOCAL CODE. THIS INCLUDES
PROPER GROUNDING AND BONDING OF SIGN.

ELECTRICAL REQUIREMENTS

AMPS: VOLTS: CIRCUITS:

FRONT LIT CHANNEL LETTERS QUANTITY :



REAR OF BUILDING - SOUTH
SCALE: 1" = 1'-0"



1	SIDEWALLS:	0.040" X 5" DEEP ALUMINUM PRE-FINISHED WHITE	4	ILLUMINATION:	PRINCIPAL LED STREETFIGHTER HEAVYWEIGHT
2	TRIMCAP:	1" JEWELITE COLOR: WHITE	5	BACKS:	0.063 ALUMINUM PRE-FINISH WHITE ALL SIDES
3	FACES:	3/16" #7328 ACRYLIC COLOR: WHITE	6	MOUNTING:	8"X6" ALUMINUM RACEWAY PAINTED GRIPFLEX 585 RED TO MATCH BUILDING

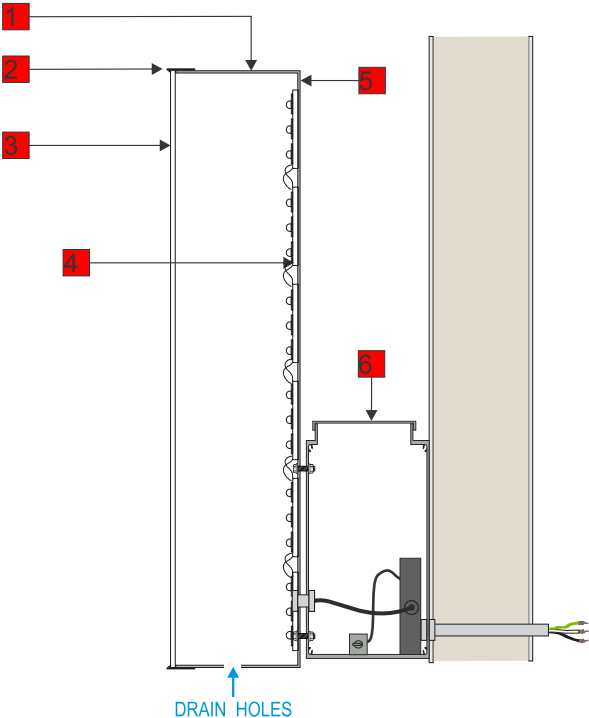


Thorntons.....17.02 ft2
Total.....17.02 ft2

COLOR CHARTER

#7328 WHITE ACRYLIC

RACEWAY:
GRIPEX 585 RED



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Logo.

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redlines. Added new site plan provided by client.

CUSTOMER APPROVAL

Todd Signature:

Date:

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ARTICLE 600OF THE NEC AND/OR OTHER
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ELECTRICAL REQUIREMENTS

AMPS: VOLTS: CIRCUITS:

CANOPY GAS ELEVATIONS

REVISION 7
Revised canopy
height per client
redlines.



FRONT ELEVATION (Note: # of fueling spaces vary per location, refer to civil site plan)

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Logo.

Rev 7: 12-17-21 Revised drawing per client
redlines. Added new site plan provided by client.

CUSTOMER APPROVAL

Todd Signature:

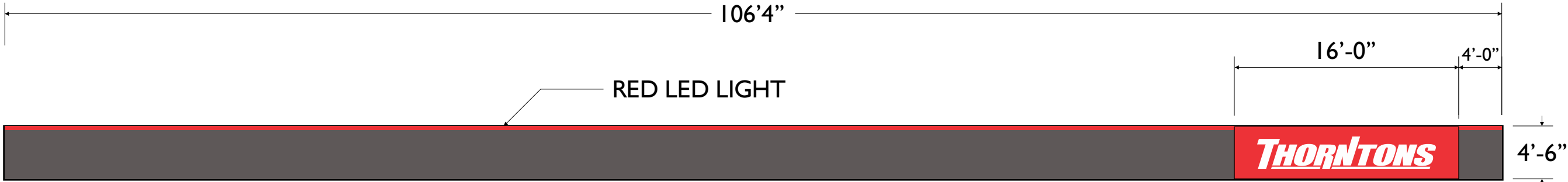
Date:

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ARTICLE 600OF THE NEC AND/OR OTHER
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ELECTRICAL REQUIREMENTS

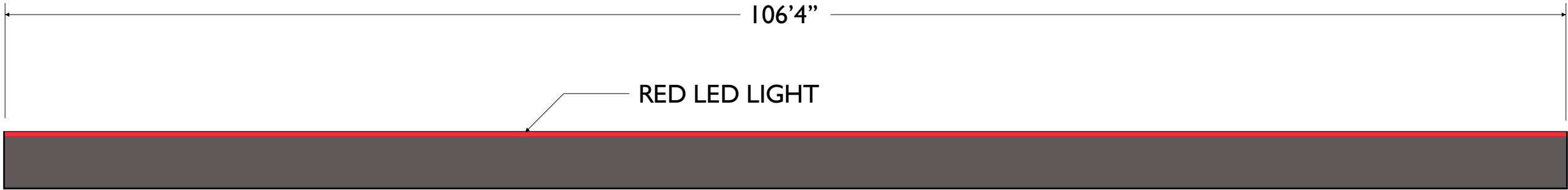
AMPS: VOLTS: CIRCUITS:

CANOPY GAS ELEVATIONS

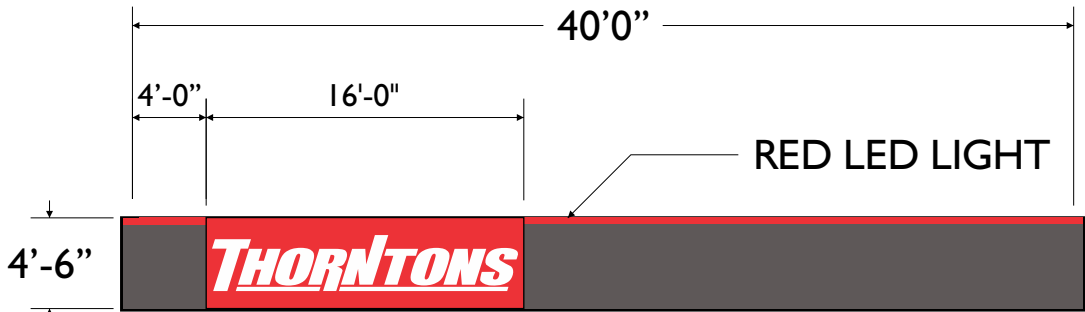
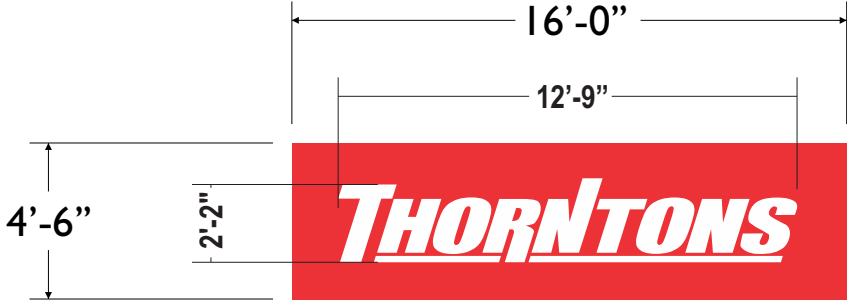


D

NORTH ELEVATION

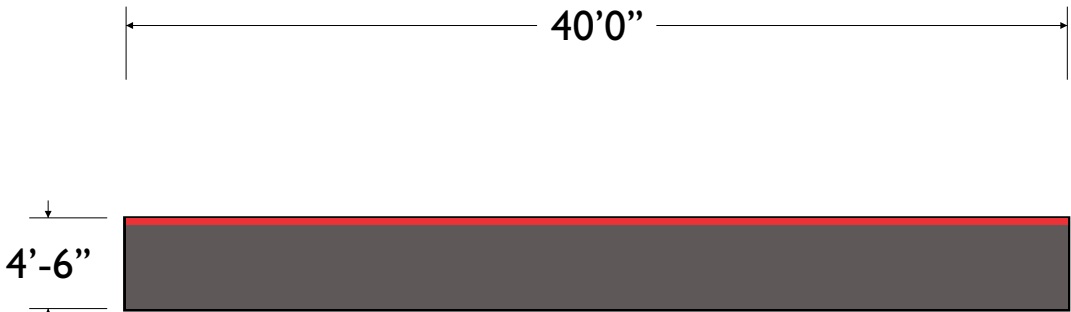


SOUTH ELEVATION



WEST ELEVATION

E



EAST ELEVATION

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MONROE, OH 45036

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W.O. #:

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OH\PRELIM DRAWINGS

REVISIONS

Rev 2: 12-12-20 Added 50 ft sign option
for ST A - used "&" on ST L per client

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& diesel canopy dimensions Revised monument
and directional signs-to meet city code

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FT 10-12-21 PER TODD

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redlines. Added new site plan provided by client.

CUSTOMER APPROVAL

Todd Signature:

Date:

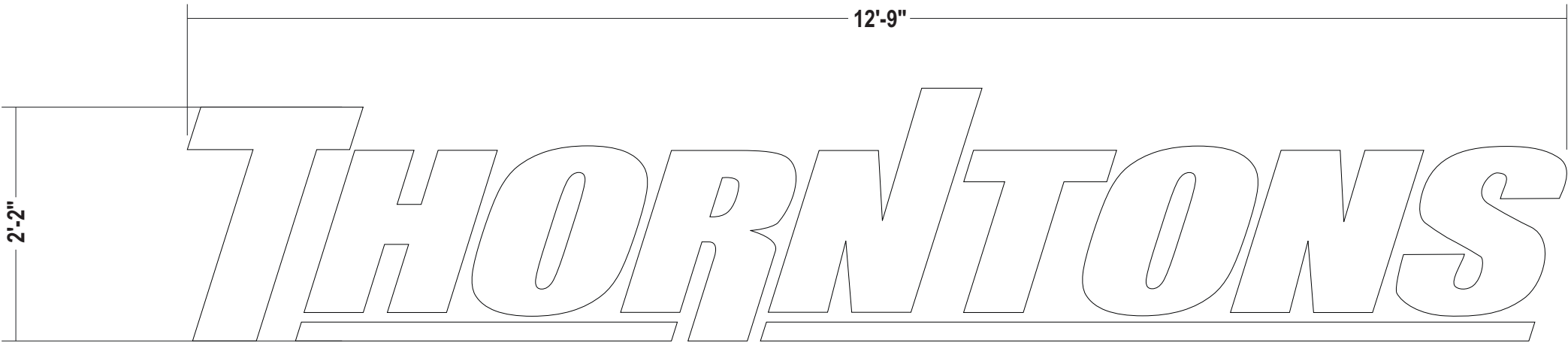
THIS SIGN IS INTENDED TO BE INSTALLED IN
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ARTICLE 600OF THE NEC AND/OR OTHER
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PROPER GROUNDING AND BONDING OF SIGN.

ELECTRICAL REQUIREMENTS

AMPS: VOLTS: CIRCUITS:

GAS CANOPY QUANTITY: 2

D E



D E

CANOPY ELEVATION VIEW

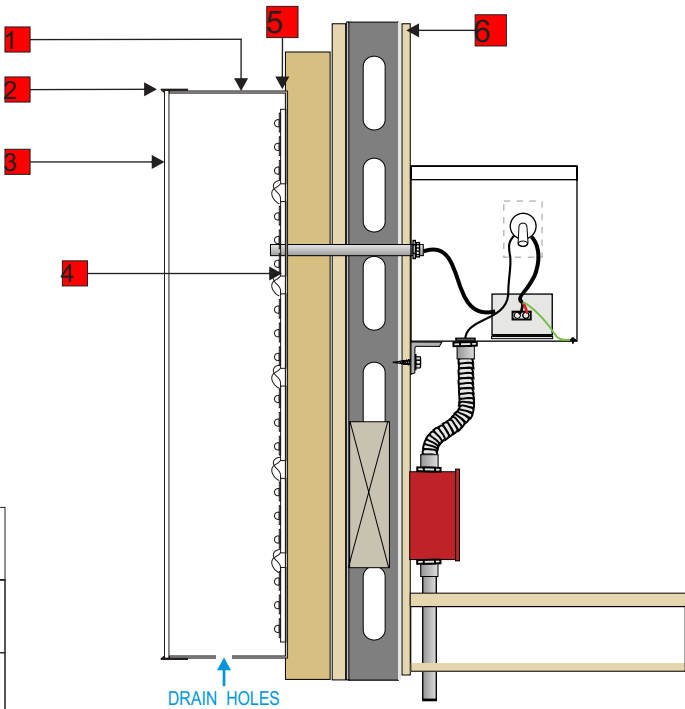
SCALE: 3/4" = 1'-0"

Channel Letter Area
29.75 ft²

COLOR CHARTER

#7328 WHITE ACRYLIC

1	SIDEWALLS:	0.040" X 5" DEEP ALUMINUM PRE-FINISHED WHITE	4	ILLUMINATION:	PRINCIPAL LED STREETFIGHTER HEAVYWEIGHT
2	TRIMCAP:	1" JEWELITE COLOR: WHITE	5	BACKS:	0.063 ALUMINUM PRE-FINISH WHITE ALL SIDES
3	FACES:	3/16" #7328 ACRYLIC COLOR: WHITE	6	MOUNTING:	FLUSH MOUNTED TO CANOPY SIGN BAND



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MONROE, OH 45036

City of Jurisdiction:
MONROE

Designer:
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Date Created:
10.30.20

W.O. #:

File Path:P:\2021
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REVISIONS

Rev 2: 12-12-20 Added 50 ft sign option
for ST A - used "&" on ST L per client

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& diesel canopy dimensions Revised monument
and directional signs-to meet city code

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FT 10-12-21 PER TODD

Rev 6: 10-12-21 Added new "unleaded 88
Logo.

Rev 7: 12-17-21 Revised drawing per client
redlines. Added new site plan provided by client.

CUSTOMER APPROVAL

Todd Signature:

Date:

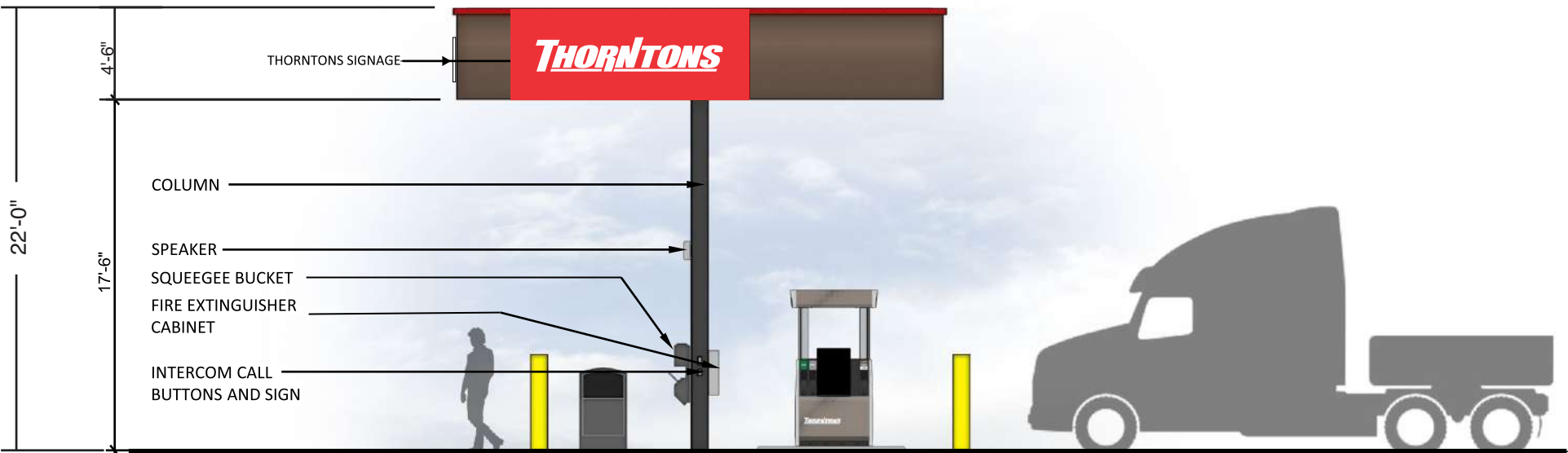
THIS SIGN IS INTENDED TO BE INSTALLED IN
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ELECTRICAL REQUIREMENTS

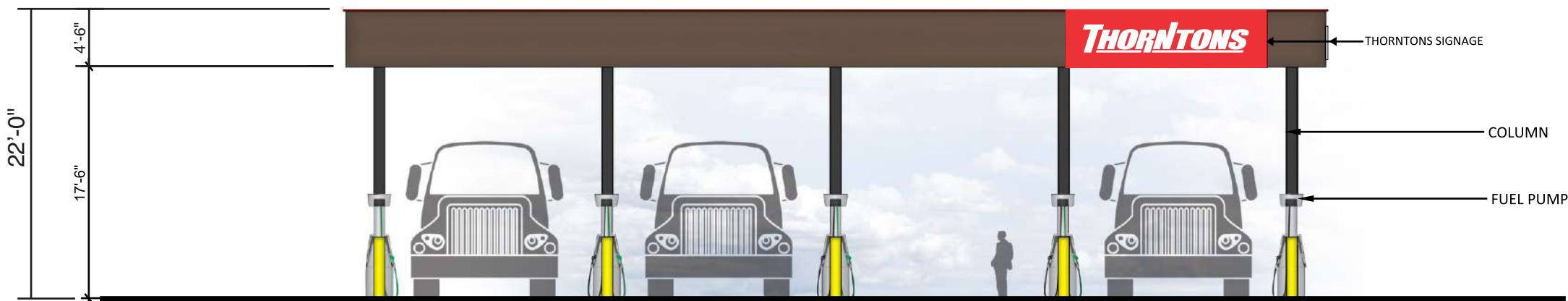
AMPS: VOLTS: CIRCUITS:

CANOPY DIESEL ELEVATIONS

REVISION 7
Revised canopy height per client redlines.



SIDE ELEVATION



FRONT ELEVATION

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File Path:P:\2021
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OH\PRELIM DRAWINGS

REVISIONS

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and directional signs-to meet city code

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FT 10-12-21 PER TODD

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Logo.

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Todd Signature:

Date:

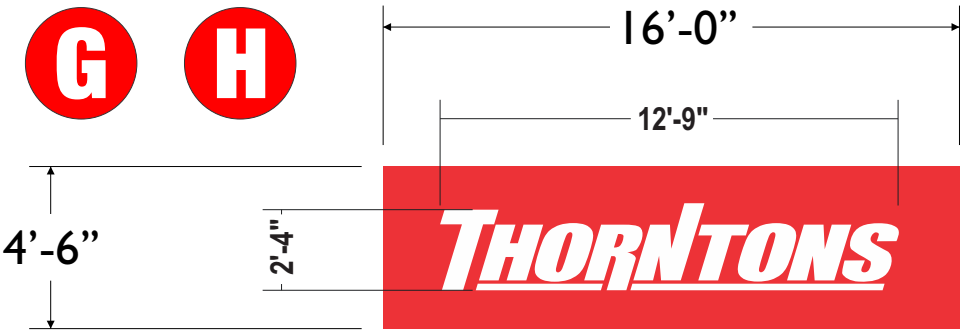
THIS SIGN IS INTENDED TO BE INSTALLED IN
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ELECTRICAL REQUIREMENTS

AMPS: VOLTS: CIRCUITS:

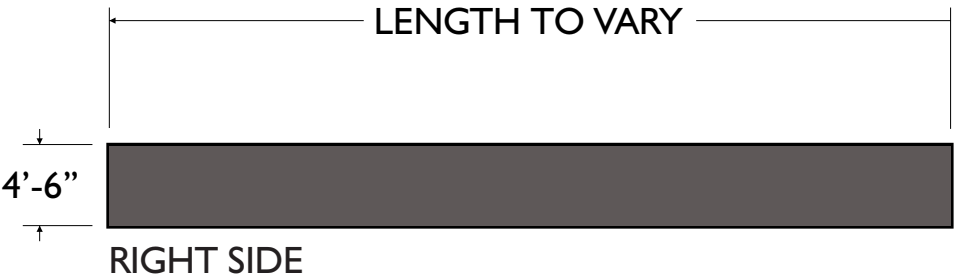
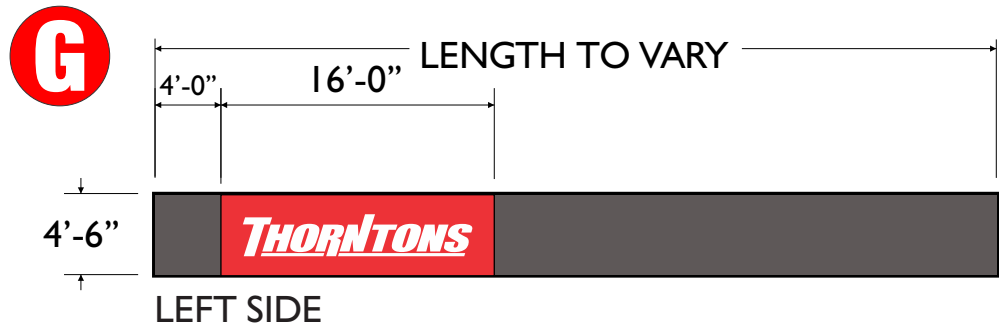
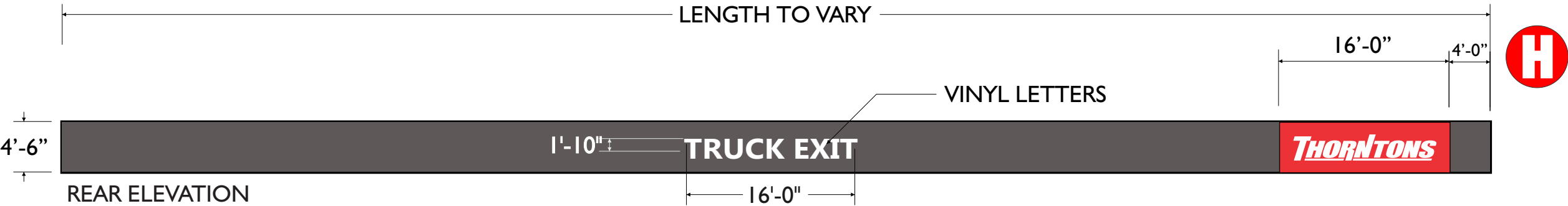
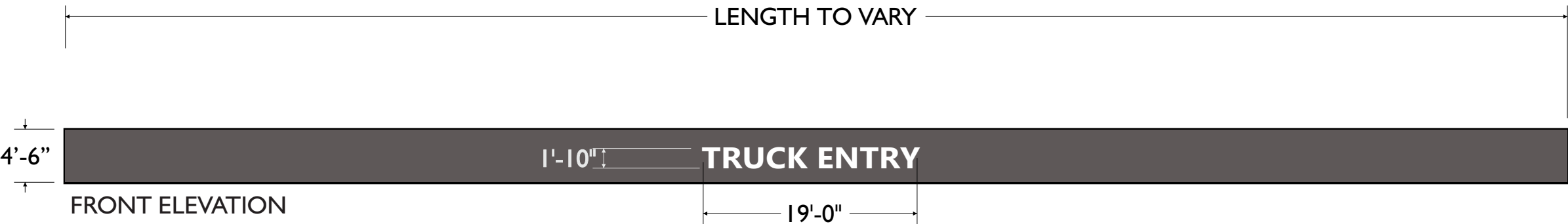
DIESEL CANOPY CHANNEL LETTERS SET - QUANTITY: 2

Thornton's.....	29.75 ft2
Truck Entry.....	34.83 ft2
Truck Exit.....	29.33 ft2
Total.....	123.66 ft2



DETAIL

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



SCALE: 3/32" = 1'-0"

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REVISIONS

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Logo.

Rev 7: 12-17-21 Revised drawing per client
redlines. Added new site plan provided by client.

CUSTOMER APPROVAL

Todd Signature:

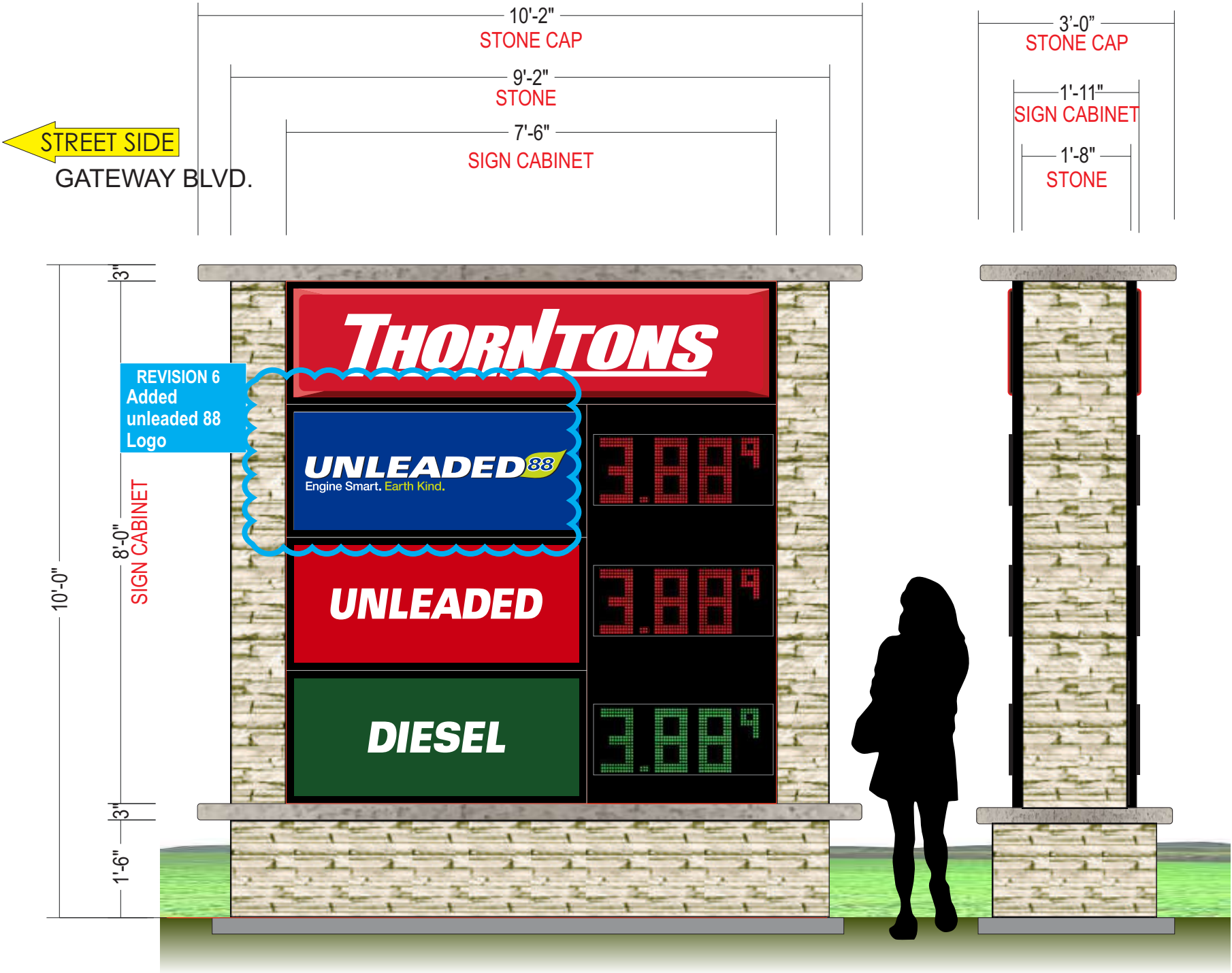
Date:

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ARTICLE 800OF THE NEC AND/OR OTHER
APPLICABLE LOCAL CODE. THIS INCLUDES
PROPER GROUNDING AND BONDING OF SIGN.

ELECTRICAL REQUIREMENTS

AMPS: VOLTS: CIRCUITS:

Nichiha KuraStone™
Desert Stacked Stone



PROPOSED

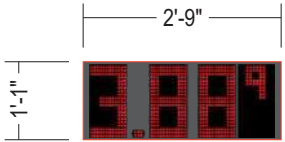
SIDE A

END VIEW

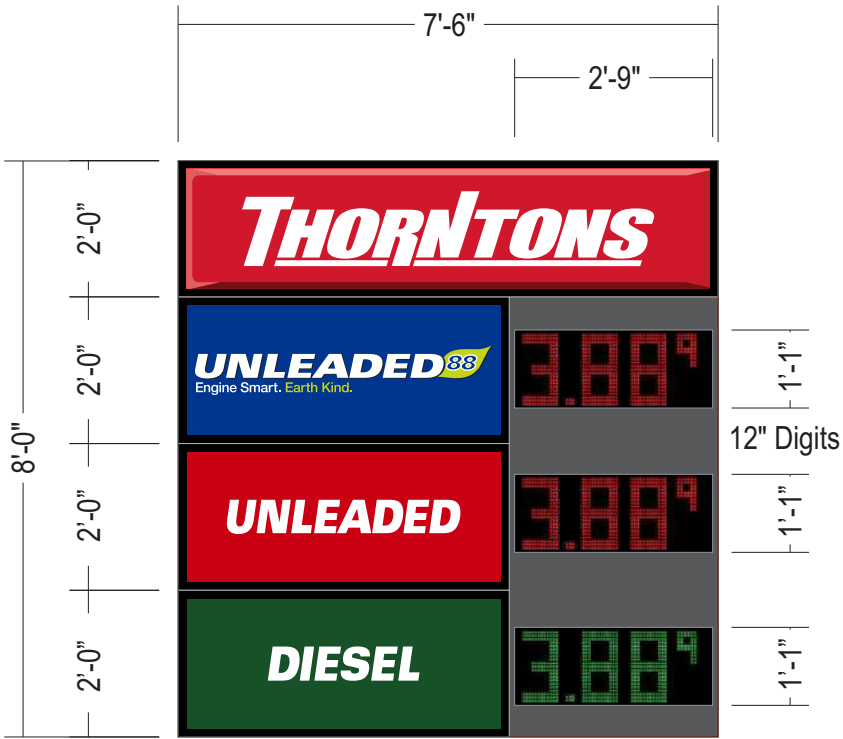
SCALE: 1/2" = 1'-0"

FRONT ELEVATION

NEW LOGO



LED Digits3.0 ft
Total9.0 ft x3



O.A. Sign Face.....60 ft
Total60 ft x2

PANEL DETAILS

SCALE: 3/8" = 1'-0"

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CUSTOMER APPROVAL

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redlines. Added new site plan provided by client.

CUSTOMER APPROVAL

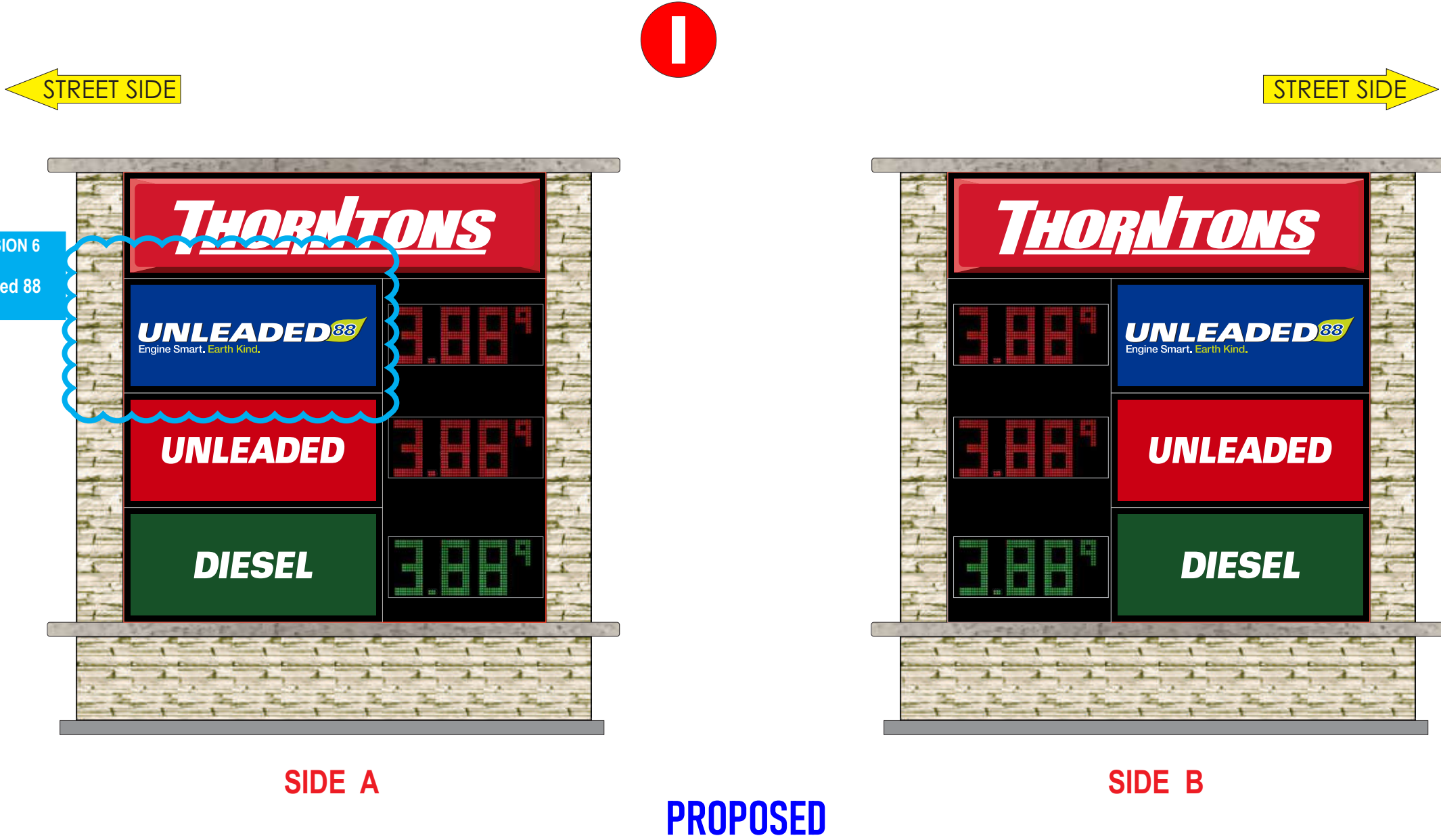
Todd Signature:

Date:

THIS SIGN IS INTENDED TO BE INSTALLED IN
ACCORDANCE WITH THE REQUIREMENTS OF
ARTICLE 600OF THE NEC AND/OR OTHER
APPLICABLE LOCAL CODE. THIS INCLUDES
PROPER GROUNDING AND BONDING OF SIGN.

ELECTRICAL REQUIREMENTS

AMPS: VOLTS: CIRCUITS:

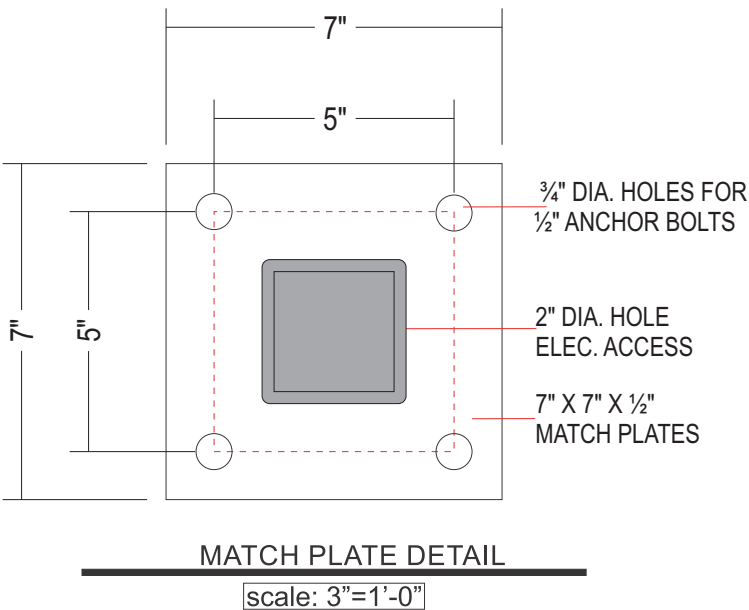
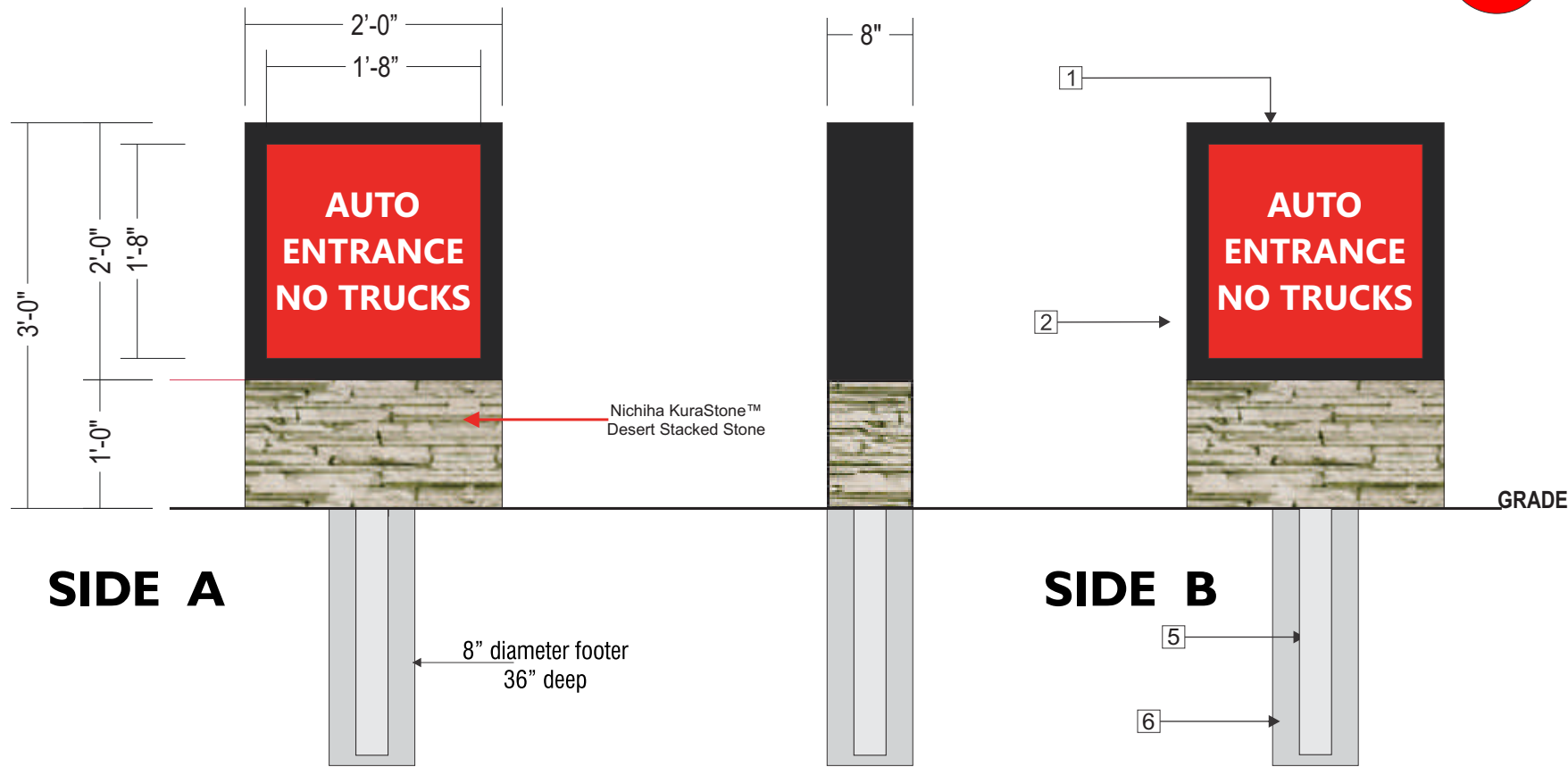


NOT TO SCALE

DIRECTIONAL SIGNAGE - LAYOUTS ON FOLLOWING PAGE

4.0 SQ FT

J K L



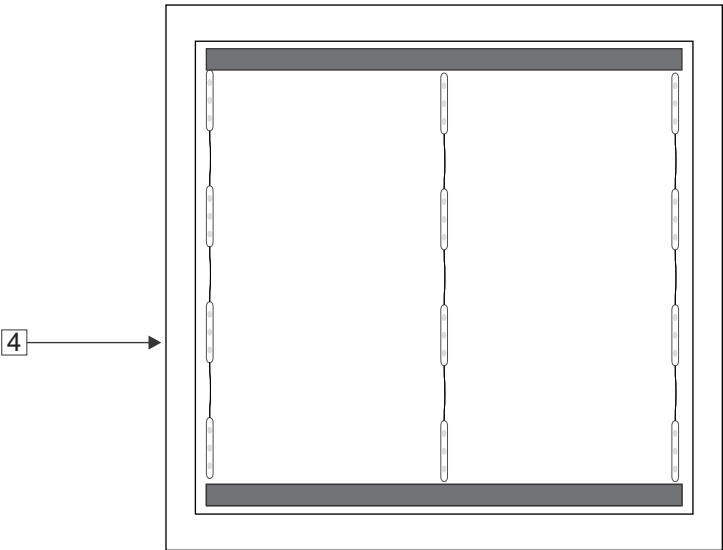
J K L

FRONT VIEW
SCALE: 3/4"=1'-0"

SIDE VIEW

COLOR CHARTER

- #7328 WHITE ACRYLIC
- 3M 3630-33 TO MATCH GRIPEX 585RED
- BLACK SATIN PAINT



24 Modules: Principal LED - Street Sticks Heavyweight - PL-OP2-HW3-P-X
31.6 Watts

1	CABINET:	8" DEEP ALUMINUM EXTRUSION WITH 2" RETAINERS PAINTED BLACK	4	ILLUMINATION:	PRINCIPAL LED STREET STICKS
2	GRAPHICS:	3M 3630-33 MATCH TO PANTONE #186	5	POLE:	3'X3' SQUARE ALUM. POLE PAINTED BLACK DIRECT BURIAL
3	FACES:	3/16" #7328 ACRYLIC COLOR: WHITE	6	MOUNTING:	CABINET TO BE MOUNT WITH MATCH PLATE BURIAL INSTALLATION

TEXAS REPUBLIC
SIGNS

2211 PECH RD HOUSTON TX 77055
832-727-5415
TEXASREPUBLICSIGNS.COM

Customer:
THORNTON - # 2014

Address:
GATEWAY BLVD & SR-63
MONROE, OH 45036

City of Jurisdiction:
MONROE

Designer:
JORGE

Date Created:
10.30.20

W.O. #:

File Path:P:\2021
JOBS\T\Thornton's\Thornton's - Monroe,
OH\PRELIM DRAWINGS

REVISIONS

Rev 2: 12-12-20 Added 50 ft sign option
for ST A - used "&" on ST L per client

Rev 3: 01-12-21 Deleted ST A. Added gas
& diesel canopy dimensions Revised monument
and directional signs-to meet city code

Rev 4: 07-14-21 Added ST A.
Rev 5:REV5: REDUCE CANOPY SIGN SQ
FT 10-12-21 PER TODD

Rev 6: 10-12-21 Added new "unleaded 88
Logo.

Rev 7: 12-17-21 Revised drawing per client
redlines. Added new site plan provided by client.

CUSTOMER APPROVAL

Todd Signature:

Date:

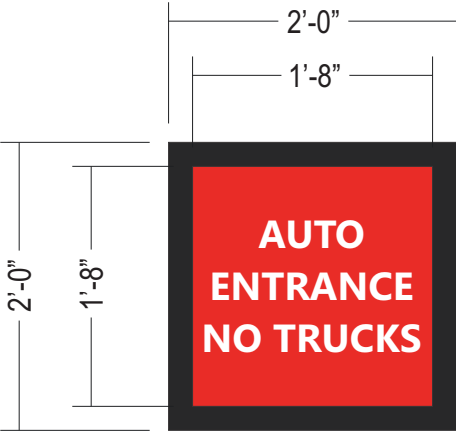
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ELECTRICAL REQUIREMENTS

AMPS: VOLTS: CIRCUITS:

DIRECTIONAL SIGNAGE - LAYOUTS

6.0 SQ FT



SIDE A



SIDE B

J PANEL DETAIL
SCALE: 3/4" = 1'-0"



SIDE A



SIDE B

K PANEL DETAIL
SCALE: 3/4" = 1'-0"



SIDE A



SIDE B

L PANEL DETAIL
SCALE: 3/4" = 1'-0"

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ELECTRICAL REQUIREMENTS

AMPS: VOLTS: CIRCUITS:

TUCKERMAN GROUP

REAL ESTATE AND DEVELOPMENT

1216 E Main Street, Ste 202
Chattanooga, TN 37408
423.509.5909 Phone
www.tuckermancre.com

Kameryn Jones, Planner
City of Monroe Ohio
233 S Main Street
P. O. Box 330
Monroe, OH 45050-0330
Kameryn Jones <jonesk@monroeohio.org>
Office: 513.539.7374 ext.1020
www.monroeohio.org

Re: Proposed Auto Parts Store / 301 N Main Street, Monroe, OH

Ms. Jones:

Please find enclosed for the project at 301 N Main Street, Monroe, OH

- the site plan application and application fee,
- review and inspection fee,
- zoning review fee, and
- lot split fee

Eric has forwarded you full civil and architectural plans via email, and he will have eight hard copies delivered to your office.

Please let me know if you have any questions or require additional information, and please feel free to call or email me to discuss.

Thank you, again, for all of your time and help.

Kindest regards,



Jake Toner
803.665.3623
jake@tuckermancre.com



Application for Site Plan Review

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

For Staff Use Only

Submittal Date:

Date Application Determined Complete:

Date of Planning Commission Review:

Fee Paid:

Staff Initials:

Application/Case 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: 301 North Main Street

County: ☒ Butler ☐ Warren Total Lot Area: +/- 2.99

County Tax Parcel ID: C1800005000059

Project/Development Name: Proposed O'Reilly Auto

Existing Zoning District: C2

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

Applicant Information

Applicant Name: Tuckerman Development

Contact Person: Jake Toner

Contact Address: 1216 E Main Street, Suite 120, Chattanooga, TN 37408

Contact Phone Number: 423-641-8607

Contact Fax Number:

Contact E-Mail: jake@tuckermancre.com

Property Owner Name:

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: 301 N Main Street (TPID: C1800005000059)

Additional Project Information

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

No existing uses. Vacant land.

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.

The proposed project will be a 7626 sf single tenant retail building (auto parts retailer) and parking.

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

Start Date: 1/5/2022

Completion Date: 7/5/2022

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

\$ 800,000.00

5) Check any relevant procedural reviews applicable to this project:

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

If you checked any of the above procedures, please provide specific details on what you are seeking to have approved through the applicable review procedure? Provide the application/case numbers for any related applications.

N/A

Project Address or Tax Parcel ID:

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 - SWPPP PLAN TO BE REVIEWED BY OEPA
BUTLER COUNTY - WATER AND SEWER TO BE REVIEWED BY BUTLER COUNTY

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: JAKE TONER

Signature:



Date: 9/22/21

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: PLEASE SEE ATTACHED AUTHORIZATION LETTER

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 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.

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 on 11" x 17" or otherwise noted
- ☒ 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 *N/A*
- ☐ Planned road network (including street names if available) within 500' of site (if different from existing streets) *N/A*
- ☒ Existing land uses on the site and adjacent parcels (including across any streets)
- ☐ Railroad infrastructure and rights-of-way *N/A*
- ☒ 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 *N/A*
- ☐ Locations of all proposed external street connections (including street stubs) *N/A*
- ☒ Location, width, and materials of all sidewalks, trails, and paths (including connections to the public sidewalk system and adjacent developments)

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.

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 side facing a public street, alley, public open space, or public building, 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 N/A
☒	Height of all buildings in feet, including number of building stories
☐	Accessory structure size(s), if applicable N/A
☐	Accessory structure height(s), if applicable N/A
☒	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)

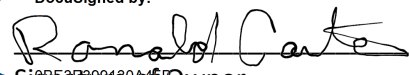
June 24, 2020

To: Whom It May Concern

Re: Owners Authorization for Permitting at 301 N Main, Monroe, OH / Parcel ID C1800005000059

To Whom It May Concern:

Please allow this letter to serve as notice that I, Ron Carter, Member, Ahave LLC , am the owner of the following described property: 301 N Main, Monroe, Ohio, (Butler County) , and furthermore, I am hereby providing my authorization for **Tuckerman Development LLC (or its agents)** to act on our behalf to pursue zoning, site plan/stormwater, building permits etc. for a proposed project at the above referenced property.

DocuSigned by:
 6/24/2020 | 11:26 PM ADT
Signature of Owner

Mr. Ron Carter
Member
Ahave LLC

SITE DEVELOPMENT PLANS FOR:

PROPOSED O'REILLY AUTOPARTS STORE

BENCH MARK DATA:

PROJECT SITE BENCH MARKS:

SBM #1
MAG NAIL SET IN WEST SIDE OF TELEPHONE-POWER POLE ON WEST SIDE OF MAIN STREET. APPROXIMATELY 50 FEET WEST OF MAIN STREET CENTERLINE. APPROXIMATELY 150 FEET NORTHEASTERLY FROM THE SOUTHEAST PROPERTY CORNER.
ELEVATION=741.54 (NAVD88)

SMB #2
CUT "[X]" ON THE NORTHWEST CORNER OF A HEADWALL. APPROXIMATELY 55 FEET WEST OF MAIN STREET CENTERLINE. APPROXIMATELY 30 FEET SOUTHWESTERLY FROM THE SOUTHEAST PROPERTY CORNER.
ELEVATION=744.36 (NAVD88)

LEGAL DESCRIPTION:

SITUATED IN SECTON 18, TOWN 3, RANGE 3, CITY OF MONROE, BUTLER COUNTY, OHIO, AND BEING A PART OF LOT THREE HUNDRED FIFTY (350) AS SHOWN ON THE RECORDED PLATS OF THE CITY OF MONROE AND BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT AN IRON SPIKE IN MAIN STREET AT THE NORTHEASTERLY COMER OF SAID LOT 350 AND ALSO BEING THE NORTHEASTERLY CORNER OF A 78.331 ACRE TRACT, RECORDED IN DEED BOOK 1408, PAGE 71 OF THE BUTLER COUNTY, OHIO DEED RECORDS; THENCE, IN MAIN STREET WITH THE EASTERLY BOUNDARY LINE OF SAID 78.331 ACRE TRACT AND WITH THE EASTERLY LINE OF SAID LOT 350, S. 35 DEGREES, 50 MINUTES, 20 SECONDS WEST 300.00 FEET TO A POINT; THENCE BY A NEW DIVISION LINE, NORTH 54 DEGREES, 09 MINUTES, 40 SECONDS WEST (PASSING AN IRON PIN AT 33.00 FEET) A DISTANCE OF 737.42 FEET TO AN IRON PIN IN THE NORTHERLY BOUNDARY LINE OF SAID 78.331 ACRE TRACT AND SAID LOT 350; THENCE WITH SAID BOUNDARY LINE AND LOT LINE ON THE FOLLOWING COURSES: (1) SOUTH 84 DEGREES, 29 MINUTES, 23 SECONDS EAST 348.78 FEET TO AN IRON PIN; (2) SOUTH 70 DEGREES, 0 MINUTES, 36 SECONDS EAST (PASSING AN IRON PIN AT 419.32 FEET) A DISTANCE OF 453.62 FEET TO THE POINT BEGINNING, CONTAINING TWO AND NINE HUNDRED NINETY THREE THOUSANDTHS (2.993) ACRES, SUBJECT TO ALL LEGAL HIGHWAYS AND EASEMENTS OF RECORDS. A PLAT SURVEY IS FILED IN VOLUME 6, PAGE 222, BUTLER COUNTY LOT SURVEY.

AUDITOR'S PARCEL NUMBER C1800005000059

UTILITIES - CONTACT INFORMATION:

ZONING / PLANNING
CITY OF MONROE
233 SOUTH MAIN STREET
MONROE, OH 45050
513-539-7374

OHIO DOT - DISTRICT 8
505 S. STATE ROUTE 741
LEBANON, OH 45036
513-932-3030

MONROE FIRE DEPARTMENT
233 SOUTH MAIN STREET
MONROE, OH 45050
513-539-8380

ELECTRIC - TOLEDO EDISON
6099 ANGOLA RD,
HOLLAND, OH 43528
419.249.5218

STORM
MONROE PUBLIC WORKS - STORMWATER
1000 HOLMAN AVENUE
MONROE, OH 45050
513-727-8953

GAS - COLUMBIA GAS OF OHIO
2901 EAST MANHATTAN BLVD
TOLEDO, OH 43611
419.539.6066

SANITARY SEWER/WATER
BUTLER COUNTY WATER & SEWER
130 HIGH STREET
HAMILTON, OH 45011
513-887-3066

DEVELOPERS RESPONSIBILITY & UNDERSTANDING:

THE DEVELOPER IS RESPONSIBLE FOR MAKING SURE THE APPROVED PLANS ARE COMPLIED WITH AND THAT THE MATERIALS SPECIFIED AND THE LOCATION OF UTILITIES SHOWN ON THE APPROVED PLANS ARE INSTALLED ACCORDING TO THE PLANS. THE DEVELOPER IS RESPONSIBLE FOR SUPERVISING/OVERSEERING THEIR CONTRACTORS AND SUBCONTRACTORS. THE CITY IS NOT RESPONSIBLE FOR MAKING SURE INFRASTRUCTURE IS LOCATED IN THE APPROPRIATE LOCATION AS SHOWN ON THE PLANS. ANY MODIFICATIONS TO THE APPROVED PLANS NEED TO BE SUBMITTED WITH SUPPORTING DOCUMENTATION T THE CITY ENGINEER WITH ENOUGH TIME TO EVALUATE THE MODIFICATION AND EITHER REQUEST ADDITIONAL INFORMATION AND/OR APPROVE OR DENY THE MODIFICATIONS.

PRIOR TO THE BASE COURSE OF ASPHALT INSTALLATION:

THE DEVELOPER MUST PULL THE MANDREL THROUGH THE PIPE AND CLEAN AND TELEVIEW THE STORM SEWER LINE, PER ODOT 611.12-611.12. THE CITY MUST BE GIVEN NO LESS THAN THREE (3) DAYS NOTICE TO WHEN THE INSPECTION WILL TAKE PLACE SO STAFF CAN BE SCHEDULED. THE DEVELOPER IS RESPONSIBLE FOR STABILIZING ANY SUBGRADE ISSUES NOTED DURING CONSTRUCTION BY MEANS AND METHODS APPROVED BY THE CITY ENGINEER (GEOGRID, UNDERCUTTING, BASE STABILIZATION OR OTHER APPROVED METHODS).

FINAL BOND RELEASE/FINAL ACCEPTANCE:

THE DEVELOPER MUST BE RESPONSIBLE FOR CORRECTING ANY DEFICIENCIES NOTED SUCH AS CRACKED OR BROKEN CURB, ASPHALT BASE REPAIRS, ROADWAY CROSS-SLOPES, SWPPP ITEMS OR OTHER PUNCH LIST TYPE ITEMS.

SITE DESIGN INFO:

SOIL DATA:
BASED ON THE WEB SOIL SURVEY FROM APRIL 2021 (HTTPS://WEBSOILSURVEY.SC.EGOV.USDA.GOV/APP), THE SITE CONTAINS THE FOLLOWING SOIL TYPES:

- DbB, DANA SILT LOAM (48.1% OF SITE), 2 TO 8% SLOPES. K FACTOR FOR WHOLE SOIL = 0.32 - MODERATE RISK OF EROSION.
- WyB2, WYNN SILT LOAM (51.9% OF SITE), 2 TO 6% SLOPES. K FACTOR FOR WHOLE SOIL = 0.37 - MODERATE RISK OF EROSION.

GEOTECHNICAL INVESTIGATION WAS PERFORMED BY TTL ASSOCIATES INC. REFER TO THEIR MAY 11 2021 REPORT # 1995702. THIS REPORT SHALL BE PROVIDED TO THE CONTRACTOR PRIOR TO COMMENCING CONSTRUCTION - CONTRACTOR SHALL ABIDE BY ANY AND ALL ADDITIONAL REQUIREMENTS NOTED WITHIN ABOVE REFERENCED GEOTECH REPORT, WHETHER INCLUDED AND SHOWN ON THESE PLANS OR NOT. ANY DISCREPANCIES BETWEEN THESE PLANS AND SAID REPORT SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER AND REMEDIED PRIOR TO CONSTRUCTION.

FLOOD PLAIN:

THIS PARCEL IN ITS ENTIRETY IS WITH IN A MAPPED FLOOD ZONE X

FEMA FIRM MAP #39017 C0228F, EFFECTIVE DATE OCTOBER 19, 2018

301 N MAIN STREET
PARCELS: C1800005000059
EXISTING PARCEL TOTALING: ±2.993 ACRES -
BEING PART OF LOT 350 IN THE CITY OF MONROE,
IN SECTION 18, TOWN 3, RANGE 3, LEMON TOWNSHIP
BUTLER COUNTY, OHIO

DATE: NOVEMBER 22, 2021



VICINITY MAP

NTS

LEGEND							
EXISTING	PROPOSED	DESCRIPTION	EXISTING	PROPOSED	DESCRIPTION	EXISTING	PROPOSED
---	---	GAS			HANDICAP PAVEMENT MARKING		
		GAS LINE MARKER			POST/BOLLARD		
		GAS VENT			POWER AND LIGHT POLE		
		GAS METER			POWER POLE		
		GAS MANHOLE			EDGE OF WATER		
		GAS VALVE			SIGN		
		HEDGE/SHRUB ROW			SOIL BORING		
		LIGHTING PULL BOX			SPOT ELEVATION		
		LIGHT POLE			SPRINKLER HEAD		
		OVERHEAD CABLE			SANITARY MANHOLE		
		OVERHEAD ELECTRIC/TELEPHONE			SANITARY SEWER MAIN		
		OVERHEAD UTILITIES			SANITARY VENT		
		UNDERGROUND ELECTRIC LINE			SANITARY VALVE		
		UNDERGROUND ELECTRIC MARKER			STORM MANHOLE		
		WETLANDS			CATCH BASIN		
		LANDSCAPE ROCK			COUNTY PARCEL NUMBER		
		BASE FLOOD ELEVATION			EXISTING BUILDING		
		WATER WELL			CONCRETE		
		GAS WELL			WATER MARKER		
		MONITORING WELL			WATER METER		
		OIL WELL			WATER MANHOLE		
		UNKNOWN WELL			WATER VALVE		
		W			GUARDRAIL		
		SD			RAIL FROG		

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C201	SITE DEVELOPMENT PLAN
C202-C203	SITE DEVELOPMENT DETAILS
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C205	SANITARY SEWER MAIN EXTENSION PLAN & PROFILE
C300	SITE GRADING & DRAINAGE PLAN
C301	SITE GRADING DETAILS
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SW4	EPSC - NOTES & DETAILS

PERMIT LOG

PERMIT#	AGENCY
1GC08412*AG	OHIO EPA - NPDES NOI

DEVELOPER:
TUCKERMAN DEVELOPMENT LLC
C/O MR. WILLIAM TONER
1216 E MAIN ST, SUITE 120
CHATTANOOGA TN 37408
423.641.8607

CIVIL ENGINEER:
NE GROUP
EOR: LAWRENCE EMERY, PE
P.O. BOX 80843
CHATTANOOGA TN 37414
423.799.0788

OWNER:
OWNERS REP:
MR. GREG BLATT, CIPS, SRES
BROKER-ASSOCIATE
DIRECTOR - KW COMMERCIAL
50 CHESTNUT STREET SUITE 220
DAYTON, OH 45440
937-657-2876

CAFE AHAVE LLC,
ATTN: RON CARTER, MEMBER
1807 LIMERICK LANE
MIDDLETOWN, OH 45042-2928

CONSTRUCTION STANDARDS NOTE:
NOTICE! ALL CONSTRUCTION, GRADING, INSTALLATION OF ALL NEW ONSITE INFRASTRUCTURE & UTILITIES AND MATERIALS FOR SAME, AND ANY OFFSITE PUBLIC IMPROVEMENTS PROPOSED AS A PART OF THIS PROJECT SHALL BE INSTALLED IN ACCORDANCE WITH ALL RULES, REGULATIONS, STANDARDS AND SPECIFICATIONS OF CITY OF MONROE, BUTLER COUNTY & OHIO EPA INCLUDING THE LATEST REVISED EDITION OF THE APPROPRIATE STANDARD DETAILS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO HAVE A COPY OF THE LATEST REVISED EDITION OF SAID STANDARD DETAILS.

24 Hour Contact Person:

TBD
Phone: TBD



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RESPONSIBILITY FOR ALL OTHER PLANS, SPECIFICATIONS OR INTERPRETATIONS ARE DISCLOSED.
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CIVIL ENGINEER:
NE Group
ENGINEERING - PLANNING - DESIGN
INFO@THENEGROUP.COM

TUCKERMAN
DEVELOPMENT

RETAIL DEVELOPMENT
301 N. MAIN STREET
MONROE, OHIO
ZONING: C-2

PROJECT:

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SHEET NAME:
COVER SHEET

DATE: 11/22/2021

DRAWN BY: CD

CHECKED BY: LE

PROJECT NO.: 21-888

SHEET NUMBER:

C000

DEMOLITION NOTES

1. CONTRACTOR SHALL OBTAIN ALL PERMITS BEFORE DEMOLITION AND CONSTRUCTION BEGINS. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH CITY OF MONROE REGULATIONS, O.S.H.A. STANDARDS, AND GOVERNING EPA REGULATIONS;
2. CONTRACTOR TO COMPLY WITH LOCAL AND COUNTY REGULATIONS REGARDING HAULING, DISPOSAL, AND THE BURNING OF DEBRIS ON-SITE. CONTRACTOR SHALL NOT BURY ANY CONSTRUCTION DEBRIS ON SITE.
3. DEMOLITION MATERIALS NOT SUITABLE FOR FILL MATERIAL SHALL BE DISPOSED OF OFF-SITE. ALL DEBRIS SHALL BE HAULED OFF-SITE TO A DISPOSAL AREA APPROVED BY CITY OF MONROE AND STATE OF OHIO FOR THE HANDLING OF DEMOLITION DEBRIS.
4. CONTRACTOR SHALL NOTIFY OWNER 48 HOURS PRIOR TO COMMENCEMENT OF DEMOLITION ACTIVITIES.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING PRE-DEMOLITION PHOTOGRAPHS AND/OR VIDEOTAPE SHOWING EXISTING CONDITIONS OF ADJOINING CONSTRUCTION AND SITE IMPROVEMENTS PRIOR TO ANY DEMOLITION WORK.
6. ANY ITEM THAT MAY BE ENCOUNTERED DURING BUILDING DEMOLITION THAT MAY BE OF INTEREST OR VALUE TO THE OWNER SHALL REMAIN THE OWNER'S PROPERTY. COORDINATE PROCEDURE FOR REMOVAL AND SALVAGE WITH OWNER.
7. CONTRACTOR SHALL IMMEDIATELY NOTIFY OWNER IN THE EVENT THAT UNANTICIPATED HAZARDOUS MATERIALS ARE ENCOUNTERED. CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS AND REGULATIONS REGARDING THE HANDLING AND DISPOSAL OF HAZARDOUS MATERIALS.
8. CONTRACTOR RESPONSIBLE FOR ONSITE TESTING FOR SUBBASE/BASE COMPACTION & FOR CONCRETE COMPRESSIVE STRENGTH TESTING.
9. THE LOCATIONS OF EXISTING UTILITIES SHOWN ARE BASED ON A SURVEY AS INDICATED IN THE GENERAL NOTES ON THE SITE PLAN. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES BETWEEN THESE PLANS AND FIELD CONDITIONS.
10. CONTRACTOR SHALL CONTACT ALL UTILITIES COMPANIES (WATER, SEWER, POWER, TELEPHONE, NATURAL GAS, CABLE, ETC) FOR PROPER DISCONNECT OF UTILITIES TO BUILDING TO BE REMOVED, AS WELL AS VERIFICATION OF UTILITIES TO BE RELOCATED DUE TO CONSTRUCTION. CONTRACTOR TO CALL OHIO 811 / OHIO UTILITIES PROTECTION SERVICE AT LEAST 72-HOURS PRIOR TO CONSTRUCTION TO HAVE UTILITIES LOCATED.
11. CONTRACTOR RESPONSIBLE FOR LOCATING, IDENTIFYING, DISCONNECTING, AND SEALING OR CAPPING UTILITIES SERVING BUILDINGS AND STRUCTURES TO BE DEMOLISHED.
12. THE PURPOSE OF THIS PLAN IS FOR DEMOLITION ONLY. UTILITIES SHALL NOT BE REMOVED, ABANDONED OR RELOCATED UNTIL ALTERNATE PROVISIONS ARE MADE TO MAINTAIN SERVICE TO OTHER BUILDINGS/FACILITIES AS APPROVED BY THE OWNER.
13. CONTRACTOR SHALL PROTECT ALL ADJACENT LANDS FROM DAMAGE DURING DEMOLITION WORK. ANY OFF-SITE AREAS DISTURBED SHALL BE RETURNED TO A CONDITION EQUAL TO OR BETTER THAN THE EXISTING CONDITION.
14. ALL STRUCTURES AND UTILITIES NOT LABELED FOR DEMOLITION SHALL BE PROTECTED FROM DAMAGE DURING ALL PHASES OF CONSTRUCTION. ANY DAMAGE TO THESE STRUCTURES SHALL BE REPAIRED BY THE CONTRACTOR TO A CONDITION EQUAL TO OR BETTER THAN THE EXISTING CONDITION AT NO ADDITIONAL COST TO THE OWNER.
15. ALL STRUCTURES NOT LABELED FOR DEMOLITION SHALL HAVE THEIR UTILITY SERVICES MAINTAINED AT ALL TIMES. TEMPORARY SERVICE INTERRUPTIONS SHALL BE APPROVED AND SCHEDULED WITH THE OWNERS A MINIMUM OF 48 HOURS PRIOR TO INTERRUPTING THE SERVICE.
16. NECESSARY BARRICADES, SUFFICIENT LIGHTS, SIGNS AND OTHER TRAFFIC CONTROL METHODS MAY BE NECESSARY FOR THE PROTECTION AND SAFETY OF THE PUBLIC SHALL BE PROVIDED AND MAINTAINED THROUGHOUT THE LIFE OF THE PROJECT.
17. SILT FENCES, COMPOSITE FILTER SOCKS, INLET PROTECTION, INLET SEDIMENT TRAPS, CONSTRUCTION ENTRANCES, DIVERSIONS AND TEMPORARY SEDIMENTATION PONDS ALONG WITH ASSOCIATED DISCHARGE PIPES SHALL BE IN PLACE PRIOR TO DEMOLITION OPERATIONS. CONTRACTOR IS TO ADHERE TO THE STATE OF OHIO EROSION PREVENTION AND SEDIMENT CONTROL DESIGN MANUAL DURING DEMOLITION OPERATION. SEE EROSION PREVENTION & SEDIMENT CONTROL PLANS FOR DETAILS.
18. DEMOLITION SHALL, UNLESS OTHERWISE NOTED ON DRAWINGS, INCLUDE REMOVAL OF EXISTING OBJECTS OR IMPROVEMENTS, WHETHER INDICATED ON DRAWINGS OR NOT, THAT WOULD IN ANY WAY PREVENT OR INTERFERE WITH PROGRESS OR COMPLETION OF PROPOSED WORK AND ALL REMOVALS AND RELOCATIONS SHALL BE AT CONTRACTOR'S EXPENSE.
19. ANY QUESTIONS CONCERNING THE LIMITS OF DEMOLITION OF ANY STRUCTURE, WALKWAY, ASPHALT PAVING, VEGETATION, SIGNS, POWER AND/OR LIGHT POLES, ETC., SHOULD BE CLEARED THROUGH THE ENGINEER AND/OR OWNER BEFORE PROCEEDING.
20. ALL MATERIALS BEING REMOVED AND NOT RELOCATED UNDER THE NEW CONSTRUCTION, INCLUDING TREES AND SHRUBS, SIGNS, UTILITY STRUCTURES, ETC., SHALL BE FIRST OFFERED TO THE OWNER'S REPRESENTATIVE AND IF NOT ACCEPTED SHALL THEN BE PROPERLY DISPOSED OF BY THE CONTRACTOR.
21. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL CHARTED AND UNCHARTED UTILITIES. TAKE CARE TO PROTECT UTILITIES THAT ARE TO REMAIN. REPAIR ANY DAMAGE ACCORDING TO LOCAL STANDARDS AND AT THE CONTRACTOR'S EXPENSE. COORDINATE ALL CONSTRUCTION WITH THE APPROPRIATE UTILITY COMPANY.
22. IN AREAS WHERE EXISTING PAVEMENT, WALKS, OR CURBS ARE TO BE REMOVED, SAW CUT TO PROVIDE A CLEAN EDGE. COORDINATE EXTENT OF PAVEMENT DEMOLITION WITH THE LIMIT OF NEW IMPROVEMENTS ON THE SITE LAYOUT PLAN & UTILITY INSTALLATION.
23. CAVITIES LEFT BY STRUCTURE REMOVAL SHALL BE SUITABLY BACKFILLED AND COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS.
24. THE CONTRACTOR SHALL USE WATER SPRINKLING AND OTHER SUITABLE METHODS AS NECESSARY TO CONTROL DUST AND DIRT CAUSED BY THE DEMOLITION WORK.
25. THE CONTRACTOR IS RESPONSIBLE FOR ALL DEMOLITION AND REMOVAL NECESSARY TO ACCOMPLISH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.
26. THE CONTRACTOR SHALL PRESERVE AND PROTECT SURVEY CONTROL POINTS AND SHALL BE RESPONSIBLE FOR REPLACEMENT OF ANY DISTURBED CONTROL POINTS.
27. RELOCATION OF EXISTING PLANT MATERIALS SHALL BE COORDINATED WITH THE OWNER AND RELOCATED TO A DESIGNATED AREA ON SITE.
28. IF THERE ARE ANY TREES TO BE PRESERVED - BARRICADE BEFORE BEGINNING CONSTRUCTION IN ACCORDANCE WITH THE TREE PRESERVATION NOTES AND DETAILS.
29. NO UTILITY OR STORM SEWER LINES SHALL BE DEMOLISHED UNTIL THE NEW LINES HAVE BEEN INSTALLED AND ARE PLACED INTO OPERATION.
30. BURNING ON SITE AND/OR CONSTRUCTION MATERIALS AND/OR WASTE IS NOT ALLOWED.
31. BURYING ON SITE AND/OR CONSTRUCTION MATERIALS AND/OR WASTE IS NOT ALLOWED.

DEMOLITION KEY

- REMOVE EXISTING PAVEMENT, CONCRETE, /GRAVEL
- REMOVE EXISTING STRUCTURES, BUILDING
- NEW BUILDING LIMITS
- NEW PAVEMENT & SIDEWALK LIMITS
- LIMITS OF DISTURBANCE
- TREE PROTECTION

GENERAL NOTES

- A. REFER TO PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.
- B. SITE CONDITIONS BASED UPON ACTUAL FIELD SURVEY PROVIDED. REFER TO SURVEY SHEET IN THIS PLAN SET. FIELD VERIFY EXISTING CONDITIONS BY DETAILED INSPECTION PRIOR TO COMMENCING CONSTRUCTION. NOTIFY ENGINEER IF EXISTING CONDITIONS DEVIATE SUBSTANTIALLY FROM THOSE INDICATED HEREIN.
- C. REMOVE ALL EXISTING SITE CONSTRUCTION AND DELETERIOUS MATERIALS UNLESS OTHERWISE NOTED.
- D. EXISTING DO NOT DISTURB AREAS SHALL REMAIN AS IS AND SHALL BE PROTECTED AS REQUIRED. REPLACE AND/OR REPAIR EXISTING CONSTRUCTION DAMAGED DUE TO CONTRACTOR ACTIVITIES.
- E. ALL DEMOLITION MATERIALS SHALL BECOME PROPERTY OF CONTRACTOR FOR PROPER/LEGAL DISPOSAL UNLESS OTHERWISE NOTED.
- F. REFER TO SITE UTILITY PLAN FOR DEMOLITION OF EXISTING UTILITIES.
- G. EXISTING UNDERGROUND INSTALLATION SUCH AS WATER SERVICE MAINS, GAS SERVICE MAINS, SEWERS, TELEPHONE LINES, POWER LINES, AND BURIED STRUCTURES IN THE VICINITY OF THE WORK ARE INDICATED ON THE DRAWINGS ONLY TO THE EXTENT SUCH INFORMATION HAS BEEN MADE AVAILABLE. THERE IS NO GUARANTEE AS TO THE ACCURACY OR COMPLETENESS OF SUCH INFORMATION AND ALL RESPONSIBILITY FOR THE ACCURACY AND COMPLETENESS IS EXPRESSLY DISCLAIMED. GENERALLY SERVICE CONNECTIONS ARE NOT INDICATED ON THE DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR DISCOVERY OF EXISTING UNDERGROUND INSTALLATIONS IN ADVANCE OF EXCAVATING OR TRENCHING BY CONTRACTING LOCAL UTILITIES.

KEY NOTES

1. IF FOUND ON SITE, EXISTING BUILDING AND FOUNDATION CONSTRUCTION TO BE REMOVED.
2. EXISTING PAVEMENT TO BE REMOVED, AS SHOWN.
3. EXISTING CONCRETE TO BE REMOVED, AS SHOWN.
4. EXISTING SIDEWALK TO BE REMOVED, AS SHOWN.
5. EXISTING FENCING TO BE REMOVED, AS SHOWN.
6. EXISTING TREES, BUSH, PLANTINGS, AND DEBRIS TO BE REMOVED, AS SHOWN.
7. EXISTING CURB AND PAVEMENT TO BE REMOVED PER CITY/STATE DESIGN STANDARDS AS REQUIRED FOR INSTALLATION OF NEW CONSTRUCTION.
8. EXISTING UTILITY TO BE REMOVED, REFER TO SITE UTILITY PLAN.
9. EXISTING DRIVE APRON TO BE REMOVED.

ENVIRONMENTAL

- a. AN ENVIRONMENTAL ANALYSIS HAS BEEN PERFORMED ON THE EXISTING SITE. NO HAZARDOUS MATERIALS ARE ON THE PROJECT SITE.

SYMBOLS LEGEND

- EXISTING CONCRETE
- EXISTING GRAVEL TO REMAIN
- PREP AREA FOR PROPOSED DRIVEWAY
- PROPOSED HEAVY DUTY ASPHALT
- PROPOSED CONCRETE SIDEWALK & STOREFRONT HEAD IN PARKING
- EXISTING CHAIN LINK FENCE
- EXISTING 1' CONTOUR
- EXISTING 5' CONTOUR
- PROPOSED 1' CONTOUR
- PROPOSED 5' CONTOUR
- PROPOSED COMPOST FILTER SOCK
- PROPOSED SILT FENCING
- PROPOSED TREE PROTECTION
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED SANITARY SERVICE LINE
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED OVERHEAD ELECTRIC
- PROPOSED LIGHT POLE BASE

SITE INFO:

	EXISTING	PROPOSED
SITE AREA:	130,401 SF (2.994 AC)	130,401 SF (2.994 AC)
IMPERVIOUS	0 SF (0 AC)	29,181 SF (0.670 AC)
PERVIOUS	130,401 SF (2.994 AC)	101,220 SF (2.324 AC)
GRAVEL	0 SF (0 AC)	0 SF (0 AC)
DISTURBED AREA:	0 SF (0 AC)	59,410 SF (1.36 AC)

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CONSTRUCTION
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CIVIL ENGINEER:
NE Group
ENGINEERING - PLANNING - DESIGN
INFO@THENEGROUP.COM

TUCKERMAN
DEVELOPMENT

CLIENT:

RETAIL DEVELOPMENT
301 N. MAIN STREET
MONROE, OHIO
ZONING: C-2

PROJECT:

REVISIONS

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5	

SHEET NAME:
EXISTING
CONDITIONS AND
DEMOLITION PLAN

DATE: 11/22/2021

DRAWN BY: CD

CHECKED BY: LE

PROJECT NO.: 21-888

SHEET NUMBER:

C100



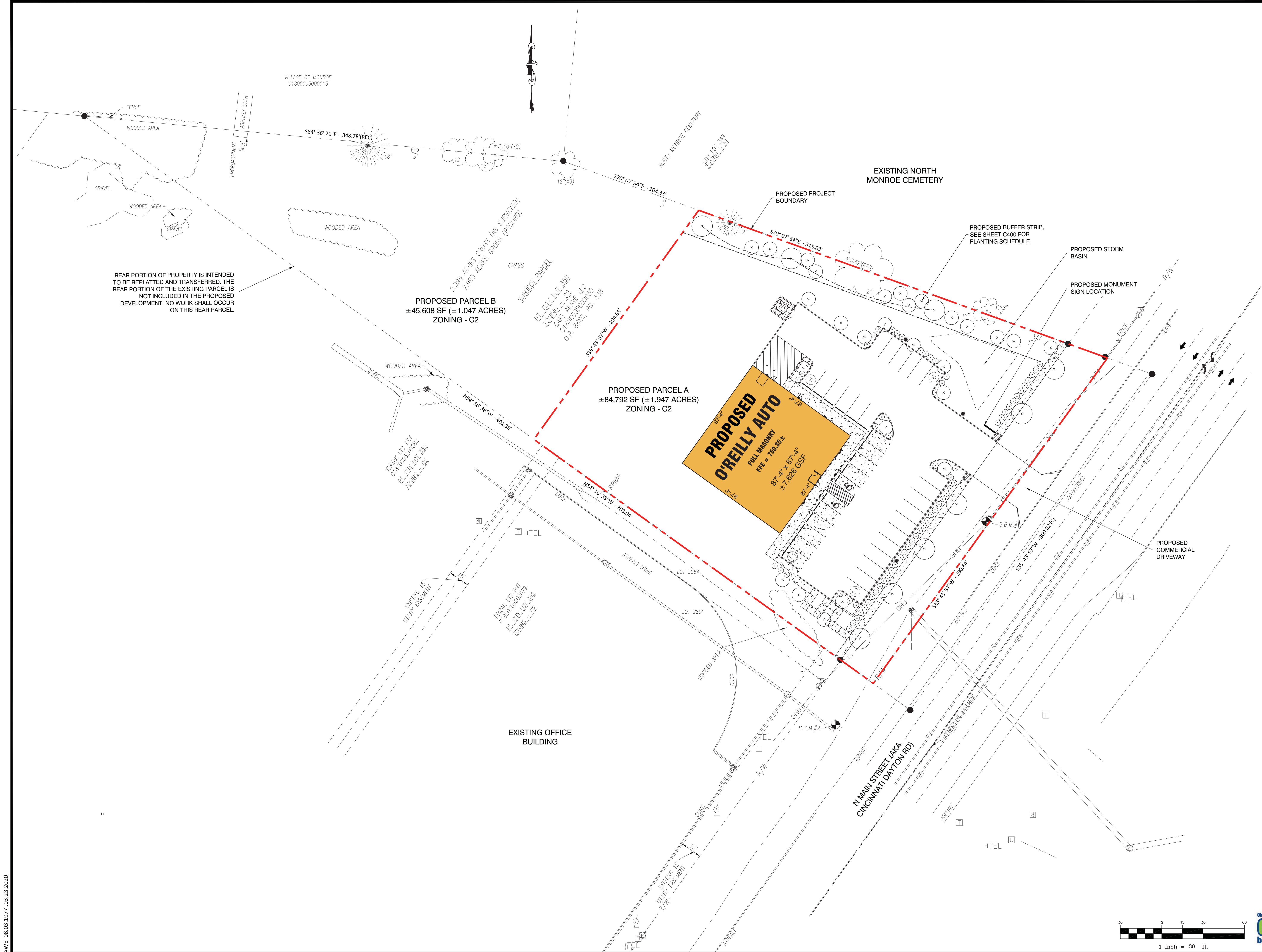
**TUCKERMAN
DEVELOPMENT**

RETAIL DEVELOPMENT
301 N. MAIN STREET
MONROE, OHIO
ZONING: C-2

REVISIONS	

DATE:	11/22/2021
DRAWN BY:	CD
CHECKED BY:	LE
PROJECT NO.:	21-888

HEET NUMBER:
C200



SITE



VICINITY MAP

NO SCALE

FORM BASED CODE SITE DATA:

ADDRESS: 301 N MAIN STREET
TAX MAP #: C1800005000059
ZONING: C-2
TOTAL ACREAGE: ±2.99 AC (DEVELOPMENT PARCEL - 1.95 AC)
PROJECT: PROPOSED RETAIL DEVELOPMENT, NO DRIVE THRU, NO FOOD SERVICE/FOOD PREP

SITE DATA	REQUIRED	EXISTING
LOT COVERAGE	75% MAX	± 35%
BUILDING HEIGHT	20' MIN/60' MAX	22'
BUILDING SETBACKS		
FRONT	50' MIN	±89'
REAR	5' MIN	±97'
SIDE (NORTH)	5' MIN	±92'
SIDE (SOUTH)	5' MIN	±48'

PARKING/VEHICULAR USE/LANDSCAPE SETBACKS

FRONT	6' MIN	±6.5'
SIDE	20' MIN	±31'
REAR	20' MIN	N/A
LOADING SPACES	0	0

PARKING CALCULATIONS

REQUIRED PARKING: 31 PARKS

RETAIL & SERVICE COMMERCIAL USERS: 1 PER 250 GSF = 7,626 GSF / 250 = 31 REQ'D

PROVIDED PARKING: AS ALLOWED BY 1211.03(I)(1) - CAN PROVIDE 10% MORE PARKING BY RIGHT --> 31
REQUIRED PARKS x 1.10 = 34 PARKS PROVIDED

TRASH - WILL BE MANAGED VIA ENCLOSED DUMPSTER/TRASH BIN AS SHOWN

REFER TO ARCHITECTURAL PLANS FOR COMPLIANCE CONFIRMATION REGARDING CHAPTER 1210:
ARCHITECTURAL STANDARDS.

TRAFFIC ANALYSIS:

PROPOSED ITE TRAFFIC GENERATION AS OUTLINED IN THE TABLE BELOW PER ARE < 40 TRIPS PER PEAK HOUR
AND < 370 TRIPS PER DAY (LOW LEVEL TRAFFIC VOLUME GENERATOR).

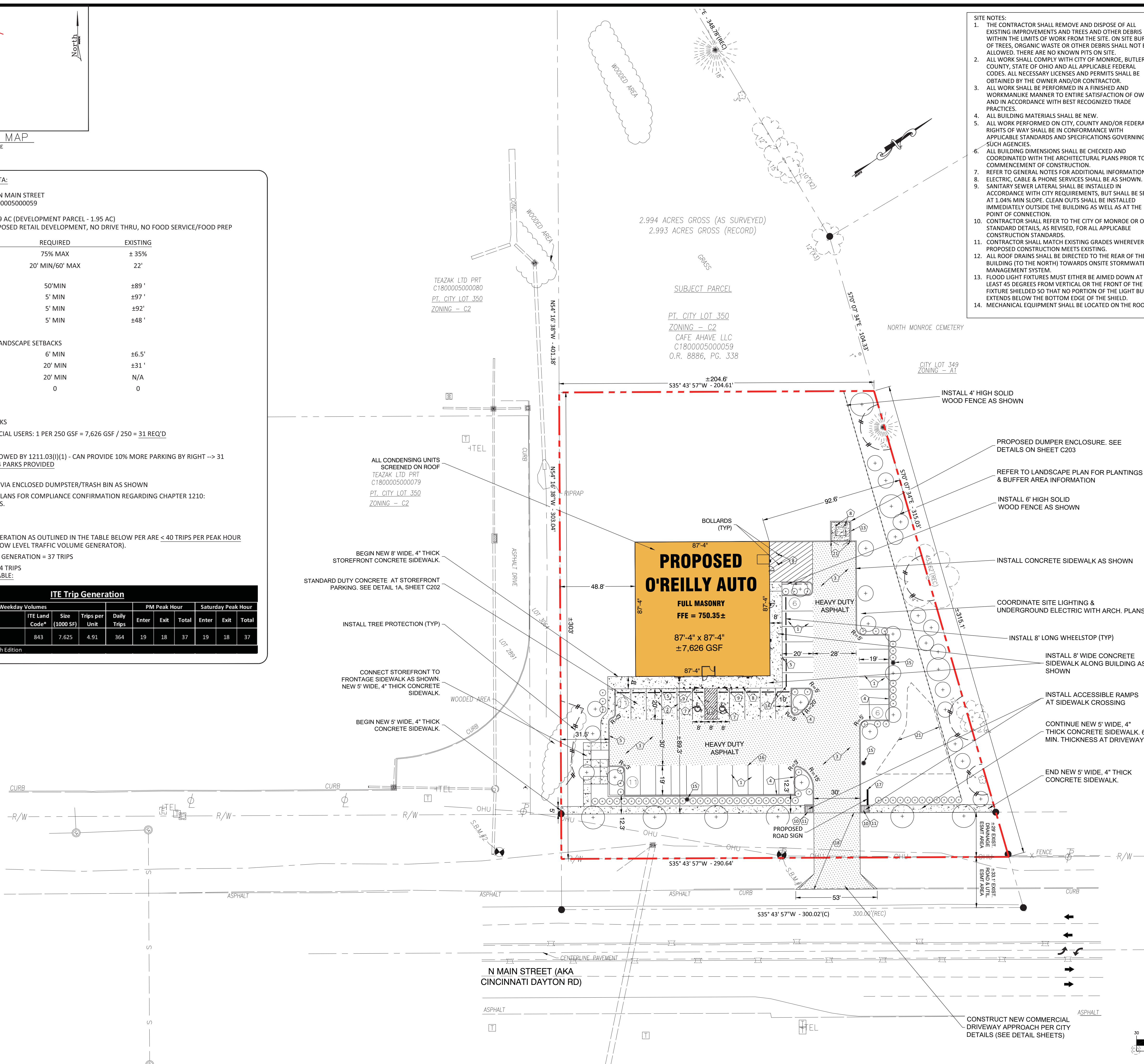
PROPOSED PEAK HOUR TRIP GENERATION = 37 TRIPS

PROPOSED DAILY TRIPS = 364 TRIPS

ITE TRAFFIC GENERATION TABLE:

ITE Trip Generation										
Average Weekday Volumes				PM Peak Hour			Saturday Peak Hour			
Proposed Land Use	ITE Land Code*	Size (1000 SF)	Trips per Unit	Daily Trips	Enter	Exit	Total	Enter	Exit	Total
Automotive Parts Sales	843	7,625	4.91	364	19	18	37	19	18	37

*ITE Trip Generation Manual, 10th Edition



SITE NOTES:

1. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING IMPROVEMENTS AND TREES AND OTHER DEBRIS WITHIN THE LIMITS OF WORK FROM THE SITE. ON SITE BURIAL OF TREES, ORGANIC WASTE OR OTHER DEBRIS SHALL NOT BE ALLOWED. THERE ARE NO KNOWN PITS ON SITE.
2. ALL WORK SHALL COMPLY WITH CITY OF MONROE, BUTLER COUNTY, STATE OF OHIO AND ALL APPLICABLE FEDERAL CODES. ALL NECESSARY LICENSES AND PERMITS SHALL BE OBTAINED BY THE OWNER AND/OR CONTRACTOR.
3. ALL WORK SHALL BE PERFORMED IN A FINISHED AND WORKMANLIKE MANNER TO ENTIRE SATISFACTION OF OWNER AND IN ACCORDANCE WITH BEST RECOGNIZED TRADE PRACTICES.
4. ALL BUILDING MATERIALS SHALL BE NEW.
5. ALL WORK PERFORMED ON CITY, COUNTY AND/OR FEDERAL RIGHTS OF WAY SHALL BE IN CONFORMANCE WITH APPLICABLE STANDARDS AND SPECIFICATIONS GOVERNING SUCH AGENCIES.
6. ALL BUILDING DIMENSIONS SHALL BE CHECKED AND COORDINATED WITH THE ARCHITECTURAL PLANS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
7. REFER TO GENERAL NOTES FOR ADDITIONAL INFORMATION.
8. ELECTRIC, CABLE & PHONE SERVICES SHALL BE AS SHOWN.
9. SANITARY SEWER LATERAL SHALL BE INSTALLED IN ACCORDANCE WITH CITY REQUIREMENTS, BUT SHALL BE SET AT 1.04% MIN SLOPE. CLEAN OUTS SHALL BE INSTALLED IMMEDIATELY OUTSIDE THE BUILDING AS WELL AS AT THE POINT OF CONNECTION.
10. CONTRACTOR SHALL REFER TO THE CITY OF MONROE OR ODOT STANDARD DETAILS, AS REVISED, FOR ALL APPLICABLE CONSTRUCTION STANDARDS.
11. CONTRACTOR SHALL MATCH EXISTING GRADES WHEREVER PROPOSED CONSTRUCTION MEETS EXISTING.
12. ALL ROOF DRAINS SHALL BE DIRECTED TO THE REAR OF THE BUILDING (TO THE NORTH) TOWARDS ONSITE STORMWATER MANAGEMENT SYSTEM.
13. FLOOD LIGHT FIXTURES MUST EITHER BE AIMED DOWN AT LEAST 45 DEGREES FROM VERTICAL OR THE FRONT OF THE FIXTURE SHIELDED SO THAT NO PORTION OF THE LIGHT BULB EXTENDS BELOW THE BOTTOM EDGE OF THE SHIELD.
14. MECHANICAL EQUIPMENT SHALL BE LOCATED ON THE ROOF.

GENERAL NOTES

- A. REFER TO PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS. ALL SITE CONCRETE SHALL BE 4,000 PSI.
- B. SITE DIMENSIONS TO FACE OF CONCRETE FOUNDATION, SIDEWALK, CURB GUTTER LINE, PROPERTY LINE OR CENTER LINE OF STRIPING UNLESS OTHERWISE NOTED.
- C. COORDINATE WORK WITH OTHER SITE RELATED DEVELOPMENT DRAWINGS, WHERE APPLICABLE.
- D. REFER TO STRUCTURAL DRAWINGS FOR BUILDING DIMENSIONS AND LAYOUT OF SIDEWALKS ADJACENT TO BUILDING PERIMETER.
- E. PRIOR TO INSTALLATION, CONTRACTOR TO VERIFY THAT LOCATIONS OF LIGHT POLES, LANDSCAPING & UTILITIES DO NOT CONFLICT WITH SITE SIGN LOCATION SHOWN. IF CONFLICT IS DISCOVERED, CONTRACTOR TO NOTIFY THE ENGINEER AND OWNERS REPRESENTATIVE PRIOR TO PROCEEDING WITH THE WORK.
- F. FOR BUILDING FRONT SIDEWALK LAYOUT, REFER TO DETAIL 11/C202

KEY NOTES

1. ASPHALT PAVING (STANDARD DUTY) AT PARKING AREAS, REFER TO DETAIL 1/C202.
2. CONCRETE PAVING (STANDARD DUTY) AT STOREFRONT, REFER TO DETAIL 1A/C202.
3. ASPHALT PAVING (HEAVY DUTY) AT DRIVE AREAS, AND REFUSE AREA, REFER TO DETAIL 2/C202. REFER TO CITY STANDARDS FOR THE DRIVEWAY APRON.
4. CONCRETE CURB, REFER TO DETAIL 3/C202.
5. CONCRETE SIDEWALK CURB, REFER TO DETAIL 4/C202. REFER TO STRUCTURAL DRAWINGS FOR LAYOUT OF CONTROL AND EXPANSION JOINTS ADJACENT TO BUILDING PERIMETER.
6. CONCRETE SIDEWALK OR DOOR LANDING, REFER TO DETAIL 5/C202 AND STRUCTURAL DRAWINGS. LANDING MAY BE POURED MONOLITHIC WITH PAVING IF CONCRETE PAVING IS PROVIDED.
7. ACCESSIBLE PARKING SYMBOL PAVEMENT STRIPPING, REFER TO DETAIL 6/C202.
8. STEEL BOLLARD, REFER TO DETAIL 7/C202. PROVIDE (2) AT REFUSE CONTAINER AREA, (2) AT SECTIONAL OVERHEAD FREIGHT DOOR, AND (9) AT FRONT ENTRY. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.
9. ACCESSIBLE PARKING SIGN, REFER TO DETAIL 8/C202.
10. DETECTIBLE WARNING SURFACE, REFER TO DETAIL 9/C202.
11. ACCESSIBLE CONCRETE CURB RAMP TO BE INSTALLED PER CITY AND / OR STATE DESIGN STANDARDS. IF NO STANDARDS PROVIDE CONCRETE CONSTRUCTION PER DETAIL 10/C202.
12. ACCESSIBLE PARKING SPACE WITH ACCESS AISLE (ADA COMPLIANT) TO SLOPE 2% MAXIMUM IN ALL DIRECTIONS. PROVIDE PAVEMENT MARKINGS TO MATCH STRIPING COLOR UNLESS OTHERWISE REQUIRED TO COMPLY WITH GOVERNING ACCESSIBILITY REGULATIONS.
13. REFUSE ENCLOSURE, REFER TO 1/C203.
14. CONCRETE BUMPER BLOCK (8" W X 5" H X 8'-0" LONG) ANCHORED TO PAVING WITH (2)1'-6" LONG #4 REBAR.
15. LIGHT POLE & LIGHT POLE BASE LOCATION (TYP).
16. 4" WIDE PAVEMENT STRIPING AS SHOWN USING HIGHWAY MARKING PAINT - YELLOW (2 COATS).
17. SITE SIGN, REFER TO BUILDINGS PLANS FOR TYPE AND CONSTRUCTION. SIGN OWNER FURNISHED AND INSTALLED (REFER TO SCOPE OF WORK SCHEDULE). REFER TO SITE UTILITY PLAN FOR ADDITIONAL REQUIREMENTS.
18. CONCRETE DRIVE APRON TO BE INSTALLED PER DETAIL CITY OF MONROE STANDARD DETAILS.
19. LIMITS OF NEW PAVING. MATCH EXISTING PAVEMENT TRANSITION ELEVATIONS. AT TRANSITIONS OF NEW CONCRETE TO EXISTING CONCRETE PAVEMENT, EPOXY DOWEL 6" MINIMUM INTO EXISTING WITH #4 X 1'-6" SMOOTH DOWELS MATCHING NEW PAVEMENT REINFORCEMENT SPACING. PROVIDE SEALANT AT JOINTS.
20. ROLL DOWN CURB END TRANSITION SLOPING 1:2.
21. CURB OPENING, REFER TO SITE GRADING PLAN FOR ADDITIONAL REQUIREMENTS.
22. STORM WATER CONTROL SYSTEM, REFER TO SITE GRADING PLAN.

SYMBOLS LEGEND

	EXISTING CONCRETE
	EXISTING GRAVEL TO REMAIN
	PREP AREA FOR PROPOSED DRIVEWAY
	PROPOSED HEAVY DUTY ASPHALT
	PROPOSED CONCRETE SIDEWALK & STOREFRONT HEAD IN PARKING
	EXISTING CHAIN LINK FENCE
	EXISTING 1' CONTOUR
	EXISTING 5' CONTOUR
	PROPOSED 1' CONTOUR
	PROPOSED 5' CONTOUR
	PROPOSED COMPOST FILTER SOCK
	PROPOSED SILT FENCING
	PROPOSED TREE PROTECTION
	PROPOSED LIMITS OF DISTURBANCE
	PROPOSED SANITARY SERVICE LINE
	PROPOSED UNDERGROUND ELECTRIC
	PROPOSED OVERHEAD ELECTRIC
	PROPOSED LIGHT POLE BASE



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CONSTRUCTION

ADMINISTRATION NOT INCLUDED IN CONTRACT

PERMIT PLANS

NE Group
ENGINEERING - PLANNING - DESIGN
INFO@THENEGROUP.COM

TUCKERMAN
DEVELOPMENT

RETAIL DEVELOPMENT
301 N. MAIN STREET
MONROE, OHIO
ZONING: C-2

CLIENT:

PROJECT:

REVISIONS

NO.	DESCRIPTION
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SHEET NAME:

SITE DEVELOPMENT
PLAN

DATE: 11/22/2021

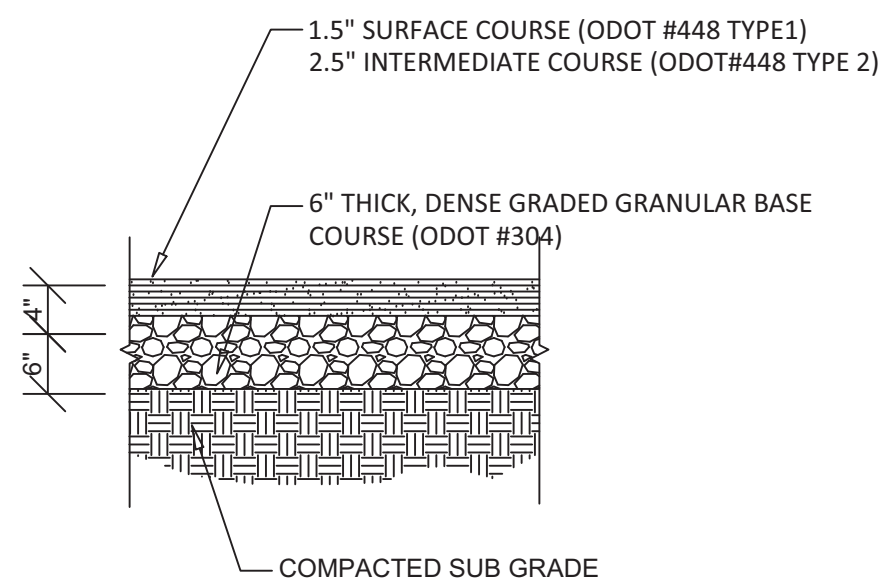
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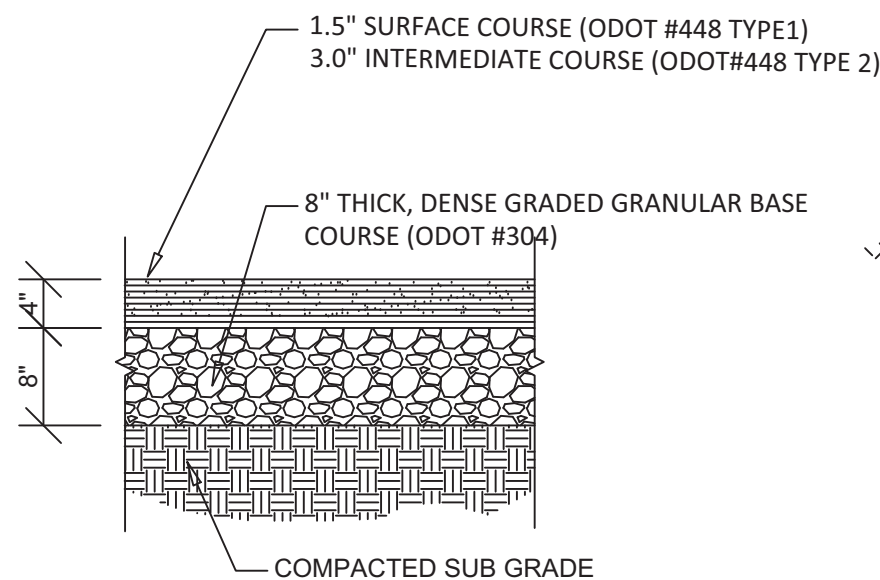
SHEET NUMBER:

C201



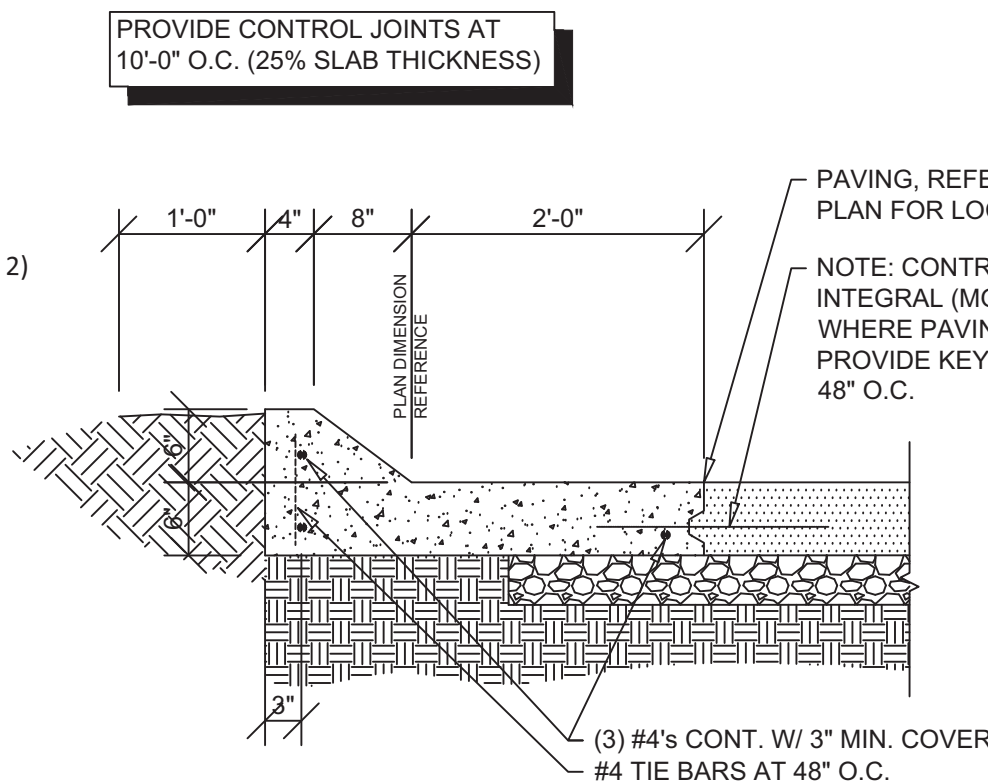
1 ASPHALT (STANDARD DUTY) PAVING SECTION

C202 SCALE: 3/4" = 1'-0"



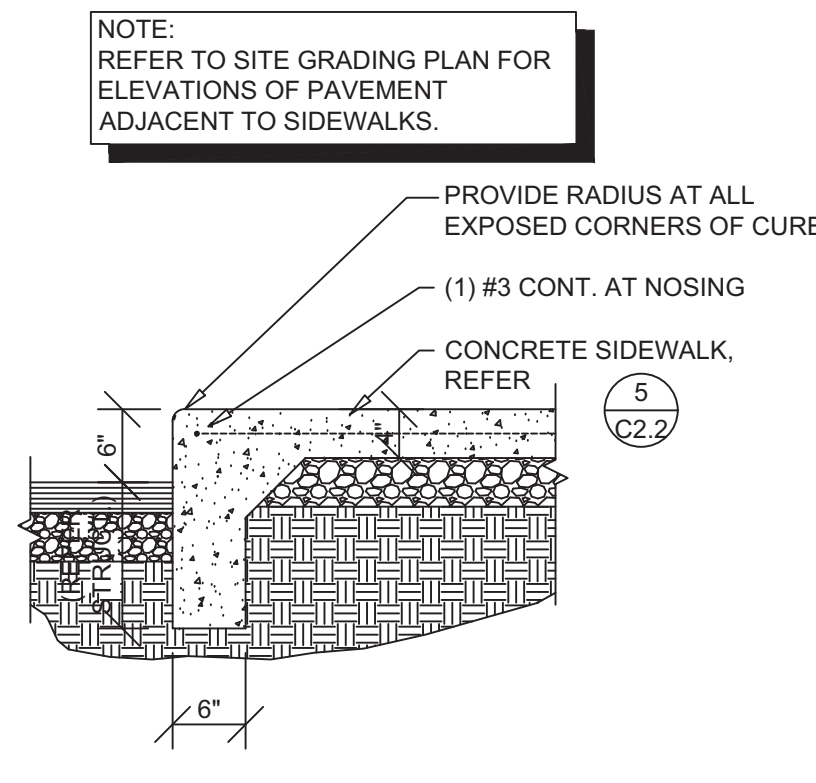
2 ASPHALT (HEAVY DUTY) PAVING SECTION

C202 NOT TO SCALE



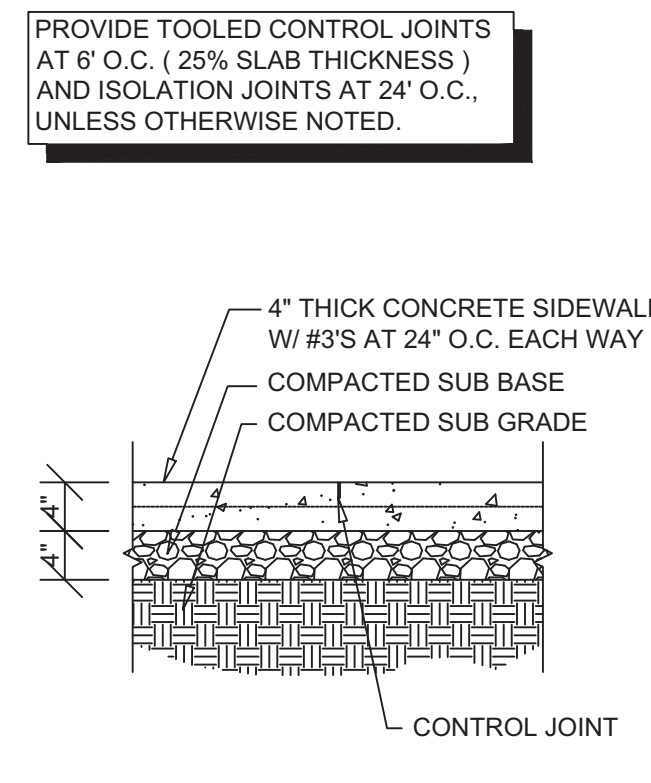
3 CONCRETE CURB SECTION

C202 NOT TO SCALE



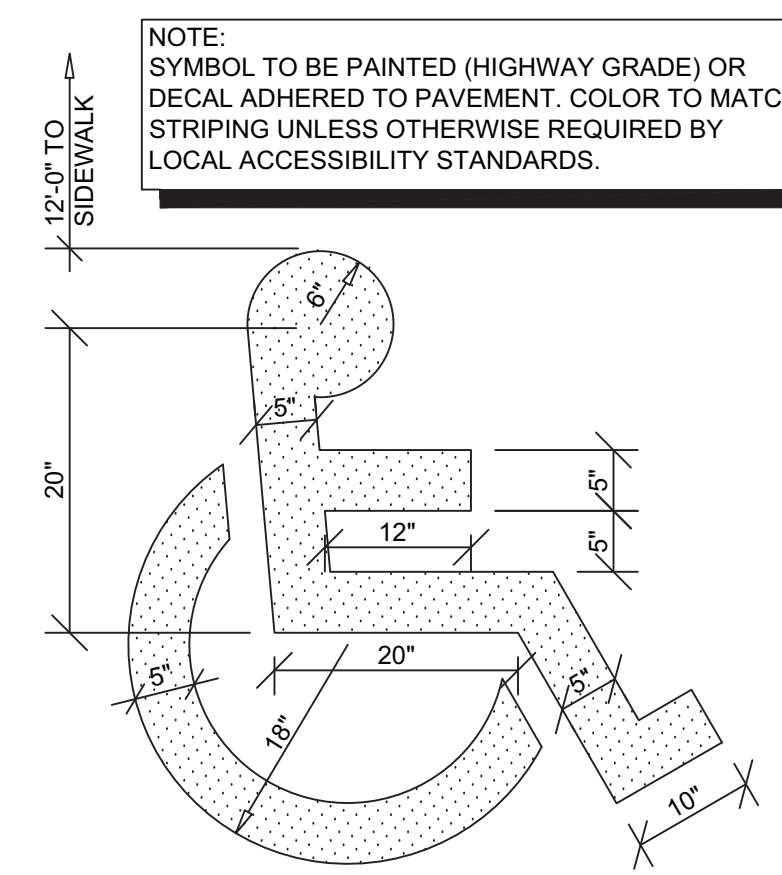
4 CONCRETE SIDEWALK CURB SECTION

C202 NOT TO SCALE



5 CONCRETE SIDEWALK SECTION

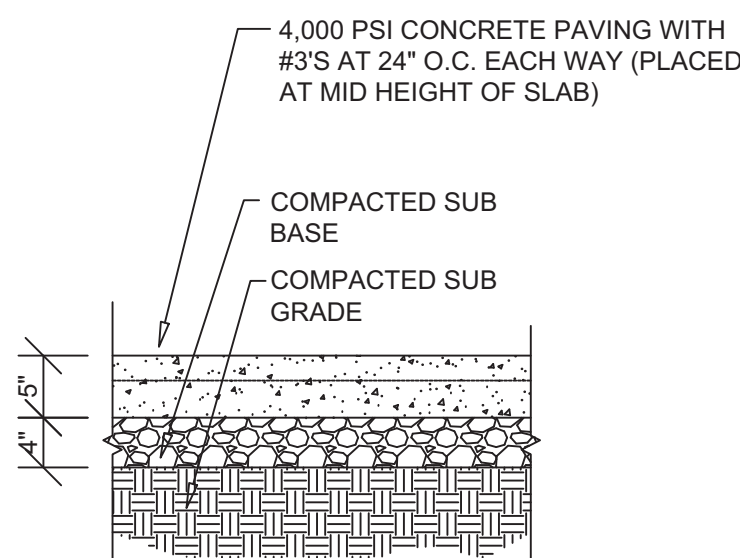
C202 NOT TO SCALE



6 ACCESSIBLE PARKING PAVEMENT STRIPING DETAIL

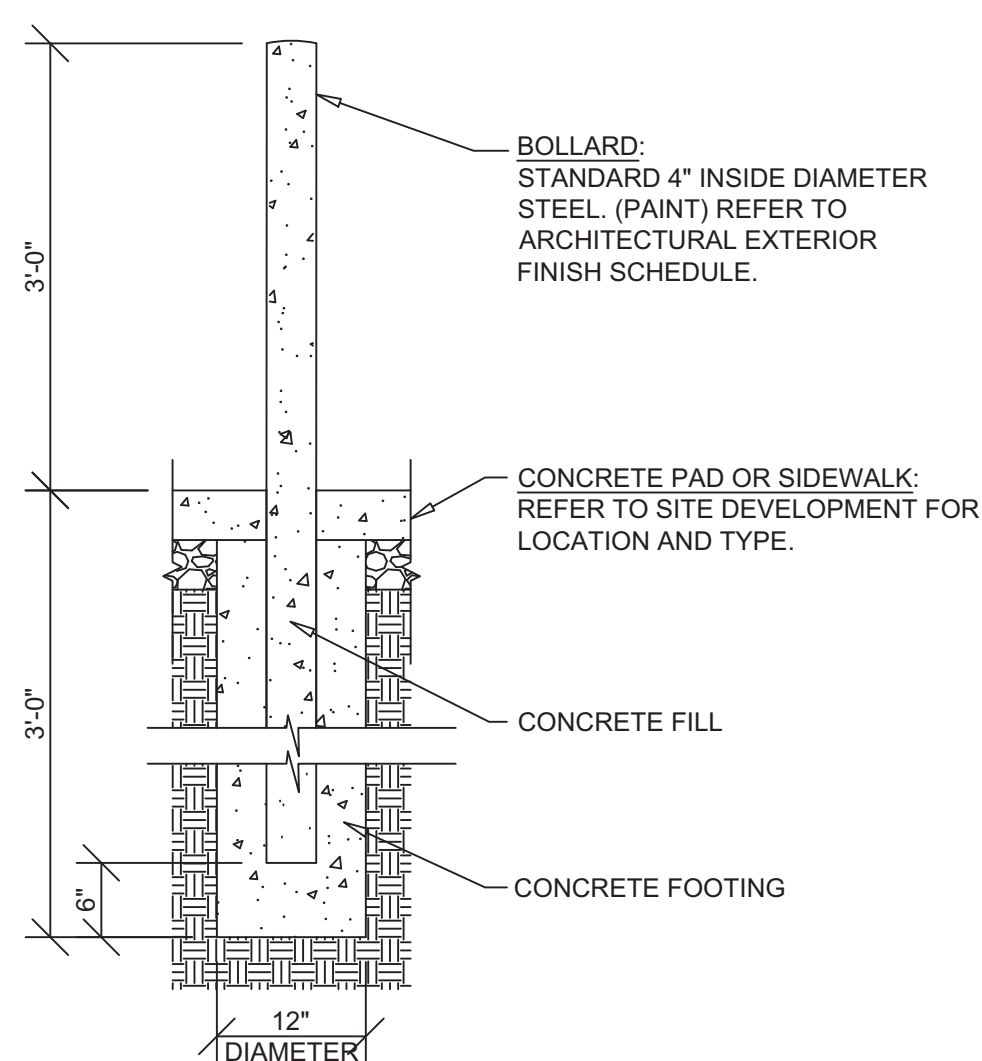
C202 NOT TO SCALE

PROVIDE CONTROL JOINTS AT 12'-0" O.C. (25% SLAB THICKNESS)



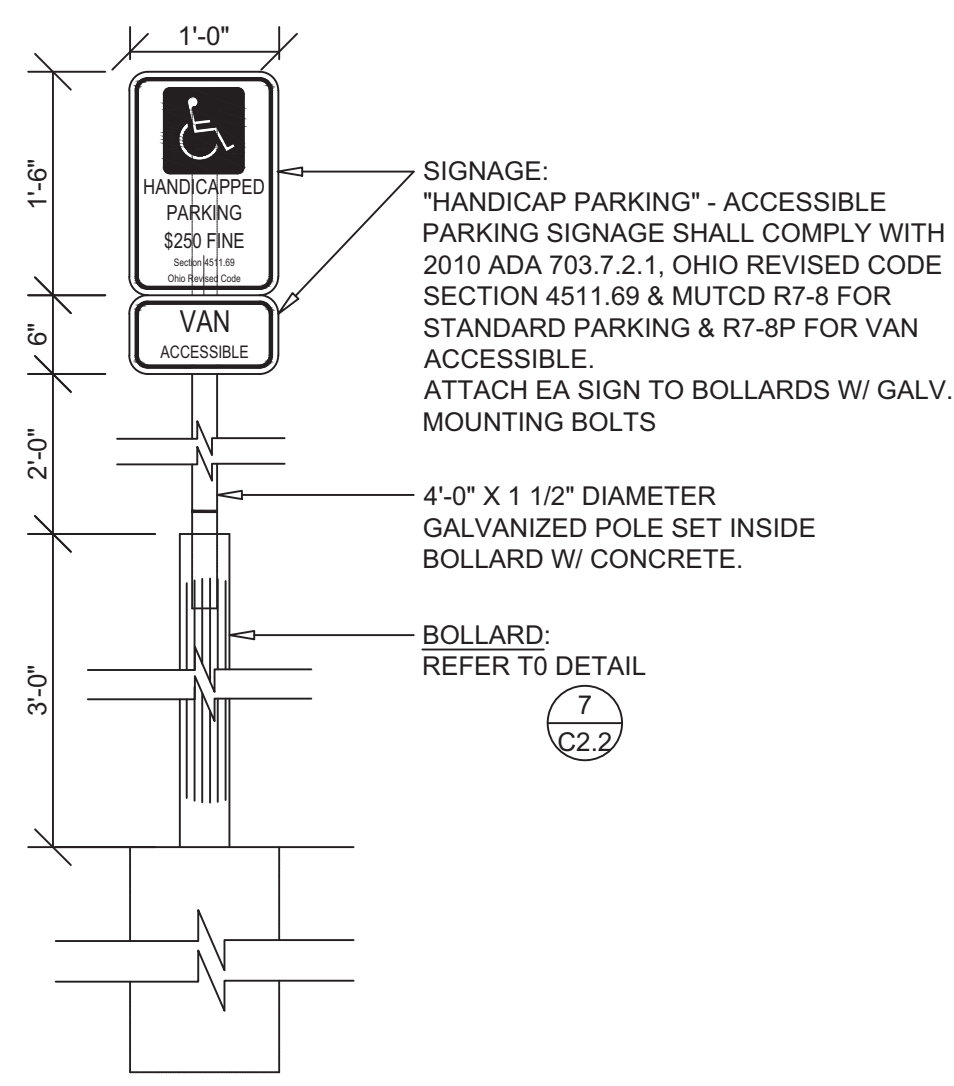
1A CONCRETE (STANDARD DUTY) PAVING SECTION

C202 NOT TO SCALE



7 STEEL BOLLARD SECTION

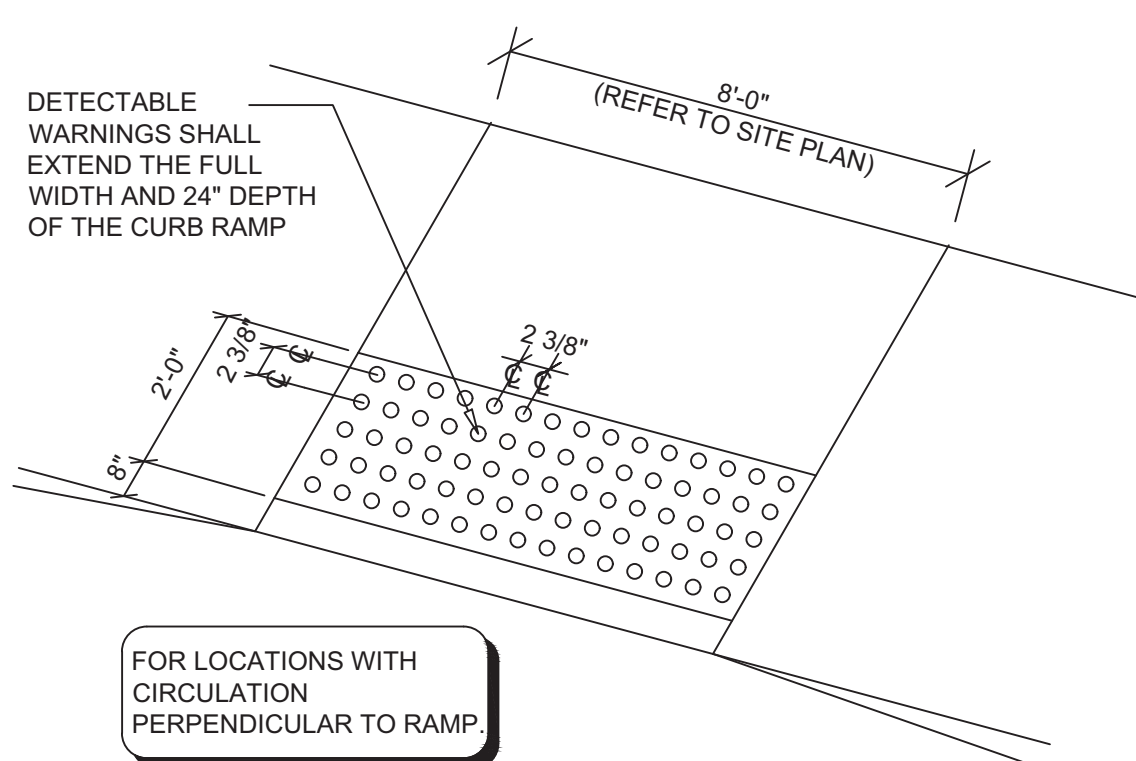
C202 NOT TO SCALE



8 HANDICAP PARKING SIGN DETAIL

C202 NOT TO SCALE

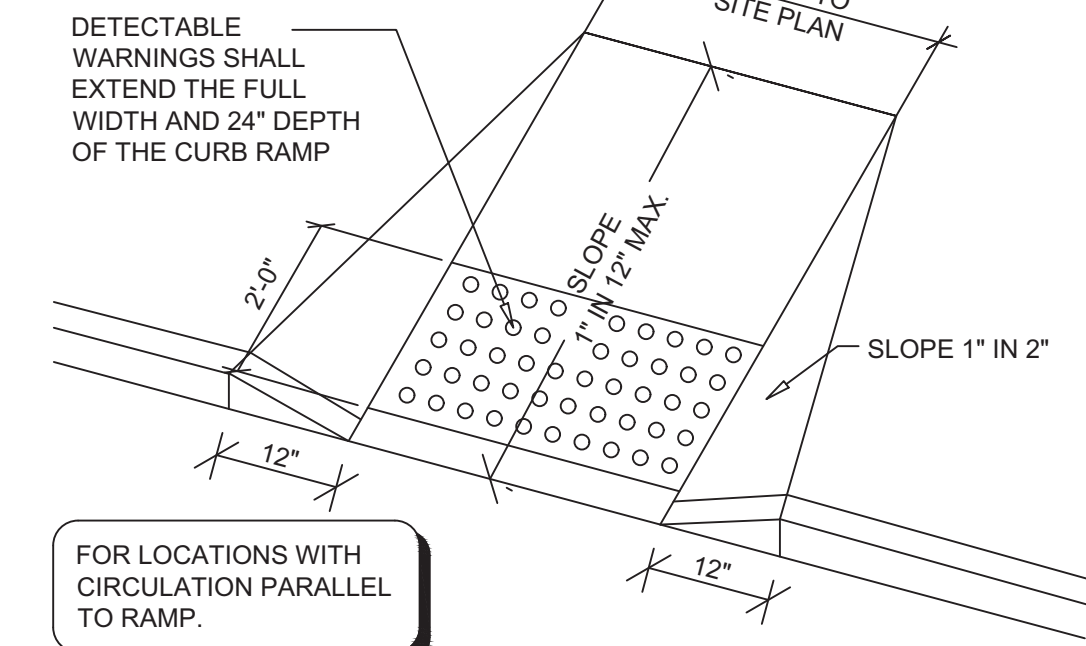
PROVIDE DETECTABLE WARNINGS WITH RAISED PATTERN (CAUTION YELLOW COLOR WITH .9" DIA. AND RAISE .02" PER ADAAG 4.7.7)



9 DETECTABLE WARNING DETAIL

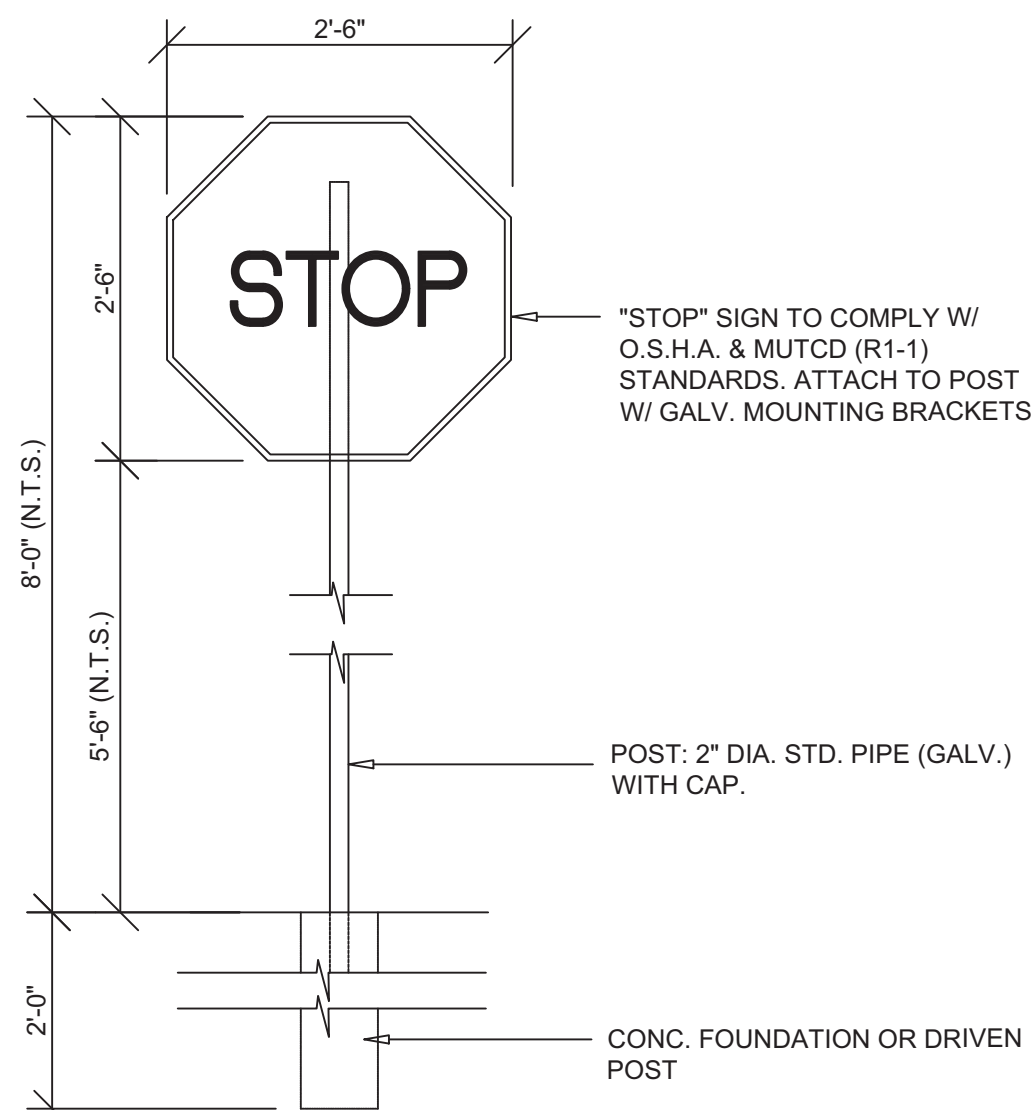
C202 NOT TO SCALE

DETECTABLE WARNING SURFACE MATERIAL SHALL BE IN CAUTION YELLOW COLOR AND COMPLY WITH CURRENT ADA DESIGN STANDARDS.



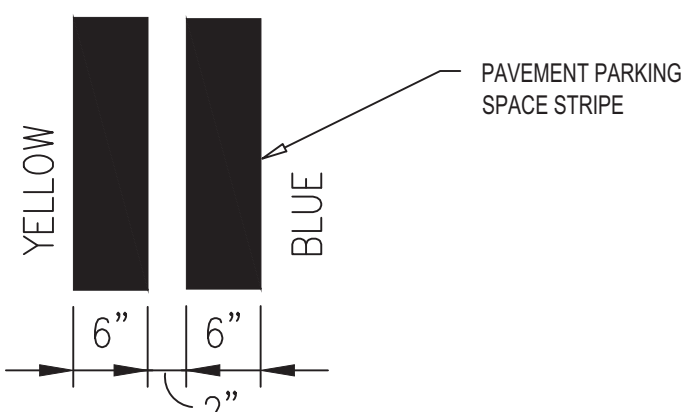
10 CONCRETE SIDEWALK CURB RAMP DETAIL

C202 NOT TO SCALE



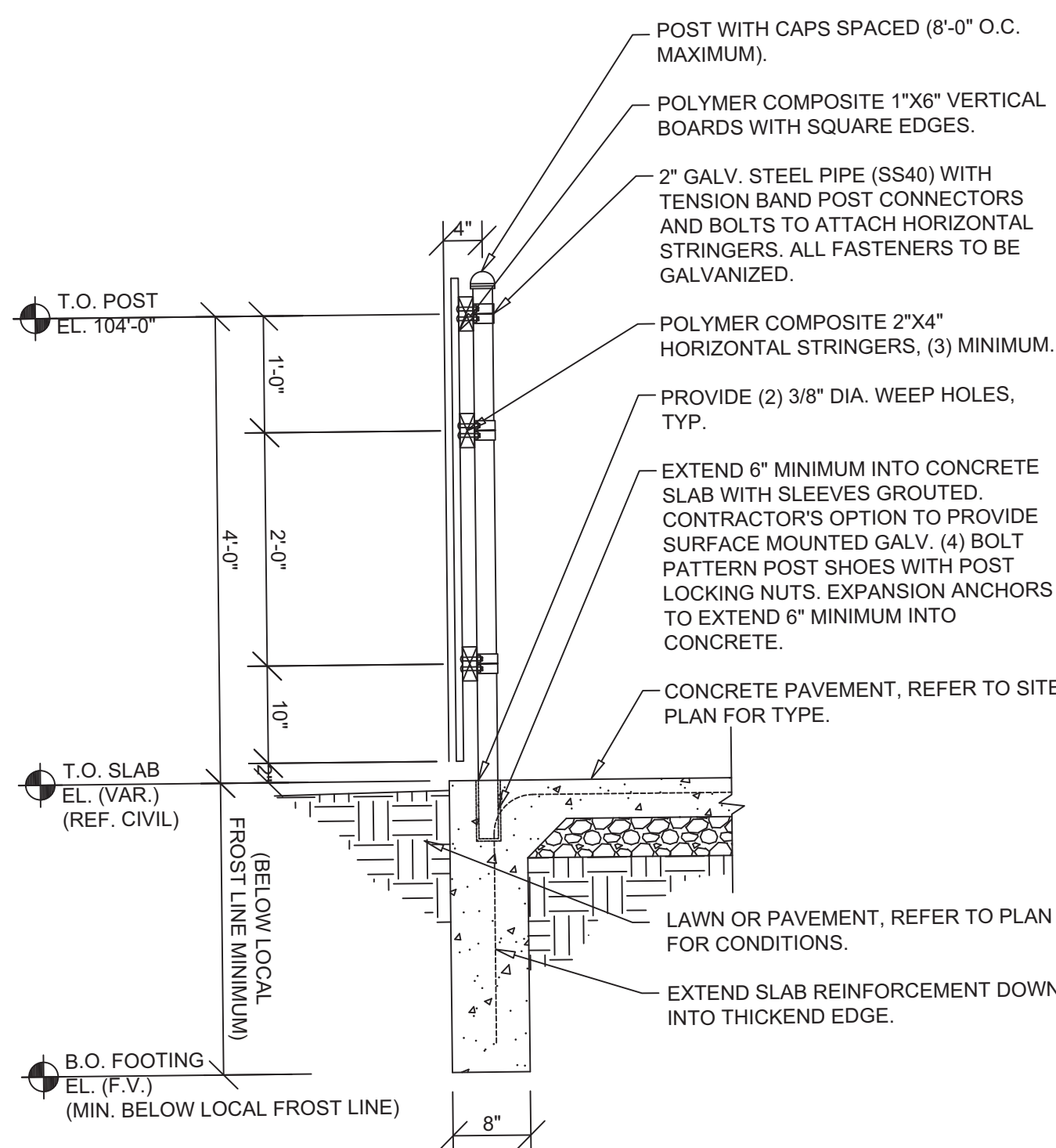
11 STOP SIGN DETAIL

C202 SCALE: 3/4" = 1'-0"



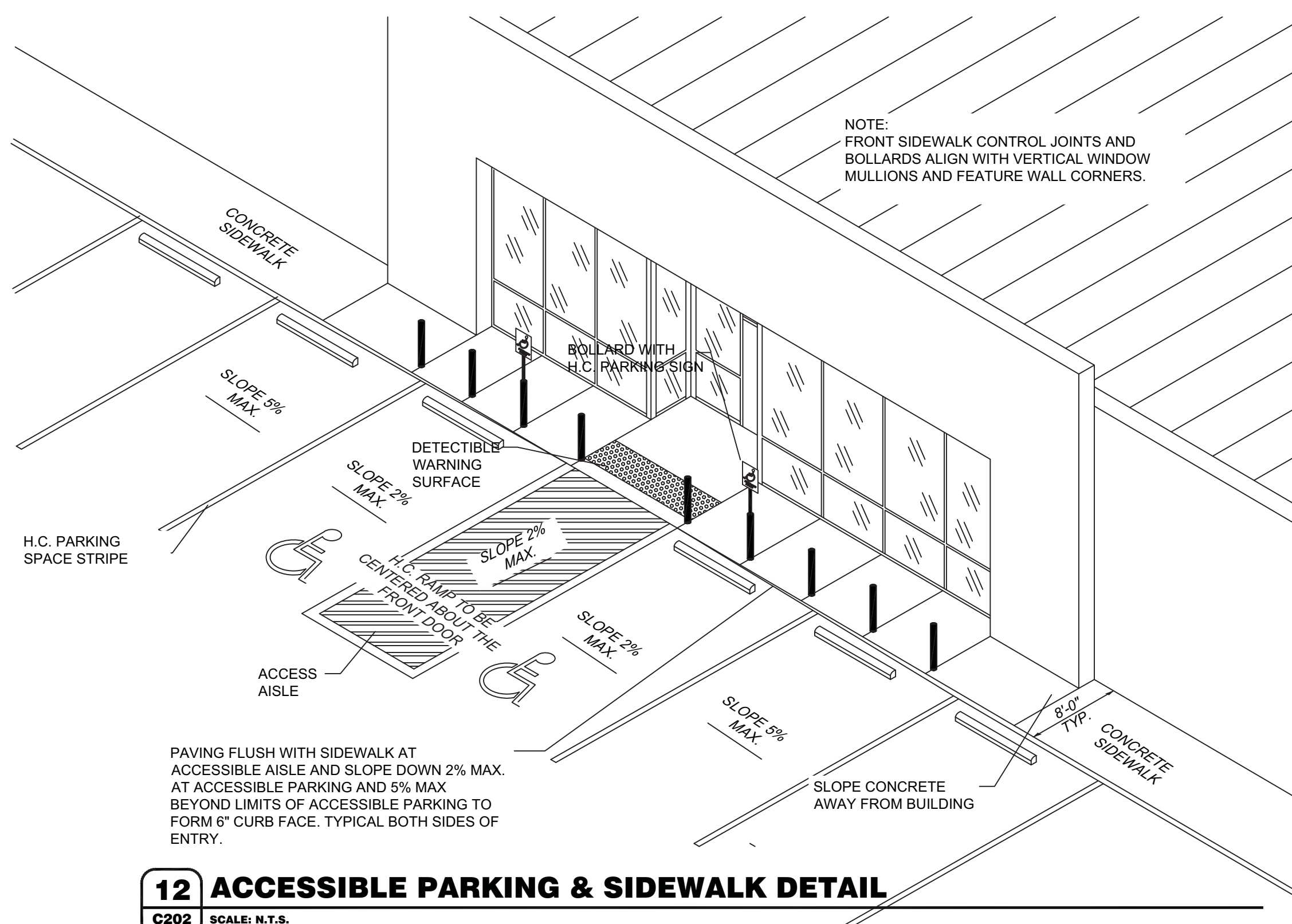
12 ACCESSIBLE PARKING STRIPING DETAIL

C202 SCALE: 3/4" = 1'-0"



13 SCREEN FENCE SECTION

C202 SCALE: 3/4" = 1'-0"



12 ACCESSIBLE PARKING & SIDEWALK DETAIL

C202 SCALE: N.T.S.



CONSTRUCTION ADMINISTRATION NOT INCLUDED IN CONTRACT PERMIT PLANS

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ENGINEERING - PLANNING - DESIGN
INFO@THEGROUP.COM

TUCKERMAN DEVELOPMENT

RETAIL DEVELOPMENT
301 N. MAIN STREET
MONROE, OHIO
ZONING: C-2

PROJECT:

REVISIONS

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5		

SHEET NAME:
SITE DEVELOPMENT DETAILS

DATE: 11/22/2021

DRAWN BY: CD

CHECKED BY: LE

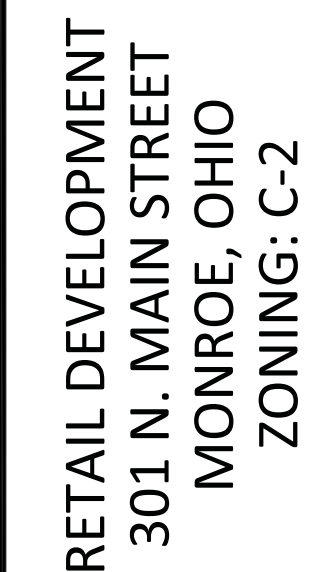
PROJECT NO.: 21-888

SHEET NUMBER:

C202



8A	ACCESSIBLE PARKING SIGNAGE
C202	SCALE: N.T.S.



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SHEET NAME:
SITE
DEVELOPMENT
DETAILS

DATE: 11/22/2021

DRAWN BY: CD

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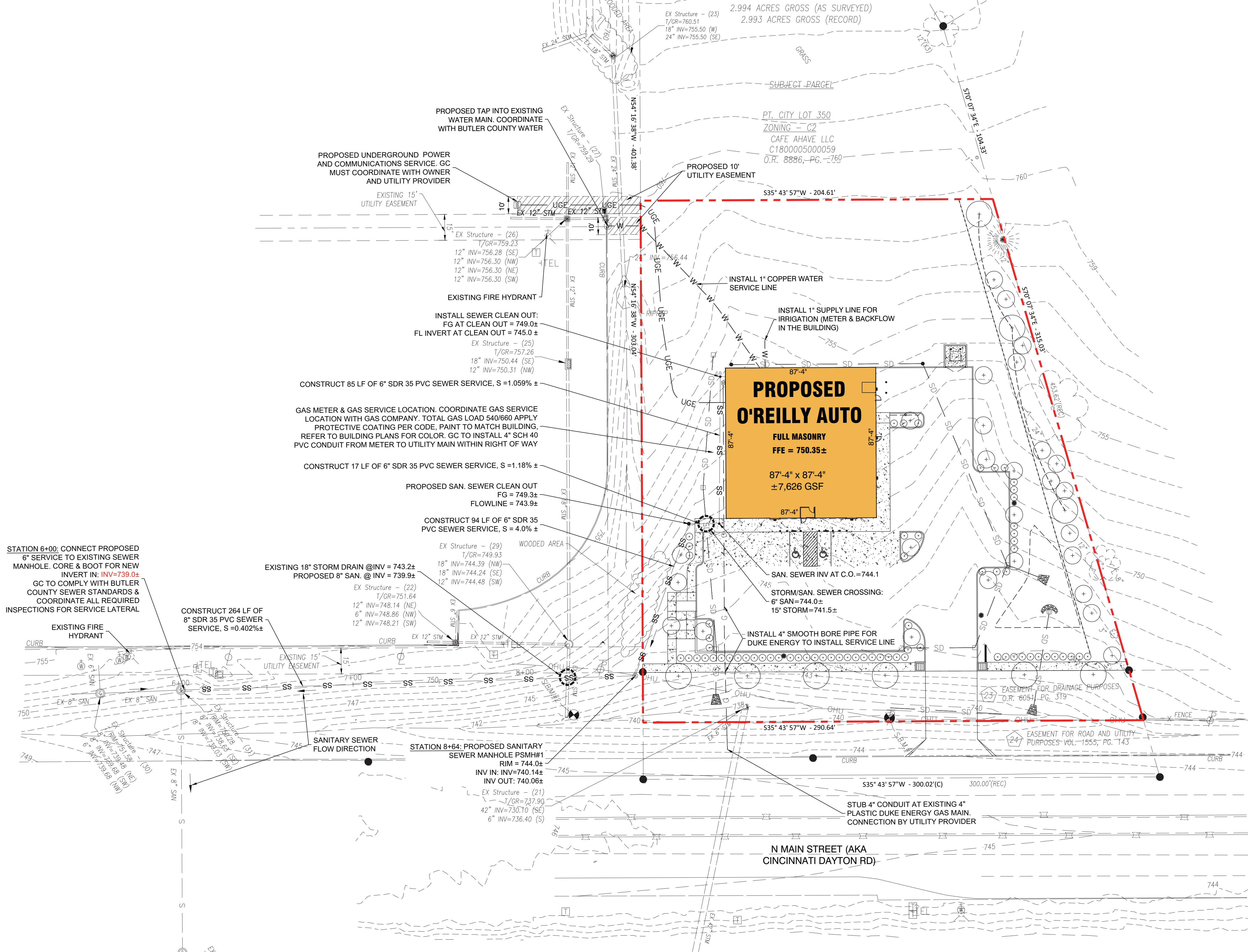
SHEET NUMBER:

C203

WATER AND WASTEWATER SERVICE LINES, METERS
& DEVICES SHALL COMPLY WITH BUTLER COUNTY
WATER & SEWER STANDARD SPECIFICATIONS,
11/1/2007 & AS UPDATED 3/20/2012

GAS SERVICE LINES, METERS & DEVICES SHALL
COMPLY WITH DUKE ENERGY'S GAS INSTALLERS
MANUAL (THE YELLOW BOOK) 2019

UNDERGROUND ELECTRIC SERVICE LINES, METERS
& DEVICES SHALL COMPLY WITH DUKE ENERGY'S
STANDARD SPECIFICATIONS



- GENERAL UTILITY NOTES:**
- OHIO UTILITY PROVIDER SERVICE 811-CALL MUST BE CONTACTED PRIOR TO CONSTRUCTION WORK COMMENCING ON THE PROJECT SITE. THIS IS THE RESPONSIBILITY OF THE SITE / GRADING CONTRACTOR.
 - APPROPRIATE PERMITS SHOULD BE OBTAINED PRIOR TO ANY WORK COMMENCING ON-SITE AND SHALL BE DISPLAYED AS REQUIRED.
 - ALL SEWER LINES SHALL BE SDR 26 SEWER LINE OR SCH 40.
 - ALL WATER LINES 4" OR LARGER SHALL BE C900 OR DI.
 - WATER METERS SHALL BE PLACED BEHIND PROPOSED CURBING.
 - CONTRACTOR TO COORDINATE LOCATION OF TRANSFORMER AND APPURTENANCES WITH THE LOCAL UTILITY AND THE ELECTRICAL PLANS.
 - PRIOR TO CONSTRUCTION COMMENCING, THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR NOTIFYING ALL UTILITY OWNERS IMPACTED BY THIS PROJECT.
 - THE CONTRACTOR SHALL COORDINATE SITE UTILITY WORK, INCLUDING GAS, ELECTRICAL, TELEPHONE, AND / OR CABLE WITH THE RESPECTIVE UTILITY OWNERS FOR SERVICE LAYOUT AND DESIGN INFORMATION. ANY PROPOSED LAYOUT OF THESE UTILITIES DEPICTED ON THESE CONSTRUCTION PLANS IS GRAPHICAL ONLY AND NOT INTENDED TO REPRESENT DESIGN OF THESE UTILITIES.
 - PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND PAY ANY REQUIRED CONNECTION AND / OR TAP FEES.
 - MECHANICAL, ELECTRICAL AND PLUMBING PLANS SHOW DETAILED INFORMATION FOR THE INTERIOR OF THE BUILDING UTILITIES.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE SEQUENCING OF UTILITY CONSTRUCTION AND INSTALLATIONS TO AVOID CONFLICTS.
 - FEDERAL OSHA REGULATIONS MUST BE FOLLOWED REGARDING TRENCHING, PIPE LAYING AND BACKFILLING ACTIVITIES ON THIS PROJECT SITE.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE SIZE AND LOCATION OF WATER, SEWER AND GAS CONNECTIONS, AS DEPICTED ON BOTH THE MECHANICAL PLANS AND THE SITE UTILITY PLANS. THE ENGINEER MUST BE NOTIFIED IF DISCREPANCIES ARE FOUND TO EXIST.
 - WATER SERVICE LINES 1/2" TO 3" SHALL BE TYPE-K COPPER AND 4" OR LARGER LINES SHALL BE DUCTILE IRON PIPE- CLASS 350 OR C900 UNLESS OTHERWISE REQUIRED BY THE LOCAL WATER UTILITY OWNER.
 - WATER METER MANUFACTURER / MODEL NUMBER AND VAULT SPECIFICATIONS SHALL BE PER THE LOCAL WATER UTILITY OWNER.
 - FIRE LINE INSTALLATION AND THRUST BLOCKING LOCATION AND SIZE SHALL BE PER N.F.P.A. AND THE LOCAL FIRE MARSHALL OR DEPARTMENT REQUIREMENTS.
 - THE CONTRACTOR SHALL COORDINATE THE LOCATION OF BACKFLOW DEVICES WITH THE BUILDING MECHANICAL DRAWINGS.
 - BACKFLOW DEVICE (RBPB / DDCVA) MANUFACTURER / MODEL NUMBER SHALL BE PER THE LOCAL WATER UTILITY OWNER.
 - ALL FIRE LINE MAINS ARE TO BE INSTALLED BY A LICENSED FIRE PROTECTION CONTRACTOR.
 - SANITARY SEWER LINE MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF MONROE, BUTLER COUNTY & OHIO EPA SPECIFICATIONS. SEE SANITARY SEWER SYSTEM DESIGN & CONSTRUCTION MANUAL.
 - SANITARY SEWER SERVICE LINES SHALL BE SDR 26 PVC OR SCH 40 PIPE UNLESS OTHERWISE SPECIFIED.
 - THE SEPARATION BETWEEN WATER AND SEWER LINES MUST BE MAINTAINED WITHOUT EXCEPTION. A 10' HORIZONTAL SEPARATION AND AN 18" VERTICAL SEPARATION.

- GENERAL NOTES:**
- CONTRACTOR SHALL NOT SCALE ANY DIMENSIONS FROM THE PLANS. ANY QUESTIONS AND/OR CLARIFICATIONS SHALL BE SUBMITTED TO THE ENGINEER IN THE FORM OF RFIs PRIOR TO BIDDING AND/OR CONSTRUCTION.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING POSITIVE DRAINAGE OVER THE SURFACES OF THE PROJECT TO THE STORM SEWER SYSTEM. COORDINATE ANY GRADING ISSUES WITH THE DEVELOPER AND ENGINEER PRIOR TO THE COMMENCING THE WORK.
 - REFER TO THE STANDARD DETAIL SHEETS FOR ADDITIONAL SPECIFICATIONS, PAVEMENT SECTIONS, ETC.
 - GRADES INDICATED ON PLAN ARE FOR TOP OF PAVEMENT OR FINISHED GRADE. WHERE TWO GRADES ARE GIVEN THE TOP GRADE REPRESENTS THE TOP OF CURB/WALK AND THE BOTTOM GRADE REPRESENTS THE TOP OF PAVEMENT.
 - EXISTING SITES AREAS TO RECEIVE FILL SHALL BE STRIPPED OF THE TOPSOIL PRIOR TO FILLING OPERATIONS. TOPSOIL SHALL BE STOCKPILED FOR FUTURE USE & REDISTRIBUTED OVER REMAINING PROPOSED GRASSED AREAS AT THE COMPLETION OF GRADING OPERATIONS.
 - FILL SHALL BE PLACED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF SYLVANIA TOWNSHIP, LUCAS COUNTY AND ODOT.
 - AREAS TO RECEIVE FILL ARE TO BE CLEARED OF TREES, STUMPS, DEBRIS AND OBSTRUCTIONS PRIOR TO FILLING. DEBRIS TO BE REMOVED OFF-SITE IN A LEGAL MANNER. STUMPS AND TREES MAY NOT BE BURIED ON SITE.
 - ON COMPLETION OF THE GRADING OPERATIONS, FILL SURFACES AND LOT AREAS ARE TO BE STABILIZED PER THE EROSION CONTROL STANDARDS AND SPECIFICATIONS OF THE OHIO EPA, LUCAS COUNTY & SYLVANIA TOWNSHIP.
 - PROVIDE MIN 18" VERTICAL CLEARANCE BETWEEN ALL UTILITIES. IF 18" CLEARANCE IS NOT POSSIBLE THE SHALLOW CLEARANCE DETAIL, SEE DETAIL SHEETS.
 - UNLESS OTHERWISE NOTED THE PROPOSED CONCRETE WALKS SHALL BE CONSTRUCTED WITH A 2% CROSS SLOPE TOWARD THE ASPHALT PAVEMENT.
 - ALL EMBANKMENT MATERIALS UTILIZED FOR STORMWATER DETENTION BASIN CONSTRUCTION SHALL CONSIST OF COHESIVE SOILS COMPACTED TO A MINIMUM OF 98 PERCENT OF THE MAXIMUM DENSITY OBTAINABLE WITH THE STANDARD PROCTOR TEST METHOD.

SYMBOLS LEGEND

- EXISTING CONCRETE
- EXISTING GRAVEL TO REMAIN
- PREP AREA FOR PROPOSED DRIVEWAY
- PROPOSED HEAVY DUTY ASPHALT
- PROPOSED CONCRETE SIDEWALK & STOREFRONT HEAD IN PARKING
- EXISTING CHAIN LINK FENCE
- EXISTING 1" CONTOUR
- EXISTING 5" CONTOUR
- PROPOSED 1" CONTOUR
- PROPOSED 5" CONTOUR
- PROPOSED COMPOST FILTER SPOK
- PROPOSED SILT FENCING
- PROPOSED TREE PROTECTION
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED SANITARY SERVICE LINE
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED OVERHEAD ELECTRIC
- PROPOSED LIGHT POLE BASE



ADMINISTRATION NOT INCLUDED IN CONTRACT
PERMIT PLANS

NE Group
ENGINEERING - PLANNING - DESIGN
INFO@THENEGROUP.COM

TUCKERMAN DEVELOPMENT

RETAIL DEVELOPMENT
301 N. MAIN STREET
MONROE, OHIO
ZONING: C-2

REVISIONS	
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SHEET NAME:
SITE UTILITY PLAN

DATE: 11/22/2021

DRAWN BY: CD

CHECKED BY: LE

PROJECT NO.: 21-888

SHEET NUMBER:

C204

1. SEWER AND MANHOLE CONSTRUCTION JOINTS SHALL CONFORM TO STANDARDS OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY AND LUCAS COUNTY.
2. ALL PIPE, FLEXIBLE AND RIGID, SHALL BE SUBJECT TO A LEAKAGE TEST.
3. THE LEAKAGE EXFILTRATION/INFILTRATION TEST SHALL BE A HYDROSTATIC OR AIR TEST.
 - A. THE HYDROSTATIC LEAKAGE TEST SHALL NOT EXCEED 100 GALLONS PER INCH OF PIPE DIAMETER PER MILE PER DAY FOR ANY SECTION OF THE SYSTEM.
 - B. THE LOW AIR PRESSURE TESTING SHALL FOLLOW THE PROCEDURES OUTLINED IN ASTM C-828 FOR CLAY PIPE, ASTM C-924 FOR CONCRETE PIPE, OR ASTM F-1417 FOR PLASTIC PIPE.
4. THE LEAKAGE AND DEFLECTION TEST SHALL BE CONDUCTED UNDER THE SUPERVISION OF A PROFESSIONAL ENGINEER. A REPRESENTATIVE OF THE PROFESSIONAL ENGINEER MAY SUPERVISE THE DEFLECTION AND LEAKAGE TESTS, BUT THE PROFESSIONAL ENGINEER MUST SIGN OFF ON THE RESULTS OF THE DEFLECTION AND LEAKAGE TESTS.
5. RESULTS OF THE DEFLECTION AND LEAKAGE TESTS SHALL BE KEPT ON FILE AT LEAST 180 DAYS BY THE ENTITY RESPONSIBLE FOR THE SEWAGE SYSTEM AND SHALL BE AVAILABLE UPON REQUEST BY THE OHIO ENVIRONMENTAL PROTECTION AGENCY.
6. ANY LINES WHICH FAIL THE DEFLECTION OR LEAKAGE TEST SHALL BE REPAIRED AND RETESTED UNTIL THEY MEET THE REQUIREMENTS. MATERIALS WHICH HAVE BEEN USED WITHIN THIS CONDITION WHEN FLEXIBLE PIPE (PVC, ABS, HDPE, ETC.) IS USED IT MUST BE TESTED FOR MAXIMUM DEFLECTION OF 5 PERCENT AFTER THE FINAL BACKFILL HAS BEEN IN PLACE NO LESS THAN 30 DAYS TO PERMIT STABILIZATION OF THE SOIL-PIPE SYSTEM.
7. PIPE WITH A STIFFNESS OF 200 P.S.I. OR GREATER NEED NOT BE TESTED FOR DEFLECTION IF ALL PIPE BETWEEN MANHOLES IS LESS THAN 12 FEET BELOW FINAL GRADE.
8. THE RIGID BALL OR MANDREL USED FOR THE DEFLECTION TEST SHALL HAVE A DIAMETER NOT LESS THAN 95 PERCENT OF THE BASE DETERMINED BY THE DEFLECTION TEST. THE SIZE OF THE BALL OR MANDREL WHICH IS SPECIFIED IN THE ASTM SPECIFICATION, INCLUDING THE APPENDIX, TO WHICH THE PIPE IS MANUFACTURED. THE TEST SHALL BE PERFORMED WITHOUT MECHANICAL PULPING DEVICES.
9. ALL MANHOLES SHALL BE INSPECTED AND TESTED FOR WATERTIGHTNESS OR DAMAGE BY AIR/HYDROSTATIC TEST PRIOR TO PLACING INTO SERVICE. AIR TESTING OF CONCRETE SEWER MANHOLES SHALL CONFORM TO ASTM C-1244 TEST PROCEDURE.
10. ACCEPTABLE PIPE MATERIAL, PIPE SPECIFICATION, JOINT SPECIFICATION AND INSTALLATION REQUIREMENTS SHALL COMPLY WITH Ohio EPA SANITARY SEWER EXTENSION GENERAL PERMIT TO INSTALL - ATTACHMENT 5. SPECIFICALLY, ASTM D-3034, ASTM D-3212 & ASTM D-2321 FOR PVC PIPE AND ASTM C-478 FOR PRE-CAST CONCRETE MANHOLES. CONCRETE MANHOLE WALLS SHALL BE MINIMUM 12" THICK UNLESS OTHERWISE SPECIFIED.
11. BACKFILL SHALL BE: CLASS II (85% STANDARD PROCTOR), OR III (90% STANDARD PROCTOR) ONLY. ALL BEDDING MATERIALS PASS "1" SIEVE.

ANY GENERALLY ACCEPTED MATERIAL FOR SEWERS MAY BE GIVEN CONSIDERATION, BUT THE MATERIAL SELECTED SHOULD BE ADAPTED TO LOCAL CONDITIONS, SUCH AS: CHARACTER OF INDUSTRIAL WASTES; POSSIBILITY OF SEPTICITY; SOIL CHARACTERISTICS; EXCEPTIONALLY HEAVY EXTERNAL LOADINGS, ABRASION, CORROSION, OR SIMILAR PROBLEMS.

SUITABLE COUPLINGS COMPLYING WITH ASTM SPECIFICATIONS SHALL BE USED FOR JOINING DISMANTLEABLE JOINTS. THE LEAKAGE OF SEWAGE FROM SUCH JOINTS SHALL BE PROHIBITED.

ALL SEWERS SHALL BE DESIGNED TO PREVENT DAMAGE FROM SUPERIMPOSED LIVE, DEAD, AND FROST INDUCED LOADS. PROPER ALLOWANCE FOR LOADS ON THE SEWER SHALL BE MADE BECAUSE OF SOIL AND POTENTIAL GROUNDWATER CONDITIONS, AS WELL AS THE WIDTH AND DEPTH OF TRENCH, WHERE NECESSARY, SUEP, BENCHING, HAUNCHING AND INITIAL BACKFILL.

SEWERS SHALL BE DESIGNED TO WITHSTAND THE FULL EFFECTS OF UNIFORM AND ANTICIPATED SUPERIMPOSED LOADS OF TRENCH WALL STABILITY. SEE ASTM D-3231 OR ASTM C-1245 AS APPLICABLE.

INSTALLATION SPECIFICATIONS SHALL CONTAIN APPROPRIATE REQUIREMENTS BASED ON THE CRITERIA, STANDARDS, AND REQUIREMENTS ESTABLISHED BY INDUSTRY IN ITS TECHNICAL PUBLICATIONS. REQUIREMENTS SHALL BE SET FORTH IN THE SPECIFICATIONS FOR THE PIPE AND METHODS OF BEDDING AND BACKFILLING SO AS NOT TO DAMAGE THE PIPE OR ITS JOINTS, IMPEDE SLEWING OPERATIONS AND FUTURE TAPPING, CREATE EXCESSIVE SIDE FILL PRESSURES AND OVALATION OF THE PIPE, NOR SERIOUSLY IMPAIR FLOW CAPACITY.

a. THE WIDTH OF THE TRENCH SHALL BE AMPLE TO ALLOW THE PIPE TO BE LAID AND JOINTED PROPERLY AND TO ALLOW THE BEDDING AND HAUNCHING TO BE PLACED AND COMPACTED TO ADEQUATELY SUPPORT THE PIPE. THE TRENCH SIDES SHALL BE KEPT AS NEARLY VERTICAL AS POSSIBLE. WHEN WIDER TRENCHES ARE SPECIFIED, APPROPRIATE BEDDING CLASS AND PIPE STRENGTH SHALL BE USED.

IN UNSUPPORTED, UNSTABLE SOIL, THE SIZE AND STIFFNESS OF THE PIPE, STIFFNESS OF THE EMBEDMENT AND INSTITU SOIL AND DEPTH OF COVER SHALL BE CONSIDERED IN DETERMINING THE MINIMUM TRENCH WIDTH NECESSARY TO ADEQUATELY SUPPORT THE PIPE.

a. BEDDING CLASSES A, B, C, OR CRUSHED STONE AS DESCRIBED IN ASTM C-12 SHALL BE USED AND CAREFULLY COMPACTED FOR ALL RIGID PIPE PROVIDED THE PROPER STRENGTH PIPE IS USED WITH THE SPECIFIED BEDDING TO SUPPORT THE ANTICIPATED LOAD, BASED ON THE TYPE SOIL ENCOUNTERED AND POTENTIAL GROUND WATER CONDITIONS.

b. EMBEDMENT MATERIALS FOR BEDDING, HAUNCHING AND INITIAL BACKFILL, CLASSES I, II, OR III, AS DESCRIBED IN ASTM D, SHALL BE USED PROVIDED THE PROPER STRENGTH PIPE IS USED WITH THE SPECIFIED BEDDING TO SUPPORT THE ANTICIPATED LOAD, BASED ON THE TYPE SOIL ENCOUNTERED AND POTENTIAL GROUNDWATER CONDITIONS. THE EMBEDMENT MATERIALS SHALL BE CAREFULLY COMPACTED FOR ALL FLEXIBLE PIPE.

c. ALL WATER ENTERING THE EXCAVATIONS OR OTHER PARTS OF THE WORK SHALL BE REMOVED. NO SANITARY SEWER SHALL BE USED FOR THE DISPOSAL OF TRENCH WATER, UNLESS SPECIFICALLY APPROVED BY THE ENGINEER, AND THEN ONLY IF THE TRENCH WATER DOES NOT ULTIMATELY ARRIVE AT EXISTING PUMPING OR WASTEWATER TREATMENT FACILITIES.

a. FINAL BACKFILL SHALL BE OF A SUITABLE MATERIAL REMOVED FROM EXCAVATION EXCEPT WHERE OTHER MATERIAL IS SPECIFIED. DEBRIS, FROZEN MATERIAL, LARGE CLODS OR STONES, ORGANIC MATTER, OR OTHER UNSTABLE MATERIALS SHALL NOT BE USED FOR FINAL BACKFILL WITHIN 2 FEET (0.6 M) OF THE TOP OF THE PIPE.

b. FINAL BACKFILL SHALL BE PLACED IN SUCH A MANNER SO AS NOT TO DISTURB THE ALIGNMENT OF THE PIPE.

- a. DEFLECTION TESTS SHALL BE PERFORMED ON ALL FLEXIBLE PIPE. THE TESTS SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS TO PERMIT STABILIZATION OF THE SOIL-PIPE SYSTEM.
- b. NO PIPE SHALL EXCEED A DEFLECTION OF 5 PERCENT OF THE INSIDE DIAMETER. IF DEFLECTION EXCEEDS 5 PERCENT, THE PIPE SHALL BE EXCAVATED. REPLACEMENT OR CORRECTION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE REQUIREMENTS IN THE APPROVED SPECIFICATIONS.

C. THE RIGID BALL OR MANDREL USED FOR THE DEFLECTION TEST SHALL HAVE A DIAMETER NOT LESS THAN 95 PERCENT OF THE BASE INSIDE DIAMETER OR AVERAGE INSIDE DIAMETER OF THE PIPE DEPENDING ON WHICH IS SPECIFIED IN THE ASTM SPECIFICATION, INCLUDING THE APPENDIX, TO WHICH THE PIPE IS MANUFACTURED. THE TESTS SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES.

JOINTS

THE JOINT INSTALLATION REQUIREMENTS AND THE MATERIALS USED SHALL BE INCLUDED IN THE SPECIFICATIONS. SEWER JOINTS SHALL BE DESIGNED TO MINIMIZE INFILTRATION AND TO PREVENT THE ENTRANCE OF ROOTS THROUGHOUT THE LIFE OF THE SYSTEM.

SERVICE CONNECTIONS TO THE SEWER MAIN SHALL BE WATER TIGHT AND SHALL NOT PROTRUDE INTO THE SEWER. IF A SADDLE TYPE CONNECTION IS USED, IT SHALL BE A DEVICE DESIGNED TO JOIN WITH THE TYPES OF PIPE WHICH ARE TO BE CONNECTED. ALL MATERIALS USED TO MAKE SERVICE CONNECTIONS SHALL BE COMPATIBLE WITH EACH OTHER AND WITH THE PIPE MATERIALS TO BE JOINED AND SHALL BE CORROSION PROOF.

LEAKAGE TESTS SHALL BE SPECIFIED. THIS MAY INCLUDE APPROPRIATE WATER OR LOW PRESSURE AIR TESTING. THE TESTING METHODS SELECTED SHOULD TAKE INTO CONSIDERATION THE RANGE IN GROUNDWATER ELEVATIONS DURING THE TESTING AND THOSE ANTICIPATED DURING THE DESIGN LIFE OF THE SEWER.

THE LEAKAGE EXFILTRATION OR INFILTRATION SHALL NOT EXCEED 100 GALLONS PER INCH OF PIPE DIAMETER PER MILE PER DAY [9 L/(MM OF PIPE DIAMETER-KM-D)] FOR ANY SECTION OF THE SYSTEM. AN EXFILTRATION OR INFILTRATION TEST SHALL BE PERFORMED WITH A MINIMUM POSITIVE HEAD OF 2 FEET (0.6 M).

THE AIR TEST SHALL, AS A MINIMUM, CONFORM TO THE TEST PROCEDURE DESCRIBED IN ASTM C-828 FOR CLAY PIPE, ASTM C-924 FOR CONCRETE PIPE, AND ASTM F-1417 FOR PLASTIC PIPE. FOR OTHER MATERIALS, TEST PROCEDURES SHALL BE APPROVED BY THE REGULATORY AGENCY.

LOCATION

MANHOLES SHALL BE INSTALLED AT THE END OF EACH LINE; AT ALL CHANGES IN GRADE, SIZE, OR ALIGNMENT; AT ALL INTERSECTIONS; AT DISTANCES NOT GREATER THAN 400 FEET (120 M) FOR SEWERS THAT ARE 15 INCHES (375 MM) OR LESS, AND AT 500 FEET (150 M) FOR SEWERS THAT ARE 18 INCHES (450 MM) TO 30 INCHES (750 MM). DISTANCES UP TO 600 FEET (183 M) MAY BE APPROVED IN CASES WHERE ADEQUATE MODERN CLEANING EQUIPMENT FOR SUCH SPACING IS PROVIDED. GREATER SPACING MAY BE PERMITTED IN LARGER SEWERS. CLEANOUTS MAY BE USED ONLY FOR SPECIAL CONDITIONS AND SHALL NOT BE FOR MANHOLES NOT INSTALLED AT THE END OF laterals GREATER THAN 150 FEET (45 M) IN LENGTH.

A DROP PIPE SHALL BE PROVIDED FOR A SEWER ENTERING A MANHOLE AT AN ELEVATION OF 24 INCHES (610 MM) OR MORE ABOVE THE MANHOLE INVERT. WHERE THE DIFFERENCE IN ELEVATION BETWEEN THE INCOMING SEWER AND THE MANHOLE INVERT IS LESS THAN 24 INCHES (610 MM), THE INVERT SHALL BE FILLETED TO PREVENT SOLIDS DEPOSITION.

DROP MANHOLES SHOULD BE CONSTRUCTED WITH AN OUTSIDE DROP CONNECTION. INSIDE DROP CONNECTIONS (WHEN NECESSARY) SHALL BE SECURED TO THE INTERIOR WALL OF THE MANHOLE AND SHALL PROVIDE ACCESS FOR CLEANING.

DUE TO THE UNEQUAL EARTH PRESSURES THAT WOULD RESULT FROM THE BACKFILLING OPERATION IN THE VICINITY OF THE MANHOLE, THE ENTIRE OUTSIDE DROP CONNECTION SHALL BE ENCASED IN CONCRETE.

THE MINIMUM DIAMETER OF MANHOLES SHALL BE 48 INCHES (1,200 MM). LARGER DIAMETERS ARE REQUIRED FOR MANHOLES WITH INSIDE DROPS, AND MAY BE NECESSARY FOR MANHOLES WITH LARGE DIAMETER SEWERS OR MULTIPLE PIPES CONNECTING AT THE MANHOLE. A MINIMUM ACCESS DIAMETER OF 24 INCHES (610 MM) SHALL BE PROVIDED.

THE FLOW CHANNEL STRAIGHT THROUGH A MANHOLE SHOULD BE MADE TO CONFORM AS CLOSELY AS POSSIBLE IN SHAPE AND SLOPE TO THAT OF THE CONNECTING SEWERS. THE CHANNEL WALLS SHOULD BE FORMED OR SHAPED TO THE FULL HEIGHT OF THE CROWN OF THE OUTLET SEWER IN SUCH A MANNER AS TO NOT OBSTRUCT MAINTENANCE, INSPECTION, OR FLOW IN THE SEWERS.

WHEN CURVED FLOW CHANNELS ARE SPECIFIED IN MANHOLES, INCLUDING BRANCH INLETS, THE MINIMUM SLOPES INDICATED IN PARAGRAPH 33.41 SHOULD BE INCREASED TO MAINTAIN ACCEPTABLE VELOCITIES.

A BENCH SHALL BE PROVIDED ON EACH SIDE OF ANY MANHOLE CHANNEL WHEN THE PIPE DIAMETER(S) ARE LESS THAN THE MANHOLE DIAMETER. THE BENCH SHOULD BE SLOPED NO LESS THAN 1/8 INCH PER FOOT (40 MM/M) (4 PERCENT). NO LATERAL SEWER, SERVICE CONNECTION, OR DROP MANHOLE PIPE SHALL DISCHARGE ONTO THE SURFACE OF THE BENCH.

MANHOLES SHALL BE OF THE PRE-CAST CONCRETE (AS PRESCRIBED BY ASTM C 478) OR POURED-IN-PLACE CONCRETE TYPE. MANHOLE LIFT HOLES AND GRADE ADJUSTMENT RINGS SHALL BE SEALED WITH NON-SHRINKING MORTAR OR OTHER MATERIAL APPROVED BY THE REGULATORY AGENCY.

INLET AND OUTLET PIPES SHALL BE JOINED TO THE MANHOLE WITH A GASKETED FLEXIBLE WATERTIGHT CONNECTION OR ANOTHER WATERTIGHT CONNECTION ARRANGEMENT THAT ALLOWS DIFFERENTIAL SETTLEMENT OF THE PIPE AND MANHOLE WALL TO TAKE PLACE.

WATERTIGHT MANHOLE COVERS SHALL BE USED WHEREVER THE MANHOLE TOPS MAYBE FLOODED BY STREET RUNOFF OR HIGH WATER. LOCKED MANHOLE COVERS MAY BE DESIRABLE IN ISOLATED EASEMENT LOCATIONS OR WHERE VANDALISM MAY BE A PROBLEM.

THE SPECIFICATIONS SHALL INCLUDE A REQUIREMENT FOR MANHOLE INSPECTION AND TESTING FOR WATERTIGHTNESS OR DAMAGE PRIOR TO PLACING INTO SERVICE. AIR TESTING, IF SPECIFIED FOR CONCRETE SEWER MANHOLES, SHALL CONFORM TO THE TEST PROCEDURES DESCRIBED IN ASTM C-1244.

WATER TEST ALLOWABLE LEAKAGE

DIAMETER OF RISER OR STACK IN INCHES	VOLUME PER INCH OF DEPTH		ALLOWANCE LEAKAGE*	
	Inch	Gallons	Pipe Size in Inches	Gallon/Minute per 100 Ft.
1	0.7854	.0034	6	0.0039
2	3.1416	.0136	8	0.0053
2.5	4.9087	.0212	10	0.0066
3	7.0686	.0306	12	0.0079
4	12.5664	.0306	15	0.0099
5	19.6350	.0544	18	0.0118
6	28.2743	.1224	21	0.0138
8	50.2655	.2176	24	0.0158
			27	0.0177
			30	0.0197
			36	0.0237
			42	0.0276
For other diameters, multiply square of diameters by value for 1" diameter.			Equivalent to 50 gallons per inch of inside diameter per mile per 24 hours.	

* Allowable leakage rate shall be reduced to 10 gallons per inch of inside diameter per mile per 24 hours, when sewer is identified as located within the 25-year flood plain

Pipe Diameter r (in)	Minimum Time (min. sec)	Length for Minimum Time (ft)	Time for Longer Length (sec/ft)	Specification Time for Length (L) Shown (min. sec)											
				100 ft.	150 ft	200 ft	250 ft	300 ft	350 ft	400 ft	450 ft	500 ft	550 ft	600 ft	
			6	5:40	398	0.8548	5:40	5:40	5:40	5:40	5:40	5:40	5:42	6:25	7:07
8	7:33	298	1.5196	7:33	7:33	7:33	7:33	7:36	8:52	10:08	11:24	12:40	13:56	15:12	
10	9:27	259	2.3743	9:27	9:27	9:27	9:27	9:54	11:52	13:51	15:50	17:48	19:47	21:46	23:45
12	11:20	199	3.4190	11:20	11:20	11:20	11:20	14:15	17:06	19:57	22:48	25:39	28:30	31:20	34:11
15	14:10	159	5.3423	14:10	14:10	17:48	22:16	26:43	31:10	35:37	40:04	44:31	48:58	53:25	
18	17:00	133	7.6928	17:00	19:14	25:39	32:03	38:28	44:52	51:17	57:42	64:06	70:31	76:56	
21	19:50	114	10.4708	19:50	26:11	34:54	43:38	52:21	61:05	69:48	78:32	87:15	95:59	104:42	
24	22:40	99	13.6762	22:48	34:11	45:35	56:59	68:23	79:47	91:10	102:34	113:58	125:22	136:45	
27	25:30	88	17.3089	28:51	43:16	57:42	72:07	86:33	100:58	115:24	129:49	144:14	158:40	173:06	
30	28:20	80	21.3690	35:37	53:25	71:14	89:02	106:51	124:39	142:28	160:16	178:05	195:53	213:41	
33	31:10	72	25.8565	43:06	64:38	86:11	107:44	129:17	150:50	172:23	193:55	215:28	237:01	258:34	

PIPE DIAMETER (inches)	MINIMUM TIME (seconds)	LENGTH FOR MINIMUM TIME (feet)	TIME FOR LONGER LENGTH (seconds)
6	340	398	0.855 (L)
8	454	298	1.520 (L)
10	567	239	2.374 (L)
12	680	199	3.419 (L)
15	850	159	5.342 (L)
18	1020	133	7.693 (L)
21	1190	114	10.471 (L)
24	1360	100	13.676 (L)
27	1530	88	17.309 (L)
30	1700	80	21.369 (L)
33	1870	72	25.856 (L)

NOTE:
SANITARY MANHOLE FRAME & COVERS SHALL BE
NEENAH R-1771, OR EAST JORDAN 2020, OR
APPROVED EQUAL WITH A SOLID LID IN PAVED
AREAS AND VENTED LIDS IN ALL OTHER AREAS.

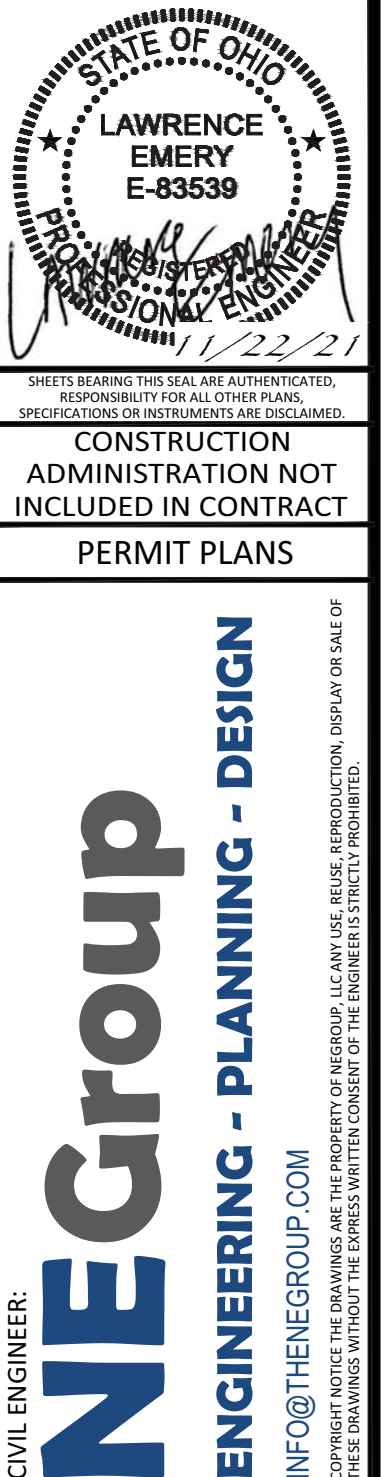
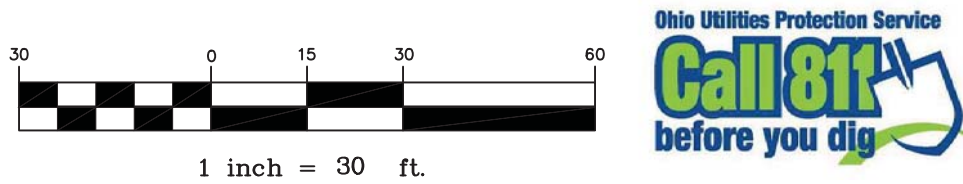
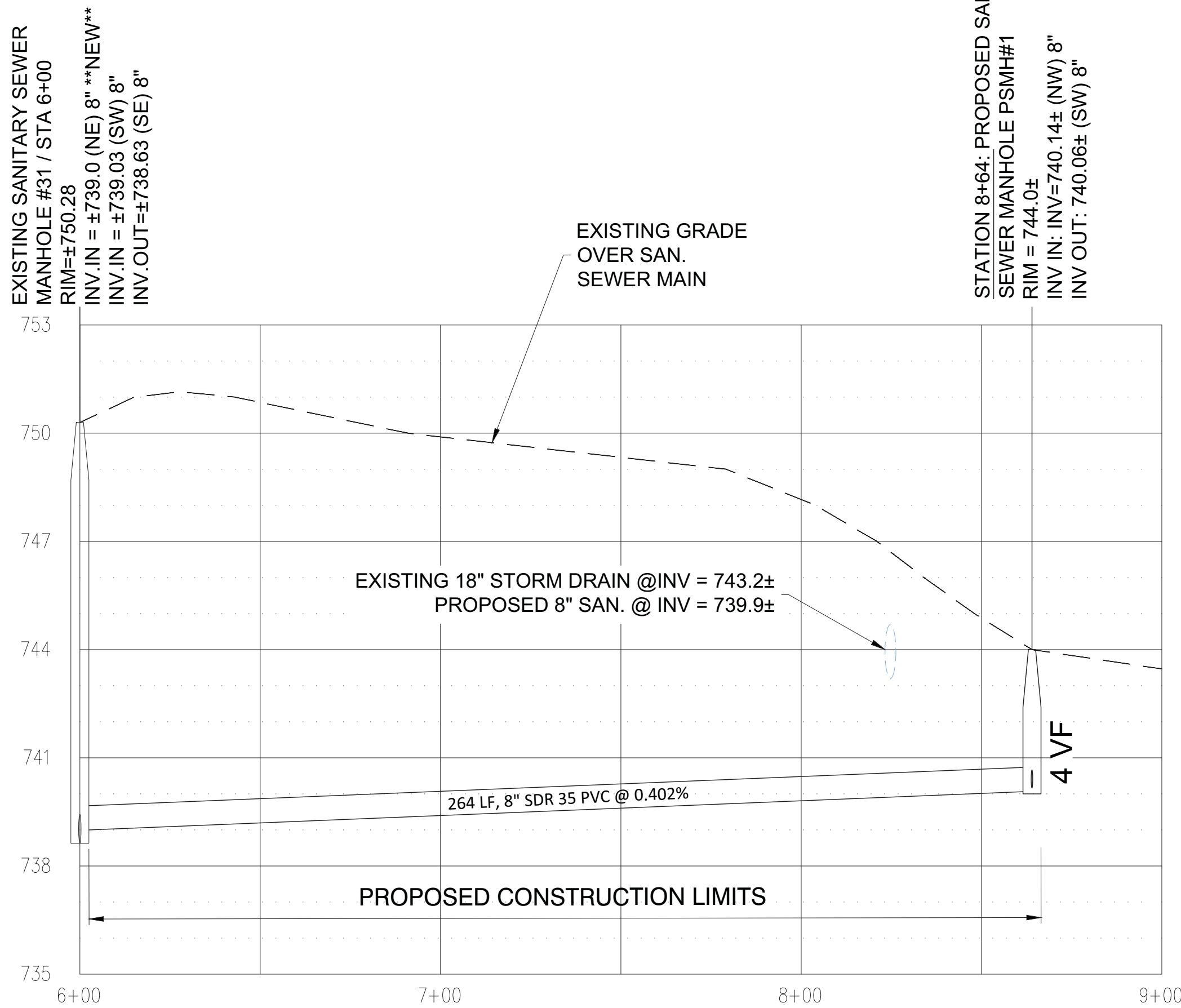
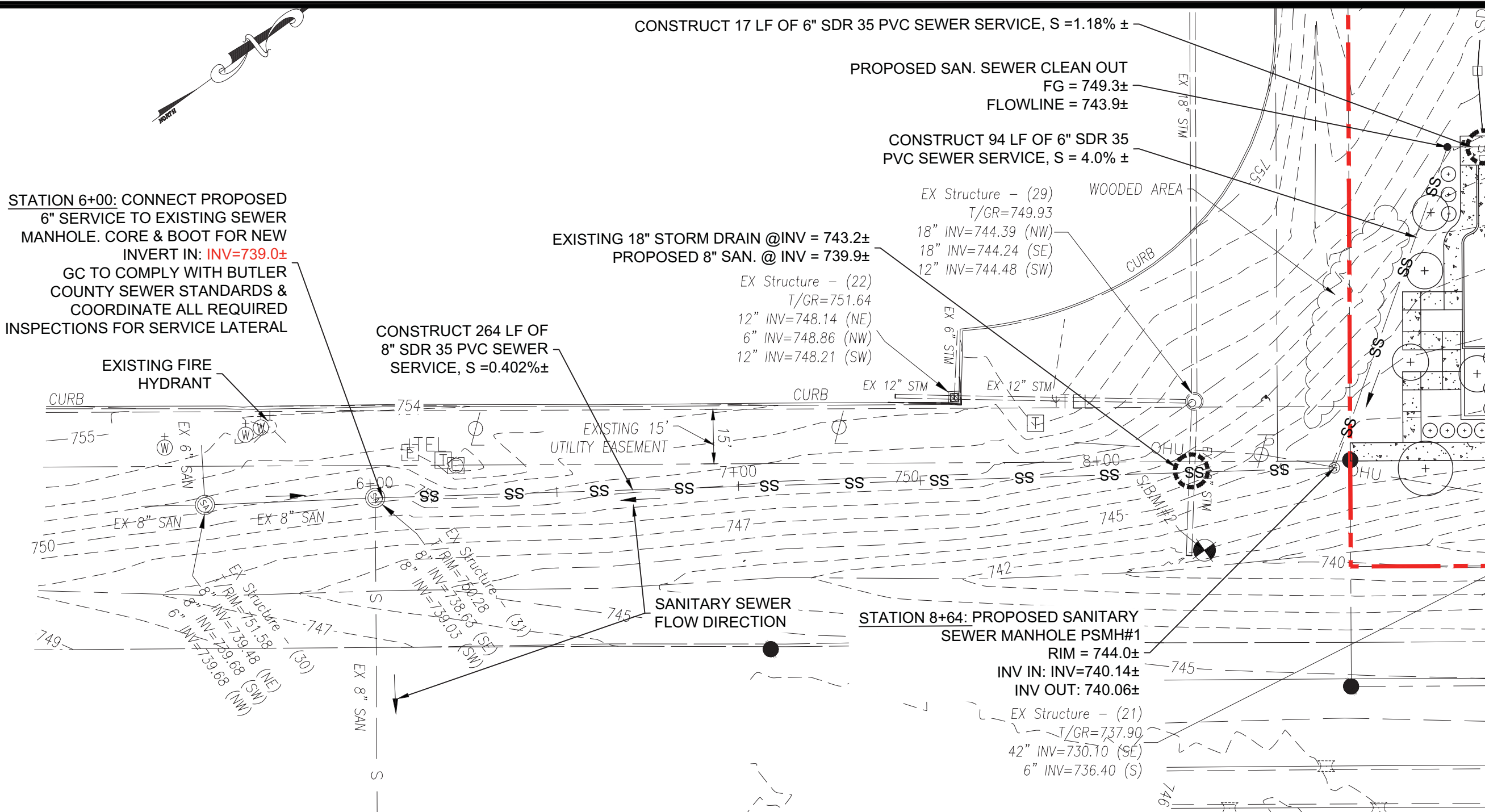
NOTE:
IF IN PUBLIC RIGHT-OF-WAY OR TO BE DEDICATED
TO THE PUBLIC, USE THE AUTHORITIES DETAILS.

DEPTH IN FEET	TIME IN SECONDS BY PIPE DIAMETER		
	48"	60"	72"
4	10	13	16
8	20	26	32
12	30	39	48
16	40	52	64
20	50	65	80
24	60	78	96
*("T")#	5.0	6.5	8.0

* Add T times for each additional 2-foot depth.

(The values listed above have been extrapolated from ASTM C 924-85)

Material and Wall Construction	Nominal Size(Inches)	Average I.D. (Inches)	Minimum Mandrel Diameter
PVC-Solid (SDR 26)	6	5.764	5.476
	8	7.715	7.329
	10	9.646	9.162
PVC-Solid (SDR 35)	12	11.737	11.150
	15	14.374	13.655
	18	17.629	16.748
	21	20.783	19.744
	24	23.381	22.120
	27	26.351	25.033
PVC-Truss	6	7.750	7.363
	10	9.750	9.263
	12	11.790	11.201
PVC-Profile (ASTM F 794)	15	14.770	14.032
	12	11.740	11.153
	15	14.370	13.652
	18	17.650	16.768
	21	20.750	19.713
	24	23.500	22.305
	27	26.500	25.175
	30	29.500	28.025
	36	35.500	33.725
	42	41.500	39.425
	48	47.500	45.125
	HDPE-Profile	18	18.000
21		21.000	19.950
24		24.000	22.800
27		27.000	25.650
30		30.000	28.500
36		36.000	34.200
42		42.000	39.900
48		48.000	45.600
54		54.000	51.300
Fiberglass-Centrifugally Cast (Class SN)	60	60.000	57.000
	12	12.85	11.822
	18	18.66	17.727
	20	20.68	19.646
	24	24.72	23.484
	30	30.68	29.146
	36	36.74	34.903
	42	42.70	40.565
	48	48.76	46.322
	54	54.82	52.079
	60	60.38	57.361



TUCKERMAN
DEVELOPMENT

RETAIL DEVELOPMENT
301 N. MAIN STREET
MONROE, OHIO
ZONING: C-2

PROJECT:		
REVISIONS		
1		
2		
3		
4		
5		
SHEET NAME:		
SANITARY SEWER		
MAIN EXTENSION		
PLAN & PROFILE		
AND NOTES		

DATE: 11/22/2021

DRAWN BY: CD

CHECKED BY: LE

PROJECT NO.: 21-888

SHEET NUMBER:

C204

SITE GRADING & EROSION CONTROL NOTES

- THE DISTURBED AREA FOR THIS PROJECT IS APPROXIMATELY 1 ACRE.
- THE SUBJECT PROPERTY DOES NOT LIE WITHIN THE 100 YEAR FLOOD ZONE AND IS DETERMINED TO BE IN ZONE X ACCORDING TO COMMUNITY PANEL NO. 39017 00228F OF THE F.E.M.A. FLOOD INSURANCE RATE MAPS FOR BUTLER COUNTY, OHIO, WITH AN EFFECTIVE DATE OF OCTOBER 19, 2018.
- CONSTRUCT SILT BARRIERS BEFORE BEGINNING GRADING OPERATIONS.
- MULCH AND SEED ALL DISTURBED AREAS AS SOON AS POSSIBLE AFTER FINAL GRADING IS COMPLETED, UNLESS OTHERWISE INDICATED. CONTRACTOR SHALL TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.
- THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES. TAKE CARE TO PROTECT UTILITIES THAT ARE TO REMAIN. REPAIR ANY DAMAGE ACCORDING TO LOCAL STANDARDS AND AT THE CONTRACTOR'S EXPENSE. COORDINATE ALL CONSTRUCTION WITH THE APPROPRIATE UTILITY COMPANY.
- PROVIDE TEMPORARY CONSTRUCTION ACCESS(ES) AT THE POINT(S) WHERE CONSTRUCTION VEHICLES EXIT THE CONSTRUCTION AREA. MAINTAIN PUBLIC ROADWAYS FREE OF TRACKED MUD AND OTHER DEBRIS.
- THE CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF THE STORM DRAIN CONNECTIONS AT THE BUILDING WITH THE PLUMBING PLANS.
- THE CONTRACTOR SHALL CHECK ALL EXISTING GRADES AND DIMENSIONS IN THE FIELD PRIOR TO BEGINNING WORK AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
- THE CONTRACTOR SHALL ADJUST THE CASTINGS OF ALL NEW AND EXISTING STRUCTURES TO MATCH PROPOSED FINISH GRADES.
- THE CONTRACTOR SHALL COMPLY WITH ALL PERTINENT PROVISIONS OF THE MANUAL OF ACCIDENT PREVENTION AND CONSTRUCTION ISSUED BY AGE OF AMERICA, INC. AND THE SAFETY AND HEALTH REGULATIONS OF CONSTRUCTION ISSUED BY THE U.S. DEPARTMENT OF LABOR.
- PROPOSED CONTOUR LINES AND SPOT ELEVATIONS ARE THE RESULT OF AN ENGINEERED GRADING DESIGN AND REFLECT A PLANNED INTENT WITH REGARD TO DRAINAGE AND MOVEMENT OF MATERIALS. SHOULD THE CONTRACTOR HAVE ANY QUESTION OF THE INTENT OR ANY PROBLEM WITH THE CONTINUITY OF GRADES, THE ENGINEER SHALL BE CONTACTED IMMEDIATELY.
- ALL CUT AND FILL SLOPES SHALL BE 3 HORIZONTAL TO 1 VERTICAL OR FLATTER.
- ALL PIPES UNDER EXISTING PAVED AREAS SHALL BE BACKFILLED TO THE TOP OF SUBGRADE WITH CRUSHED STONE.
- MINIMUM GRADE ON ASPHALT OR CONCRETE PAVING SHALL BE 1.0%. THE MAXIMUM GRADES WITHIN ACCESSIBLE SPACES SHALL BE 2% IN ANY DIRECTION.
- CONTRACTOR SHALL CONFORM TO ALL APPLICABLE CODES AND OBTAIN APPROVAL AS NECESSARY BEFORE BEGINNING CONSTRUCTION.
- ALL EARTHWORK, INCLUDING THE EXCAVATED SUBGRADE AND EACH LAYER OF FILL, SHALL BE MONITORED AND APPROVED BY A QUALIFIED GEOTECHNICAL ENGINEER, OR HIS REPRESENTATIVE.
- IF ANY SPRINGS OR UNDERGROUND STREAMS ARE EXPOSED DURING CONSTRUCTION PERMANENT FRENCH DRAINS MAY BE REQUIRED. THE DRAINS SHALL BE SPECIFIED AND LOCATED DURING CONSTRUCTION AS REQUIRED BY THE CONDITIONS WHICH ARE ENCOUNTERED, AND SHALL BE APPROVED BY THE ENGINEER.
- THIS GRADING & DRAINAGE PLAN IS NOT A DETERMINATION OR GUARANTEE OF THE SUITABILITY OF THE SUBSURFACE CONDITIONS FOR THE WORK INDICATED. A GEOTECHNICAL SOILS REPORT HAS BEEN PREPARED AND IS AVAILABLE FROM THE OWNER. DETERMINATION OF THE SUBSURFACE CONDITIONS FOR THE WORK INDICATED IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL TAKE SPECIAL CARE TO COMPACT FILL SUFFICIENTLY AROUND AND OVER ALL PIPES, STRUCTURES, VALVE STEMS, ETC., INSIDE THE PROPOSED PAVED AREAS TO AVOID SETTLEMENT.
- IN NO CASE SHALL SLOPE, HEIGHT, SLOPE INCLINATION, OR EXCAVATION DEPTH, INCLUDING TRENCH CONSTRUCTION, EXCEED THOSE SPECIFIED IN FEDERAL, STATE AND FEDERAL REGULATIONS, SPECIFICALLY THE CURRENT OSHA HEALTH AND SAFETY STANDARDS FOR EXCAVATIONS (29 CFR PART 1926) SHALL BE FOLLOWED.
- DO NOT DISTURB VEGETATION OR REMOVE TREES EXCEPT WHEN NECESSARY FOR GRADING PURPOSES.
- STRIP TOPSOIL FROM ALL CUT AND FILL AREAS AND STOCKPILE UPON COMPLETION OF GENERAL GRADING OVER ALL DISTURBED AREAS. TO A MINIMUM DEPTH OF 6". CONTRACTOR SHALL SUPPLY ADDITIONAL TOP SOIL IF INSUFFICIENT QUANTITIES EXIST ON SITE.
- TOP OF GRADE ELEVATIONS AND LOCATION OF COORDINATES FOR DRAINAGE STRUCTURES SHALL BE AS SHOWN ON THE DETAIL, UNLESS NOTED OTHERWISE. THE GRATES SHALL MATCH WITH THE PAVED SURFACES.
- ALL DRAINAGE CONSTRUCTION MATERIALS AND INSTALLATION SHALL CONFORM TO THE REQUIREMENTS AND SPECIFICATIONS OF THE LOCAL GOVERNING AGENCY.
- POSITIVE DRAINAGE SHALL BE ESTABLISHED AS THE FIRST ORDER OF WORK AND SHALL BE MAINTAINED AT ALL TIMES DURING AND AFTER CONSTRUCTION. SOIL SOFTENED BY PERCHED WATER IN FOUNDATION AND PAVEMENT AREAS MUST BE UNDERCUT AND REPLACED WITH SUITABLE FILL MATERIALS APPROVED BY THE GEOTECHNICAL ENGINEER. GROUNDWATER INFILTRATION INTO EXCAVATIONS SHOULD BE EXPECTED, AND THE WATER SHALL BE REMOVED USING GRAVITY DRAINAGE OR PUMPING.
- REINFORCED CONCRETE STORM DRAINAGE PIPE SHALL BE CLASS III, WALL "B", HDPE SHALL BE CORRUGATED, SMOOTH WALL N 12 PIPE WITH SOIL TIGHT JOINTS.
- FILL SLOPES 3:1 AND GREATER SHALL BE PLACED AND COMPACTED 5' BEYOND PROPOSED LIMITS AND THEN EXCAVATED BACK TO THE PROPOSED LOCATION.
- THE CONTRACTOR SHALL PROVIDE AN ASBUILT SURVEY STAMPED BY A LICENSED SURVEYOR IN THE STATE OF TENNESSEE OF ALL PUBLIC STORM SYSTEMS, ONSITE DETENTION PONDS, AND WATER QUALITY MEASURES VERIFYING COMPLIANCE WITH DESIGN DOCUMENTS.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER 72 HOURS PRIOR TO INSTALLATION OF THE WATER QUALITY DEVICES.
- ALL FILL MATERIAL SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT. THIS MATERIAL SHALL BE PLACED IN LIFTS DIRECTED BY THE GEOTECHNICAL ENGINEER AND ADJUSTED AS SPECIFIED BY THE GEOTECHNICAL ENGINEER TO 100% STANDARD/MODIFIED PROCTOR.
- THE LOCATION OF ALL DIVERSION SWALES AND DITCHES SHALL BE FIELD ADJUSTED TO AVOID TREES AS POSSIBLE. THE CONTRACTOR SHALL WALK THE ALIGNMENT OF THESE SWALES AND DITCHES IN THE FIELD TO VERIFY AVOIDANCE OF TREES.
- SEDIMENT REMOVED FROM SEDIMENT CONTROL STRUCTURES IS TO BE PLACED AT A SITE APPROVED BY THE ENGINEER. IT SHALL BE TREATED IN A MANNER SO THAT THE AREA AROUND THE DISPOSAL SITE WILL NOT BE CONTAMINATED OR DAMAGED BY THE SEDIMENT IN THE RUN-OFF. COST FOR THIS TREATMENT IS TO BE INCLUDED IN PRICE BID FOR EARTHWORK. THE CONTRACTOR SHALL OBTAIN THE DISPOSAL SITE AS PART OF THIS WORK.
- STOCKPILED TOPSOIL, OR FILL MATERIAL IS TO BE TREATED SO THE SEDIMENT RUN-OFF WILL NOT CONTAMINATE SURROUNDING AREAS OR ENTER NEARBY STREAMS.
- ANY SITE USED FOR DISPOSAL AND/OR STOCKPILE OF ANY MATERIAL SHALL BE PROPERLY PERMITTED FOR SUCH ACTIVITY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL REQUIRED PERMITS AND SECURE FOR EACH PROPERTY UTILIZED. A COPY OF THE APPROVED PERMIT MUST BE PROVIDED TO THE INSPECTOR PRIOR TO COMMENCEMENT OF WORK ON ANY PROPERTY. FAILURE TO DO SO MAY RESULT IN THE CONTRACTOR REMOVING ANY ILLEGALLY PLACED MATERIAL AT HIS OWN EXPENSE.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO WASTE EXCESS EARTH MATERIAL OFF SITE AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL FIRST OFFER THE EXCESS MATERIAL TO THE OWNER. IF NOT ACCEPTED BY THE OWNER, THE CONTRACTOR SHALL DISPOSE OF EARTH MATERIAL OFF SITE. IT SHALL ALSO BE THE CONTRACTOR'S RESPONSIBILITY TO IMPORT SUITABLE MATERIAL (AT NO ADDITIONAL COST TO THE OWNER) FOR EARTHWORK OPERATIONS IF SUFFICIENT AMOUNTS OF EARTH MATERIAL ARE NOT AVAILABLE ON SITE.
- ROOF DRAINS, FOUNDATIONS DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.

NOTE: THE CONTRACTOR SHALL IMMEDIATELY BRING TO THE ATTENTION OF THE OWNER AND ENGINEER ANY SUBSURFACE CONDITIONS WHICH MAY HAVE AN ADVERSE IMPACT UPON THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS AS SHOWN AND NOTED WITHIN THESE CONSTRUCTION DOCUMENTS. CONDITIONS OF NEGATIVE IMPACT MAY INCLUDE, BUT NOT BE LIMITED TO: UNDERGROUND STORAGE TANKS, UNKNOWN UTILITIES, SATURATED/UNSTABLE SOILS, OR UNIDENTIFIED BURIED DEBRIS.

PROPOSED STORM SEWER PIPE SCHEDULE

IN		TO PIPE OUTLET																			
LOCATION	FLOWLINE ELEVATION	LOCATION	FLOWLINE ELEVATION	A	C	CA	TOTAL CA	Tc	I	Qd	PIPE TYPE	PIPE SIZE (in.)	MANNING'S n	Qfull c.f.s.	SLOPE	LENGTH (ft.)	Velocity (ft/sec)	Depth (in.)	Q (check) c.f.s.	PIPE ADEQUATE?	PERCENT CAPACITY
YD1	742.70	YD1	742.30	1.23	0.22	0.27	0.27	5.00	7.79	2.11	HDPE	12	0.011	3.03	0.52%	77	4.17	7.36	2.11	YES	0.59
YD1	741.80	CB#1	740.30	0.10	0.22	0.22	0.29	5.00	7.79	2.28	HDPE	15	0.011	9.75	0.83%	92	6.48	4.93	2.28	YES	0.23
CB#1	740.20	HV#2	740.00	0.10	0.90	0.09	0.38	5.00	7.79	2.98	RCP	15	0.015	4.91	0.77%	26	4.19	8.44	2.98	YES	0.61
CB#1	743.80	CB#2	743.80	0.11	0.90	0.20	0.20	5.00	7.79	1.58	HDPE	12	0.011	2.98	0.50%	40	3.83	6.16	1.58	YES	0.52
CB#2	743.50	CB#1	743.20	0.07	0.90	0.06	0.26	5.00	7.79	2.05	HDPE	15	0.013	4.91	0.58%	52	3.82	6.76	2.05	YES	0.42
CB#1	743.10	HV#4	743.00	0.16	0.90	0.14	0.58	5.00	7.79	4.49	HDPE	15	0.011	5.40	0.50%	20	4.92	10.45	4.49	YES	0.83
OCS	742.05	HV#6	741.50	0.84	0.75	0.83	0.63	5.00	7.79	4.91	RCP	15	0.015	5.60	1.00%	55	5.14	10.89	4.91	YES	0.88
HV#1	740.10	HV#2	738.80	3.25	2.75	2.44	5.00	7.79	18.99	RCP	30	0.015	50.66	2.03%	64	9.58	12.72	18.99	YES	0.37	
CO#2	746.85	CO#1	744.75	0.18	0.90	0.16	0.16	5.00	7.79	1.26	PVC	8	0.010	1.56	0.99%	111	4.99	5.45	1.26	YES	0.81
CO#1	744.75	CB#1	743.50	0.01	0.75	0.01	0.17	5.00	7.79	1.32	PVC	8	0.010	1.56	0.99%	128	5.03	5.63	1.32	YES	0.84

PROPOSED STORM SEWER STRUCTURE SCHEDULE

HEADWALL#1: INV = 740.1
HEADWALL#2: INV = 738.8
HEADWALL#3: INV = 740.0
HEADWALL#4: INV = 742.5
HEADWALL#5: INV = 741.5

CURB INLET - CB#1
T/RIM = 747.8
INV IN = 743.5 (8" PVC)
INV IN = 743.2 (15" HDPE)
INV OUT = 743.1 (15" HDPE)

GRATE INLET - CB#2
T/RIM = 747.0
INV IN = 743.6 (12" HDPE)
INV OUT = 743.5 (15" HDPE)

GRATE INLET - CB#3
T/RIM = 746.8
INV OUT = 743.8 (12" HDPE)

GRATE INLET - CB#4
T/RIM = 746.4
INV IN = 740.3 (15" HDPE)
INV OUT = 740.2 (15" HDPE)

YARD INLET - YD#1 (W/BEEHIVE GRATE)
T/RIM = 747.0
INV IN = 742.3 (12" HDPE)
INV OUT = 741.8 (15" HDPE)

YARD INLET - YD#2 (W/BEEHIVE GRATE)
T/RIM = 747.0
INV OUT = 742.7 (12" HDPE)

CLEAN OUT - CO#1
T/RIM = 749.2
INV = 744.75 (8" PVC)

CLEAN OUT - CO#2
T/RIM = 749.2
INV = 745.85 (8" PVC)

EXISTING 15" UTILITY EASEMENT

EX 12" STM

EX 12" STM

EX 12" STM

EX 12" STM

EX 12" STM

EX 12" STM

EX 12" STM

EX 12" STM

EX 12" STM

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EX 12" STM

STORMWATER BASIN

THIS BASIN RECEIVES STORMWATER FROM THE PROPOSED RE-DEVELOPMENT AREA
TRIBUTARY AREA = 3.296 ACRES (143,595 SF)

EXISTING CONDITIONS
IMPERVIOUS 0 SF (0 AC)
PERVIOUS 143,595 SF (3.296 AC)
WEIGHTED CN = 73

PROPOSED CONDITIONS
IMPERVIOUS 29,181 SF (0.670 AC)
PERVIOUS 114,414 SF (2.627 AC)
WEIGHTED CN = 75.6
VOLUMETRIC RUNOFF COEFFICIENT RV = 0.606

INCREASE IN IMPERVIOUS AREA = 29,181 SF

REQUIRED WATER QUALITY VOLUME = 2,692 CF

VOLUME PROVIDED IN STORM BASIN:
ELEVATION VOLUME
742.0 POND BOTTOM
747.12 100 YR WATER SURFACE ELEVATION
747.5 TOP OF BANK

GENERAL NOTES

- REFER TO PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.
- SITE CONDITIONS BASED UPON ACTUAL FIELD SURVEY PROVIDED BY DEVELOPER. FIELD VERIFY EXISTING CONDITIONS BY DETAILED INSPECTION PRIOR TO SUBMITTING BID AND BEGINNING CONSTRUCTION. NOTIFY ENGINEER IF EXISTING CONDITIONS DEVIATE SUBSTANTIALLY FROM THOSE INDICATED HEREIN.
- FIELD VERIFY SANITARY SEWER SERVICE CONNECTION INVERT PRIOR TO ESTABLISHING FINAL FINISH FLOOR ELEVATION. NOTIFY ENGINEER IF EXISTING CONDITIONS REQUIRE REVISED FINISH FLOOR ELEVATION TO PROVIDE PROPER DRAINAGE.
- ACCESSIBLE PARKING AREAS TO SLOPE 2% MAXIMUM IN ALL DIRECTIONS. DESIGNATED ACCESSIBLE ROUTE TO SLOPE 5% MAXIMUM IN DIRECTION OF TRAVEL WITH 2% MAXIMUM CROSS SLOPE.

KEY NOTES

- LIMITS OF TEMPORARY EROSION CONTROL FENCE, REFER TO DEMOLITION PLAN, SHEET D100 & INITIAL EROSION PREVENTION & SEDIMENT CONTROL PLAN, SHEET SW1
- DOWN SPOUT COLLECTION SYSTEM, SHALL BE PVC AND SHALL CONNECT TO DOWNSPOUTS PER THE ARCHITECTURAL DRAWINGS.

SITE EXCAVATION REQUIREMENTS

- A GEOTECHNICAL ANALYSIS HAS BEEN PERFORMED ON THIS SITE. REFER TO PROJECT MANUAL.
- FOLLOW GEOTECHNICAL ANALYSIS RECOMMENDATIONS FOR SITE EXCAVATION REQUIREMENTS.
- REFER TO STRUCTURAL DRAWINGS FOR BUILDING EXCAVATION REQUIREMENTS.

GENERAL CONSTRUCTION NOTES

- REFER TO EROSION PREVENTION & SEDIMENT CONTROL PLANS, NOTES AND DETAILS FOR SPECIFIC REQUIREMENTS:
 - RETAIN FLOATABLE WIND BLOWN MATERIALS ON SITE BY STORING ALL TRASH AND BUILDING MATERIAL WASTE IN ENCLOSURES UNTIL PROPER DISPOSAL AT OFF-SITE FACILITIES. CHECK ADJACENT AREAS DAILY AND PICK UP CONSTRUCTION WASTE MATERIALS AND DEBRIS THAT HAVE BLOWN OR WASHED OFF SITE.
 - PERMANENTLY STABILIZE ALL SURFACE AREA WITHIN AND ADJACENT TO THIS SITE THAT IS DISTURBED BY VEHICLES, GRADING AND OTHER CONSTRUCTION FOR THE PROPOSED FACILITY. STABILIZATION IS OBTAINED WHEN THE DISTURBED SURFACE IS COVERED WITH STRUCTURES, PAVING AND OR PERENNIAL VEGETATION HAVING A UNIFORM COVERAGE DENSITY OF AT LEAST 70%. STABILIZATION OF ALL DISTURBED AREA IS REQUIRED BEFORE TERMINATING MAINTENANCE AND REMOVAL OF EROSION CONTROL MEASURES.
 - CONTRACTORS SHALL INSPECT POLLUTION CONTROL MEASURES AT LEAST ONCE EVERY 14 DAYS AND WITHIN 24 HOURS AFTER A STORM EVENT OF 1/2 INCH OR GREATER. DAMAGED MEASURES THAT PROVE TO BE INEFFECTIVE SHALL BE REPLACED WITH MORE EFFECTIVE MEASURES OR ADDITIONAL MEASURES WITHIN SEVEN DAYS. REPEATED FAILURE OF A CONTROL MEASURE REQUIRES INSTALLATION OF A MORE SUITABLE DEVICE TO PREVENT DISCHARGE OF POLLUTANTS FROM THE CONSTRUCTION SITE.
 - INSTALLATION OF ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY THE CITY CODE. CONTRACTOR TO VERIFY REQUIREMENTS PRIOR TO BEGINNING ANY WORK ON PROJECT SITE.
 - CARE SHALL BE TAKEN TO MINIMIZE THE ENCROACHMENT OF SEDIMENT INTO ALL STORM DRAIN APPURTENANCES, PUBLIC STREETS, AND ONTO PRIVATE PROPERTY UNTIL IMPERVIOUS MATERIAL (ROAD/PARKING AREA SURFACE) IS APPLIED OR UNTIL PROPOSED LANDSCAPE HAS BEEN ESTABLISHED.
 - REFER TO SITE DETAILS FOR SILT FENCE CONSTRUCTION.
 - ALL GRASS SLOPES WHICH EXCEED 3:1 (H:V) SHALL UTILIZE CONTECH CONSTRUCTION PRODUCTS PERMANENT TURF REINFORCEMENT MATS C35 OR APPROVED EQUAL. MATS SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND STANDARDS. CONTRACTOR
 - FOLLOW GEOTECHNICAL ANALYSIS RECOMMENDATIONS FOR SITE EXCAVATION REQUIREMENTS.
 - REFER TO STRUCTURAL DRAWINGS FOR BUILDING EXCAVATION REQUIREMENTS.

SYMBOLS LEGEND

- EXISTING CONCRETE
- EXISTING GRAVEL TO REMAIN
- PREP AREA FOR PROPOSED DRIVEWAY
- PROPOSED HEAVY DUTY ASPHALT
- PROPOSED CONCRETE SIDEWALK & STOREFRONT HEAD IN PARKING
- EXISTING CHAIN LINK FENCE
- EXISTING 1" CONTOUR
- EXISTING 5' CONTOUR
- PROPOSED 1" CONTOUR
- PROPOSED 5' CONTOUR
- PROPOSED COMPOST FILTER SOCK
- PROPOSED SILT FENCING
- PROPOSED TREE PROTECTION
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED SANITARY SERVICE LINE
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED OVERHEAD ELECTRIC
- PROPOSED LIGHT POLE BASE



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CONSTRUCTION OF THIS PROJECT IS THE RESPONSIBILITY OF THE ENGINEER.

ADMINISTRATION NOT INCLUDED IN CONTRACT

PERMIT PLANS

CIVIL ENGINEER:

CLIENT:

PROJECT:

REVISIONS

1

2

3

4

5

SHEET NAME:

SITE GRADING & DRAINAGE PLAN

DATE:

11/22/2021

DRAWN BY:

CD

CHECKED BY:

LE

PROJECT NO.:

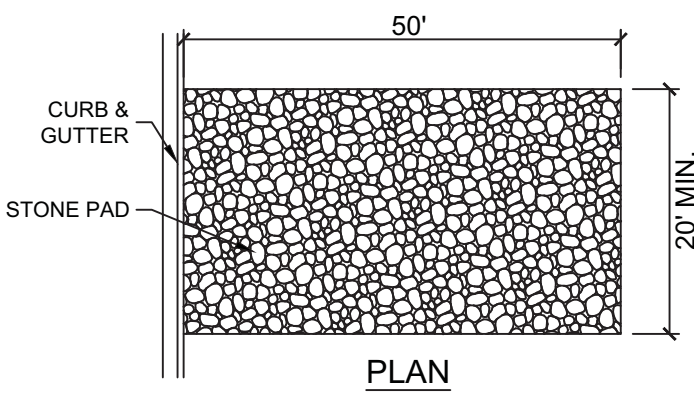
21-888

SHEET NUMBER:

C300

Call 811 before you dig

1 inch = 30 ft.



CONSTRUCTION SPECIFICATIONS
IT IS RECOMMENDED THAT THE ENTRANCE AREA BE EXCAVATED TO A DEPTH OF 3 INCHES AND BE CLEARED OF ALL VEGETATION AND ROOTS.

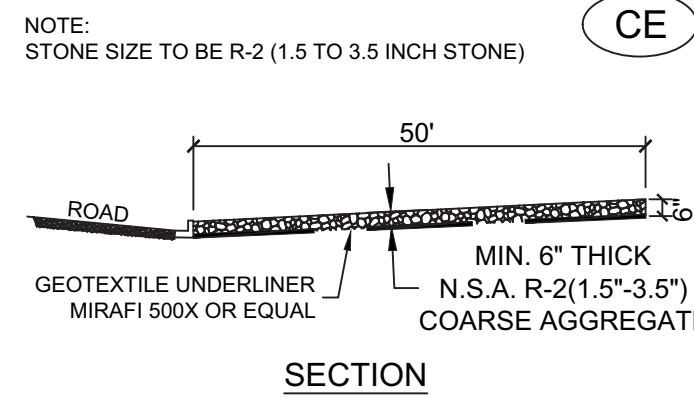
DIVERSION RIDGE
ON SITES WHERE THE GRADE TOWARD THE PAVED AREA IS GREATER THAN 2%, A DIVERSION RIDGE 6 TO 8 INCHES HIGH WITH 3:1 SIDE SLOPES SHALL BE CONSTRUCTED ACROSS THE FOUNDATION APPROXIMATELY 15 FEET ABOVE THE ROAD.

GEOTEXTILE
THE GEOTEXTILE UNDERLINER MUST BE PLACED THE FULL LENGTH AND WIDTH OF THE ENTRANCE. GEOTEXTILE SELECTION SHALL BE BASED ON AASHTO M288-98 SPECIFICATION:

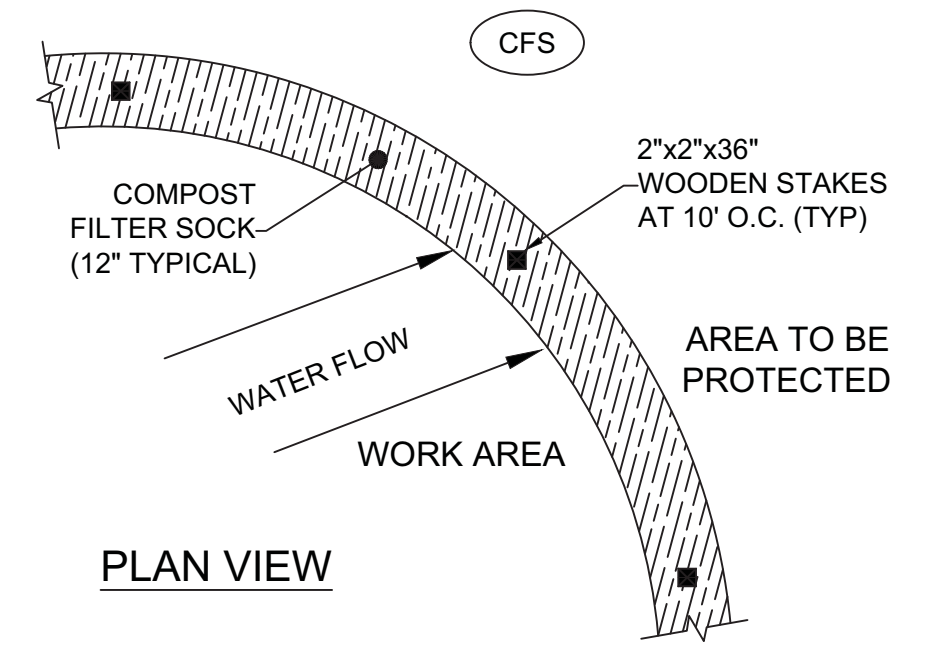
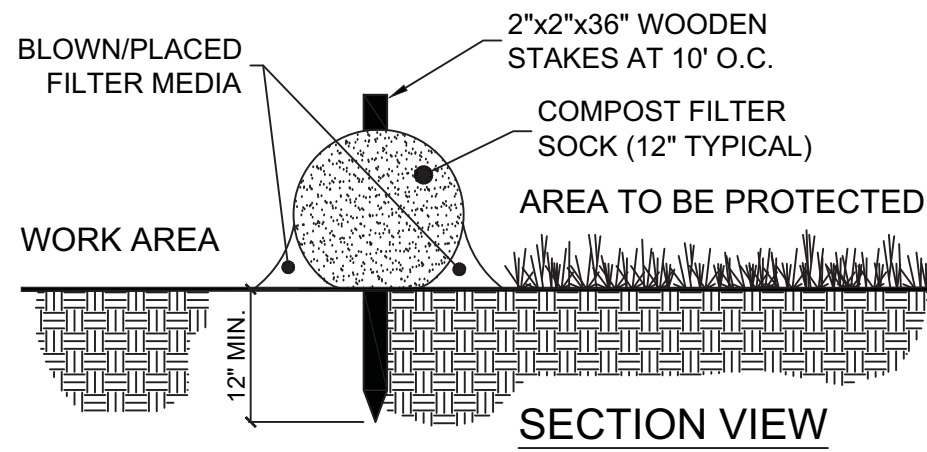
1. FOR SUBGRADES WITH A CBR GREATER THAN OR EQUAL TO 3 OR SHEAR STRENGTH GREATER THAN 90 KPA, GEOTEXTILE MUST MEET REQUIREMENTS OF SECTION AASHTO M288-98 SECTION 7.3, SEPARATION REQUIREMENTS.
2. FOR SUBGRADES WITH A CBR BETWEEN 1 AND 3 OR SHEAR STRENGTH BETWEEN 30 AND 90 KPA, GEOTEXTILE MUST MEET REQUIREMENTS OF SECTION AASHTO M288-98 SECTION 7.4, STABILIZATION REQUIREMENTS.

CONSTRUCTION EXIT SHALL BE CONSTRUCTED IN ACCORDANCE WITH SPECIFICATION Co - CONSTRUCTION EXIT IN THE M.E.S.C.I.G.

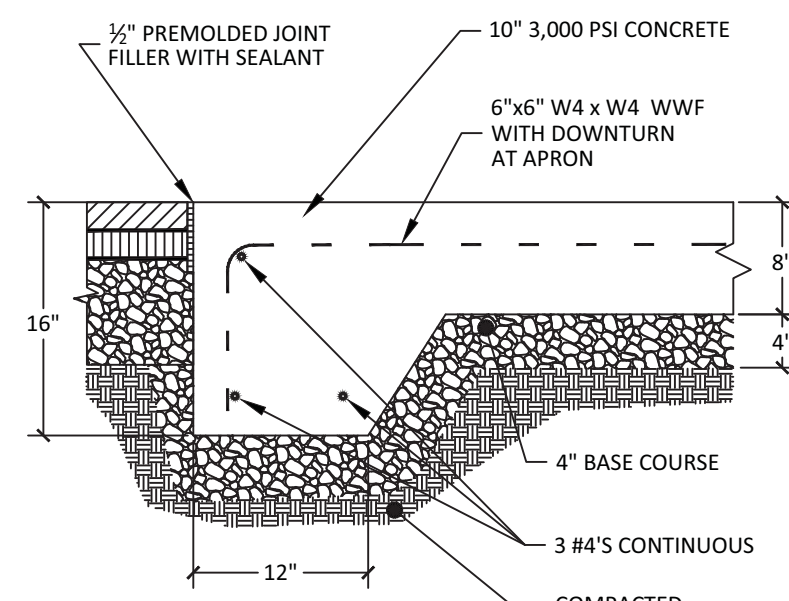
MAINTENANCE
THE EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 1.5"-3.5" STONE, AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY STRUCTURES TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES OR SITE ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.



CONSTRUCTION EXIT
SCALE: NONE



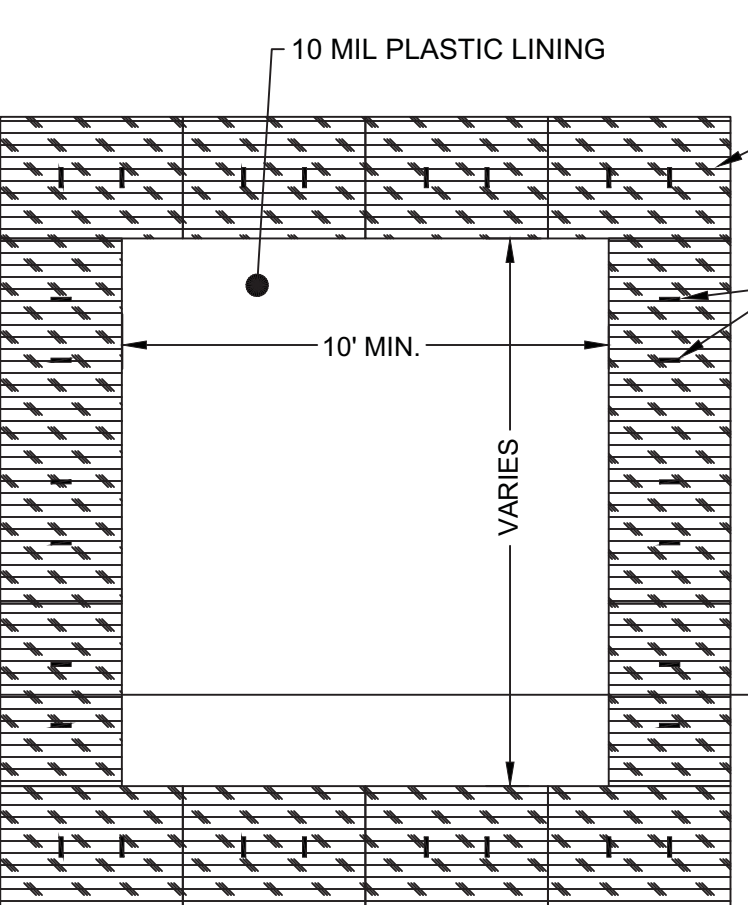
COMPOST FILTER SOCK
SCALE: NONE



NOTES:

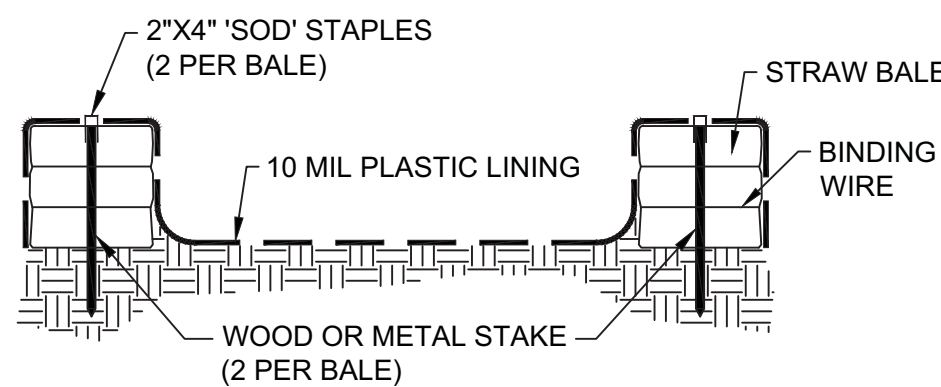
1. CONCRETE SHALL BE 3,000 PSI @ 28 DAYS.
2. REINFORCEMENT - 6X6-W4 x W4 WWF.
3. SUB-GRADE TO BE COMPACTED 98% OF MAXIMUM DRY DENSITY PER STANDARD PROCTOR ASTM D698.
4. PROVIDE CONTROL JOINT AT 15' O.C. AND 1/2" WIDE EXPANSION JOINT AT 50' INTERVALS.
5. PROVIDE 1/2" EXPANSION MATERIAL AT CURBS, RIGID STRUCTURES, RIGID PAVEMENT, AND ALL VERTICAL SURFACES.
6. TOOL ALL EXPOSED EDGES AND JOINTS TO 1/4" RADIUS.
7. BROOM FINISH ACROSS DIRECTION OF TRAVEL.
8. MAXIMUM CROSS SLOPE: 2%, MAXIMUM SLOPE IN THE DIRECTION OF TRAVEL: 5%.

CONCRETE SLAB W/APRON
SCALE: NONE



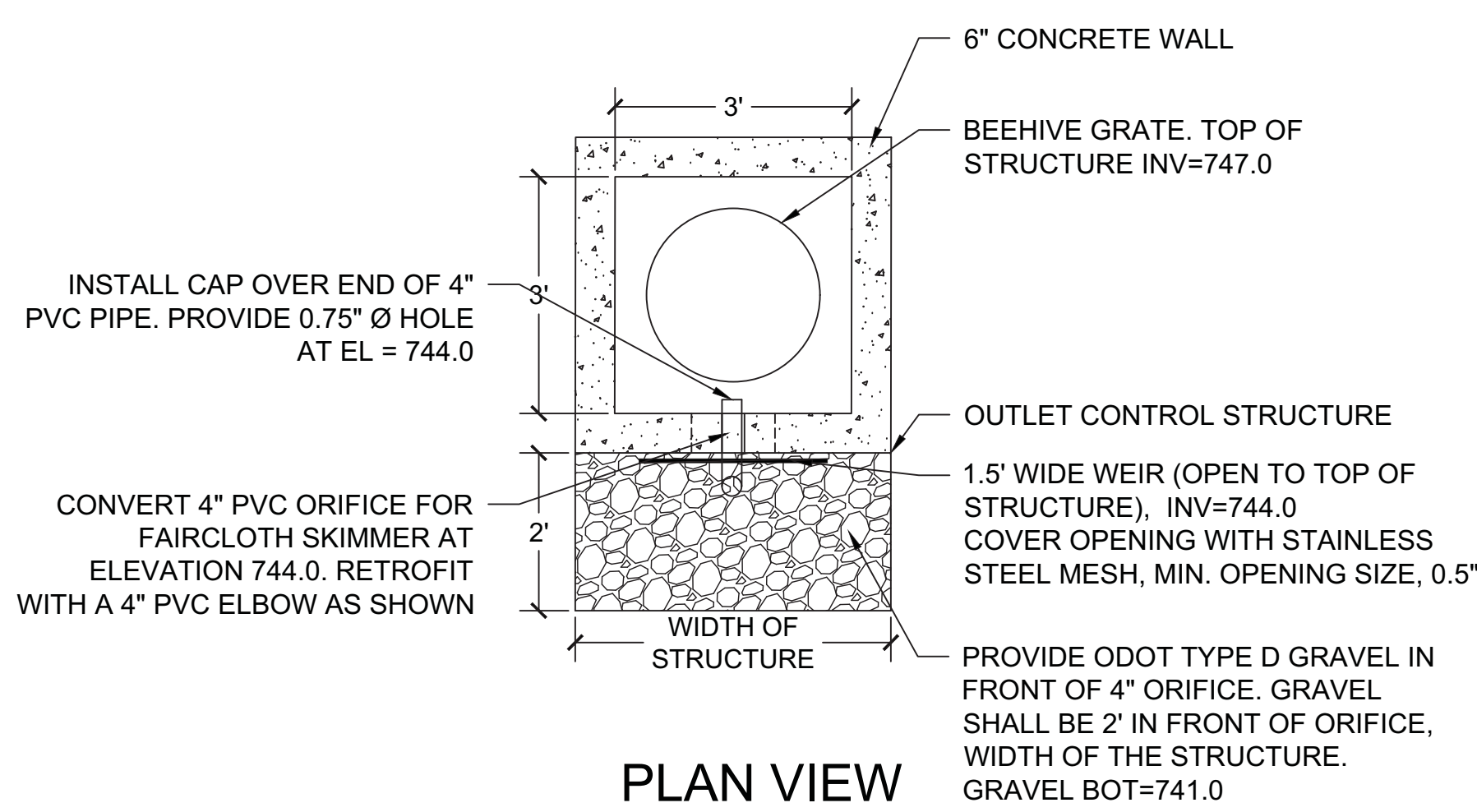
NOTES

1. AREA TO BE USED TO WASHDOWN TOOLS, CONCRETE MIXER CHUTES, HOPPERS AND THE REAR OF VEHICLES. **WASHOUT OF THE DRUM AT CONSTRUCTION SITE IS PROHIBITED.**
2. WASHDOWN FACILITY MUST BE CLEANED, OR NEW FACILITIES MUST BE CONSTRUCTED AND READY FOR USE ONCE WASHDOWN AREA IS 75% FULL.

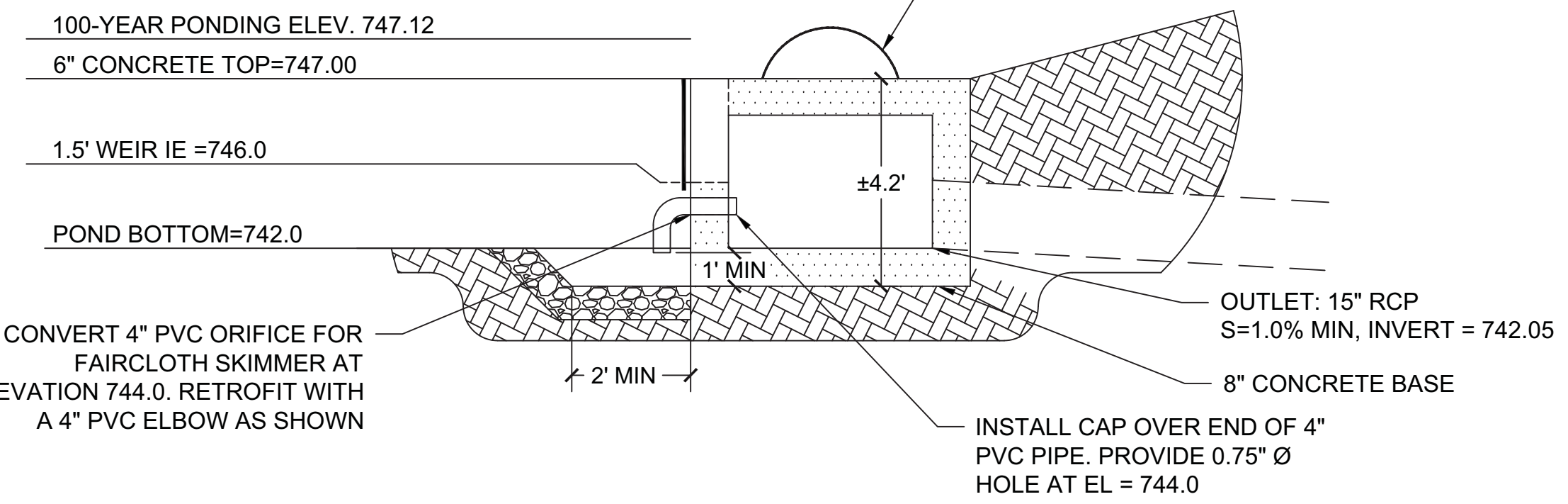


SECTION A-A

ABOVE GROUND CONCRETE WASHDOWN
SCALE: NONE

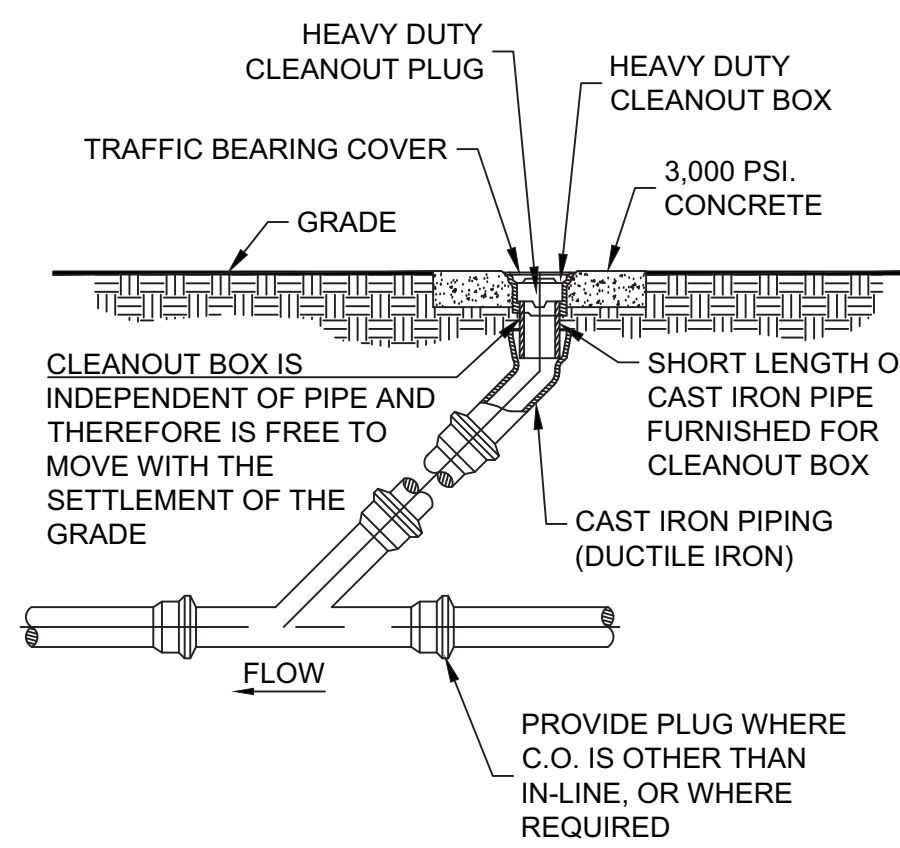


PLAN VIEW

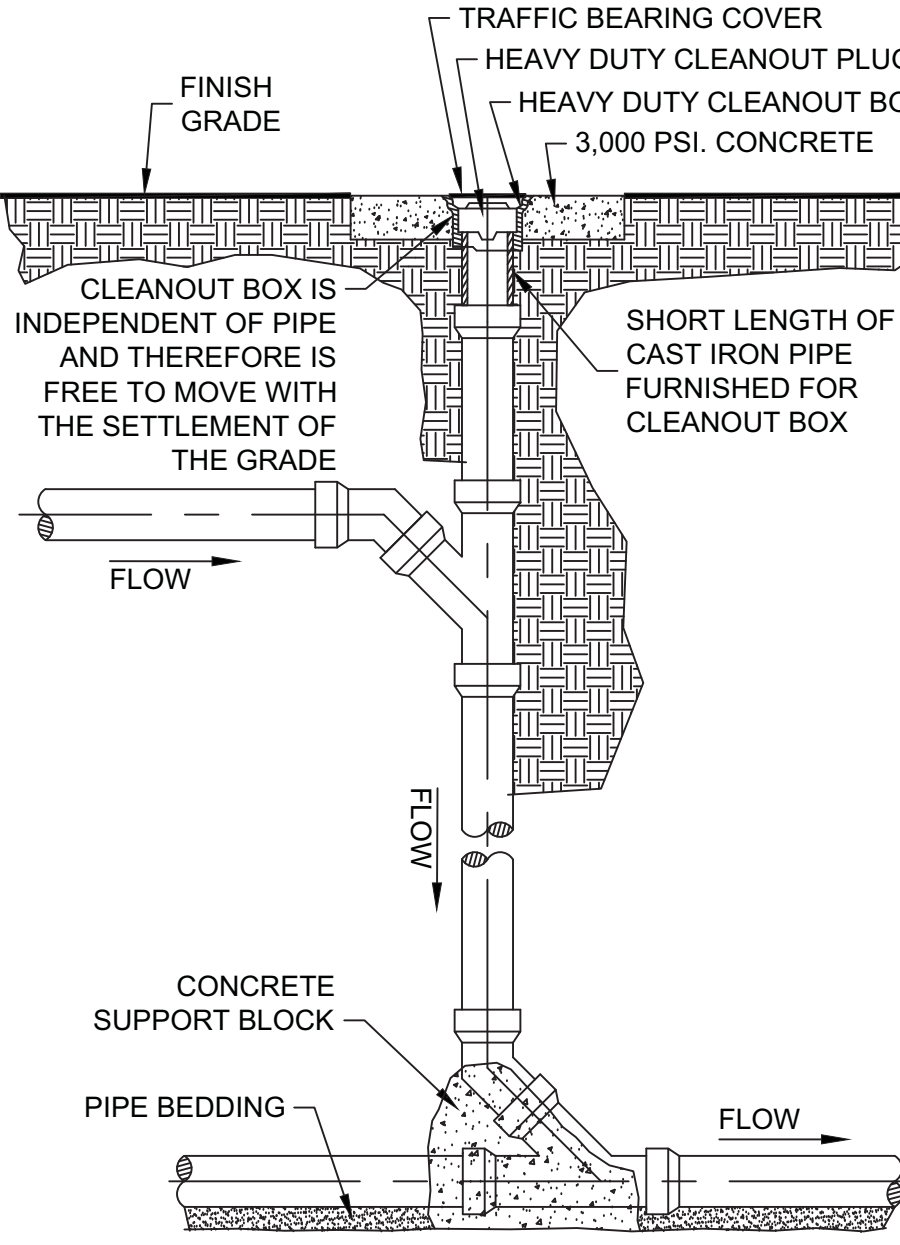


SECTION VIEW

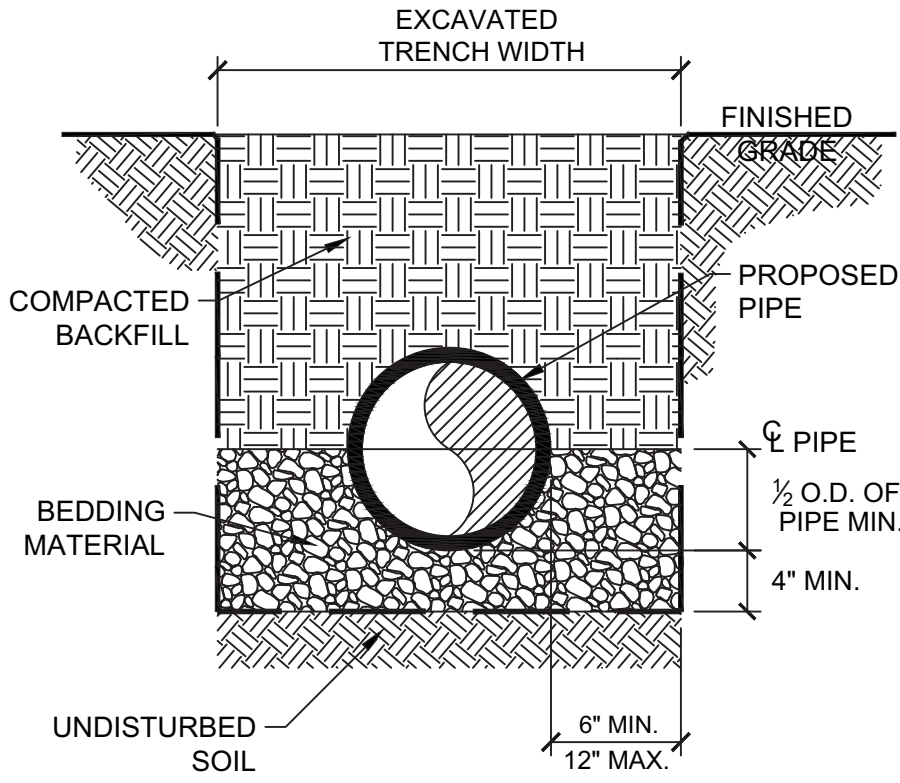
POST CONSTRUCTION OUTLET CONTROL STRUCTURE
SCALE: NONE



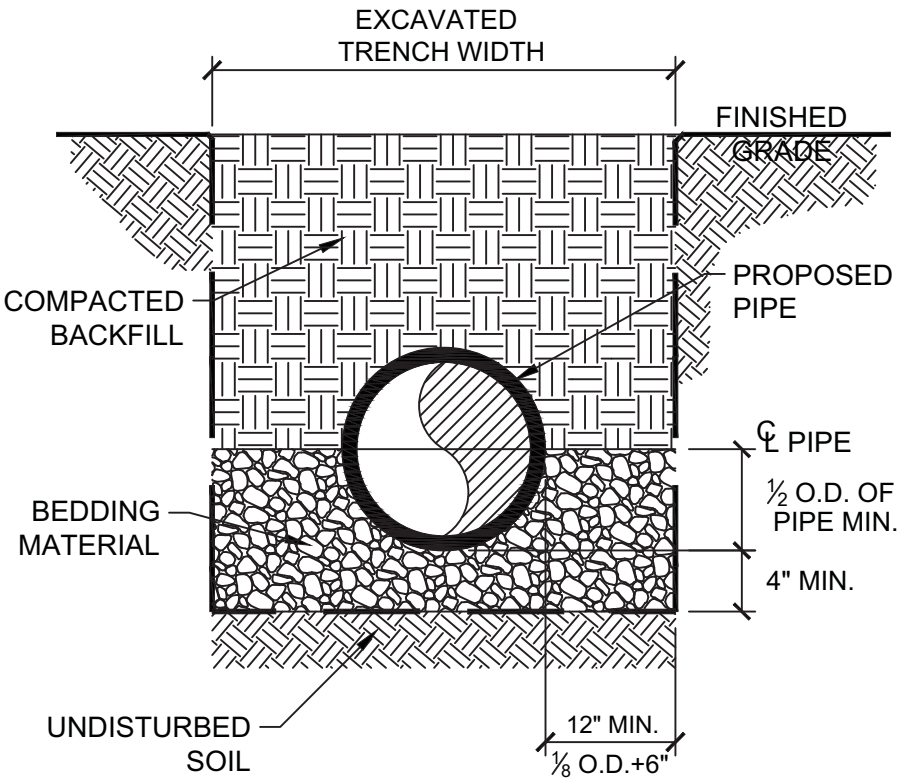
EXTERIOR CLEAN OUT
SCALE: NONE



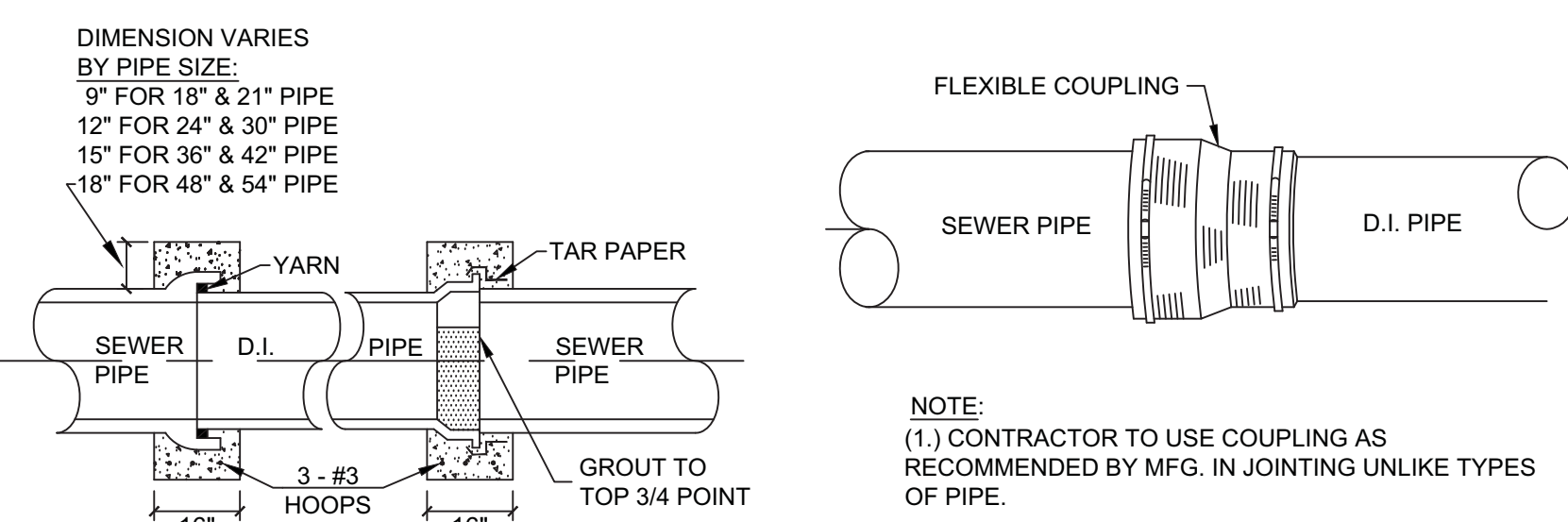
SANITARY VERTICAL DROP CONNECTION
SCALE: NONE



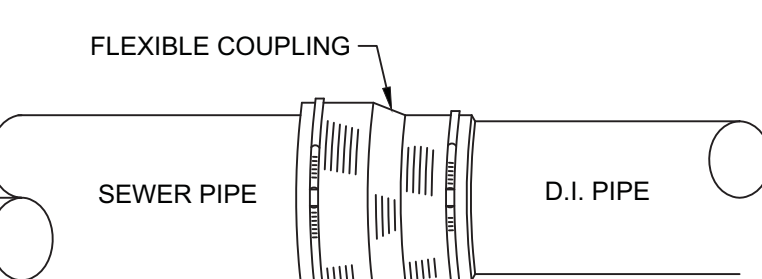
UTILITY PIPE BEDDING
SCALE: NONE



STORM PIPE BEDDING
SCALE: NONE



TYPICAL DETAIL CONC. COLLAR FOR JOINTING D.I. PIPE TO SEWER PIPE
CONC. COLLAR TO BE USED FOR 18" & LARGER PIPE
N.T.S.



TYPICAL DETAIL FLEXIBLE COUPLING FOR JOINTING D.I. PIPE TO SEWER PIPE
N.T.S.

JOINTING D.I. PIPE TO SEWER PIPE
SCALE: NONE



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NE Group
ENGINEERING - PLANNING - DESIGN
INFO@THEGROUP.COM

TUCKERMAN DEVELOPMENT

RETAIL DEVELOPMENT
301 N. MAIN STREET
MONROE, OHIO
ZONING: C-2

REVISIONS		
1		
2		
3		
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5		

SHEET NAME:
SITE GRADING DETAILS

DATE: 11/22/2021

DRAWN BY: CD

CHECKED BY: LE

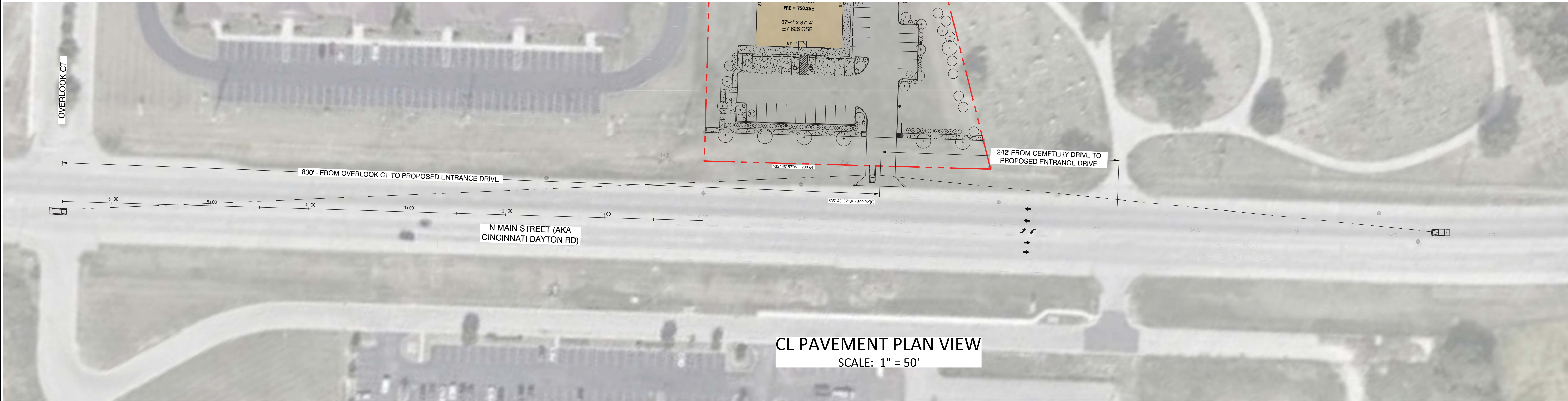
PROJECT NO.: 21-888

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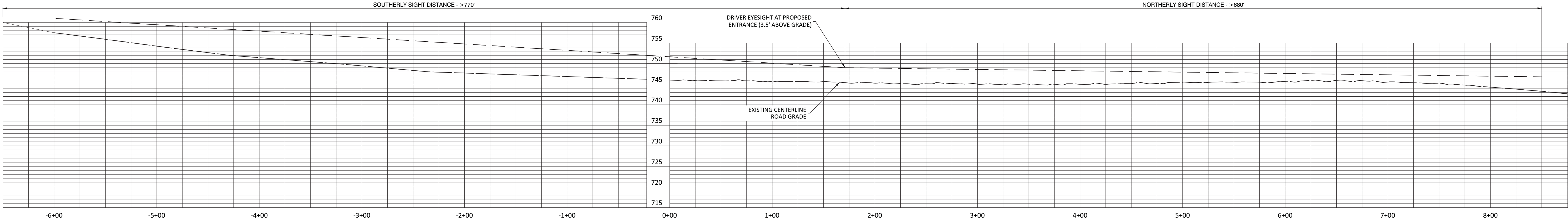
C301



C400



CL PAVEMENT PLAN VIEW
SCALE: 1" = 50'



CL PAVEMENT PROFILE
SCALE:
VERT: 1" = 12.5'
HOR: 1" = 50'

NOTE: STATION 0+00.00 REPRESENTS THE EXTENSION OF THE SUBJECT PARCEL'S SOUTHERLY PROPERTY LINE TO THE CL OF PAVEMENT.

NOTE: AERIAL SOURCE = OGRIP DATA (OHIO GEOGRAPHICALLY REFERENCED INFORMATION PROGRAM)
SURFACE = LIDAR DATA (OHIO GEOGRAPHICALLY REFERENCED INFORMATION PROGRAM)



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TUCKERMAN
DEVELOPMENT

RETAIL DEVELOPMENT
301 N. MAIN STREET
MONROE, OHIO
ZONING: C-2

REVISIONS		
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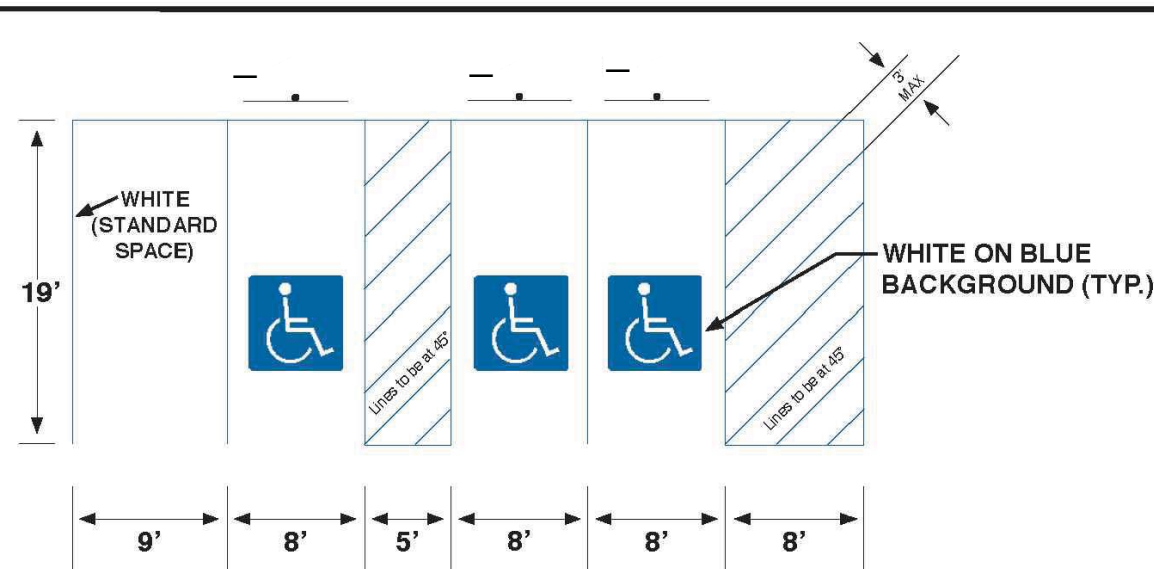
SHEET NAME:
SITE-LINE DISTANCE
PLAN & PROFILE

DATE: 11/22/2021
DRAWN BY: CD
CHECKED BY: LE
PROJECT NO.: 21-888

SHEET NUMBER:
C500

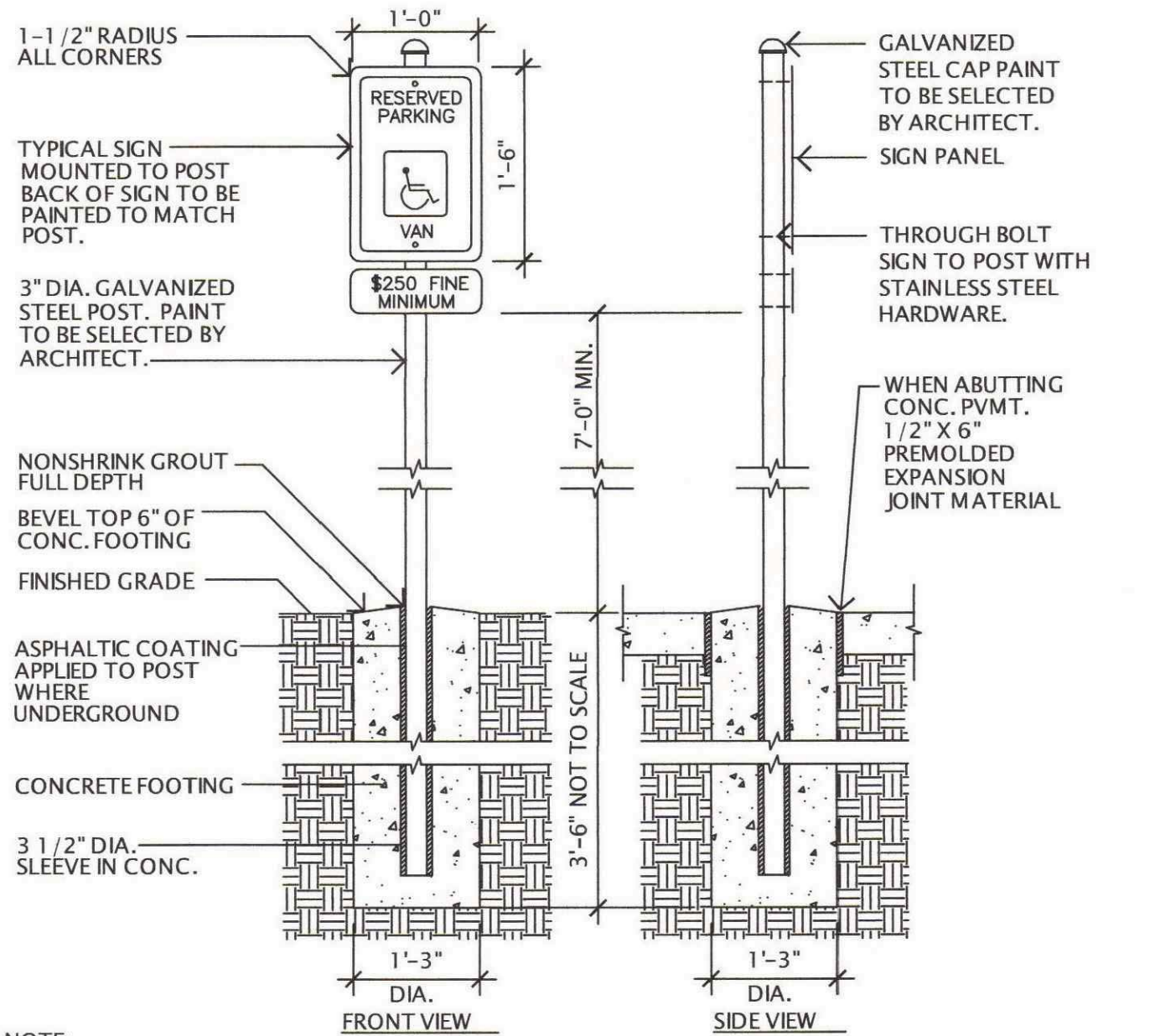
1. ALL PAINTED PARKING STALL LINES FOR HANDICAPPED PARKING SPACES SHALL BE BLUE 4" WIDE LINES.
2. CROSSHATCHING IN THE ACCESS AISLE SHALL BE 4" WIDE SOLID BLUE LINES. TO EMPHASIZE THAT PARKING IS PROHIBITED IN CROSSHATCHED AREAS.
3. THE ACCESS AISLE MAY BE SHARED BY 2 HANDICAPPED SPACES.
4. ONE OF EVERY 6 HANDICAPPED SPACES AND NO LESS THAN ONE SHALL BE VAN ACCESSIBLE.
5. A SEPARATE SIGN SHALL BE PROVIDED FOR EACH HANDICAPPED PARKING SPACE.
6. MOUNTING HEIGHT FOR SIGN MAY BE REDUCED TO 5' ABOVE GROUND LEVEL IF IT IS LOCATED IN A NON-PEDESTRIAN AREA, SUCH AS ON A BUILDING OR IN A LANDSCAPED AREA.
7. VAN ACCESSIBLE SIGN, WHEN USED, SHALL BE MOUNTED BELOW HANDICAPPED PARKING SIGN.
8. HANDICAPPED PARKING MUST BE PLACED IN THE NEAREST ACCESSIBLE PATHWAY TO ENTRANCE.

Required Minimum Number of Accessible Handicapped Parking Spaces	
Total Parking in Lot	Handicapped Spaces Required
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 300	7
301 to 400	8
401 to 500	9
501 to 1000	2% of Total
1001 to Over	20 + 1 for each 100 over 1000

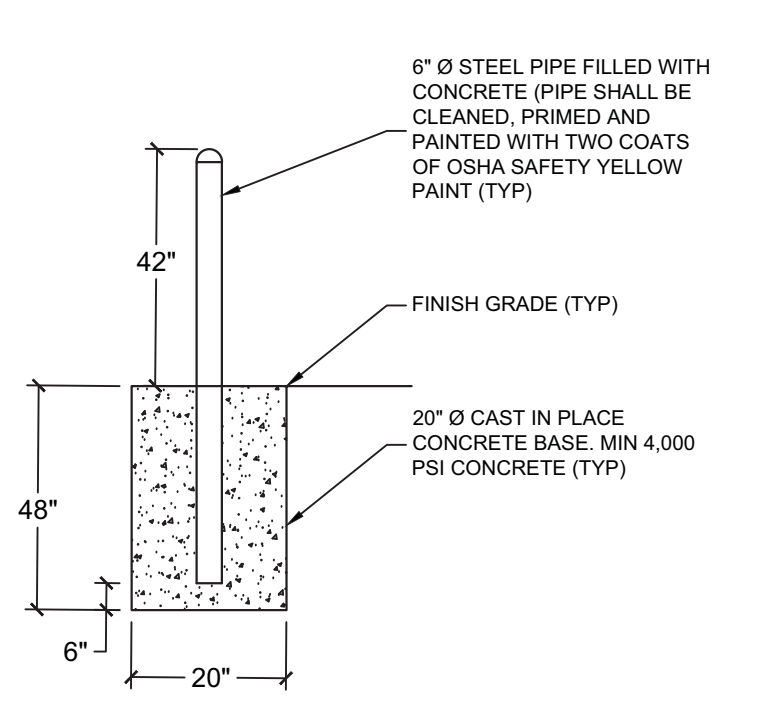


ACCESSIBLE PARKING SIGNAGE & STRIPING

SCALE: NONE



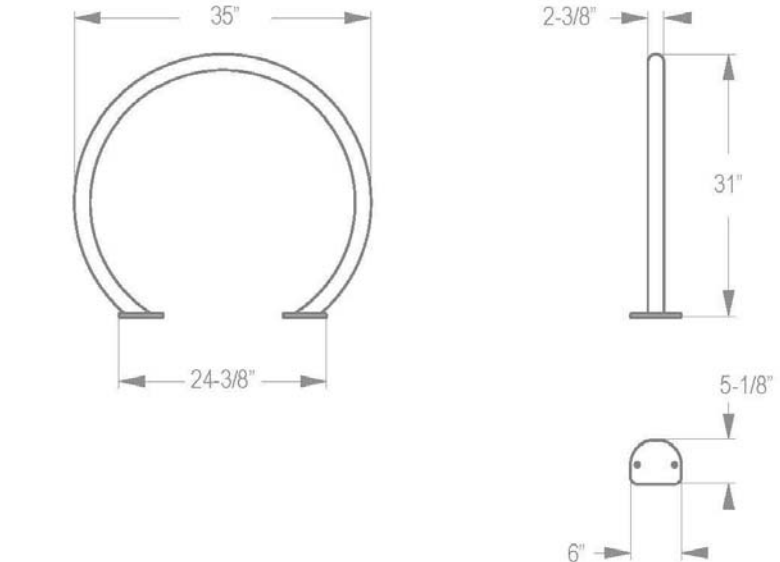
NOTE: WHEN SIGN POST IS TO BE LOCATED WITHIN A PAVED AREA, SET SLEEVE IN CONCRETE FOOTING TO RECEIVE POST. WHEN SIGN POST IS LOCATED WITHIN A LAWN OR PLANT BED, SET POST DIRECTLY IN CONCRETE FOOTING WITHOUT A SLEEVE. IN CIRCUMSTANCES WHERE SIGN IS TO BE MOUNTED ON BUILDING, CONSULT WITH THE OWNER/ARCHITECT.



INSTALL BOLLARDS AT ALL ROLL UP/OVERHEAD DOORS AND BUILDING CORNERS. REFER TO BUILDING PLANS FOR ADDITIONAL COORDINATION

BOLLARD

SCALE: NONE



- NOTES:
1. RACK SHALL BE MOUNTED TO 4" THICK CONCRETE PAD AS SHOWN ON SITE PLANS;
 2. BIKE CIRCULAR BIKE RACK SHALL BE BELSON OUTDOORS MODEL CBBR-2CR-BK OR APPROVED EQUAL;
 3. POWDER COAT BLACK, GROUND MOUNTED

CIRCULAR BICYCLE RACK

SCALE: NONE

REFERENCE ODOT STANDARD CONSTRUCTION DRAWINGS:

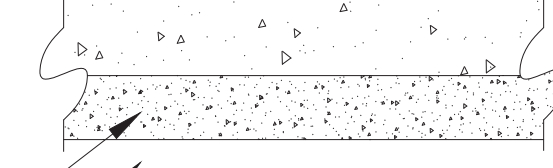
- SHEET BP-5.1 CONCRETE CURBS
SHEET BP-7.1 NEW CURB RAMPS
SHEET RM-3.1 TRAFFIC DIVIDERS
SHEET MH 1 MANHOLE NO.1 - FRAME & COVER

ALL PAVEMENT SECTION MATERIALS SHALL CONFORM TO ODOT STANDARD SPECIFICATIONS & GEOTECH REPORT

PAVEMENT SECTIONS

SCALE: NONE

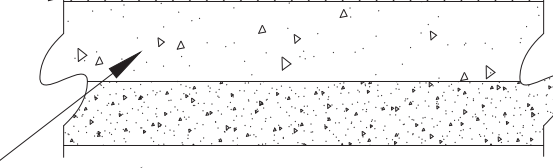
- 1.5" SURFACE COURSE (ODOT #448 TYPE1)
3.0" INTERMEDIATE COURSE (ODOT#448 TYPE 2)



- 8" THICK, DENSE GRADED GRANULAR BASE COURSE (ODOT #304)
COMPACTED SUBGRADE IN ACCORDANCE WITH GEOTECH (TTL) SPECIFICATIONS

HEAVY DUTY ASPHALT SECTION NOT TO SCALE

- 1.5" SURFACE COURSE (ODOT #448 TYPE1)
2.5" INTERMEDIATE COURSE (ODOT#448 TYPE 2)



- 6" THICK, DENSE GRADED GRANULAR BASE COURSE (ODOT #304)
COMPACTED SUBGRADE IN ACCORDANCE WITH GEOTECH (TTL) SPECIFICATIONS

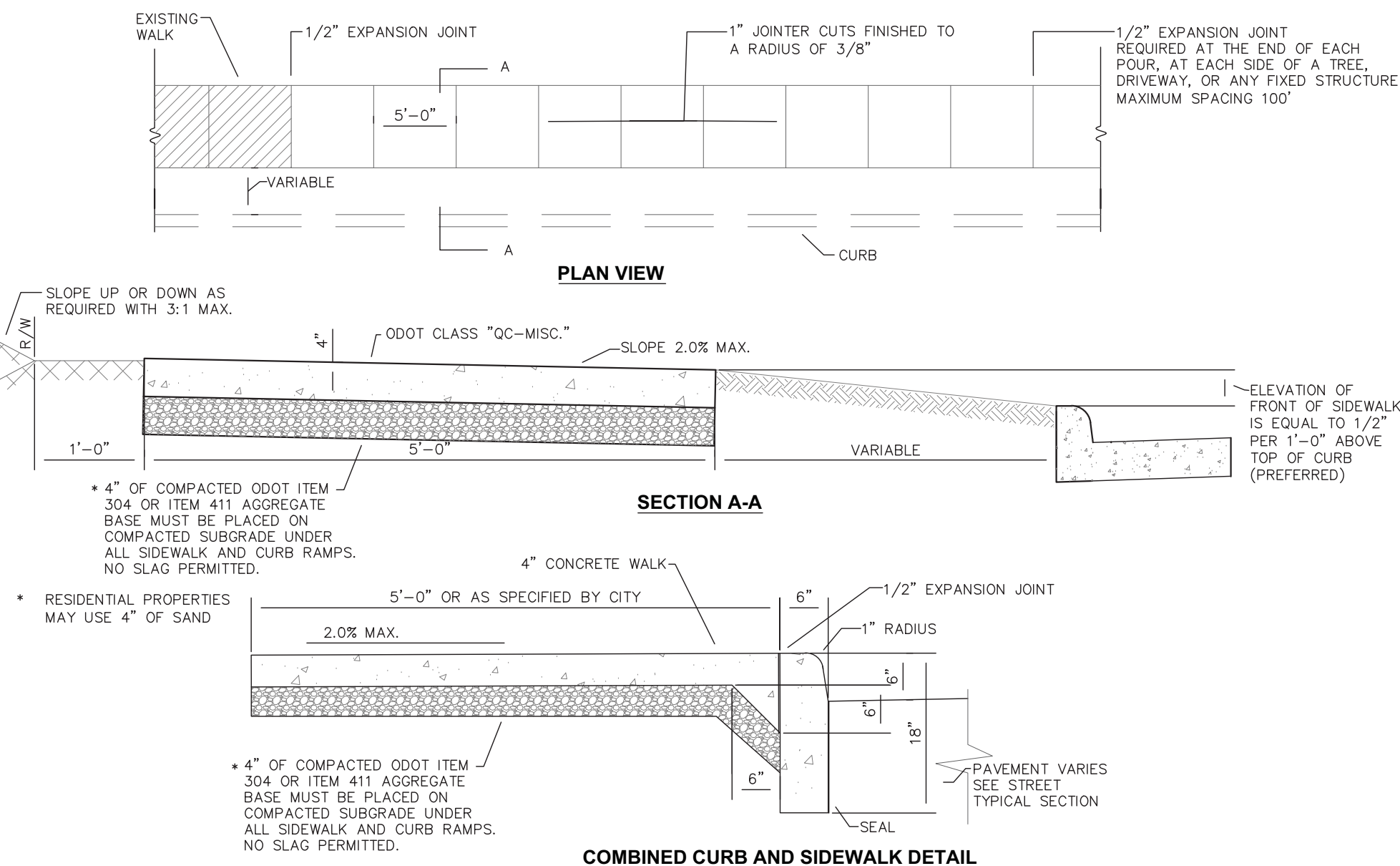
LIGHT DUTY ASPHALT SECTION NOT TO SCALE

- 8" THICK, AIR ENTRAINED CONCRETE SLAB REINFORCED WITH #4 DEFORMED REBAR (MIN) 12" OC EACH WAY, 2" MIN COVER, 4,000 PSI MIN. (12" THICKENED AT EDGES)



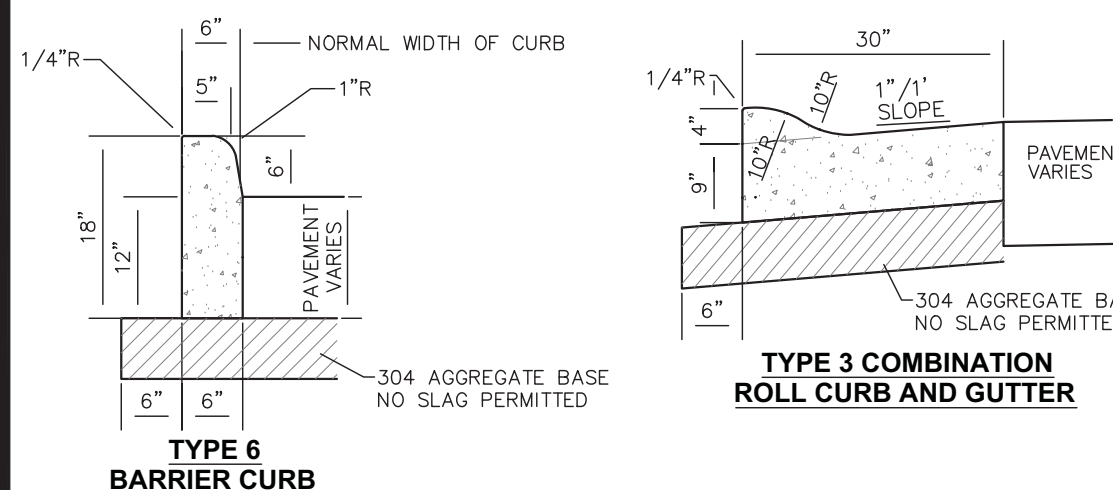
- 8" THICK, DENSE GRADED GRANULAR BASE COURSE (ODOT #304)
COMPACTED SUBGRADE IN ACCORDANCE WITH GEOTECH (TTL) SPECIFICATIONS

DUMPSTER PAD/ APPROACH PAD NOT TO SCALE



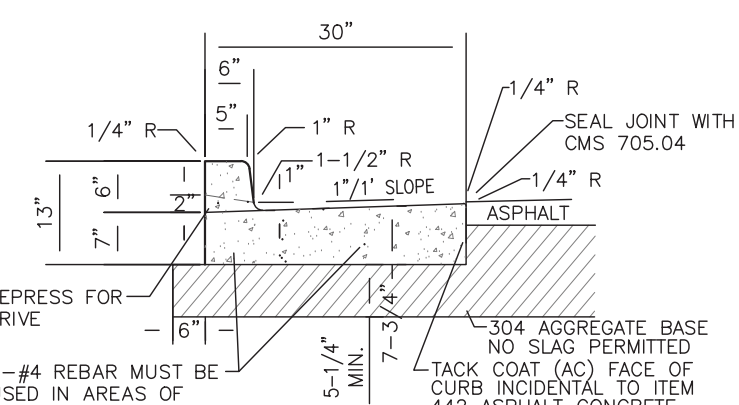
MONROE STANDARD SIDEWALK

SCALE: NONE



TYPE 6 BARRIER CURB

TYPE 3 COMBINATION ROLL CURB AND GUTTER



TYPE 1 COMBINATION CURB AND GUTTER

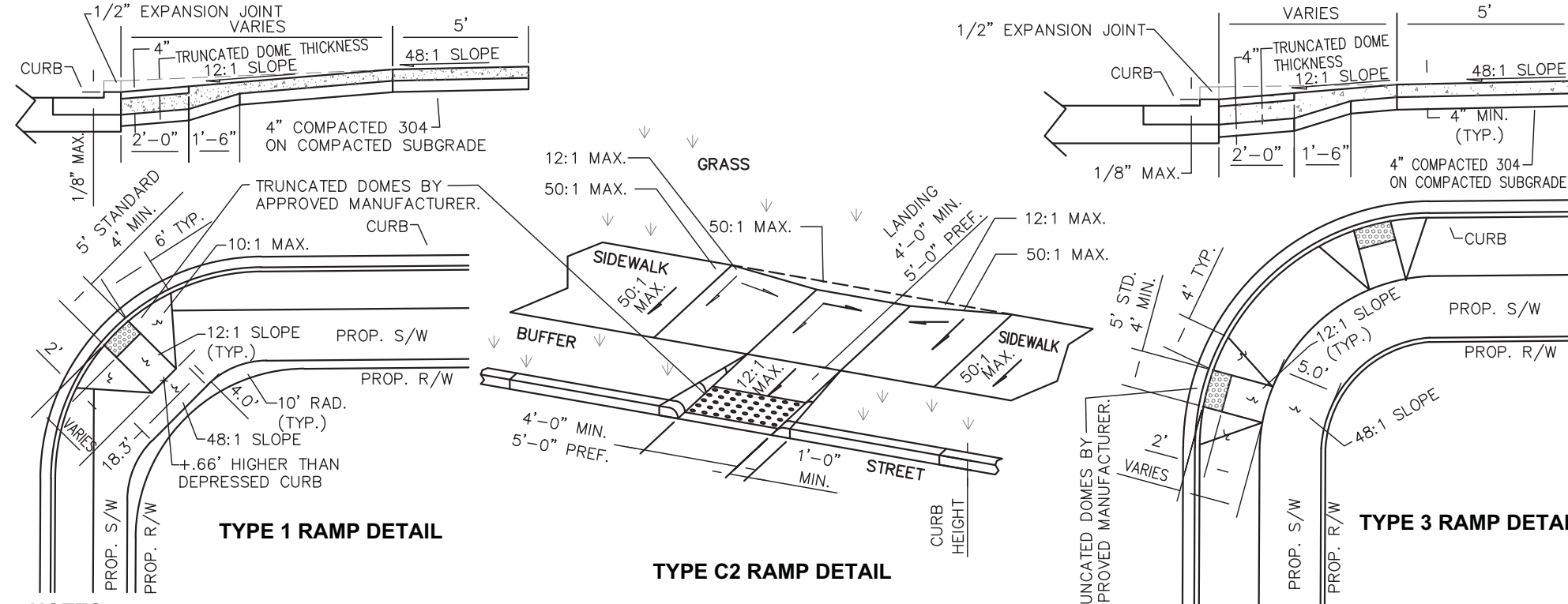
GENERAL NOTES

- A. CONCRETE AND WORK MUST MEET THE REQUIREMENTS SET FORTH IN ODOT QC MISC. (CEMENT ONLY - NO POZZOLAN MATERIAL)
- B. CURBING MUST HAVE CONTRACTION JOINTS EVERY 10'.
- C. MINIMUM OF 6" OF ODOT 304 MUST BE PLACED UNDER CURBING, NO SLAG PERMITTED.
- D. CURBING MUST BE BACKFILLED IMMEDIATELY AFTER FORMS ARE REMOVED.
- E. PROVIDE BROOM FINISH AND EDGING TO ALL EXPOSED SURFACES.
- F. USE APPROVED CURING COMPOUND IMMEDIATELY AFTER FINISHING SURFACES OR OTHER APPROVED METHOD.
- G. 1/2" PREMOLED EXPANSION JOINTS MUST BE INSTALLED AT EACH SIDE OF DRIVE APPROACH SECTIONS AND AT P.C. POINTS, AT INTERSECTIONS, AND AT 100' MAX. INTERVALS.
- H. ALL UNDERGROUND UTILITY LATERALS MUST BE MARKED IN THE TOP OF ALL CURB WHILE IT IS BEING POURED AS FOLLOWS.

TYPE 6 CURBS ARE FOR USE AROUND MEDIAN SECTION.

MINIMUM FLOW LINE SLOPE OF PERFORATED PIPE IS 0.003 FT/FT TO OUTLET.

NEW CONSTRUCTION: CURB STAKING REQUIRED AT A MINIMUM 25' STATIONS, ALL P.C.'S, P.T.'S, P.V.'S, AND CHANGES IN GRADES OR ALIGNMENT.



NOTES

- A. CITY TO SPECIFY TYPE 1, 2, OR 3 CURB RAMP.
- B. ANY COMBINATION OF SIDE SLOPES ON OPPOSITE SIDES OF A RAMP MAY BE USED TO BEST FIT THE SITE.
- C. THE MINIMUM RAMP LENGTH IS 6' FROM BACK OF A 6" CURB AND MAY BE INCREASED WHERE FEASIBLE TO OBTAIN A FLATTER RAMP SLOPE OR TO BETTER BLEND WITH THE WALK CONFIGURATION.
- D. WALK THICKNESS IN THE RAMP SLOPES MUST BE 4" MINIMUM OR THICKER AS NECESSARY TO MATCH ADJACENT WALK THICKNESS, OR IN PAVED BIKEWAY SECTIONS.
- E. CURB RAMPS MUST MEET AND BE FINISHED TO AMERICANS WITH DISABILITIES ACT (A.D.A.) STANDARDS.
- F. TEXTURE OF CONCRETE SURFACE MUST BE OBTAINED BY COURSE BROOMING TRAVERSE TO THE RAMP SLOPES AND MUST BE ROUGHER THAN ADJACENT WALK.
- G. CURB RAMPS MUST MEET THE REQUIREMENTS OF ODOT ITEM 608 UNLESS OTHERWISE SPECIFIED WITHIN. REFER TO ODOT STANDARD DRAWINGS FOR ADDITIONAL CURB RAMP CONFIGURATIONS. SEE ODOT STD BP-7.1.
- H. CONCRETE MUST BE QC. MISC. (CEMENT ONLY-NO POZZOLAN MATERIAL).
- I. FOR RECONSTRUCTION JOBS, THE CURB RAMPS WILL HAVE TO BE ADDRESSED BASED ON THE EXISTING CONDITIONS.
- J. TRUNCATED DOME SPECIFICATIONS: INSTALL DETECTABLE WARNINGS (TRUNCATED DOMES) FOR A DISTANCE OF 24" FROM THE BACK OF CURB FOR THE ENTIRE WIDTH OF THE RAMP OPENING WHERE IT IS FLUSH WITH THE PAVEMENT. THE TRUNCATED DOMES MUST BE "WET SET" POWDER COATED CAST IRON OR CITY APPROVED, THE COLOR OF THE PANEL MUST BE RED, UNLESS OTHERWISE APPROVED.
- K. THE CURB RAMP MUST BE POURED ON COMPACTED GRANULAR BEDDING. CITY INSPECTION OF FORM WORK IS REQUIRED PRIOR TO PLACING CONCRETE.
- L. PROVIDE BROOM FINISH AND EDGING TO ALL EXPOSED SURFACES. TEXTURE MUST BE A MEDIUM BROOM WITH TOOL FINISH, CITY TO REVIEW AND APPROVE FIRST POUR.
- M. USE APPROVED CURING COMPOUND IMMEDIATELY AFTER FINISHING SURFACES OR OTHER APPROVED METHOD.
- N. THE ABOVE DETAILS REFLECT DESIGN AS DESIGNATED BY THE CITY OF MONROE. HOWEVER, ODOT STD BP-7.1 STANDARDS SHALL BE THE GOVERNING STANDARDS AND REFERENCED TO CONTROL FINAL CONSTRUCTION.

CURB RAMPS

SCALE: NONE



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CONSTRUCTION
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CLIENT: **NE Group**
ENGINEERING - PLANNING - DESIGN
INFO@THEGROUP.COM

TUCKERMAN
DEVELOPMENT

RETAIL DEVELOPMENT
301 N. MAIN STREET
MONROE, OHIO
ZONING: C-2

REVISIONS	
1	
2	
3	
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SHEET NAME:
DETAIL SHEET

DATE: 11/22/2021

DRAWN BY: CD

CHECKED BY: LE

PROJECT NO.: 21-888

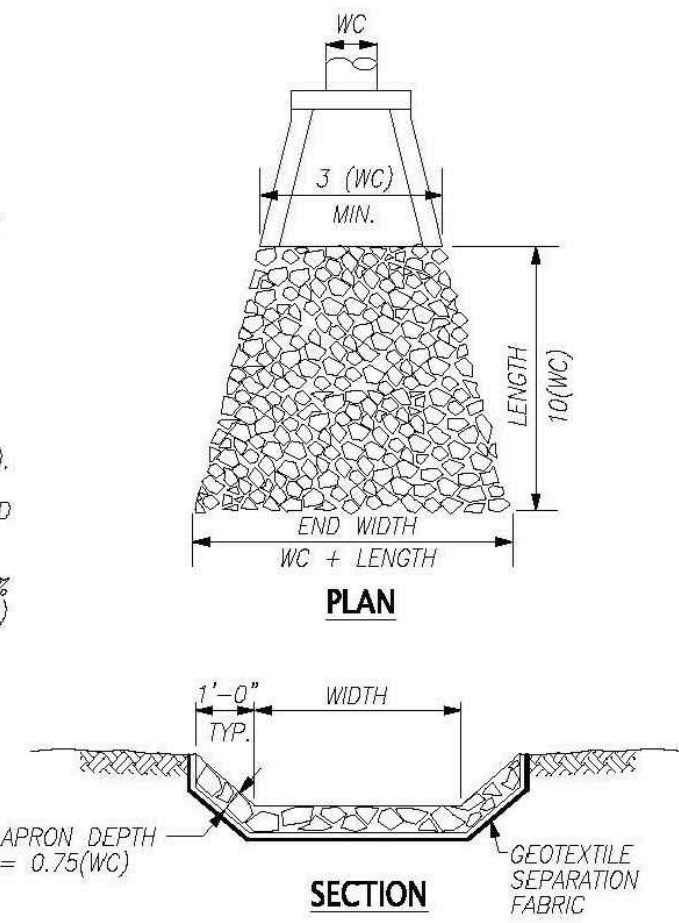
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C600



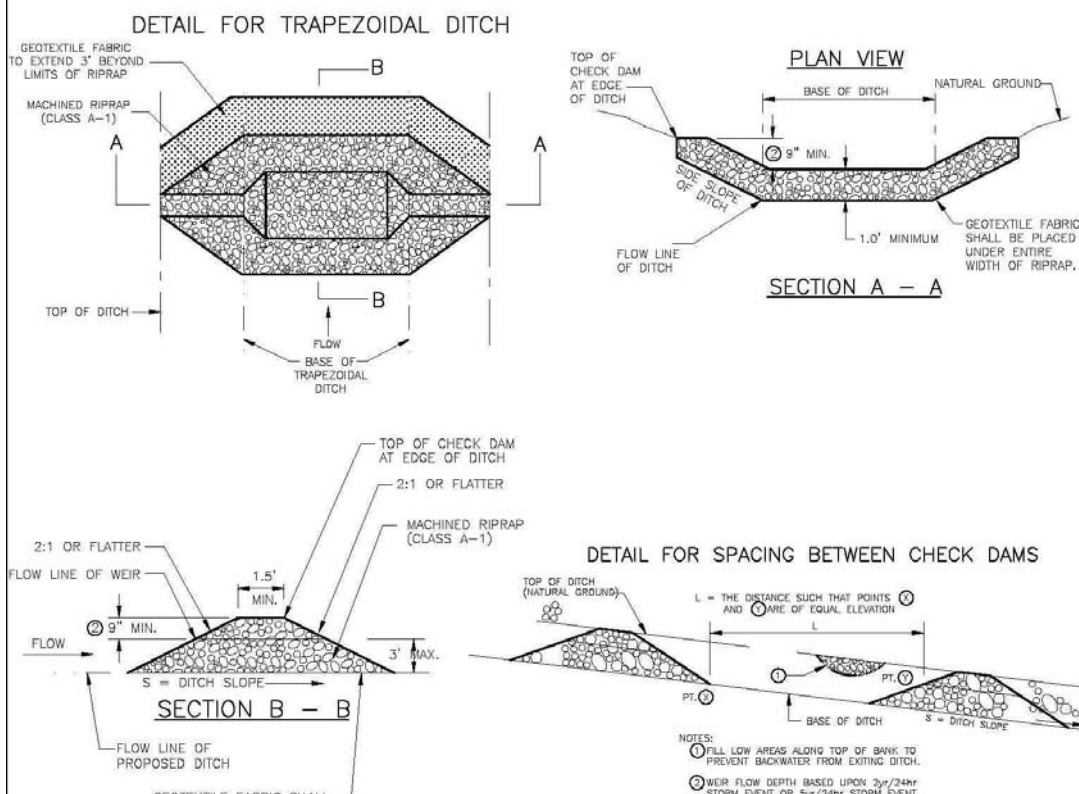
NOTES:

1. GEOTEXTILE SEPARATION FABRIC SHALL BE GEOTEX 801 (8 OZ. NON-WOVEN) BY PROPEX OR EQUAL.
2. RIPRAP AVERAGE DIAMETER, D₅₀, SHALL BE 0.33(WC).
3. RIPRAP MAXIMUM DIAMETER, D_{MAX}, SHALL BE 0.50(WC).
4. APRON DEPTH, D, SHALL BE 0.75(WC).
5. ALL ROCK SHALL BE HANDPLACED AND IN A MANNER TO MINIMIZE VOIDS.
6. THE RIPRAP APRON SHALL BE AT 0.0% GRADE (NO SLOPE ALONG ITS LENGTH).



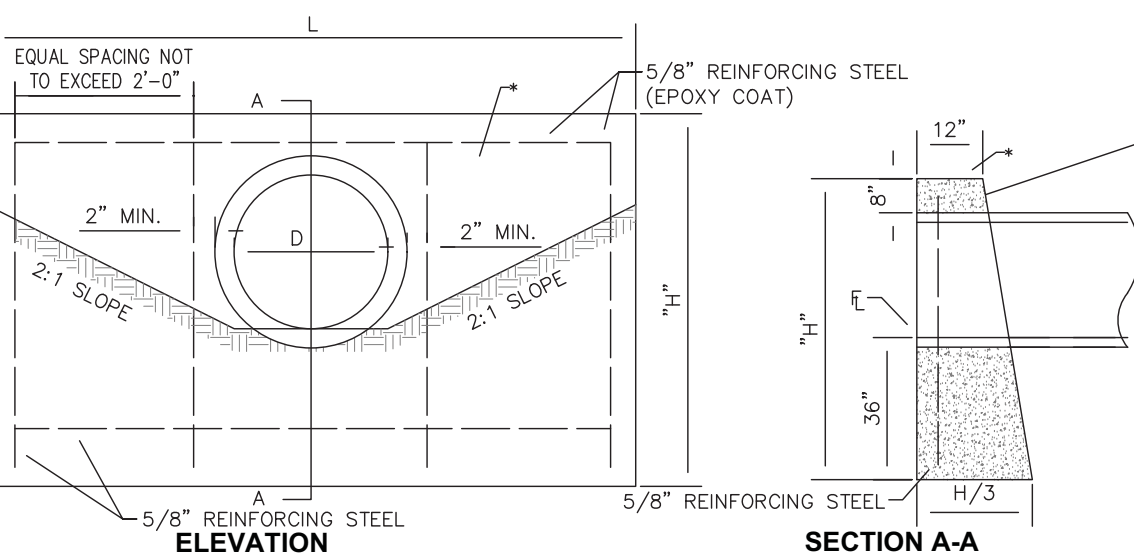
RIPRAP OUTLET

SCALE: NONE



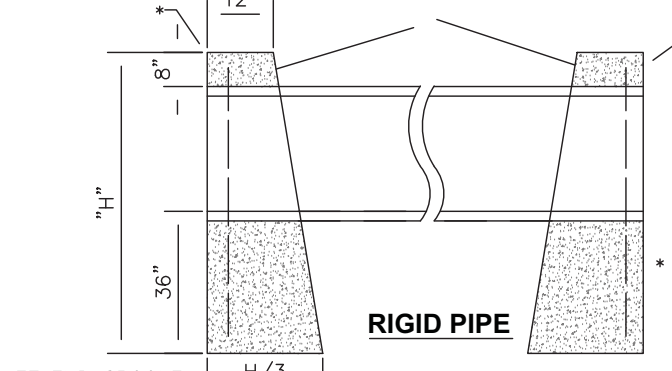
ROCK CHECK DAM

SCALE: NONE



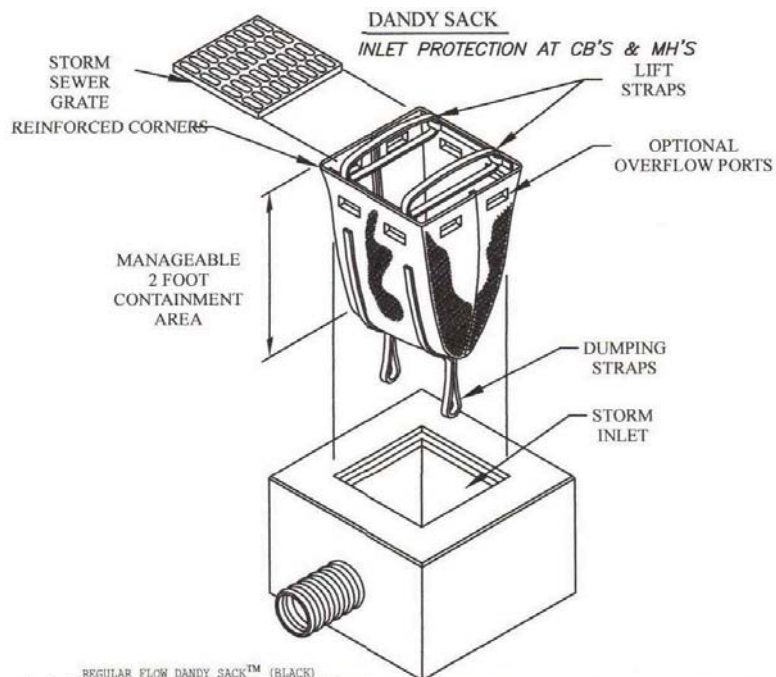
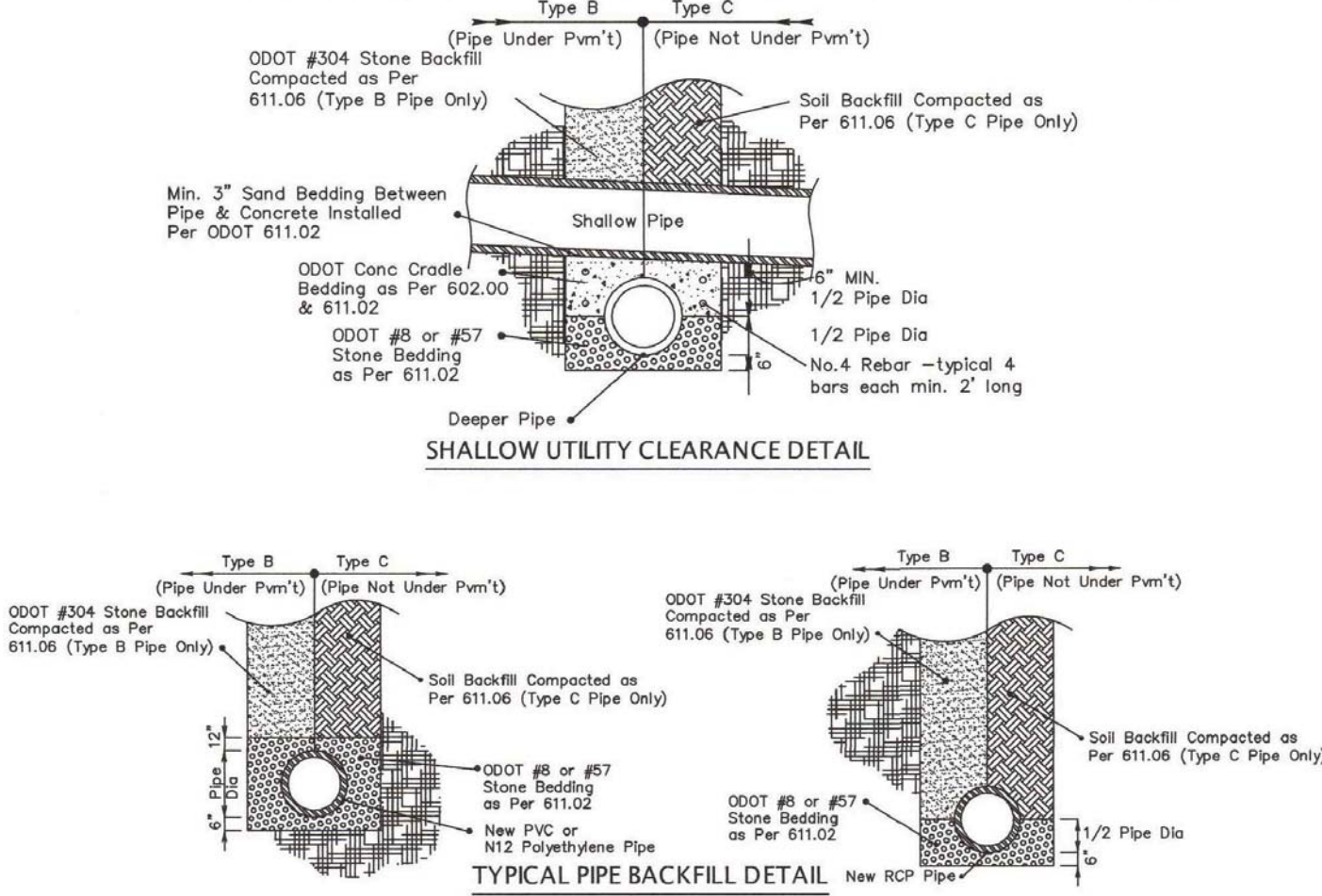
DIMENSIONS			QUANTITIES ONE HEADWALL	
DIAMETER	HEIGHT	LENGTH	CONCRETE C.Y.	REINFORCING STEEL LBS.
15"	5'-2"	7'-0"	1.7	41
18"	5'-5"	8'-4"	2.2	57
21"	5'-8"	9'-8"	2.8	62
24"	5'-11"	11'-0"	3.3	69
30"	6'-5"	13'-8"	4.7	92
36"	7'-0"	16'-4"	6.5	105

L = CIRCULAR SECTIONS
L = ELLIPTICAL OR PIPE-ARCH
H = CIRCULAR SECTIONS
H = ELLIPTICAL OR PIPE-ARCH
D = DIAMETER OF PIPE
S = SPAN OF PIPE
L = LENGTH OF HEADWALL
R = RISE OF PIPE
T = THICKNESS OF BARREL
H = HEIGHT OF HEADWALL



FULL HEIGHT HEADWALL

SCALE: NONE

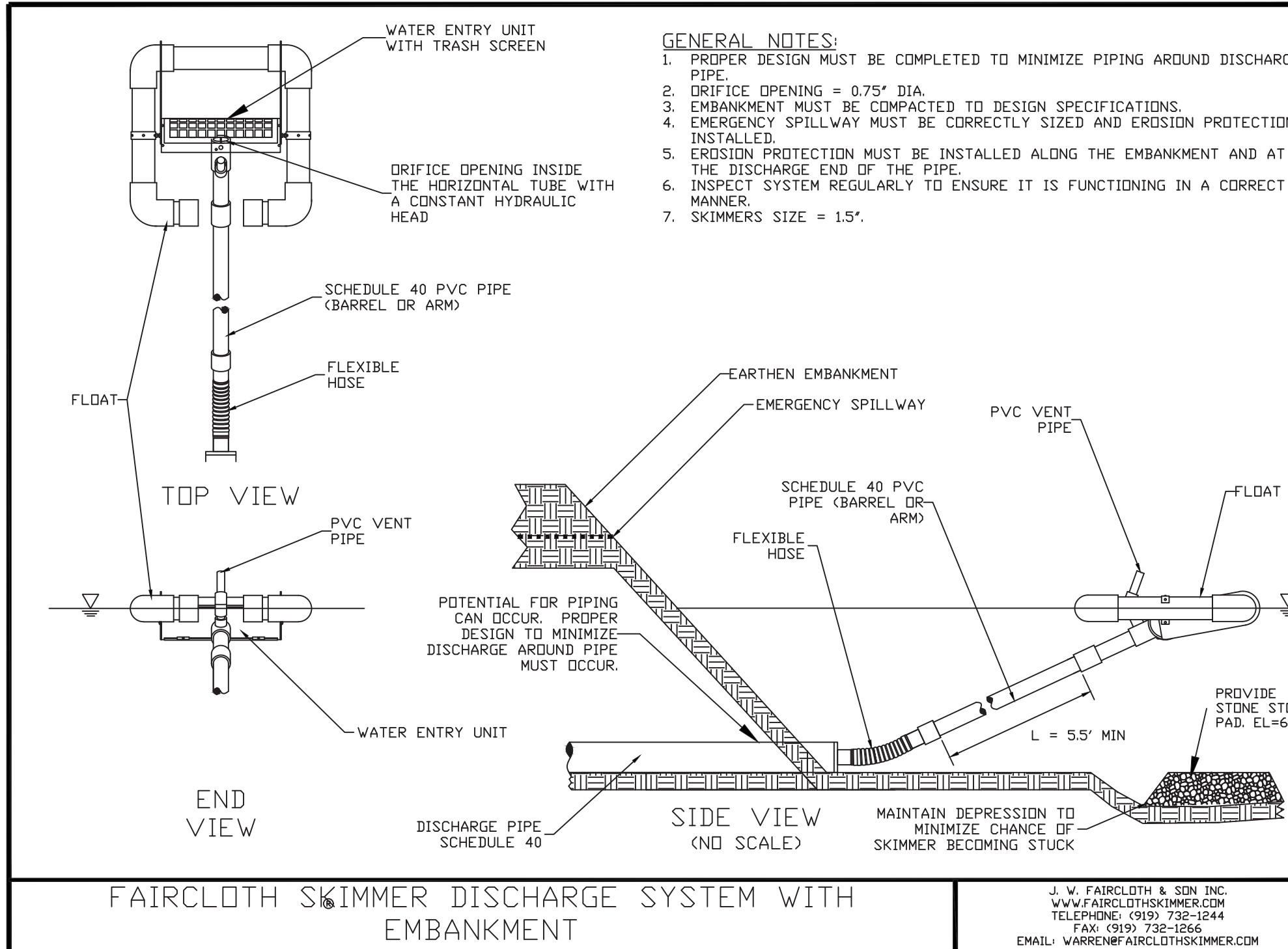


Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.78 (400) x 1.40 (315)
Grab Tensile Elongation	ASTM D 4632	%	15 x 15
Puncture Strength	ASTM D 4632	kN (lbs)	0.87 (150)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	5508 (800)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.67 (150) x 0.73 (165)
UV Resistance	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Min. (US Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	l/min/m (gal/min/ft)	2852 (70)
Permeability	ASTM D 4491	Sec	0.50

ALL STRUCTURES DESIGNATED TO BE EQUIPPED WITH INLET PROTECTION WITHIN PAVED AREAS SHALL UTILIZE THIS DETAIL.
DANDY SACK - INLET PROTECTION

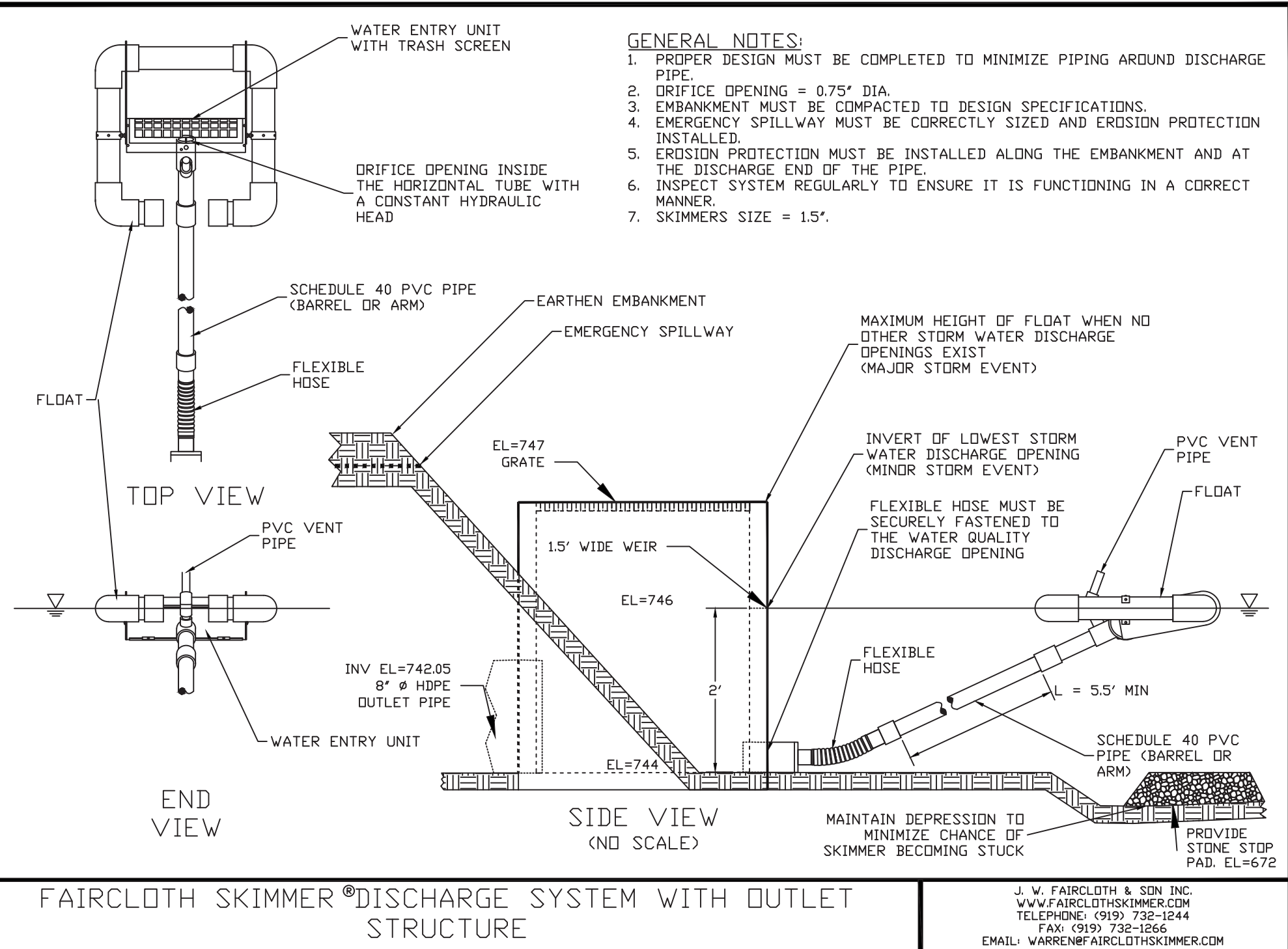
SCALE: NONE

IP



FAIRCLOTH SKIMMER®DISCHARGE SYSTEM WITH EMBANKMENT

J. V. FAIRCLOTH & SON INC.
WWW.FAIRCLOTHSKIMMER.COM
TELEPHONE: (919) 732-1244
FAX: (919) 732-1266
EMAIL: WARREN@FAIRCLOTHSKIMMER.COM



FAIRCLOTH SKIMMER®DISCHARGE SYSTEM WITH OUTLET STRUCTURE

J. V. FAIRCLOTH & SON INC.
WWW.FAIRCLOTHSKIMMER.COM
TELEPHONE: (919) 732-1244
FAX: (919) 732-1266
EMAIL: WARREN@FAIRCLOTHSKIMMER.COM

DURING CONSTRUCTION - OUTLET CONTROL STRUCTURE

SCALE: NONE



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CONSTRUCTION ADMINISTRATION NOT INCLUDED IN CONTRACT PERMIT PLANS

NE Group
ENGINEERING - PLANNING - DESIGN
INFO@THENEGROUP.COM

TUCKERMAN DEVELOPMENT

CLIENT:

RETAIL DEVELOPMENT
301 N. MAIN STREET
MONROE, OHIO
ZONING: C-2

PROJECT:

REVISIONS		
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4		
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SHEET NAME:
DETAIL SHEET

DATE: 11/22/2021

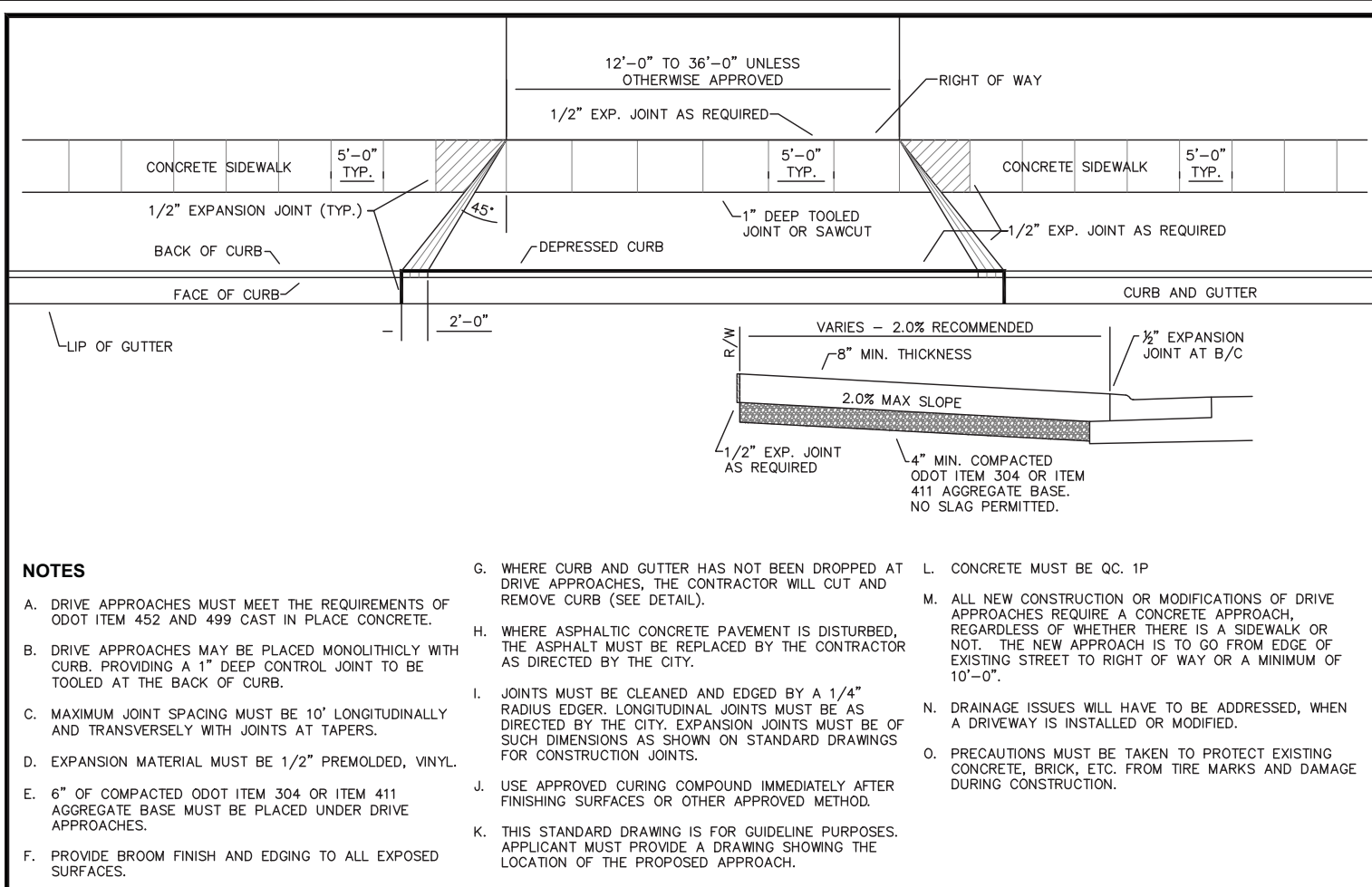
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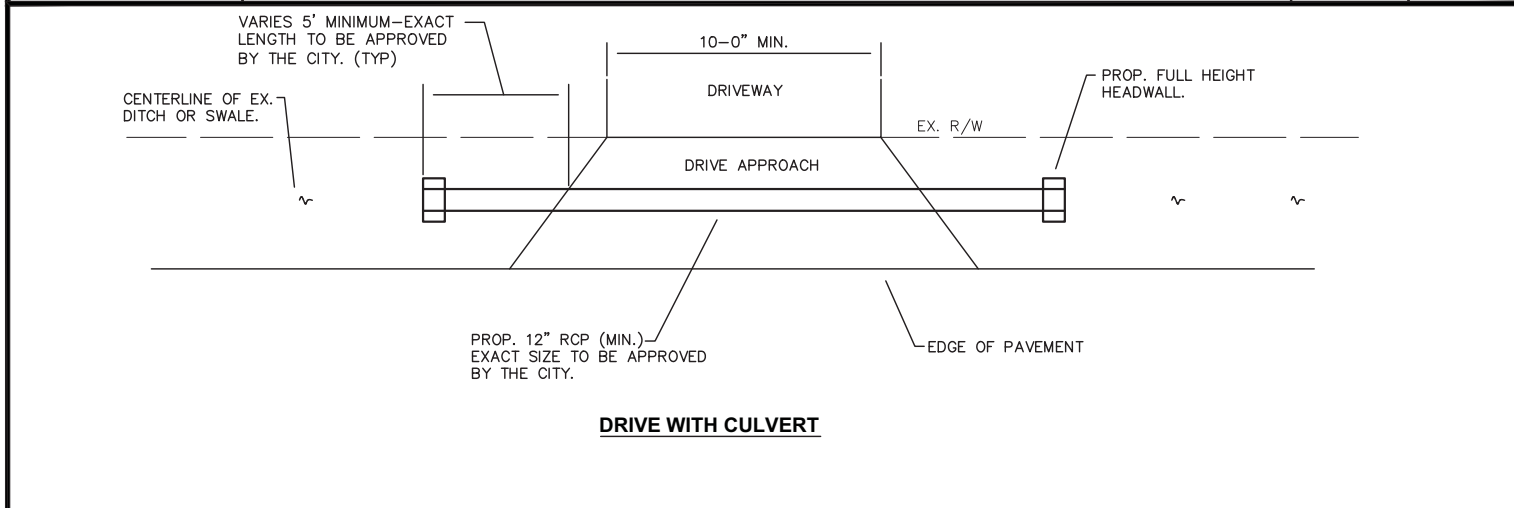
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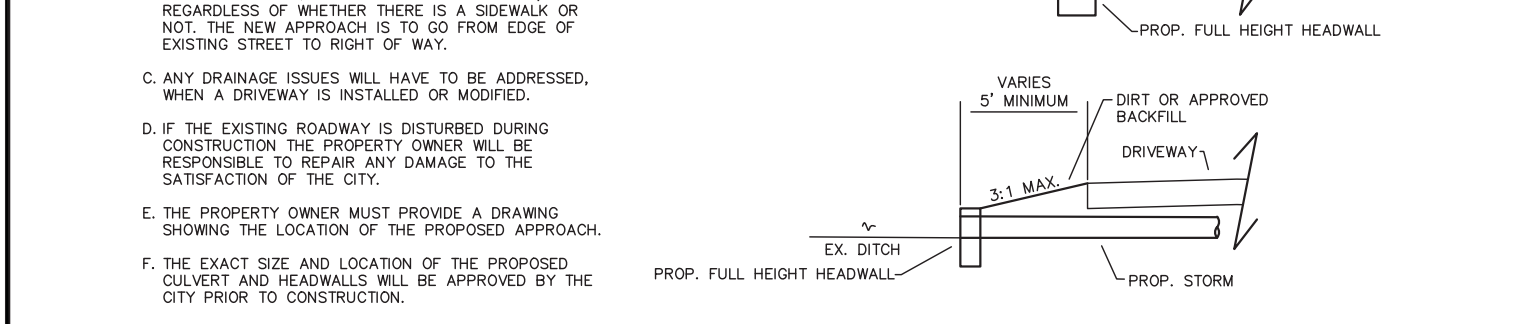
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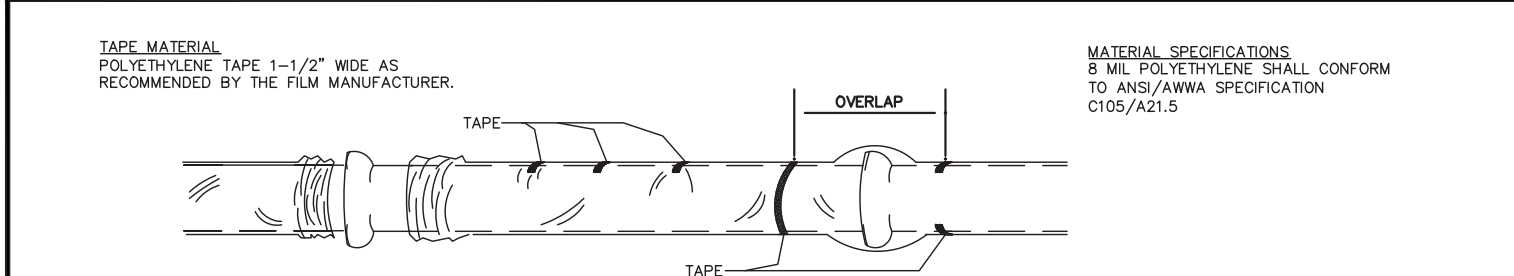
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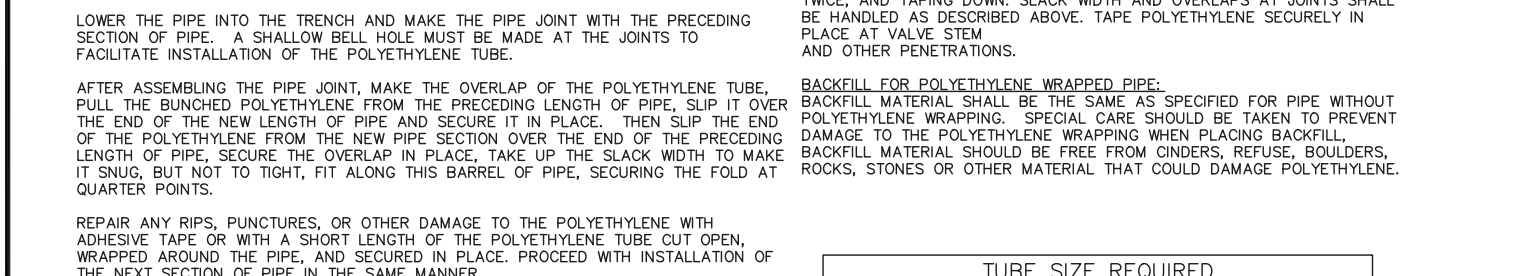
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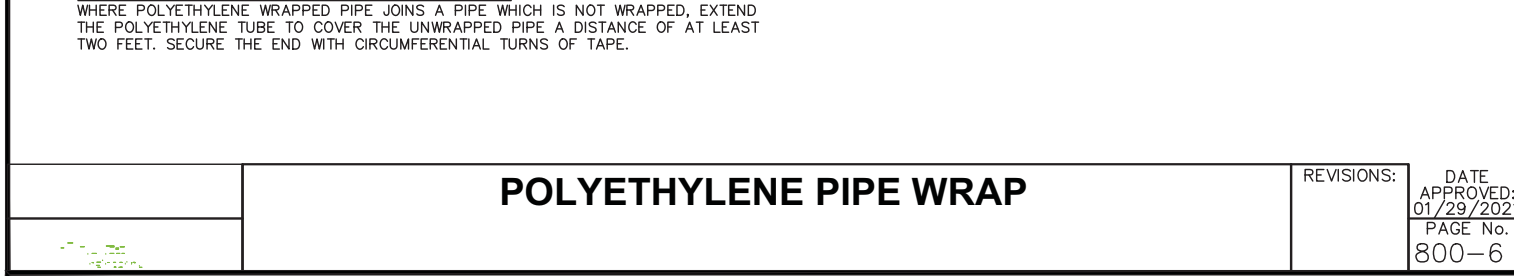
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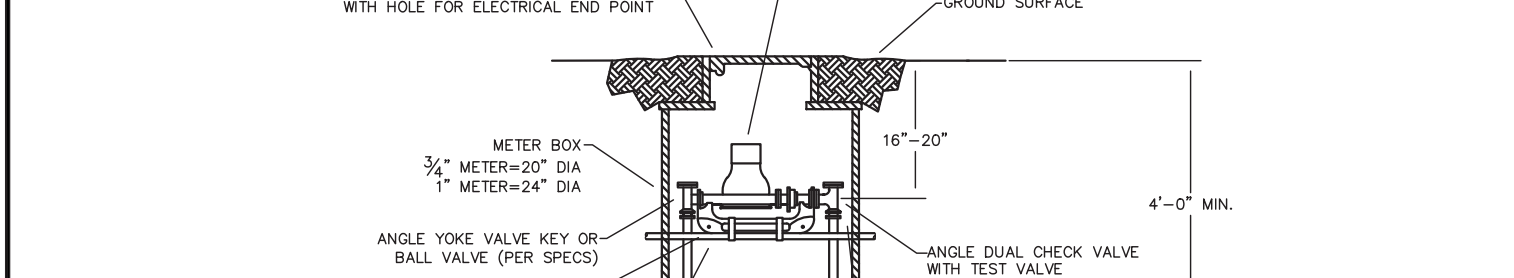
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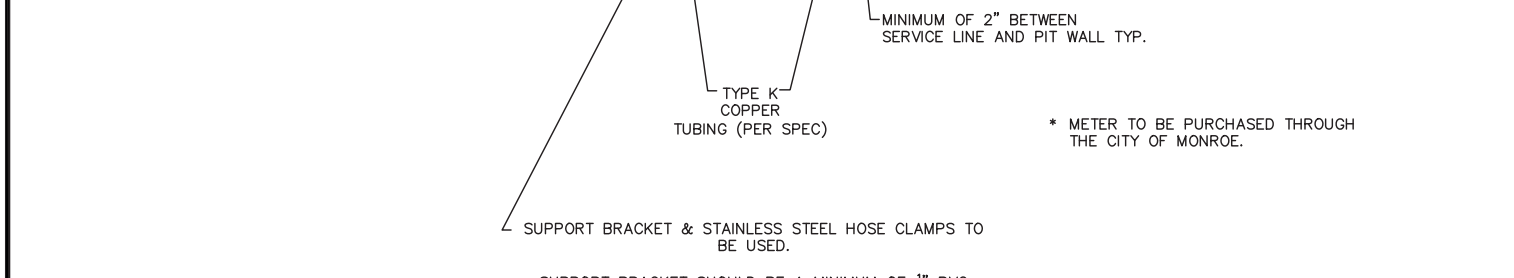
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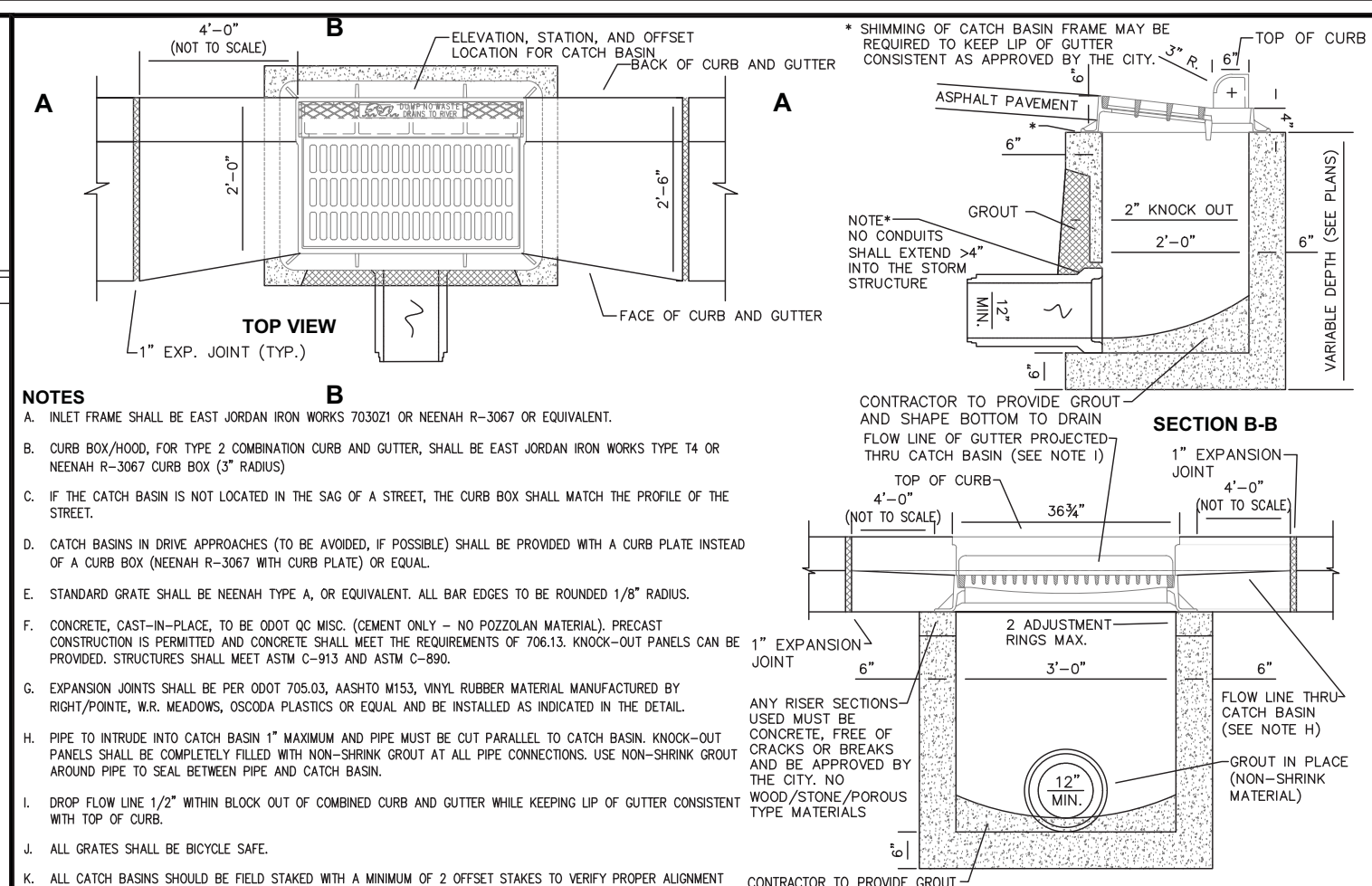
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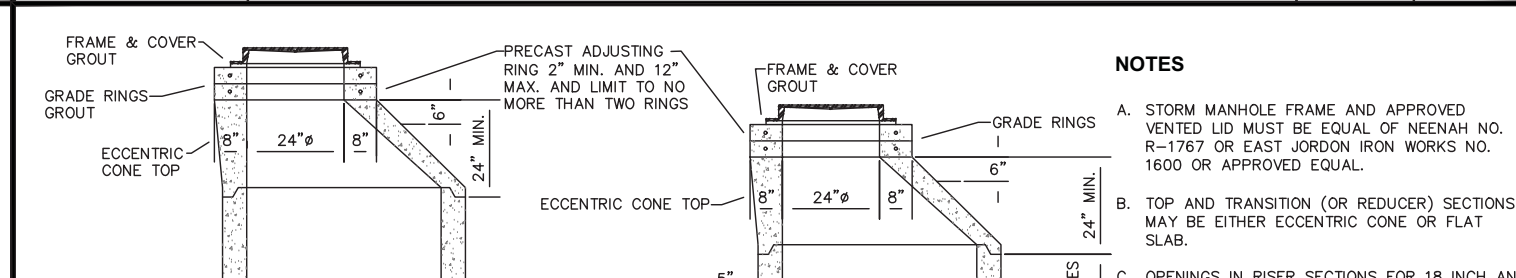
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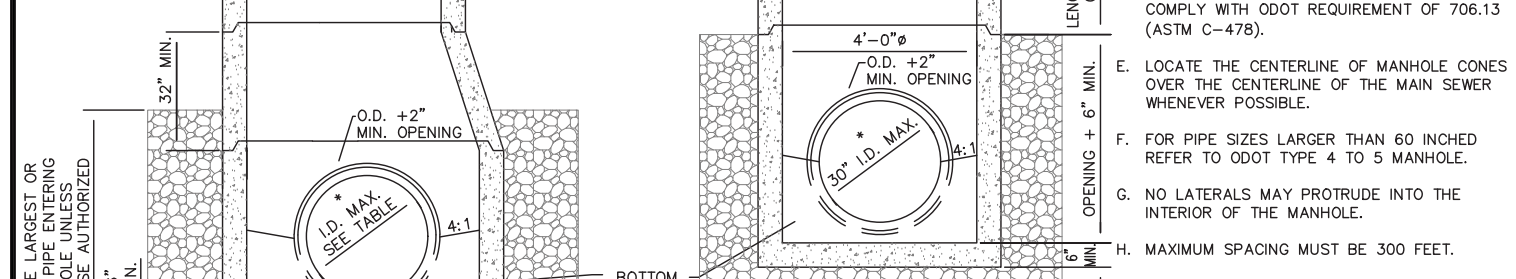
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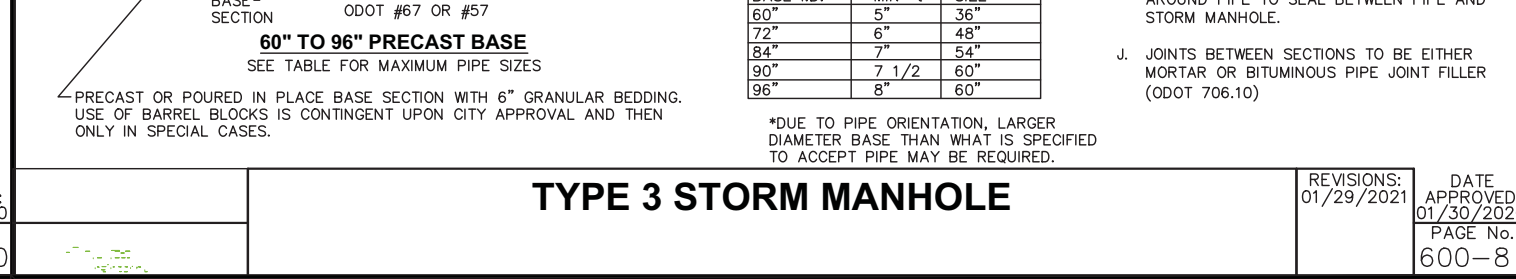
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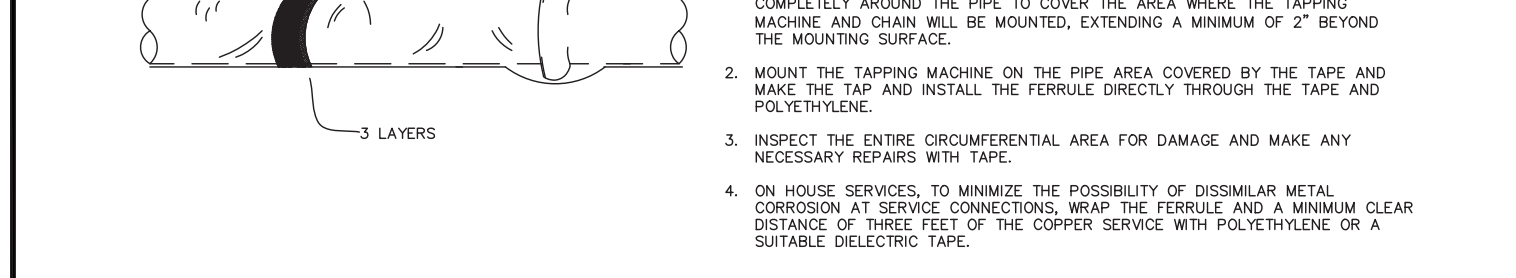
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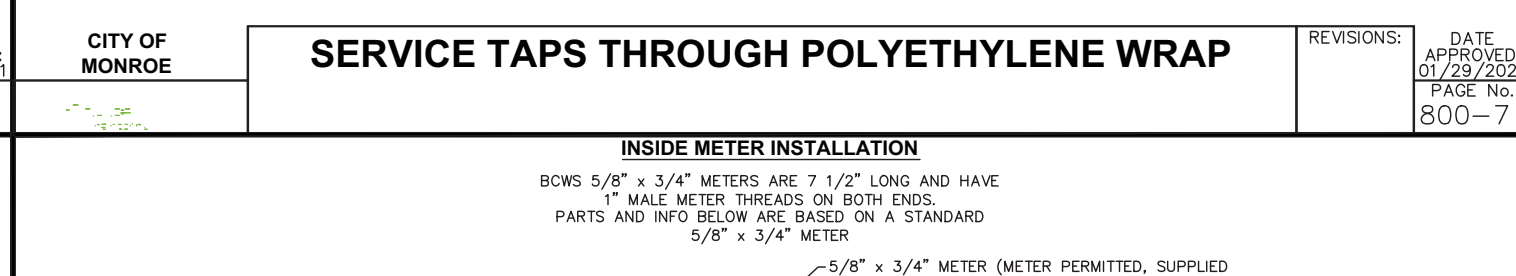
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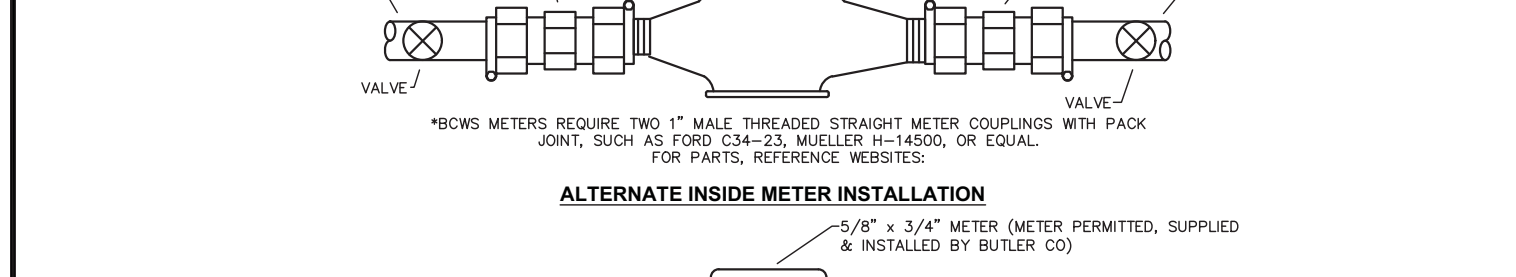
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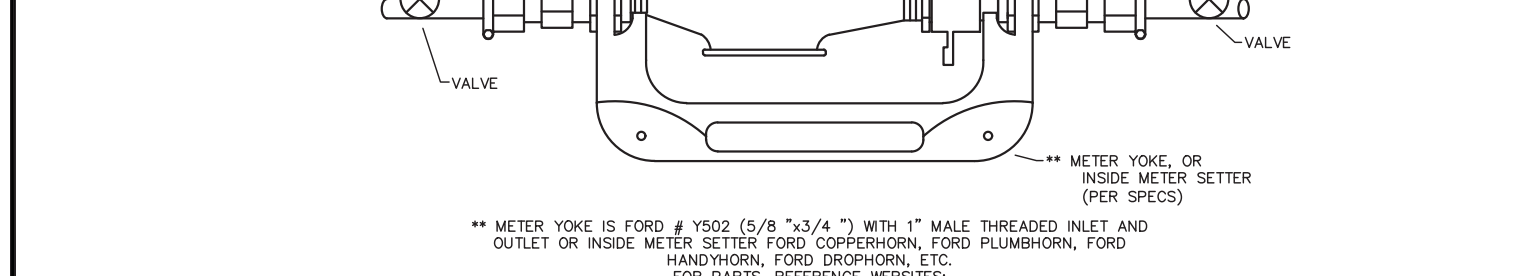
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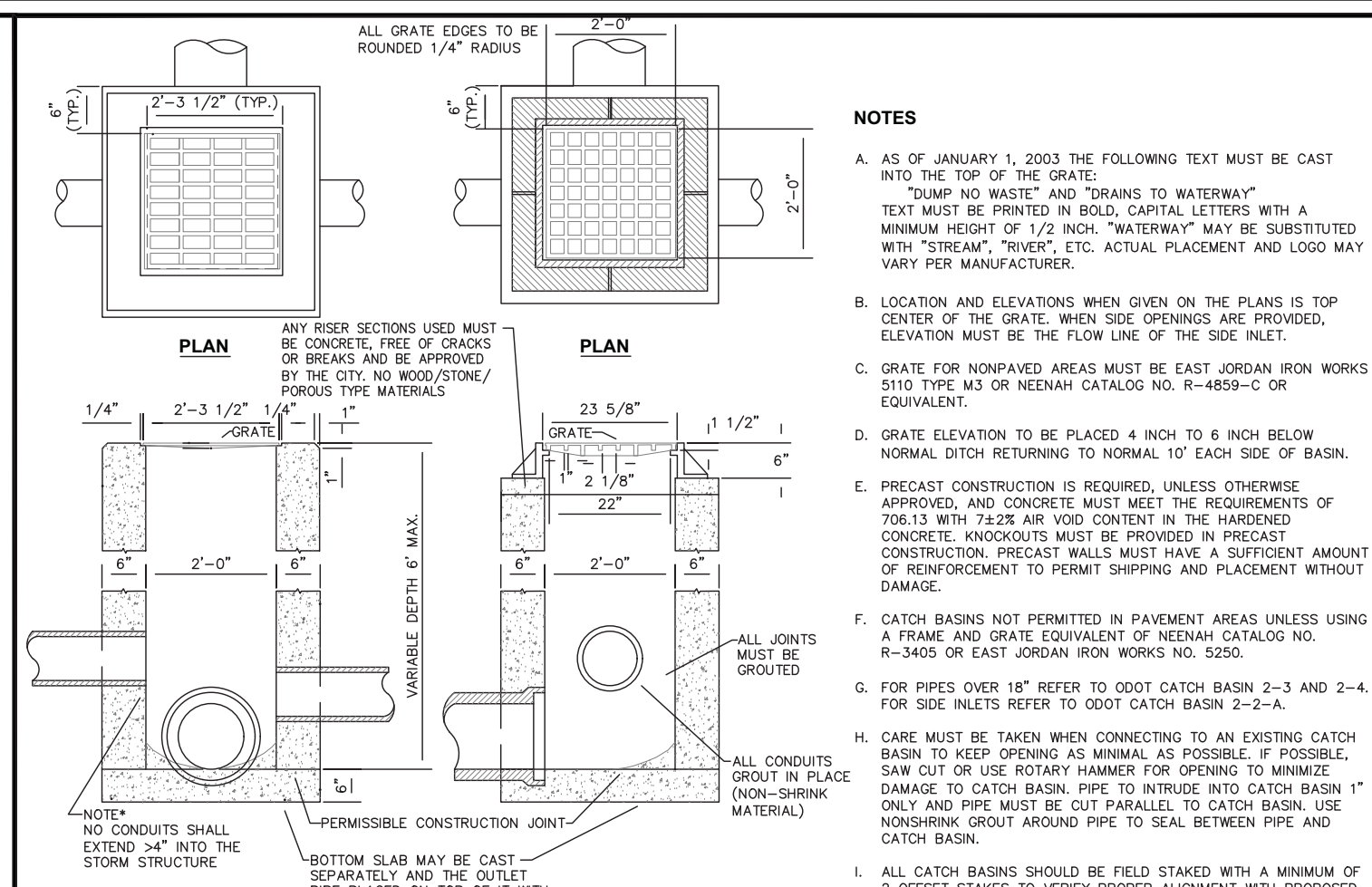
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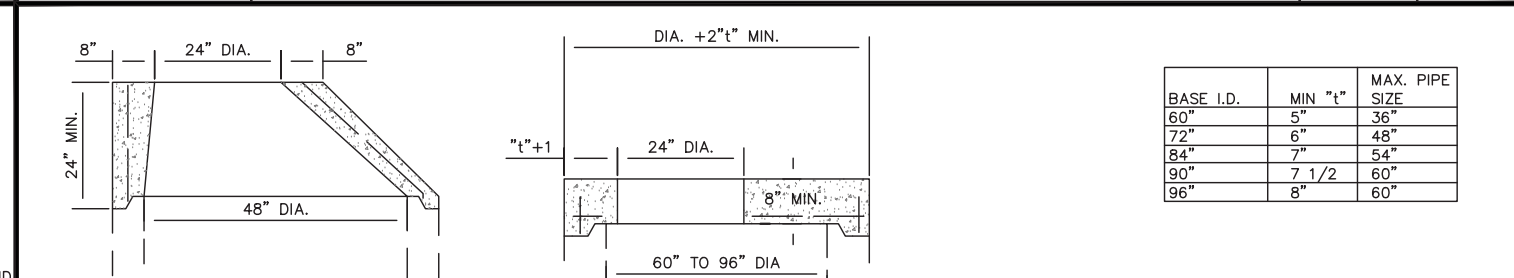
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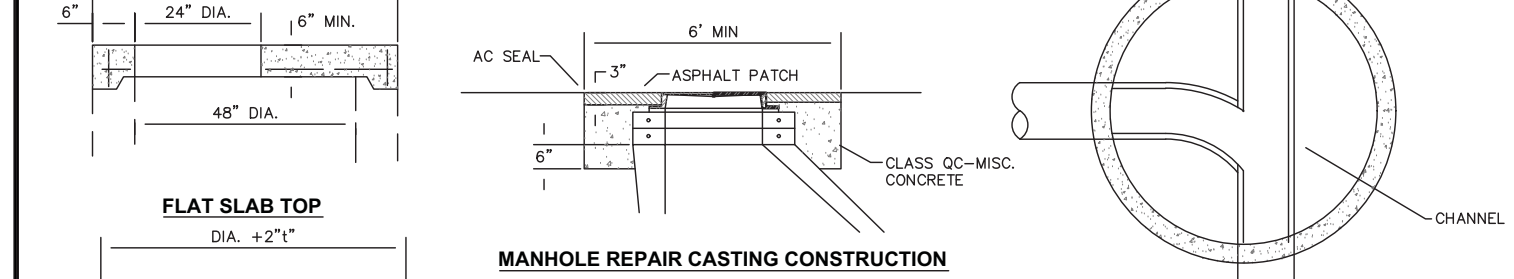
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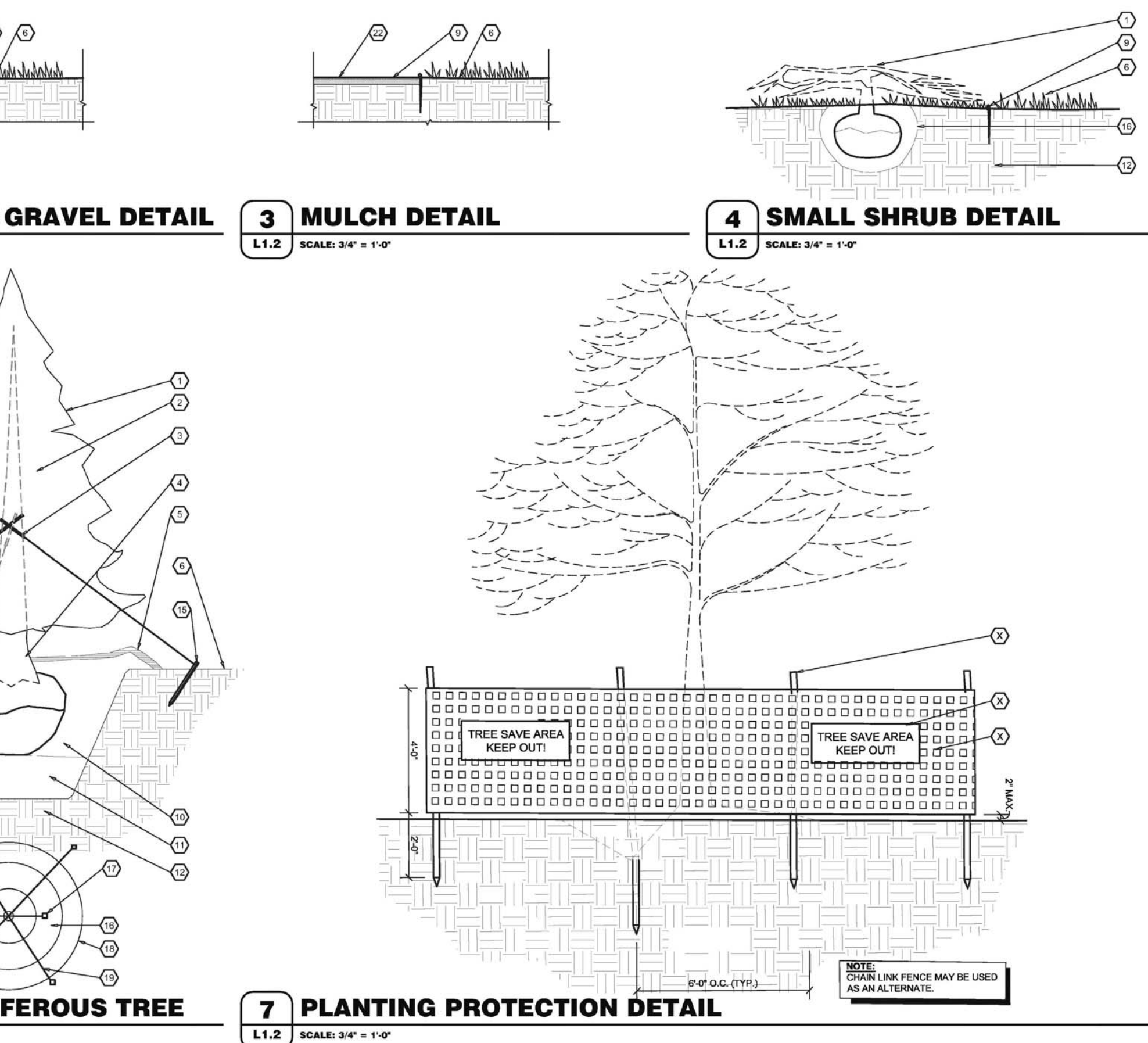
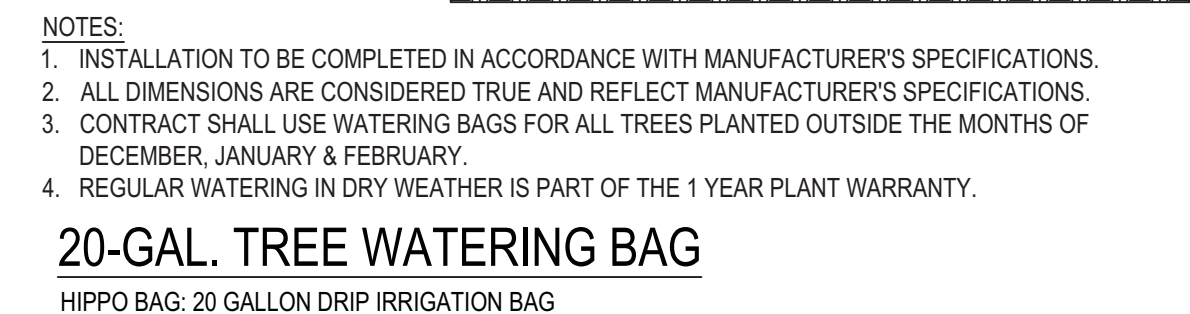
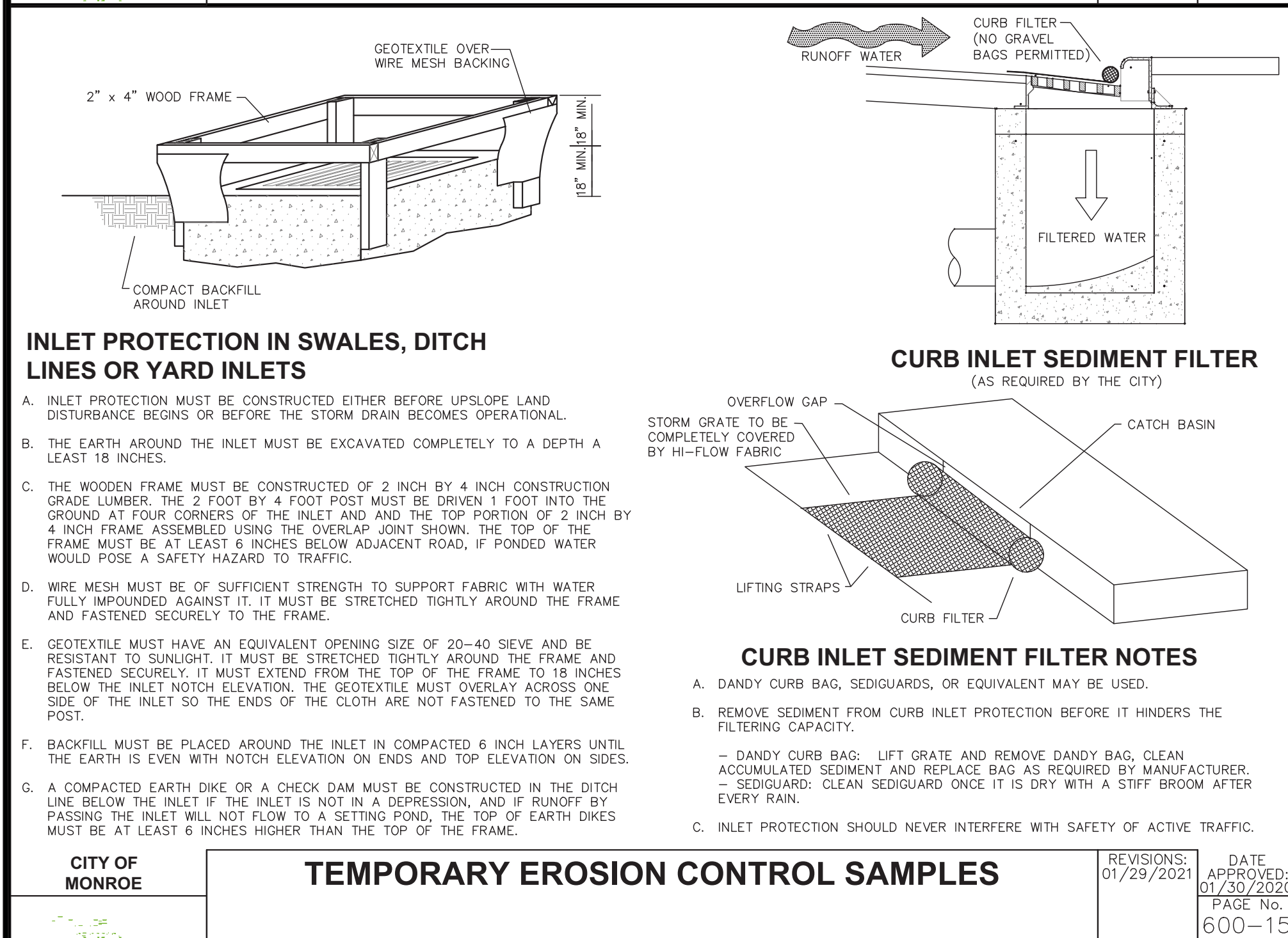


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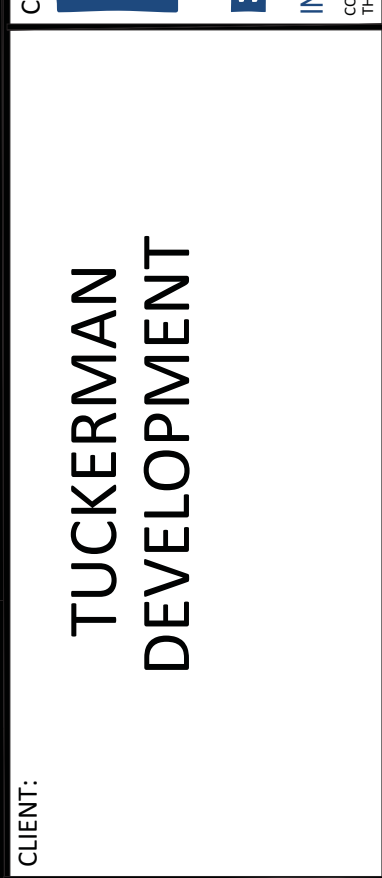
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Notes:

- 1- See specifications for additional tree protection requirements.
- 2- If there is no existing irrigation, see specifications for watering requirements.
- 3- No pruning shall be performed except by approved arborist.
- 4- No equipment shall operate inside the protective fencing including during fence installation and removal.
- 5- See site preparation plan for any modifications with the Tree Protection area.



RETAIL DEVELOPMENT
301 N. MAIN STREET
MONROE, OHIO
ZONING: C-2

REVISIONS		
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SHEET NAME:
DETAIL SHEET

DATE: 11/22/2021

DRAWN BY: CD

CHECKED BY: LE

PROJECT NO.: 21-888

SHEET NUMBER:

C603

GENERAL INFORMATION:

- THE PLANS SHALL BE RETAINED ON SITE: A COPY OF THE NOI AND LETTER AUTHORIZING DISCHARGES UNDER THE OHIO CERIAL PERMIT FOR THE DISCHARGE OF WASTEWATER FROM ENTERING A STORM DRAIN SYSTEM. IT INCLUDES THE RATE AT WHICH SEDIMENT-LADEN WATER MAY ENTER AN INLET, THEREBY CAUSING PONDING AND SETTLING OF SEDIMENT.
- THE GENERAL CONTRACTOR SHALL MAKE PLANS AVAILABLE UPON REQUEST TO THE GOVERNING AGENCY APPROVING SEDIMENT AND EROSION PLANS, GRADING PLANS, OR STORM WATER MANAGEMENT PLANS: OR IN THE CASE OF A STORM WATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITY WHICH DISCHARGES THROUGH A MUNICIPAL SEPARATE STORM SEWER SYSTEM WITH A NPDES PERMIT TO THE MUNICIPAL OPERATOR OF THE SYSTEM
- THE GOVERNING, MAY NOTIFY THE GENERAL CONTRACTOR AT ANY TIME THAT THE PLAN DOES NOT MEET ONE OR MORE OF THE MINIMUM REQUIREMENTS. IMMEDIATELY AFTER SUCH NOTIFICATION FROM THE GOVERNING AGENCY, THE GENERAL CONTRACTOR SHALL MAKE THE REQUIRED CHANGES TO THE PLAN AND SHALL SUBMIT TO THE GOVERNING AGENCY A WRITTEN CERTIFICATION THAT THE REQUESTED CHANGES HAVE BEEN MADE.
- THE GENERAL CONTRACTOR SHALL AMEND THE PLAN WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE, WHICH HAS A SIGNIFICANT EFFECT ON THE POTENTIAL FOR THE DISCHARGE OF POLLUTANTS TO WATER OF THE UNITED STATES, OR IF THE STORM WATER POLLUTION PREVENTION PLAN PROVES TO BE INEFFECTIVE IN ACHIEVING THE GENERAL OBJECTIVES OF CONTROLLING POLLUTANTS IN STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY.
- THE GENERAL CONTRACTOR SHALL INFORM ALL SUBCONTRACTORS WHO WILL BE INVOLVED IN THE IMPLEMENTATION OF THE STORM WATER POLLUTION PREVENTION PLAN OF THE TERMS AND CONDITIONS OF THIS GENERAL NPDES PERMIT THAT AUTHORIZES THE DISCHARGE OF STORM WATER FROM THE CONSTRUCTION SITE, BEFORE CONDUCTING ANY SERVICE AT THE SITE ALL SUBCONTRACTORS SHALL UNDERSTAND THE CONDITIONS AND STANDARDS OF THE POLLUTION PREVENTION PLAN AND THE SCHEDULE PROPOSED FOR THEIR IMPLEMENTATION.

GENERAL NOTES:

- SEDIMENT CONTROL DEVICES SHALL BE INSTALLED FOR ALL AREAS REMAINING DISTURBED FOR OVER 14 DAYS
- SEDIMENT CONTROLS WILL BE INSTALLED WITHIN 7 DAYS OF GRUBBING ACTIVITIES
- THE DEVELOPER IS UNAWARE OF ANY EXISTING BRICKS, HARDENED CONCRETE, OR SOIL WASTE ONSITE THAT MAY CONTAIN CONTAMINATION THAT MAY LEACH CONSTITUENTS TO THE WATERS OF THE STATE. ALL BRICKS, HARDENED CONCRETE, AND SOIL WASTE GENERATED DURING CONSTRUCTION ACTIVITY WILL BE FREE OF CONTAMINATION THAT MAY LEACH CONSTITUENTS TO THE WATERS OF THE STATE.
- THE CONTRACTOR SHALL NOT DISPOSE OF ANY CONSTRUCTION WASTES ON THE SUBJECT PROPERTY (I.E. BURYING).
- ALL CONSTRUCTION & DEMOLITION DEBRIS (CDD) WASTE SHALL BE DISPOSED OF IN AN OHIO EPA APPROVED LANDFILL AS REQUIRED BY OHIO REVISED CODE (ORC) 3734.
- PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL DESIGNATE AN AREA FOR MIXING & STORAGE OF COMPOUNDS SUCH AS FERTILIZERS, LIME, ASPHALT & CONCRETE. THESE AREAS SHALL BE LOCATED AWAY FROM WATERCOURSES, DITCHES, FIELD DRAINS &ANY OTHER STORM WATER DRAINAGE STRUCTURES.
- PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL DESIGNATE AN AREA FOR FUEL STORAGE & VEHICLE FUELING AND MAINTENANCE. THESE AREAS SHALL BE LOCATED AWAY FROM WATERCOURSES, DITCHES, FIELD DRAINS & ANY OTHER STORM WATER DRAINAGE STRUCTURES.
- PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL DEVELOP A SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN, IF ANY OF THE FOLLOWING APPLY:
 - ONE ABOVE GROUND STORAGE TANK OF 660 GALLONS OR MORE
 - ONE ABOVE GROUND STORAGE OF 1,330 GALLONS OR MORE
 - BELOW GROUND STORAGE OF 42,000 OF FUEL
- ANY SOLIS CONTAMINATED WITH PETROLEUM OR OTHER CHEMICAL SPILLS MUST BE TREATED AND/OR DISPOSED OF IN AN OHIO EPA APPROVED SOLID WASTE MANAGEMENT FACILITY OR HAZARDOUS WASTE TREATMENT, STORAGE OR DISPOSAL FACILITIES (TSD'S).
- MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA. OILY SITE EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO: BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC OR METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE. ADDITIONAL EQUIPMENT AND MATERIALS WILL BE ADDED TO THIS LIST IF RECOMMENDED BY THE MANUFACTURER OF ANY PRODUCT TO BE USED ON THIS SITE. ALL SPILLS WILL BE CLEANED IMMEDIATELY AFTER DISCOVERY. THE OWNER, OR ITS DESIGNATED REPRESENTATIVE IT IS TO BE IMMEDIATELY NOTIFIED OF ANY SPILLS. THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH HAZARDOUS MATERIAL. SPILL CONTROL PRACTICES WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THE REOCCURENCE OF ANY SPILL AND INCLUDE MEASURES OF HOW TO RESPOND TO SIMILAR OCCURENCES. A DESCRIPTION OF ANY SPILL THAT OCCURS WILL BE RECORDED INCLUDING WHAT CAUSED IT AND HOW EASY IT WAS TO CLEAN UP. THE GENERAL CONTRACTOR WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR THE GENERAL CONTRACTOR WILL DESIGNATE THREE SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THE NAMES OF THESE INDIVIDUALS WILL BE POSTED IN THE MATERIAL STORAGE AND IN THE SITE OFFICE. THE GENERAL CONTRACTOR SHALL FOLLOW THE CONTRACTOR SHALL FOLLOW THE GUIDELINES LISTED ABOVE, AS WELL AS MANUFACTURER SPECIFIC GUIDELINES. PETROLEUM BASED AND CONCRETE CURING COMPOUNDS MUST HAVE SPECIAL HANDLING PROCEDURES, ACCORDING TO THE MANUFACTURER AND OHIO EPA GUIDELINES. IN THE EVENT OF LARGER SPILLS, MORE THAN 25 GALLONS, THE CONTRACTOR OR SHALL FOLLOW THE GUIDELINES LISTED ABOVE, AS WELL AS ANY MANUFACTURER SPECIFIC GUIDELINES AND CONTACT THE OHIO EPA, 1-800-282-9378, THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE (LEPC), WITHIN 30 MINUTES OF THE SPILL. ALL SPILLS OF TOXIC OR HAZARDOUS MATERIAL MUST BE REPORTED TO THE OHIO EPA, THE LOCAL FIRE DEPARTMENT AND THE LOCAL EMERGENCY PLANNING COMMITTEE (LEPC) REGARDLESS OF THE SIZE OF THE SPILL.
- NO OPEN BURNING OF ANY CONSTRUCTION WASTE SHALL TAKE PLACE ONSITE.
- ANY DUST SUPPRESSANTS USED DURING CONSTRUCTION, SHALL NOT BE APPLIED ADJACENT TO ANY EXISTING OR PROPOSED STORM WATER CATCH BASINS OR DRAINAGE WAYS. USED OIL MAY NEVER BE USED AS A DUST SUPPRESSANT.
- PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL OBTAIN ANY REQUIRED AIR POLLUTION PERMITS. AIR POLLUTION PERMITS MAY BE REQUIRED FOR ACTIVITIES INCLUDING, BUT NOT LIMITED TO, MOBILE CONCRETE BATCH PLANTS, MOBILE ASPHALT PLANTS, CONCRETE CRUSHERS, AND LARGE GENERATORS.
- FOR ALL RESTORATION AND DEMOLITION PROJECTS THE CONTRACTOR SHALL SUBMIT NOTIFICATION TO THE OHIO EPA, DIVISION OF AIR POLLUTION CONTROL, TO DETERMINE IF ASBESTOS CORRECTIVE ACTIONS ARE REQUIRED.
- PROCESS WASTEWATERS (E.G. EQUIPMENT WASHING, LEACHATE ASSOCIATED WITH ONSITE WASTE DISPOSAL, AND CONCRETE WASHOUTS) SHALL BE COLLECTED AND DISPOSED OF PROPERLY (E.G. TO A PUBLICLY OWNED TREATMENT WORKS).
- PROTECTED STORAGE AREAS SHALL BE PROVIDED FOR ALL INDUSTRIAL OR CONSTRUCTION MATERIALS TO MINIMIZE EXPOSURE OF SOIL AND MATERIALS TO STORM WATER.
- AS ALLOWABLE PER PART IIIG.2.1 OF OHIO EPA GENERAL PERMIT OH0000005, THE CONTRACTOR MAY SUBMIT A WAIVER TO REQUEST THE INSPECTION FREQUENCY BE LESS FREQUENT DURING WINTER MONTHS OR WHERE THE SITE WILL BE DORMANT FOR A LONG PERIOD.

SILT FENCE

SILT FENCE IS A SEDIMENT-TRAPPING PRACTICE INSTALLED UTILIZING A GEOTEXTILE FENCE, TOPOGRAPHY AND VEGETATION TO CAUSE SEDIMENT DEPOSITION. SILT FENCE REDUCES RUNOFF'S ABILITY TO TRANSPORT SEDIMENT BY PONDING RUNOFF AND DISCHARGING SMALL RILLS OF CONCENTRATED FLOW INTO UNIFORM SHEET FLOW

SPECIFICATIONS FOR SILT FENCE:

- SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE LAND DISTURBANCE BEGINS.
- ALL SILT SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER IT NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS WHICH MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.
- TO PREVENT WALT FENCE FROM FLOWING AROUND THE ENDS, EACH END SHALL BE CONSTRUCTED UPSLOPE SO THAT THE ENDS ARE AT A HIGHER ELEVATION.
- WHERE POSSIBLE, SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE.
- WHOSE 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 A TRENCH CUT A MINIMUM OF 6 INCHES DEEP. THE TRENCH SHALL BE CUT WITH A TRENCHER, CABLE LAYING MACHINE, OR OTHER SUITABLE DEVICE WHICH WILL ENSURE AN ADEQUATELY UNIFORM TRENCH DEPTH.
- THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWNSLOPE SIDE OF THE GEOTEXTILE AND SO THAT 8 INCHES OF CLOTH ARE BELOW THE GROUND SURFACE. EXCESS MATERIAL SHALL LIE ON THE BOTTOM OF THE 6 INCH DEEP TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED.
- SEAMS BETWEEN SECTIONS OF SILT FENCE SHALL BE OVERLAPPED WITH THE END STAKES OF EACH SECTION WRAPPED TOGETHER BEFORE DRIVING INTO THE GROUND.
- MAINTENANCE: SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF OVER TOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, ONE OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE: 1) THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED, 2) ACCUMULATED SEDIMENT SHALL BE REMOVED, OR 3) OTHER PRACTICES SHALL BE INSTALLED.

CRITERIA FOR SILT FENCE MATERIALS:

- FENCE POSTS-THE LENGTH SHALL BE A MINIMUM OF 32 INCHES LONG. WOOD POSTS WILL BE 2-BY-2 INCH HARDWOOD OF SOUND QUALITY. THE MAXIMUM SPACING BETWEEN POSTS SHALL BE 10 FEET.
- SILT FENCE FABRIC (SEE DETAIL)

CONSTRUCTION ENTRANCE:

- A CONSTRUCTION ENTRANCE IS A STABILIZED PAD OF AGGREGATE OVER A GEOTEXTILE BASE AND IS USED TO REDUCE THE AMOUNT OF MUD TRACKED OFF-SITE WITH CONSTRUCTION TRAFFIC.
- SPECIFICATIONS FOR CONSTRUCTION ENTRANCE:
 - 1. STONE: 2-4 INCH STONE SHALL BE USED, OR RECYCLED CONCRETE EQUIVALENT.
 - 2. LENGTH-THE CONSTRUCTION ENTRANCE SHALL BE AS REQUIRED TO STABILIZE HIGH TRAFFIC AREAS BUT NOT LESS THAN 70 FEET (EXCEPT ON SINGLE RESIDENCE LOT WHERE A 30-FOOT MINIMUM LENGTH APPLIES).
 - 3. THICKNESS-THE STONE LAYER SHALL BE AT LEAST 6 INCHES THICK.
 - 4. WIDTH-THE ENTRANCE SHALL BE AT LEAST 20 FEET WIDE, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
 - 5. BEDDING-A GEOTEXTILE SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE. IT SHALL HAVE A GRAB TENSILE STRENGTH OF AT LEAST 200LB AND MULLEN BURST STRENGTH OF AT LEAST 190LB
 - 6. CULVERT-A PIPE OR CULVERT SHALL BE CONSTRUCTED UNDER THE ENTRANCE IF NEEDED TO PREVENT SURFACE WATER FLOWING FROM THE ENTRANCE FROM BEING DIRECTED ONTO PAVED SURFACES.
 - 7. WATER BAR-A WATER BAR SHALL BE CONSTRUCTED AS PART OF THE CONSTRUCTION ENTRANCE IF NEEDED TO PREVENT SURFACE RUNOFF FROM FLOWING THE LENGTH OF THE CONSTRUCTION ENTRANCE AND OUT ONTO PAVED SURFACES.
 - 8. MAINTENANCE-TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITIONS DEMAND. MUD SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADS, OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS, SHALL BE REMOVED IMMEDIATELY REMOVAL SHALL BE ACCOMPLISHED BY SCRAPING AND SWEEPING.
 - 9. CONSTRUCTION ENTRANCES SHALL NOT BE RELIED UPON TO REMOVE MUD VEHICLES AND PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION SITE SHALL BE RESTRICTED FROM MUDDY AREAS.

STORM DRAIN INLET PROTECTION:

STORM DRAIN INLET PROTECTION CONSISTS OF A GEOTEXTILE BARRIER SUPPORTED AROUND OR ACROSS A STORM INLET. IT IS USED TO PREVENT SEDIMENT AND WATER FROM ENTERING A STORM DRAIN SYSTEM. IT INCLUDES THE RATE AT WHICH SEDIMENT-LADEN WATER MAY ENTER AN INLET, THEREBY CAUSING PONDING AND SETTLING OF SEDIMENT.

SPECIFICATION FOR CURB INLET PROTECTION

- INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UPSLOPE LAND DISTURBANCE BEGINS OR BEFORE THE STORM DRAIN BECOMES OPERATIONAL.
- THE WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC AND STONE. IT SHALL BE A CONTINUOUS PIECE WITH A MINIMUM WIDTH OF 6 TO 10 FEET LONGER THAN THE THROAT LENGTH OF THE INLET, 2 FEET ON EACH SIDE. GEOTEXTILE FABRIC AND WIRE MESH SHALL BE ANCHORED 2 BEHIND THE CURB WITH EARTH.
- GEOTEXTILE CLOTH SHALL HAVE THE EQUIVALENT OPENING SIZE (EOS) OF 20-40 SIEVE AND BE RESISTANT TO 75 SHALL BE AT LEAST 16 INCHES ABOVE THE WIRE MESH.
- THE WIRE MESH AND GEOTEXTILE CLOTH SHALL BE FORMED TO THE CONCRETE GUTTER AND AGAINST THE FACE OF THE CURB ON BOTH SIDES OF THE INLET
- 2-INCH STONE SHALL BE PLACED OVER THE WIRE MESH AND GEOTEXTILE IN SUCH AMANNER AS TO PREVENT WATER FROM ENTERING THE INLET UNDER OR AROUND THE GEOTEXTILE CLOTH.

SPECIFICATIONS FOR INLET PROTECTION IN SWALES DITCH LINES OR YARD INLETS

- INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UPSLOPE LAND DISTURBANCE BEGINS OR BEFORE THE STORM DRAIN BECOMES OPERATIONAL.
- THE EARTH AROUND THE INLET SHALL BE EXCAVATED COMPLETELY TO A DEPTH AT LEAST 18 INCHES.
- THE WOODEN FRAME SHALL BE CONSTRUCTED OF 2-BY-4 INCH CONSTRUCTION-GRADE LUMBER THE 2-BY-4 INCH POSTS SHALL BE DRIVEN 1 FOOT INTO THE GROUND AT THE FOUR CORNERS OF THE INLET AND THE TOP PORTION OF 2-BY-4 INCH FRAME ASSEMBLED USING THE OVERLAP JOINT SHOWN. THE TOP OF THE FRAME SHALL BE AT LEAST 6 INCHES BELOW ADJACENT ROADS. IF PONDING WATER WOULD POSE A SAFETY HAZARD TO TRAFFIC.
- WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC WITH WATER FULLY IMPOUNDED AGAINST IT IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY TO THE FRAME
- GEOTEXTILE CLOTH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC WITH WATER FULLY IMPOUNDED AGAINST IT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY. IT SHALL EXTEND FROM THE TOP OF THE INLET TO 18 INCHES BELOW THE INLET NOTCH ELEVATION. THE GEOTEXTILE CLOTH OVERLAP ACROSS ONE SIDE OF THE INLET SO THE ENDS OF THE CLOTH ARE NOT FASTENED TO THE TOP OF THE FRAME.

- BACKFILL SHALL BE PLACED AROUND THE INLET IN COMPACTED 6 INCH LAYERS UNTIL THE EARTH IS EVEN WITH NOTCH ELEVATION AND TOP OF ELEVATION OF ROAD.
- A COMPACTED EARTH DIKE OR A CHECK DAM SHALL BE CONSTRUCTED IN THE DITCH LINE BELOW THE INLET IF THE INLET IS NOT A DEPRESSION AND RUNOFF BYPASSING THE INLET WILL NOT FLOW TO A SETTING POND. THE TOP OF EARTH DIKES SHALL BE AT LEAST 6 INCHES HIGHER THAN THE TOP OF THE FRAME.

CONSTRUCT/ON SITE MULCHING:

APPLYING A PROTECTIVE LAYER OF MULCH, USUALLY OF STRAW, TO BARE SOIL IS USED TO ABATE EROSION BY SHELDING IT FROM RAINDROOF IMPACT TO HELP INSTABISH VEGETATION BY CONSERVING MOISTURE AND CREATING FAVORABLE CONDITIONS FOR SEEDS TO GERMINATE.

SPECIFICATIONS FOR MULCHING

- MULCH AND/OR OTHER APPROPRIATE VEGETATIVE PRACTICES SHALL BE APPLIED TO DISTURBED AREAS PER TIME TABLES ON PREVIOUS SHEET.
- MULCH SHALL CONSIST OF ONE OF THE FOLLOWING:
 - 1. STRAW- STRAW SHALL BE UNNOTTED SMALL GRADE STRAW APPLIED AT THE RATE OF 2.0 TONS PER ACRE OR 90 LB. PER 1,000 SQUARE FEET (TWO TO THREE BALES) THE STRAW MULCH SHALL BE SPREAD UNIFORMY BY HAND OR MECHANICALLY SO THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND PLACE TWO 45 LB. BALES OF STRAW IN EACH SECTION.
 - 2. HYDROSEEDERS-IF WOOD-CELLULOSE FIBER SHOULD BE USED AT 2,000 LB. PER ACRE OR 46 LB. PER 1,000 SQUARE FEET.
 - 3. OTHER-OTHER ACCEPTABLE MULCHES INCLUDE MULCH MATTINGS APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR WOOD CHIPS APPLIED AT 10-20 TONS PER ACRE.
- MULCH ANCHORING-MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR RUNOFF. THE FOLLOWINGS ARE ACCEPTABLE METHODS AND ANCHORING MULCH:
 - 1. MECHANICAL-USE A DISK, CRIMPER, OR SIMILAR TYPE TOOL SHALL BE SET 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 INCHES.
 - 2. MULCHING NETTINGS-USE ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS, FOLLOWING ALL PLACEMENTS AND ANCHORING INSTRUCTIONS. USE IN AREAS OF WATER CONCENTRATION AND STEEP SLOPES TO HOLD MULCH IN PLACE.
 - 3. ASPHALT EMULSION-FOR STRAW MULCH, APPLY AT THE RATE OF 160 GALLONS PER ACRE (0.1 GAL/SY) INTO THE MULCH AS BEING APPLIED ARE AS RECOMMENDED BY THE MANUFACTURER
 - 4. SYNTHETIC BINDERS-FOR STRAW MULCH, SYNTHETIC BINDER SUCH AS ACRYLIC (AGR-TAC), DCA-70, PETROSET, TERRA TACK OR EQUAL MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER
 - 5. 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. PER ACRE. THE WOOD-CELLULOSE FIBER SHALL BE MIXED WITH WATER, AND THE MIXTURE SHALL BE SPREAD AT A MAXIMUM OF 50 LB PER 100 GALLONS OF WOOD CELLULOSE FIBER

INSPECTION CODE:

- AT MINIMUM, ALL EROSION AND SEDIMENT CONTROLS ON THE SITE ARE INSPECTED AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCH OF RAIN PER 24 HOUR PERIOD.
- QUALIFIED INSPECTION PERSONNEL (PROVIDED BY THE GENERAL CONTRACTOR) SHALL CONDUCT A WEEKLY INSPECTION OF THE CONSTRUCTION, AND, AFTER ANY STORM EVENT GREATER THAN 0.5 INCH OF RAIN PER 24 HOUR PERIOD, TO VERIFY THAT STABILIZATION AND STRUCTURAL CONTROLS ARE PERFORMING PROPERLY. INSPECTION PERSONNEL SHALL ALSO DETERMINE IF ADDITIONAL CONTROLS ARE REQUIRED DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM.
- DISCHARGE LOCATIONS SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO THE RECEIVING WATERS.
- LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE VEHICLE TRACKING.
- REPRODUCIBLE INSPECTION FORMS/CHECKLISTS ARE PROVIDED ON THE OHIO EPA WEB SITE FOR USE BY THE GENERAL CONTRACTOR'S QUALIFIED INSPECTION PERSONNEL. THESE CHECKLISTS SHALL BE COMPLETED AND SIGNED BY THE INSPECTOR AFTER EVERY INSPECTION.
- ALL INSPECTION RECORDS BE KEPT FOR A MINIMUM OF 3 YEARS AFTER THE TERMINATION OF CONSTRUCTION ACTIVITIES.

STABILIZATION PRACTICES:

- STABILIZATION PRACTICES MAY INCLUDE: TEMPORARY SEEDING, PERMANENT SEEDING, MULCHING, MATTING, SOD STABILIZATION, VEGETATIVE BUFFER STRIPS, PHASING AND PROTECTION OF TREES.
- THE GENERAL CONTRACTOR SHALL INITIATE APPROPRIATE VEGETATIVE PRACTICES ON ALL DISTURBED AREAS WITHIN SEVEN (7) DAYS IF THEY ARE TO REMAIN DORMANT (UNDISTURBED) FOR MORE THAN 14 DAYS.
- FOR AREAS WITHIN FIFTY (50) FEET OF ANY STREAM, FIRST ORDER OR LARGER, SOIL STABILIZATION PRACTICES SHALL BE INITIATED WITHIN TWO (2) DAYS ON ALL INACTIVE AREAS.
- PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DISTURBED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE.
- FOR DISTURBED AREAS THAT WILL BE LEFT IDLE OVER WINTER, TEMPORARY EROSION CONTROLS SHALL BE APPLIED PRIOR TO THE END OF WINTER.
- WHEN SEASONAL CONDITIONS PROHIBIT THE APPLICATION OF TEMPORARY OR PERMANENT SEEDING, NON-VEGETATIVE SOIL STABILIZATION PRACTICES SUCH AS MULCHING AND MATTING SHALL BE USED.
- MATERIALS USED FOR STABILIZATION SHALL MEET REQUIREMENT OF ODOT SPECIFICATION ITEM 832.

OFFSITE VEHICLE TRACKING:

- A STABILIZED CONSTRUCTION ENTRANCE WILL BE PROVIDED WITHIN SEVEN (7) DAY OF THE ONSET OF SITE DISTURBING ACTIVITIES.
- THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR THE DAILY SWEEPING OF PAVED STREET AREAS ADJACENT TO THE SITE ENTRANCE.
- THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR INSURING THAT ALL DUMP TRUCKS HAULING MATERIALS FROM THE CONSTRUCTION SITE WILL BE COVERED WITH TARPULINS.
- TRUCK WASH OF AREAS WILL ONLY BE LOCATED IN BERM ED AREAS OR IN AREAS THAT DRAIN TO SEDIMENT REMOVAL BASINS

SOLID WASTE MATERIALS:

- SOLID WASTE MATERIALS WILL BE COLLECTED DAILY AND STORED IN SECURELY LIDDED CONTAINERS (TRASH ENCLOSURE).
- A SUFFICIENT NUMBER OF METAL DUMPSTERS WILL BE PROVIDED BY THE GENERAL CONTRACTOR
- SIGNS WILL BE AFFIXED TO WASTE CONTAINER ADVISING WHO SHOULD BE CONTACTED WHEN CONTAINERS NEEDED BE EMPTYING.
- SIGNS WILL BE PREMINENTLY DISPLAYED IN WASTE STORAGE AREAS WARNING AGAINST DUMPING OF LIQUID OR HAZARDOUS WASTES IN CONTAINERS NOT SPECIFICALLY MARKED FOR SUCH DISPOSAL.
- THAT DISCIPLINARY ACTIONS WILL BE TAKEN AGAINST ALL OFFENDERS OF THIS POLICY. ALL SUBCONTRACTORS WILL BE GIVEN A WRITTEN COPY OF THIS POLICY

HAZARDOUS MATERIALS

- HAZARDOUS WASTES WILL BE COLLECTED DAILY AND DISPOSED OF IN SECURELY LIDDED CONTAINERS.
- A SUFFICIENT NUMBER OF CONTAINERS WILL BE PROVIDED FOR HAZARDOUS BUILDING MATERIAL DISPOSAL THESE WILL BE PROVIDED BY THE GENERAL CONTRACTOR
- SIGNS WILL BE PLACED ON BUILDING MATERIAL STORAGE CONTAINERS AUTHORIZING THE DISPOSAL OF SOLVENTS, OIL, PAINTS, AND OTHER HAZARDOUS MATERIALS.
- A SUFFICIENT NUMBER OF CONTAINERS WILL BE SUPPLIED BY THE GENERAL CONTRACTOR FOR THE DISPOSAL OF GASOLINE, DIESEL FUEL, USED MOTOR OIL, HYDRAULIC FLUID, AND ANTIFREEZE
- THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR ASSURING THAT ALL HAZARDOUS WASTE MATERIALS ARE COLLECTED DAILY AND DISPOSED OF PROPERLY.
- SIGNS WILL BE POSTED NOTIFYING PERSONNEL THAT NO WASTE IS TO BE DISPOSED OF DOWN ANY DRAIN, OR ANY SEWER OR SEPTIC TANK. WASTES ARE NOT TO BE DUMPED ON THE GROUND, OR ANY WATERWAY. WASTES ARE NOT TO BE BURNED, BURIED, OR MIXED WITH OTHER WASTES UNLESS PERMITTED BY THE MANUFACTURER

FERTILIZER / PESTICIDE USAGE

- THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR REVIEWING PRODUCT FACT SHEET WITH ALL PESTICIDE AND MECHANICAL-USE A DISK, CRIMPER, OR SIMILAR TYPE TOOL SHALL BE SET TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL, STRAW MECHANICALLY ANCHORED SHALL NOT BE FINELY CHOPPED BUT, GENERALLY, BE LEFT LONGER THAN 6 INCHES
- FERTILIZER AND PESTICIDE PRODUCTS WILL BE STORED IN SECURELY LIDDED STORAGE CONTAINERS SUPPLIED BY THE GENERAL CONTRACTOR WHEN NOT IN ACTIVE USE.
- THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR DAILY INSPECTIONS TO INSURE THAT PROPER USE, STORAGE, AND DISPOSAL PRACTICES OF PESTICIDE AND FERTILIZER PRODUCTS ARE BEING ADHERED TO ON THE SITE.

GOOD HOUSEKEEPING:

- THE FOLLOWING PRACTICES WILL BE FOLLOWED ON SITE DURING THE CONSTRUCTION PROJECT.
- AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCTS REQUIRED TO DO THE JOB.
- ALL MATERIALS STORED ON-SITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
- PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE MANUFACTURER LABEL
- SUBSTANCES WILL NOT BE MIXED UNLESS RECOMMENDED BY THE MANUFACTURER
- WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSAL OF THE CONTAINER
- MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
- THE GENERAL CONTRACTOR WILL INSPECT DAILY TO INSURE PROPER USE OF ALL MATERIALS.
- WRITTEN COPIES OF THESE PROCEDURES WILL BE DISTRIBUTED TO ALL EMPLOYEES AND SUBCONTRACTORS. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR REVIEWING THESE PROCEDURES WITH SITE PERSONNEL AND FOR INSURING THAT THEY ARE ADHERED TO.

HAZARDOUS PRODUCTS:

- THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS.
- PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
- ORIGINAL TUBS AND MATERIAL SAFETY DATA WILL BE RETAINED; THEY CONTAIN IMPRODUCT INFORMATION.
- IF SURPLUS PRODUCTS MUST BE DISPOSED OF MANUFACTURER RECOMMENDED METHODS WILL BE FOLLOWED.

PETROLEUM PRODUCTS

- ALL ON-SITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ON-SITE WILL ONLY BE APPLIED ACCORDING TO THE MANUFACTURER'S INSTRUCTION. ALL ON-SITE VEHICLE MAINTENANCE WILL BE ACCOMPLISHED IN DESIGNATED AREAS WITH ALL FLUIDS BEING COLLECTED AND DISPOSED OF PROPERLY.

FERTILIZERS:

- FERTILIZERS USED WILL BE APPLIED IN MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. WHEN APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER STORAGE WILL BE IN A COVERED SHED OR IN SECURELY SEALED CONTAINERS. THE CONTENTS OF ANY PARTIALLY USED BAGS WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

PAINTS:

- ALL CONTAINERS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SYSTEM BUT WILL BE PROPERLY DISPOSED OF IN CONTAINERS SPECIFICALLY MARKED FOR THAT PURPOSE.

CONCRETE TRUCKS:

- ANY DISCHARGES OF WASH WATER (CONCRETE, STUCCO, PAINT, ETC) IS PROHIBITED OTHER THAN IN THE CONSTRUCTED CONCRETE WASHOUT FACILITY.

SPILL CONTROL PRACTICES

- MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ON-SITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO: BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC OR METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE. ADDITIONAL EQUIPMENT AND MATERIALS WILL BE ADDED TO THIS LIST IF RECOMMENDED BY THE MANUFACTURER OF ANY PRODUCT TO BE USED ON THIS SITE. ALL SPILLS WILL BE CLEANED IMMEDIATELY AFTER DISCOVERY. THE OWNER, OR ITS DESIGNATED REPRESENTATIVE IT IS TO BE IMMEDIATELY NOTIFIED OF ANY SPILLS. THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH HAZARDOUS MATERIAL. SPILL CONTROL PRACTICES WILL BE ADJUSTED TO PREVENT THE REOCCURENCE OF ANY SPILL AND INCLUDE MEASURES OF HOW TO RESPOND TO SIMILAR OCCURENCES. A DESCRIPTION OF ANY SPILL THAT OCCURS WILL BE RECORDED INCLUDING WHAT CAUSED IT AND HOW EASY IT WAS TO CLEAN UP THE GENERAL CONTRACTOR WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR THE GENERAL CONTRACTOR WILL DESIGNATE THREE SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THE NAMES OF THESE INDIVIDUALS WILL BE POSTED IN THE MATERIAL STORAGE AREAND IN THE SITE OFFICE. FOR SMALL SPILLS, LESS THAN 25 GALLONS, THE CONTRACTOR SHALL FOLLOW THE GUIDELINES LISTED ABOVE. AS WELL AS ANY MANUFACTURER SPECIFIC GUIDELINES. PETROLEUM BASED AND CONCRETE CURING COMPOUNDS MUST HAVE SPECIAL HANDLING PROCEDURES, ACCORDING TO THE MANUFACTURER AND OHIO EPA GUIDELINES. IN THE EVENT OF LARGER SPILLS, MORE THAN 25 GALLONS, THE CONTRACTOR SHALL FOLLOW THE GUIDELINES LISTED ABOVE, AS WELL AS ANY MANUFACTURER SPECIFIC GUIDELINES AND CONTACT THE OHIO EPA, 1-800-282-9378, THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE (LEPC), WITHIN 30 MINUTES OF THE SPILL. ALL SPILLS OF TOXIC OR HAZARDOUS MATERIAL MUST BE REPORTED TO THE OHIO EPA, THE LOCAL FIRE DEPARTMENT AND THE LOCAL EMERGENCY PLANNING COMMITTEE (LEPC) REGARDLESS OF THE SIZE OF THE SPILL.

MAINTENANCE:

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE SEDIMENTATION AND EROSION CONTROL FEATURES ON THIS PROJECT. ANY SEDIMENT OR DEBRIS THAT HAS REDUCED THE EFFICIENCY OF A CONTROL SHALL BE REMOVED IMMEDIATELY. SHOULD A STRUCTURE OR FEATURE BECOME DAMAGED, THE CONTRACTOR SHALL REPAIR OR REPLACE IT AT NO COST TO THE OWNER
- FOR BMP'S THAT REQUIRE REPAIR OR MAINTENANCE, NOLV: SEDIMENT POND BMP'S ARE TO BE REPAIRED WITHIN 3 DAYS OF INSPECTION AND SEDIMENT PONDS ARE TO BE REPAIRED OR CLEANED OUT WITHIN 10 DAYS OF INSPECTION.
- FOR BMP'S NOT MEETING THE INTENDED FUNCTION, A NEW BMP SHALL BE INSTALLED WITHIN 10 DAYS OF THE INSPECTION
- FOR MISSING BMP'S REQUIRING INSTALLATION, THE BMP SHALL BE INSTALLED WITHIN 10 DAYS

CONSTRUCT/ON SITE SEEDING:

- PERMANENT SEEDING INCLUDES THE SEEDBED PREPARATION, SEEDING, AND THE ESTABLISHMENT OF PERENNIAL VEGETATION USED TO PERMANENTLY STABILIZE SOIL, PREVENT SEDIMENT POLLUTION, REDUCE RUNOFF BY PROMOTING INFILTRATION, AND PROVIDE STORMWATER QUALITY BENEFITS OFFERED BY DENSE VEGETATION.
- SPECIFICATIONS FOR PERMANENT SEEDING
- SITE PREPARATION
 - 1. A SUBSOILER, PLOW OR OTHER IMPLEMENT SHALL BE USED TO REDUCE SOIL COMPACTION AND ALLOW MAXIMUM INFILTRATION. (MAXIMIZING INFILTRATION WILL HELP CONTROL BOTH RUNOFF RATE AND WATER QUALITY.)
 - 2. SOILBULGING SHALL NOT BE DONE ON SLOPE AREAS WHERE SOIL PREPARATION SHOULD BE LIMITED TO WHAT IS NECESSARY FOR ESTABLISHING VEGETATION.
 - 3. THE SITE SHALL BE GRADED AS NEEDED TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION AND SEEDING.
 - 4. SOILSLOE SHALL BE APPLIED WHERE NEEDED TO ESTABLISH VEGETATION.
- SEEDBED PREPARATION
 - 1. LIME-AGRICULTURAL GROUND LIMESTONE SHALL BE APPLIED TO ACID SOILS AS RECOMMENDED BY A SOIL TEST IN LIEU OF A SOIL TEST. LIME SHALL BE APPLIED AT THE RATE 100 LB. PER 1,000 SQUARE FEET OR 2 TONS PER ACRE
 - 2. FERTILIZER-FERTILIZER SHALL BE APPLIED AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, FERTILIZER SHALL BE APPLIED AT A RATE OF 12LB. PER 1,000 SQUARE FEET OR 500 LB. PER ACRE OF 10-1-0 OR 10-12-12 ANALYSIS.
 - 3. THE LIME AND FERTILIZER SHALL BE WORKED INTO THE SOIL WITH A DISK HARBOR, SPRING-TOOTH HARBOR, OR OTHER SUITABLE FIRM IMPLEMENT TO A DEPTH OF 3 INCHES. ON SLOPING LAND, THE SOIL SHALL BE WORKED ON THE CONTOUR
- SEEDING DATES AND SOIL CONDITIONS
 - SEEDING SHOULD BE DONE MARCH 1 TO MAY 31 OR AUGUST 1 TO SEPTEMBER 30. THESE SEEDING DATES ARE IDEAL, BUT, WITH THE USE OF ADDITIONAL MULCH AND IRRIGATION, SEEDINGS MAY BE MADE ANY TIME THROUGHOUT THE GROWING SEASON LIME/SEEDBED PREPARATION SHOULD BE DONE WHEN THE SOIL IS DRY ENOUGH TO CRUMBLE AND NOT FORM RIBBONS WHEN COMPRESSED BY HAND. FOR WINTER SEEDING, SEE THE FOLLOWING SECTION ON DORMANT SEEDING.
- DORMANT SEEDINGS
 - 1. SEEDINGS SHALL NOT BE PLANTED FROM OCTOBER 1 THROUGH NOVEMBER 20. DURING THIS PERIOD, THE SEEDS ARE LIKELY TO GERMINATE BUT PROBABLY WILL NOT BE ABLE TO SURVIVE THE WINTER
 - 2. THE FOLLOWING METHODS MAY BE USED FOR "DORMANT SEEDING":
 - 1. FROM OCTOBER 1 THROUGH NOVEMBER 20, PREPARE THE SEEDBED, AND THE REQUIRED AMOUNTS OF LIME AND FERTILIZER, THEN MULCH AND ANCHOR
 - 2. FROM NOVEMBER 20 THROUGH MARCH 15, WHEN SOIL CONDITIONS PERMIT, PREPARE THE SEEDBED, LIME AND FERTILIZER, APPLY THE SELECTED SEED MIXTURE, MULCH AND ANCHOR INCREASE RATES BY 50% FOR THIS TYPE OF SEEDING.
- APPLY SEED UNIFORMY WITH A CYCLONE SEEDER, DRILL, CULTPACKER SEEDER, OR HYDRO-SEEDED (SLURRY MAY INCLUDE SEED AND FERTILIZER) ON A FIRM, MOIST SEEDBED
- WHERE FEASIBLE, EXCEPT WHEN A CULTPACKER TYPE SEEDER IS USED, THE SEEDBED SHOULD BE FIRMED FOLLOWING SEEDING OPERATIONS WITH A CULTPACKER, ROLLER OR LIGHT DRAG, ON SLOPING LAND, SEEDING OPERATIONS SHOULD BE ON THE CONTOUR WHERE FEASIBLE.

- MULCHING
 - 1. MULCH MATERIAL SHALL BE APPLIED IMMEDIATELY AFTER SEEDING. SEEDINGS MADE DURING OPTIMUM SEEDING DATES AND WITH FAVORABLE SOIL CONDITIONS AND ON VERY FLAT AREAS MAY NOT NEED MULCH TO ACHIEVE ADEQUATE STABILIZATION. DORMANT SEEDING SHALL BE MULCHED.
 - 2. MATERIALS
 - 1. STRAW-IF STRAW IS USED, IT SHALL BE UNNOTTED SMALL-GRAIN STRAW APPLIED AT THE RATE OF 2 TONS PER ACRE OR 90 LB. PER 1,000 SQUARE FEET (TWO TO THREE BALES). THE MULCH SHALL BE SPREAD UNIFORMY BY HAND OR MECHANICALLY SO THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND SPREAD TWO 45 LB. BALES OF STRAW IN EACH SECTION.
 - 2. HYDROSEEDERS-IF WOOD-CELLULOSE FIBER IS USED, IT SHALL BE USED AT 2,000 LB. PER ACRE OR 46 LB. PER 1,000 SQUARE FEET.
 - 3. OTHER-OTHER ACCEPTABLE MULCHES INCLUDE MULCH MATTINGS APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR WOOD CHIPS APPLIED AT 6 TONS PER ACRE.
- STRAW-IF STRAW IS USED, IT SHALL BE UNNOTTED SMALL-GRAIN STRAW APPLIED AT THE RATE OF 2 TONS PER ACRE OR 90 LB. PER 1,000 SQUARE FEET (TWO TO THREE BALES). THE MULCH SHALL BE SPREAD UNIFORMY BY HAND OR MECHANICALLY SO THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND SPREAD TWO 45 LB. BALES OF STRAW IN EACH SECTION.
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- STRAW-IF STRAW IS USED, IT

EXTERIOR LIGHT FIXTURE SCHEDULE																
ALL ITEMS LISTED ON THE "LIGHT FIXTURE SCHEDULE" WILL BE SUPPLIED BY THE OWNER (O'REILLY). ITEMS SHALL BE DIRECT ORDERED AND OR RELEASED FROM THE LISTED ELECTRICAL EQUIPMENT DISTRIBUTOR:					SOURCEONE SOLUTIONS 2081 EXCHANGE DRIVE ST. CHARLES, MO 63303					SOURCEONE SOLUTIONS O'REILLY TEAM EMAIL: ncoreilly@sourceonesolutions.com PHONE: 314-499-6400						
MARK	MFR.	CATALOG NUMBER	SUPPLY VOLTAGE	FINISH	MOUNTING		LAMPS			WATTAGE	NOTES	FIXTURE QUANTITY				
					SURFACE	WALL	SURF.	CEILING	OTHER				FLUORESCENT	LED	OTHER	QUANTITY
LED EXTERIOR LIGHTS																
WS1	LSI	XWM-FT-LED-06L-50-UE-BRZ NO SUBSTITUTIONS	120	DARK BRONZE	X				X	1	45	FULL CUT-OFF, BUG RATING B1-U0-G1. ARCHITECTURAL ELEVATIONS SHOW DIMENSIONED LOCATIONS.	6			
WSP	LSI	XWM-FT-LED-06L-50-UE-BRZ-PCI120 NO SUBSTITUTIONS	120	DARK BRONZE	X				X	1	45	FULL CUT-OFF, BUG RATING B1-U0-G1. ARCHITECTURAL ELEVATIONS SHOW DIMENSIONED LOCATIONS.	1			
LED POLE LIGHTS																
P1	LSI	MRM-LED-18L-SIL-FT-UNV-DIM-50-70CRI-BRZ-IL	120	DARK BRONZE				X		X	1	135	25' POLE LENGTH, ADVANCE BALLASTS, FULL CUT-OFF, NO SUBSTITUTIONS. ANCHOR BOLTS W/HARDWARE & TEMPLATE. WITH INTERNAL LOUVER HOUSE SIDE SHIELD, BUG RATING B2-U0-G3	3		
	LSI	5SQB3-S11G-25-S-BRZ-LAB-5BC														
FIXTURE QUANTITY TO BE VERIFIED WITH SITE PLAN QUANTITY																

BACKLIGHT-UGLIGHT-GLARE (BUG) RATING / FULL CUTOFF

ALL "LSI MRM" & "XWM" LED FIXTURES HAVE ZERO UPLIGHT AND ARE CONSIDERED FULL CUT OFF AND DARKSKY COMPLIANT. THE DELIVERED LUMEN CHART BELOW APPLIES TO "LSI XWM" FIXTURES AND CONFIRMS THAT IN EVERY CONFIGURATION THE FIXTURE PRODUCES ZERO UPLIGHT (U = 0). BUG RATING CHART FOR "LSI MRM" FIXTURES IS FOUND ON CORRESPONDING "SP" SHEETS.

DELIVERED LUMENS*															
Lumen Package	Distribution	CRI	2700K			3000K			4000K			5000K			Wattage
			Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
O3L	2	70	2703	120	B1-U0-G1	2822	125	B1-U0-G1	3088	137	B1-U0-G1	3088	137	B1-U0-G1	22.6
	3	70	2752	122	B1-U0-G1	2873	127	B1-U0-G1	3144	139	B1-U0-G1	3144	139	B1-U0-G1	
	FT	70	2718	120	B1-U0-G1	2838	126	B1-U0-G1	3105	137	B1-U0-G1	3105	137	B1-U0-G1	
O4L	2	70	3546	120	B1-U0-G1	3702	125	B1-U0-G1	4051	137	B1-U0-G1	4051	137	B1-U0-G1	29.5
	3	70	3610	122	B1-U0-G1	3769	128	B1-U0-G1	4124	140	B1-U0-G1	4124	140	B1-U0-G1	
	FT	70	3565	121	B1-U0-G1	3722	126	B1-U0-G1	4073	138	B1-U0-G1	4073	138	B1-U0-G1	
O6L	2	70	5274	118	B2-U0-G1	5506	123	B2-U0-G2	6025	135	B2-U0-G2	6025	135	B2-U0-G2	44.7
	3	70	5369	120	B1-U0-G1	5606	125	B1-U0-G1	6134	137	B1-U0-G2	6134	137	B1-U0-G2	
	FT	70	5303	119	B1-U0-G2	5536	124	B1-U0-G2	6058	136	B1-U0-G2	6058	136	B1-U0-G2	
O8L	2	70	6996	113	B2-U0-G2	7304	118	B2-U0-G2	7993	129	B2-U0-G2	7993	129	B2-U0-G2	62.0
	3	70	7123	115	B1-U0-G2	7437	120	B1-U0-G2	8138	131	B2-U0-G2	8138	131	B2-U0-G2	
	FT	70	7035	113	B1-U0-G2	7345	118	B2-U0-G2	8037	130	B2-U0-G2	8037	130	B2-U0-G2	
12L	2	70	10516	103	B2-U0-G2	10979	107	B3-U0-G3	12014	118	B3-U0-G3	12014	118	B3-U0-G3	102.2
	3	70	10707	105	B2-U0-G2	11178	109	B2-U0-G2	12232	120	B2-U0-G2	12232	120	B2-U0-G2	
	FT	70	10574	103	B2-U0-G3	11040	108	B2-U0-G3	12080	118	B2-U0-G3	12080	118	B2-U0-G3	

AUTOMATIC LIGHTING CONTROL

COMPLIANCE WITH ENERGY CODE IS ACHIEVED BY:

- ONCE THE EMS HAS BEEN PROGRAMMED, THE INTERIOR AND EXTERIOR LIGHTS WILL TURN ON AND OFF USING THE FOLLOWING LOGIC: SEE EM SHEETS.

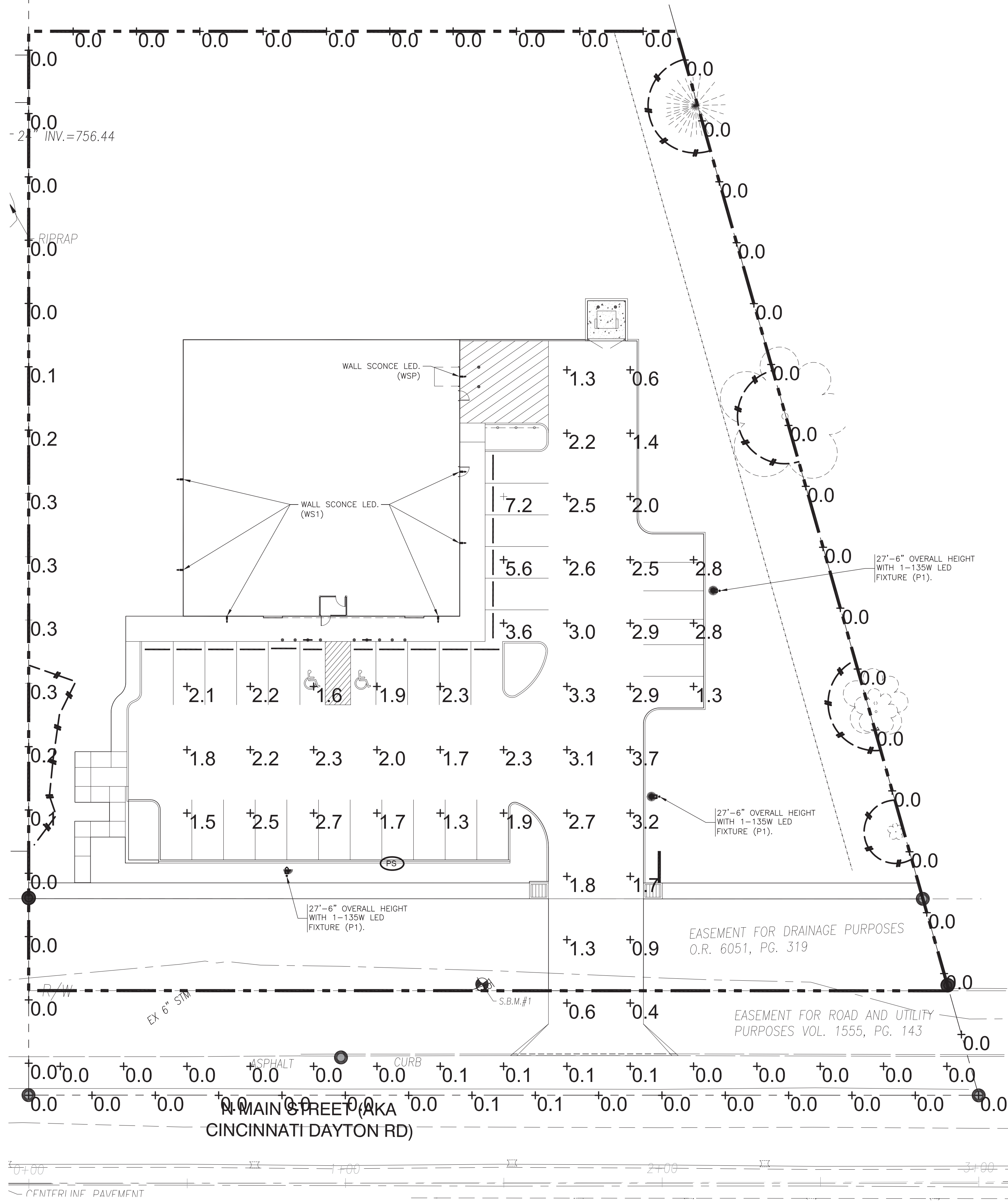
INTERIOR WORK LIGHTS WILL TURN ON WITH FIRST MOTION IN THE STORE AND WILL TURN OFF 15 MINUTES AFTER LAST MOTION ONCE THE STORE IS CLOSED.

INTERIOR SALES LIGHTS WILL TURN ON AT STORE OPENING AND TURN OFF 15 MINUTES AFTER STORE CLOSING.

EXTERIOR SIGN LIGHTS WILL TURN ON WHEN ITS DARK ENOUGH OUTSIDE ANYTIME DURING STORE HOURS, AND WILL TURN OFF AT STORE CLOSING.

EXTERIOR SITE LIGHTS WILL TURN ON WHEN IT IS DARK ENOUGH OUTSIDE AND IT IS WITHIN STORE HOURS OR THERE IS MOTION IN THE STORE. THEY WILL TURN OFF 30 MINUTES AFTER LAST MOTION ONCE THE STORE IS CLOSED.

FOR NEW CONSTRUCTION LOCATIONS ONLY, THERE IS A TEMPORARY PROGRAM TO KEEP SIGN AND SITE LIGHTS ON UNTIL MIDNIGHT RATHER THAN THE TIMES INDICATED ABOVE. O'REILLY WILL DISABLE THIS PROGRAM ONE YEAR AFTER STORE OPENING.
- RESTROOMS AND OFFICES: ALL LIGHTING IN THESE AREAS ARE CONTROLLED BY OCCUPANT-SENSING DEVICES.



SITE LIGHTING PHOTOMETRICS

SCALE: 1"=20'



BTS

STATE OF OHIO

PROFESSIONAL ENGINEER

11/19/21

REGISTERED

COURIER

PE 84173

11/19/21

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O'Reilly AUTO PARTS

CORPORATE OFFICES

233 SOUTH PATTERSON

SPRINGFIELD, MISSOURI 65802

(417) 862-2674 TELEPHONE

PROJECT:

NEW O'REILLY AUTO PARTS STORE

301 NORTH MAIN STREET

MONROE, OHIO

SITE LIGHTING PHOTOMETRICS

3855 S. JEFFERSON AVE.

SPRINGFIELD, MO 65807

P: 417-882-2550

F: 417-882-2550

WWW.SMITHGOTH.COM

SMITHGOTH ENGINEERS, INC.

DRAWN BY:

JTH

CHECKED BY:

ALT/BLC

DATE:

11/19/21

REVISION:

PROJECT NUMBER:

MNO

SHEET NUMBER

SP1

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O'Reilly AU

PROJECT:
NEW O'REILLY AUTO PART
301 NORTH MAIN STREET
MONROE, OHIO

SITE LIGHTING DETAILS

SERVICE AND ARE THE PROPERTY OF THE DESIGN PROFESSIONAL



Catalog #:

Project:

Prepared By:

Date:

Type:

Mirada Medium (MRM)

Outdoor LED Area Light

OVERVIEW	
Lumen Package	7000 - 48,000
Wattage Range	48 - 401
Efficacy Range (LPW)	117 - 160
Weight (lbs/kg)	30 (13.6)

FEATURES & SPECIFICATIONS

Construction

- Rugged die-cast aluminum housing contains factory prewired driver and optical seal. Cast aluminum wiring access door located underneath.
- Designed to mount to square or round poles.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Shipping weight: 37 lbs in cartons.

Optical System

- State-of-the-Art one piece silicone optic sheet delivers industry leading optical performance with an integrated gasket to provide IP66 rated sealed optical chamber in 1 year warranty.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in IES Types 2, 3, 5W, FT, FTA and AM.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93%.
- Zero uplight.
- Available in 5000K, 4000K, and 3000K color temperatures per ANSI C78.377. Also Available in Phosphor Converted Amber with Peak intensity at 610nm.
- Minimum CRI of 70.
- Integral lower (L) and house-side shield (H) options available for improved backlight control without sacrificing street side performance. See page 3 for more details.

QUICK LINKS

Ordering Guide	Performance	Photometrics	Dimensions
----------------	-------------	--------------	------------

Electrical

- High-performance programmable driver features over-voltage, under-voltage, short-circuit and over temperature protection. Custom lumen and wattage packages available.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (100-277 Vac) Input 50/60 Hz or optional High Voltage (347-480 Vac).
- L80 Calculated Life: >100K Hours (See Lumen Maintenance on page 2).
- Total harmonic distortion: <5%.
- Operating temperature: -40°C to +50°C (-40°F to +122°F). 42L and 48L lumen packages rated to +40°C.
- Power factor > 90.
- Input power stays constant over life.
- Field replaceable 10KV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.412).
- High-efficiency LEDs mounted to metal-core circuit board to maximize heat dissipation.
- Components are fully enclosed in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed.

Controls

- Optional integral passive infrared "Bluetooth" motion and photocell sensor (see page 9 for more details). Fixtures operate independently and can be commissioned via iOS or Android.
- LSI's AirLink™ wireless control system options reduce energy and maintenance costs while optimizing output quality 24/7. (see page 9 for more details).

Installation

- Designed to mount to square or round poles.
- A single fastener secures the hinged door, underneath the housing and provides quick & easy access to the electrical compartment.
- Includes terminal block accepts up to 12 ga wire.
- Utilizes LSI's traditional 3" drill pattern B3 for easy fastening of LSI products. (See drawing on page 9)

Warranty

- LSI LED Fixtures carry a 5-year warranty.

Listings

- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- IDA compliant; with 3000K color temperature selection.
- Title 24 compliant; see local ordinance for qualification information.
- Suitable for wet locations.
- IP66 rated Luminaire per IEC 60598.
- 3-C rated for ANSI C136-1 high vibration applications are qualified.
- DesignLights Consortium (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/DLP to confirm which versions are qualified.
- Patented Silicone Optics (US Patent NO. 10,916,365 B2)
- IK08 rated luminaire per IEC 60626 mechanical impact code

Specifications and dimensions subject to change without notice.

LSI Industries Inc. 1000 Alliance Rd. Cincinnati, OH 45242 • www.lsicontrols.com

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Catalog #:

Part #: _____

Date: _____

Type: _____

Project: _____

Mirada Medium Wall Sconce (XWM)

Outdoor LED Wall Sconce






OVERVIEW	
Lumen Range	3,000 - 12,000
Wattage Range	23 - 102
Efficacy Range (LPW)	107 - 140
Weight (lb/kg)	30 (13.6)

FEATURES & SPECIFICATIONS

Construction

- Rugged die-cast aluminum housing contains factory prewired driver and optical unit. Hinged die-cast aluminum wiring access door located underneath.
- Galvanized-steel universal wall mount bracket comes standard with hinging mechanism to easily access the junction box wire connections without removing the luminaire.
- Optional pole-mounting bracket (XPM-A) mounts to standard poles.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Shipping weight: 30 lbs in carton.

Optical System

- State-of-the-Art one piece silicone optic shell delivers industry leading optical performance with an integrated gasket to provide IP65 rated sealed optical chamber in 1" component.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in Types 2, 3, and Forward Throw (FT) distributions.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 90%.
- Zero uplift.
- Available in 5000K, 4000K and 3000K color temperatures per ANSI C78-377. Also Available in Phosphor Converted Amber with Peak Intensity at 610nm.
- Minimum CRI of 70.

Electrical

- High-performance programmable driver

QUALITY LINKS

Ordering Guide	Performance	Photometrics	Dimensions
features over-voltage, under-voltage, short-circuit and over temperature protection. Custom lumens and wattage packages available. 0-10V dimming (10% - 100%) standard. - Standard Universal Voltage (120-277 Vac) - Input 50/60 Hz or optional High Voltage (347-480 Vac) - L80 Calculated Life: >100K Hours - Total harmonic distortion: <20% - Operating Temperature: -40°C to +50°C (-40°F to +122°F). - Power factor: > .90 - Input power stays constant over life. - Optional 10kV surge protection device makes a minimum Category C Low operation (per ANSI/IEEE C82.41.2).	High-Efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed via hinged door.	IP65 rated luminaire per IEC 60598. 30 gfc for ANSI C136.31 high vibration applications when pole mounted (using optional XPM-A bracket) or wall mounted. IK08 rated luminaire per IEC 66262	IP65 rated luminaire per IEC 60598. 30 gfc for ANSI C136.31 high vibration applications when pole mounted (using optional XPM-A bracket) or wall mounted. IK08 rated luminaire per IEC 66262

Controls

- Integral passive infrared Bluetooth™ motion sensor photocell sensor options. Fixtures operate independently and can be commissioned via an iOS or Android configuration app. Updates and modifications to the control strategy are easily implemented via an intuitive app.
- LSI's xLR™ Blue lighting control system is a simple feature rich wireless Bluetooth

mesh network. The integrated fixture sensor module provides wireless control of grouped fixtures based on motion sensors, daylight or a fully customizable schedule.

Installation

- Universal wall mounting plate easily mounts directly to 4" octagonal or square junction box.
- 2 fasteners secure the hinged door underneath the housing and provide quick & easy access to the electrical compartment for installing/terminating.
- Optional terminal block accepts up to 12 ga wire.

Warranty

- LSI LED Fixtures carry a 5-year warranty.
- 1 Year warranty on Battery Back-up option.

Listings

- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- ILC compliant: with 3000K or lower color temperature selection.
- Title 24 compliant: see local ordinance for qualification information.
- Suitable for wet Locations.
- IP65 rated luminaire per IEC 60598.
- 30 gfc for ANSI C136.31 high vibration applications when pole mounted (using optional XPM-A bracket) or wall mounted. IK08 rated luminaire per IEC 66262
- Minimal impact code
- DesignLights Consortium (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/DLC to confirm which versions are qualified.



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Type: _____

Mirada Wall Sensor (XWM)

[Back to Quick Links](#)

ORDERING GUIDE

TYPICAL ORDER EXAMPLE: **XWM 2 LED 03L 30 UE BRZ ALSC**

Luminaire Prefix	Distribution	LED Technology	Lumen Package	Color Temperature	Voltage
XWM - Medium - Mini Series	2 - Type 2 3 - Type 3 FT - Type Forward Throw	LED	3L - 3,000 lm 4L - 4,000 lm 6L - 6,000 lm 8L - 8,000 lm 12L - 12,000 lm Custom Lumen Package ¹	30 - 3000K 40 - 4000K 50 - 5000K AMS - Phosphor Converted Amber ²	UE - Universal Voltage (120-277V) HV - High Voltage (347-480V)

Finish	Controls (Choose One)	Options
BLK - Black BRZ - Black Bronze GMS - Gun Metal Gray OPF - Opal/White MSV - Metallic Silver PLP - Platinum Plus SWT - Satin White Green WHI - White	Wireless Controls ALSC - AirLink Synapse Control System ALSC280 - Air Link Synapse Control System with 8-1/2" Motion Sensor ALSC300 - Air Link Synapse Control System with 12" Motion Sensor ALSC31 - Air Link Blue Wireless Motion & Photo Sensor Controller (8-24" mounting height) ALSC32 - Air Link Blue Wireless Motion & Photo Sensor Controller (25-40" mounting height) Dimm - 0-10V Dimming leads added to housing exterior IBMT - Integral Bluetooth™ Motion and Photocell Sensor max 8-24" mounting height ⁴ IMBTS - Integral Bluetooth Motion and Photocell Sensor max 32-40" mounting height ⁴ Button Touch Photocells PC120 - 120V PC208-277 - 208-277V PC347 - 347V Lumen Limiting Controls LED - Limit light integral Wireless Radio Control by Lutron ⁵ LLCS1 - Limitlight Integral Wireless Radio Control and PIR Motion/Daylight Sensor by Lutron 8-15" mt height ⁴ LLCS2 - Limitlight Integral Wireless Radio Control and PIR Motion/Daylight Sensor by Lutron 16-30" mt height ⁴ LLCS3 - Limitlight Integral Wireless Radio Control and PIR Motion/Daylight Sensor by Lutron 31-40" mt height ⁴	BS - Battery Back-up (P/C) CWDR - Cold Weather Battery Backup (+20°C) XPM4 - Pole Mounting Bracket SP1 - 10kV Surge Protection TR - Terminal Block

ACCESSORY ORDERING INFORMATION³

Description	Order Number	Description	Order Number
XWM SW BLK - Surface Wiring Box (Available in black only)	306915BLK	DFK - Double Fusing	DFK208 ⁶
FK120 - Single Fusing	FK120	DFK - Double Fusing (240V)	DFK240 ⁶
FK277 - Single Fusing	FK277	DFK - Double Fusing (480V)	DFK480 ⁶
FK347 - Single Fusing	FK347	10" Linear Bird Spike Kit (2" Recommended per Luminaire)	751632

FOOTNOTES:

- Only available in 6L Lumen Package. Consult factory for lead time and availability.
- Not available in HV.
- Consult Factory for Site Layout.
- IMSBT is field configurable via the LSI app that can be downloaded from your smartphone's native app store.
- Fusing must be located in a hand hole for pole or in the junction box.
- Custom Lumen and wattage packages available; consult factory. Values are within industry standard tolerances but not DULC listed.
- Accessories are shipped separately and field installed.

Luminaire Shown with IMSBT

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SPCC-100-01-0020

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EROSION CONTROL INTIAL/PHASE 1:

THE CONTRACTOR SHALL ADHERE TO THE FOLLOWING PHASES FOR INSTALLATION OF EROSION CONTROL MEASURES. FAILURE TO FOLLOW THE BELOW REQUIREMENTS SHALL BE GROUNDS FOR WORK STOPPAGE AND/OR FINES BY THE LOCAL GOVERNING BODY AND/OR THE STATE SOIL AND WATER CONSERVATION COMMISSION. IT IS RECOMMENDED THAT THE CONTRACTOR AND OWNER SCHEDULE A PRE-LAND DISTURBANCE MEETING WITH THE ENGINEER, LOCAL CITY INSPECTOR TO DISCUSS THE EROSION CONTROL PHASING SEQUENCE. BELOW IS THE PHASING SCHEDULE FOR INSTALLATION OF EROSION, SEDIMENTATION AND POLLUTION CONTROL MEASURES. ALL E.S.P.C. MEASURES SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL FOR EROSION AND SEDIMENT CONTROL MEASURES AS PREPARED STATE SOIL AND WATER CONSERVATION COMMISSION AND AS DIRECTED BY LOCAL AND STATE REPRESENTATIVES.

SEQUENCING:

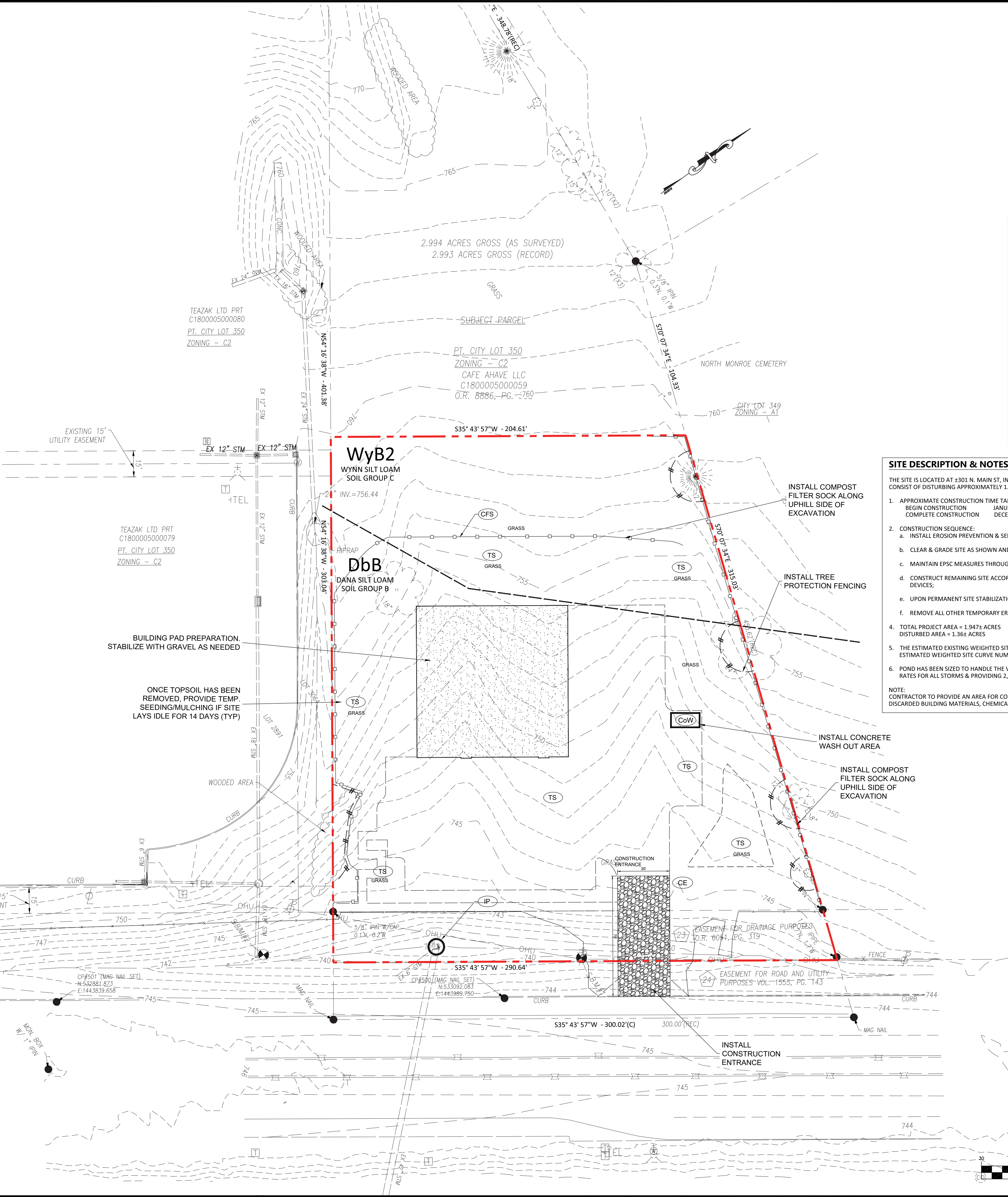
1. INSTALL THE EROSION PREVENTION & SEDIMENT CONTROL MEASURES (CONSTRUCTION ENTRANCE/EXIT, COMPOSITE FILTER SOCK/SILT FENCING, INLET PROTECTION & INSTALL CONCRETE WASHOUT AREA). THE INSTALLATION OF THE ABOVE INITIAL/PHASE 1 MEASURES SHALL BE DONE WITH THE MINIMUM AMOUNT OF MECHANIZED EQUIPMENT AND ARE THE FIRST ORDER OF BUSINESS. NO GRADING, DEMOLITION OR CLEARING SHALL OCCUR PRIOR TO THE INSTALLATION OF THE EROSION & SEDIMENT CONTROL & TREE PROTECTION MEASURES;
2. THE CONTRACTOR SHALL NOTIFY DESIGN PROFESSIONAL WHO PREPARED THE EPSC PLAN, WHEN THE SITE IS READY FOR INSPECTION. THE ENGINEER MUST INSPECT THE INSTALLATION OF INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BEST MANAGEMENT PRACTICES WITHIN 7 DAYS OF INSTALLATION;
3. AMMENDMENTS/REVISIONS TO THE EPSC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMPs/SCMS WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL;
4. WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.

NOTICE TO CONTRACTOR

CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL NECESSARY AND STATE MANDATED PROTECTION MEASURES FOR EROSION, SEDIMENTATION AND POLLUTION CONTROL. THESE SHALL INCLUDE, BUT NOT BE LIMITED TO, INSTALLATION OF DOWNHILL GRADIENT SILT PROTECTION FENCING, AND GRASSING-SEEDING MEASURES. PLEASE REFER TO THE COVER SHEET AND THE EROSION, SEDIMENTATION AND POLLUTION CONTROL DETAILS ATTACHED TO THIS SET OF CONSTRUCTION DOCUMENTS FOR APPLICABLE DETAILS AND OTHER RELATED EROSION CONTROL NOTES.

EROSION CONTROL NOTES:

1. PREEXISTING VEGETATION SHALL BE RETAINED ON IDLE PORTIONS OF THE BUILDING LOT FOR AS LONG AS CONSTRUCTION OPERATIONS ALLOW. CLEARING SHALL BE DONE SO ONLY ACTIVE WORKING AREAS ARE BARE.
2. TEMPORARY SEED AND/OR MULCH SHALL BE APPLIED TO AREAS, SUCH AS STOCKPILES AND ROUGH GRADED AREAS, THAT ARE BARE AND NOT ACTIVELY BEING WORKED. THIS SHALL APPLY TO AREAS THAT WILL NOT BE REWORKED FOR 21 DAYS OR MORE.
3. STOCKPILES CREATED FROM BASEMENT EXCAVATION AND GRADING SHALL BE SITUATED AWAY FROM STREETS, SWALES, OR OTHER WATERWAYS AND SHALL BE SEEDD AND/OR MULCHED IMMEDIATELY.
4. SILT FENCE OR OTHER SEDIMENT BARRIERS SHALL CONTROL SHEET FLOW RUNOFF FROM THE BUILDING LOT. THESE SHALL NOT BE CONSTRUCTED IN CHANNELS OR AREAS OF CONCENTRATED FLOW. OTHER SEDIMENT CONTROLS SUCH AS SEDIMENT TRAPS AND INLET PROTECTION SHALL ALSO BE USED AS NEEDED TO CONTROL SEDIMENT RUNOFF. SEDIMENT CONTROL PRACTICES SHALL BE INSPECTED WEEKLY AFTER STORM EVENTS, AND MAINTAINED IN GOOD WORKING CONDITION.
5. CONSTRUCTION VEHICLE ACCESS SHALL BE LIMITED TO ONE ROUTE, TO THE GREATEST EXTENT PRACTICAL. THE ACCESS SHALL BE GRAVEL OR CRUSHED ROCK UNDERLAIN WITH GEOTEXTILE.
6. MUD TRACKED ONTO STREETS OR SEDIMENT SETTLED AROUND CURB INLET PROTECTION SHALL BE REMOVED DAILY OR AS NEEDED TO PREVENT IT FROM ACCUMULATING. IT SHALL BE REMOVED BY SHOVELING AND SCRAPING AND SHALL NOT BE WASHED OFF PAVED SURFACES OR INTO STORM DRAINS. SEDIMENT REMOVED SHALL BE PLACED WHERE IT WILL NOT BE SUBJECT TO EROSION OR CONCENTRATED RUNOFF.
7. CONTRACTOR SHALL IMMEDIATELY BRING TO THE ATTENTION OF THE OWNER AND ENGINEER ANY SUBSURFACE CONDITIONS WHICH MAY HAVE AN ADVERSE IMPACT UPON THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS AS SHOWN AND NOTED WITHIN THESE CONSTRUCTION DOCUMENTS. CONDITIONS OF NEGATIVE IMPACT MAY INCLUDE, BUT NOT BE LIMITED TO: UNDERGROUND STORAGE TANKS, UNKNOWN UTILITIES, SATURATED/UNSTABLE SOILS, OR UNIDENTIFIED BURIED DEBRIS.
8. CONTRACTOR TO PROVIDE AN AREA FOR CONCRETE WASH DOWN AS SHOWN ON THE PLANS. CONTRACTOR SHALL NOTIFY ENGINEER IF WASH DOWN LOCATION VARIES FROM PLANS.
9. EROSION PREVENTION AND SEDIMENT CONTROL MEASURES MUST BE IN PLACE AND FUNCTIONAL BEFORE EARTH MOVING OPERATION BEGINS AND MUST BE CONSTRUCTED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. TEMPORARY MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY BUT MUST BE REPLACED AT THE END OF THE WORKDAY.
10. THE FOLLOWING RECORDS SHALL BE MAINTAINED ON OR NEAR SITE: THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR; THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; THE DATES WHEN STABILIZATION MEASURES ARE INITIATED; INSPECTION RECORDS AND RAINFALL RECORDS.
11. THE CONTRACTOR SHALL MAINTAIN DAILY RAINFALL RECORDS AT THE SITE OR USE A REFERENCE SITE FOR A RECORD OF DAILY AMOUNT OF PRECIPITATION.
12. PRE-CONSTRUCTION VEGETATIVE GROUND COVER SHALL NOT BE DESTROYED, REMOVED OR DISTURBED MORE THAN 10 DAYS PRIOR TO GRADING OR EARTH MOVING UNLESS THE AREA IS SEEDD AND/OR MULCHED OR OTHER TEMPORARY COVER IS INSTALLED.
13. CONSTRUCTION MUST BE SEQUENCED TO MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED AREAS.
14. SEDIMENT SHOULD BE REMOVED FROM SEDIMENT TRAPS, SILT FENCES, SEDIMENTATION PONDS AND OTHER SEDIMENT CONTROLS AS NECESSARY AND MUST BE REMOVED WHEN DESIGN CAPACITY HAS BEEN REDUCED BY 50% OR AS DIRECTED BY OWNERS REPRESENTATIVE.
15. THE CONTRACTOR SHALL REMOVE SEDIMENT FROM ALL DRAINAGE STRUCTURES BEFORE ACCEPTANCE BY LOCAL GOVERNING AGENCY OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
16. THE CONTRACTOR SHALL REMOVE THE TEMPORARY EROSION AND WATER POLLUTION CONTROL DEVICES ONLY AFTER A SOLID STAND OF GRASS HAS BEEN ESTABLISHED ON GRADED AREAS AND WHEN IN THE OPINION OF THE OWNER'S REPRESENTATIVE, THEY ARE NO LONGER NEEDED.



NOTE:
THE SUBJECT IS IN ZONE X AND DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD ZONE ACCORDING TO COMMUNITY PANEL NO. 39017C 0228F DATED OCTOBER 19, 2018 OF THE F.E.M.A. FLOOD INSURANCE RATE MAPS FOR COMMUNITY NAME: CITY OF MONROE, OHIO.

SOIL TYPES

SOIL DESCRIPTIONS OBTAINED FROM A SOIL SURVEY OF BUTLER COUNTY, OHIO

MAP SYMBOL - DESCRIPTION - SLOPES

WyB2, WYNN SILT LOAM - HSG=C

DbB, DANA SILT LOAM - HSG=B

EROSION CONTROL LEGEND

(TO)	7.3	TOP SOIL
(SR)	7.5	SURFACE ROUGHENING
(MO)	7.7	MULCH STABILIZATION
(TS)	7.8	TEMPORARY SEEDING
(PS)	7.9	PERMANENT SEEDING/SOD
(HYD)	7.12	HYDROSEEDING
(CoW)	7.16	CONCRETE WASH-OUT AREA
(ChD)	7.20	CHECK DAM
(DI)	7.22	DIVERSION
(OP)	7.23	OUTLET PROTECTION
(CE)	7.28	CONSTRUCTION ENTRANCE
(SF)	7.34	SILT FENCE
(IP)	7.35	INLET PROTECTION
(CFS)	7.37	COMPOST FILTER SOCK

SITE DESCRIPTION & NOTES:

THE SITE IS LOCATED AT ±301 N. MAIN ST., IN MONROE, BUTLER COUNTY, OHIO. CONSTRUCTION ACTIVITY ON THIS SITE WILL CONSIST OF DISTURBING APPROXIMATELY 1.36± ACRES TO CONSTRUCT A NEW RETAIL BUILDING.

1. APPROXIMATE CONSTRUCTION TIME TABLE:
BEGIN CONSTRUCTION JANUARY 2022
COMPLETE CONSTRUCTION DECEMBER 2022
2. CONSTRUCTION SEQUENCE:
 - a. INSTALL EROSION PREVENTION & SEDIMENT CONTROL DEVICES AS SHOWN ON THE PLANS;
 - b. CLEAR & GRADE SITE AS SHOWN AND AS NEEDED TO ACCOMPLISH SITE AND UTILITY CONSTRUCTION;
 - c. MAINTAIN EPSC MEASURES THROUGHOUT CONSTRUCTION. INSPECT DAILY AND REPAIR AS NEEDED;
 - d. CONSTRUCT REMAINING SITE ACCORDING TO APPROVED PLANS, INCLUDING ALL ADDITIONAL EROSION CONTROL DEVICES;
 - e. UPON PERMANENT SITE STABILIZATION SOD, SEED AND STRAW;
 - f. REMOVE ALL OTHER TEMPORARY EROSION CONTROL DEVICES PRIOR TO AS-BUILT APPROVALS;
4. TOTAL PROJECT AREA = 1.947± ACRES
DISTURBED AREA = 1.36± ACRES
5. THE ESTIMATED EXISTING WEIGHTED SITE RUNOFF COEFFICIENT IS 73.1. UPON COMPLETION OF THE SITE, THE ESTIMATED WEIGHTED SITE CURVE NUMBER WILL BE 75.6.
6. POND HAS BEEN SIZED TO HANDLE THE VOLUME FOR THE 2 THRU 100 YR STORM EVENTS, REDUCING PEAK RUNOFF RATES FOR ALL STORMS & PROVIDING 2,152 CF OF WATER QUALITY VOLUME.

NOTE:
CONTRACTOR TO PROVIDE AN AREA FOR CONCRETE WASH DOWN AS WELL AS CONTROL OF OTHER SITE WASTES SUCH AS DISCARDED BUILDING MATERIALS, CHEMICALS, DEBRIS, AND SANITARY WASTES.

SYMBOLS LEGEND

	EXISTING CONCRETE
	EXISTING GRAVEL TO REMAIN
	PREP AREA FOR PROPOSED DRIVEWAY
	PROPOSED HEAVY DUTY ASPHALT
	PROPOSED CONCRETE SIDEWALK & STOREFRONT HEAD-IN PARKING
	EXISTING CHAIN LINK FENCE
	EXISTING 1' CONTOUR
	EXISTING 5' CONTOUR
	PROPOSED 1' CONTOUR
	PROPOSED 5' CONTOUR
	PROPOSED COMPOST FILTER SOCK
	PROPOSED SILT FENCING
	PROPOSED TREE PROTECTION
	PROPOSED LIMITS OF DISTURBANCE
	PROPOSED SANITARY SERVICE LINE
	PROPOSED UNDERGROUND ELECTRIC
	PROPOSED OVERHEAD ELECTRIC
	PROPOSED LIGHT POLE BASE

1 inch = 30 ft.



SHEETS BEARING THIS SEAL ARE AUTHENTICATED. RESPONSIBILITY FOR ALL OTHER PLANS, SPECIFICATIONS OR INSTRUMENTS ARE DECLARED.

CONSTRUCTION ADMINISTRATION NOT INCLUDED IN CONTRACT

PERMIT PLANS

CIVIL ENGINEER:
NE Group
ENGINEERING - PLANNING - DESIGN
INFO@THENEGROUP.COM

TUCKERMAN
DEVELOPMENT

CLIENT:

RETAIL DEVELOPMENT
301 N. MAIN STREET
MONROE, OHIO
ZONING: C-2

PROJECT:

REVISIONS

1		
2		
3		
4		
5		

SHEET NAME:
EROSION PREVENTION & SEDIMENT CONTROL - INITIAL PHASE

DATE: 11/22/2021

DRAWN BY: CD

CHECKED BY: LE

PROJECT NO.: 21-888

SHEET NUMBER:

SW1

NOTE: THE CONTRACTOR SHALL IMMEDIATELY BRING TO THE ATTENTION OF THE OWNER AND ENGINEER ANY SUBSURFACE CONDITIONS WHICH MAY HAVE AN ADVERSE IMPACT UPON THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS AS SHOWN AND NOTED WITHIN THESE CONSTRUCTION DOCUMENTS. CONDITIONS OF NEGATIVE IMPACT MAY INCLUDE, BUT NOT BE LIMITED TO: UNDERGROUND STORAGE TANKS, UNKNOWN UTILITIES, SATURATED/UNSTABLE SOILS, OR UNIDENTIFIED BURIED DEBRIS.

EROSION CONTROL INTERMEDIATE/PHASE 2:

THE CONTRACTOR SHALL ADHERE TO THE FOLLOWING PHASES FOR INSTALLATION OF EROSION CONTROL MEASURES. FAILURE TO FOLLOW THE BELOW REQUIREMENTS SHALL BE GROUNDS FOR WORK STOPPAGE AND/OR FINES BY THE LOCAL GOVERNING BODY AND/OR THE STATE SOIL AND WATER CONSERVATION COMMISSION. IT IS RECOMMENDED THAT THE CONTRACTOR AND OWNER SCHEDULE A PRE-LAND DISTURBANCE MEETING WITH THE ENGINEER, LOCAL CITY INSPECTOR TO DISCUSS THE EROSION CONTROL PHASING SEQUENCE. BELOW IS THE PHASING SCHEDULE FOR INSTALLATION OF EROSION, SEDIMENTATION AND POLLUTION CONTROL MEASURES. ALL E.S.P.C. MEASURES SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL FOR EROSION AND SEDIMENT CONTROL MEASURES AS PREPARED STATE SOIL AND WATER CONSERVATION COMMISSION AND AS DIRECTED BY LOCAL AND STATE REPRESENTATIVES.

SEQUENCING:

1. EXCAVATE, PREPARE & INSTALL SEDIMENT BASIN & STORMWATER MANAGEMENT BASIN, PROTECT EXCAVATION & INLET PIPES DURING AND AFTER INSTALLATION.
2. EXCAVATE & PREPARE PARKING AREA & SIDEWALKS FOR NEW SURFACE INSTALLATION. EXCAVATE & PREPARE BUILDING AREAS FOR FOOTINGS/FOUNDATION WORK.
3. MAINTAIN CONSTRUCTION ENTRANCE, TREE PROTECTION FENCING, COMPOST FILTER SOCK (OR SILT FENCING) & INLET PROTECTION THROUGHOUT CONSTRUCTION. REPAIR, REPLACE, CLEAN & MAINTAIN AS NEEDED.
4. MAINTAIN TEMPORARY & PERMANENT SOIL STABILIZATION AS REQUIRED DURING CONSTRUCTION PHASE.
5. CLEAN AND REPLACE CONCRETE WASHOUT AREA AS NEEDED.

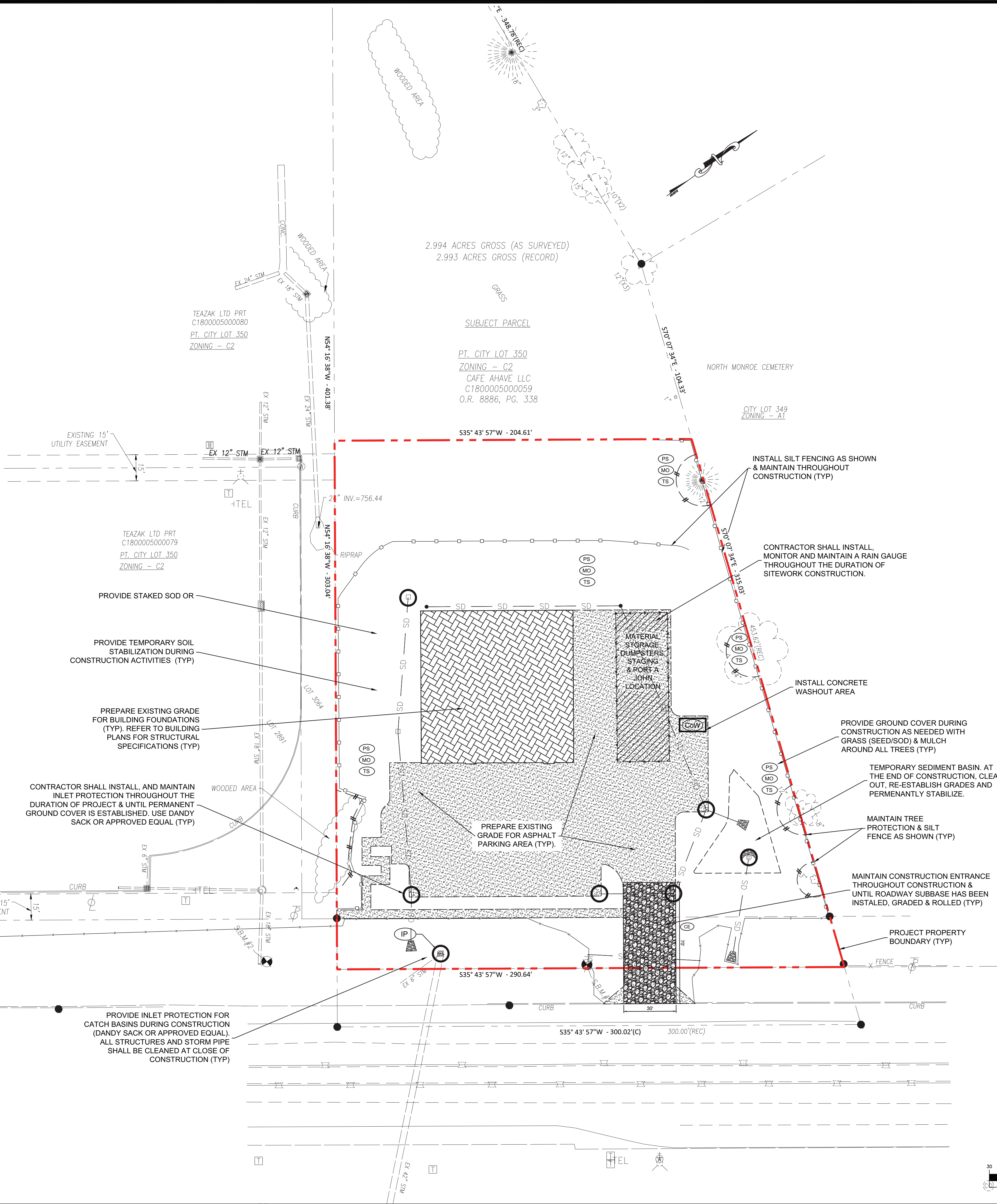
NOTICE TO CONTRACTOR

CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL NECESSARY AND STATE MANDATED PROTECTION MEASURES FOR EROSION, SEDIMENTATION AND POLLUTION CONTROL. THESE SHALL INCLUDE, BUT NOT BE LIMITED TO, INSTALLATION OF DOWNHILL GRADIENT SILT PROTECTION FENCING, AND GRASSING-SEEDING MEASURES. PLEASE REFER TO THE COVER SHEET AND THE EROSION, SEDIMENTATION AND POLLUTION CONTROL DETAILS ATTACHED TO THIS SET OF CONSTRUCTION DOCUMENTS FOR APPLICABLE DETAILS AND OTHER RELATED EROSION CONTROL NOTES.

EROSION CONTROL NOTES:

1. PREEXISTING VEGETATION SHALL BE RETAINED ON IDLE PORTIONS OF THE BUILDING LOT FOR AS LONG AS CONSTRUCTION OPERATIONS ALLOW. CLEARING SHALL BE DONE SO ONLY ACTIVE WORKING AREAS ARE BARE.
2. TEMPORARY SEED AND/OR MULCH SHALL BE APPLIED TO AREAS, SUCH AS STOCKPILES AND ROUGH GRADED AREAS, THAT ARE BARE AND NOT ACTIVELY BEING WORKED. THIS SHALL APPLY TO AREAS THAT WILL NOT BE REWORKED FOR 21 DAYS OR MORE.
3. STOCKPILES CREATED FROM BASEMENT EXCAVATION AND GRADING SHALL BE SITUATED AWAY FROM STREETS, SWALES, OR OTHER WATERWAYS AND SHALL BE SEEDDED AND/OR MULCHED IMMEDIATELY.
4. SILT FENCE OR OTHER SEDIMENT BARRIERS SHALL CONTROL SHEET FLOW RUNOFF FROM THE BUILDING LOT. THESE SHALL NOT BE CONSTRUCTED IN CHANNELS OR AREAS OF CONCENTRATED FLOW. OTHER SEDIMENT CONTROLS SUCH AS SEDIMENT TRAPS AND INLET PROTECTION SHALL ALSO BE USED AS NEEDED TO CONTROL SEDIMENT RUNOFF. SEDIMENT CONTROL PRACTICES SHALL BE INSPECTED WEEKLY AFTER STORM EVENTS, AND MAINTAINED IN GOOD WORKING CONDITION.
5. CONSTRUCTION VEHICLE ACCESS SHALL BE LIMITED TO ONE ROUTE, TO THE GREATEST EXTENT PRACTICAL. THE ACCESS SHALL BE GRAVEL OR CRUSHED ROCK UNDERLAIN WITH GEOTEXTILE.
6. MUD TRACKED ONTO STREETS OR SEDIMENT SETTLED AROUND CURB INLET PROTECTION SHALL BE REMOVED DAILY OR AS NEEDED TO PREVENT IT FROM ACCUMULATING. IT SHALL BE REMOVED BY SHOVELING AND SCRAPING AND SHALL NOT BE WASHED OFF PAVED SURFACES OR INTO STORM DRAINS. SEDIMENT REMOVED SHALL BE PLACED WHERE IT WILL NOT BE SUBJECT TO EROSION OR CONCENTRATED RUNOFF.
7. CONTRACTOR SHALL IMMEDIATELY BRING TO THE ATTENTION OF THE OWNER AND ENGINEER ANY SUBSURFACE CONDITIONS WHICH MAY HAVE AN ADVERSE IMPACT UPON THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS AS SHOWN AND NOTED WITHIN THESE CONSTRUCTION DOCUMENTS. CONDITIONS OF NEGATIVE IMPACT MAY INCLUDE, BUT NOT BE LIMITED TO: UNDERGROUND STORAGE TANKS, UNKNOWN UTILITIES, SATURATED/UNSTABLE SOILS, OR UNIDENTIFIED BURIED DEBRIS.
8. CONTRACTOR TO PROVIDE AN AREA FOR CONCRETE WASH DOWN AS SHOWN ON THE PLANS. CONTRACTOR SHALL NOTIFY ENGINEER IF WASH DOWN LOCATION VARIES FROM PLANS.
9. EROSION PREVENTION AND SEDIMENT CONTROL MEASURES MUST BE IN PLACE AND FUNCTIONAL BEFORE EARTH MOVING OPERATION BEGINS AND MUST BE CONSTRUCTED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. TEMPORARY MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY BUT MUST BE REPLACED AT THE END OF THE WORKDAY.
10. THE FOLLOWING RECORDS SHALL BE MAINTAINED ON OR NEAR SITE: THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR; THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; THE DATES WHEN STABILIZATION MEASURES ARE INITIATED; INSPECTION RECORDS AND RAINFALL RECORDS.
11. THE CONTRACTOR SHALL MAINTAIN DAILY RAINFALL RECORDS AT THE SITE OR USE A REFERENCE SITE FOR A RECORD OF DAILY AMOUNT OF PRECIPITATION.
12. PRE-CONSTRUCTION VEGETATIVE GROUND COVER SHALL NOT BE DESTROYED, REMOVED OR DISTURBED MORE THAN 10 DAYS PRIOR TO GRADING OR EARTH MOVING UNLESS THE AREA IS SEEDDED AND/OR MULCHED OR OTHER TEMPORARY COVER IS INSTALLED.
13. CONSTRUCTION MUST BE SEQUENCED TO MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED AREAS.
14. SEDIMENT SHOULD BE REMOVED FROM SEDIMENT TRAPS, SILT FENCES, SEDIMENTATION PONDS AND OTHER SEDIMENT CONTROLS AS NECESSARY AND MUST BE REMOVED WHEN DESIGN CAPACITY HAS BEEN REDUCED BY 50% OR AS DIRECTED BY OWNERS REPRESENTATIVE.
15. THE CONTRACTOR SHALL REMOVE SEDIMENT FROM ALL DRAINAGE STRUCTURES BEFORE ACCEPTANCE BY LOCAL GOVERNING AGENCY OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
16. THE CONTRACTOR SHALL REMOVE THE TEMPORARY EROSION AND WATER POLLUTION CONTROL DEVICES ONLY AFTER A SOLID STAND OF GRASS HAS BEEN ESTABLISHED ON GRADED AREAS AND WHEN IN THE OPINION OF THE OWNER'S REPRESENTATIVE, THEY ARE NO LONGER NEEDED.

NOTE: THE CONTRACTOR SHALL IMMEDIATELY BRING TO THE ATTENTION OF THE OWNER AND ENGINEER ANY SUBSURFACE CONDITIONS WHICH MAY HAVE AN ADVERSE IMPACT UPON THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS AS SHOWN AND NOTED WITHIN THESE CONSTRUCTION DOCUMENTS. CONDITIONS OF NEGATIVE IMPACT MAY INCLUDE, BUT NOT BE LIMITED TO: UNDERGROUND STORAGE TANKS, UNKNOWN UTILITIES, SATURATED/UNSTABLE SOILS, OR UNIDENTIFIED BURIED DEBRIS.



NOTE:
THE SUBJECT IS IN ZONE X AND DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD ZONE ACCORDING TO COMMUNITY PANEL NO. 39017C-0228F DATED OCTOBER 19, 2018 OF THE F.E.M.A. FLOOD INSURANCE RATE MAPS FOR COMMUNITY NAME: CITY OF MONROE, OHIO.

SOIL TYPES

SOIL DESCRIPTIONS OBTAINED FROM A SOIL SURVEY OF BUTLER COUNTY, OHIO

MAP SYMBOL - DESCRIPTION - SLOPES

WyB2, WYNN SILT LOAM - HSG=C

DbB, DANA SILT LOAM - HSG=B

EROSION CONTROL LEGEND

(TO)	7.3	TOP SOIL
(SR)	7.5	SURFACE ROUGHENING
(MO)	7.7	MULCH STABILIZATION
(TS)	7.8	TEMPORARY SEEDING
(PS)	7.9	PERMANENT SEEDING/SOD
(HYD)	7.12	HYDROSEEDING
(CoW)	7.16	CONCRETE WASH-OUT AREA
(ChD)	7.20	CHECK DAM
(DI)	7.22	DIVERSION
(OP)	7.23	OUTLET PROTECTION
(CE)	7.28	CONSTRUCTION ENTRANCE
(SF)	7.34	SILT FENCE
(IP)	7.35	INLET PROTECTION
(CFS)	7.37	COMPOST FILTER SOCK

SITE DESCRIPTION & NOTES:

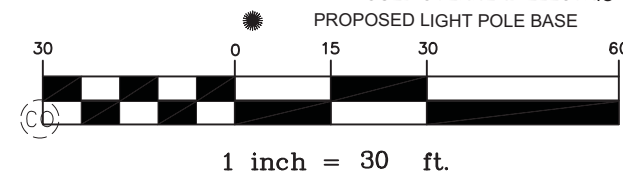
THE SITE IS LOCATED AT 301 N. MAIN ST, IN MONROE, BUTLER COUNTY, OHIO. CONSTRUCTION ACTIVITY ON THIS SITE WILL CONSIST OF DISTURBING APPROXIMATELY 1.36± ACRES TO CONSTRUCT A NEW RETAIL BUILDING.

1. APPROXIMATE CONSTRUCTION TIME TABLE:
BEGIN CONSTRUCTION JANUARY 2022
COMPLETE CONSTRUCTION DECEMBER 2022
2. CONSTRUCTION SEQUENCE:
 - a. INSTALL EROSION PREVENTION & SEDIMENT CONTROL DEVICES AS SHOWN ON THE PLANS;
 - b. CLEAR & GRADE SITE AS SHOWN AND AS NEEDED TO ACCOMPLISH SITE AND UTILITY CONSTRUCTION;
 - c. MAINTAIN EPC MEASURES THROUGHOUT CONSTRUCTION. INSPECT DAILY AND REPAIR AS NEEDED;
 - d. CONSTRUCT REMAINING SITE ACCORDING TO APPROVED PLANS, INCLUDING ALL ADDITIONAL EROSION CONTROL DEVICES;
 - e. UPON PERMANENT SITE STABILIZATION SOD, SEED AND STRAW;
 - f. REMOVE ALL OTHER TEMPORARY EROSION CONTROL DEVICES PRIOR TO AS-BUILT APPROVALS;
3. TOTAL PROJECT AREA = 1.947± ACRES
DISTURBED AREA = 1.36± ACRES
4. THE ESTIMATED EXISTING WEIGHTED SITE RUNOFF COEFFICIENT IS 73.1. UPON COMPLETION OF THE SITE, THE ESTIMATED WEIGHTED SITE CURVE NUMBER WILL BE 75.6.
5. POND HAS BEEN SIZED TO HANDLE THE VOLUME FOR THE 2 THRU 100 YR STORM EVENTS, REDUCING PEAK RUNOFF RATES FOR ALL STORMS & PROVIDING 2,192 CF OF WATER QUALITY VOLUME.

NOTE: CONTRACTOR TO PROVIDE AN AREA FOR CONCRETE WASH DOWN AS WELL AS CONTROL OF OTHER SITE WASTES SUCH AS DISCARDED BUILDING MATERIALS, CHEMICALS, DEBRIS, AND SANITARY WASTES.

SYMBOLS LEGEND

- EXISTING CONCRETE
- EXISTING GRAVEL TO REMAIN
- PREP AREA FOR PROPOSED DRIVEWAY
- PROPOSED HEAVY DUTY ASPHALT
- PROPOSED CONCRETE SIDEWALK & STOREFRONT HEAD-IN PARKING
- EXISTING CHAIN LINK FENCE
- EXISTING 1" CONTOUR
- EXISTING 5" CONTOUR
- PROPOSED 1" CONTOUR
- PROPOSED 5" CONTOUR
- PROPOSED COMPOST FILTER SOCK
- PROPOSED SILT FENCING
- PROPOSED TREE PROTECTION
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED SANITARY SERVICE LINE
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED OVERHEAD ELECTRIC
- PROPOSED LIGHT POLE BASE



CONSTRUCTION ADMINISTRATION NOT INCLUDED IN CONTRACT
PERMIT PLANS

CIVIL ENGINEER:
NE Group
ENGINEERING - PLANNING - DESIGN
INFO@THENEGROUP.COM

CLIENT:
TUCKERMAN DEVELOPMENT

PROJECT:
**RETAIL DEVELOPMENT
301 N. MAIN STREET
MONROE, OHIO
ZONING: C-2**

REVISIONS		
1		
2		
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4		
5		

SHEET NAME:
EROSION PREVENTION & SEDIMENT CONTROL - INTERMEDIATE PHASE

DATE: 11/22/2021

DRAWN BY: CD

CHECKED BY: LE

PROJECT NO.: 21-888

SHEET NUMBER:

SW2

EROSION CONTROL INTIAL/PHASE 1:

THE CONTRACTOR SHALL ADHERE TO THE FOLLOWING PHASES FOR INSTALLATION OF EROSION CONTROL MEASURES. FAILURE TO FOLLOW THE BELOW REQUIREMENTS SHALL BE GROUNDS FOR WORK STOPPAGE AND/OR FINES BY THE LOCAL GOVERNING BODY AND/OR THE STATE SOIL AND WATER CONSERVATION COMMISSION. IT IS RECOMMENDED THAT THE CONTRACTOR AND OWNER SCHEDULE A PRE-LAND DISTURBANCE MEETING WITH THE ENGINEER, LOCAL CITY INSPECTOR TO DISCUSS THE EROSION CONTROL PHASING SEQUENCE. BELOW IS THE PHASING SCHEDULE FOR INSTALLATION OF EROSION, SEDIMENTATION AND POLLUTION CONTROL MEASURES. ALL E.S.P.C. MEASURES SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL FOR EROSION AND SEDIMENT CONTROL MEASURES AS PREPARED STATE SOIL AND WATER CONSERVATION COMMISSION AND AS DIRECTED BY LOCAL AND STATE REPRESENTATIVES.

SEQUENCING:
FINAL/PHASE 2:

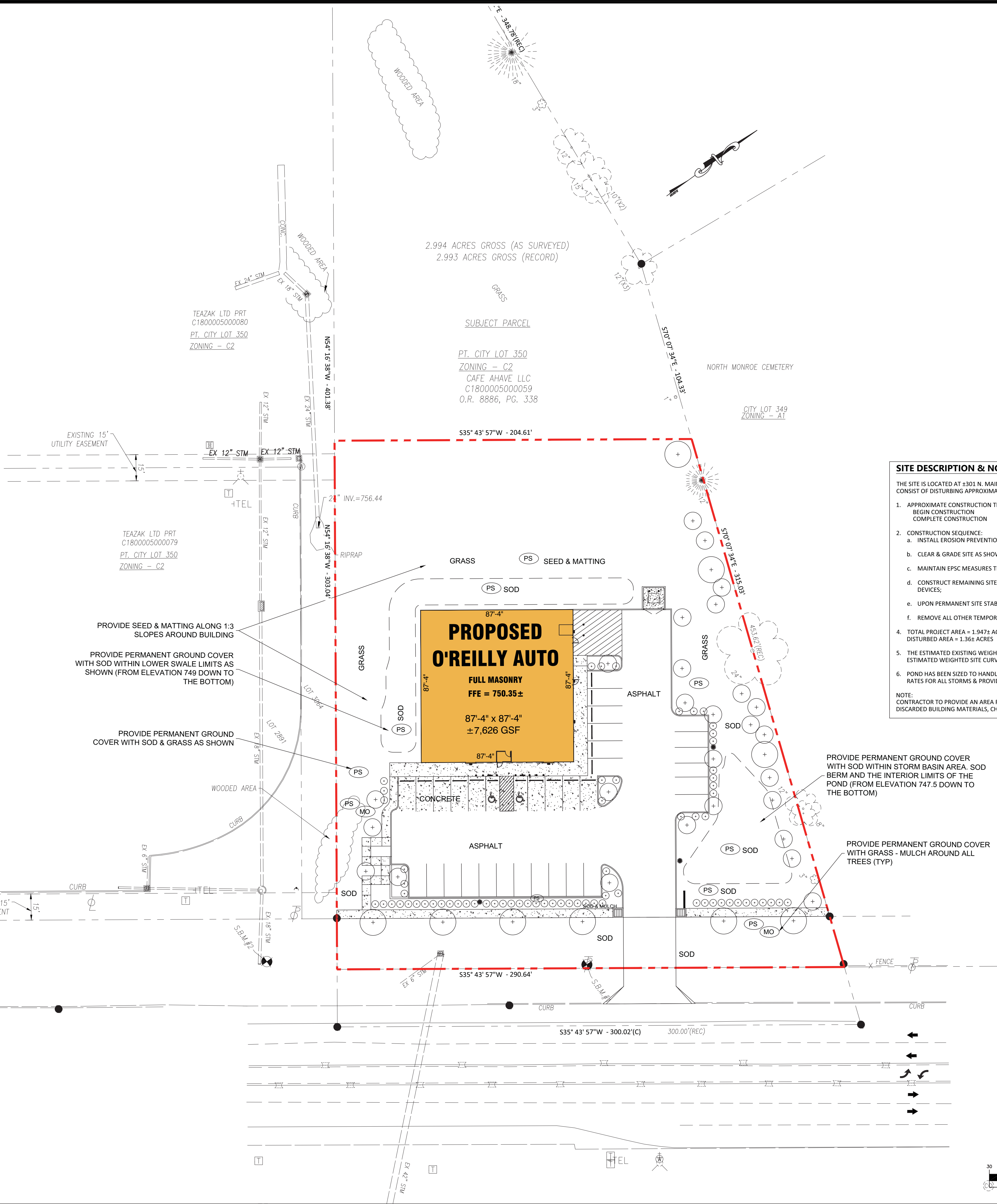
1. INSTALL FINAL LANDSCAPING AND PERMANENT GRASS/SOD OR MULCH PER THE PLANS AND CONSTRUCTION SCHEDULE, BUFFER MAINTENANCE, AND ANY OTHER MEASURES AS DIRECTED BY THE ENGINEER, LOCAL AND/OR STATE INSPECTORS;
2. ONCE PERMANENT GROUND COVER IS ESTABLISHED - CONTRACTOR SHALL REMOVE AND LEGALLY DISPOSE OF ALL PREVIOUSLY INSTALLED EROSION & SEDIMENT CONTROL & TREE PROTECTION MEASURES (TREE PROTECTION DEVICES, THE CONSTRUCTION ENTRANCE/EXIT, REMAINING PERIMETER SILT FENCING AND CONCRETE WASHOUT AREA);

NOTICE TO CONTRACTOR
CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL NECESSARY AND STATE MANDATED PROTECTION MEASURES FOR EROSION, SEDIMENTATION AND POLLUTION CONTROL. THESE SHALL INCLUDE, BUT NOT BE LIMITED TO, INSTALLATION OF DOWNHILL GRADIENT SILT PROTECTION FENCING, AND GRASSING-SEEDING MEASURES. PLEASE REFER TO THE COVER SHEET AND THE EROSION, SEDIMENTATION AND POLLUTION CONTROL DETAILS ATTACHED TO THIS SET OF CONSTRUCTION DOCUMENTS FOR APPLICABLE DETAILS AND OTHER RELATED EROSION CONTROL NOTES.

EROSION CONTROL NOTES:

1. PREEXISTING VEGETATION SHALL BE RETAINED ON IDLE PORTIONS OF THE BUILDING LOT FOR AS LONG AS CONSTRUCTION OPERATIONS ALLOW. CLEARING SHALL BE DONE SO ONLY ACTIVE WORKING AREAS ARE BARE.
2. TEMPORARY SEED AND/OR MULCH SHALL BE APPLIED TO AREAS, SUCH AS STOCKPILES AND ROUGH GRADED AREAS, THAT ARE BARE AND NOT ACTIVELY BEING WORKED. THIS SHALL APPLY TO AREAS THAT WILL NOT BE REWORKED FOR 21 DAYS OR MORE.
3. STOCKPILES CREATED FROM BASEMENT EXCAVATION AND GRADING SHALL BE SITUATED AWAY FROM STREETS, SWALES, OR OTHER WATERWAYS AND SHALL BE SEED AND/OR MULCHED IMMEDIATELY.
4. SILT FENCE OR OTHER SEDIMENT BARRIERS SHALL CONTROL SHEET FLOW RUNOFF FROM THE BUILDING LOT. THESE SHALL NOT BE CONSTRUCTED IN CHANNELS OR AREAS OF CONCENTRATED FLOW. OTHER SEDIMENT CONTROLS SUCH AS SEDIMENT TRAPS AND INLET PROTECTION SHALL ALSO BE USED AS NEEDED TO CONTROL SEDIMENT RUNOFF. SEDIMENT CONTROL PRACTICES SHALL BE INSPECTED WEEKLY AFTER STORM EVENTS, AND MAINTAINED IN GOOD WORKING CONDITION.
5. CONSTRUCTION VEHICLE ACCESS SHALL BE LIMITED TO ONE ROUTE, TO THE GREATEST EXTENT PRACTICAL. THE ACCESS SHALL BE GRAVEL OR CRUSHED ROCK UNDERLAIN WITH GEOTEXTILE.
6. MUD TRACKED ONTO STREETS OR SEDIMENT SETTLED AROUND CURB INLET PROTECTION SHALL BE REMOVED DAILY OR AS NEEDED TO PREVENT IT FROM ACCUMULATING. IT SHALL BE REMOVED BY SHOVELING AND SCRAPING AND SHALL NOT BE WASHED OFF PAVED SURFACES OR INTO STORM DRAINS. SEDIMENT REMOVED SHALL BE PLACED WHERE IT WILL NOT BE SUBJECT TO EROSION OR CONCENTRATED RUNOFF.
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8. CONTRACTOR TO PROVIDE AN AREA FOR CONCRETE WASH DOWN AS SHOWN ON THE PLANS. CONTRACTOR SHALL NOTIFY ENGINEER IF WASH DOWN LOCATION VARIES FROM PLANS.
9. EROSION PREVENTION AND SEDIMENT CONTROL MEASURES MUST BE IN PLACE AND FUNCTIONAL BEFORE EARTH MOVING OPERATION BEGINS AND MUST BE CONSTRUCTED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. TEMPORARY MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY BUT MUST BE REPLACED AT THE END OF THE WORKDAY.
10. THE FOLLOWING RECORDS SHALL BE MAINTAINED ON OR NEAR SITE: THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR; THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; THE DATES WHEN STABILIZATION MEASURES ARE INITIATED; INSPECTION RECORDS AND RAINFALL RECORDS.
11. THE CONTRACTOR SHALL MAINTAIN DAILY RAINFALL RECORDS AT THE SITE OR USE A REFERENCE SITE FOR A RECORD OF DAILY AMOUNT OF PRECIPITATION.
12. PRE-CONSTRUCTION VEGETATIVE GROUND COVER SHALL NOT BE DESTROYED, REMOVED OR DISTURBED MORE THAN 10 DAYS PRIOR TO GRADING OR EARTH MOVING UNLESS THE AREA IS SEED AND/OR MULCHED OR OTHER TEMPORARY COVER IS INSTALLED.
13. CONSTRUCTION MUST BE SEQUENCED TO MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED AREAS.
14. SEDIMENT SHOULD BE REMOVED FROM SEDIMENT TRAPS, SILT FENCES, SEDIMENTATION PONDS AND OTHER SEDIMENT CONTROLS AS NECESSARY AND MUST BE REMOVED WHEN DESIGN CAPACITY HAS BEEN REDUCED BY 50% OR AS DIRECTED BY OWNERS REPRESENTATIVE.
15. THE CONTRACTOR SHALL REMOVE SEDIMENT FROM ALL DRAINAGE STRUCTURES BEFORE ACCEPTANCE BY LOCAL GOVERNING AGENCY OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
16. THE CONTRACTOR SHALL REMOVE THE TEMPORARY EROSION AND WATER POLLUTION CONTROL DEVICES ONLY AFTER A SOLID STAND OF GRASS HAS BEEN ESTABLISHED ON GRADED AREAS AND WHEN IN THE OPINION OF THE OWNER'S REPRESENTATIVE, THEY ARE NO LONGER NEEDED.

NOTE: THE CONTRACTOR SHALL IMMEDIATELY BRING TO THE ATTENTION OF THE OWNER AND ENGINEER ANY SUBSURFACE CONDITIONS WHICH MAY HAVE AN ADVERSE IMPACT UPON THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS AS SHOWN AND NOTED WITHIN THESE CONSTRUCTION DOCUMENTS. CONDITIONS OF NEGATIVE IMPACT MAY INCLUDE, BUT NOT BE LIMITED TO: UNDERGROUND STORAGE TANKS UNKNOWN UTILITIES, SATURATED/UNSTABLE SOILS, OR UNIDENTIFIED BURIED DEBRIS.



NOTE:
THE SUBJECT IS IN ZONE X AND DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD ZONE ACCORDING TO COMMUNITY PANEL NO. 39017C 0228F DATED OCTOBER 19, 2018 OF THE F.E.M.A. FLOOD INSURANCE RATE MAPS FOR COMMUNITY NAME: CITY OF MONROE, OHIO.

SOIL TYPES

SOIL DESCRIPTIONS OBTAINED FROM A SOIL SURVEY OF BUTLER COUNTY, OHIO

MAP SYMBOL - DESCRIPTION - SLOPES

WyB2, WYNN SILT LOAM - HSG=C

DbB, DANA SILT LOAM - HSG=B

EROSION CONTROL LEGEND

(TO)	7.3	TOP SOIL
(SR)	7.5	SURFACE ROUGHENING
(MO)	7.7	MULCH STABILIZATION
(TS)	7.8	TEMPORARY SEEDING
(PS)	7.9	PERMANENT SEEDING/SOD
(HYD)	7.12	HYDROSEEDING
(CoW)	7.16	CONCRETE WASH-OUT AREA
(ChD)	7.20	CHECK DAM
(DI)	7.22	DIVERSION
(OP)	7.23	OUTLET PROTECTION
(CE)	7.28	CONSTRUCTION ENTRANCE
(SF)	7.34	SILT FENCE
(IP)	7.35	INLET PROTECTION
(CFS)	7.37	COMPOST FILTER SOCK

SITE DESCRIPTION & NOTES:

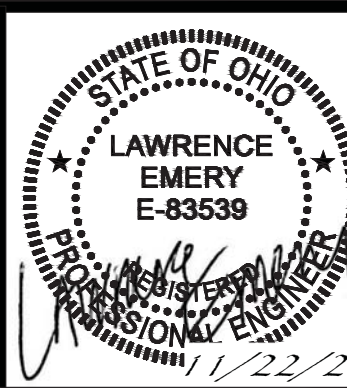
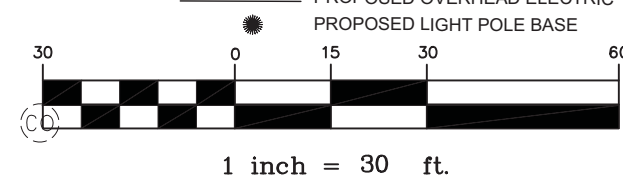
THE SITE IS LOCATED AT ±301 N. MAIN ST., IN MONROE, BUTLER COUNTY, OHIO. CONSTRUCTION ACTIVITY ON THIS SITE WILL CONSIST OF DISTURBING APPROXIMATELY 1.36± ACRES TO CONSTRUCT A NEW RETAIL BUILDING.

1. APPROXIMATE CONSTRUCTION TIME TABLE:
BEGIN CONSTRUCTION JANUARY 2022
COMPLETE CONSTRUCTION DECEMBER 2022
2. CONSTRUCTION SEQUENCE:
 - a. INSTALL EROSION PREVENTION & SEDIMENT CONTROL DEVICES AS SHOWN ON THE PLANS;
 - b. CLEAR & GRADE SITE AS SHOWN AND AS NEEDED TO ACCOMPLISH SITE AND UTILITY CONSTRUCTION;
 - c. MAINTAIN EPSC MEASURES THROUGHOUT CONSTRUCTION. INSPECT DAILY AND REPAIR AS NEEDED;
 - d. CONSTRUCT REMAINING SITE ACCORDING TO APPROVED PLANS, INCLUDING ALL ADDITIONAL EROSION CONTROL DEVICES;
 - e. UPON PERMANENT SITE STABILIZATION SOD, SEED AND STRAW;
 - f. REMOVE ALL OTHER TEMPORARY EROSION CONTROL DEVICES PRIOR TO AS-BUILT APPROVALS;
4. TOTAL PROJECT AREA = 1.947± ACRES
DISTURBED AREA = 1.36± ACRES
5. THE ESTIMATED EXISTING WEIGHTED SITE RUNOFF COEFFICIENT IS 73.1. UPON COMPLETION OF THE SITE, THE ESTIMATED WEIGHTED SITE CURVE NUMBER WILL BE 75.6.
6. POND HAS BEEN SIZED TO HANDLE THE VOLUME FOR THE 2 THRU 100 YR STORM EVENTS, REDUCING PEAK RUNOFF RATES FOR ALL STORMS & PROVIDING 2,192 CF OF WATER QUALITY VOLUME.

NOTE:
CONTRACTOR TO PROVIDE AN AREA FOR CONCRETE WASH DOWN AS WELL AS CONTROL OF OTHER SITE WASTES SUCH AS DISCARDED BUILDING MATERIALS, CHEMICALS, DEBRIS, AND SANITARY WASTES.

SYMBOLS LEGEND

	EXISTING CONCRETE
	EXISTING GRAVEL TO REMAIN
	PREP AREA FOR PROPOSED DRIVEWAY
	PROPOSED HEAVY DUTY ASPHALT
	PROPOSED CONCRETE SIDEWALK & STOREFRONT HEAD-IN PARKING
	EXISTING CHAIN LINK FENCE
	EXISTING 1' CONTOUR
	EXISTING 5' CONTOUR
	PROPOSED 1' CONTOUR
	PROPOSED 5' CONTOUR
	PROPOSED COMPOST FILTER SOCK
	PROPOSED SILT FENCING
	PROPOSED TREE PROTECTION
	PROPOSED LIMITS OF DISTURBANCE
	PROPOSED SANITARY SERVICE LINE
	PROPOSED UNDERGROUND ELECTRIC
	PROPOSED OVERHEAD ELECTRIC
	PROPOSED LIGHT POLE BASE



SHEETS BEARING THIS SEAL ARE AUTHENTICATED. RESPONSIBILITY FOR ALL OTHER PLANS, SPECIFICATIONS OR INSTRUMENTS ARE DISCLAIMED.

CONSTRUCTION
ADMINISTRATION NOT
INCLUDED IN CONTRACT

PERMIT PLANS

CIVIL ENGINEER:
NE Group
ENGINEERING - PLANNING - DESIGN
INFO@THENEGROUP.COM

CLIENT:
**TUCKERMAN
DEVELOPMENT**

PROJECT:
**RETAIL DEVELOPMENT
301 N. MAIN STREET
MONROE, OHIO
ZONING: C-2**

REVISIONS

1		
2		
3		
4		
5		

SHEET NAME:
**EROSION
PREVENTION &
SEDIMENT
CONTROL -
FINAL PHASE**

DATE: 11/22/2021

DRAWN BY: CD

CHECKED BY: LE

PROJECT NO.: 21-888

SHEET NUMBER:

SW3

Drainage Calculations

For

Retail Auto Parts Store at

301 N. Main Street

City of Monroe, Butler County, OH

Project #21-888.02

Date:

11/26/2021



NEGroup

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Project Description

From original hydro - The proposed re-development project at 301 N. Main Street, in the City of Monroe, Butler County, Ohio. The site is bound by a cemetery to the north, N. Main Street right of way to the east, an existing office building to the south and an existing commercial use & existing residential to the west. The site is approximately 2.99 acres of previously developed land, of which approximately 1.36 acres will be disturbed.

The proposed project consists of construction of a new single tenant, auto parts retail store.

Best management practices (BMPs) are designed to capture and treat the stormwater runoff from the proposed development. To control stormwater quantity and quality a retention basin has been designed to treat the required water quality volume and control peak flow at the outlet of the site such that the post-development peak flows are the same or less than the pre-development peak flow.

No portion of the site resides within a flood hazard area as defined by the Federal Emergency Management Agency (FEMA).

Pre-Development Basin

The existing development consists of an existing vacant parcel. The existing drainage patterns for this site are from the north to the south, draining southward via overland flow and off site to the existing roadway swale & closed drainage system. The project was modeled such that the study point is the existing grate inlet for the closed drainage system within the N. Main Street right of way.

The soil type for each basin area was determined as noted on the SWPPP plan and the site design plans. These are based upon the USDA soil survey of Lucas County, Ohio. These soils are Wynn silt loam (HSG C) and Dana silt loam (HSG B).

PRE-ON site				
CN	Area (SF)	CN*A		
74	51708	3826392	Open Space, fair (Grp C)	
69	60945	4205205	Open Space, fair (Grp B)	
	112653			
71.3	=Weighted CN			
PRE-Offsite				
CN	Area (SF)	CN*A		
74	25349	1875826	Open Space, fair (Grp C)	
69	5593	385917	Open Space, fair (Grp B)	
	30942			
73.1	=Weighted CN			

Post-Development Basin

Proposed development involves the re-developing of the southern portion of the project along the N. Main Street frontage.

The proposed retail auto parts store will route and direct all roof, site and parking lot drainage to the stormwater management basin for water quality treatment and attenuation.

The designed site will reduce the post-construction runoff to values to less than the pre-construction for all major storm events (5-yr, 25-yr, and 100-yr design storms).

Soils in this area do have the infiltration potential according to the USDA soil survey. However, for this design, an exfiltration rate of 0.00 in/hr (from the retention basin and into parent soils) was assumed for the design.

Post-ON site by-pass				
CN	Area (SF)	CN*A		
74	51166	3786284	Open Space, fair (Grp C)	
61	23281	1420141	Open Space, fair (Grp B)	
98	3193	312914	Impervious	
71.1	=Weighted CN			

Post-ON site routed				
CN	Area (SF)	CN*A		
61	10410	635010	Open Space, fair (Grp B)	
98	25988	2546824	Impervious	
87.4	=Weighted CN			

Post-Offsite				
CN	Area (SF)	CN*A		
74	25349	1875826	Open Space, fair (Grp C)	
69	5593	385917	Open Space, fair (Grp B)	
73.1	=Weighted CN			

Methodology

We studied the proposed development's effect on storm-water runoff. This study includes local concerns such as pipe sizes and inlet design, as well as hydrograph routing and the effects on upstream and downstream properties. Then, proceeded with study using the analysis software ©HydraFlow Hydrographs to determine flows and the various hydrographs using the SCS method.

Hydrologic data was established using the SCS Method. Peak flows were determined for the 5, 25, & 100 year storm events. Topographic information was obtained by a detailed field survey and field

observation, as well as available GIS data & record plat/survey information. The topographic information was used to delineate pre and post onsite and offsite basins.

Water Quality

Water quality was modeled using the WQC Calculator v1.1 (see Appendix B for water quality volume required).

#1 - Natural Resource Inventory

- **Topography and Steep Slopes:** sloping with slopes from 0-6%
- **Natural Drainage Divides and Patterns:** the project site is situated slightly higher than the abutting street and drainage patterns are via shallow overland flow. The northern portion of the property ultimately makes it into the closed drainage system in W. Central Ave. The southern portion of the property continues south/southeastwardly offsite, via overland flow.
- **Natural Drainage Features:** N/A
- **Wetlands:** N/A (refer to Appendix B for Hull Inc wetland letter)
- **Water Bodies:** N/A
- **Floodplains:** N/A
- **Aquatic Buffers:** N/A
- **Soils:** OtB – Ottokee fine sand, 0-6% slopes (+/-55% of project area)
TdA – Tedrow fine sand, 0-3% slopes (+/-45% of project area)
- **Erodible Soils:** N/A
- **Groundwater Recharge Areas:** N/A
- **Wellhead Protection Areas:** N/A
- **Trees and Other Existing Vegetation:** see existing conditions plan for location of existing vegetation & existing tree cover to remain.
- **High Quality Habitat Areas:** Oaks Opening Region – there are no areas of significant habitat, wetlands or watercourse on or immediately abutting this project (refer to Appendix B for site walk/surface water investigation letter).
- **Protected River Corridors:** N/A
- **Protected Mountains:** N/A
- **Karst Areas:** N/A

#2 – Better Site Design Practices for Stormwater Management

The site is designed with conservation of natural features and resources in mind. Refer to the design plans for specific SCM's & BMPs, stormwater runoff is reduced, stored, all while preventing erosion.

#3 – Runoff Reduction

Based on the nature of the proposed infill re-development, this project has been designed to treat and reduce peak rates of runoff using an on-site retention pond.

#4 – Peak Flow Protection

The purpose of stormwater basin is to protect downstream infrastructure and properties due to upstream development. The design is required to control peak flow at the outlet of the site such that the post-development peak flows are equal to or less than the pre-construction for all storm events (5-yr, 25-yr, and 100-yr design storms).

To reduce the quantity of runoff from the site a Faircloth skimmer has been employed to treat the required water quality volume. The skimmer will help maintain soil on site and protect downstream infrastructure.

#5 – Construction Erosion and Sedimentation Control

During construction, the erosion and sediment control measures shall be in accordance with Best Management Practices, as needed, to prevent transportation of sediments from the site. See the Erosion & Sediment Control Plans and the Stormwater Pollution Prevention Plan (SWP3) in the attached construction drawings for detailed locations of the proposed devices. Refer to the SW sheets contained in the project plans for all erosion prevention & sediment control methods.

#6 – Stormwater Management System Operation and Maintenance

After construction is completed, all onsite facilities shall be maintained periodically by the Operator as outlined in the SWP3. Maintenance practices will be performed in accordance with the BMP maintenance plan.

The proposed property owner and/or Operator will be responsible for the operation and maintenance for the proposed stormwater facility. The owner will fund all work associated with the operation and maintenance for the proposed facility. The owner will have on staff or hire appropriate professionals to inspect and maintain the facilities.

Note: If it is evident by inspection that the maintenance activities outlined above are insufficient to ensure the continued function as designed, revisions shall be made to address additional maintenance procedures necessary to ensure the ongoing function as designed.

#7 – Stormwater Management Site Plan

See the Stormwater Plans (SW Sheets) in the attached construction drawings for stormwater management site plans and basins.

Summary

The following tables summarize the changes to the site with respect to each basin as well as the effect to the overall development. The proposed changes show a reduction in the post development flows over the pre-development condition.

Peak Rate Summary Table

	Storm Event		
	5-yr (cfs)	25-yr (cfs)	100-yr (cfs)
PRE/Existing Site Conditions			
PRE South	5.22	9.13	13.06
POST/Developed Site Conditions			
Post Bypass	2.49	4.52	6.56
Post Offsite	1.26	2.18	3.09
Post Onsite (to Pond)	2.95	4.32	5.56
Routed flow from Pond	0.43	3.09	5.85
Post total	2.51	7.53	12.39

Pond Discharge Summary Table

	Q (cfs)	V (fps)	Pond Stage
5 yr	0.43	0.35	746.16
25 yr	3.09	2.52	746.73
100 yr	5.85	4.77	747.12

References

Lucas County Engineers Office – Storm Drainage Design Criteria

US Weather Bureau – Technical Paper 25

Erosion & Sediment Control Handbook, Fourth Edition August 2012

Design Principals for Erosion Prevention & Sediment Control for Construction Sites

Technical Release 55: Urban Hydrology for Small Watersheds. United States Department of Agriculture. 2nd Edition. June 1986. Retrieved from:

https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1044171.pdf

Appendix A

Runoff Coefficients

Table 2-3
RUNOFF COEFFICIENTS^a FOR A DESIGN STORM RETURN
PERIOD OF 10 YEARS OR LESS

Slope	Typical Land Use	Sandy Soils		Clay Soils	
		<u>Min.</u>	<u>Max.</u>	<u>Min.</u>	<u>Max.</u>
Flat (0-2%)	Woodlands	0.10	0.15	0.15	0.20
	Pasture, grass, and farmland ^b	0.15	0.20	0.20	0.25
	Rooftops and pavement	0.95	0.95	0.95	0.95
	Pervious pavements ^c	0.75	0.95	0.90	0.95
Rolling (2-7%)	Woodlands	0.15	0.20	0.20	0.25
	Pasture, grass, and farmland ^b	0.20	0.25	0.25	0.30
	Rooftops and pavement	0.95	0.95	0.95	0.95
	Pervious pavements ^c	0.80	0.95	0.90	0.95
Steep (7%+)	Woodlands	0.20	0.25	0.25	0.30
	Pasture, grass, and farmland ^b	0.25	0.35	0.30	0.40
	Rooftops and pavement	0.95	0.95	0.95	0.95
	Pervious pavements ^c	0.85	0.95	0.90	0.95

^aWeighted coefficient based on percentage of impervious surfaces and green areas must be selected for each site.

^bCoefficients assume good ground cover and conservation treatment.

^cDepends on depth and degree of permeability of underlying strata.

Manning's Coefficients

Table 3.1.5-2 Roughness Coefficients (Manning's n) for Sheet Flow¹

Surface description		n
Smooth surfaces (concrete, asphalt, gravel, or bare soil):		0.011
Fallow (no residue):		0.05
Cultivated soils:	Residue cover <20%	0.06
	Residue cover >20%	0.17
Grass:	Short grass prairie	0.15
	Dense grasses ²	0.24
	Bermuda grass	0.41
Range (natural):		0.13
Woods ³ :	Light underbrush	0.40
	Dense underbrush	0.80

¹The n values are a composite of information by Engman (1986).

²Includes species such as weeping lovegrass, bluegrass, buffalo grass, blue grama grass, and native grass mixtures.

³When selecting n, consider cover to a height of about 0.1 ft. This is the only part of the plant cover that will obstruct sheet flow.

Source: NRCS TR-55, TR-55, Second Edition, June 1986.

Riprap Apron Table

Riprap Aprons for Low Tailwater (downstream flow depth < 0.5 x pipe diameter)															
Culvert Diameter	Lowest value			Intermediate values to interpolate from									Highest value		
	Q	L _A	D ₅₀	Q	L _A	D ₅₀	Q	L _A	D ₅₀	Q	L _A	D ₅₀	Q	L _A	D ₅₀
	Cfs	Ft	In	Cfs	Ft	In	Cfs	Ft	In	Cfs	Ft	In	Cfs	Ft	In
12"	4	7	2.5	6	10	3.5	9	131	6	12	16	7	14	17	8.5
15"	6.5	8	3	10	12	5	15	16	7	20	18	10	25	20	12
18"	10	9	3.5	15	14	5.5	20	17	7	30	22	11	40	25	14
21"	15	11	4	25	18	7	35	22	10	45	26	13	60	29	18
24"	21	13	5	35	20	8.5	50	26	12	65	30	16	80	33	19
27"	27	14	5.5	50	24	9.5	70	29	14	90	34	18	110	37	22
30"	36	16	6	60	25	9.5	90	33	15.5	120	38	20	140	41	24
36"	56	20	7	100	32	13	140	40	18	180	45	23	220	50	28
42"	82	22	8.5	120	32	12	160	39	17	200	45	20	260	52	26
48"	120	26	10	170	37	14	220	46	19	270	54	23	320	64	37
Riprap Aprons for High Tailwater (downstream flow depth > 0.5 x pipe diameter)															
Culvert Diameter	Lowest value			Intermediate values to interpolate from									Highest value		
	Q	L _A	D ₅₀	Q	L _A	D ₅₀	Q	L _A	D ₅₀	Q	L _A	D ₅₀	Q	L _A	D ₅₀
	Cfs	Ft	In	Cfs	Ft	In	Cfs	Ft	In	Cfs	Ft	In	Cfs	Ft	In
12"	4	8	2	6	18	2.5	9	28	4.5	12	36	7	14	40	8
15"	7	8	2	10	20	2.5	15	34	5	20	42	7.5	25	50	10
18"	10	8	2	15	22	3	20	34	5	30	50	9	40	60	11
21"	15	8	2	25	32	4.5	35	48	7	45	58	11	60	72	14
24"	20	8	2	35	36	5	50	55	8.5	65	68	12	80	80	15
27"	27	10	2	50	41	6	70	58	10	90	70	14	110	82	17
30"	36	11	2	60	42	6	90	64	11	120	80	15	140	90	18
36"	56	13	2.5	100	60	7	140	85	13	180	104	18	220	120	23
42"	82	15	2.5	120	50	6	160	75	10	200	96	14	260	120	19
48"	120	20	2.5	170	58	7	220	85	12	270	105	16	320	120	20

Table 7.23-1 Riprap outlet protection design parameters for low tailwater and high tailwater conditions (Source: Knoxville Engineering Department)

Note that the above table is intended to select two parameters for the design of riprap outlet protection, based upon outlet velocities that correspond with circular culverts flowing full. Flow values less than the lowest value for the culvert size usually indicate a full-flow velocity less than 5 feet per second, for which riprap is usually not necessary. Flow values more than the highest value for the culvert size usually indicates that a concrete stilling basin or energy dissipater structure is necessary.

Adjust values upward if the circular culvert is not flowing full based upon outlet conditions. For noncircular pipes, convert into an equivalent cross-sectional area of circular culvert to continue design.

Runoff Coefficient Table

Table 3.1.5-1 Runoff Curve Numbers¹

Cover description		Curve numbers for hydrological soil groups			
Cover type and hydrologic condition	Average percent impervious area ²	A	B	C	D
Cultivated land: without conservation treatment		72	81	88	91
with conservation treatment		62	71	78	81
Pasture or range land: poor condition		68	79	86	89
good condition		39	61	74	80
Meadow: good		30	58	71	78
Wood or forest land: thin stand, poor cover		45	66	77	83
good cover		25	55	70	77
Open space (lawns, parks, golf courses, cemeteries, etc) ³ : Poor condition (grass cover <50%)		68	79	86	89
Fair condition (grass cover 50% to 75%)		49	69	79	84
Good condition (grass cover >75%)		39	61	74	80
Impervious areas: Paved parking lots, roofs, driveways, etc (excluding right-of-way)		98	98	98	98
Streets and roads: Paved; curbs and storm drains (excluding right-of-way)		98	98	98	98
Paved; open ditches (including right-of-way)		83	89	92	93
Gravel (including right-of-way)		76	85	89	91
Dirt (including right-of-way)		72	82	87	89
Urban Districts: Commercial and business	85%	89	92	94	95
Industrial	72%	81	88	91	93
Residential districts by average lot size: 1/8 acre or less (townhouses)	65%	77	85	90	92
1/4 acre	38%	61	75	83	87
1/3 acre	30%	57	72	81	86
1/2 acre	25%	54	70	80	85
1 acre	20%	51	68	79	84
2 acres	12%	46	65	77	82
Developing urban areas and newly graded areas (pervious areas only, no vegetation)		77	86	91	94

¹Average runoff condition, and $I_a = 0.25$

²The average percent impervious area shown was used to develop the composite CNs. Other assumptions are as follows: impervious areas are directly connected to the drainage system, impervious areas have a CN of 98, and pervious areas are considered equivalent to open space in good hydrologic condition. If the impervious area is not connected, the NRCS TR-55 method has an adjustment to reduce the effect.

³CNs shown are equivalent to those of pasture. Composite CNs may be computed for other combinations of open space cover type.

Location Map



VICINITY MAP

NTS

FIRM Panel Map

National Flood Hazard Layer FIRMette



84°21'45"W 39°27'11"N



0 250 500 1,000 1,500 2,000 Feet 1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

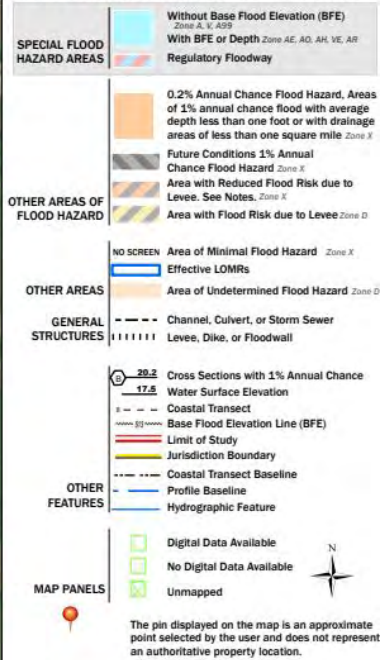
FLOOD MAP

NTS



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT



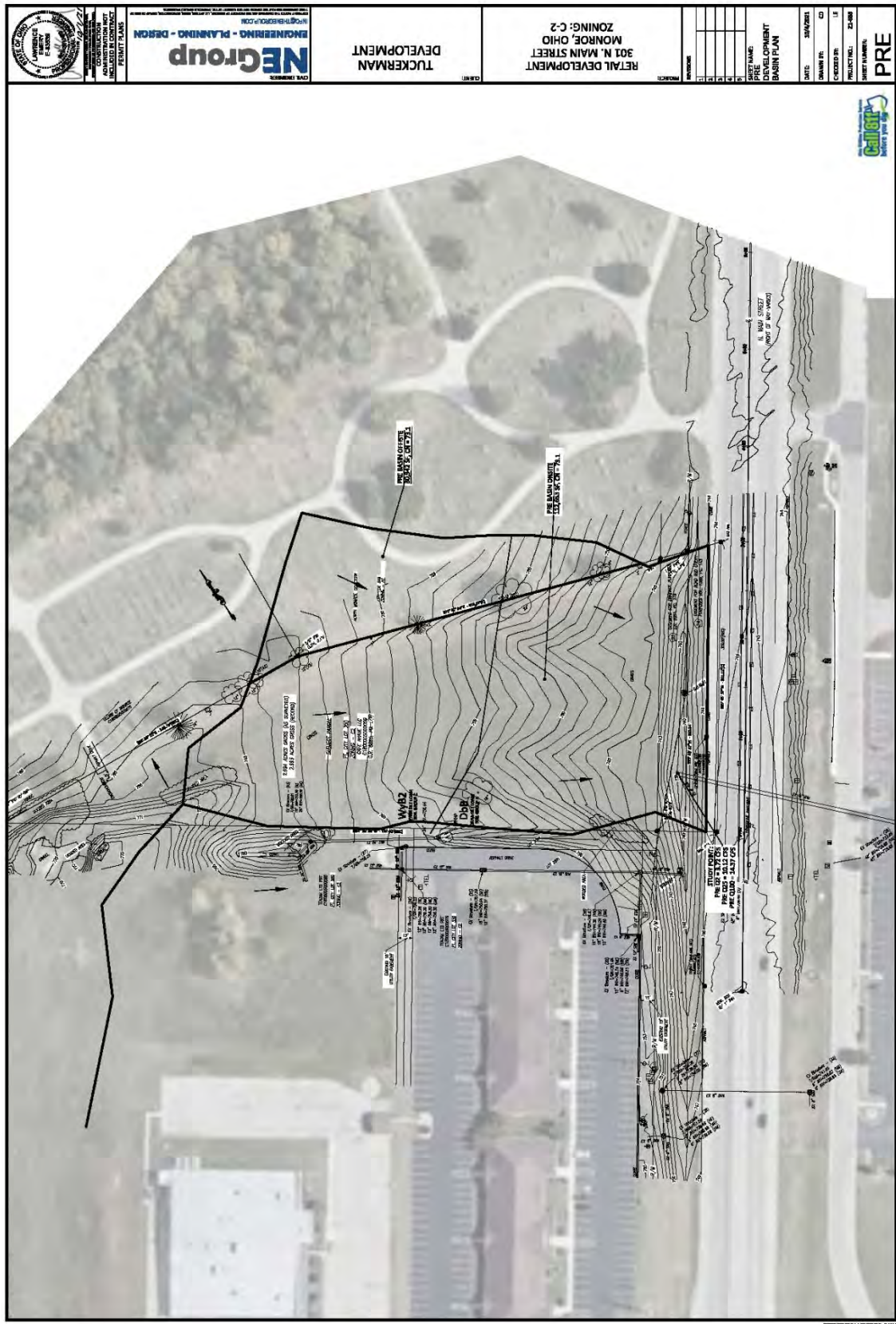
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/31/2021 at 2:23 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Appendix B

Pre-Development & Post-Development Basin Map



OEPA - Water Quality Volume Calculation Spreadsheets

Post-Construction Water Quality Volume As Required Under Ohio NPDES Construction General Permit No. OHC00005			
version 1.1 2020-5-7			
This spreadsheet calculates the Water Quality Volume required for both new development and redevelopment projects. Green boxes indicate user input for 1) the total area disturbed, 2) planned total impervious surface and, if redevelopment, 3) total existing impervious surface, each in acres. The user must select new or redevelopment from the dropdown menu to apply the proper equation. Use the separate BMP Compliance Spreadsheets to verify a designed practice or combination of practices meets the applicable requirements including the required Water Quality Volume calculated here. This spreadsheet does not account for factors that may affect the final practice design, including offsite run-on or sediment storage volume.			
Project Details			
Project Name:	O'Reilly Auto		
Project ID:			
Project Location:	301 N Main Street		
Project Latitude:	39.4491	Longitude:	-84.358
NPDES Permit Applicant:	Tuckerman Development		
Submitted By:	Jake Toner		
Date:	11/22/2021		
Required Water Quality Volume Calculation			
Total Disturbed Area, A = 1.360 acres			
Type of Development:	New Development v		
Water Quality Volume Equation:	$WQv = Rv * 0.90 \text{ in.} * A / 12$ [Equation 1] where, $Rv = 0.05 + 0.9(i)$		
PROPOSED POST-CONSTRUCTION CONDITIONS			
Total Impervious Surface Area = 0.840 acres			
Impervious Fraction, i = 0.618			
Volumetric Runoff Coefficient, Rv = 0.606			
Water Quality Volume, WQv = 0.062 ac-ft = 2,692 cu. ft.			
Message Center: none			

Step 2 - Dry ED Basin Volume Requirements

Extended Detention Volume, EDv =	1892	ft ³
Minimum Sediment Storage Volume, V _{sediment} =	378	ft ³
Minimum Forebay Volume, V _{forebay} =	189	ft ³
Minimum Permanent Micropool Volume, V _{micropool} =	189	ft ³

Step 3 - Basin Stage-Storage Relationship

[illegible]

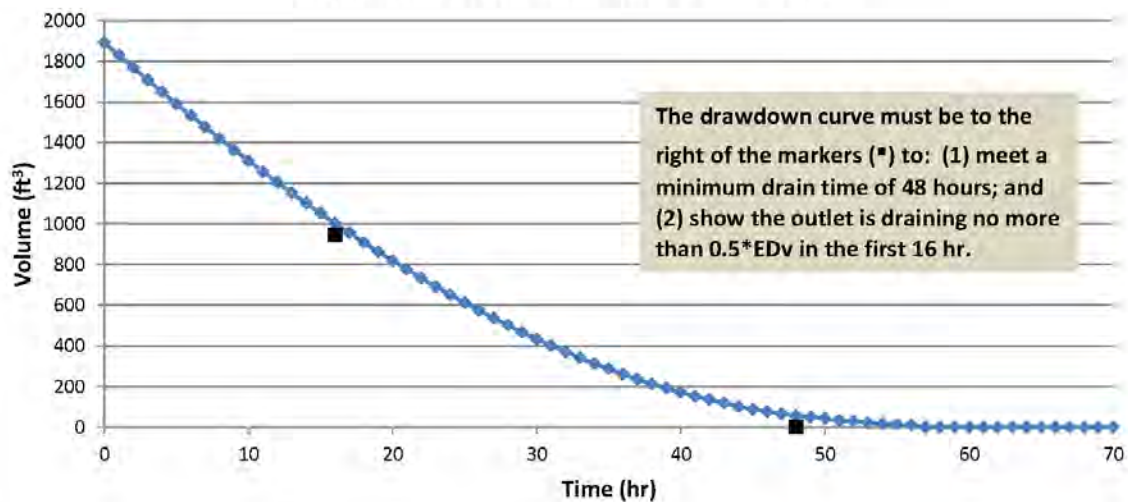
Step 4 - Outlet Elevations and Storage Volumes

WQ Orifice Invert Elevation =	744.00		
Elevation of Top of EDv =	745.42		
Secondary Outlet Invert Elevation =	746.00		OKAY
WQ Treatment Volume Provided, $V_{\text{treatment}}$ =	2,995	ft ³	
Treatment Vol Provided Relative to EDv, $V_{\text{treatment}}/\text{EDv}$ =	1.58		158% OKAY
Permanent Pool Volume Provided, PPV =	1,156	ft ³	
Forebay Volume Provided, V_{forebay} =	190	ft ³	1.00
Is forebay volume below WQ outlet? (Yes or No)	Yes		100% OKAY
Permanent Micropool Volume Provided, $V_{\text{micropool}}$ =	966	ft ³	
Ratio $V_{\text{micropool}}$ Provided to $V_{\text{micropool}}$ Required =	5.11		511% OKAY
Sediment Storage Volume Provided, V_{sediment} =	1,156	ft ³	
Ratio V_{sediment} Provided to V_{sediment} Required =	3.06		306% OKAY

Step 5 - Outlet (Orifice) Sizing

Maximum Hydraulic Head, H_{max}	=	1.42	ft	
Orifice Coefficient, C	=	0.6		
Target (Minimum) Draw-down Time, T_d	=	48	hr	
Target Average Discharge, Q_{avg}	=	0.01	cfs	
Average Hydraulic Head, H_{avg}	=	0.71	ft	
Estimated Orifice Area, $A_{orifice}$	=	0.39	in ²	= 0.003 ft ²
Estimated Orifice Diameter, $D_{orifice}$	=	0.70	in	= 0.06 ft
Design Orifice Diameter, $D_{orifice}$	=	0.75	in	= 0.06 ft
Design Orifice Area, $A_{orifice}$	=	0.44	in ²	= 0.003 ft ²
Time to Completely Drain EDv, T_d	=	57	hr	must be ≥ 48 hr OKAY
Volume Drained in First 16 hr	=	889	ft ³	
% of EDv	=	47.0	%	must be $\leq 50\%$ OKAY

Dry Basin - EDv Drawdown vs Time



Check Orifice Sizing with Faircloth Skimmer sizing tool:

CALCULATE FAIRCLOTH SKIMMER® SIZE

Basic volume in cubic feet

1892

Days to Drain

2

Volume is the actual or provided volume the you intend to drain, usually not the required volume which is often smaller. If a pool of water is to be maintained between storms, do not include that volume. In some cases a sediment basin may be larger than required because it will be used as a permanent stormwater pond.

Number of Days to drain is usually determined by local or state regulations. Where there is no requirement 3 days is recommended. Keep in mind the quicker the basin is to drain the larger the skimmer required. In NC, assume 3 days to drain.

SKIMMER SIZE

1.5 inches

ORIFICE RADIUS

0.6 inches

ORIFICE DIAMETER

1.1 inches

Sediment Basin Sizing and Dewatering Compliance Tool

version 1.1 2020-06-26

Project Summary

Project Name:	Auto Parts store
Project Location:	301 N Main St
Subwatershed ID/Label:	
Project Latitude:	39.4491
Project Longitude:	-84.358
NPDES Permit Applicant:	Tuckerman Development
Submitted by:	LEE
Date:	11/22/2021

Watershed: Statewide

Subwatershed Total Drainage Area, A_{total} =

0.84

acres

=

36,416

ft^2

Subwatershed Disturbed Drainage Area, A_{dist} =

0.84

acres

=

36,416

ft^2

Street address (or street name)

Enter latitude at entrance to

Enter longitude at entrance to

Name of design engineer

mm/dd/yyyy

Select from dropdown which

Report to the nearest 0

All Basin dewatering discharge

For Statewide Watersheds									
Minimum Sediment Storage Volume, Vsediment =	836	ft ³	=	31	yd ³	=	0.019	acre-ft	R
Minimum Dewatering Zone Volume, Vdewatering =	1505	ft ³	=	56	yd ³	=	0.035	acre-ft	R

[illegible]

The diagram illustrates a pond cross-section with the following elevation zones and outlet:

- Top of Pond Elevation = 747.50 ft**
- Secondary Outlet Invert Elevation = 746.00 ft**
- Dewatering Zone** (indicated by a vertical double-headed arrow)
- Skimmer Outlet/Stop Elevation = 744.00 ft**
- Sediment Storage Zone** (indicated by a vertical double-headed arrow)
- Bottom of Pond Elevation = 742.00 ft**

A skimmer outlet is shown on the right side of the pond, connected to a pipe that leads to a larger structure.

Note: The basin dewatering discharge calculation in this worksheet assumes a free discharge from the outlet (i.e., no tailwater). The skimmer outlet elevation may need to be adjusted upward to account for tailwater as appropriate. Tailwater is common to low gradient ditches or water bodies with prolonged increases in water level

Step 3 - Outlet Elevations and Storage Volumes

Skimmer Outlet Invert/Skimmer Stop Elevation = 744.00 ft
 Secondary Outlet Invert Elevation = 746.00 ft

OKAY
 OKAY

Provided Sediment Storage Volume = 1,156 ft³
 Provided Dewatering Volume = 2,995 ft³

OKAY
 OKAY

Step 4 - Skimmer-Type Outlet Sizing

Select Skimmer Type or Manufacturer: Faircloth Skimmer

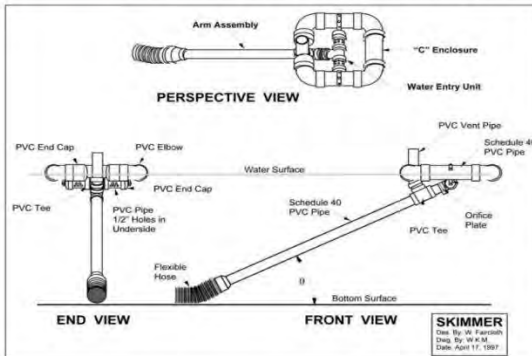
Faircloth Skimmer Sizing Calculator: [Click Here For Link to Online Calculator](#)

Orifice Size Selected: 0.75 in
 Dewatering Drawdown Time: 48 hrs

Example Faircloth Float Spec Sheet

Faircloth Float Photo

Please note the drawing and image shown below are provided solely to assist with identification of the skimmer type and its associated components. The drawing and photo below does not necessarily depict an installation that complies with the General Permit or Rainwater & Land Development specification, especially where the sediment storage zone is omitted.



TIME OF CONCENTRATION

Project Name: O'Reilly Auto

Date: 11/26/2021

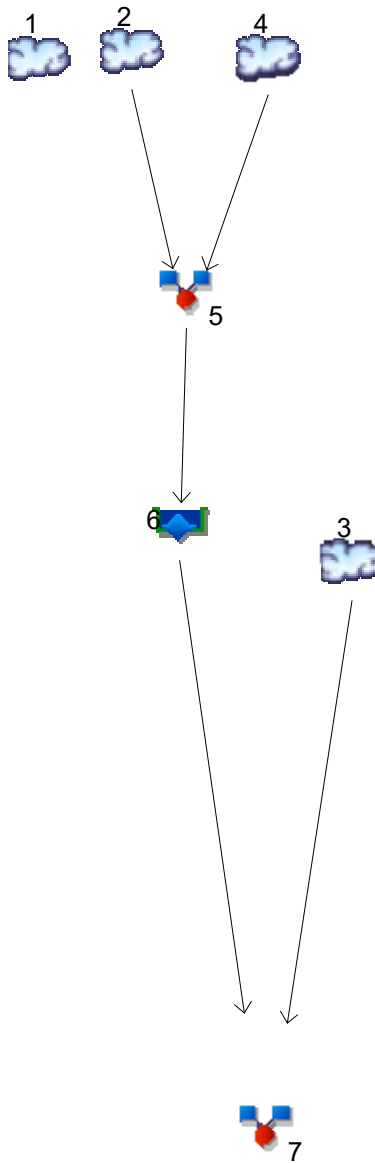
By: LEE

Sub-basin	Overland Flow Time				Shallow Concentrated Flow						Open Channel Flow			St	t _c (min)
	L (ft)	S (%)	n	t _{SHEET} (min)	L (ft)	S (%)	Surface	C _p	V (ft/s)	t _{shallow}	L (ft)	V (ft/s)	t _{channel} (min)		
Pre Site	516	6.20	0.060	10.16	0	0.50	Paved	20.33	1.44	0.00	0.0	2.00	0.00	10.2	10.2
Post Offsite	367	4.60	0.060	8.71	0	0.50	Paved	20.33	1.44	0.00	0.0	2.00	0.00	8.7	8.7
Post to Pond	0	6.00	0.011	0.00	530	6.00	Paved	20.33	4.98	1.77	0.0	2.00	0.00	1.8	5.0
Post Bypass	530	6.00	0.060	10.51	0	0.50	Paved	20.33	1.44	0.00	0.0	2.00	0.00	10.5	10.5

Hydraflow Hydrograph Output Report

Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2013 by Autodesk, Inc. v10



Legend

Hyd.	Origin	Description
1	SCS Runoff	Pre Site
2	SCS Runoff	Post Onsite
3	SCS Runoff	Post Site Bypass
4	SCS Runoff	Post Offsite
5	Combine	Combined to pond
6	Reservoir	Storm Basin Routing
7	Combine	Post Total

Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2013 by Autodesk, Inc. v10

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	5.215	2	722	13,912	-----	-----	-----	Pre Site
2	SCS Runoff	2.947	2	716	6,034	-----	-----	-----	Post Onsite
3	SCS Runoff	2.493	2	722	6,751	-----	-----	-----	Post Site Bypass
4	SCS Runoff	1.256	2	720	2,903	-----	-----	-----	Post Offsite
5	Combine	4.115	2	718	8,936	2, 4	-----	-----	Combined to pond
6	Reservoir	0.432	2	746	7,707	5	746.19	4,637	Storm Basin Routing
7	Combine	2.513	2	722	14,458	3, 6	-----	-----	Post Total
MNO OH_REV_12-11 final (based on 5yr).gpw					Return Period: 5 Year			Monday, 12 / 13 / 2021	

Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2013 by Autodesk, Inc. v10

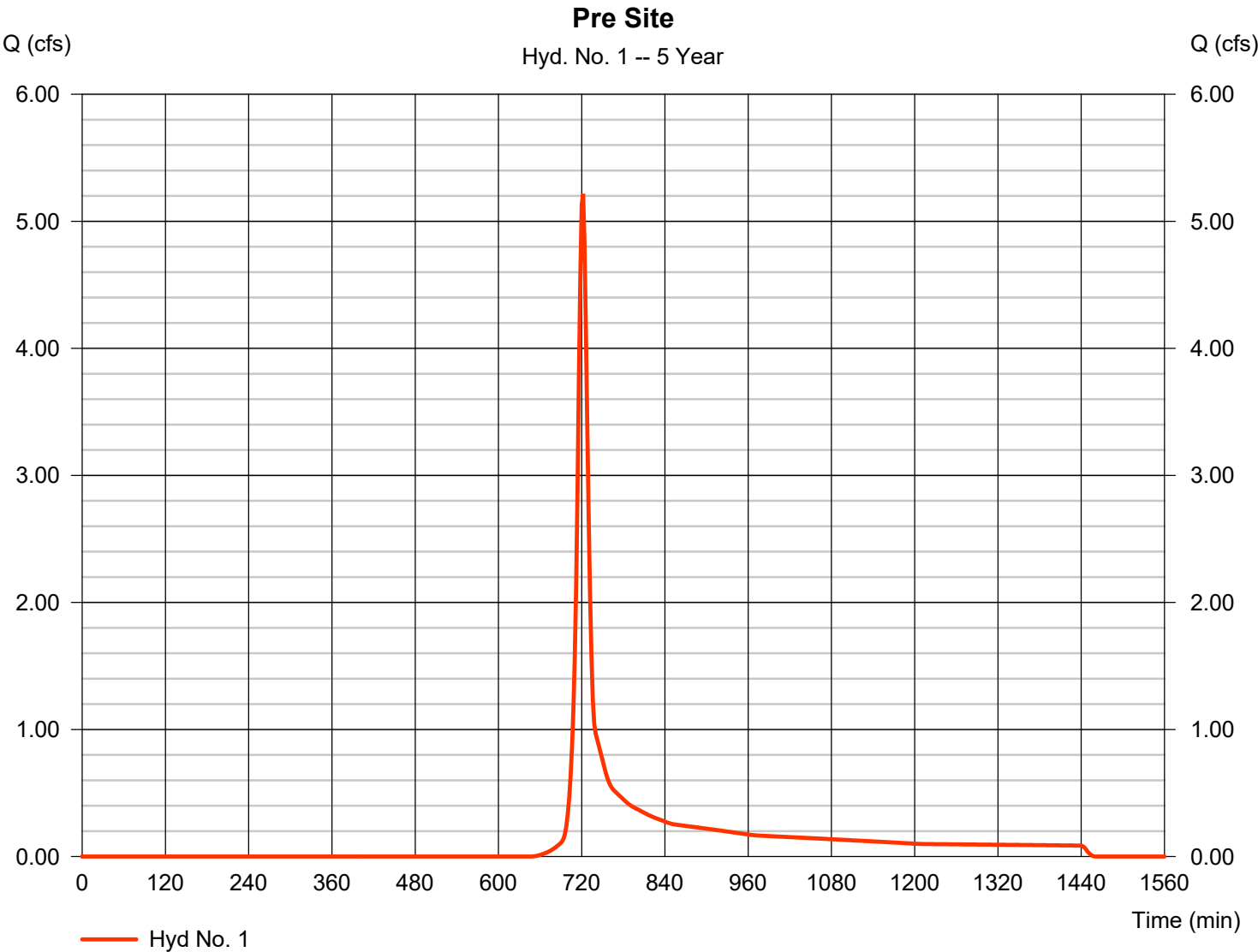
Monday, 12 / 13 / 2021

Hyd. No. 1

Pre Site

Hydrograph type	=	SCS Runoff	Peak discharge	=	5.215 cfs
Storm frequency	=	5 yrs	Time to peak	=	722 min
Time interval	=	2 min	Hyd. volume	=	13,912 cuft
Drainage area	=	3.300 ac	Curve number	=	73*
Basin Slope	=	6.2 %	Hydraulic length	=	516 ft
Tc method	=	User	Time of conc. (Tc)	=	10.20 min
Total precip.	=	3.42 in	Distribution	=	Type II
Storm duration	=	24 hrs	Shape factor	=	484

* Composite (Area/CN) = [(2.590 x 73) + (0.710 x 73)] / 3.300



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2013 by Autodesk, Inc. v10

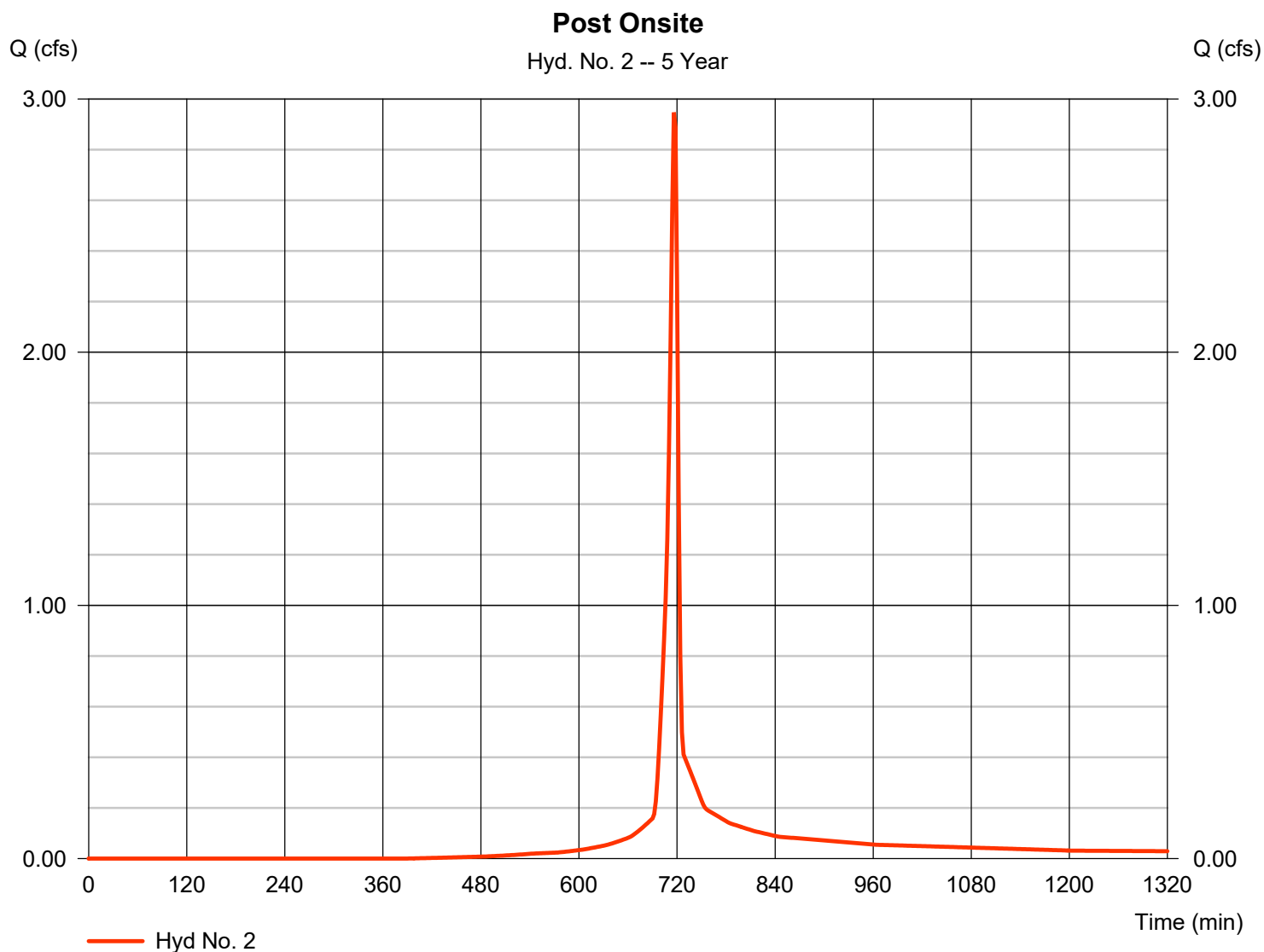
Monday, 12 / 13 / 2021

Hyd. No. 2

Post Onsite

Hydrograph type	= SCS Runoff	Peak discharge	= 2.947 cfs
Storm frequency	= 5 yrs	Time to peak	= 716 min
Time interval	= 2 min	Hyd. volume	= 6,034 cuft
Drainage area	= 0.840 ac	Curve number	= 87*
Basin Slope	= 6.0 %	Hydraulic length	= 530 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.42 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = + (0.239 x 61) + (0.597 x 98)] / 0.840



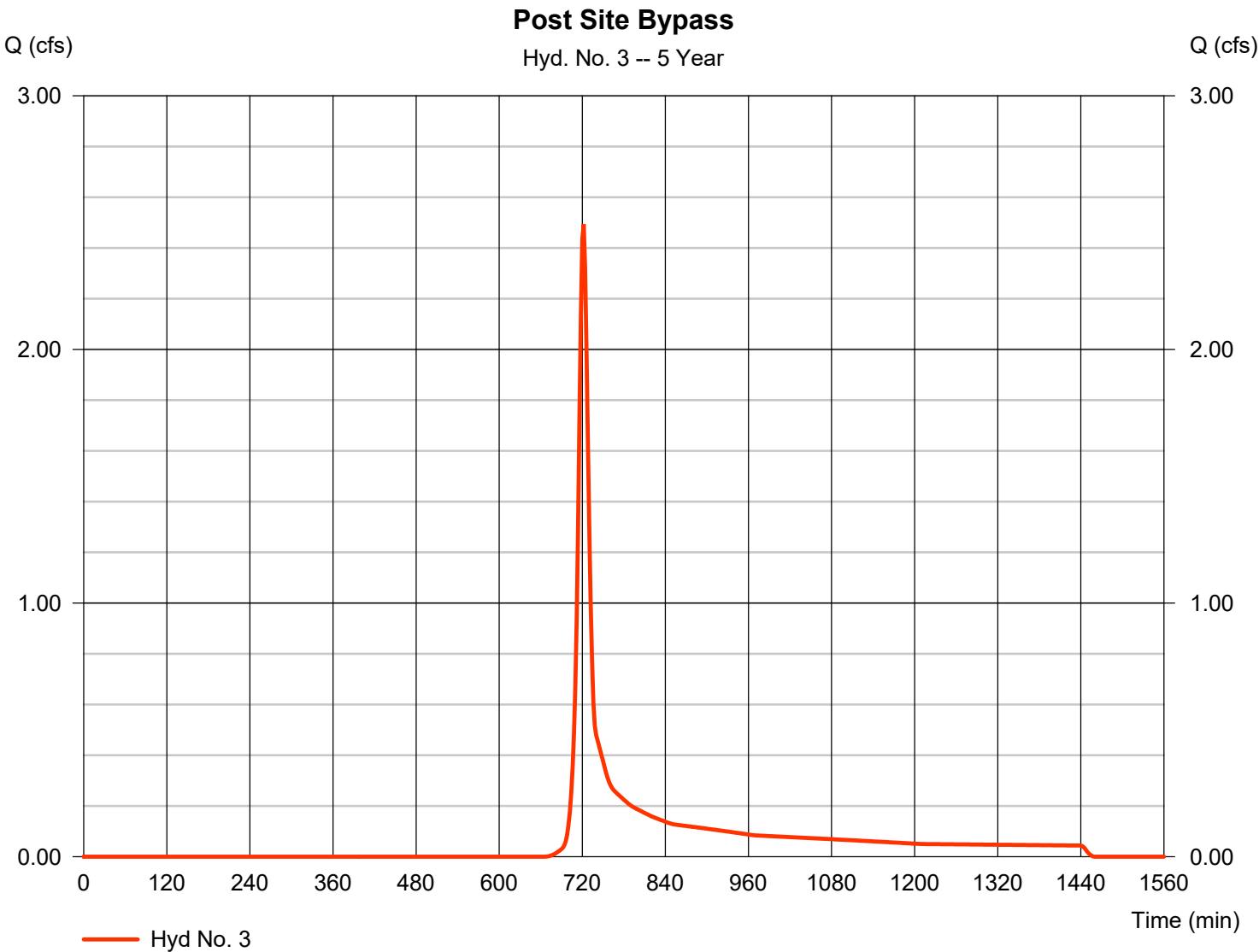
Hydrograph Report

Hyd. No. 3

Post Site Bypass

Hydrograph type	= SCS Runoff	Peak discharge	= 2.493 cfs
Storm frequency	= 5 yrs	Time to peak	= 722 min
Time interval	= 2 min	Hyd. volume	= 6,751 cuft
Drainage area	= 1.780 ac	Curve number	= 71*
Basin Slope	= 6.0 %	Hydraulic length	= 530 ft
Tc method	= User	Time of conc. (Tc)	= 10.50 min
Total precip.	= 3.42 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.534 x 61) + (0.073 x 98) + (1.175 x 74)] / 1.780



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2013 by Autodesk, Inc. v10

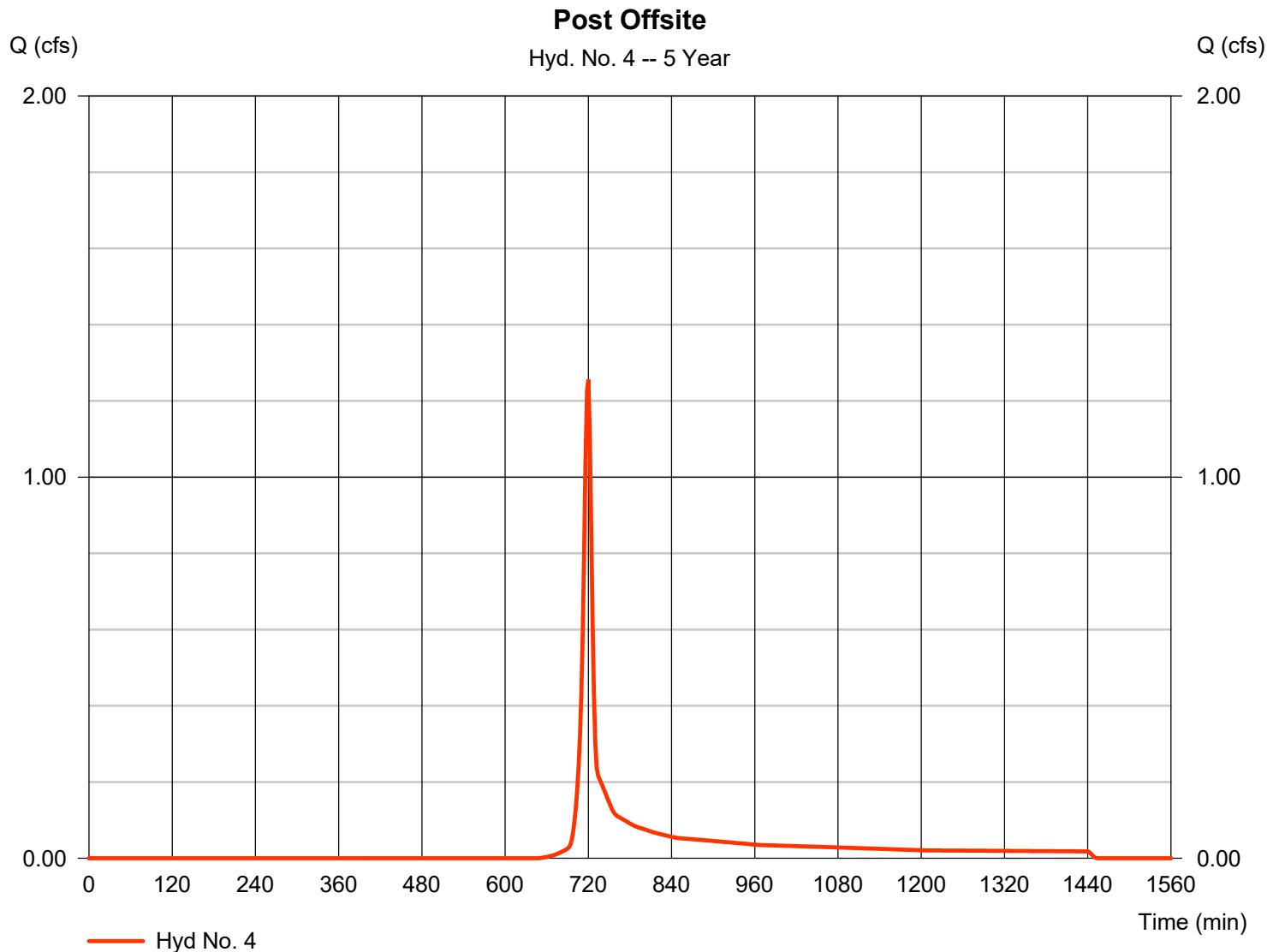
Monday, 12 / 13 / 2021

Hyd. No. 4

Post Offsite

Hydrograph type	= SCS Runoff	Peak discharge	= 1.256 cfs
Storm frequency	= 5 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 2,903 cuft
Drainage area	= 0.710 ac	Curve number	= 73*
Basin Slope	= 4.6 %	Hydraulic length	= 367 ft
Tc method	= User	Time of conc. (Tc)	= 8.70 min
Total precip.	= 3.42 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = $[(0.582 \times 74) + (0.128 \times 69)] / 0.710$



Hydrograph Report

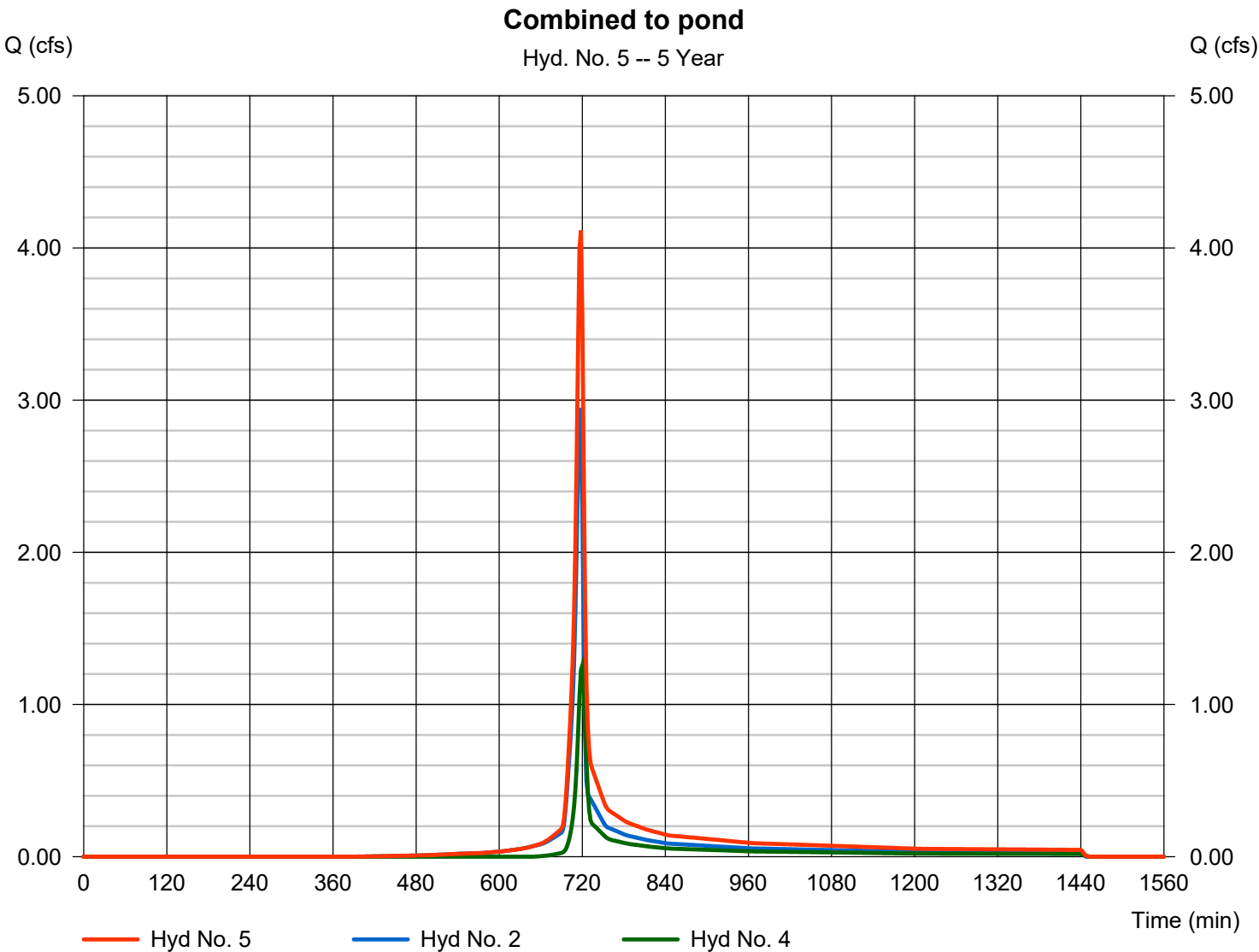
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2013 by Autodesk, Inc. v10

Monday, 12 / 13 / 2021

Hyd. No. 5

Combined to pond

Hydrograph type	= Combine	Peak discharge	= 4.115 cfs
Storm frequency	= 5 yrs	Time to peak	= 718 min
Time interval	= 2 min	Hyd. volume	= 8,936 cuft
Inflow hyds.	= 2, 4	Contrib. drain. area	= 1.550 ac



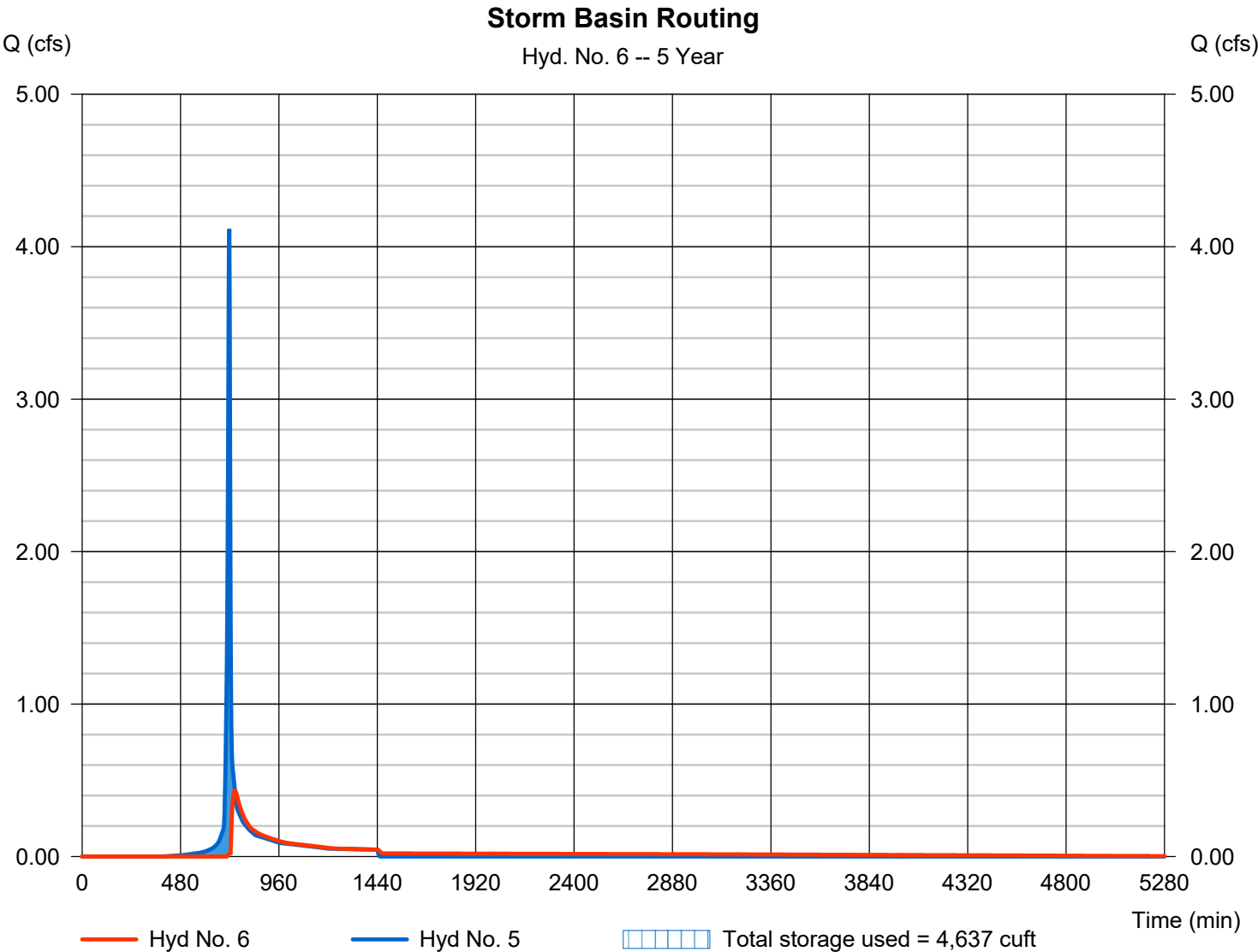
Hydrograph Report

Hyd. No. 6

Storm Basin Routing

Hydrograph type	= Reservoir	Peak discharge	= 0.432 cfs
Storm frequency	= 5 yrs	Time to peak	= 746 min
Time interval	= 2 min	Hyd. volume	= 7,707 cuft
Inflow hyd. No.	= 5 - Combined to pond	Max. Elevation	= 746.19 ft
Reservoir name	= Stormwater Basin	Max. Storage	= 4,637 cuft

Storage Indication method used.



Pond Report

10

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2013 by Autodesk, Inc. v10

Monday, 12 / 13 / 2021

Pond No. 1 - Stormwater Basin

Pond Data

Pond storage is based on user-defined values.

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	742.00	n/a	0	0
1.00	743.00	n/a	409	409
2.00	744.00	n/a	767	1,176
3.00	745.00	n/a	1,231	2,407
4.00	746.00	n/a	1,781	4,188
5.00	747.00	n/a	2,399	6,587
5.50	747.50	n/a	1,448	8,035

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 0.75	Inactive	0.00	0.00
Span (in)	= 0.75	8.00	0.00	0.00
No. Barrels	= 1	2	0	0
Invert El. (ft)	= 744.00	746.00	0.00	0.00
Length (ft)	= 0.67	200.00	0.00	0.00
Slope (%)	= 0.00	0.50	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 1.50	Inactive	0.00	0.00
Crest El. (ft)	= 746.00	744.83	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Rect	Rect	---	---
Multi-Stage	= No	No	No	No
Exfil.(in/hr)	= 0.000 (by Wet area)			
TW Elev. (ft)	= 0.00			

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	742.00	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
0.10	41	742.10	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
0.20	82	742.20	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
0.30	123	742.30	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
0.40	164	742.40	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
0.50	205	742.50	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
0.60	245	742.60	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
0.70	286	742.70	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
0.80	327	742.80	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
0.90	368	742.90	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
1.00	409	743.00	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
1.10	486	743.10	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
1.20	562	743.20	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
1.30	639	743.30	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
1.40	716	743.40	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
1.50	793	743.50	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
1.60	869	743.60	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
1.70	946	743.70	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
1.80	1,023	743.80	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
1.90	1,099	743.90	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
2.00	1,176	744.00	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
2.10	1,299	744.10	0.00 oc	0.00	---	---	0.00	0.00	---	---	---	---	0.003
2.20	1,422	744.20	0.01 oc	0.00	---	---	0.00	0.00	---	---	---	---	0.006
2.30	1,545	744.30	0.01 ic	0.00	---	---	0.00	0.00	---	---	---	---	0.008
2.40	1,668	744.40	0.01 ic	0.00	---	---	0.00	0.00	---	---	---	---	0.009
2.50	1,792	744.50	0.01 ic	0.00	---	---	0.00	0.00	---	---	---	---	0.010
2.60	1,915	744.60	0.01 ic	0.00	---	---	0.00	0.00	---	---	---	---	0.011
2.70	2,038	744.70	0.01 ic	0.00	---	---	0.00	0.00	---	---	---	---	0.012
2.80	2,161	744.80	0.01 ic	0.00	---	---	0.00	0.00	---	---	---	---	0.013
2.90	2,284	744.90	0.01 ic	0.00	---	---	0.00	0.00	---	---	---	---	0.014
3.00	2,407	745.00	0.01 ic	0.00	---	---	0.00	0.00	---	---	---	---	0.015
3.10	2,585	745.10	0.02 ic	0.00	---	---	0.00	0.00	---	---	---	---	0.015
3.20	2,763	745.20	0.02 ic	0.00	---	---	0.00	0.00	---	---	---	---	0.016
3.30	2,941	745.30	0.02 ic	0.00	---	---	0.00	0.00	---	---	---	---	0.017
3.40	3,119	745.40	0.02 ic	0.00	---	---	0.00	0.00	---	---	---	---	0.017
3.50	3,298	745.50	0.02 ic	0.00	---	---	0.00	0.00	---	---	---	---	0.018
3.60	3,476	745.60	0.02 ic	0.00	---	---	0.00	0.00	---	---	---	---	0.018

Continues on next page...

Stormwater Basin

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
3.70	3,654	745.70	0.02 ic	0.00	---	---	0.00	0.00	---	---	---	---	0.019
3.80	3,832	745.80	0.02 ic	0.00	---	---	0.00	0.00	---	---	---	---	0.020
3.90	4,010	745.90	0.02 ic	0.00	---	---	0.00	0.00	---	---	---	---	0.020
4.00	4,188	746.00	0.02 ic	0.00	---	---	0.00	0.00	---	---	---	---	0.021
4.10	4,428	746.10	0.02 ic	0.00	---	---	0.16	0.00	---	---	---	---	0.179
4.20	4,668	746.20	0.02 ic	0.00	---	---	0.45	0.00	---	---	---	---	0.469
4.30	4,908	746.30	0.02 ic	0.00	---	---	0.82	0.00	---	---	---	---	0.843
4.40	5,148	746.40	0.02 ic	0.00	---	---	1.26	0.00	---	---	---	---	1.286
4.50	5,388	746.50	0.02 ic	0.00	---	---	1.77	0.00	---	---	---	---	1.789
4.60	5,627	746.60	0.02 ic	0.00	---	---	2.32	0.00	---	---	---	---	2.345
4.70	5,867	746.70	0.02 ic	0.00	---	---	2.92	0.00	---	---	---	---	2.948
4.80	6,107	746.80	0.02 ic	0.00	---	---	3.57	0.00	---	---	---	---	3.597
4.90	6,347	746.90	0.03 ic	0.00	---	---	4.26	0.00	---	---	---	---	4.288
5.00	6,587	747.00	0.03 ic	0.00	---	---	4.99	0.00	---	---	---	---	5.020
5.05	6,732	747.05	0.03 ic	0.00	---	---	5.37	0.00	---	---	---	---	5.400
5.10	6,877	747.10	0.03 ic	0.00	---	---	5.76	0.00	---	---	---	---	5.788
5.15	7,021	747.15	0.03 ic	0.00	---	---	6.16	0.00	---	---	---	---	6.186
5.20	7,166	747.20	0.03 ic	0.00	---	---	6.57	0.00	---	---	---	---	6.592
5.25	7,311	747.25	0.03 ic	0.00	---	---	6.98	0.00	---	---	---	---	7.006
5.30	7,456	747.30	0.03 ic	0.00	---	---	7.40	0.00	---	---	---	---	7.430
5.35	7,601	747.35	0.03 ic	0.00	---	---	7.83	0.00	---	---	---	---	7.861
5.40	7,745	747.40	0.03 ic	0.00	---	---	8.27	0.00	---	---	---	---	8.300
5.45	7,890	747.45	0.03 ic	0.00	---	---	8.72	0.00	---	---	---	---	8.748
5.50	8,035	747.50	0.03 ic	0.00	---	---	9.18	0.00	---	---	---	---	9.204

...End

Hydrograph Report

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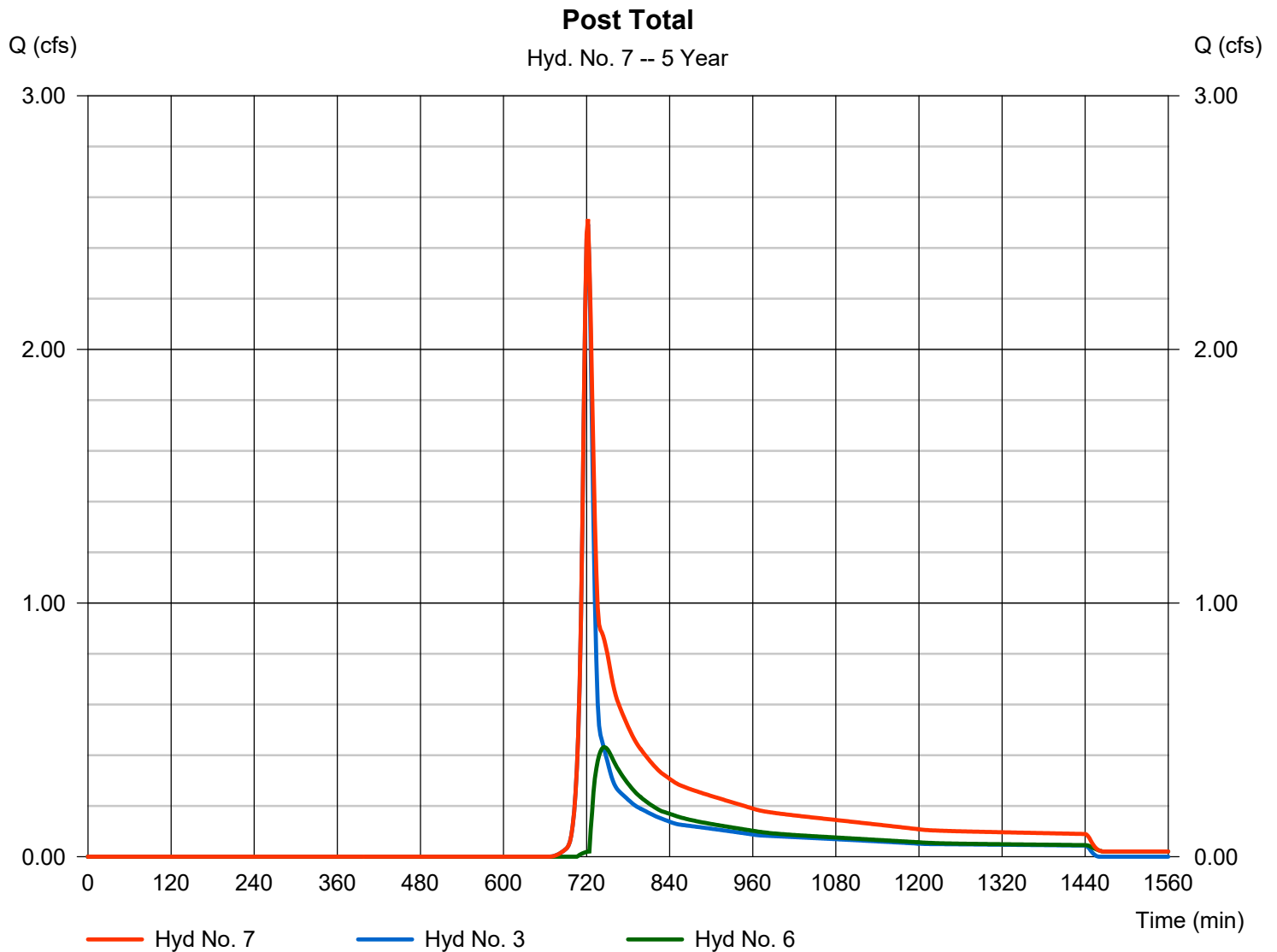
Monday, 12 / 13 / 2021

Hyd. No. 7

Post Total

Hydrograph type = Combine
Storm frequency = 5 yrs
Time interval = 2 min
Inflow hyds. = 3, 6

Peak discharge = 2.513 cfs
Time to peak = 722 min
Hyd. volume = 14,458 cuft
Contrib. drain. area = 1.780 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2013 by Autodesk, Inc. v10

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	9.127	2	722	23,885	-----	-----	-----	Pre Site
2	SCS Runoff	4.315	2	716	8,992	-----	-----	-----	Post Onsite
3	SCS Runoff	4.522	2	722	11,878	-----	-----	-----	Post Site Bypass
4	SCS Runoff	2.177	2	720	4,983	-----	-----	-----	Post Offsite
5	Combine	6.361	2	718	13,975	2, 4	-----	-----	Combined to pond
6	Reservoir	3.093	2	724	12,745	5	746.73	5,921	Storm Basin Routing
7	Combine	7.530	2	722	24,623	3, 6	-----	-----	Post Total
MNO OH_REV_12-11 final (based on 5yr).gpw					Return Period: 25 Year			Monday, 12 / 13 / 2021	

Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2013 by Autodesk, Inc. v10

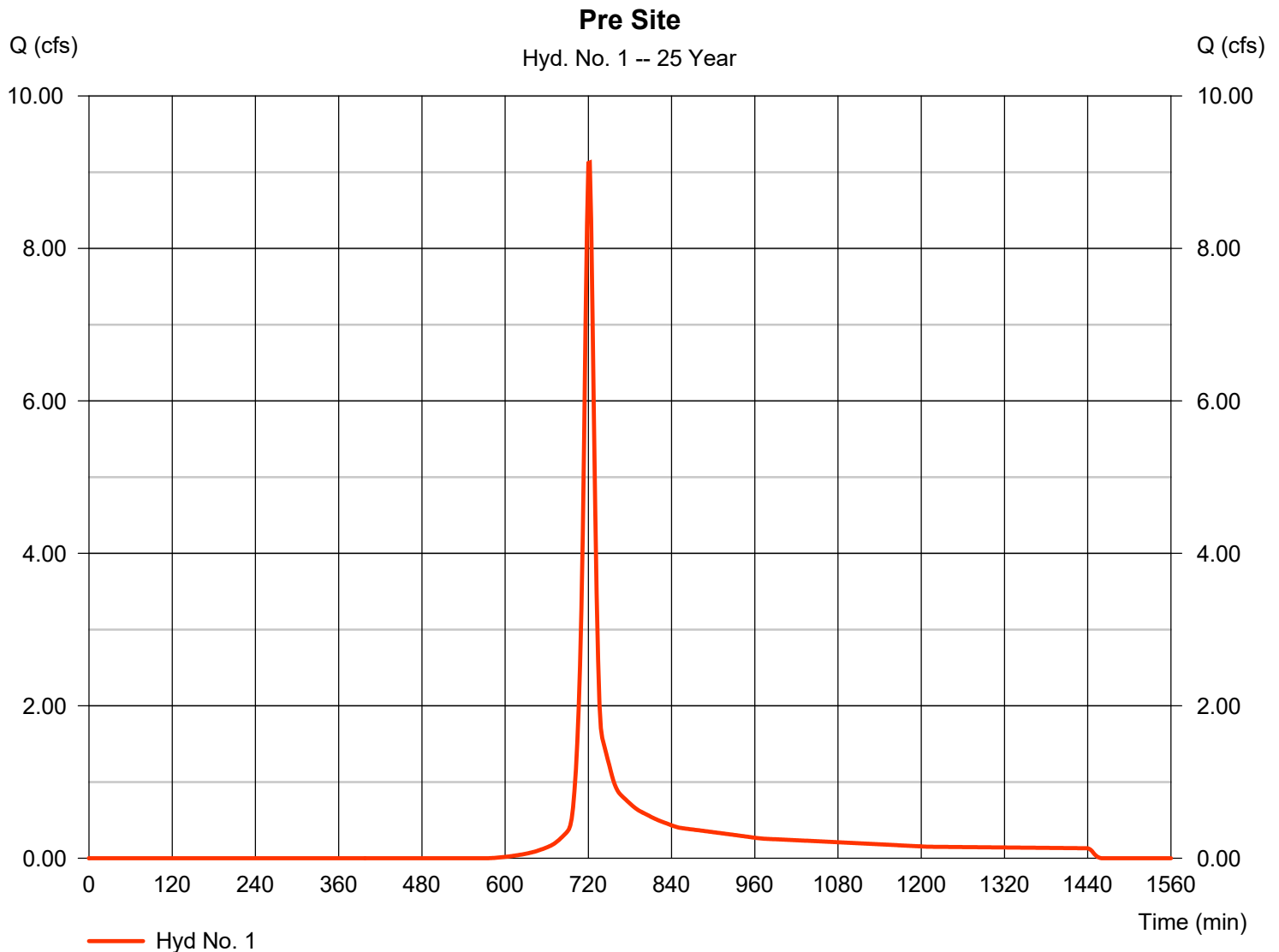
Monday, 12 / 13 / 2021

Hyd. No. 1

Pre Site

Hydrograph type	= SCS Runoff	Peak discharge	= 9.127 cfs
Storm frequency	= 25 yrs	Time to peak	= 722 min
Time interval	= 2 min	Hyd. volume	= 23,885 cuft
Drainage area	= 3.300 ac	Curve number	= 73*
Basin Slope	= 6.2 %	Hydraulic length	= 516 ft
Tc method	= User	Time of conc. (Tc)	= 10.20 min
Total precip.	= 4.55 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = $[(2.590 \times 73) + (0.710 \times 73)] / 3.300$



Hydrograph Report

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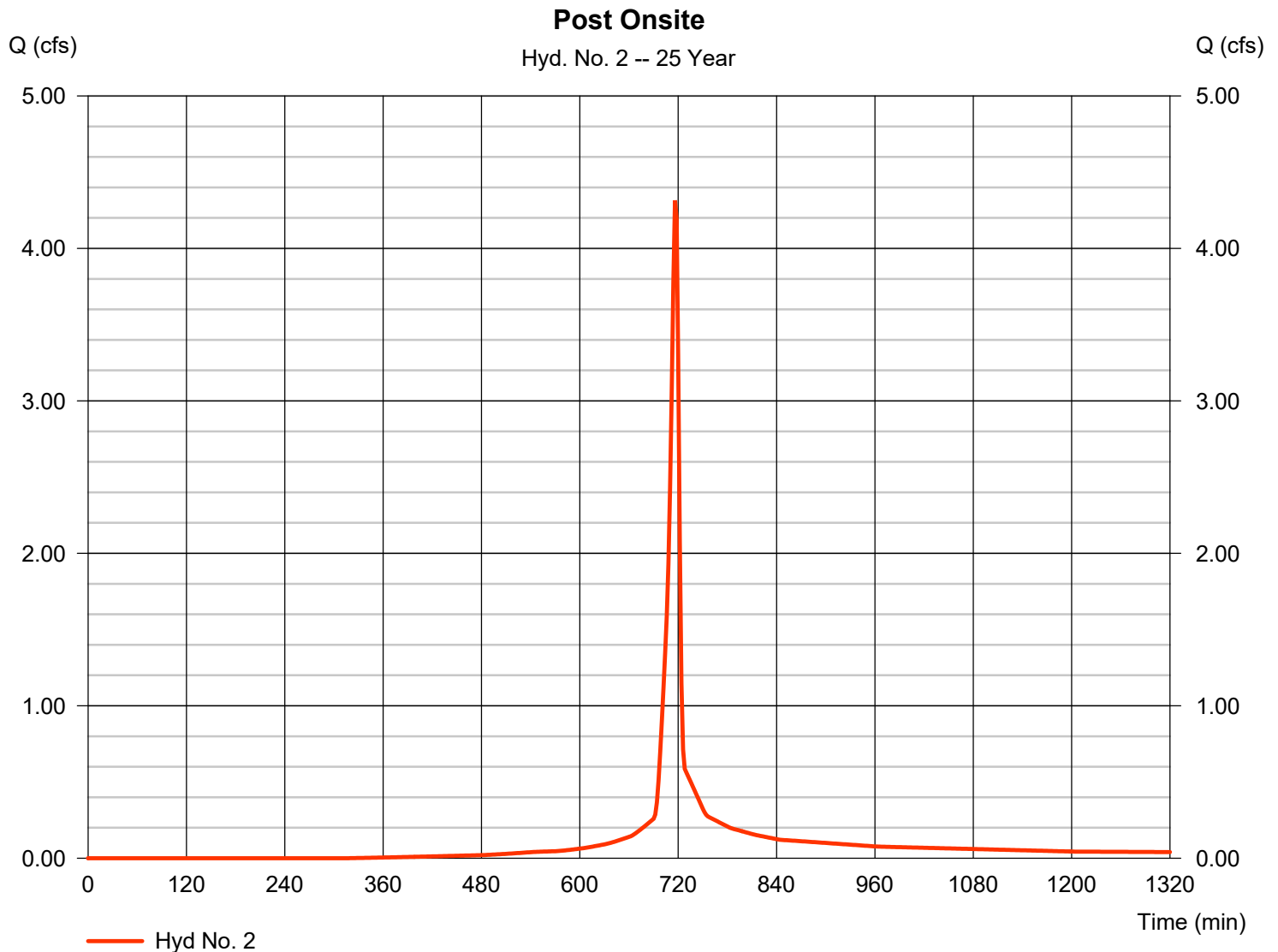
Monday, 12 / 13 / 2021

Hyd. No. 2

Post Onsite

Hydrograph type	= SCS Runoff	Peak discharge	= 4.315 cfs
Storm frequency	= 25 yrs	Time to peak	= 716 min
Time interval	= 2 min	Hyd. volume	= 8,992 cuft
Drainage area	= 0.840 ac	Curve number	= 87*
Basin Slope	= 6.0 %	Hydraulic length	= 530 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 4.55 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = $+(0.239 \times 61) + (0.597 \times 98) / 0.840$



Hydrograph Report

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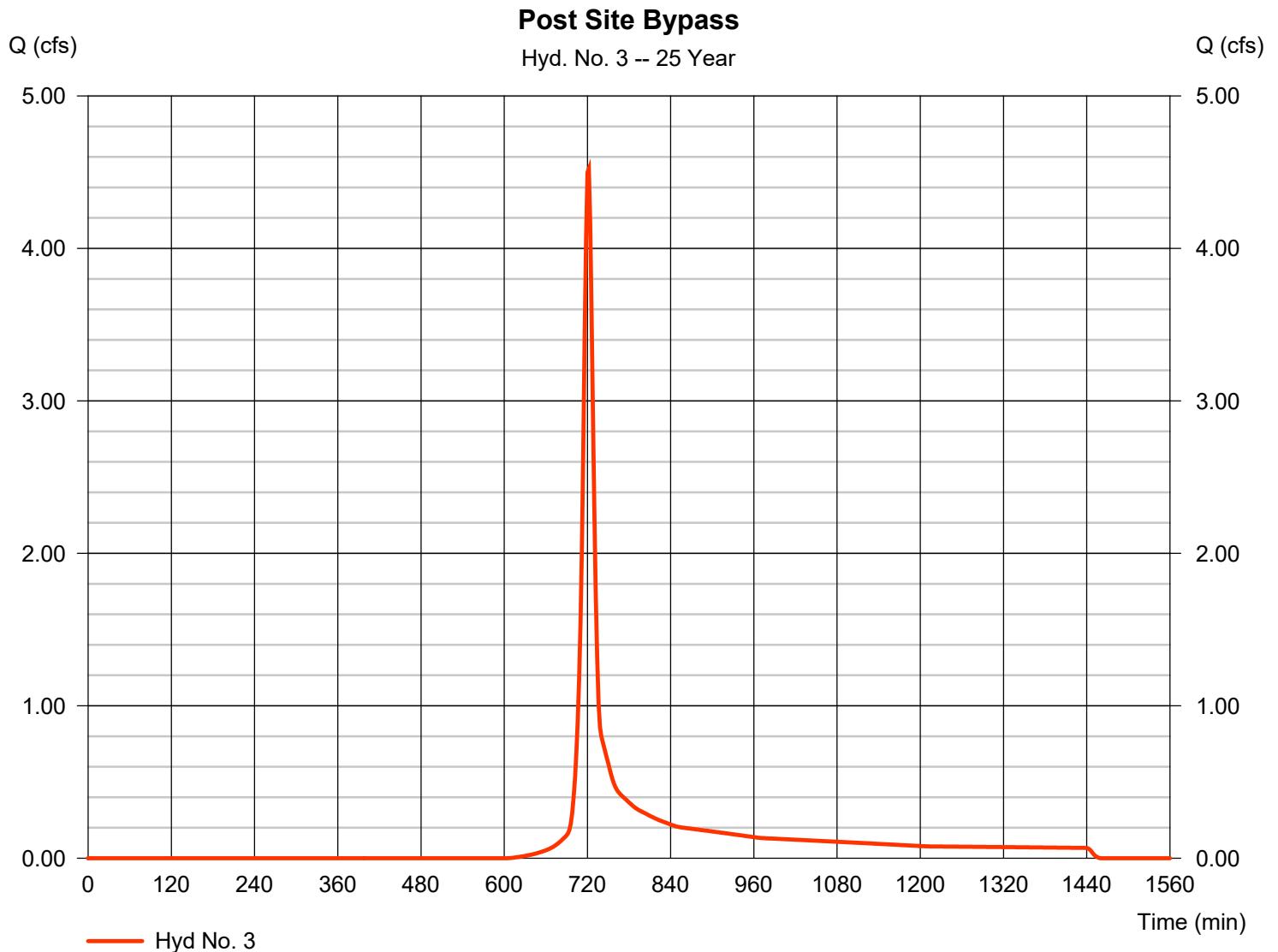
Monday, 12 / 13 / 2021

Hyd. No. 3

Post Site Bypass

Hydrograph type	= SCS Runoff	Peak discharge	= 4.522 cfs
Storm frequency	= 25 yrs	Time to peak	= 722 min
Time interval	= 2 min	Hyd. volume	= 11,878 cuft
Drainage area	= 1.780 ac	Curve number	= 71*
Basin Slope	= 6.0 %	Hydraulic length	= 530 ft
Tc method	= User	Time of conc. (Tc)	= 10.50 min
Total precip.	= 4.55 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = $[(0.534 \times 61) + (0.073 \times 98) + (1.175 \times 74)] / 1.780$



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2013 by Autodesk, Inc. v10

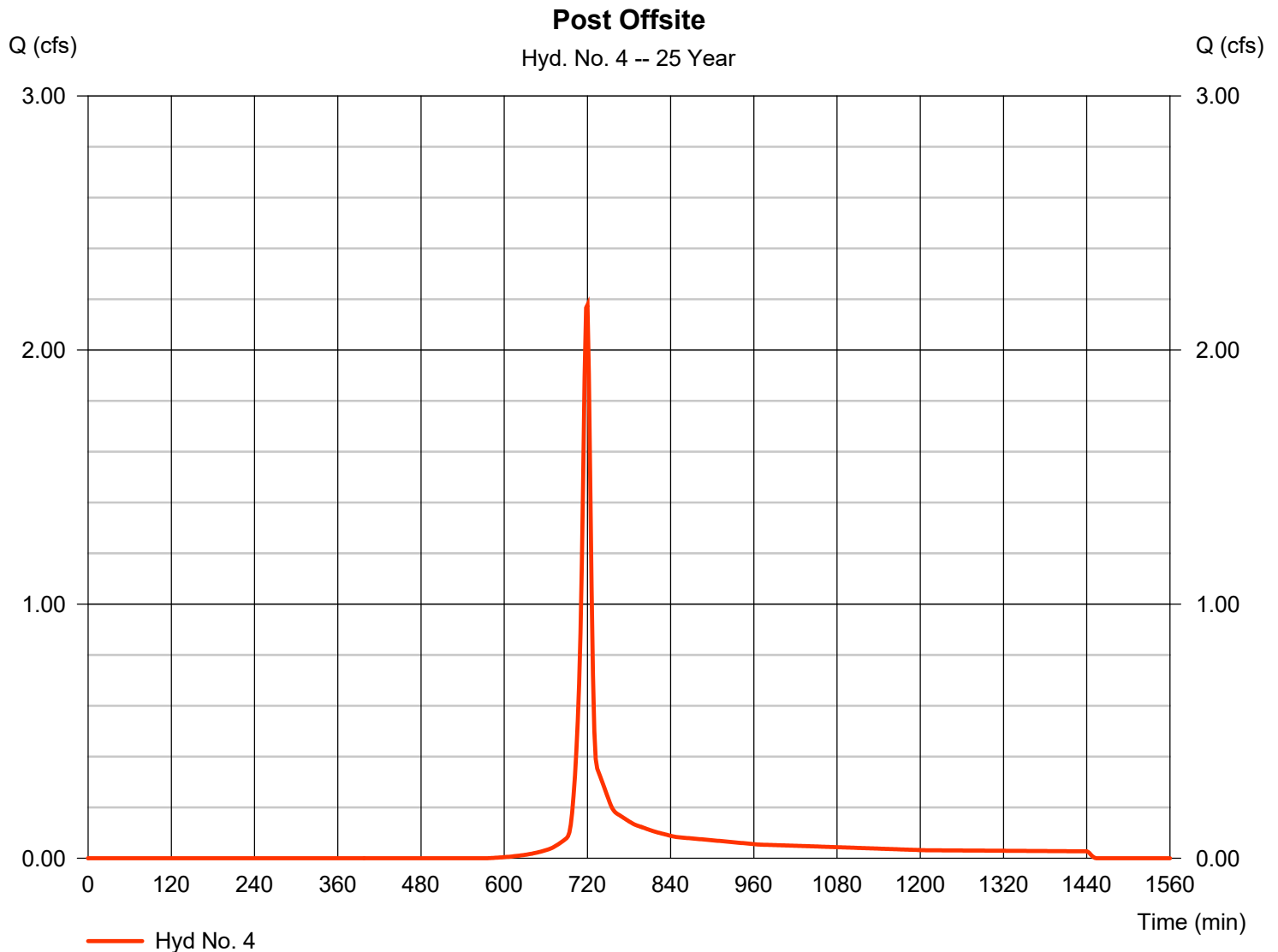
Monday, 12 / 13 / 2021

Hyd. No. 4

Post Offsite

Hydrograph type	= SCS Runoff	Peak discharge	= 2.177 cfs
Storm frequency	= 25 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 4,983 cuft
Drainage area	= 0.710 ac	Curve number	= 73*
Basin Slope	= 4.6 %	Hydraulic length	= 367 ft
Tc method	= User	Time of conc. (Tc)	= 8.70 min
Total precip.	= 4.55 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = $[(0.582 \times 74) + (0.128 \times 69)] / 0.710$



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2013 by Autodesk, Inc. v10

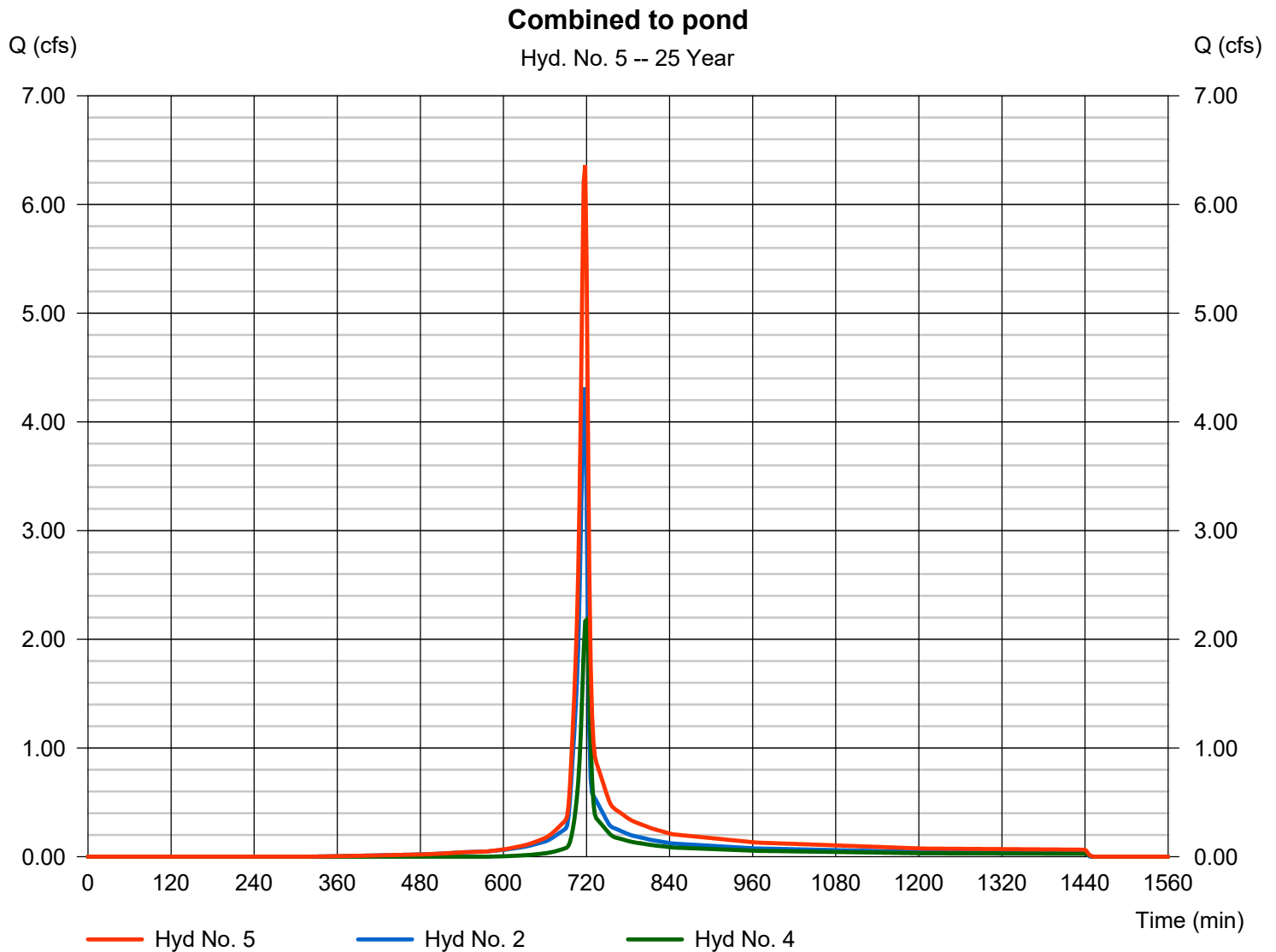
Monday, 12 / 13 / 2021

Hyd. No. 5

Combined to pond

Hydrograph type = Combine
Storm frequency = 25 yrs
Time interval = 2 min
Inflow hyds. = 2, 4

Peak discharge = 6.361 cfs
Time to peak = 718 min
Hyd. volume = 13,975 cuft
Contrib. drain. area = 1.550 ac



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2013 by Autodesk, Inc. v10

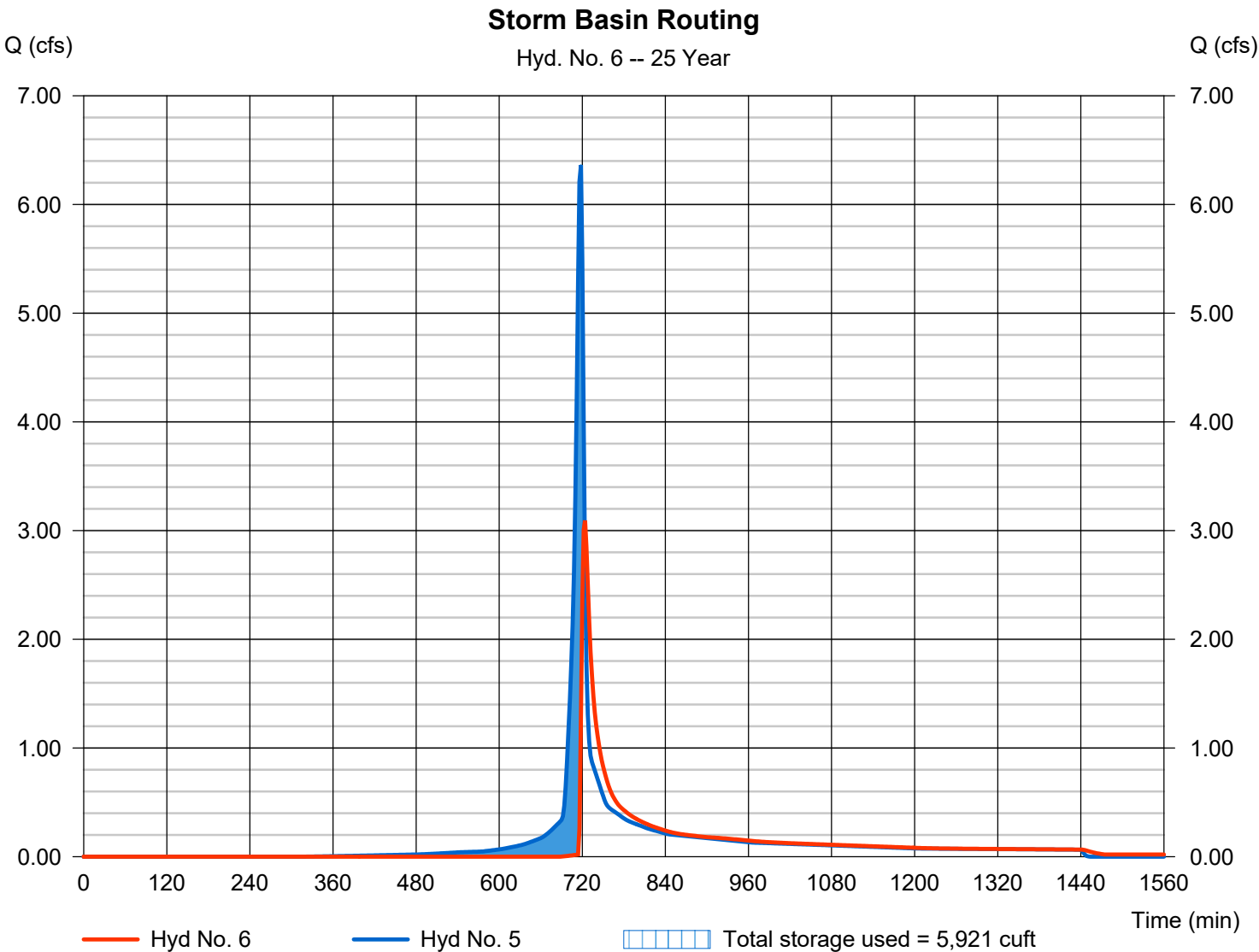
Monday, 12 / 13 / 2021

Hyd. No. 6

Storm Basin Routing

Hydrograph type	= Reservoir	Peak discharge	= 3.093 cfs
Storm frequency	= 25 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 12,745 cuft
Inflow hyd. No.	= 5 - Combined to pond	Max. Elevation	= 746.73 ft
Reservoir name	= Stormwater Basin	Max. Storage	= 5,921 cuft

Storage Indication method used.



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2013 by Autodesk, Inc. v10

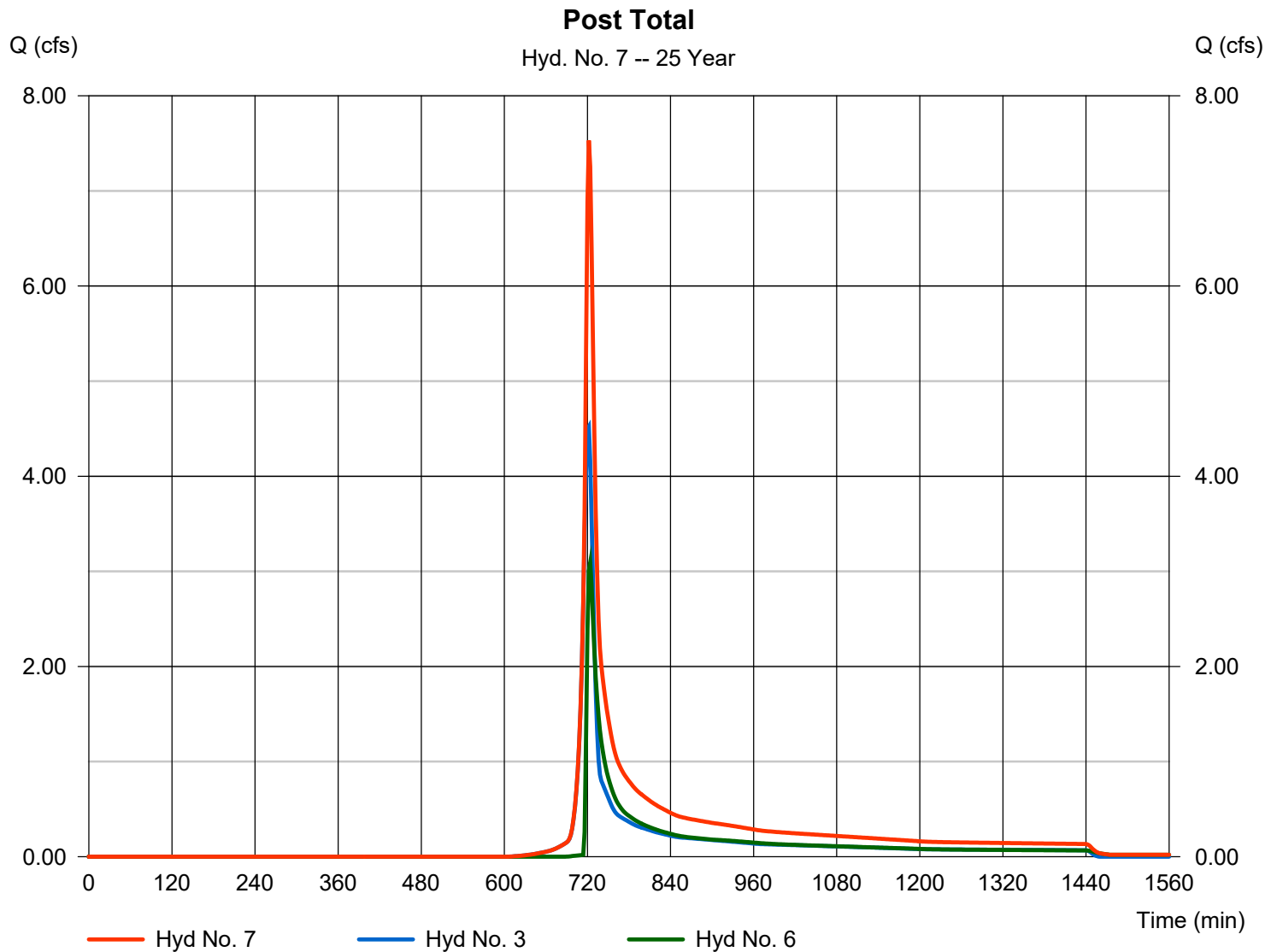
Monday, 12 / 13 / 2021

Hyd. No. 7

Post Total

Hydrograph type = Combine
Storm frequency = 25 yrs
Time interval = 2 min
Inflow hyds. = 3, 6

Peak discharge = 7.530 cfs
Time to peak = 722 min
Hyd. volume = 24,623 cuft
Contrib. drain. area = 1.780 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2013 by Autodesk, Inc. v10

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	13.06	2	720	33,894	-----	-----	-----	Pre Site
2	SCS Runoff	5.564	2	716	11,767	-----	-----	-----	Post Onsite
3	SCS Runoff	6.562	2	720	17,086	-----	-----	-----	Post Site Bypass
4	SCS Runoff	3.091	2	718	7,071	-----	-----	-----	Post Offsite
5	Combine	8.475	2	718	18,839	2, 4	-----	-----	Combined to pond
6	Reservoir	5.849	2	722	17,608	5	747.12	6,899	Storm Basin Routing
7	Combine	12.39	2	722	34,694	3, 6	-----	-----	Post Total
MNO OH_REV_12-11 final (based on 5yr).gpw					Return Period: 100 Year			Monday, 12 / 13 / 2021	

Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2013 by Autodesk, Inc. v10

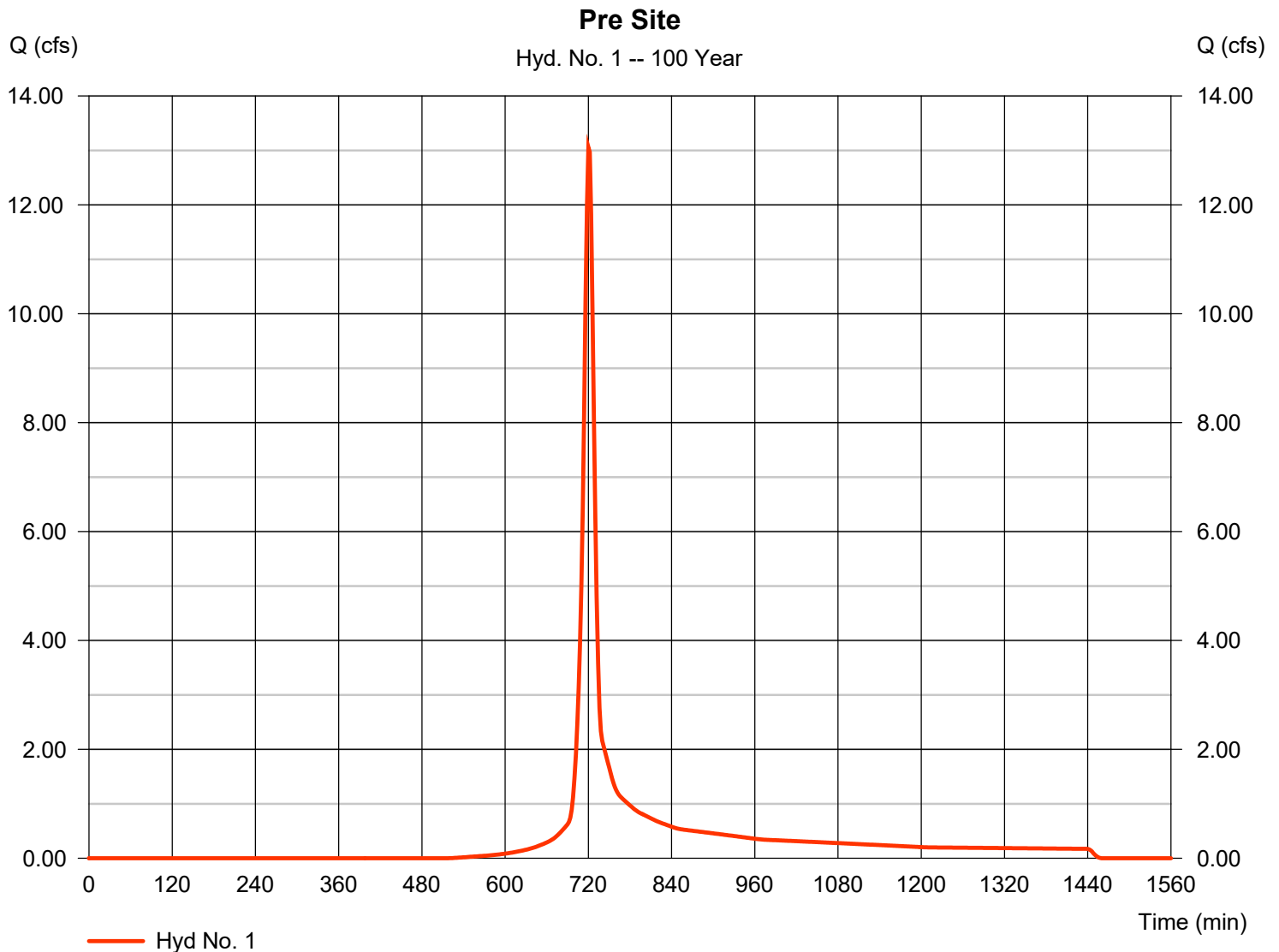
Monday, 12 / 13 / 2021

Hyd. No. 1

Pre Site

Hydrograph type	= SCS Runoff	Peak discharge	= 13.06 cfs
Storm frequency	= 100 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 33,894 cuft
Drainage area	= 3.300 ac	Curve number	= 73*
Basin Slope	= 6.2 %	Hydraulic length	= 516 ft
Tc method	= User	Time of conc. (Tc)	= 10.20 min
Total precip.	= 5.58 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = $[(2.590 \times 73) + (0.710 \times 73)] / 3.300$



Hydrograph Report

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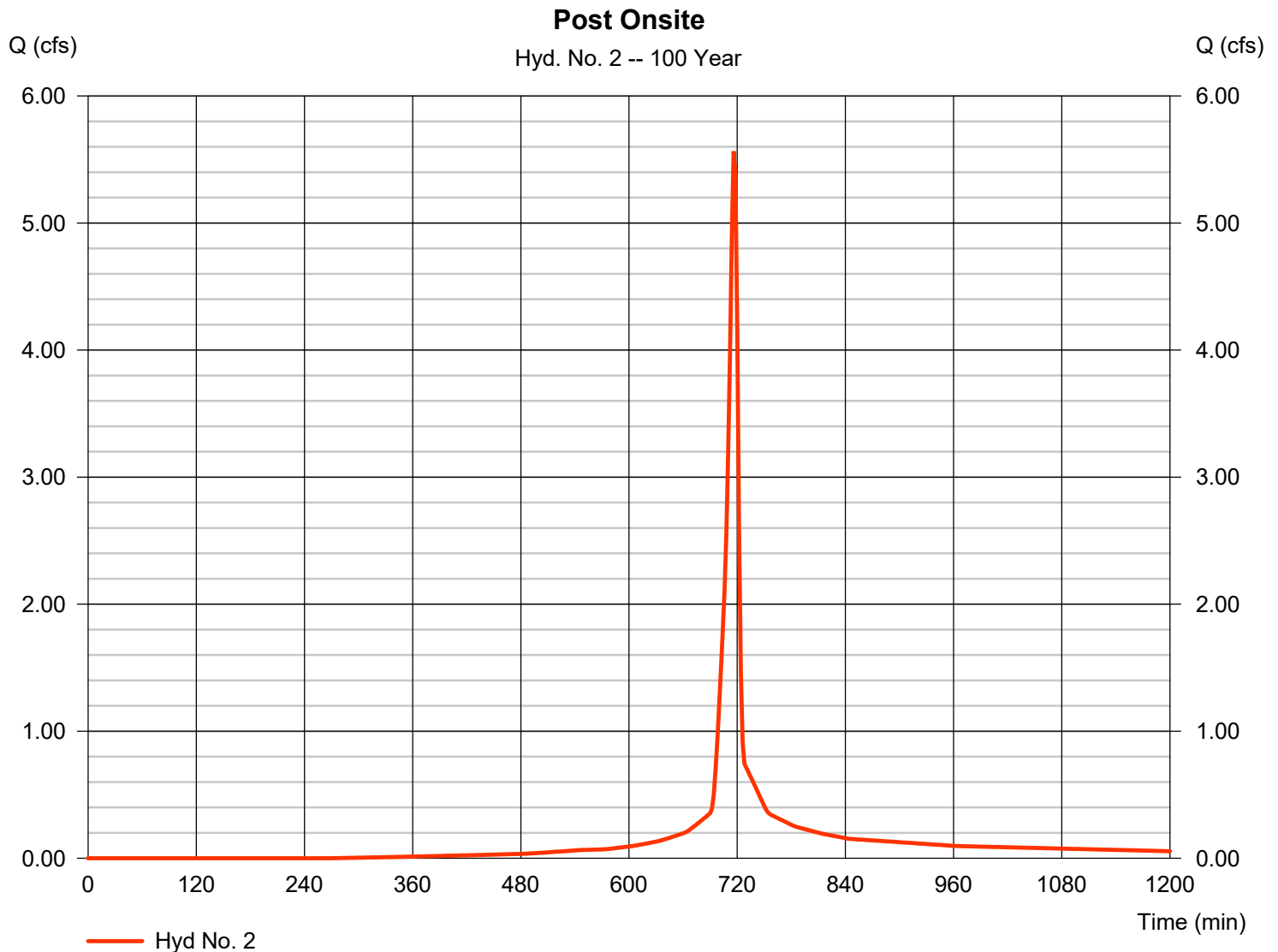
Monday, 12 / 13 / 2021

Hyd. No. 2

Post Onsite

Hydrograph type	= SCS Runoff	Peak discharge	= 5.564 cfs
Storm frequency	= 100 yrs	Time to peak	= 716 min
Time interval	= 2 min	Hyd. volume	= 11,767 cuft
Drainage area	= 0.840 ac	Curve number	= 87*
Basin Slope	= 6.0 %	Hydraulic length	= 530 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 5.58 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = $+(0.239 \times 61) + (0.597 \times 98) / 0.840$



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2013 by Autodesk, Inc. v10

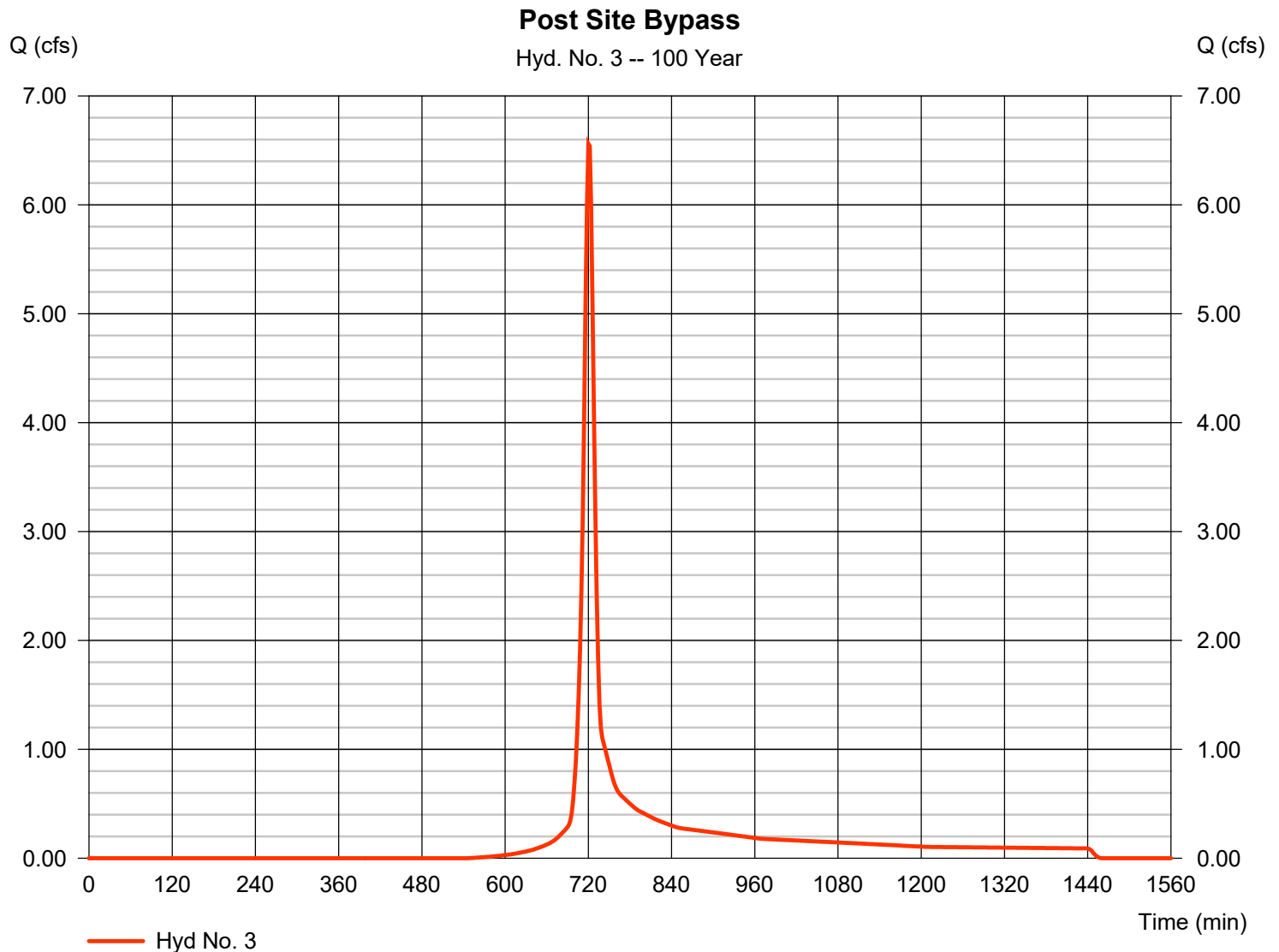
Monday, 12 / 13 / 2021

Hyd. No. 3

Post Site Bypass

Hydrograph type	= SCS Runoff	Peak discharge	= 6.562 cfs
Storm frequency	= 100 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 17,086 cuft
Drainage area	= 1.780 ac	Curve number	= 71*
Basin Slope	= 6.0 %	Hydraulic length	= 530 ft
Tc method	= User	Time of conc. (Tc)	= 10.50 min
Total precip.	= 5.58 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = $[(0.534 \times 61) + (0.073 \times 98) + (1.175 \times 74)] / 1.780$



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2013 by Autodesk, Inc. v10

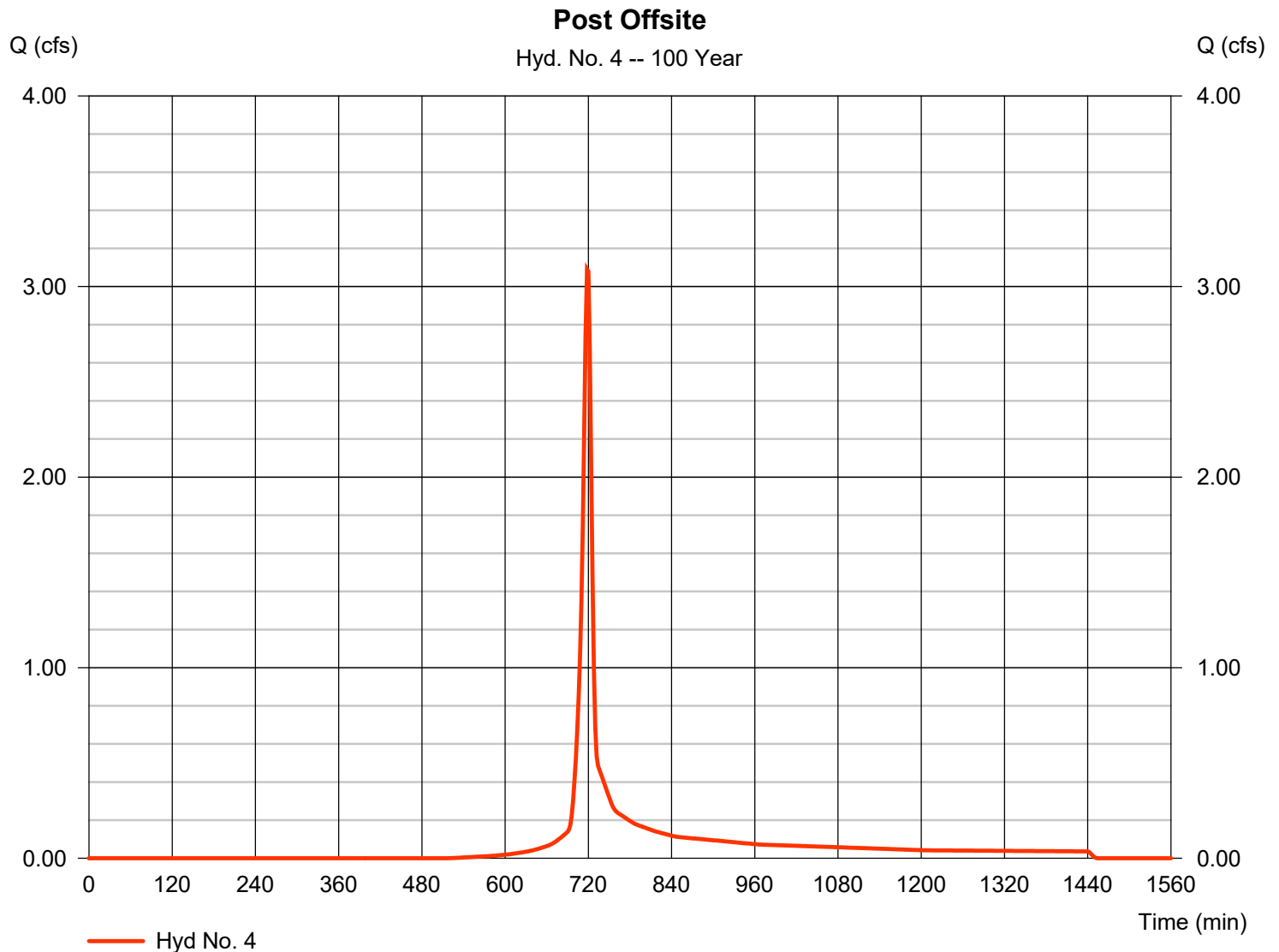
Monday, 12 / 13 / 2021

Hyd. No. 4

Post Offsite

Hydrograph type	= SCS Runoff	Peak discharge	= 3.091 cfs
Storm frequency	= 100 yrs	Time to peak	= 718 min
Time interval	= 2 min	Hyd. volume	= 7,071 cuft
Drainage area	= 0.710 ac	Curve number	= 73*
Basin Slope	= 4.6 %	Hydraulic length	= 367 ft
Tc method	= User	Time of conc. (Tc)	= 8.70 min
Total precip.	= 5.58 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = $[(0.582 \times 74) + (0.128 \times 69)] / 0.710$



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2013 by Autodesk, Inc. v10

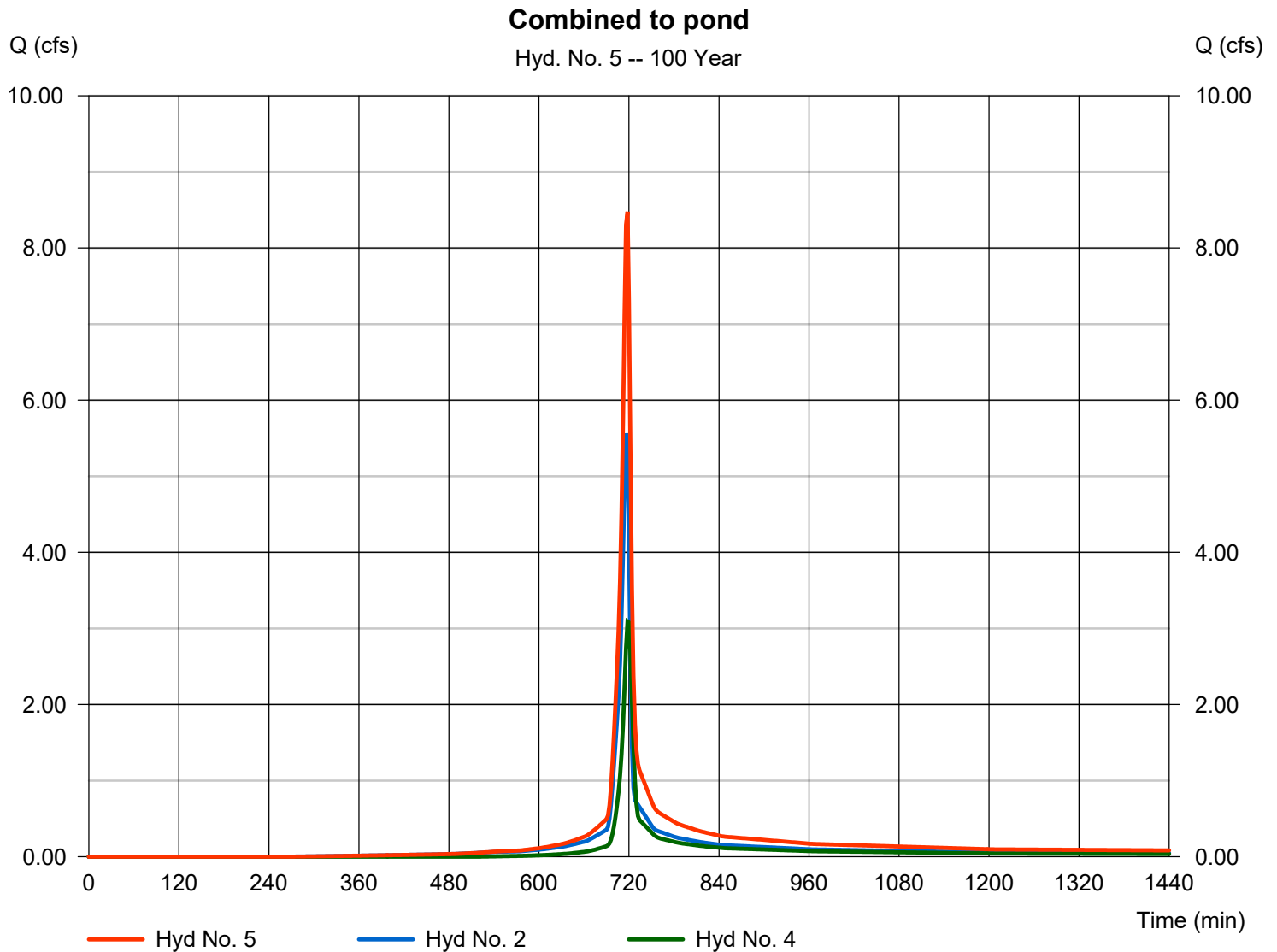
Monday, 12 / 13 / 2021

Hyd. No. 5

Combined to pond

Hydrograph type = Combine
Storm frequency = 100 yrs
Time interval = 2 min
Inflow hyds. = 2, 4

Peak discharge = 8.475 cfs
Time to peak = 718 min
Hyd. volume = 18,839 cuft
Contrib. drain. area = 1.550 ac



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2013 by Autodesk, Inc. v10

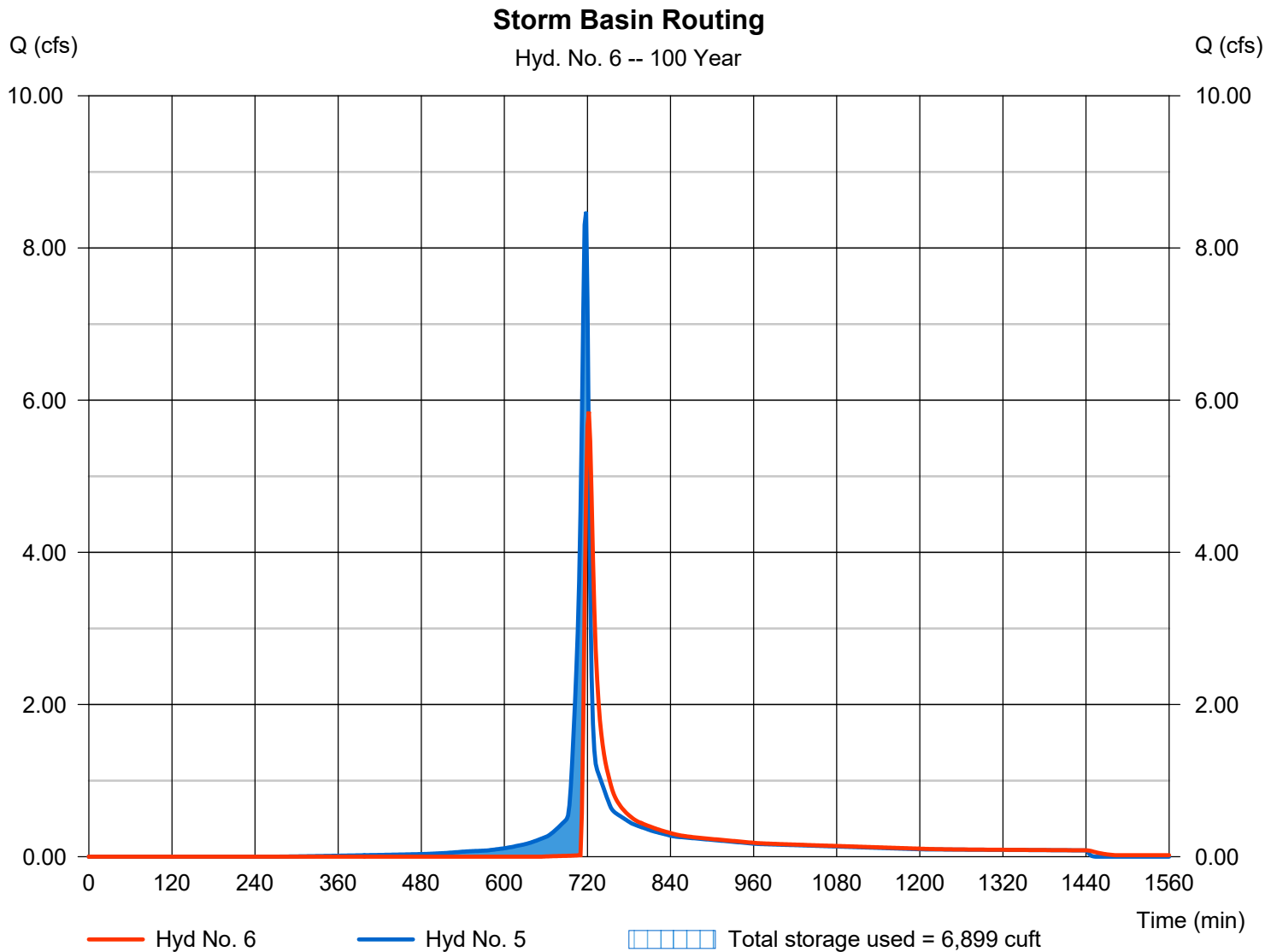
Monday, 12 / 13 / 2021

Hyd. No. 6

Storm Basin Routing

Hydrograph type	= Reservoir	Peak discharge	= 5.849 cfs
Storm frequency	= 100 yrs	Time to peak	= 722 min
Time interval	= 2 min	Hyd. volume	= 17,608 cuft
Inflow hyd. No.	= 5 - Combined to pond	Max. Elevation	= 747.12 ft
Reservoir name	= Stormwater Basin	Max. Storage	= 6,899 cuft

Storage Indication method used.



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2013 by Autodesk, Inc. v10

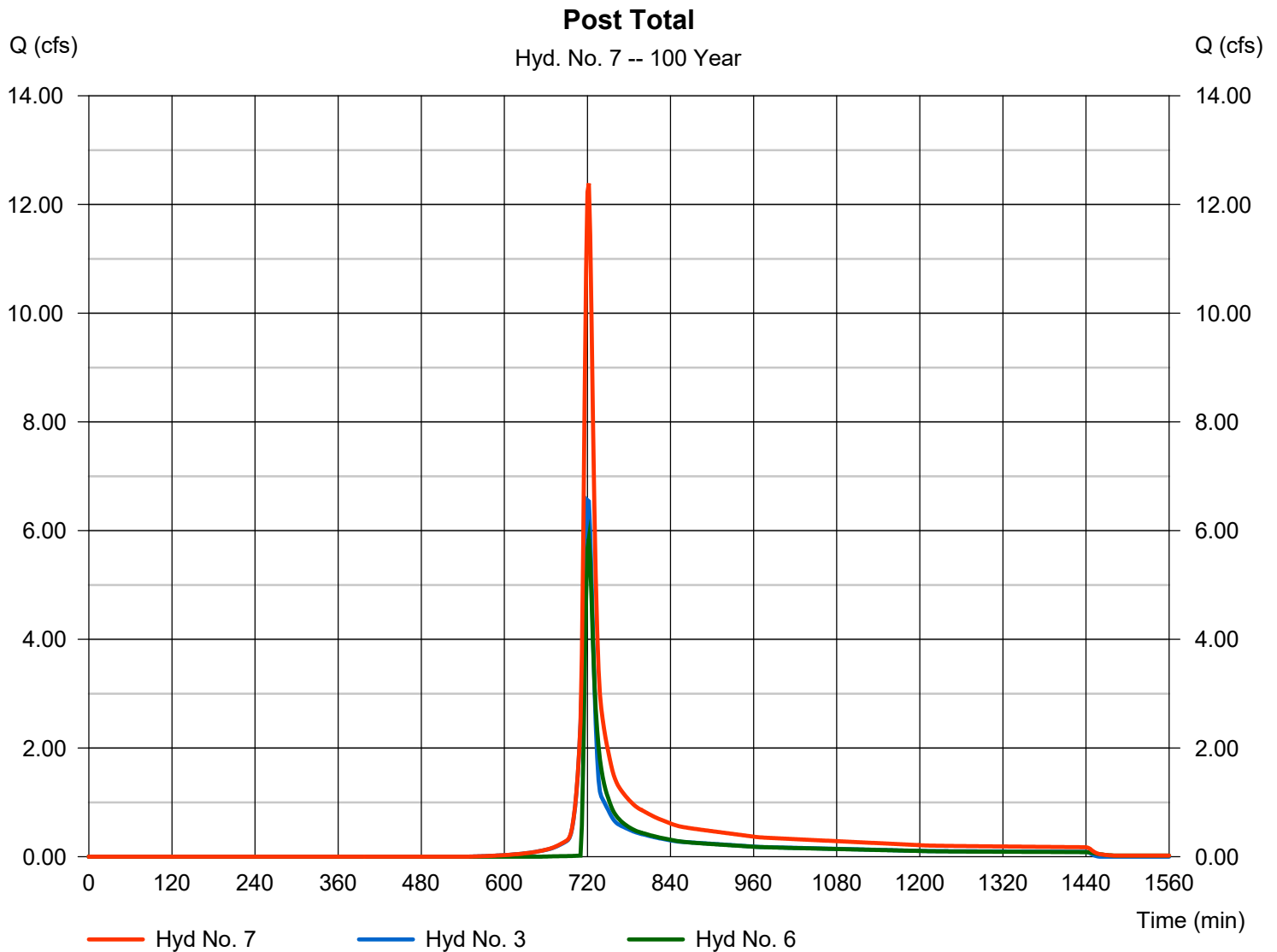
Monday, 12 / 13 / 2021

Hyd. No. 7

Post Total

Hydrograph type = Combine
Storm frequency = 100 yrs
Time interval = 2 min
Inflow hyds. = 3, 6

Peak discharge = 12.39 cfs
Time to peak = 722 min
Hyd. volume = 34,694 cuft
Contrib. drain. area = 1.780 ac



$$\text{Intensity} = B / (T_c + D)^E$$

Tc = time in minutes. Values may exceed 60.

Precip. file name: C:\Users\Eric\Dropbox\EMERY Team Folder\Design Data\IDF curves\OH.Monroe.pcp

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USDA Soil Survey Information



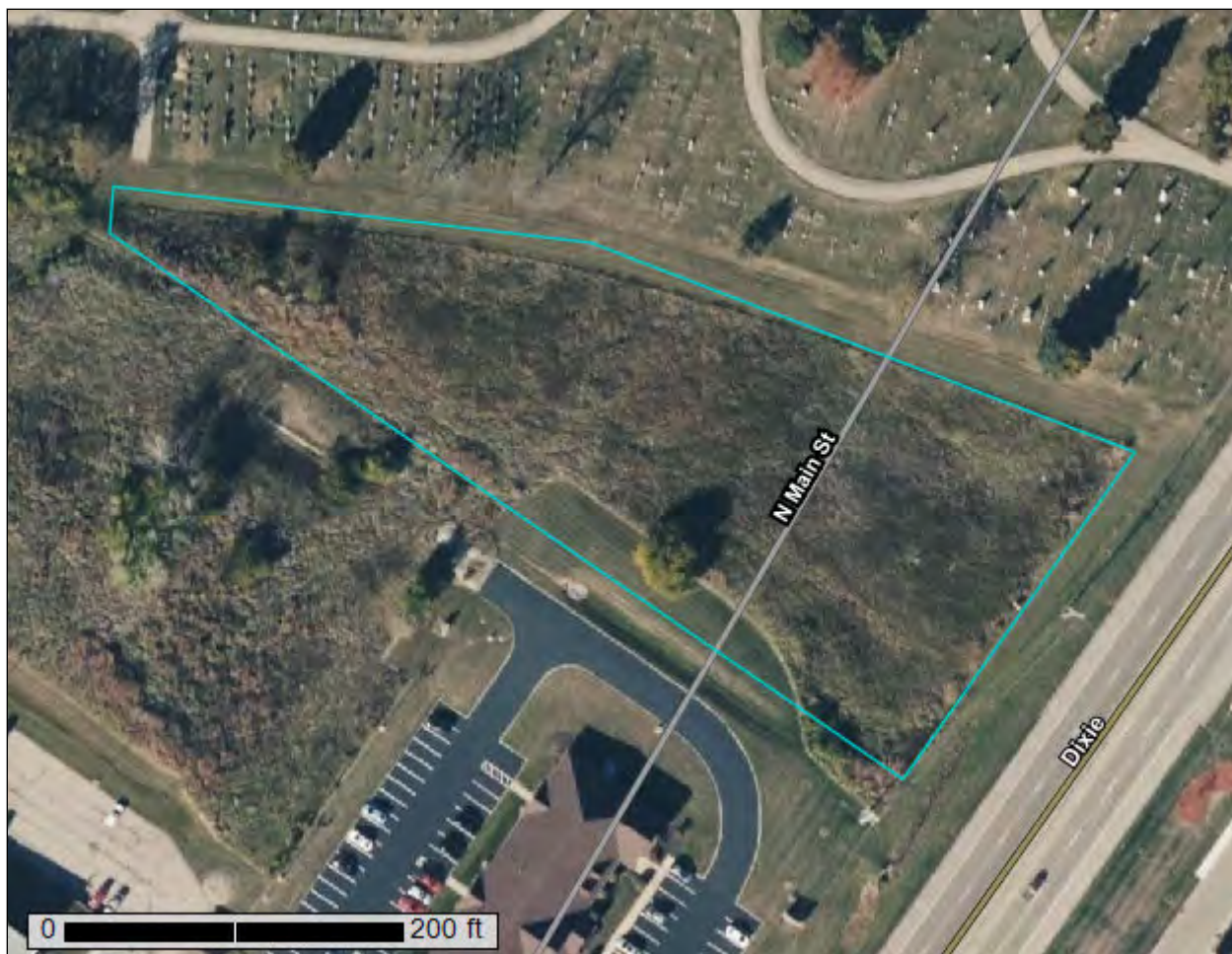
United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Butler County, Ohio**



August 4, 2021

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



Map Scale: 1:1,010 if printed on A landscape (11" x 8.5") sheet.

0 10 20 40 60 Meters

0 45 90 180 270 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

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MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Butler County, Ohio

Survey Area Data: Version 20, Jun 10, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 28, 2019—Dec 5, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
DbB	Dana silt loam, bedrock substratum, 2 to 8 percent slopes	0.8	41.8%
WyB2	Wynn silt loam, 2 to 6 percent slopes, eroded	1.2	58.2%
Totals for Area of Interest		2.0	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the

Custom Soil Resource Report

development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Butler County, Ohio

DbB—Dana silt loam, bedrock substratum, 2 to 8 percent slopes

Map Unit Setting

National map unit symbol: 5pmt
Elevation: 680 to 1,020 feet
Mean annual precipitation: 35 to 45 inches
Mean annual air temperature: 50 to 55 degrees F
Frost-free period: 150 to 180 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Dana and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Dana

Setting

Landform: Till plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Interfluvium
Parent material: Silty loess over loamy till over

Typical profile

H1 - 0 to 14 inches: silt loam
H2 - 14 to 24 inches: silty clay loam
H3 - 24 to 43 inches: clay loam
H4 - 43 to 53 inches: weathered bedrock

Properties and qualities

Slope: 2 to 8 percent
Depth to restrictive feature: 40 to 60 inches to paralithic bedrock
Drainage class: Moderately well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 42 to 72 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 25 percent
Available water capacity: Moderate (about 8.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Ecological site: R111DY012IN - Till Ridge Prairie
Forage suitability group: Unnamed (G111DYA-6OH)
Other vegetative classification: Unnamed (G111DYA-6OH)
Hydric soil rating: No

Minor Components

Wynn

Percent of map unit: 10 percent

Landform: Till plains

Ecological site: F111DY010IN - Till Ridge

Soils with 8 to 12 percent slopes

Percent of map unit: 5 percent

WyB2—Wynn silt loam, 2 to 6 percent slopes, eroded

Map Unit Setting

National map unit symbol: 2xqyg

Elevation: 880 to 1,040 feet

Mean annual precipitation: 37 to 45 inches

Mean annual air temperature: 50 to 55 degrees F

Frost-free period: 145 to 180 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Wynn, eroded, and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wynn, Eroded

Setting

Landform: Till plains

Landform position (two-dimensional): Shoulder, backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Loess over loamy till over residuum weathered from limestone and shale

Typical profile

Ap - 0 to 5 inches: silt loam

Bt - 5 to 15 inches: silty clay loam

2Bt2 - 15 to 25 inches: clay loam

2BC - 25 to 29 inches: clay

3Cr - 29 to 39 inches: bedrock

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: 28 to 33 inches to paralithic bedrock

Drainage class: Well drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

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Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 25 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water capacity: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Ecological site: F111DY010IN - Till Ridge
Hydric soil rating: No

Minor Components

Millsdale

Percent of map unit: 7 percent
Landform: Stream terraces, drainageways
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope, tread
Down-slope shape: Concave
Across-slope shape: Linear
Ecological site: F111DY008IN - Till Depression Flatwood
Hydric soil rating: Yes

Miamian, eroded

Percent of map unit: 3 percent
Landform: Recessionial moraines, till plains
Landform position (two-dimensional): Shoulder, backslope, summit
Landform position (three-dimensional): Nose slope, interfluvium
Down-slope shape: Linear, convex
Across-slope shape: Convex, linear
Ecological site: F111DY010IN - Till Ridge
Hydric soil rating: No

References

- American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.
- American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.
- Federal Register. July 13, 1994. Changes in hydric soils of the United States.
- Federal Register. September 18, 2002. Hydric soils of the United States.
- Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.
- National Research Council. 1995. Wetlands: Characteristics and boundaries.
- Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262
- Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577
- Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580
- Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.
- United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.
- United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374
- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

Stormwater Pollution Prevention Plan

for:

O'Reilly Auto Parts

301 N. Main Street
City of Monroe, Butler County, Ohio

Operator & SWPPP Contact(s):

O'REILLY AUTO PARTS

233 S. Patterson
Springfield, MO 65802
(417) 862-2674

SWPPP Preparation Date:

10 / 04 / 2021

Estimated Project Dates:

Project Start Date: January 2022
Project Completion Date: January 2023

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Appendix A – General Location Map

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Appendix D – NOI and Acknowledgement Letter

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Appendix F – Corrective Action Log

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Appendix H – Contractor Contact Sheet and Certification Form

Appendix I – Grading and Stabilization Activities Log

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Appendix K – Delegation of Authority

Appendix L – Long Term Maintenance Plan

SECTION 1: SITE EVALUATION, ASSESSMENT, AND PLANNING

1.1 Project/Site Information

Instructions:

- In this section, you can gather some basic site information that will be helpful to you later when you file for permit coverage.
- For more information, see *Developing Your Stormwater Pollution Prevention Plan: A SWPPP Guide for Construction Sites* (also known as the *SWPPP Guide*), Chapter 2
- Detailed information on determining your site's latitude and longitude can be found at www.epa.gov/npdes/stormwater/latlong

Project/Site Name O'Reilly Auto Parts Store

Project Street/Location: 301 N. Main Street (Cincinnati Dayton Rd

City: Monroe

State: Ohio

ZIP Code: 45050

County or Similar Subdivision: Butler County (Lemon Township)

Latitude/Longitude (Use **one** of three possible formats, and specify method)

Latitude:

Longitude:

3. 39.449179 ° N (decimal)

3. -84.357814 W (decimal)

Method for determining latitude/longitude:

☐ USGS topographic map (specify scale: _____)

☒ EPA Web site

☐ GPS

☐ Other (please specify): _____

Is the project located in Indian country? ☐ Yes ☒ No

If yes, name of Reservation, or if not part of a Reservation, indicate "not applicable." _____

Is this project considered a federal facility?

☐ Yes

☒ No

NPDES project or permit tracking number: 1GC08412*AG

1.2 Contact Information/Responsible Parties

Instructions:

- List the operator(s), project managers, stormwater contact(s), and person or organization that prepared the SWPPP. Indicate respective responsibilities, where appropriate.
- Also, list subcontractors expected to work on-site. Notify subcontractors of stormwater requirements applicable to their work.
- See *SWPPP Guide*, Chapter 2.B.

Operator(s):

O'Reilly Auto Parts
c/o Charlie Norton
233 S. Patterson
Springfield, MO 65802
(417) 862-2674
Cnorton8@oreillyauto.com

Project Manager(s) or Site Supervisor(s):

Tuckerman Development
Jake Toner
1216 E Main Street, Suite 202
Chattanooga, TN 37408
(423) 641-8607
jake@tuckermancre.com

SWPPP Contact(s):

General Contractor will be added once all permits are in hand and the contract has been awarded

This SWPPP was Prepared by:

NE Group LLC
Lawrence Emery
PO Box 80843
Chattanooga, TN 37414
(423) 799-0788
info@theNEgroup.com

Subcontractor(s):

TBD – will be added once all permits are in hand and the contract has been awarded

Emergency 24-Hour Contact:

NE Group LLC
Lawrence Emery
(423) 799-0788

1.3 Nature and Sequence of Construction Activity

Instructions:

- Briefly describe the nature of the construction activity and approximate time frames (one or more paragraphs, depending on the nature and complexity of the project).
- For more information, see *SWPPP Guide*, Chapter 3.A.

Describe the general scope of the work for the project, major phases of construction, etc:

Tuckerman Development is proposing to build a +/-7,626 SF O'Reilly Auto Parts Store at 301 North Main Street in the City of Monroe, Lemon Township, Butler County, Ohio. Soil disturbing activities will include, demolition of existing features, clearing, grubbing, installing erosion prevention devices including a stabilized construction entrance and silt fencing, grading, installation of building foundations, utilities, parking and access areas and post construction controls.

What is the function of the construction activity?

☐ Residential ☒ Commercial ☐ Industrial ☐ Road Construction ☐ Linear Utility
☐ Other (please specify):

Project Start Date: **January 2022**

Project Completion Date: **December 2022**

Table 1.3 Projected Project Milestone Dates:

Estimated Activity Timeframe	Construction Activity
<i>Prior to any site grading</i> Jan 2022 – Feb 2022	1. Install perimeter silt fencing & tree protection 2. Install storm drain inlet protection as shown on plans 3. Construction stabilized construction entrance

	4. Construct stormwater retention basin
<i>Site Grading</i> Feb 2022 – April 2022	1. Demolish existing features 2. Begin site clearing & grubbing 3. Stabilize denuded areas where construction activities will cease for more than 14 days as shown in the plans
<i>Site Infrastructure</i> April 2022 – May 2022	1. Construct staging and materials storage area 2. Install temporary dumpsters & portable toilets 3. Install utility services (sanitary sewer, storm drainage, gas service, water service and electrical service)
<i>Building Construction</i> May 2022 August 2022	1. Construct temporary concrete truck wash out area 2. Begin construction of building foundations & structure 3. Install curbs, cutters and prepare hard surface areas (sidewalk, pavement & concrete aprons & pads) 4. Remove temporary concrete wash out area
<i>Final Stabilization & Landscaping</i> August 2022 December 2022	1. Finalize paving & hard surface areas 2. Remove all temporary BMPs and stabilize any newly disturbed areas by seeding and/or mulching as needed 3. Prepare final seeding, sodding and landscaping 4. Monitor stabilized areas until final stabilization is achieved

1.4 Soils, Slopes, Vegetation, and Current Drainage Patterns

Instructions:

- Describe the existing soil conditions at the construction site including soil types, slopes and slope lengths, drainage patterns, and other topographic features that might affect erosion and sediment control.
- Also, note any historic site contamination evident from existing site features and known past usage of the site.
- This information should also be included on your site maps (See *SWPPP Guide*, Chapter 3.C.).
- For more information, see *SWPPP Guide*, Chapter 3.A.

Soil type(s): Two site soil types:

WyB2 – Wynn silt loam, 2 to 6% slopes. WyB2 has a K factor = 0.37 which signifies a

moderate risk of erosion potential. This is a hydraulic soils group C, with a Ksat factor range of 0 to 0.20 inches per hour.

DbB – Dana silt loam, 2 to 8% slopes. DbB has a K factor = 0.32 which signifies a moderate risk of erosion potential. This is a hydraulic soils group B, with a Ksat factor range of 0 to 0.20 inches per hour.

Slopes (describe current slopes and note any changes due to grading or fill activities):

The site gently slopes from the rear of the property (west side) to the frontage with N. Main Street (east side) and does not contain any major cut slopes. The proposed development will mimic existing grading to the greatest extent possible and follow existing drainage patterns.

Drainage Patterns (describe current drainage patterns and note any changes due to grading or fill activities):

Preconstruction stormwater runoff flows overland from west to east – ultimately to the closed drainage system within N. Main Street right of way.

Post construction stormwater will follow the same drainage patterns as existing. The undeveloped western portion of the site will continue to drain eastward and will be routed around the developed portions of the site and to the existing catch basin within the drainage easement. The developed portion of the site will be routed to the stormwater retention basin prior to being discharged to the County MS4 system within the N. Main Street ROW.

Vegetation:

The site support unvegetated soil area and blocks of shrubs, grass and other undergrowth

1.5 Construction Site Estimates

Instructions:

- Estimate the area to be disturbed by excavation, grading, or other construction activities, including dedicated off-site borrow and fill areas.
- Calculate the percentage of impervious surface area before and after construction
- Calculate the runoff coefficients before and after construction.
- For more information, see *SWPPP Guide*, Chapter 3.A and Appendix C.

The following are estimates of the construction site.

Total project area:	2.99 acres
Construction site area to be disturbed:	1.36 acres
Percentage impervious area before construction:	0.0 %
Runoff coefficient before construction:	71.3
Percentage impervious area after construction:	22.4 %
Runoff coefficient after construction	75.6

Since this project disturbs less than 5 acres, we checked the rainfall erosivity factor for this and construction activity period. The calculated R factor = 71 using the EPA's Rainfall Erosivity Factor Calculator, as such, this project is not eligible for rainfall erosivity waiver since the R factor was > 5.

1.6 Receiving Waters

Instructions:

- List the waterbody(s) that would receive stormwater from your site, including streams, rivers, lakes, coastal waters, and wetlands. Describe each as clearly as possible, such as *Mill Creek, a tributary to the Potomac River*, and so on.
- Indicate the location of all waters, including wetlands, on the site map.
- Note any stream crossings, if applicable.
- List the storm sewer system or drainage system that stormwater from your site could discharge to and the waterbody(s) that it ultimately discharges to.
- If any of the waterbodies above are impaired and/or subject to Total Maximum Daily Loads (TMDLs), please list the pollutants causing the impairment and any specific requirements in the TMDL(s) that are applicable to construction sites. Your SWPPP should specifically include measures to prevent the discharge of these pollutants.
- For more information, see *SWPPP Guide*, Chapter 3.A and 3.B.
- Also, for more information and a list of TMDL contacts and links by state, visit www.epa.gov/npdes/stormwater/tmdl.

Description of unique features that are to be preserved:

This site does not contain any unique features or areas that need to be preserved. However, we are leaving all areas not required for construction undisturbed. There are no known wetlands at this project location.

<https://ecos.fws.gov/ipac/location/CRR2HPU5AZEL5FG4PP63CCX7ZM/resources#wetlands>

<https://www.fws.gov/wetlands/data/mapper.HTML>

Description of receiving waters:

The initial point of connection is the existing closed drainage system located within N. Main Street, which crosses under N. Main Street and connects to the east, to an un-named tributary to Millers Creek (located within the Shaker Creek (HUC 050800020703) Watershed.

Description of storm sewer systems:

Stormwater runoff will be routed to the stormwater retention basin with a temporary sediment trap during construction, without any discharge to surface waters. Routed stormwater will leave the retention basin thru the Outlet Control Structure and will discharge to the existing closed drainage system.

Description of impaired waters or waters subject to TMDLs:

N/A

Other:

1.7 Site Features and Sensitive Areas to be Protected

Instructions:

- Describe unique site features including streams, stream buffers, wetlands, specimen trees, natural vegetation, steep slopes, or highly erodible soils that are to be preserved.
- Describe measures to protect these features.
- Include these features and areas on your site maps.
- For more information, see *SWPPP Guide*, Chapter 3.A and 3.B.

Describe measures to protect these features:

The proposed redevelopment project has been limited to the previously disturbed (topsoil mined) areas of the site. The existing conditions along the western +/-1 acre area of the site is shown to remain in place, as is with no construction activities occurring on or within this area.

1.8 Potential Sources of Pollution

Instructions:

- Identify and list all potential sources of sediment, which may reasonably be expected to affect the quality of stormwater discharges from the construction site.
- Identify and list all potential sources of pollution, other than sediment, which may reasonably be expected to affect the quality of stormwater discharges from the construction site.
- For more information, see *SWPPP Guide*, Chapter 3.A.

Potential sources of sediment to stormwater runoff:

- Clearing & grubbing operations
- Grading & site excavation operations
- Topsoil stripping
- Vehicle tracking
- Final stabilization & landscaping

Potential pollutants and sources, other than sediment, to stormwater runoff:

- Concrete Washout area
- Material storage area – general building materials, paint, paving materials etc,
- Staging area – small fueling activities, sanitary facilities

Materials/Chemicals	Stormwater Pollutants	Location
Pesticides	Chlorinated hydrocarbons, organophosphates	Herbicides, for weed control
Fertilizer	Nitrogen, phosphorus	Newly seeded/planted areas
Plaster	Calcium sulphate, calcium carbonate, sulfuric acid	Building construction
Cleaning Solvents	Perchloroethylene, methylene	No equipment cleaning allowed on

	chloride, trichloroethylene, petroleum distillates	project site
Asphalt	Oil, petroleum distillates	Roadways
Concrete	Limestone, sand, chromium	Curb & gutter, building
Adhesives	Polymers, epoxies	Building construction
Paints	Metal oxides, Stoddard solvent, talc, calcium carbonate, arsenic	Building construction
Curing Compounds	Naphtha	Curb & gutter, slabs
Hydraulic oil/fluids	Mineral oil	Leaks or broken hoses from equipment
Gasoline	Benzene, ethylbenzene, toluene, xylene, MTBE	Staging area
Diesel Fuel	Petroleum distillates, oil & grease, xylenes, naphthalene	Staging area
Kerosene	Petroleum distillates	Staging area
Antifreeze/coolant	Ethylene glycol, propylene glycol, heavy metals	Leaks or broken hoses from equipment
Sanitary Toilets	Bacteria, parasites, viruses	Staging area

1.9 Endangered Species Certification

Instructions:

- Before beginning construction, determine whether endangered or threatened species or their critical habitats are on or near your site.
- Adapt this section as needed for state or tribal endangered species requirements and, if applicable, document any measures deemed necessary to protect endangered or threatened species or their critical habitats.
- For more information on this topic, see *SWPPP Guide*, Chapter 3.B.
- Additional information on Endangered Species Act (ESA) provisions is at www.epa.gov/npdes/stormwater/esa

Are endangered or threatened species and critical habitats on or near the project area?

☐ Yes ☒ No

Describe how this determination was made:

In Butler County, there are several endangered, threatened & candidate species, regionally located (ie: potentially near this project site). However, there are no critical habitats located at or on this project site. The US Fish & Wildlife Service IPaC resources were used in part for this determination.

<https://ecos.fws.gov/ipac/location/MH2547D44FHHZG2XXZ7PDAPRVQ/resources>

We have also limited the proposed construction to the eastern portion of the site area (+/-1.36 acres) to preserve the existing tree and grass area on the western half of the property (+/- 1 acres).

If yes, describe the species and/or critical habitat:

N/A

If yes, describe or refer to documentation that determines the likelihood of an impact on identified species and/or habitat and the steps taken to address that impact. (Note, if species are on or near your project site, EPA strongly recommends that the site operator work closely with the appropriate field office of the U.S. Fish and Wildlife Service or National Marine Fisheries Service. For concerns related to state or tribal listing of species, please contact a state or tribal official.)

1.10 Historic Preservation

Instructions:

- Before you begin construction, you should review federal and any applicable state, local, or tribal historic preservation laws and determine if there are historic sites on or near your project. If so, you might need to make adjustments to your construction plans or to your stormwater controls to ensure that these historic sites are not damaged.
- For more information, see *SWPPP Guide*, Chapter 3.B or contact your state or tribal historic preservation officer.

Are there any historic sites on or near the construction site?

☐ Yes ☒ No

Describe how this determination was made:

Currently, there are no federally recognized tribal communities or nations in Ohio. We also searched the National Register of Historic Places to determine what if any Historical places were near this site. No Historic places were listed near this project site.

If yes, describe or refer to documentation that determines the likelihood of an impact on this historic site and the steps taken to address that impact.

N/A

1.11 Applicable Federal, Tribal, State or Local Programs

Instructions:

- Note other applicable federal, tribal, state or local soil and erosion control and stormwater management requirements that apply to your construction site.

N/A

1.12 Maps

Instructions:

- Attach site maps. For most projects, a series of site maps is recommended. The first should show the undeveloped site and its current features. An additional map or maps should be created to show the developed site or for more complicated sites show the major phases of development.

These maps should include the following:

- Direction(s) of stormwater flow and approximate slopes before and after major grading activities;
- Areas and timing of soil disturbance;
- Areas that will not be disturbed;
- Natural features to be preserved;
- Locations of major structural and non-structural BMPs identified in the SWPPP;
- Locations and timing of stabilization measures;
- Locations of off-site material, waste, borrow, or equipment storage areas;
- Locations of all waters of the United States, including wetlands;
- Locations where stormwater discharges to a surface water;
- Locations of storm drain inlets; and
- Areas where final stabilization has been accomplished.
- For more information, see *SWPPP Guide*, Chapter 3.C.

See Appendix – B & project site plans.

SECTION 2: EROSION AND SEDIMENT CONTROL BMPS

Instructions:

- Describe the BMPs that will be implemented to control pollutants in stormwater discharges. For each major activity identified, do the following
 - ✓ Clearly describe appropriate control measures.
 - ✓ Describe the general sequence during the construction process in which the measures will be implemented.
 - ✓ Describe the maintenance and inspection procedures that will be used for that specific BMP.
 - ✓ Include protocols, thresholds, and schedules for cleaning, repairing, or replacing damaged or failing BMPs.
 - ✓ Identify staff responsible for maintaining BMPs.
 - ✓ (If your SWPPP is shared by multiple operators, indicate the operator responsible for each BMP.)
- Categorize each BMP under one of the following 10 areas of BMP activity as described below:
 - 2.1 Minimize disturbed area and protect natural features and soil**
 - 2.2 Phase Construction Activity**
 - 2.3 Control Stormwater flowing onto and through the project**
 - 2.4 Stabilize Soils**
 - 2.5 Protect Slopes**
 - 2.6 Protect Storm Drain Inlets**
 - 2.7 Establish Perimeter Controls and Sediment Barriers**
 - 2.8 Retain Sediment On-Site and Control Dewatering Practices**
 - 2.9 Establish Stabilized Construction Exits**
 - 2.10 Any Additional BMPs**
- Note the location of each BMP on your site map(s).
- For any structural BMPs, you should provide design specifications and details and refer to them. Attach them as appendices to the SWPPP or within the text of the SWPPP.
- For more information, see *SWPPP Guide*, Chapter 4.
- Consult your state's design manual or one of those listed in Appendix D of the *SWPPP Guide*.
- For more information or ideas on BMPs, see EPA's National Menu of BMPs
<http://www.epa.gov/npdes/stormwater/menuofbmps>

2.1 Minimize Disturbed Area and Protect Natural Features and Soil

Instructions:

- Describe the areas that will be disturbed with each phase of construction and the methods (e.g., signs, fences) that you will use to protect those areas that should not be disturbed. Describe natural features identified earlier and how each will be protected during construction activity. Also describe how topsoil will be preserved. Include these areas and associated BMPs on your site map(s) also. (For more information, see *SWPPP Guide*, Chapter 4, ESC Principle 1.)
- Also, see EPA's *Preserving Natural Vegetation BMP Fact Sheet* at www.epa.gov/npdes/stormwater/menuofbmps/construction/preserve_veg

Permanent Stabilization

BMP Description: Topsoil stripped from the construction area, that is intended to remain on site and reused shall be stockpiled. Stockpile should be away from active construction areas and storm drainage facilities. Stockpile slopes shall not exceed 2:1 to prevent erosion. If utilized, a double row of silt fence must surround the stockpile. Stockpile shall be temporarily stabilized as described in Section 2.

Installation Schedule:	Stockpiles, if needed, shall be established during grading activities. Temporary stabilization will be applied immediately after the slopes of the stockpile have been graded.
Maintenance and Inspection:	The area will be inspected weekly for erosion and immediately after storm events. Areas on or around the stockpile that have eroded will be stabilized immediately with erosion controls. Maintenance and inspection procedures for the silt fence is described in Section 2.
Responsible Staff:	GC & grading/excavation subcontractor

2.2 Phase Construction Activity

Instructions:

- Describe the intended construction sequencing and timing of major activities, including any opportunities for phasing grading and stabilization activities to minimize the overall amount of disturbed soil that will be subject to potential erosion at one time. Also, describe opportunities for timing grading and stabilization so that all or a majority of the soil disturbance occurs during a time of year with less erosion potential (i.e., during the dry or less windy season). (For more information, see *SWPPP Guide*, Chapter 4, ESC Principle 2.) It might be useful to develop a separate, detailed site map for each phase of construction.
- Also, see EPA's *Construction Sequencing BMP Fact Sheet* at http://www.epa.gov/npdes/stormwater/menuofbmps/construction/cons_seq

Phased Construction

BMP Description: The proposed site is too small for phased grading to be practical. To minimize erosion during grading activities, grading and site work will be conducted in late April and May after snowmelt and during periods of predicted dry weather. The areas of the site that will remain vegetated after construction will be graded first and stabilized with hydro mulch or seeding immediately after grading activities are completed. All other areas of the construction site will be stabilized if site work is not planned for more than 14 days. To minimize potential erosion from the site, only areas necessary to construct the vegetated swale, sediment trap, and construction exits will be disturbed initially. These areas will be cleared, grubbed, and graded and the above measures will be installed. These areas will be stabilized immediately after construction but no later than 14 days after construction ceases. Overall grubbing, clearing, grading will be conducted over a 2-week period in May to limit erosion from the site. Areas graded during this time period will be stabilized with hydro mulch immediately after construction but no later than 14 days after construction ceases.

Installation Schedule:	For a timeline of construction activity, see Section 1.3.
Responsible Staff:	GC & grading/excavation subcontractor

2.3 Control Stormwater Flowing onto and through the Project

Instructions:

- Describe structural practices (e.g., diversions, berms, ditches, storage basins) including design specifications and details used to divert flows from exposed soils, retain or detain flows, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. (For more information, see *SWPPP Guide*, Chapter 4, ESC Principle 3.)

BMP Description: Grass Lined Swale/Diversion Swale

Installation Schedule:	Once the mass grading is complete – the grass lined swale and slope shall be stabilized. The grass lined swale will collect and route bypass stormwater runoff around the site. The erosion control blankets will be installed once the grass lined swale is stabilized has reached final grade.
Maintenance and Inspection:	The erosion control blanket will be inspected weekly and immediately after storm events to determine if cracks, tears, or breaches have formed in the fabric; if so, the blanket will be repaired or replaced immediately. Good contact with the soil must be maintained and erosion should not occur under the blanket. Any areas where the blanket is not in close contact with the ground will be repaired or replaced. The swale shall be inspected and repaired as needed.
Responsible Staff:	GC & grading/excavation subcontractor

2.4 Stabilize Soils

Instructions:

- Describe controls (e.g., interim seeding with native vegetation, hydroseeding) to stabilize exposed soils where construction activities have temporarily or permanently ceased. Also describe measures to control dust generation. Avoid using impervious surfaces for stabilization whenever possible. (For more information, see *SWPPP Guide*, Chapter 4, ESC Principle 4.)
- Also, see EPA's *Seeding BMP Fact Sheet* at www.epa.gov/npdes/stormwater/menuofbmps/construction/seeding

Temporary Stabilization

BMP Description: Hydro mulching will provide immediate protection to exposed soils where construction will cease for more than 14 days and over the winter months. Straw mulch and wood fiber will be mixed with a tackifier (amount specified per manufacturer's instructions)

and applied uniformly by machine with an application rate of 90–100 pounds (2–3 bales) per 1,000 square feet or 2 tons (100–200 bales) per acre. If the tackifier does not appear effective in anchoring the mulch to the disturbed soil, crimping equipment will be used to provide additional binding to the soil. The mulch will cover 75 to 90 percent of the ground surface. In areas, where hydro mulching is inaccessible, straw mulch will be applied by hand with an application rate of 90–100 pounds (2–3 bales) per 1,000 square feet. Winter stabilization will occur between November 15 and March 15. All disturbed areas are scheduled to be stabilized well before winter; however, if any vegetated areas show signs of erosion, mulch will be applied at the same rate as described above.

<i>Installation Schedule:</i>	Portions of the site where construction activities will temporarily cease for more than 14 days will be stabilized with mulch. Winter stabilization will occur between November 15 th and March 15.
<i>Maintenance and Inspection:</i>	Mulched areas will be inspected weekly and after storm events to check for movement of mulch or erosion. If washout, breakage, or erosion occurs, the surface will be repaired, and new mulch will be applied to the damaged area.
<i>Responsible Staff:</i>	GC & grading/excavation subcontractor

Permanent Stabilization

BMP Description: Permanent stabilization will be done immediately after the final design grades are achieved but no later than 14 days after construction ceases. Native species of plants will be used to establish vegetative cover on exposed soils. Permanent stabilization will be completed in accordance with the final stabilization

<i>Installation Schedule:</i>	Portions of the site where construction activities have permanently ceased will be stabilized, as soon as possible but no later than 14 days after construction ceases.
<i>Maintenance and Inspection:</i>	All seeded areas will be inspected weekly during construction activities for failure and after storm events until a dense cover of vegetation has been established. If failure is noticed at the seeded area, the area will be reseeded, fertilized, and mulched immediately. After construction is completed at the site, permanently stabilized areas will be monitored until final stabilization is reached.
<i>Responsible Staff:</i>	GC & grading/excavation subcontractor

Dust Control

BMP Description: Dust from the site will be controlled by using a mobile pressure-type Distributor/tank truck to apply potable water to disturbed areas. The mobile unit will apply water at a rate of 300 gallons per acre and minimized as necessary to prevent runoff and ponding.

<i>Installation Schedule:</i>	Dust control will be implemented as needed once site grading
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	has been initiated and during windy conditions (forecasted or actual wind conditions of 20 mph or greater) while site grading is occurring. Spraying of potable water will be performed no more than three times a day during the months of May–September and once per day during the months of October–April or whenever the dryness of the soil warrants it.
Maintenance and Inspection:	At least one mobile unit will be available at all times to distribute potable water to control dust on the project area. Each mobile unit will be equipped with a positive shutoff valve to prevent over watering of the disturbed area. For vehicle and equipment maintenance practices.
Responsible Staff:	GC & grading/excavation subcontractor

2.5 Protect Slopes

Instructions:

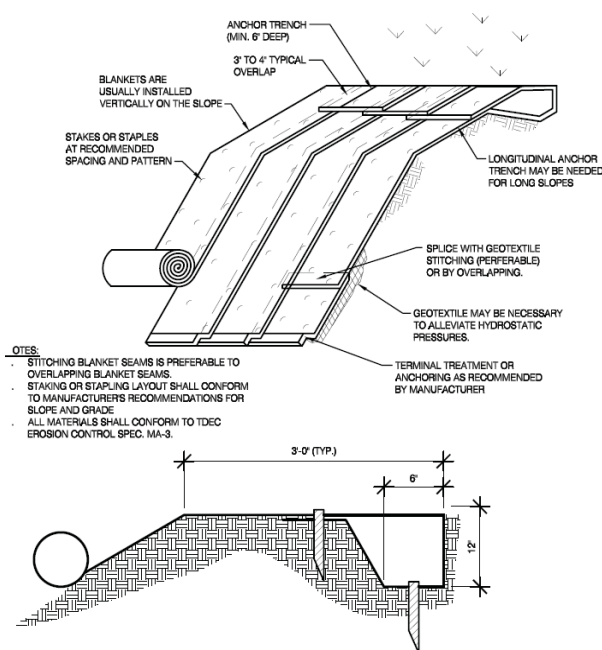
- Describe controls (e.g., erosion control blankets, tackifiers) including design specifications and details that will be implemented to protect all slopes. (For more information, see *SWPPP Guide*, Chapter 4, ESC Principle 5.)
- Also, see EPA's *Geotextiles BMP Fact Sheet* at www.epa.gov/npdes/stormwater/menuofbmps/construction/geotextiles

Erosion Control Blanket/Slope Matting

BMP Description: Erosion control blankets/slope matting will be used to provide stabilization for the slopes in the retention basin and sediment trap. The blanket will cover the entire area of the graded slope and bottom channel. The bottom and side slopes will be seeded and mulched before the blanket is applied. The blanket will be installed by digging a small trench on the upside of the slope, 12 inches wide by 6 inches deep, and stapling the leading edge of the blanket in the trench. The blanket will be rolled down the slope slowly to maintain soil contact and stapled in 12-inch intervals. If the blanket cannot cover the entire slope, the blankets will be overlapped (minimum of 2 inches) and stapled at the overlapped edge. The erosion control blanket will always be installed according to the manufacturer's instructions and specifications.

Installation Schedule:	The erosion control blankets will be installed once the retention basin and sediment trap have reached final grade.
Maintenance and Inspection:	The erosion control blanket will be inspected weekly and immediately after storm events to determine if cracks, tears, or breaches have formed in the fabric; if so, the blanket will be repaired or replaced immediately. Good contact with the soil must be maintained and erosion should not occur under the blanket. Any areas where the blanket is not in close contact with the

	ground will be repaired or replaced.
Responsible Staff:	GC & grading/excavation subcontractor



2.6 Protect Storm Drain Inlets

Instructions:

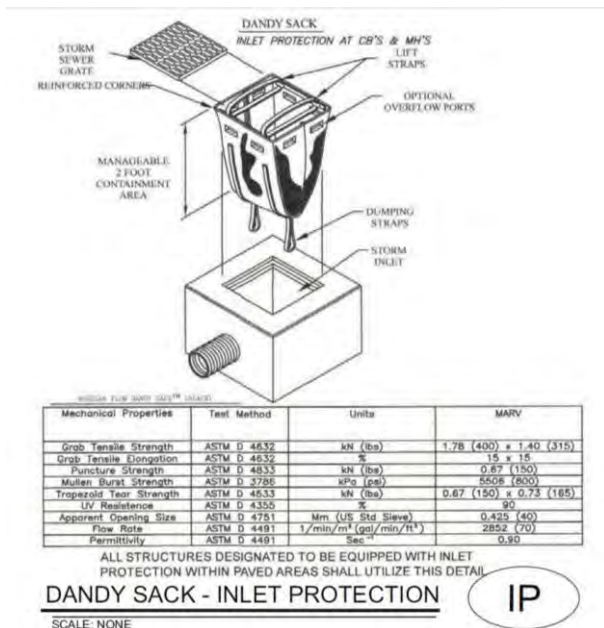
- Describe controls (e.g., inserts, rock-filled bags, or block and gravel) including design specifications and details that will be implemented to protect all inlets receiving stormwater from the project during the entire project. (For more information, see *SWPPP Guide*, Chapter 4, ESC Principle 6.)
- Also, see EPA's *Storm Drain Inlet Protection BMP Fact Sheet* at www.epa.gov/npdes/stormwater/menuofbmps/construction/storm_drain

Existing Storm Drain Inlets

BMP Description: Existing storm drain inlets on N. Main Street will be protected from sediment by commercially available catch basin inserts (dandy sack or approved equal). Commercial devices, such as the catch basin inserts that are installed inside the inlet, will be used because of the large traffic volumes on these roads. These commercial devices were selected over gravel bag or block and gravel filters because of safety concerns.

Installation Schedule:	Inlet protection will be installed along N. Main Street before construction activities begin on-site.
Maintenance and	The inlet protection will be inspected weekly and immediately after storm events. If the basin insert becomes clogged with

Inspection:	sediment, the insert will be removed and cleaned or replaced per the manufacturer's recommendations.
Responsible Staff:	GC & grading/excavation subcontractor



2.7 Establish Perimeter Controls and Sediment Barriers

Instructions:

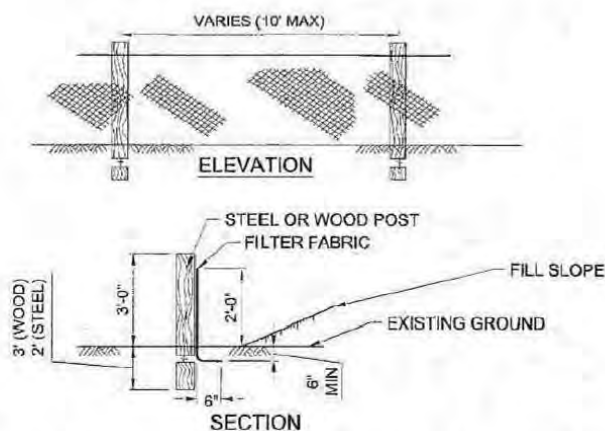
- Describe structural practices (e.g., silt fences or fiber rolls) including design specifications and details to filter and trap sediment before it leaves the construction site. (For more information, see *SWPPP Guide*, Chapter 4, ESC Principle 7.)
- Also see, EPA's *Silt Fence BMP Fact Sheet* at www.epa.gov/npdes/stormwater/menuofbmps/construction/silt_fences, or *Fiber Rolls BMP Fact Sheet* at www.epa.gov/npdes/stormwater/menuofbmps/construction/fiber_rolls

Silt Fence

BMP Description: Silt fences will be installed along the perimeter of the site as shown on the site plans. Silt fences will be installed by excavating a 12-inch-deep trench along the line of proposed installation. Wooden posts supporting the silt fence will be spaced 4 to 6 feet apart and driven securely into the ground; a minimum of 18 to 20 inches deep. The silt fence will be fastened securely to the wooden posts with wire ties spaced every 24 inches at the top, mid-section, and bottom of the wooden post. The bottom edge of the silt fence will extend across the bottom of the trench and the trench will be backfilled and compacted to prevent stormwater and sediment from discharging underneath the silt fence. For design specifications,

see Figure 3.

Installation Schedule:	The silt fences will be installed before construction begins at the site and around topsoil stockpiles once they have been established.
Maintenance and Inspection:	Silt fences will be inspected weekly and immediately after storm events to ensure it is intact and that there are no gaps where the fence meets the ground or tears along the length of the fence. If gaps or tears are found during the inspection, the fabric will be repaired or replaced immediately. Accumulated sediment will be removed from the fence base if it reaches one-third the height of the silt fence and hauled off-site for disposal. If accumulated sediment is creating noticeable strain on the fabric and the fence might fail from a sudden storm event, the sediment will be removed more frequently. Before the fence is removed from the project area, the sediment will be removed. The anticipated life span of the silt fence is 6 months and will likely need to be replaced after this period.
Responsible Staff:	GC & grading/excavation subcontractor



GENERAL NOTES:

1. SILT FENCE SHALL BE INSTALLED AROUND ALL STORM DRAIN INLETS, AROUND SITE PERIMETER, AND WHERE SHOWN.
2. FILTER FABRIC SHALL BE A MINIMUM OF 36" IN WIDTH AND SHALL BE FASTENED SECURELY TO THE POSTS.
3. STEEL POSTS SHALL BE 5'-0" IN HEIGHT AND BE OF SELF FASTENER ANGLE STEEL TYPE.
4. WOODEN POSTS SHALL BE A MINIMUM OF 6'-0" IN HEIGHT AND 3" OR MORE IN DIAMETER.
5. FILTER FABRIC SHALL BE FASTENED TO WOODEN POSTS WITH NOT LESS THAN #9 WIRE STAPLES @ 1" LONG.
6. CONTRACTOR SHALL PERIODICALLY REMOVE ACCUMULATED SEDIMENT WHEN SEDIMENT DEPTH REACHES 12".

NOTE:

THE FILTER FABRIC SHALL MEET THE FOLLOWING REQUIREMENTS:

- A. EOS IS NOT LARGER THAN U.S. STANDARD SIEVE NO. 70
- B. GRAB STRENGTH 90-120 LB
- C. CONFORM TO ASTM D-1682 OR ASTM D-177

SILT FENCING

SCALE: NONE



2.8 Retain Sediment On-Site

Instructions:

- Describe sediment control practices (e.g., sediment trap or sediment basin), including design specifications and details (volume, dimensions, outlet structure) that will be implemented at the construction site to retain sediments on-site. (For more information, see *SWPPP Guide*, Chapter 4, ESC Principle 8.)
- Also, see EPA's *Sediment Basin BMP Fact Sheet* at www.epa.gov/npdes/stormwater/menuofbmps/construction/sediment_basins

Sediment Trap

BMP Description: A temporary pipe outlet sediment trap will be constructed within the retention basin to remove sediment from stormwater runoff for the site. The trap will be constructed to have a total volume of +/-1,500 cubic feet. The trap will discharge through a Faircloth skimmer riser thru the outlet control structure. The pipe outlet will be connected existing closed drainage system located within the N. Main Street ROW. The retention basin was designed to reduce the peak rate of runoff for all storm events (1yr thru 100 yr). The slopes of the trap will be stabilized with sod and/or erosion control blankets. Influent to the trap will be supplied from the proposed site development. The sediment trap will be converted to the permanent stormwater retention basin following construction activities.

Installation Schedule:	The sediment trap will be installed before lot grading operations commence at the construction site.
Maintenance and Inspection:	The trap will be inspected weekly and after storm events. The trap will be checked for signs of erosion, seepage, and structural damage. The Faircloth Skimmer will be checked for any damage or obstructions and any damage present will be repaired and obstructions removed. Sediment will be removed and the trap restored to its original dimensions when the sediment has accumulated to one-half the design depth of the trap. The removed sediments will be hauled off-site for disposal.
Responsible Staff:	GC & grading/excavation subcontractor

2.9 Establish Stabilized Construction Exits

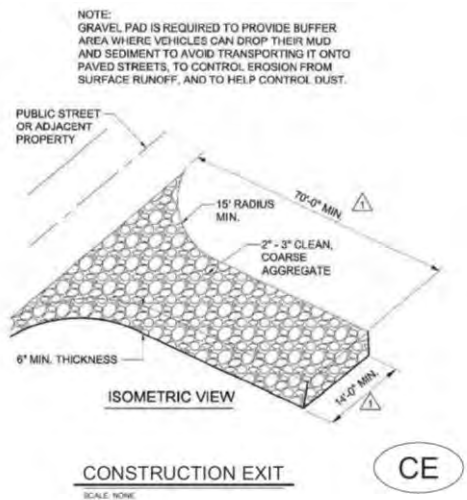
Instructions:

- Describe location(s) of vehicle entrance(s) and exit(s), procedures to remove accumulated sediment off-site (e.g., vehicle tracking), and stabilization practices (e.g., stone pads or wash racks or both) to minimize off-site vehicle tracking of sediments and discharges to stormwater. (For more information, see *SWPPP Guide*, Chapter 4, ESC Principle 9.)
- Also, see EPA's *Construction Entrances BMP Fact Sheet* at www.epa.gov/npdes/stormwater/menuofbmps/construction/cons_entrance

Construction Exit

BMP Description: Anti-tracking pads consisting of coarse aggregate will be installed at the main exit/entrance to N. Main Street, as identified on the site map, to prevent off-site transport of sediment by construction vehicles. The anti-tracking pads will be at least 70 feet long, a minimum of 14 feet wide, flared at the end closest to the paved road, and will consist of a 6-inch-thick layer of crushed stone (min 2 inches in diameter). The crushed stone will be placed over a layer of geotextile filter fabric to reduce the mitigation of sediment from the underlying soil. For design specifications, see the plans and the figure below.

Installation Schedule:	The stabilized exit will be installed before construction begins on the site. The stone will remain in place until the subgrade of pavement is installed at the site. The anti-tracking pads will be placed on the pavement and will remain until all areas of the site have been stabilized.
Maintenance and Inspection:	The stabilized exit will be inspected weekly and after storm events or heavy use. The exits will be maintained in a condition that will prevent tracking or flowing of sediment onto N. Main Street. This could require adding additional crushed stone to the exit. All sediment tracked, spilled, dropped, or washed onto N. Main Street will be swept up immediately and hauled off-site for proper disposal. Sediment will be swept from the antitracking pad at least weekly, or more often if necessary. If excess sediment has clogged the pad, the exit will be top dressed with new crushed stone. Replacement of the entire pad may be necessary when the pad becomes completely filled with sediment. The pad will be reshaped as needed for drainage and runoff control. Broken road pavement as a result of construction activities on roadways immediately adjacent to the project site will be repaired immediately. The stone anti-tracking pad will be removed before the subgrade of pavement is applied to the parking lot. The removed stone and sediment from the pad will be hauled off-site and disposed properly.
Responsible Staff:	GC & grading/excavation subcontractor



2.10 Additional BMPs

Instructions:

- Describe additional BMPs that do not fit into the above categories.

Street Sweeping

BMP Description: As needed, street sweeping and vacuuming on N. Main Street will be implemented to remove sediments and other contaminants directly from the paved surfaces.

Installation Schedule:	Street sweeping will occur as needed, with sediment removed by the end of each work day at a minimum and before forecasted storm events on N. Main Street, as needed.
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Maintenance and Inspection:	All materials collected during street sweeping will be disposed of at an off-site location by the subcontractor.
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Responsible Staff:	GC & grading/excavation subcontractor
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SECTION 3: GOOD HOUSEKEEPING BMPs

Instructions:

- Describe the key good housekeeping and pollution prevention (P2) BMPs that will be implemented to control pollutants in stormwater.
- Categorize each good housekeeping and pollution prevention (P2) BMP under one of the following seven categories:
 - 3.1 Material Handling and Waste Management**
 - 3.2 Establish Proper Building Material Staging Areas**
 - 3.3 Designate Washout Areas**
 - 3.4 Establish Proper Equipment/Vehicle Fueling and Maintenance Practices**
 - 3.5 Allowable Non-Stormwater Discharges and Control Equipment/Vehicle Washing**
 - 3.6 Spill Prevention and Control Plan**
 - 3.7 Any Additional BMPs**
- For more information, see *SWPPP Guide*, Chapter 5.
- Consult your state's design manual or resources in Appendix D of the *SWPPP Guide*.
- For more information or ideas on BMPs, see EPA's National Menu of BMPs
<http://www.epa.gov/npdes/stormwater/menuofbmps>

3.1 Material Handling and Waste Management

Instructions:

- Describe measures (e.g., trash disposal, sanitary wastes, recycling, and proper material handling) to prevent the discharge of solid materials to receiving waters, except as authorized by a permit issued under section 404 of the CWA (For more information, see *SWPPP Guide*, Chapter 5, P2 Principle 1.)
- Also, see EPA's *General Construction Site Waste Management BMP Fact Sheet* at www.epa.gov/npdes/stormwater/menuofbmps/construction/cons_wasteman

Construction Waste

BMP Description: All construction waste materials will be collected and disposed of into a metal trash dumpster located in the materials storage area. Dumpsters will have a secure watertight lid, be placed away from stormwater conveyances and drains, and meet all federal, state, and municipal regulations. Only trash and construction debris from the site will be deposited in the dumpster. Absolutely no construction materials will be buried on-site. All personnel will be instructed, during tailgate training sessions, regarding the correct disposal of trash and construction debris. Notices that state these practices will be posted in the office trailer and the individual who manages day-to-day site operations will be responsible for seeing that these practices are followed.

Installation Schedule:	Trash dumpsters will be installed once the materials storage area has been established.
Maintenance and Inspection:	The dumpster will be inspected weekly and immediately after storm events. The dumpster will be emptied as needed. If trash and construction debris are exceeding the dumpster's capacity, the dumpsters will be emptied more frequently.
Responsible Staff:	GC

Sanitary Waste

BMP Description: Temporary sanitary facilities (portable toilets) will be provided at the site throughout the construction phase. The toilets will be in the staging area. The portable toilet will be located away from a concentrated flow paths and traffic flow and will have collection pans underneath as secondary containment.

Installation Schedule:	Portable toilets will be installed once the materials storage area has been established.
Maintenance and Inspection:	All sanitary waste will be collected from the portable facilities a minimum of two times per week. The portable toilets will be inspected weekly for evidence of leaking holding tanks. Toilets with leaking holding tanks will be removed from the site and replaced with new portable toilets.
Responsible Staff:	GC

Recycling

BMP Description: Wood pallets, cardboard boxes, and other recyclable construction scraps will be disposed of in a designated dumpster for recycling. The dumpster will have a secure watertight lid, be placed away from stormwater conveyances and drains and meet all local and state solid-waste management regulations. Only solid recyclable construction scraps from the site will be deposited in the dumpster. All personnel will be instructed, during tailgate training sessions, regarding the correct procedure for disposal of recyclable construction scraps. Notices that state these procedures will be posted in the office trailer, and the individual who manages day-to-day site operations will be responsible for seeing that these procedures are followed.

Installation Schedule:	Recycling dumpster/bin will be installed once the materials
-------------------------------	---

	storage area has been established.
<i>Maintenance and Inspection:</i>	The recycling dumpster will be inspected weekly and immediately after storm events. The recycling dumpster will be emptied weekly and taken to an approved recycling center. If recyclable construction wastes are exceeding the dumpster's capacity, the dumpsters will be emptied more frequently.
<i>Responsible Staff:</i>	GC

Hazardous Waste

BMP Description: All hazardous waste materials (petroleum products, paint, and equipment maintenance fluids) will be stored in structurally sound and sealed shipping containers, within the hazardous materials storage area. Hazardous waste materials will be stored in appropriate and clearly marked containers and segregated from other non-waste materials. Secondary containment will be provided for all waste materials in the hazardous materials storage area and will consist of commercially available spill pallets. Additionally, all hazardous waste materials will be disposed of in accordance with federal, state, and municipal regulations. Hazardous waste materials will not be disposed of into the on-site dumpsters. All personnel will be instructed, during tailgate training sessions, regarding proper procedures for hazardous waste disposal. Notices that state these procedures will be posted in the office trailer and the individual who manages day-to-day site operations will be responsible for seeing that these procedures are followed.

<i>Installation Schedule:</i>	Shipping containers used to store hazardous waste materials will be installed once the site materials storage area has been installed.
<i>Maintenance and Inspection:</i>	The hazardous waste material storage areas will be inspected weekly and after storm events. The storage areas will be kept clean, organized, and equipped with ample cleanup supplies as appropriate for the materials being stored. Material safety data sheets, material inventory, and emergency contact numbers will be maintained in the office trailer.
<i>Responsible Staff:</i>	GC

3.2 Establish Proper Building Material Staging Areas

Instructions:

- Describe construction materials expected to be stored on-site and procedures for storage of materials to minimize exposure of the materials to stormwater. (For more information, see *SWPPP Guide*, Chapter 5, P2 Principle 2.)

Materials Storage Area

BMP Description:

Construction equipment and maintenance materials will be stored at the combined staging area and materials storage areas. Gravel bag berms will be installed around the perimeter to designate the staging and materials storage area. A watertight shipping container will be used to store hand tools, small parts, and other construction materials. Large items (steel, pipe, framing materials etc) will be stored in the open at the material storage area. All stored materials shall be placed on blocking to avoid contact with stormwater runoff.

All hazardous materials must be stored in structurally sound & sealed containers.

<i>Installation Schedule:</i>	Materials storage area will be installed after erosion control installation & grading and before any infrastructure is constructed at the site.
<i>Maintenance and Inspection:</i>	Material storage area will be inspected weekly and after storm events. Area will be kept clean & organized and equipped with clean up supplies – appropriate for the materials being stored. Perimeter controls, containment structures/liners/covers etc, will be repaired or replaced as needed.
<i>Responsible Staff:</i>	GC

3.3 Designate Washout Areas

Instructions:

- Describe location(s) and controls to eliminate the potential for discharges from washout areas for concrete mixers, paint, stucco, and so on. (For more information, see *SWPPP Guide*, Chapter 5, P2 Principle 3.)
- Also, see EPA's *Concrete Washout BMP Fact Sheet* at www.epa.gov/npdes/stormwater/menuofbmps/construction/concrete_wash

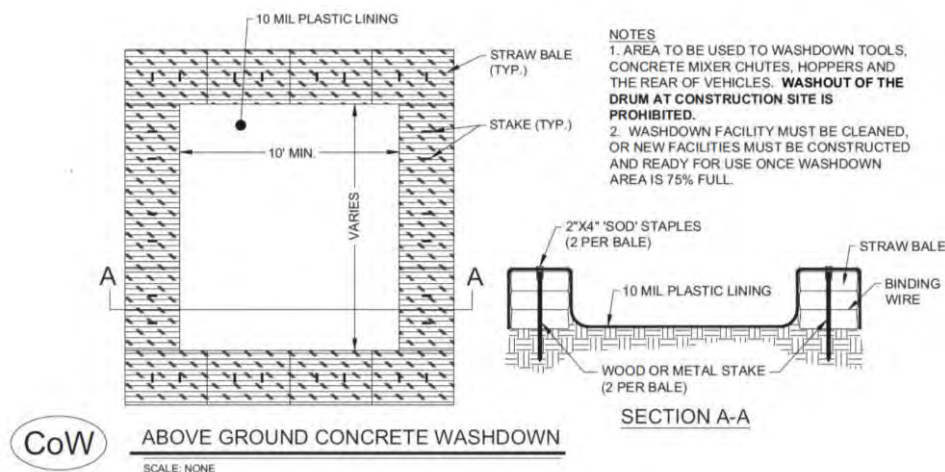
Concrete Washdown

BMP Description:

An above ground concrete washdown area will be constructed as shown on the design plans. This temporary washdown area will be constructed as shown on the plans and as shown in the figure below. Washdown area will be lined with plastic sheeting of at least 10 mil thick and free of any holes or tears. Signs must be posted for the washdown area.

Concrete pours will not be performed during or preceding anticipated storm events. Concrete mixer trucks and chutes will be washed in the designated area or properly disposed of off-site. When concrete washdown area is no longer required for the project, hardened concrete and waste materials will be removed and properly disposed of and the area will be stabilized.

Installation Schedule:	The washout area will be constructed before concrete pours occur at the site.
Maintenance and Inspection:	The washout areas will be inspected daily to ensure that all concrete washing is being discharged into the washout area, no leaks or tears are present, and to identify when concrete wastes need to be removed. The washout areas will be cleaned out once the area is filled to 75 percent of the holding capacity. Once the area's holding capacity has been reached, the concrete wastes will be allowed to harden; the concrete will be broken up, removed, and taken to Middletown Landfill for disposal. The plastic sheeting will be replaced if tears occur during removal of concrete wastes from the washout area.
Responsible Staff:	GC & grading/ excavation subcontractor



3.4 Establish Proper Equipment/Vehicle Fueling and Maintenance Practices

Instructions:

- Describe equipment/vehicle fueling and maintenance practices that will be implemented to control pollutants to stormwater (e.g., secondary containment, drip pans, and spill kits) (For more information, see *SWPPP Guide*, Chapter 5, P2 Principle 4.)
- Also, see EPA's *Vehicle Maintenance and Washing Areas BMP Fact Sheet* at www.epa.gov/npdes/stormwater/menuofbmps/construction/vehicile_maintain

Vehicle/Equipment Fueling and Maintenance

BMP Description: Several types of vehicles and equipment will be used on-site throughout the project, including graders, scrapers, excavators, loaders, paving equipment, rollers, trucks and trailers, backhoes, and forklifts. All major equipment/vehicle refueling and maintenance will be performed off-site. A small pickup bed fuel tank will be kept on-site in the combined staging area. When vehicle fueling must occur on-site, the fueling activity will occur in the staging area. Only minor equipment maintenance will occur on-site. All equipment fluids generated from maintenance activities will be disposed of into designated drums stored on spill pallets in accordance with Part 3.1. Absorbent, spill-cleanup materials and spill kits **must** be available at the combined staging and materials storage area. Drip/collection pans will be placed under all equipment receiving maintenance and vehicles and equipment parked overnight.

Installation Schedule:	BMPs implemented for equipment and vehicle maintenance and fueling activities will begin at the start of the project.
Maintenance and Inspection:	Inspect equipment/vehicle storage areas and fuel tank weekly and after storm events. Vehicles & equipment will be inspected on each day of use. Leaks must be repaired immediately, or the problem vehicle(s) or equipment must be removed from the project site. Maintain supply of spill-cleanup materials on-site and immediately clean up spills and dispose of materials properly.
Responsible Staff:	GC & grading/ excavation subcontractor

3.5 Control Equipment/Vehicle Washing

Instructions:

- Describe equipment/vehicle washing practices that will be implemented to control pollutants to stormwater. (For more information, see *SWPPP Guide*, Chapter 5, P2 Principle 5.)
- Also, see EPA's *Vehicle Maintenance and Washing Areas BMP Fact Sheet* at www.epa.gov/npdes/stormwater/menuofbmps/construction/vehicle_maintain

BMP Description: All equipment and vehicle washing will be performed off-site.

Installation Schedule:	N/A
Maintenance and Inspection:	N/A
Responsible Staff:	GC & grading/ excavation subcontractor

3.6 Spill Prevention and Control Plan

Instructions:

- Describe the spill prevention and control plan to include ways to reduce the chance of spills, stop the source of spills, contain and clean up spills, dispose of materials contaminated by spills, and train personnel responsible for spill prevention and control. (For more information, see *SWPPP Guide*, Chapter 5, P2 Principle 6.)
- Also, see EPA's *Spill Prevention and Control Plan BMP Fact sheet* at www.epa.gov/npdes/stormwater/menuofbmps/construction/spill_control

Spill Prevention and Control Procedures

BMP Description:

- Employee Training: All employees will be trained via biweekly tailgate sessions, as detailed in Section 6, Part 6.3.
 - Vehicle Maintenance: Vehicles and equipment will be maintained off-site. All vehicles and equipment including subcontractor vehicles will be checked for leaking oil and fluids. Vehicles leaking fluids will not be allowed on-site. Drip pans will be placed under all vehicles and equipment that are parked overnight.
 - Hazardous Material Storage: Hazardous materials will be stored in accordance with Section 3, Part 1 and federal and municipal regulations.
 - Spill Kits: Spill kits will be within the materials storage area and concrete washout areas.
 - Spills: All spills will be cleaned up immediately upon discovery. Spent absorbent materials
-

and rags will be hauled off-site immediately after the spill is cleaned up for proper disposal. Spills of 25 gallons or larger must be reported to the Ohio EPA at (800) 282-9378) and the National Response Center at (800) 424-8802 and the local emergency planning committee within 30 minutes of the release/spill.

- f. Material safety data sheets, a material inventory, and emergency contact information will be maintained at the on-site project trailer.

<i>Installation Schedule:</i>	The spill prevention and control procedures will be implemented once construction begins on-site.
<i>Maintenance and Inspection:</i>	All personnel will be instructed, during tailgate training sessions, regarding the correct procedures for spill prevention and control. Notices that state these practices will be posted in the office trailer, and the individual who manages day-to-day site operations will be responsible for seeing that these procedures are followed.
<i>Responsible Staff:</i>	GC & grading/ excavation subcontractor

3.7 Any Additional BMPs

Instructions:

- Describe any additional BMPs that do not fit into the above categories. Indicate the problem they are intended to address.

Open Burning and or barrel burning **IS NOT** allowed for this project.

Burying of demolition material, tree/brush waste or building materials **IS NOT** allowed for this project.

BMP Description: No additional BMPs were identified

<i>Installation Schedule:</i>	N/A
<i>Maintenance and Inspection:</i>	N/A
<i>Responsible Staff:</i>	N/A

3.8 Allowable Non-Stormwater Discharge Management

Instructions:

- Identify all allowable sources of non-stormwater discharges that are not identified. The allowable non-stormwater discharges identified might include the following (see your permit for an exact list):
 - ✓ Waters used to wash vehicles where detergents are not used
 - ✓ Water used to control dust
 - ✓ Potable water including uncontaminated water line flushings
 - ✓ Routine external building wash down that does not use detergents
 - ✓ Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used
 - ✓ Uncontaminated air conditioning or compressor condensate
 - ✓ Uncontaminated ground water or spring water
 - ✓ Foundation or footing drains where flows are not contaminated with process materials such as solvents
 - ✓ Uncontaminated excavation dewatering
 - ✓ Landscape irrigation
- Identify measures used to eliminate or reduce these discharges and the BMPs used to prevent them from becoming contaminated.
- For more information, see *SWPPP Guide*, Chapter 3.A.

List allowable non-stormwater discharges and the measures used to eliminate or reduce them and to prevent them from becoming contaminated:

Any changes in construction activities that produce other allowable non-stormwater discharges will be identified, and the SWPPP will be amended and the appropriate erosion and sediment control will be implemented.

Landscape Irrigation

BMP Description: Irrigation water will be limited to landscaped areas and will not be sprayed onto impermeable surfaces such as paved driveways, sidewalks and roads. Water will be directed onto soil and lawns by using hoses and correctly sized sprinklers with adjustable spray patterns.

To avoid discharges of irrigation waters, the sprinklers will have low-flow rates and increased watering time. The irrigated area will be inspected for excess watering and to adjust watering times and schedules.

Responsible Staff:

During construction – GC, Post Construction – Gerber Collision & Glass

Dust Control Water

BMP Description: Dust control will be implemented as needed once site grading has begun and during higher wind conditions (forecasted or actual wind conditions of 20 mph or greater) while site grading is occurring. Spraying of potable water at a rate of 300 gallons per acre or less will be performed by a mobile pressure-type distributor/tank truck no more than three times a day during the months of May–September and once per day during the months of October–April or whenever the dryness of the soil warrants it.

Responsible Staff:

GC & grading/ excavation subcontractor

Excavation Dewatering

BMP Description: Since the planned construction for this site project fill conditions & the estimated seasonal high-water elevation, per the Geotech is 6 to 7' below existing grade dewatering activities are not expected to occur at the project site. If dewatering does occur, the SWPPP will be revised to address the need for appropriate BMPs.

Responsible Staff:

GC & grading/ excavation subcontractor

SECTION 4: SELECTING POST-CONSTRUCTION BMPs

Instructions:

- Describe all post-construction stormwater management measures that will be installed during the construction process to control pollutants in stormwater discharges after construction operations have been completed. Examples of post-construction BMPs include the following:
 - ✓ Biofilters
 - ✓ Detention/retention devices
 - ✓ Earth dikes, drainage swales, and lined ditches
 - ✓ Infiltration basins
 - ✓ Porous pavement
 - ✓ Other proprietary permanent structural BMPs
 - ✓ Outlet protection/velocity dissipation devices
 - ✓ Slope protection
 - ✓ Vegetated strips and/or swales
- Identify any applicable federal, state, local, or tribal requirements for design or installation.
- Describe how low-impact designs or smart growth considerations have been incorporated into the design.
- For any structural BMPs, you should have design specifications and details and refer to them. Attach them as appendices to the SWPPP or within the text of the SWPPP.
- For more information on this topic, see your state's stormwater manual.
- You might also want to consult one of the references listed in Appendix D of the *SWPPP Guide*.
- Visit the post-construction section of EPA's Menu of BMPs at: www.epa.gov/npes/menuofbmps

Stormwater Retention Basin

BMP Description: The retention basin will remain as a permanent stormwater management structure for the site. The retention basin will convey runoff thru the outlet control structure to an existing grate inlet in the northeast corner of the site.

Installation Schedule:	The retention basin will be installed after silt fencing and construction exit have been installed and <u>before</u> site grading begins.
Maintenance and Inspection:	The retention basin will be inspected weekly and after major storm events during construction. The area will be checked for signs of erosion, seepage, and structural damage. Erosion,

	seepage, and structural damage will be repaired immediately. Following completion of site construction and final stabilization, maintenance and inspection responsibilities will be taken over by Gerber Collision & Glass.
<i>Responsible Staff:</i>	GC & grading/excavation subcontractor

SECTION 5: INSPECTIONS

5.1 *Inspections*

Instructions:

- Identify the individual(s) responsible for conducting inspections and describe their qualifications. Reference or attach the inspection form that will be used.
- Describe the frequency that inspections will occur at your site including any correlations to storm frequency and intensity.
- Note that inspection details for particular BMPs should be included in Sections 2 and 3.
- You should also document the repairs and maintenance that you undertake as a result of your inspections. These actions can be documented in the corrective action log described in Part 5.3 below.
- For more on this topic, see *SWPPP Guide*, Chapters 6 and 8.
- Also, see suggested inspection form in Appendix B of the *SWPPP Guide*.

1. Inspection Personnel: Identify the person(s) who will be responsible for conducting inspections and describe their qualifications:

- Mr. Emery is the EOR and assembled the SWPPP for this project and is responsible for assisting the GC and project manager with site compliance with the SWPPP and EPA's Construction General Permit. Mr. Emery will be the initial point of contact, until the project is awarded and the GC provides personnel qualified for inspections (at a minimum this will be an individual from the GC and another from the grading subcontractor). The GC and their sub will conduct inspections for all areas of the site disturbed by construction activities, areas used for storage of materials that are exposed to precipitation, discharge points, and construction exits. In absence of the GC and their subcontractor, Mr. Emery will conduct inspections.

• **Qualifications:**

GC and subcontractor **must** provide qualifications for their assigned personnel. **ONLY QUALIFIED INSPECTION PERSONELL WILL BE ALLOWED TO PERFORM INSPECTIONS**

Lawrence Emery, PE

1. Mr. Emery has 27 years of experience complying with stormwater regulations and has developed construction SWPPPs for numerous construction projects across the east coast, mid-west and south and conducted inspections for those projects.

2. Received certification as a TN Certified Professional in Erosion Prevention and Sediment Control (TN EPSC) in October 2016 (and has maintained required annual CEU requirements).
3. Received certification as a Georgia Soil & Water Conservation Commission (GSWCC) Certified Inspector (2013) and Certified Design professional (2019) (and has maintained required annual CEU requirements).
4. Received certification as a Certified Stormwater Control Measures (SCM) Inspection & Maintenance professional (TN BMP Inspector) in June 2019 (and has maintained required annual CEU requirements)

2. *Inspection Schedule and Procedures:*

Describe the inspection schedules and procedures you have developed for your site (include frequency of inspections for each BMP or group of BMPs, indicate when you will inspect, e.g., before/during/and after rain events, spot inspections):

- Inspections of the site will be performed once every 7 days and within 24 hours of the end of a storm event of one-half inch or greater. The inspections will verify that all BMPs required in Sections 2 and 3 are implemented, maintained, and effectively minimizing erosion and preventing stormwater contamination from construction materials. For detailed inspection procedures, see Sections 2 and 3.
- All inspections will be coordinated with the site Project Manager.

Describe the general procedures for correcting problems when they are identified. Include responsible staff and time frames for making corrections:

If corrective actions are identified by Mr. Emery or the designated qualified inspector for the General Contractor during the inspection, they will notify and submit a copy of the inspection report to the designated project managers. For corrective actions identified, the GC or Mr. Emery will be responsible for initiating the corrective action within 24 hours of the report and completing maintenance as soon as possible or before the next storm event. For any corrective actions requiring a SWPPP amendment or change to a stormwater conveyance or control design, GC must notify Mr. Emery, as soon as possible, before initiating the corrective action.

Attach a copy of the inspection report you will use for your site.

For a copy of the inspection report, see Appendix E.

5.2 Delegation of Authority

Instructions:

- Identify the individual(s) or specifically describe the position where the construction site operator has delegated authority for the purposes of signing inspection reports, certifications, or other information.
- Attach the delegation of authority form that will be used.
- For more on this topic, see *SWPPP Guide*, Chapter 7.

Duly Authorized Representative(s) or Position(s):

Insert Company or Organization Name: TBD – Contractor has yet to be awarded

Name:

Position:

Address:

City, State, Zip Code:

Phone Number:

Email:

See Appendix J – Delegation of Authority

5.3 Corrective Action Log

Instructions:

- Create here, or as an attachment, a corrective action log. This log should describe repair, replacement, and maintenance of BMPs undertaken as a result of the inspections and maintenance procedures described above. Actions related to the findings of inspections should reference the specific inspection report.
- This log should describe actions taken, date completed, and note the person that completed the work.

Corrective Action Log:

See Appendix F – Corrective Action Log

SECTION 6: RECORDKEEPING AND TRAINING

6.1 *Recordkeeping*

Instructions:

- The following is a list of records you should keep at your project site available for inspectors to review:
- Dates of grading, construction activity, and stabilization (which is covered in Sections 2 and 3)
- A copy of the construction general permit (attach)
- The signed and certified NOI form or permit application form (attach)
- A copy of the letter from EPA or the state notifying you of their receipt of your complete NOI/application (attach)
- Inspection reports (attach)
- Records relating to endangered species and historic preservation (attach)
- Check your permit for additional details
- For more on this subject, see *SWPPP Guide*, Chapter 6.C.

Records will be retained for a minimum period of at least 3 years after the permit is terminated. GC shall provide copies of all inspections to the Owner and Operator.

Date(s) when major grading activities occur:

See Appendix I – Grading and Stabilization Activities Log

Date(s) when construction activities temporarily or permanently cease on a portion of the site:

See Appendix I – Grading and Stabilization Activities Log

Date(s) when an area is either temporarily or permanently stabilized:

See Appendix I – Grading and Stabilization Activities Log

6.2 *Log of Changes to the SWPPP*

Instructions:

- Create a log here, or as an attachment, of changes and updates to the SWPPP. You should include additions of new BMPs, replacement of failed BMPs, significant changes in the activities or their timing on the project, changes in personnel, changes in inspection and maintenance procedures, updates to site maps, and so on.

Log of changes and updates to the SWPPP

See Appendix G – SWPPP Amendment Log

6.3 Training

Instructions:

- Training your staff and subcontractors is an effective BMP. As with the other steps you take to prevent stormwater problems at your site, you should document the training that you conduct for your staff, for those with specific stormwater responsibilities (e.g. installing, inspecting, and maintaining BMPs), and for subcontractors.
- Include dates, number of attendees, subjects covered, and length of training.
- For more on this subject, see *SWPPP Guide*, Chapter 8.

Individual(s) Responsible for Training:

Mr. Lawrence Emery

Describe Training Conducted:

- General stormwater and BMP awareness training for staff and subcontractors:
Mr. Emery will conduct informal training for all staff, including subcontractors, on the site. The training will be conducted primarily via tailgate sessions and will focus on avoiding damage to stormwater BMPs and preventing illicit discharges. The tailgate sessions will be conducted biweekly and will address the following topics: Erosion Control BMPs, Sediment Control BMPs, Non-Stormwater BMPs, Waste Management and Materials Storage BMPs, and Emergency Procedures specific to the construction site. (See Appendix J – SWPPP Training Log)
- Detailed training for staff and subcontractors with specific stormwater responsibilities:
Mr. Emery will provide formal training to all staff and subcontractors with specific stormwater responsibilities, such as installing and maintaining BMPs. The formal training will cover all design and construction specifications for installing the BMPs and proper

procedures for maintaining each BMP. Formal training will occur before any BMPs are installed on the site. (See Appendix J – SWPPP Training Log)

SECTION 7: FINAL STABILIZATION

Instructions:

- Describe procedures for final stabilization. If you complete major construction activities on part of your site, you can document your final stabilization efforts for that portion of the site. Many permits will allow you to then discontinue inspection activities in these areas (be sure to check your permit for exact requirements). You can amend or add to this section as areas of your project are finally stabilized.
- Update your site plans to indicate areas that have achieved final stabilization.
- Note that dates for areas that have achieved final stabilization should be included in Section 6, Part 6.1 of this SWPPP.
- For more on this topic, see *SWPPP Guide*, Chapter 9.

BMP Description: Permanent seeding will be applied immediately after the final design grades are achieved on portions of the site but no later than 14 days after construction activities have permanently ceased. After the entire site is stabilized, any sediment that has accumulated will be removed and hauled off-site for disposal at Middletown Landfill. Construction debris, trash and temporary BMPs (including silt fences, material storage areas, sanitary toilets, and inlet protection) will also be removed and any areas disturbed during removal will be seeded immediately.

Seedbed Preparation

- a. In areas where disturbance results in subsoil being the final grade surface, topsoil will be spread over the finished area at minimum depth of 2 to 6 inches.
- b. The seedbed will be free of large clods, rocks, woody debris and other objectionable materials.
- c. Fertilizer and lime will be applied to the seedbed according to the manufacturer's recommendations or soil tests (soil tests are omitted from this example SWPPP).
- d. The top layer of soil will be loosened to a depth of 3–5 inches by raking, tilling, disking or other suitable means.

Grass Selection/Application

- a. Common areas at the site will be stabilized with a mixture of Tall Fescue, Creeping Red Fescue and Redtop at an application rate of 30 pounds per acre or 0.95 pounds per 1,000 square feet. Lawns will be stabilized with a mixture of Kentucky Blue Grass and Creeping

Red Fescue at an application rate of 100 pounds per acre or 2.3 pounds per 1,000 square feet.

- b. Seed will be applied uniformly by hydroseeding or broadcasting. Where broadcasting is used, the seed will be covered with .25 inch of soil or less, by cultipacking or raking.

Mulching

- a. Hydromulch (or approved equivalent) will be applied immediately following seeding at an application rate of 90–100 pounds (2–3 bales) per 1,000 square feet.

<i>Installation Schedule:</i>	Portions of the site where construction activities have permanently ceased will be stabilized, as soon as possible but no later than 14 days after construction ceases.
<i>Maintenance and Inspection:</i>	All seeded areas will be inspected weekly during construction activities for failure and after storm events until a dense cover of vegetation has been established. If failure is noticed at the seeded area, the area will be reseeded, fertilized, and mulched immediately. After construction is completed at the site, permanently stabilized areas will be monitored until final stabilization is reached.
<i>Responsible Staff:</i>	GC

SECTION 8: CERTIFICATION AND NOTIFICATION

Instructions:

- The SWPPP should be signed and certified by the construction operator(s). Attach a copy of the NOI and permit authorization letter received from EPA or the state in Appendix D.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: W.S. TENER Title: Managing Member
Signature: [Signature] Date: 12-13-21

SWPPP APPENDICES

Attach the following documentation to the SWPPP:

Appendix A – General Location Map

Appendix B – Site Maps

Appendix C – Construction General Permit

Appendix D – NOI and Acknowledgement Letter

Appendix E – Inspection Reports

Appendix F – Corrective Action Log

Appendix G – SWPPP Amendment Log

Appendix H – Contractor Contact Sheet and Certification Form

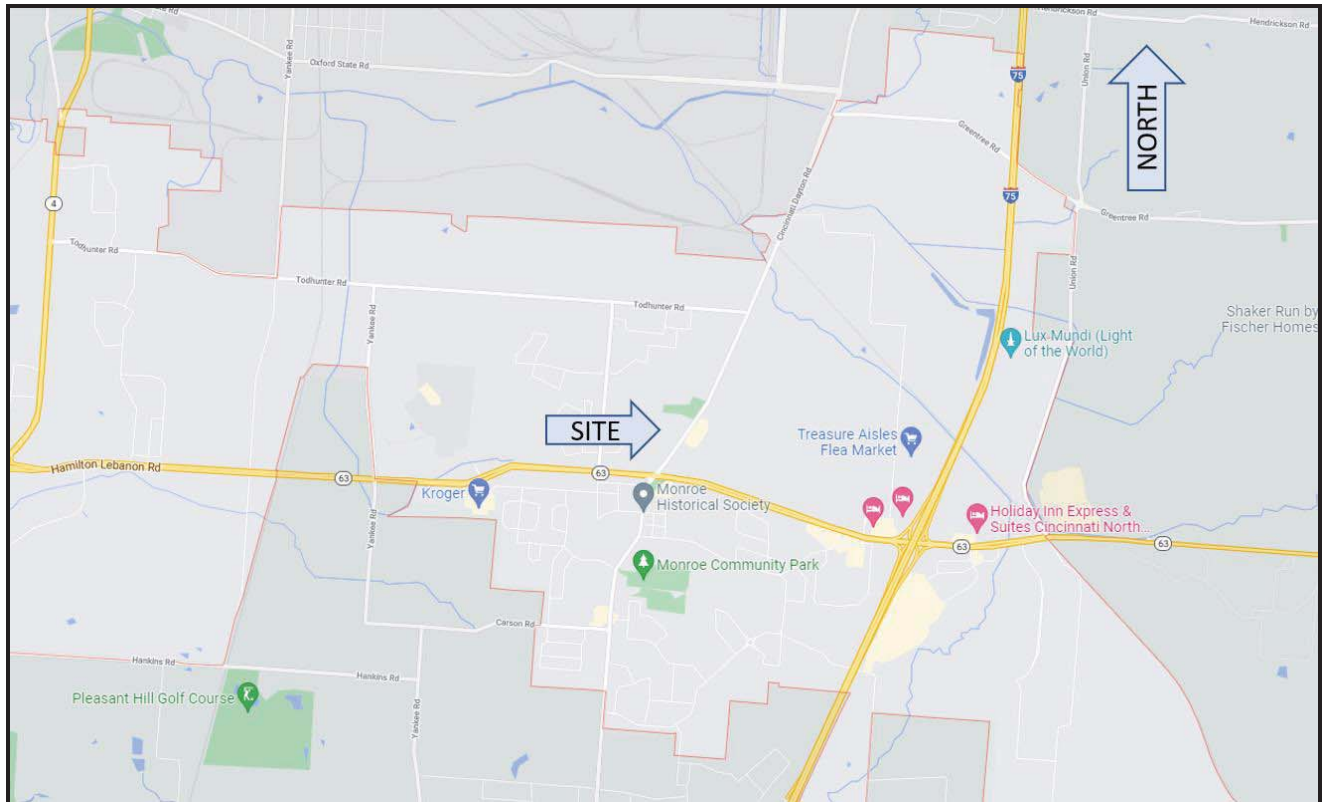
Appendix I – Grading and Stabilization Activities Log

Appendix J – SWPPP Training Log

Appendix K – Delegation of Authority

Appendix L – Long Term Maintenance Plan

Appendix A – General Location Map



301 N. Main Street, City of Monroe, Lemon Township, Butler County, Ohio

Appendix B – Site Maps

PROPOSED O'REILLY AUTO PART STORE

301 N. MAIN STREET
MONROE, BUTLER CO, OHIO

Contact: William Toner
Phone: 423-641-8607



[illegible]

These may be private inholdings within the boundaries of the National or State reservations shown on this map. To pass on the unceded North American Indian lands since the American Civil War, the United States and

THIS MAP COMPLETES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY
DENVER, COLORADO 80225 ON HILTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON

Journal of the American Academy of Child and Adolescent Psychiatry 1996;35:1025-35

MONROE, OHIO.
30084-03-37-024.
1985
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November 2, 2021

Wetlands

- | | | | | | |
|---|--------------------------------|---|-----------------------------------|---|----------|
|  | Estuarine and Marine Deepwater |  | Freshwater Emergent Wetland |  | Lake |
|  | Estuarine and Marine Wetland |  | Freshwater Forested/Shrub Wetland |  | Other |
| | |  | Freshwater Pond |  | Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

USDA SCS - SOIL MAP

Soil Map—Butler County, Ohio



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

11/2/2021
Page 1 of 3

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
DbB	Dana silt loam, bedrock substratum, 2 to 8 percent slopes	1.1	50.1%
WyB2	Wynn silt loam, 2 to 6 percent slopes, eroded	1.1	49.9%
Totals for Area of Interest		2.1	100.0%

National Flood Hazard Layer FIRMette



84°21'45"W 39°27'11"N

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

Without Base Flood Elevation (BFE)
Zone A, V, A99

With BFE or Depth *Zone AE, AO, AH, VE, AR*

Regulatory Floodway

SPECIAL FLOOD HAZARD AREAS

0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*

Future Conditions 1% Annual Chance Flood Hazard *Zone X*

Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*

Area with Flood Risk due to Levee *Zone D*

OTHER AREAS OF FLOOD HAZARD

NO SCREEN

Area of Minimal Flood Hazard *Zone X*

Effective LOMRs

Area of Undetermined Flood Hazard *Zone D*

OTHER AREAS

GENERAL STRUCTURES

Channel, Culvert, or Storm Sewer

Levee, Dike, or Floodwall

Cross Sections with 1% Annual Chance Water Surface Elevation

Coastal Transect

Base Flood Elevation Line (BFE)

Limit of Study

Jurisdiction Boundary

Coastal Transect Baseline

Profile Baseline

Hydrographic Feature

OTHER FEATURES

Digital Data Available

No Digital Data Available

Unmapped

MAP PANELS

N

Pin

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **11/2/2021 at 4:14 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

0 250 500 1,000 1,500 2,000 Feet

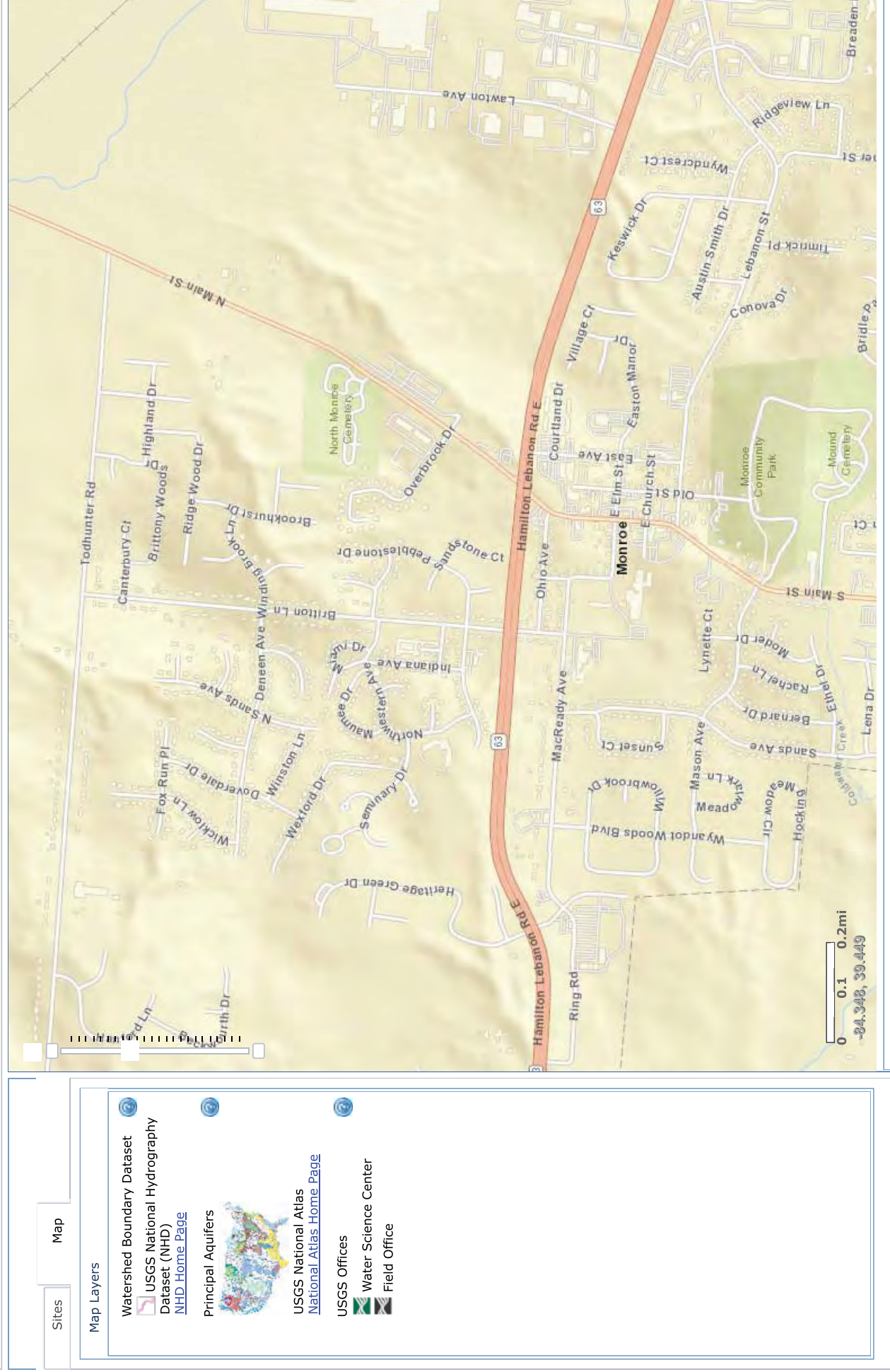
1:6,000

84°21'7"W 39°26'43"N

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020



National Water Information System: Mapper



IPaC Information for Planning and Consultation

U.S. Fish & Wildlife Service

1 Find location

Search or zoom to find the project location

Or skip this step and:

2 Define area

Draw the area where activities will occur

Select a drawing tool

Other options:

3 Confirm

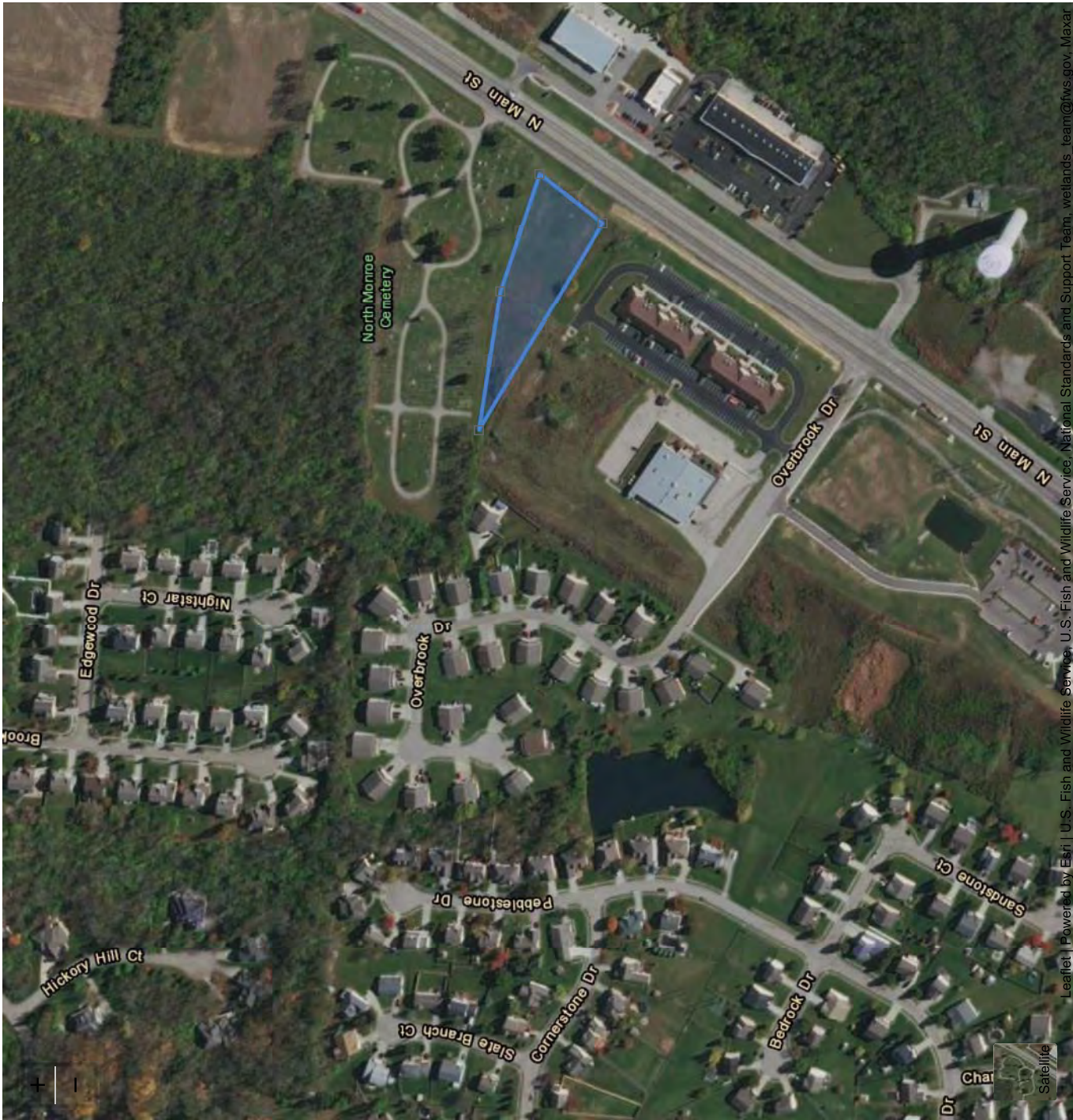
Verify the area where project activities will occur

Modify the shape by clicking and dragging the vertices or clicking on a solid vertex to remove it

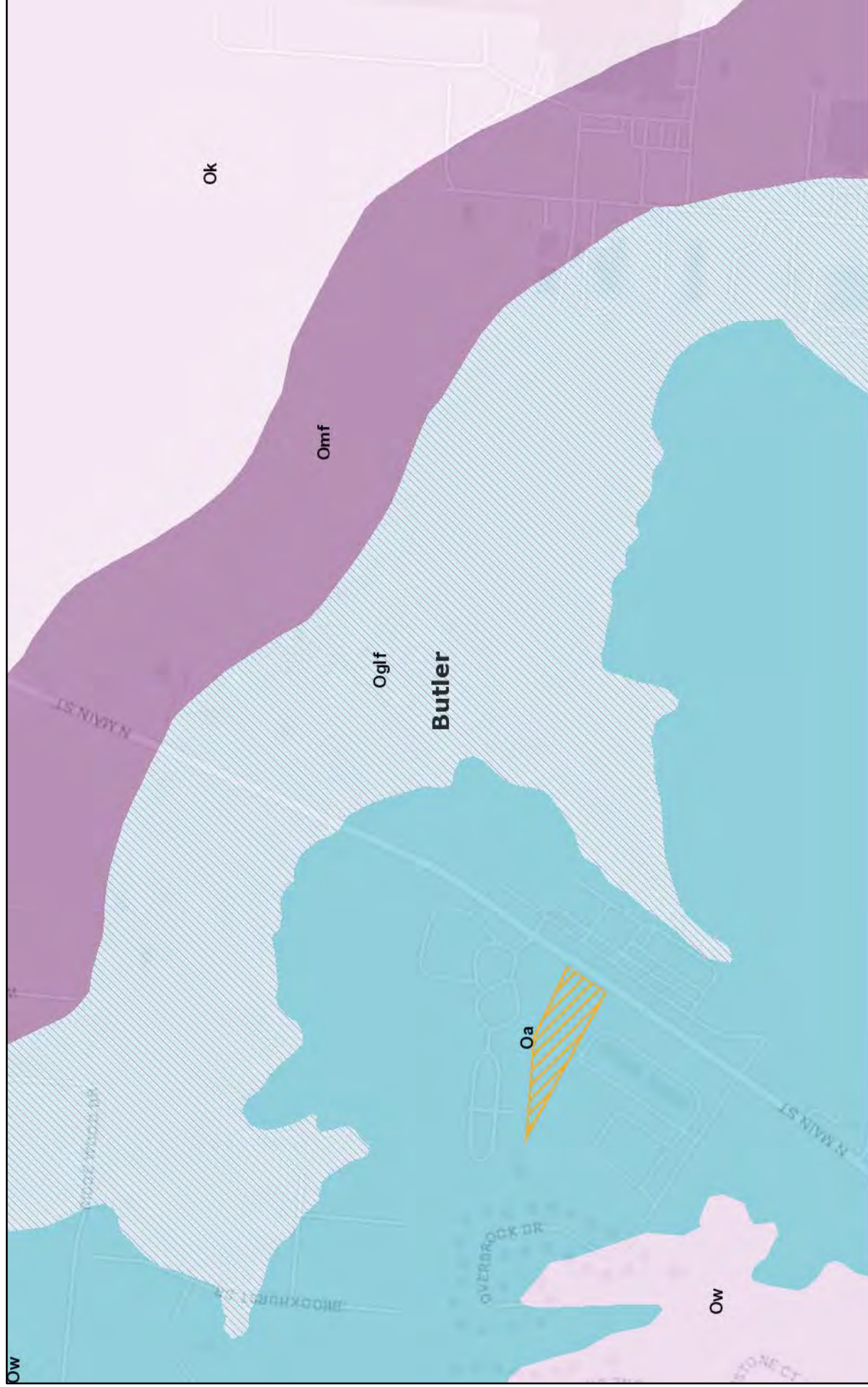
AREA: 1.45 acres

Layers

- ☒ National Wetland Inventory ×
- ☒ Greater Sage Grouse PACs ×
- ☒ Critical Habitat ×
- ☐ Final - Critical Habitat



Geology Map



November 2, 2021

 Counties

1:9,028

0 0.075 0.15 0.3 mi
0 0.1 0.2 0.4 km

Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

Appendix C – Construction General Permit

Issuance Date: April 23, 2018
Effective Date: April 23, 2018
Expiration Date: April 22, 2023

Ohio EPA Form 22-19
Entered Directly into Journal

OHIO ENVIRONMENTAL PROTECTION AGENCY

**GENERAL PERMIT AUTHORIZATION FOR STORM WATER DISCHARGES ASSOCIATED
WITH CONSTRUCTION ACTIVITY UNDER THE NATIONAL POLLUTANT
DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the federal Water Pollution Control Act, as amended (33 U.S.C. Section 1251 et. seq. hereafter referred to as "the Act") and the Ohio Water Pollution Control Act [Ohio Revised Code ("ORC") Chapter 6111], dischargers of storm water from sites where construction activity is being conducted, as defined in Part I.B of this permit, are authorized by the Ohio Environmental Protection Agency, hereafter referred to as "Ohio EPA," to discharge from the outfalls at the sites and to the receiving surface waters of the state identified in their Notice of Intent ("NOI") application form on file with Ohio EPA in accordance with the conditions specified in Parts I through VII of this permit.

It has been determined that a lowering of water quality of various waters of the state associated with granting coverage under this permit is necessary to accommodate important social and economic development in the state of Ohio. In accordance with OAC 3745-1-05, this decision was reached only after examining a series of technical alternatives, reviewing social and economic issues related to the degradation, and considering all public and intergovernmental comments received concerning the proposal.

This permit is conditioned upon payment of applicable fees, submittal of a complete NOI application form, development (and submittal, if applicable) of a complete Storm Water Pollution Prevention Plan (SWP3) and written approval of coverage from the director of Ohio EPA in accordance with Ohio Administrative Code ("OAC") Rule 3745-38-02.



Craig W. Butler
Director

Total Pages: 60

I certify this to be a true and accurate copy of the
official documents as filed in the records of the Ohio
Environmental Protection Agency.

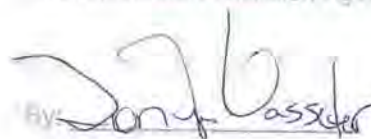
By:  Date: 4-23-18

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PART I. COVERAGE UNDER THIS PERMIT

A. Permit Area.

This permit covers the entire State of Ohio. Appendices A and B of this permit contain additional watershed specific requirements for construction activities located partially or fully within the Big Darby Creek Watershed and portions of the Olentangy River Watershed. Projects within portions of the Olentangy River watershed shall seek coverage under this permit following the expiration of OHCO00002 (May 31, 2019).

B. Eligibility.

1. Construction activities covered. Except for storm water discharges identified under Part I.B.2, this permit may cover all new and existing discharges composed entirely of storm water discharges associated with construction activity that enter surface waters of the state or a storm drain leading to surface waters of the state.

For the purposes of this permit, construction activities include any clearing, grading, excavating, grubbing and/or filling activities that disturb one or more acres. Discharges from trench dewatering are also covered by this permit as long as the dewatering activity is carried out in accordance with the practices outlined in Part III.G.2.g.iv of this permit.

Construction activities disturbing one or more acres of total land or will disturb less than one acre of land but are part of a larger common plan of development or sale that will ultimately disturb one or more acres of land are eligible for coverage under this permit. The threshold acreage includes the entire area disturbed in the larger common plan of development or sale.

This permit also authorizes storm water discharges from support activities (e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, borrow areas) provided:

- a. The support activity is directly related to a construction site that is required to have NPDES permit coverage for discharges of storm water associated with construction activity;
 - b. The support activity is not a commercial operation serving multiple unrelated construction projects and does not operate beyond the completion of the construction activity at the site it supports;
 - c. Appropriate controls and measures are identified in a storm water pollution prevention plan (SWP3) covering the discharges from the support activity; and
 - d. The support activity is on or contiguous with the property defined in the NOI (offsite borrow pits and soil disposal areas, which serve only one project, do not have to be contiguous with the construction site).
2. Limitations on coverage. The following storm water discharges associated with construction activity are not covered by this permit:

- a. Storm water discharges that originate from the site after construction activities have ceased, including any temporary support activity, and the site has achieved final stabilization. Industrial post-construction storm water discharges may need to be covered by an NPDES permit;
 - b. Storm water discharges associated with construction activity that the director has shown to be or may reasonably expect to be contributing to a violation of a water quality standard; and
 - c. Storm water discharges authorized by an individual NPDES permit or another NPDES general permit.
3. Waivers. After March 10, 2003, sites whose larger common plan of development or sale have at least one, but less than five acres of land disturbance, which would otherwise require permit coverage for storm water discharges associated with construction activities, may request that the director waive their permit requirement. Entities wishing to request such a waiver must certify in writing that the construction activity meets one of the two waiver conditions:
- a. Rainfall Erosivity Waiver. For a construction site to qualify for the rainfall erosivity waiver, the cumulative rainfall erosivity over the project duration must be five or less and the site must be stabilized with a least a 70 percent vegetative cover or other permanent, non-erosive cover. The rainfall erosivity must be calculated according to the method in U.S. EPA Fact Sheet 3.1 Construction Rainfall Erosivity Waiver dated January 2001 and be found at: http://epa.ohio.gov/portals/35/permits/USEPAfact3-1_s.pdf. If it is determined that a construction activity will take place during a time period where the rainfall erosivity factor is less than five, a written waiver certification must be submitted to Ohio EPA at least 21 days before construction activity is scheduled to begin. If the construction activity will extend beyond the dates specified in the waiver certification, the operator must either: (a) recalculate the waiver using the original start date with the new ending date (if the R factor is still less than five, a new waiver certification must be submitted) or (b) submit an NOI application form and fee for coverage under this general permit at least seven days prior to the end of the waiver period; or
 - b. TMDL (Total Maximum Daily Load) Waiver. Storm water controls are not needed based on a TMDL approved or established by U.S. EPA that addresses the pollutant(s) of concern or, for non-impaired waters that do not require TMDLs, and equivalent analysis that determines allocations for small construction sites for the pollutant(s) of concern or that determines that such allocations are not needed to protect water quality based on consideration of existing in-stream concentrations, expected growth in pollutant contributions from all sources, and a margin of safety. The pollutant(s) of concern include sediment or a parameter that addresses sediment (such as total suspended solids, turbidity or siltation) and any other pollutant that has been identified as a cause of impairment of any water body that will receive a discharge from the construction activity. The operator must certify to the director of Ohio EPA that the construction activity will take place, and storm water discharges will occur, within the drainage area addressed by the TMDL or equivalent analysis. A written waiver certification must be submitted to Ohio EPA at least 21 days before the construction activity is scheduled to begin.

4. Prohibition on non-storm water discharges. All discharges covered by this permit must be composed entirely of storm water with the exception of the following: discharges from firefighting activities; fire hydrant flushings; potable water sources including waterline flushings; irrigation drainage; lawn watering; routine external building washdown which does not use detergents; pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used; air conditioning condensate; springs; uncontaminated ground water from trench or well point dewatering and foundation or footing drains where flows are not contaminated with process materials such as solvents. Dewatering activities must be done in compliance with Part II.C and Part III.G.2.g.iv of this permit. Discharges of material other than storm water or the authorized non-storm water discharges listed above must comply with an individual NPDES permit or an alternative NPDES general permit issued for the discharge.

Except for flows from firefighting activities, sources of non-storm water listed above that are combined with storm water discharges associated with construction activity must be identified in the SWP3. The SWP3 must identify and ensure the implementation of appropriate pollution prevention measures for the non-storm water component(s) of the discharge.

5. Spills and unintended releases (Releases in excess of Reportable Quantities). This permit does not relieve the permittee of the reporting requirements of Title 40 of the Code of Federal Regulations ("CFR") Part 117 and 40 CFR Part 302. In the event of a spill or other unintended release, the discharge of hazardous substances in the storm water discharge(s) from a construction site must be minimized in accordance with the applicable storm water pollution prevention plan for the construction activity and in no case, during any 24-hour period, may the discharge(s) contain a hazardous substance equal to or in excess of reportable quantities.

40 CFR Part 117 sets forth a determination of the reportable quantity for each substance designated as hazardous in 40 CFR Part 116. The regulation applies to quantities of designated substances equal to or greater than the reportable quantities, when discharged to surface waters of the state. 40 CFR Part 302 designates under section 102(a) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, those substances in the statutes referred to in section 101(14), identifies reportable quantities for these substances and sets forth the notification requirements for releases of these substances. This regulation also sets forth reportable quantities for hazardous substances designated under section 311(b)(2)(A) of the Clean Water Act (CWA).

C. Requiring an individual NPDES permit or an alternative NPDES general permit.

1. The director may require an alternative permit. The director may require any operator eligible for this permit to apply for and obtain either an individual NPDES permit or coverage under an alternative NPDES general permit in accordance with OAC Rule 3745-38-02. Any interested person may petition the director to take action under this paragraph.

The director will send written notification that an alternative NPDES permit is required. This notice shall include a brief statement of the reasons for this decision, an application form and a statement setting a deadline for the operator to file the application. If an operator fails to submit an application in a timely manner as required by the director under this paragraph, then coverage, if in effect, under this permit is automatically terminated at the end of the day specified for application submittal.

2. Operators may request an individual NPDES permit. Any owner or operator eligible for this permit may request to be excluded from the coverage of this permit by applying for an individual permit. The owner or operator shall submit an individual application with reasons supporting the request to the director in accordance with the requirements of 40 CFR 122.26. If the reasons adequately support the request, the director shall grant it by issuing an individual NPDES permit.
3. When an individual NPDES permit is issued to an owner or operator otherwise subject to this permit or the owner or operator is approved for coverage under an alternative NPDES general permit, the applicability of this permit to the individual NPDES permittee is automatically terminated on the effective date of the individual permit or the date of approval for coverage under the alternative general permit, whichever the case may be.

D. Permit requirements when portions of a site are sold

If an operator obtains a permit for a development, and then the operator (permittee) sells off lots or parcels within that development, permit coverage must be continued on those lots until a Notice of Termination (NOT) in accordance with Part IV.B is submitted. For developments which require the use of centralized sediment and erosion controls (i.e., controls that address storm water runoff from one or more lots) for which the current permittee intends to terminate responsibilities under this permit for a lot after sale of the lot to a new owner and such termination will either prevent or impair the implementation of the controls and therefore jeopardize compliance with the terms and conditions of this permit, the permittee will be required to maintain responsibility for the implementation of those controls. For developments where this is not the case, it is the permittee's responsibility to temporarily stabilize all lots sold to individual lot owners unless an exception is approved in accordance with Part III.G.4. In cases where permit responsibilities for individual lot(s) will be terminated after sale of the lot, the permittee shall inform the individual lot owner of the obligations under this permit and ensure that the Individual Lot NOI application is submitted to Ohio EPA.

E. Authorization

1. Obtaining authorization to discharge. Operators that discharge storm water associated with construction activity must submit an NOI application form and Storm Water Pollution Prevention Plan (SWP3) if located within the Big Darby Creek watershed or portions of the Olentangy watershed in accordance with the requirements of Part I.F of this permit to obtain authorization to discharge under this general permit. As required under OAC Rule 3745-38-06(E), the director, in response to the NOI submission, will notify the applicant in writing that he/she has or has not been granted general permit coverage to discharge storm water associated with construction activity under the terms and conditions of this permit or that the applicant must apply for an individual NPDES permit or coverage under an alternate general NPDES permit as described in Part I.C.1.

2. No release from other requirements. No condition of this permit shall release the permittee from any responsibility or requirements under other environmental statutes or regulations. Other permit requirements commonly associated with construction activities include, but are not limited to, section 401 water quality certifications, isolated wetland permits, permits to install sanitary sewers or other devices that discharge or convey polluted water, permits to install drinking water lines, single lot sanitary system permits and disturbance of land which was used to operate a solid or hazardous waste facility (i.e., coverage under this NPDES general permit does not satisfy the requirements of OAC Rule 3745-27-13 or ORC Section 3734.02(H)). The issuance of this permit is subject to resolution of an antidegradation review. This permit does not relieve the permittee of other responsibilities associated with construction activities such as contacting the Ohio Department of Natural Resources, Division of Water, to ensure proper well installation and abandonment of wells.

F. Notice of Intent Requirements

1. Deadlines for notification.
 - a. Initial coverage: Operators who intend to obtain initial coverage for a storm water discharge associated with construction activity under this general permit must submit a complete and accurate NOI application form, a completed Storm Water Pollution Prevention Plan (SWP3) for projects within the Big Darby Creek and portions of the Olentangy river watersheds and appropriate fee at least 21 days (or 45 days in the Big Darby Creek watershed and portions of the Olentangy watershed) prior to the commencement of construction activity. If more than one operator, as defined in Part VII of this general permit, will be engaged at a site, each operator shall seek coverage under this general permit prior to engaging in construction activities. Coverage under this permit is not effective until an approval letter granting coverage from the director of Ohio EPA is received by the applicant. Where one operator has already submitted an NOI prior to other operator(s) being identified, the additional operator shall request modification of coverage to become a co-permittee. In such instances, the co-permittees shall be covered under the same facility permit number. No additional permit fee is required.
 - b. Individual lot transfer of coverage: Operators must each submit an individual lot notice of intent (Individual Lot NOI) application form (no fee required) to Ohio EPA at least seven days prior to the date that they intend to accept responsibility for permit requirements for their portion of the original permitted development from the previous permittee. Transfer of permit coverage is not granted until an approval letter from the director of Ohio EPA is received by the applicant.
2. Failure to notify. Operators who fail to notify the director of their intent to be covered and who discharge pollutants to surface waters of the state without an NPDES permit are in violation of ORC Chapter 6111. In such instances, Ohio EPA may bring an enforcement action for any discharges of storm water associated with construction activity.
3. How to submit an NOI. Operators seeking coverage under this permit must submit a complete and accurate Notice of Intent (NOI) application using Ohio EPA's electronic application form which is available through the Ohio EPA eBusiness Center at: <https://ebiz.epa.ohio.gov/>. Submission through the Ohio EPA eBusiness Center will

require establishing an Ohio EPA eBusiness Center account and obtaining a unique Personal Identification Number (PIN) for final submission of the NOI. Existing eBusiness Center account holders can access the NOI form through their existing account and submit using their existing PIN. Please see the following link for guidance:

<http://epa.ohio.gov/dsw/ebs.aspx#170669803-streams-guidance>. Alternatively, if you are unable to access the NOI form through the agency eBusiness Center due to a demonstrated hardship, the NOI may be submitted on a paper NOI form provided by Ohio EPA. NOI information shall be typed on the form. Please contact Ohio EPA, Division of Surface Water at (614) 644-2001 if you wish to receive a paper NOI form.

4. Additional notification. NOIs and SWP3s are considered public documents and shall be made available to the public in accordance with Part III.C.2. The permittee shall make NOIs and SWP3s available upon request of the director of Ohio EPA, local agencies approving sediment and erosion control plans, grading plans or storm water management plans, local governmental officials, or operators of municipal separate storm sewer systems (MS4s) receiving drainage from the permitted site. Each operator that discharges to an NPDES permitted MS4 shall provide a copy of its Ohio EPA NOI submission to the MS4 in accordance with the MS4's requirements, if applicable.
5. Re-notification. Existing permittees having coverage under the previous generations of this general permit shall have continuing coverage under OHC000005 with the submittal of a timely renewal application. Within 180 days from the effective date of this permit, existing permittees shall submit the completed renewal application expressing their intent for continued coverage. In accordance with Ohio Administrative Code (OAC) 3745-38-02(E)(2)(a)(i), a renewal application fee will only apply to existing permittees having general permit coverage for 5 or more years as of the effective date of this general permit. Permit coverage will be terminated if Ohio EPA does not receive the renewal application within this 180-day period.

Part II. NON-NUMERIC EFFLUENT LIMITATIONS

You shall comply with the following non-numeric effluent limitations for discharges from your site and/or from construction support activities. Part III of this permit contains the specific design criteria to meet the objectives of the following non-numeric effluent limitations. You shall develop and implement the SWP3 in accordance with Part III of this permit to satisfy these non-numeric effluent limitations.

- A. **Erosion and Sediment Controls.** You shall design, install and maintain effective erosion controls and sediment controls to minimize the discharge of pollutants. At a minimum, such controls shall be designed, installed and maintained to:
 1. Control storm water volume and velocity within the site to minimize soil and stream erosion;
 2. Control storm water discharges, including both peak flowrates and total storm water volume, to minimize erosion at outlets and to minimize downstream channel and streambank erosion;
 3. Minimize the amount of soil exposed during construction activity;

4. Minimize the disturbance of steep slopes;
 5. Minimize sediment discharges from the site. The design, installation and maintenance of erosion and sediment controls shall address factors such as the amount, frequency, intensity and duration of precipitation, the nature of resulting storm water runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site;
 6. If feasible, provide and maintain a 50-foot undisturbed natural buffer around surface waters of the state, direct storm water to vegetated areas to increase sediment removal and maximize storm water infiltration. If it is infeasible to provide and maintain an undisturbed 50-foot natural buffer, you shall comply with the stabilization requirements found in Part II.B for areas within 50 feet of a surface water; and
 7. Minimize soil compaction and, unless infeasible, preserve topsoil.
- B. Soil Stabilization.** Stabilization of disturbed areas shall, at a minimum, be initiated in accordance with the time frames specified in the following tables.

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
Other areas at final grade	Within seven days of reaching final grade within that area

Table 2: Temporary Stabilization

Area requiring temporary stabilization	Time frame to apply erosion controls
Any disturbed areas within 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
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

Where vegetative stabilization techniques may cause structural instability or are otherwise unobtainable, alternative stabilization techniques must be employed. Permanent and temporary stabilization are defined in Part VII.

- C. Dewatering.** Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, are prohibited unless managed by appropriate controls.
- D. Pollution Prevention Measures.** Design, install, implement and maintain effective pollution prevention measures to minimize the discharge of pollutants. At a minimum, such measures must be designed, installed, implemented and maintained to:
1. Minimize the discharge of pollutants from equipment and vehicle washing, wheel washwater, and other washwaters. Washwaters shall be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;
 2. Minimize the exposure of construction materials, products, and wastes; landscape materials, fertilizers, pesticides, and herbicides; detergents, sanitary waste and other materials present on the site to precipitation and to storm water; and
 3. Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures.
- E. Prohibited Discharges.** The following discharges are prohibited:
1. Wastewater from washout of concrete, unless managed by an appropriate control;
 2. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;
 3. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and
 4. Soaps or solvents used in vehicle and equipment washing or all other waste water streams which could be subject to an individual NPDES permit (Part III.G.2.g).
- F. Surface Outlets.** When discharging from sediment basins utilize outlet structures that withdraw water from the surface, unless infeasible. (Note: Ohio EPA believes that the circumstances in which it is infeasible to design outlet structures in this manner are rare. Exceptions may include time periods with extended cold weather during winter months. If you have determined that it is infeasible to meet this requirement, you shall provide documentation in your SWP3 to support your determination.)
- G. Post-Construction Storm Water Management Controls.** So that receiving stream's physical, chemical and biological characteristics are protected, and stream functions are maintained, post-construction storm water practices shall provide long-term management of runoff quality and quantity.

PART III. STORM WATER POLLUTION PREVENTION PLAN (SWP3)

A. Storm Water Pollution Prevention Plans.

A SWP3 shall be developed for each site covered by this permit. For a multi-phase construction project, a separate NOI shall be submitted when a separate SWP3 will be prepared for

subsequent phases. SWP3s shall be prepared in accordance with sound engineering and/or conservation practices by a professional experienced in the design and implementation of standard erosion and sediment controls and storm water management practices addressing all phases of construction. The SWP3 shall clearly identify all activities which are required to be authorized under Section 401 and subject to an antidegradation review. The SWP3 shall identify potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges associated with construction activities. The SWP3 shall be a comprehensive, stand-alone document, which is not complete unless it contains the information required by Part III.G of this permit. In addition, the SWP3 shall describe and ensure the implementation of best management practices (BMPs) that reduce the pollutants and impact of storm water discharges during construction and pollutants associated with the post-construction land use to ensure compliance with ORC Section 6111.04, OAC Chapter 3745-1 and the terms and conditions of this permit.

B. Timing.

An acceptable SWP3 shall be completed and submitted to the applicable regulated MS4 entity (for projects constructed entirely within a regulated MS4 area) prior to the timely submittal of an NOI. Projects within the Big Darby Creek and portions of the Olentangy watersheds must submit a SWP3 with the NOI. The SWP3 shall be updated in accordance with Part III.D. Submission of a SWP3 does not constitute review and approval on the part of Ohio EPA. Upon request and good cause shown, the director may waive the requirement to have a SWP3 completed at the time of NOI submission. If a waiver has been granted, the SWP3 must be completed prior to the initiation of construction activities. The SWP3 must be implemented upon initiation of construction activities.

In order to continue coverage from the previous generations of this permit, the permittee shall review and update the SWP3 to ensure that this permit's requirements are addressed within 180 days after the effective date of this permit. If it is infeasible for you to comply with a specific requirement in this permit because (1) the provision was not part of the permit you were previously covered under, and (2) because you are prevented from compliance due to the nature or location of earth disturbances that commenced prior to the effective date of this permit, you shall include documentation within your SWP3 of the reasons why it is infeasible for you to meet the specific requirement.

Examples of OHC000005 permit conditions that would be infeasible for permittees renewing coverage to comply with include:

- OHC000005 post-construction requirements, for projects that obtained NPDES construction storm water coverage and started construction activities prior to the effective date of this permit;
- OHC000005 post-construction requirements, for multi-phase development projects with an existing regional post-construction BMP issued under previous NPDES post-construction requirements. This only applies to construction sites authorized under Ohio EPA's Construction Storm Water Permits issued after April 20, 2003;
- OHC000005 post-construction requirements, for renewing or initial coverage and you have a SWP3 approved locally and you will start construction within 180 days of the effective date of this permit;

- Sediment settling pond design requirements, if the general permit coverage was obtained prior to April 21, 2013 and the sediment settling pond has been installed; or
- Case-by-case situations approved by the Director.

C. SWP3 Signature and Review.

1. Plan Signature and Retention On-Site. The SWP3 shall include the certification in Part V.H, be signed in accordance with Part V.G., and be retained on site during working hours.
2. Plan Availability
 - a. On-site: The plan shall be made available immediately upon request of the director or his authorized representative and MS4 operators or their authorized representative during working hours. A copy of the NOI and letter granting permit coverage under this general permit also shall be made available at the site.
 - b. By written request: The permittee must provide the most recent copy of the SWP3 within 7 days upon written request by any of the following:
 - i. The director or the director's authorized representative;
 - ii. A local agency approving sediment and erosion plans, grading plans or storm water management plans; or
 - iii. In the case of a storm water discharge associated with construction activity which discharges through a municipal separate storm sewer system with an NPDES permit, to the operator of the system.
 - c. To the public: All NOIs, general permit approval for coverage letters, and SWP3s are considered reports that shall be available to the public in accordance with the Ohio Public Records law. The permittee shall make documents available to the public upon request or provide a copy at public expense, at cost, in a timely manner. However, the permittee may claim to Ohio EPA any portion of an SWP3 as confidential in accordance with Ohio law.
3. Plan Revision. The director or authorized representative may notify the permittee at any time that the SWP3 does not meet one or more of the minimum requirements of this part. Within 10 days after such notification from the director or authorized representative (or as otherwise provided in the notification), the permittee shall make the required changes to the SWP3 and shall submit to Ohio EPA the revised SWP3 or a written certification that the requested changes have been made.

D. Amendments.

The permittee shall amend the SWP3 whenever there is a change in design, construction, operation or maintenance, which has a significant effect on the potential for the discharge of pollutants to surface waters of the state or if the SWP3 proves to be ineffective in achieving the

general objectives of controlling pollutants in storm water discharges associated with construction activity. Amendments to the SWP3 may be reviewed by Ohio EPA in the same manner as Part III.C.

E. Duty to inform contractors and subcontractors.

The permittee shall inform all contractors and subcontractors not otherwise defined as “operators” in Part VII of this general permit who will be involved in the implementation of the SWP3 of the terms and conditions of this general permit. The permittee shall maintain a written document containing the signatures of all contractors and subcontractors involved in the implementation of the SWP3 as proof acknowledging that they reviewed and understand the conditions and responsibilities of the SWP3. The written document shall be created, and signatures shall be obtained prior to commencement of earth disturbing activity on the construction site.

F. Total Maximum Daily Load (TMDL) allocations.

If a TMDL is approved for any waterbody into which the permittee’s site discharges and requires specific BMPs for construction sites, the director may require the permittee to revise his/her SWP3. Specific conditions have been provided in Appendix A (for the Big Darby Creek Watershed) and Appendix B (for portions of the Olentangy river watershed).

G. SWP3 Requirements.

Operations that discharge storm water from construction activities are subject to the following requirements and the SWP3 shall include the following items:

1. Site description. Each SWP3 shall provide:
 - a. A description of the nature and type of the construction activity (e.g., low density residential, shopping mall, highway, etc.);
 - b. Total area of the site and the area of the site that is expected to be disturbed (i.e., grubbing, clearing, excavation, filling or grading, including off-site borrow areas);
 - c. A measure of the impervious area and percent imperviousness created by the construction activity (existing, new and total impervious area after construction);
 - d. Storm water calculations, including the volumetric runoff coefficients for both the pre-construction and post- construction site conditions, and resulting water quality volume; design details for post-construction storm water facilities and pretreatment practices such as contributing drainage areas, capacities, elevations, outlet details and drain times shall be included in the SWP3; and if applicable, explanation of the use of existing post-construction facilities. Ohio EPA recommends the use of data sheets (see Ohio’s Rainwater and Land Development manual and Ohio EPA resources for examples);
 - e. Existing data describing the soil and, if available, the quality of any discharge from the site;

- f. A description of prior land uses at the site;
- g. A description of the condition of any on-site streams (e.g. prior channelization, bed instability or headcuts, channels on public maintenance, or natural channels);
- h. An implementation schedule which describes the sequence of major construction operations (i.e., designation of vegetative preservation areas, grubbing, excavating, grading, utilities, infrastructure installation and others) and the implementation of erosion, sediment and storm water management practices or facilities to be employed during each operation of the sequence;
- i. The name and/or location of the immediate receiving stream or surface water(s) and the first subsequent named receiving water(s) and the areal extent and description of wetlands or other special aquatic sites at or near the site which will be disturbed, or which will receive discharges from disturbed areas of the project. For discharges to an MS4, the point of discharge to the MS4 and the location where the MS4 ultimately discharges to a stream or surface water of the state shall be indicated;
- j. For subdivided developments, a detail drawing of individual parcels with their erosion, sediment or storm water control practices and/or a typical individual lot showing standard individual lot erosion and sediment control practices.

A typical individual lot drawing does not remove the responsibility to designate specific erosion and sediment control practices in the SWP3 for critical areas such as steep slopes, stream banks, drainage ways and riparian zones;

- k. Location and description of any storm water discharges associated with dedicated asphalt and dedicated concrete plants covered by this permit and the best management practices to address pollutants in these storm water discharges;
- l. A cover page or title identifying the name and location of the site, the name and contact information of all construction site operators, the name and contact information for the person responsible for authorizing and amending the SWP3, preparation date, and the estimated dates that construction will start and be complete;
- m. A log documenting grading and stabilization activities as well as amendments to the SWP3, which occur after construction activities commence; and
- n. Site map showing:
 - i. Limits of earth-disturbing activity of the site including associated off-site borrow or spoil areas that are not addressed by a separate NOI and associated SWP3;
 - ii. Soils types for all areas of the site, including locations of unstable or highly erodible and/or known contaminated soils;

- iii. Existing and proposed contours. A delineation of drainage watersheds expected during and after major grading activities as well as the size of each drainage watershed, in acres;
- iv. The location of any delineated boundary for required riparian setbacks;
- v. Conservation easements or areas designated as open space, preserved vegetation or otherwise protected from earth disturbing activities. A description of any associated temporary or permanent fencing or signage;
- vi. Surface water locations including springs, wetlands, streams, lakes, water wells, etc., on or within 200 feet of the site, including the boundaries of wetlands or stream channels and first subsequent named receiving water(s) the permittee intends to fill or relocate for which the permittee is seeking approval from the Army Corps of Engineers and/or Ohio EPA;
- vii. Existing and planned locations of buildings, roads, parking facilities and utilities;
- viii. The location of all erosion and sediment control practices, including the location of areas likely to require temporary stabilization during site development;
- ix. Sediment traps and basins noting their sediment storage and dewatering (detention) volume and contributing drainage area. Ohio EPA recommends the use of data sheets (see Ohio EPA's Rainwater and Land Development manual and website for examples) to provide data for all sediment traps and basins noting important inputs to design and resulting parameters such as their contributing drainage area, disturbed area, detention volume, sediment storage volume, practice surface area, dewatering time, outlet type and dimensions;
- x. The location of permanent storm water management practices (new and existing) including pretreatment practices to be used to control pollutants in storm water after construction operations have been completed along with the location of existing and planned drainage features including catch basins, culverts, ditches, swales, surface inlets and outlet structures;
- xi. Areas designated for the storage or disposal of solid, sanitary and toxic wastes, including dumpster areas, areas designated for cement truck washout, and vehicle fueling;
- xii. The location of designated construction entrances where the vehicles will access the construction site; and
- xiii. The location of any areas of proposed floodplain fill, floodplain excavation, stream restoration or known temporary or permanent stream crossings.

2. Controls. In accordance with Part II.A, the SWP3 shall contain a description of the controls appropriate for each construction operation covered by this permit and the operator(s) shall implement such controls. The SWP3 shall clearly describe for each major construction activity identified in Part III.G.1.h: (a) appropriate control measures and the general timing (or sequence) during the construction process that the measures will be implemented; and (b) which contractor is responsible for implementation (e.g., contractor A will clear land and install perimeter controls and contractor B will maintain perimeter controls until final stabilization). The SWP3 shall identify the subcontractors engaged in activities that could impact storm water runoff. The SWP3 shall contain signatures from all of the identified subcontractors indicating that they have been informed and understand their roles and responsibilities in complying with the SWP3. Ohio EPA recommends that the primary site operator review the SWP3 with the primary contractor prior to commencement of construction activities and keep a SWP3 training log to demonstrate that this review has occurred.

Ohio EPA recommends that the erosion, sediment, and storm water management practices used to satisfy the conditions of this permit should meet the standards and specifications in the most current edition of Ohio's Rainwater and Land Development (see definitions) manual or other standards acceptable to Ohio EPA. The controls shall include the following minimum components:

- a. Preservation Methods. The SWP3 shall make use of practices which preserve the existing natural condition as much as feasible. Such practices may include: preserving existing vegetation, vegetative buffer strips, and existing soil profile and topsoil; phasing of construction operations to minimize the amount of disturbed land at any one time; and designation of tree preservation areas or other protective clearing or grubbing practices. For all construction activities immediately adjacent to surface waters of the state, the permittee shall comply with the buffer non-numeric effluent limitation in Part II.A.6, as measured from the ordinary high water mark of the surface water.
- b. Erosion Control Practices. The SWP3 shall make use of erosion controls that provide cover over disturbed soils unless an exception is approved in accordance with Part III.G.4. A description of control practices designed to re-establish vegetation or suitable cover on disturbed areas after grading shall be included in the SWP3. The SWP3 shall provide specifications for stabilization of all disturbed areas of the site and provide guidance as to which method of stabilization will be employed for any time of the year. Such practices may include: temporary seeding, permanent seeding, mulching, matting, sod stabilization, vegetative buffer strips, phasing of construction operations, use of construction entrances and the use of alternative ground cover.
- i. **Stabilization.** Disturbed areas shall be stabilized in accordance with Table 1 (Permanent Stabilization) and Table 2 (Temporary Stabilization) in Part II.B of this permit.
- ii. **Permanent stabilization of conveyance channels.** Operators shall undertake special measures to stabilize channels and outfalls and prevent erosive flows. Measures may include seeding, dormant seeding (as defined in the most current edition of the Rainwater and Land

Development manual), mulching, erosion control matting, sodding, riprap, natural channel design with bioengineering techniques or rock check dams.

- c. Runoff Control Practices. The SWP3 shall incorporate measures which control the flow of runoff from disturbed areas so as to prevent erosion from occurring. Such practices may include rock check dams, pipe slope drains, diversions to direct flow away from exposed soils and protective grading practices. These practices shall divert runoff away from disturbed areas and steep slopes where practicable. Velocity dissipation devices shall be placed at discharge locations and along the length of any outfall channel to provide non-erosive flow velocity from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected.
- d. Sediment Control Practices. The plan shall include a description of structural practices that shall store runoff allowing sediments to settle and/or divert flows away from exposed soils or otherwise limit runoff from exposed areas. Structural practices shall be used to control erosion and trap sediment from a site remaining disturbed for more than 14 days. Such practices may include, among others: sediment settling ponds, sediment barriers, earth diversion dikes or channels which direct runoff to a sediment settling pond and storm drain inlet protection. All sediment control practices must be capable of ponding runoff in order to be considered functional. Earth diversion dikes or channels alone are not considered a sediment control practice unless those are used in conjunction with a sediment settling pond.

The SWP3 shall contain detail drawings for all structural practices.

- i. **Timing.** Sediment control structures shall be functional throughout the course of earth disturbing activity. Sediment basins and perimeter sediment barriers shall be implemented prior to grading and within seven days from the start of grubbing. They shall continue to function until the upslope development area is stabilized with permanent cover. As construction progresses and the topography is altered, appropriate controls shall be constructed, or existing controls altered to address the changing drainage patterns.
- ii. **Sediment settling ponds.** A sediment settling pond is required for any one of the following conditions:
- Concentrated or collected storm water runoff (e.g., storm sewer or ditch);
 - Runoff from drainage areas, which exceed the design capacity of silt fence or other sediment barriers; or
 - Runoff from drainage areas that exceed the design capacity of inlet protection.

The permittee may request approval from Ohio EPA to use alternative controls if the permittee can demonstrate the alternative controls are equivalent in effectiveness to a sediment settling pond.

In accordance with Part II.F, if feasible, sediment settling ponds shall be dewatered at the pond surface using a skimmer or equivalent device. The sediment settling pond volume consists of both a dewatering zone and a sediment storage zone. The volume of the dewatering zone shall be a minimum of 1800 cubic feet (ft³) per acre of drainage (67 yd³/acre) with a minimum 48-hour drain time. The volume of the sediment storage zone shall be calculated by one of the following methods:

Method 1: The volume of the sediment storage zone shall be 1000 ft³ per disturbed acre within the watershed of the basin. OR

Method 2: The volume of the sediment storage zone shall be the volume necessary to store the sediment as calculated with RUSLE or a similar generally accepted erosion prediction model.

Accumulated sediment shall be removed from the sediment storage zone once it exceeds 50 percent of the minimum required sediment storage design capacity and prior to the conversion to the post-construction practice unless suitable storage is demonstrated based upon over-design. When determining the total contributing drainage area, off-site areas and areas which remain undisturbed by construction activity shall be included unless runoff from these areas is diverted away from the sediment settling pond and is not co-mingled with sediment-laden runoff. The depth of the dewatering zone shall be less than or equal to five feet. The configuration between inlets and the outlet of the basin shall provide at least two units of length for each one unit of width ($\geq 2:1$ length:width ratio); however, a length to width ratio of 4:1 is recommended. When designing sediment settling ponds, the permittee shall consider public safety, especially as it relates to children, as a design factor for the sediment basin and alternative sediment controls shall be used where site limitations would preclude a safe design. Combining multiple sediment and erosion control measures in order to maximize pollutant removal is encouraged.

- iii. **Sediment Barriers and Diversions.** Sheet flow runoff from denuded areas shall be intercepted by sediment barriers or diversions to protect adjacent properties and water resources from sediment transported via sheet flow. Where intended to provide sediment control, silt fence shall be placed on a level contour downslope of the disturbed area. For most applications, standard silt fence may be substituted with a 12-inch diameter sediment barrier. The relationship between the maximum drainage area to sediment barrier for a particular slope range is shown in the following table:

Table 3 Sediment Barrier Maximum Drainage Area Based on Slope

Maximum drainage area (in acres) to 100 linear feet of sediment barrier	Range of slope for a particular drainage area (in percent)
0.5	< 2%
0.25	$\geq 2\%$ but < 20%
0.125	$\geq 20\%$ but < 50%

Placing sediment barriers in a parallel series does not extend the size of the drainage area. Storm water diversion practices shall be used to keep runoff away from disturbed areas and steep slopes where practicable. Diversion practices, which include swales, dikes or berms, may receive storm water runoff from areas up to 10 acres.

- iv. **Inlet Protection.** Other erosion and sediment control practices shall minimize sediment laden water entering active storm drain systems. All inlets receiving runoff from drainage areas of one or more acres will require a sediment settling pond.
- v. **Surface Waters of the State Protection.** If construction activities disturb areas adjacent to surface waters of the state, structural practices shall be designed and implemented on site to protect all adjacent surface waters of the state from the impacts of sediment runoff. No structural sediment controls (e.g., the installation of silt fence or a sediment settling pond) shall be used in a surface water of the state. For all construction activities immediately adjacent to surface waters of the state, the permittee shall comply with the buffer non-numeric effluent limitation in Part II.A.6, as measured from the ordinary high water mark of the surface water. Where impacts within this buffer area are unavoidable, due to the nature of the construction (e.g., stream crossings for roads or utilities), the project shall be designed such that the number of stream crossings and the width of the disturbance within the buffer area are minimized.
- vi. **Modifying Controls.** If periodic inspections or other information indicates a control has been used inappropriately or incorrectly, the permittee shall replace or modify the control for site conditions.
- e. Post-Construction Storm Water Management Requirements. So that receiving stream's physical, chemical and biological characteristics are protected, and stream functions are maintained, post-construction storm water practices shall provide long-term management of runoff quality and quantity. To meet the post-construction requirements of this permit, the SWP3 shall contain a description of the post-construction BMPs that will be installed during construction for the site and the rationale for their selection. The rationale shall address the anticipated impacts on the channel and floodplain morphology, hydrology, and water quality. Post-construction BMPs cannot be installed within a surface water of the state (e.g., wetland or stream) unless it is authorized by a CWA 401 water quality certification, CWA 404 permit, or Ohio EPA non-jurisdictional wetland/stream program approval. Note: local jurisdictions may have more stringent post-construction requirements.

Detail drawings and maintenance plans shall be provided for all post-construction BMPs in the SWP3. Maintenance plans shall be provided by the permittee to the post-construction operator of the site (including homeowner associations) upon completion of construction activities (prior to termination of permit coverage). Maintenance plans shall ensure that pollutants collected within structural post-construction practices are disposed of in accordance with local, state, and federal regulations. To ensure that storm water management systems function as

designed and constructed, the post-construction operation and maintenance plan shall be a stand-alone document which contains: (1) a designated entity for storm water inspection and maintenance responsibilities; (2) the routine and non-routine maintenance tasks to be undertaken; (3) a schedule for inspection and maintenance; (4) any necessary legally binding maintenance easements and agreements; (5) construction drawings or excerpts showing the plan view, profile and details of the outlet(s); (6) a map showing all access and maintenance easements; and (7) for table 4a/4b practices, provide relevant elevations and associated volumes that dictate when removal of accumulated sediments must occur. Permittees are responsible for assuring all post-construction practices meet plan specifications and intended post-construction conditions have been met (e.g., sediment removed from, and sediment storage restored to, permanent pools, sediment control outlets removed and replaced with permanent post-construction discharge structures, and all slopes and drainageways permanently stabilized), but are not responsible under this permit for operation and maintenance of post-construction practices once coverage under this permit is terminated.

Post-construction storm water BMPs that discharge pollutants from point sources once construction is completed may in themselves need authorization under a separate NPDES permit (one example is storm water discharges from regulated industrial sites).

Construction activities that do not include the installation of any impervious surface (e.g., park lands), abandoned mine land reclamation activities regulated by the Ohio Department of Natural Resources, stream and wetland restoration activities, and wetland mitigation activities are not required to comply with the conditions of Part III.G.2.e of this permit. Linear construction projects (e.g., pipeline or utility line installation) which do not result in the installation of additional impervious surface are not required to comply with the conditions of Part III.G.2.e of this permit. However, linear construction projects shall be designed to minimize the number of stream crossings and the width of disturbance, and to achieve final stabilization of the disturbed area as defined in Part VII.M.1.

For all construction activities that will disturb two or more acres of land or will disturb less than two acres that are part of a larger common plan of development or sale which will disturb two or more acres of land, the post construction BMP(s) chosen shall be able to manage storm water runoff for protection of stream channels, stream stability, and water quality. The BMP(s) chosen must be compatible with site and soil conditions. Structural post-construction storm water treatment practices shall be incorporated into the permanent drainage system for the site. The BMP(s) chosen must be sized to treat the water quality volume (WQ_v) and ensure compliance with Ohio's Water Quality Standards in OAC Chapter 3745-1. The WQ_v shall be equivalent to the volume of runoff from a 0.90-inch rainfall and shall be determined using the following equations:

$$WQ_v = R_v * P * A / 12 \quad (\text{Equation 1})$$

where:

WQ_v = water quality volume in acre-feet
R_v = the volumetric runoff coefficient calculated using equation 2
P = 0.90 inch precipitation depth
A = area draining into the BMP in acres

$$R_v = 0.05 + 0.9i \quad (\text{Equation 2})$$

where i = fraction of post-construction impervious surface

An additional volume equal to 20 percent of the WQ_v shall be incorporated into the BMP for sediment storage. Ohio EPA recommends BMPs be designed according to the methodology described in the most current edition of the Rainwater and Land Development manual or in another design manual acceptable for use by Ohio EPA.

The BMPs listed in Tables 4a and 4b below are considered standard BMPs approved for general use. However, communities with a regulated MS4 may limit the use of some of these BMPs. BMPs shall be designed such that the drain time is long enough to provide treatment but short enough to provide storage for successive rainfall events and avoid the creation of nuisance conditions. The outlet structure for the post-construction BMP shall not discharge more than the first half of the WQ_v in less than one-third of the drain time. The WQ_v is the volume of storm water runoff that must be detained by a post-construction practice as specified by the most recent edition of the Rainwater and Land Development manual.

Post-construction practices shall be sized to treat 100% of the WQ_v associated with their contributing drainage area. If there is an existing post-construction BMP that treats runoff from the disturbed area and the BMP meets the post-construction requirements of this permit, no additional post-construction BMP will be required. A regional storm water BMP may be used to meet the post-construction requirement if: (1) the BMP meets the design requirements for treating the WQ_v; and (2) a legal agreement is established through which the regional BMP owner or operator agrees to provide this service in the long term. Design information for such facilities such as contributing drainage areas, capacities, elevations, outlet details and drain times shall be included in the SWP3.

Table 4a Extended Detention Post-Construction Practices with Minimum Drain Times

Extended Detention Practices	Minimum Drain Time of WQ_v
Wet Extended Detention Basin ^{1,2}	24 hours
Constructed Extended Detention Wetland ^{1,2}	24 hours
Dry Extended Detention Basin ^{1,3}	48 hours
Permeable Pavement – Extended Detention ¹	24 hours
Underground Storage – Extended Detention ^{1,4}	24 hours
Sand & Other Media Filtration - Extended Detention ^{1, 5}	24 hours

Notes:

1. The outlet structure shall not discharge more than the first half of the WQv in less than one-third of the drain time.
2. Provide a permanent pool with a minimum volume equal to the WQv and an extended detention volume above the permanent pool equal to 1.0 x WQv.
3. Dry basins must include a forebay and a micropool each sized at a minimum of 0.1 x WQv and a protected outlet, or include acceptable pretreatment and a protected outlet.
4. Underground storage must have pretreatment for removal of suspended sediments included in the design and documented in the SWP3. This pretreatment shall concentrate sediment in a location where it can be readily removed. For non-infiltrating, underground extended detention systems, pretreatment shall be 50% effective at capturing total suspended solids according to the testing protocol established in the Alternative Post-Construction BMP Testing Protocol.
5. The WQv ponding area shall completely empty between 24 and 72 hours.

Table 4b Infiltration Post-Construction Practices with Maximum Drain Times

Infiltration Practices	Maximum Drain Time of WQv
Bioretention Area/Cell ^{1,2}	24 hours
Infiltration Basin ²	24 hours
Infiltration Trench ³	48 hours
Permeable Pavement – Infiltration ³	48 hours
Underground Storage – Infiltration ^{3,4}	48 hours

Notes:

1. Bioretention soil media shall have a permeability of approximately 1 – 4 in/hr. Meeting the soil media specifications in the Rainwater and Land Development manual is considered compliant with this requirement. Bioretention cells must have underdrains unless in-situ conditions allow for the WQv (surface ponding) plus the bioretention soil (to a depth of 24 inches) to drain completely within 48 hours.
2. Infiltrating practices with the WQv stored aboveground (bioretention, infiltration basin) shall fully drain the WQv within 24 hours to minimize nuisance effects of standing water and to promote vigorous communities of appropriate vegetation.
3. Subsurface practices designed to fully infiltrate the WQv (infiltration trench, permeable pavement with infiltration, underground storage with infiltration) shall empty within 48 hours to recover storage for subsequent storm events.
4. Underground storage systems with infiltration must have adequate pretreatment of suspended sediments included in the design and documented in the SWP3 in order to minimize clogging of the infiltrating surface. Pretreatment shall concentrate sediment in a location where it can be readily removed. Examples include media filters situated upstream of the storage or other suitable alternative approved by Ohio EPA. For infiltrating underground systems, pretreatment shall be 80% effective at capturing total suspended solids according to the testing protocol established in the Alternative Post-Construction BMP Testing Protocol.

Small Construction Activities. For all construction activities authorized under this permit which result in a disturbance less than 2 acres, a post-construction practice shall be used to treat storm water runoff for pollutants and to reduce adverse impacts on receiving waters. The applicant must provide a justification in the SWP3 why the use of table 4a and 4b practices are not feasible. The justification must address limiting factors which would prohibit the project going forward should table 4a and 4b practices be required. Please note that additional practices selected will require approval from the regulated MS4. The use of green infrastructure BMPs such as runoff reducing practices is also encouraged.

Transportation Projects. The construction of new roads and roadway improvement projects by public entities (i.e., the state, counties, townships, cities, or villages) may implement post-construction BMPs in compliance with the current version (as of the effective date of this permit) of the Ohio Department of Transportation's "Location and Design Manual, Volume Two Drainage Design" that has been accepted by Ohio EPA as an alternative to the conditions of this permit.

Offsite Mitigation of Post-Construction. Ohio EPA may authorize the offsite mitigation of the post-construction requirements of Part III.G.2.e of this permit on a case by case basis provided the permittee clearly demonstrates the BMPs listed in Tables 4a and 4b are not feasible and the following criteria are met: (1) a maintenance agreement or policy is established to ensure operations and treatment long-term; (2) the offsite location discharges to the same HUC-12 watershed unit; and (3) the mitigation ratio of the WQv is 1.5 to 1 or the WQv at the point of retrofit, whichever is greater. Requests for offsite mitigation must be received prior to receipt of the NOI application.

Previously Developed Areas - Ohio EPA encourages the redevelopment of previously graded, paved or built upon sites through a reduction of the WQv treatment requirement. For a previously developed area, one or a combination of the following two conditions shall be met:

- A 20 percent net reduction of the site's volumetric runoff coefficient through impervious area reduction with soil restoration or replacing impervious roof area with green roof area (for these purposes green roofs shall be considered pervious surface) or
- Treatment of 20 percent of the WQv for the previously developed area using a practice meeting Table 4a/4b criteria.

Where there is a combination of redeveloped areas and new development, a weighted approach shall be used with the following equation:

$$WQv = P * A * [(Rv_1 * 0.2) + (Rv_2 - Rv_1)] / 12 \quad (\text{Equation 3})$$

where

P = 0.90 inches

A = area draining into the BMP in acres

Rv₁ = volumetric runoff coefficient for existing conditions (current site impervious area)

Rv₂ = volumetric runoff coefficient for proposed conditions (post-construction site impervious area)

Post-construction practices shall be located to treat impervious areas most likely to generate the highest pollutant load, such as parking lots or roadways, rather than areas predicted to be cleaner such as rooftops.

Runoff Reduction Practices. The size of structural post-construction practices used to capture and treat the WQv can be reduced by incorporating runoff

reducing practices into the design of the site's drainage system. The approach to calculate and document runoff reduction is detailed in the Rainwater and Land Development Manual. BMP-specific runoff reduction volumes are set by specifications in the Rainwater and Land Development Manual for the following practices:

- Impervious surface disconnection
- Rainwater harvesting
- Bioretention
- Infiltration basin
- Infiltration trench
- Permeable pavement with infiltration
- Underground storage with infiltration
- Grass swale
- Sheet flow to filter strip
- Sheet flow to conservation area

A runoff reduction approach may be used to meet the groundwater recharge requirements in the Big Darby Creek Watershed. The runoff reduction practices used for groundwater recharge may be used to reduce the WQv requirement, see appendix A for details on groundwater recharge requirements.

In order to promote the implementation of green infrastructure, the Director may consider the use of runoff reducing practices to demonstrate compliance with Part III.G.2.e of this permit for areas of the site not draining into a common drainage system of the site, e.g., sheet flow from perimeter areas such as the rear yards of residential lots, low density development scenarios, or where the permittee can demonstrate that the intent of pollutant removal and stream protection, as required in Part III.G.2.e of this permit is being addressed through non-structural post-construction BMPs based upon review and approval by Ohio EPA.

Use of Alternative Post-Construction BMPs. This permit does not preclude the use of innovative or experimental post-construction storm water management technologies. Alternative post-construction BMPs shall previously have been tested to confirm storm water treatment efficacy equivalent to those BMPs listed in Tables 4a and 4b using the protocol described in this section. BMP testing may include laboratory testing, field testing, or both.

Permittees shall request approval from Ohio EPA to use alternative post-construction BMPs on a case-by-case basis. To use an alternative post-construction BMP, the permittee must demonstrate that use of a BMP listed in Tables 4a and 4b is not feasible and the proposed alternative post-construction BMP meets the minimum treatment criteria as described in this section. The permittee shall submit an application to Ohio EPA for any proposed alternative post-construction BMP. Where the development project is located within a regulated municipal separate storm sewer system (MS4) community, the use of an alternative practice requires pre-approval by the MS4 before submittal of the

Ohio EPA permit application. Ohio EPA requires that approvals for alternative post-construction BMPs are finalized before permittees submit an NOI for permit coverage.

In addition to meeting sediment removal criteria, the discharge rate from the proposed alternative practice shall be reduced to prevent stream bed erosion and protect the physical and biological stream integrity unless there will be negligible hydrological impact to the receiving surface water of the state. Discharge rate is considered to have a negligible impact if the permittee can demonstrate that one of the following three conditions exist:

- i. The entire WQv is recharged to groundwater;
- ii. The larger common plan of development or sale will create less than one acre of impervious surface;
- iii. The storm water drainage system of the development discharges directly into a large river with drainage area equal to 100 square miles or larger upstream of the development site or to a lake where the development area is less than 5 percent of the watershed area, unless a TMDL has identified water quality problems into the receiving surface waters of the state.

If the conditions above that minimize the potential for hydrological impact to the receiving surface water of the state do not exist, then the alternative post-construction BMP must prevent stream erosion by reducing the flow rate from the WQ_v. In such cases, discharge of the WQ_v must be controlled. A second storm water BMP that provides extended detention of the WQ_v may be needed to meet the post-construction criteria.

Alternative Post-Construction BMP Testing Protocol. For laboratory testing, the alternative BMP shall be tested using sediment with a specific gravity of 2.65, a particle size distribution closely matching the distribution shown in Table 5, and total suspended sediment (TSS) concentrations within 10% of 200 mg/L (180 mg/L – 220 mg/L TSS). For an alternative BMP to be acceptable, the test results must demonstrate that the minimum treatment rate is 80% TSS removal at the design flow rate for the tested BMP.

Table 5 Particle Size Distribution for Testing Alternative Post-Construction BMPs

Particle Size (microns)	Percent Finer (%)
1,000	100
500	95
250	90
150	75
100	60
75	50
50	45
20	35
8	20
5	10
2	5

- For field testing, the alternative BMP shall be tested using storm water runoff

from the field, not altered by adding aggregate or subjecting to unusually high sediment loads such as those from unstabilized construction disturbance. The storm water runoff used for field testing shall be representative of runoff from the proposed installation site for the alternative BMP after all construction activities have ceased and the ground has been stabilized. The influent and effluent TSS concentrations of storm water runoff must be collected in the field. For an alternative BMP to be acceptable, the test results must demonstrate the minimum treatment rate is 80% TSS removal for influent concentrations equal to or greater than 100 mg/L TSS. If the influent concentration to the proposed alternative BMP is less than 100 mg/L TSS in the field, then the BMP must achieve an average effluent concentration less than or equal to 20 mg/L TSS.

- Testing of alternative post-construction BMPs shall be performed or overseen by a qualified independent, third-party testing organization;
- Testing shall demonstrate the maximum flow rate at which the alternative post-construction BMP can achieve the necessary treatment efficacy, including consideration for the potential of sediment resuspension;
- Testing shall demonstrate the maximum volume of sediment and floatables that can be collected in the alternative post-construction BMP before pollutants must be removed to maintain 80% treatment efficacy;
- Testing shall indicate the recommended maintenance frequency and maintenance protocol to ensure ongoing performance of the alternative post-construction BMP.

The alternative post-construction BMP testing protocol described in this section is similar to testing requirements specified by the New Jersey Department of Environmental Protection (NJDEP) for storm water Manufactured Treatment Devices (MTD) and therefore testing results certified by NJDEP shall be accepted by Ohio EPA. For examples of BMPs that have been tested using New Jersey Department of Environmental Protection's procedures, see the website: www.njstormwater.org.

Another nationally recognized storm water product testing procedure is the Technology Assessment Protocol – Ecology (TAPE) administered by the State of Washington, Department of Ecology. The TAPE testing procedure describes testing to achieve 80% TSS removal using a sediment mix with a particle size distribution with approximately 75% of the mass of the aggregate with particle diameters less than 45 microns. Overall, this particle size distribution is finer than the distribution in Table 5. Therefore, if TAPE testing results are available for a proposed alternative post-construction BMP, those results shall be accepted by Ohio EPA. The State of Washington, Department of Ecology website is <https://ecology.wa.gov/>.

Alternative BMPs that utilize treatment processes such as filtering or centrifugal separation, rather than a detention and settling volume, must be designed to ensure treatment of 90 percent of the average annual runoff

volume. For the design of these BMPs, the water quality flow rate (WQF) considered equivalent to the Water Quality Volume (WQv) shall be determined utilizing the Rational Method (Equation 4) with an intensity (i) appropriate for the water quality precipitation event. This intensity shall be calculated using the table given in Appendix C.

$$WQF = C * i * A \quad \text{(Equation 4)}$$

Where

WQF = water quality flow rate in cubic feet per second (cfs)
C = rational method runoff coefficient
i = intensity (in/hr)
A = area draining to the BMP (acres)

Alternative post-construction BMPs may include, but are not limited to: vegetated swales, vegetated filter strips, hydrodynamic separators, high-flow media filters, cartridge filters, membrane filters, subsurface flow wetlands, multi-chamber treatment trains, road shoulder media filter drains, wetland channels, rain barrels, green roofs, and rain gardens. The Director may also consider non-structural post-construction approaches.

- f. Surface Water Protection. If the project site contains any streams, rivers, lakes, wetlands or other surface waters, certain construction activities at the site may be regulated under the CWA and/or state isolated wetland permit requirements. Sections 404 and 401 of the Act regulate the discharge of dredged or fill material into surface waters and the impacts of such activities on water quality, respectively. Construction activities in surface waters which may be subject to CWA regulation and/or state isolated wetland permit requirements include, but are not limited to: sewer line crossings, grading, backfilling or culverting streams, filling wetlands, road and utility line construction, bridge installation and installation of flow control structures. If the project contains streams, rivers, lakes or wetlands or possible wetlands, the permittee shall contact the appropriate U.S. Army Corps of Engineers District Office. (CAUTION: Any area of seasonally wet hydric soil is a potential wetland - please consult the Soil Survey and list of hydric soils for your County, available at your county's Soil and Water Conservation District. If you have any questions about Section 401 water quality certification, please contact the Ohio Environmental Protection Agency, Section 401 Coordinator.)

U.S. Army Corps of Engineers (Section 404 regulation):

- Huntington, WV District (304) 399-5210 (Muskingum River, Hocking River, Scioto River, Little Miami River, and Great Miami River Basins)
- Buffalo, NY District (716) 879-4330 (Lake Erie Basin)
- Pittsburgh, PA District (412) 395-7155 (Mahoning River Basin)
- Louisville, KY District (502) 315-6686 (Ohio River)

Ohio EPA 401/404 and non-jurisdictional stream/wetland coordinator can be contacted at (614) 644-2001 (all of Ohio)

Concentrated storm water runoff from BMPs to natural wetlands shall be converted to diffuse flow before the runoff enters the wetlands. The flow should be released such that no erosion occurs downslope. Level spreaders may need to be placed in series, particularly on steep sloped sites, to ensure non-erosive velocities. Other structural BMPs may be used between storm water features and natural wetlands, in order to protect the natural hydrology, hydroperiod, and wetland flora. If the applicant proposes to discharge to natural wetlands, a hydrologic analysis shall be performed. The applicant shall attempt to match the pre-development hydroperiods and hydrodynamics that support the wetland. The applicant shall assess whether their construction activity will adversely impact the hydrologic flora and fauna of the wetland. Practices such as vegetative buffers, infiltration basins, conservation of forest cover, and the preservation of intermittent streams, depressions, and drainage corridors may be used to maintain wetland hydrology.

g. Other controls.

- i. **Non-Sediment Pollutant Controls.** In accordance with Part II.E, no solid (other than sediment) or liquid waste, including building materials, shall be discharged in storm water runoff. The permittee must implement all necessary BMPs to prevent the discharge of non-sediment pollutants to the drainage system of the site or surface waters of the state or an MS4. Under no circumstance shall wastewater from the washout of concrete trucks, stucco, paint, form release oils, curing compounds, and other construction materials be discharged directly into a drainage channel, storm sewer or surface waters of the state. Also, no pollutants from vehicle fuel, oils, or other vehicle fluids can be discharged to surface waters of the state. No exposure of storm water to waste materials is recommended. The SWP3 must include methods to minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, and sanitary waste to precipitation, storm water runoff, and snow melt. In accordance with Part II.D.3, the SWP3 shall include measures to prevent and respond to chemical spills and leaks. You may also reference the existence of other plans (i.e., Spill Prevention Control and Countermeasure (SPCC) plans, spill control programs, Safety Response Plans, etc.) provided that such plan addresses conditions of this permit condition and a copy of such plan is maintained on site.
- ii. **Off-site traffic.** Off-site vehicle tracking of sediments and dust generation shall be minimized. In accordance with Part II.D.1, the SWP3 shall include methods to minimize the discharge of pollutants from equipment and vehicle washing, wheel washwater, and other washwaters. No detergents may be used to wash vehicles. Washwaters shall be treated in a sediment basin or alternative control that provides equivalent treatment prior to discharge.
- iii. **Compliance with other requirements.** The SWP3 shall be consistent with applicable State and/or local waste disposal, sanitary sewer or septic system regulations, including provisions prohibiting waste disposal by

open burning and shall provide for the proper disposal of contaminated soils to the extent these are located within the permitted area.

- iv. **Trench and ground water control.** In accordance with Part II.C, there shall be no turbid discharges to surface waters of the state resulting from dewatering activities. If trench or ground water contains sediment, it shall pass through a sediment settling pond or other equally effective sediment control device, prior to being discharged from the construction site. Alternatively, sediment may be removed by settling in place or by dewatering into a sump pit, filter bag or comparable practice. Ground water which does not contain sediment or other pollutants is not required to be treated prior to discharge. However, care must be taken when discharging ground water to ensure that it does not become pollutant-laden by traversing over disturbed soils or other pollutant sources.
- v. **Contaminated Sediment.** Where construction activities are to occur on sites with contamination from previous activities, operators shall be aware that concentrations of materials that meet other criteria (is not considered a Hazardous Waste, meeting VAP standards, etc.) may still result in storm water discharges in excess of Ohio Water Quality Standards. Such discharges are not authorized by this permit. Appropriate BMPs include, but are not limited to:
- The use of berms, trenches, and pits to collect contaminated runoff and prevent discharges;
 - Pumping runoff into a sanitary sewer (with prior approval of the sanitary sewer operator) or into a container for transport to an appropriate treatment/disposal facility; and
 - Covering areas of contamination with tarps or other methods that prevent storm water from coming into contact with the material.

Operators should consult with Ohio EPA Division of Surface Water prior to seeking permit coverage.

- h. Maintenance. All temporary and permanent control practices shall be maintained and repaired as needed to ensure continued performance of their intended function. All sediment control practices must be maintained in a functional condition until all up-slope areas they control are permanently stabilized. The SWP3 shall be designed to minimize maintenance requirements. The applicant shall provide a description of maintenance procedures needed to ensure the continued performance of control practices.
- i. Inspections. The permittee shall assign "qualified inspection personnel" to conduct inspections to ensure that the control practices are functional and to evaluate whether the SWP3 is adequate and properly implemented in accordance with the schedule proposed in Part III.G.1.h of this permit or whether additional control measures are required. At a minimum, procedures in a SWP3 shall provide that all controls on the site are inspected:

- after any storm event greater than one-half inch of rain per 24-hour period by the end of the next calendar day, excluding weekends and holidays unless work is scheduled; and
- once every seven calendar days.

The inspection frequency may be reduced to at least once every month for dormant sites if:

- the entire site is temporarily stabilized or
- runoff is unlikely due to weather conditions for extended periods of time (e.g., site is covered with snow, ice, or the ground is frozen).

The beginning and ending dates of any reduced inspection frequency shall be documented in the SWP3.

Once a definable area has achieved final stabilization, the area may be marked on the SWP3 and no further inspection requirements shall apply to that portion of the site.

Following each inspection, a checklist must be completed and signed by the qualified inspection personnel representative. At a minimum, the inspection report shall include:

- i. the inspection date;
- ii. names, titles, and qualifications of personnel making the inspection;
- iii. 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;
- iv. weather information and a description of any discharges occurring at the time of the inspection;
- v. location(s) of discharges of sediment or other pollutants from the site;
- vi. location(s) of BMPs that need to be maintained;
- vii. location(s) of BMPs that failed to operate as designed or proved inadequate for a particular location;
- viii. location(s) where additional BMPs are needed that did not exist at the time of inspection; and
- ix. corrective action required including any changes to the SWP3 necessary and implementation dates.

Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of or the potential for pollutants entering the drainage system. Erosion and sediment control measures identified in the SWP3 shall be observed to ensure that those are operating correctly. Discharge locations shall be inspected to ascertain whether erosion and sediment control measures are effective in preventing significant impacts to the receiving waters. Locations where vehicles enter or exit the site shall be inspected for evidence of off-site vehicle tracking.

The permittee shall maintain for three years following the submittal of a notice of termination form, a record summarizing the results of the inspection, names(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of the SWP3 and a certification as to whether the facility is in compliance with the SWP3 and the permit and identify any incidents of non-compliance. The record and certification shall be signed in accordance with Part V.G. of this permit.

- i. **When practices require repair or maintenance.** If the inspection reveals that a control practice is in need of repair or maintenance, with the exception of a sediment settling pond, it shall be repaired or maintained within 3 days of the inspection. Sediment settling ponds shall be repaired or maintained within 10 days of the inspection.
 - ii. **When practices fail to provide their intended function.** If the inspection reveals that a control practice fails to perform its intended function and that another, more appropriate control practice is required, the SWP3 shall be amended and the new control practice shall be installed within 10 days of the inspection.
 - iii. **When practices depicted on the SWP3 are not installed.** If the inspection reveals that a control practice has not been implemented in accordance with the schedule contained in Part III.G.1.h of this permit, the control practice shall be implemented within 10 days from the date of the inspection. If the inspection reveals that the planned control practice is not needed, the record shall contain a statement of explanation as to why the control practice is not needed.
3. Approved State or local plans. All dischargers regulated under this general permit must comply, except those exempted under state law, with the lawful requirements of municipalities, counties and other local agencies regarding discharges of storm water from construction activities. All erosion and sediment control plans and storm water management plans approved by local officials shall be retained with the SWP3 prepared in accordance with this permit. Applicable requirements for erosion and sediment control and storm water management approved by local officials are, upon submittal of a NOI form, incorporated by reference and enforceable under this permit even if they are not specifically included in an SWP3 required under this permit. When the project is located within the jurisdiction of a regulated municipal separate storm sewer system (MS4), the permittee shall certify that the SWP3 complies with the requirements of the storm water management program of the MS4 operator.
4. Exceptions. If specific site conditions prohibit the implementation of any of the erosion and sediment control practices contained in this permit or site-specific conditions are such that implementation of any erosion and sediment control practices contained in this permit will result in no environmental benefit, then the permittee shall provide justification for rejecting each practice based on site conditions. Exceptions from implementing the erosion and sediment control standards contained in this permit will be approved or denied on a case-by-case basis.

The permittee may request approval from Ohio EPA to use alternative methods to satisfy conditions in this permit if the permittee can demonstrate that the alternative methods are sufficient to protect the overall integrity of receiving streams and the watershed. Alternative methods will be approved or denied on a case-by-case basis.

PART IV. NOTICE OF TERMINATION REQUIREMENTS

A. Failure to notify.

The terms and conditions of this permit shall remain in effect until a signed Notice of Termination (NOT) form is submitted. Failure to submit an NOT constitutes a violation of this permit and may affect the ability of the permittee to obtain general permit coverage in the future.

B. When to submit an NOT.

1. Permittees wishing to terminate coverage under this permit shall submit an NOT form in accordance with Part V.G. of this permit. Compliance with this permit is required until an NOT form is submitted. The permittee's authorization to discharge under this permit terminates at midnight of the day the NOT form is submitted. Prior to submitting the NOT form, the permittee shall conduct a site inspection in accordance with Part III.G.2.i of this permit and have a maintenance plan in place to ensure all post-construction BMPs will be maintained in perpetuity.
2. All permittees shall submit an NOT form within 45 days of completing all permit requirements. Enforcement actions may be taken if a permittee submits an NOT form without meeting one or more of the following conditions:
 - a. Final stabilization (see definition in Part VII) has been achieved on all portions of the site for which the permittee is responsible (including, if applicable, returning agricultural land to its pre-construction agricultural use);
 - b. Another operator(s) has assumed control over all areas of the site that have not been finally stabilized;
 - c. A maintenance plan is in place to ensure all post construction BMPs are adequately maintained in the long-term;
 - d. For non-residential developments, all elements of the storm water pollution prevention plan have been completed, the disturbed soil at the identified facility have been stabilized and temporary erosion and sediment control measures have been removed at the appropriate time, or all storm water discharges associated with construction activity from the identified facility that are authorized by the above referenced NPDES general permit have otherwise been eliminated. (i) For residential developments only, temporary stabilization has been completed and the lot, which includes a home, has been transferred to the homeowner; (ii) final stabilization has been completed and the lot, which does not include a home, has been transferred to the property owner; (iii) no stabilization has been implemented on a lot, which includes a home, and the lot has been transferred to the homeowner; or

- e. An exception has been granted under Part III.G.4.

C. How to submit an NOT.

To terminate permit coverage, the permittee shall submit a complete and accurate Notice of Termination (NOT) form using Ohio EPA's electronic application form which is available through the Ohio EPA eBusiness Center at: <https://ebiz.epa.ohio.gov/>. Submission through the Ohio EPA eBusiness Center will require establishing an Ohio EPA eBusiness Center account and obtaining a unique Personal Identification Number (PIN) for final submission of the NOT. Existing eBusiness Center account holders can access the NOT form through their existing account and submit using their existing PIN. Please see the following link for guidance: <http://epa.ohio.gov/dsw/ebs.aspx#170669803-streams-guidance>. Alternatively, if you are unable to access the NOT form through the agency eBusiness Center due to a demonstrated hardship, the NOT may be submitted on paper NOT forms provided by Ohio EPA. NOT information shall be typed on the form. Please contact Ohio EPA, Division of Surface Water at (614) 644-2001 if you wish to receive a paper NOT form.

PART V. STANDARD PERMIT CONDITIONS.

A. Duty to comply.

The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of ORC Chapter 6111 and is grounds for enforcement action.

Ohio law imposes penalties and fines for persons who knowingly make false statements or knowingly swear or affirm the truth of a false statement previously made.

B. Continuation of an expired general permit.

An expired general permit continues in force and effect until a new general permit is issued.

C. Need to halt or reduce activity not a defense.

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. Duty to mitigate.

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

E. Duty to provide information.

The permittee shall furnish to the director, within 10 days of written request, any information which the director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee

shall also furnish to the director upon request copies of records required to be kept by this permit.

F. Other information.

When the permittee becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in the NOI, SWP3, NOT or in any other report to the director, he or she shall promptly submit such facts or information.

G. Signatory requirements.

All NOIs, NOTs, SWP3s, reports, certifications or information either submitted to the director or that this permit requires to be maintained by the permittee, shall be signed.

1. These items shall be signed as follows:
 - a. For a corporation: By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
 - i. A president, secretary, treasurer or vice-president of the corporation in charge of a principal business function or any other person who performs similar policy or decision-making functions for the corporation; or
 - ii. The manager of one or more manufacturing, production or operating facilities, provided, the manager is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
 - b. For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or
 - c. For a municipality, State, Federal or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes (1) the chief executive officer of the agency or (2) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of U.S. EPA).
2. All reports required by the permits and other information requested by the director shall be signed by a person described in Part V.G.1 of this permit or by a duly authorized representative of that person. A person is a duly authorized representative only if:

- a. The authorization is made in writing by a person described in Part V.G.1 of this permit and submitted to the director;
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of manager, operator of a well or well field, superintendent, position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and
 - c. The written authorization is submitted to the director.
3. Changes to authorization. If an authorization under Part V.G.2 of this permit is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part V.G.2 of this permit must be submitted to the director prior to or together with any reports, information or applications to be signed by an authorized representative.

H. Certification.

Any person signing documents under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

I. Oil and hazardous substance liability.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject under section 311 of the CWA or 40 CFR Part 112. 40 CFR Part 112 establishes procedures, methods and equipment and other requirements for equipment to prevent the discharge of oil from non-transportation-related onshore and offshore facilities into or upon the navigable surface waters of the state or adjoining shorelines.

J. Property rights.

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

K. Severability.

The provisions of this permit are severable and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

L. Transfers.

Ohio NPDES general permit coverage is transferable. Ohio EPA must be notified in writing sixty days prior to any proposed transfer of coverage under an Ohio NPDES general permit. The transferee must inform Ohio EPA it will assume the responsibilities of the original permittee transferor.

M. Environmental laws.

No condition of this permit shall release the permittee from any responsibility or requirements under other environmental statutes or regulations.

N. Proper operation and maintenance.

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit and with the requirements of SWP3s. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed by a permittee only when necessary to achieve compliance with the conditions of the permit.

O. Inspection and entry.

The permittee shall allow the director or an authorized representative of Ohio EPA, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;
2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment); and
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

P. Duty to Reapply.

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.

Q. Permit Actions.

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

R. Bypass.

The provisions of 40 CFR Section 122.41(m), relating to "Bypass," are specifically incorporated herein by reference in their entirety. For definition of "Bypass," see Part VII.C.

S. Upset.

The provisions of 40 CFR Section 122.41(n), relating to "Upset," are specifically incorporated herein by reference in their entirety. For definition of "Upset," see Part VII.GG.

T. Monitoring and Records.

The provisions of 40 CFR Section 122.41(j), relating to "Monitoring and Records," are specifically incorporated herein by reference in their entirety.

U. Reporting Requirements.

The provisions of 40 CFR Section 122.41(l), relating to "Reporting Requirements," are specifically incorporated herein by reference in their entirety.

PART VI. REOPENER CLAUSE

If there is evidence indicating potential or realized impacts on water quality due to any storm water discharge associated with construction activity covered by this permit, the permittee of such discharge may be required to obtain coverage under an individual permit or an alternative general permit in accordance with Part I.C of this permit or the permit may be modified to include different limitations and/or requirements.

Permit modification or revocation will be conducted according to ORC Chapter 6111.

PART VII. DEFINITIONS

- A. "Act" means Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub. L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483, Pub. L. 97-117 and Pub. L. 100-4, 33 U.S.C. 1251 et. seq.
- B. "Bankfull channel" means a channel flowing at channel capacity and conveying the bankfull discharge. Delineated by the highest water level that has been maintained for a sufficient period of time to leave evidence on the landscape, such as the point where the natural vegetation changes from predominantly aquatic to predominantly terrestrial or

the point at which the clearly scoured substrate of the stream ends and terrestrial vegetation begins.

- C. "Bankfull discharge" means the streamflow that fills the main channel and just begins to spill onto the floodplain; it is the discharge most effective at moving sediment and forming the channel.
- D. "Best management practices (BMPs)" means schedules of activities, prohibitions of practices, maintenance procedures and other management practices (both structural and non-structural) to prevent or reduce the pollution of surface waters of the state. BMP's also include treatment requirements, operating procedures and practices to control plant and/or construction site runoff, spillage or leaks, sludge or waste disposal or drainage from raw material storage.
- E. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
- F. "Channelized stream" means the definition set forth in Section 6111.01 (M) of the ORC.
- G. "Commencement of construction" means the initial disturbance of soils associated with clearing, grubbing, grading, placement of fill, or excavating activities or other construction activities.
- H. "Concentrated storm water runoff" means any storm water runoff which flows through a drainage pipe, ditch, diversion or other discrete conveyance channel.
- I. "Director" means the director of the Ohio Environmental Protection Agency.
- J. "Discharge" means the addition of any pollutant to the surface waters of the state from a point source.
- K. "Disturbance" means any clearing, grading, excavating, filling, or other alteration of land surface where natural or man-made cover is destroyed in a manner that exposes the underlying soils.
- L. "Drainage watershed" means for purposes of this permit the total contributing drainage area to a BMP, i.e., the "watershed" directed to the practice. This would also include any off-site drainage.
- M. "Final stabilization" means that either:
 - 1. All soil disturbing activities at the site are complete and a uniform perennial vegetative cover (e.g., evenly distributed, without large bare areas) with a density of at least 70 percent cover for the area has been established on all unpaved areas and areas not covered by permanent structures or equivalent stabilization measures (such as the use of mulches, rip-rap, gabions or geotextiles) have been employed. In addition, all temporary erosion and sediment control practices are removed and disposed of and all trapped sediment is permanently stabilized to prevent further erosion; or

2. For individual lots in residential construction by either:
 - a. The homebuilder completing final stabilization as specified above or
 - b. The homebuilder establishing temporary stabilization including perimeter controls for an individual lot prior to occupation of the home by the homeowner and informing the homeowner of the need for and benefits of, final stabilization. (Homeowners typically have an incentive to put in the landscaping functionally equivalent to final stabilization as quick as possible to keep mud out of their homes and off sidewalks and driveways.); or
 3. For construction projects on land used for agricultural purposes (e.g., pipelines across crop or range land), final stabilization may be accomplished by returning the disturbed land to its pre-construction agricultural use. Areas disturbed that were previously used for agricultural activities, such as buffer strips immediately adjacent to surface waters of the state and which are not being returned to their pre-construction agricultural use, must meet the final stabilization criteria in (1) or (2) above.
- N. "General contractor" – for the purposes of this permit, the primary individual or company solely accountable to perform a contract. The general contractor typically supervises activities, coordinates the use of subcontractors, and is authorized to direct workers at a site to carry out activities required by the permit.
- O. "Individual lot NOI" means a Notice of Intent for an individual lot to be covered by this permit (see Part I of this permit).
- P. "Larger common plan of development or sale"- means a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under one plan.
- Q. "MS4" means municipal separate storm sewer system which means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels or storm drains) that are:
1. Owned or operated by the federal government, state, municipality, township, county, district(s) or other public body (created by or pursuant to state or federal law) including special district under state law such as a sewer district, flood control district or drainage districts or similar entity or a designated and approved management agency under section 208 of the act that discharges into surface waters of the state; and
 2. Designed or used for collecting or conveying solely storm water,
 3. Which is not a combined sewer and
 4. Which is not a part of a publicly owned treatment works.
- R. "National Pollutant Discharge Elimination System (NPDES)" means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits and enforcing pretreatment requirements, under sections 307, 402, 318 and 405 of the CWA. The term includes an "approved program."

- S. “Natural channel design” means an engineering technique that uses knowledge of the natural process of a stream to create a stable stream that will maintain its form and function over time.
- T. “NOI” means notice of intent to be covered by this permit.
- U. “NOT” means notice of termination.
- V. “Operator” means any party associated with a construction project that meets either of the following two criteria:
1. The party has day-to-day operational control of all activities at a project which are necessary to ensure compliance with a SWP3 for the site and all permit conditions including the ability to authorize modifications to the SWP3, construction plans and site specification to ensure compliance with the General Permit, or
 2. Property owner meets the definition of operator should the party which has day to day operational control require additional authorization from the owner for modifications to the SWP3, construction plans, and/or site specification to ensure compliance with the permit or refuses to accept all responsibilities as listed above (Part VII.V.1).
- Subcontractors generally are not considered operators for the purposes of this permit. As set forth in Part I.F.1, there can be more than one operator at a site and under these circumstances, the operators shall be co-permittees.
- W. “Ordinary high water mark” means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.
- X. “Owner or operator” means the owner or operator of any “facility or activity” subject to regulation under the NPDES program.
- Y. “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 one year.
- Z. “Percent imperviousness” means the impervious area created divided by the total area of the project site.
- AA. “Point source” means any discernible, confined and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or the floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

- BB. "Qualified inspection personnel" means a person knowledgeable in the principles and practice of erosion and sediment controls, who possesses the skills to assess all conditions at the construction site that could impact storm water quality and to assess the effectiveness of any sediment and erosion control measures selected to control the quality of storm water discharges from the construction activity.
- CC. "Rainwater and Land Development" is a manual describing construction and post-construction best management practices and associated specifications. A copy of the manual may be obtained by contacting the Ohio Department of Natural Resources, Division of Soil & Water Conservation.
- DD. "Riparian area" means the transition area between flowing water and terrestrial (land) ecosystems composed of trees, shrubs and surrounding vegetation which serve to stabilize erodible soil, improve both surface and ground water quality, increase stream shading and enhance wildlife habitat.
- EE. "Runoff coefficient" means the fraction of total rainfall that will appear at the conveyance as runoff.
- FF. "Sediment settling pond" means a sediment trap, sediment basin or permanent basin that has been temporarily modified for sediment control, as described in the latest edition of the Rainwater and Land Development manual.
- GG. "State isolated wetland permit requirements" means the requirements set forth in Sections 6111.02 through 6111.029 of the ORC.
- HH. "Storm water" means storm water runoff, snow melt and surface runoff and drainage.
- II. "Steep slopes" means slopes that are 15 percent or greater in grade. Where a local government or industry technical manual has defined what is to be considered a "steep slope," this permit's definition automatically adopts that definition.
- JJ. "Stream edge" means the ordinary high water mark.
- KK. "Subcontractor" – for the purposes of this permit, an individual or company that takes a portion of a contract from the general contractor or from another subcontractor.
- LL. "Surface waters of the state" or "water bodies" means all streams, lakes, reservoirs, ponds, marshes, wetlands or other waterways which are situated wholly or partially within the boundaries of the state, except those private waters which do not combine or effect a junction with natural surface or underground waters. Waters defined as sewerage systems, treatment works or disposal systems in Section 6111.01 of the ORC are not included.
- MM. "SWP3" means storm water pollution prevention plan.
- NN. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment

facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

- OO. “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.
- PP. “Water Quality Volume (WQ_v)” means the volume of storm water runoff which must be captured and treated prior to discharge from the developed site after construction is complete.

Appendix A
Big Darby Creek Watershed

CONTENTS OF THIS APPENDIX

- A.1 Permit Area
- A.2 TMDL Conditions
- A.3 Sediment Settling Ponds and Sampling
- A.4 Riparian Setback Requirements
- A.5 Riparian Setback Mitigation
- A.6 Groundwater Recharge Requirements
- A.7 Groundwater Recharge mitigation

Attachment A-A: Big Darby Creek Watershed Map

Attachment A-B: Stream Assessment and Restoration

A.1 Permit Area.

This appendix to Permit OHC00005 applies to the entire Big Darby Creek Watershed located within the State of Ohio. Please see Attachment A for permit area boundaries.

A.2 TMDL Conditions.

This general permit requires control measures/BMPs for construction sites that reflect recommendations set forth in the U.S. EPA approved Big Darby Creek TMDL.

A.3 Sediment Settling Ponds and Sampling

Sediment settling ponds additional conditions. The sediment settling pond shall be sized to provide a minimum sediment storage volume of 134 cubic yards of effective sediment storage per acre of drainage and maintain a target discharge performance standard of 45 mg/l Total Suspended Solids (TSS) up to a 0.75-inch rainfall event within a 24-hour period. Unless infeasible, sediment settling ponds must be dewatered at the pond surface using a skimmer or equivalent device. The depth of the sediment settling pond must be less than or equal to five feet. Sediment must be removed from the sediment settling pond when the design capacity has been reduced by 40 percent (This is typically reached when sediment occupies one-half of the basin depth).

Silt Fence and Diversions. For sites five or more acres in size, the use of sediment barriers as a primary sediment control is prohibited. Centralized sediment basins shall be used for sites 5 or more acres in size. Diversions shall direct all storm water runoff from the disturbed areas to the impoundment intended for sediment control. The sediment basins and associated diversions shall be implemented prior to the major earth disturbing activity.

The permittee shall sample in accordance with sampling procedures outlined in 40 CFR 136. Sampling shall occur as follows:

- i. Occur at the outfall of each sediment settling pond associated with the site. Each associated outfall shall be identified by a three-digit number (001, 002, etc.);
- ii. The applicable rainfall event for sampling to occur shall be a rainfall event of 0.25-inch to a 0.75-inch rainfall event to occur within a 24-hour period. Grab sampling shall be initiated at a site within 14 days, or the first applicable rainfall event thereafter, once upslope disturbance of each sampling location is initiated and shall continue on a quarterly basis. Quarterly periods shall be represented as January - March, April - June, July - September and October - December. Sampling results shall be retained on site and available for inspection.

If any sample is greater than the performance standard of 45 mg/l TSS, the permittee shall modify the SWP3 and install/implement new control practice(s) within 10 days to ensure the TSS performance standard is maintained. Within 3 days of improvement(s), or the first applicable rainfall event thereafter, the permittee shall resample to ensure SWP3 modifications maintain the TSS performance standard target.

For each sample taken, the permittee shall record the following information:

- the outfall and date of sampling;
- the person(s) who performed the sampling;
- the date the analyses were performed on those samples;
- the person(s) who performed the analyses;
- the analytical techniques or methods used; and
- the results of all analyses.

Both quarterly and sampling results following a discharge target exceedance shall be retained on site and available for inspection.

A.4 Riparian Setback Requirements.

The SWP3 shall clearly delineate the boundary of required stream setback distances. No construction activity shall occur, without appropriate mitigation, within the delineated setback boundary except activities associated with restoration or recovery of natural floodplain and channel form characteristics as described in Attachment B, storm water conveyances from permanent treatment practices and approvable utility crossings. Such conveyances must be designed to minimize the width of disturbance. If intrusion within the delineated setback boundary is necessary to accomplish the purposes of a project, then mitigation shall be required in accordance with Appendix A.5 of this permit. Streams requiring protection under this section are defined as perennial, intermittent or ephemeral streams with a defined bed, bank or channel. National Resources Conservation Service (NRCS) soil survey maps should be used as one reference and the presence of a stream requiring protection should also be confirmed in the field. Any required setback distances shall be clearly displayed in the field prior to any construction related activity.

Riparian setbacks distance shall be delineated based upon one of the following two methods:

- i. The setback distance shall be sized as the greater of the following:

1. The regulatory 100-year floodplain based on FEMA mapping;
2. A minimum of 100 feet from the top of the streambank on each side; or
3. A distance calculated using the following equation:

$$W = 133DA^{0.43} \quad \text{(Equation 1, Appendix A)}$$

where:

DA = drainage area (mi²)

W = total width of riparian setback (ft)

W shall be centered over the meander pattern of the stream such that a line representing the setback width would evenly intersect equal elevation lines on either side of the stream.

If the DA remains relatively constant throughout the stretch of interest, then the DA of the downstream edge of the stretch should be used. Where there is a significant increase in the DA from the upstream edge to the downstream edge of the area of interest, the setback width shall increase accordingly.

- ii. **Stream Restoration with 100 feet (each side) Riparian Setback.** Each stream segment within the proposed site boundaries can be assessed in accordance with Attachment B, Part 1. In the event the stream segment is classified as a "Previously Modified Low Gradient Headwater Stream", the permittee has the option to restore the stream segment in accordance with Attachment B and include a 100-foot water quality setback distance from the top of the streambank on each side. In the event the stream segment exceeds the minimum criteria in Attachment B to be classified as a "Previously Modified Low Gradient Headwater Stream," this Appendix A, Attachment B may be considered on a case-by-case basis.

No structural sediment controls (e.g., the installation of sediment barriers or a sediment settling pond) or structural post-construction controls shall be used in a surface water of the State or the delineated setback corridor.

Previously developed projects (as defined in Part III.G.2.e.) located within the delineated setback boundary are exempt from Riparian Setback Mitigation (A.5) provided the proposed project does not further intrude into the delineated setback boundary.

Linear transportation projects which are caused solely by correcting safety related issues, mandates of modern design requirements and/or resulting from other mitigation activities are exempt from Riparian Setback Mitigation (Appendix A, A.5) if less than one acre of total new right-of-way is associated with the project.

A.5 Riparian Setback Mitigation.

The mitigation required for intrusion into the riparian setback shall be determined by the horizontal distance the intrusion is from the stream. Up to three zones will be used in determining the required mitigation. Zone 1 extends from 0 to 25 feet from the stream edge. Zone 2 extends from 25 to 100 feet from the stream edge, and Zone 3 extends from 100 feet to the outer edge of the setback corridor. Intrusion into these zones will require the following mitigation within the same Watershed Assessment Unit (12-digit HUC scale):

- i. Four times the total area disturbed in the stream and within Zone 1 of the site being developed shall be mitigated within Zone 1 of the mitigation location.
- ii. Three times the area disturbed within Zone 2 of the site being developed shall be mitigated within Zones 1 and/or 2 of the mitigation location.
- iii. Two times the area disturbed within Zone 3 of the site being developed shall be mitigated within any zone of the mitigation location.

In lieu of mitigation ratios found within in this section, linear transportation projects which result in total new right-of-way greater than one acre and less than two acres, which are caused solely by correcting safety related issues, mandates of modern design requirements and/or resulting from other mitigation activities, shall provide Riparian Setback Mitigation at a ratio of 1.5 to 1.

All mitigation shall, at a minimum, include conserved or restored setback zone and should be designed to maximize the ecological function of the mitigation. Including mitigation at the stream edge along with associated setback areas is one way to maximize ecological function. Mitigation shall be protected in perpetuity by binding conservation easements or environmental covenants which must be recorded within 6 months of receiving permit authorization. Granting of binding conservation easements or environmental covenants protected in perpetuity for land outside of disturbed area but within a required riparian setback counts towards required mitigation.

Mitigation may also be satisfied by approved pooled mitigation areas and in-lieu fee sponsored mitigation areas. Mitigation resulting from State or Federal environmental regulations may be adjusted in recognition of these requirements.

A.6 Groundwater Recharge Requirements.

The SWP3 shall ensure that the overall site post-development groundwater recharge equals or exceeds the pre-development groundwater recharge. The SWP3 shall describe the conservation development strategies, BMPs and other practices deemed necessary by the permittee to maintain or improve pre-development rates of groundwater recharge. Pre-development and post-development groundwater recharge shall be calculated using the following equation:

i. $V_{re_x} = A_x * D_{re_x} / 12$ (Equation 2, Appendix A)

where:

X = represents a land use and hydrologic soil group pair

V_{re_x} = volume of total annual recharge from land use-soil group X
(in acre-ft)

D_{re_x} = depth of total annual recharge associated with land use-soil
group X from Tables 1 or 2 (in inches)

A_x = area of land use-soil group X (in acres)

Table A-1 values should be used for land where the underlying geology indicates a potential for downward migration of groundwater. Table A-1 values represent the combined total groundwater recharge potential including groundwater contribution to stream baseflow and to the underlying bedrock aquifer. The potential for downward migration can be determined from a comparison of the potentiometric maps for the glacial and bedrock aquifers. Use Table A-2 when this potential is unlikely to exist. Detailed potentiometric maps for the Franklin county portion of the Darby watershed, and coarse potentiometric maps for the Darby watershed outside of Franklin County and hydrologic soil group data are available at:

http://www.epa.state.oh.us/dsw/permits/GP_ConstructionSiteStormWater_Darby.aspx.

Table A-1 (Appendix A) Annual Average Expected Total Groundwater Recharge³

Land Use	Density (DU ¹ /acre)	% Impervious	Recharge (inches) by Hydrologic Soil Group ²			
			A	B	C	D
Woods / Forest	-	-	17.0	16.6	15.6	14.6
Brush	-	-	17.0	16.6	15.6	14.6
Meadow	-	-	17.0	16.5	15.4	14.4
Managed Wood	-	-	16.9	16.0	14.7	13.4
Pasture	-	-	16.5	15.9	14.4	13.0
Row Crop	-	-	15.8	14.2	11.9	8.1
Urban Grasses	-	-	15.7	15.7	14.2	12.7
Low Density Residential	0.5	12%	15.7	15.7	14.2	12.7
Low Density Residential	1	20%	14.8	14.8	13.7	12.2
Medium Density Residential	2	25%	11.5	11.5	11.5	11.5
Medium Density Residential	3	30%	11.2	11.2	11.2	11.2
Medium Density Residential	4	38%	9.6	9.6	9.6	9.6
High Density Residential	≥5	65%	7.3	7.3	7.3	7.3
Commercial & Road Right-of-Way ⁴	-	90%	4.3	4.3	4.3	4.3

¹ DU = Dwelling Units

² Hydrologic soil group designations of A/D, B/D, and C/D should be considered as D soils for this application.

³ These values apply when recharge of the aquifer is expected; recharge to the bedrock aquifer can be expected when the potentiometric head of the glacial aquifer is greater than the bedrock aquifer.

⁴ The 4.3 infiltration value may only be used for an area as a whole (includes impervious and pervious areas) which includes a minimum of 10 percent pervious area. If all land uses (pervious and impervious) are tabulated separately, then impervious areas have 0 inches of recharge.

Table A-2 (Appendix A) Annual Average Expected Baseflow Recharge³

Land Use	Density (DU ¹ /acre)	% Impervious	Recharge (inches) by Hydrologic Soil Group ²			
			A	B	C	D
Woods / Forest	-	-	11.8	11.4	10.7	9.9
Brush	-	-	11.7	11.4	10.7	9.9
Meadow	-	-	11.8	11.3	10.6	9.8
Managed Wood	-	-	11.7	11.0	10.0	9.1
Pasture	-	-	11.3	11.0	9.9	8.9
Row Crop	-	-	11.1	10.1	9.0	6.2
Urban Grasses	-	-	11.2	11.2	10.3	9.3
Low Density Residential	0.5	12%	11.2	11.2	10.3	9.3
Low Density Residential	1	20%	9.5	9.5	9.0	8.6
Medium Density Residential	2	25%	7.8	7.8	7.8	7.8
Medium Density Residential	3	30%	7.6	7.6	7.6	7.6
Medium Density Residential	4	38%	6.5	6.5	6.5	6.5
High Density Residential	≥5	65%	5.0	5.0	5.0	5.0
Commercial & Road Right-of-Way ⁴	-	90%	2.9	2.9	2.9	2.9

¹ DU = Dwelling Units

² Hydrologic soil group designations of A/D, B/D, and C/D should be considered as D soils for this application.

³ These values apply when no recharge of the aquifer is expected.

⁴ The 2.9 infiltration value may only be used for an area as a whole (includes impervious and pervious areas) which includes a minimum of 10 percent pervious area. If all land uses (pervious and impervious) are tabulated separately, then impervious areas have 0 inches of recharge.

Table A-3 (Appendix A) Land Use Definitions

Land Use	Definition
Woods / Forest	Areas dominated by trees. Woods are protected from grazing and litter and brush adequately cover the soil.
Brush	Brush, weeds, grass mixture where brush is the major element and more than 75% of the ground is covered.
Meadow	Continuous grass, protected from grazing, generally mowed for hay.
Managed Wood	Orchards, tree farms, and other areas planted or maintained for the production of fruits, nuts, berries, or ornamentals.
Pasture	Pasture, grassland, or range where at least 50% of the ground is covered and the area is not heavily grazed.
Row Crop	Areas used to produce crops, such as corn, soybeans, vegetables, tobacco, and cotton.
Urban Grasses	Vegetation (primarily grasses) planted in developed settings for recreation, erosion control, or aesthetic purposes. Examples include parks, lawns, golf courses, airport grasses, and industrial site grasses.
Residential	Areas with a mixture of constructed materials and vegetation; the average % imperviousness and number of dwelling units per acre to determine the appropriate density is specified.
Commercial	Includes infrastructure (e.g. roads, railroads, etc.) and all highly developed areas not classified as High Intensity Residential.

- ii. The pre-development ground water recharge volume shall be calculated by determining the area of each land use-soil type pairing on the site of interest. The recharge associated with each such pairing multiplied by the area will give the pre-development volume of total groundwater

recharge. The same shall be done for the post-development land use-soil type pairings.

Any activity that is expected to produce storm water runoff with elevated concentrations of carcinogens, hydrocarbons, metals, or toxics is prohibited from infiltrating untreated storm water from the area affected by the activity. The groundwater recharge mitigation requirement for areas affected by such activities must be met by methods which do not present a risk of groundwater contamination. The following land uses and activities are typically deemed storm water hotspots:

Vehicle salvage yards and recycling facilities

- vehicle service and maintenance facilities (i.e. truck stops, gas stations)
- fleet storage areas (i.e. bus, truck)
- industrial sites subject to industrial storm water permitting requirements
- bulk terminals
- marinas
- facilities that generate or store hazardous materials
- other land uses and activities as designated by individual review

The following land uses and activities are not normally considered hotspots:

- residential streets and rural highways
- residential development
- institutional development
- commercial and office developments
- non-industrial rooftops
- pervious areas, except golf courses and nurseries

The applicant may use structural BMPs within drinking water source protection areas for community public water systems only to the extent that the structural BMP(s) does not cause contaminants in the recharge waters to impact the ground water quality at levels that would cause an exceedance of the drinking water Maximum Contaminant Levels (OAC Section 3745-81 and 3745-82). To obtain a map of drinking water source protection areas for community public water systems contact Ohio EPA's Division of Drinking and Ground Waters at (614) 644-2752.

Linear transportation projects which are caused solely by correcting safety related issues, mandates of modern design requirements and/or resulting from other mitigation activities are exempt from Groundwater Recharge Mitigation (Appendix B, A.7) if less than one acre of total new right-of-way is associated with the project.

Protection of open space (infiltration areas) shall be by binding conservation easements that identify a third-party management agency, such as a homeowners' association/condominium association, political jurisdiction or third-party land trust.

A.7 Groundwater Recharge Mitigation.

If the post-development recharge volume is less than the pre-development recharge volume, then mitigation will be required. Two options are available for most applications:

- i. The preferred method is to convert additional land to land use with higher recharge potential. The difference in groundwater recharge between the existing and converted land use recharge is the amount which can be used as recharge credit. Off-site Groundwater Recharge Mitigation shall occur within the same Watershed Assessment Unit (12-digit HUC scale) as the permitted site and preferably up-gradient and within a 2-mile radius.

Mitigation shall be protected in perpetuity by binding conservation easements or environmental covenants which must be recorded within 6 months of receiving permit authorization. Granting of binding conservation easements or environmental covenants protected in perpetuity for land outside of the disturbed area, but within a required riparian setback counts towards required mitigation.

Mitigation may also be satisfied by approved pooled mitigation areas and in-lieu fee sponsored mitigation areas.

- ii. On-site structural and non-structural practices may also be used to achieve groundwater mitigation requirements by retaining and infiltrating on-site a minimum volume of storm water runoff based on the area and hydrologic soil groups of disturbed soils. If these infiltrating practices are incorporated upstream of the water quality volume treatment practice, the volume of groundwater being infiltrated may be subtracted from the water quality volume for the purpose of meeting post-construction requirements. The on-site retention requirement is determined by the following formula:

$$V_{\text{retention}} = A_{\text{HSG-A}} * 0.90 \text{ in} + A_{\text{HSG-B}} * 0.75 \text{ in} + A_{\text{HSG-C}} * 0.50 \text{ in} + A_{\text{HSG-D}} * 0.25 \text{ in}$$

(Equation 3, Appendix A)

Where,

$V_{\text{retention}}$ = volume of runoff retained onsite using an approved infiltration practice

$A_{\text{HSG-x}}$ = area of each hydrologic soil group within the disturbed area

Table A-4: Hydrologic Soil Groups and On-site Retention Depth per Acre

Hydrologic Soil Group	HSG A	HSG B	HSG C	HSG D
Retention Depth (inches)	0.90	0.75	0.50	0.25

Retention volume ($V_{\text{retention}}$) provided by selected practices shall be determined using the runoff reduction method criteria as outlined in Part III.G.2.e, Ohio EPA's Runoff Reduction spreadsheet and supporting documentation in the Rainwater and Land Development manual. Hydrologic soil group (HSG) areas are to be determined by using the current version of SURGO or Web Soil Survey soils information.

Appendix A Attachment A: Big Darby Creek Watershed



A more detailed map can be viewed at:

http://www.epa.state.oh.us/dsw/permits/GP_ConstructionSiteStormWater_Darby.aspx

Appendix A Attachment B

Part 1 Stream Assessment

This assessment will determine if a stream is considered a previously channelized, low-gradient headwater stream (a drainage ditch) which would be applicable for stream restoration in lieu of protecting a setback as per Appendix A. A.4.i and ii.

In the event the assessment of the stream, meets all the criteria listed below, restoration (provided 401/404 permits are authorized) as depicted in Part 2 of this attachment, may be a means of reducing the setback distance required by A.4.i. (Appendix A).

Previously Channelized Low-Gradient Headwater Streams (drainage ditches) shall for the purposes of this permit be defined as having all of the following characteristics:

- Less than 10 square miles of drainage area
- Low gradient and low stream power such that despite their straightened and entrenched condition incision (down-cutting) is not evident
- Entrenched, entrenchment ratio < 2.2
- Straight, sinuosity of the bankfull channel < 1.02

Part 2 Restoration

Restoration shall be accomplished by any natural channel design approach that will lead to a self-maintaining reach able to provide both local habitat and watershed services (e.g. self-purification and valley floodwater storage).

- a. Construction of a floodplain, channel and habitat via natural channel design;
- b. Floodplain excavation necessary to promote interaction between stream and floodplain;
- c. Include a water quality setback of 100 feet from top of the streambank on each side.

The primary target regardless of design approach shall be the frequently flooded width, which shall be maximized, at 10 times the channel's self-forming width. Five times the self-forming channel width may still be acceptable particularly on portions of the site if greater widths are achieved elsewhere.

Appendix B Olentangy River Watershed

CONTENTS OF THIS APPENDIX

- B.1 Permit Area
- B.2 TMDL Conditions
- B.3 Riparian Setback Requirements
- B.4 Riparian Setback Mitigation

Attachment B-A: Area of Applicability for the Olentangy Watershed (Map)

Attachment B-B: Stream Assessment and Restoration

B.1 Permit Area.

This appendix to Permit OHC00005 applies to specific portions of the Olentangy River Watershed located within the State of Ohio. The permit area includes the following 12-digit Hydrologic Unit Codes (HUC-12) within the Olentangy River Watershed:

12-Digit Hydrologic Unit Codes

12-Digit Hydrologic Unit Codes (HUC)	Narrative Description of Sub-Watershed
05060001 09 01	Shaw Creek
05060001 09 02	Headwaters Whetstone Creek
05060001 09 03	Claypool Run-Whetstone Creek
05060001 10 07	Delaware Run-Olentangy River
05060001 11 01	Deep Run-Olentangy River
05060001 11 02 (Only portion as depicted in Attachment A)	Rush Run-Olentangy River

Please see Attachment A (Appendix B) for permit area boundaries. An electronic version of Attachment A can be viewed at

http://epa.ohio.gov/dsw/permits/GP_ConstructionSiteStormWater_Olentangy.aspx

B.2 TMDL Conditions.

This general permit requires control measures/BMPs for construction sites that reflect recommendations set forth in the U.S. EPA approved Olentangy TMDL.

B.3 Riparian Setback Requirements.

The permittee shall comply with the riparian setback requirements of this permit or alternative riparian setback requirements established by a regulated MS4 and approved by Ohio EPA. The SWP3 shall clearly delineate the boundary of required stream setback distances. The stream setback shall consist of a streamside buffer and an outer buffer. No construction activity shall occur, without appropriate mitigation, within the streamside buffer except activities associated with storm water conveyances from permanent treatment practices, approvable utility crossings and restoration or recovery of floodplain and channel form characteristics as described in Attachment B. Storm water conveyances must be designed to minimize the width of disturbance.

Construction activities requiring mitigation for intrusions within the outer buffer for the Olentangy River mainstem and perennial streams are described in Appendix B.4.

If intrusion within the delineated setback boundary is necessary to accomplish the purposes of a project, then mitigation shall be required in accordance with Appendix B.3. of this permit. Streams requiring protection under this section have a defined bed and bank or channel and are defined as follows:

- The Olentangy River mainstem;
- Perennial streams have continuous flow on either the surface of the stream bed or under the surface of the stream bed;
- Intermittent streams flow for extended periods of time seasonally of a typical climate year; and
- Ephemeral streams are normally dry and only flow during and after precipitation runoff (episodic flow).

National Resources Conservation Service (NRCS) soil survey maps should be used as one reference and the presence of a stream requiring protection should also be confirmed in the field. Any required setback distances shall be clearly displayed in the field prior to any construction related activity.

Riparian setbacks shall be delineated based upon one of the following two methods:

- i. The required setback distances shall vary with stream type as follows:
 - a. The setback distances associated with the mainstem of the Olentangy River shall consist of:
 - (1) A streamside buffer width of 100 feet as measured horizontally from the ordinary high water mark per side; and
 - (2) An outer buffer width sized to the regulatory 100-year floodplain based on FEMA mapping. No impervious surfaces shall be constructed without appropriate mitigation and moderate to substantial fill activities with no impervious surface may require appropriate mitigation pending an individual approval by Ohio EPA.
 - b. The setback distance associated with perennial streams, other than the Olentangy mainstem, shall consist of:
 - (1) A streamside buffer width of 80 feet per side measured horizontally from the ordinary high water mark; and
 - (2) An outer buffer width sized to the regulatory 100-year floodplain based on FEMA mapping. In the event the regulatory 100-year floodplain is not established, the outer buffer width shall be calculated using the following equation and measured horizontally from the ordinary high water mark. No impervious surfaces, structure, fill, or activity that would impair the floodplain or stream stabilizing ability of the outer buffer shall occur without appropriate mitigation:

$$W = 143DA^{0.41} \quad (\text{Equation 1 Appendix B})$$

where:

DA = drainage area (mi²)

W = total width of riparian setback (ft)

W shall be centered over the meander pattern of the stream such that a line representing the setback width would evenly intersect equal elevation lines on either side of the stream.

If the DA remains relatively constant throughout the stretch of interest, then the DA of the downstream edge of the stretch should be used. Where there is a significant increase in the DA from the upstream edge to the downstream edge of the area of interest, the setback width shall increase accordingly.

c. The setback distance associated with intermittent streams and ephemeral streams shall be a streamside buffer width of 30 feet per side measured horizontally from the centerline of the stream. No outer buffer is required for intermittent and ephemeral streams.

- ii. Stream Restoration with 100 feet (each side) Riparian Setback. Each stream segment within the proposed site boundaries can be assessed in accordance with Attachment B. In the event the stream segment is classified as a "Previously Modified Low Gradient Headwater Stream", the permittee has the option to restore the stream segment in accordance with Attachment B and include a 100 feet water quality setback distance from the top of the streambank on each side. In the event the stream segment exceeds the minimum criteria in Attachment B to be classified as a "Previously Modified Low Gradient Headwater Stream", this may be considered on a case-by-case basis.

No structural sediment controls (e.g., the installation of sediment barriers or a sediment settling pond) or structural post-construction controls shall be used in a stream or the streamside buffer. Activities and controls that would not impair the floodplain or stream stabilizing ability of the outer buffer can be considered.

Redevelopment projects (i.e., developments on previously developed property) located within the delineated setback boundary is exempt from Riparian Setback Mitigation (B.3) provided the proposed project does not further intrude the delineated setback boundary.

B.4 Riparian Setback Mitigation.

The mitigation required for intrusion into the riparian setback of the **Olentangy River mainstem or perennial streams** shall be determined by the horizontal distance the intrusion is from the stream. Up to three zones will be used in determining the required mitigation. Zone 1 extends from 0 to 30 feet from the stream edge. Zone 2 extends

from 30 feet to the outer edge of the streamside buffer. Zone 3 extends from the outer edge of the streamside buffer to the outer edge of the outer buffer. Intrusion into these zones will require the following mitigation within the same Watershed Assessment Unit (12-digit HUC scale). Alternative mitigation, within the permit area, may be considered on a case-by-case basis:

1. Four (4) times the total area disturbed in the stream within Zone 1 of the site being developed shall be mitigated; or, two (2) times the total area disturbed in the stream within Zone 1 shall be mitigated within the watershed of the immediate receiving stream, and the entire required setback of the site shall be protected by binding conservation easements or environmental covenants.
2. Three (3) times the area disturbed within Zone 2 of the site being developed shall be mitigated within Zones 1 and/or 2 of the mitigation location; or, one and one-half (1.5) times the total area disturbed within Zone 2 shall be mitigated within the watershed of the immediate receiving stream, and the entire required setback of the site shall be protected in perpetuity by binding conservation easements or environmental covenants.
3. Two (2) times the area to be mitigated within Zone 3 of the site being developed shall be mitigated within any Zone of the mitigation location; or, one (1) times the total area to be mitigated within any zone shall be mitigated within the watershed of the immediate receiving stream, and the entire required setback of the site shall be protected in perpetuity by binding conservation easements or environmental covenants.

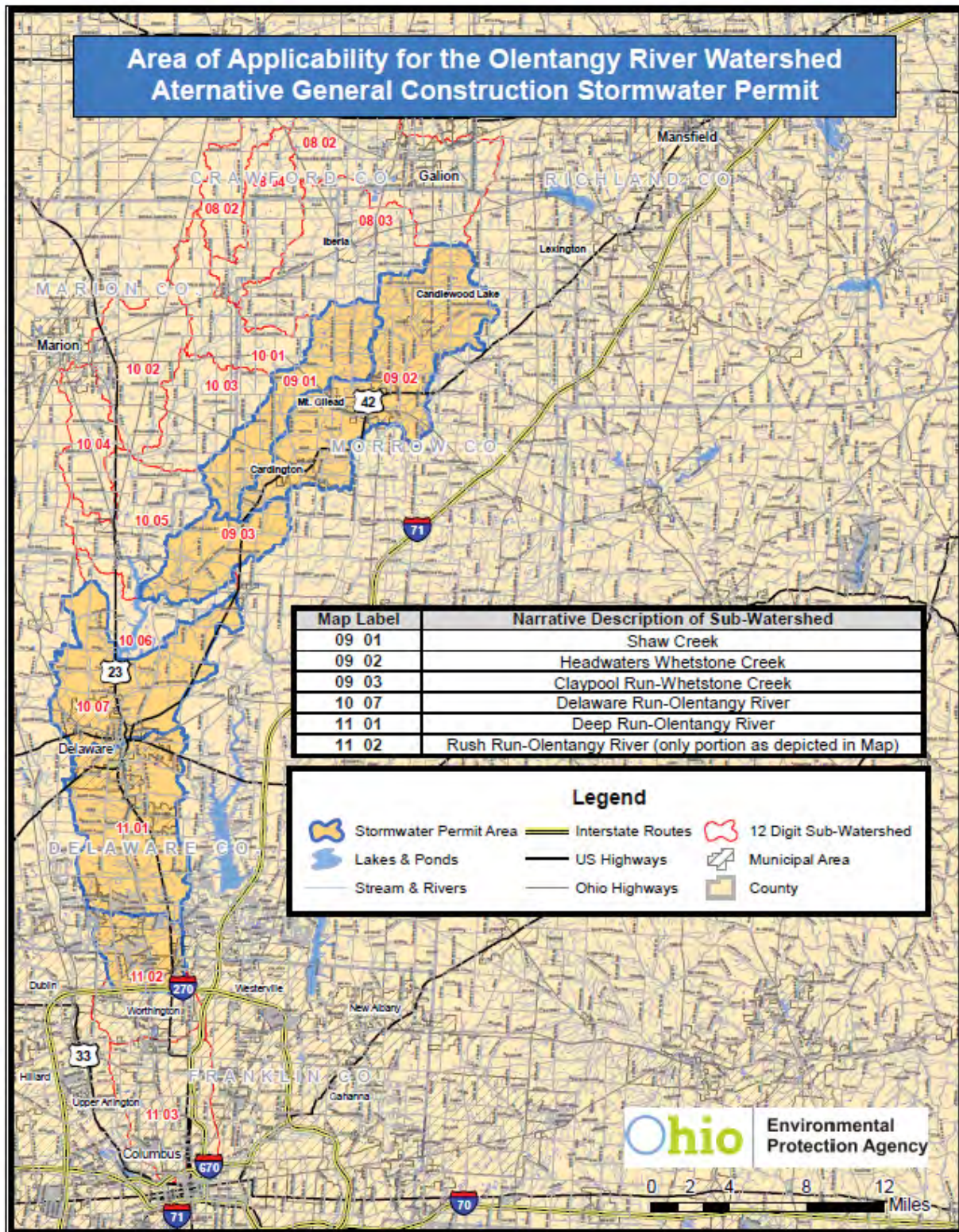
The mitigation required for intrusion into the riparian setback of an **intermittent stream** shall be four (4) times the total area disturbed within the riparian setback of the site being developed shall be mitigated; or two (2) times the total area disturbed within the riparian setback shall be mitigated within the watershed of the immediate receiving stream, and the entire required setback of the site shall be protected in perpetuity by binding conservation easements or environmental covenants.

The mitigation required for intrusion into the streamside buffer of an **ephemeral stream** shall be two (2) times the total area disturbed within the riparian setback of the site being developed shall be mitigated; or one (1) times the total area disturbed within the riparian setback shall be mitigated within the watershed of the immediate receiving stream, and the entire required setback of the site shall be protected in perpetuity by binding conservation easements or environmental covenants.

All mitigation shall, at a minimum, include conserved or restored setback zone, and should be designed to maximize the ecological function of the mitigation. Including mitigation at the stream edge along with associated setback areas is one way to maximize ecological function. Mitigation shall be protected in perpetuity by binding conservation easements or environmental covenants which must be recorded within 6 months of permit authorization. Granting of binding conservation easements or environmental covenants protected for land outside of disturbed area, but within a required riparian setback counts towards required mitigation.

Mitigation may also be satisfied by approved pooled mitigation areas and in-lieu fee sponsored mitigation areas. Mitigation resulting from State or Federal environmental regulations may be adjusted in recognition of these requirements.

Appendix B Attachment A Applicable Portions of the Olentangy Watershed



A more detailed map can be viewed at:
http://epa.ohio.gov/dsw/permits/GP_ConstructionSiteStormWater_Olentangy.aspx

Appendix B Attachment B

Part 1 Stream Assessment

This assessment will determine if a stream is considered a previously channelized, low-gradient headwater stream (a drainage ditch) which would be applicable for stream restoration in lieu of protecting an outer 'no build' setback as per Appendix B B.2i. and ii.

In the event the assessment of the stream meets all the criteria listed below, restoration as depicted in Part 2 of this attachment or natural channel design could be performed, provided 401/404 permits are authorized, and may be a means of reducing the setback distance required by B.2.i. (Appendix B).

Previously Modified, Low-Gradient Headwater Streams shall, for the purposes of this permit, be defined as having all of the following characteristics:

- Less than 10 square miles of drainage area;
- Low gradient and low stream power such that incision (down-cutting) is not evident;
- Entrenched such that the ratio of the frequently flooded width to the bankfull width is less than 2.2; and
- Straight with little or no sinuosity present such that the ratio of the bankfull channel length to the straight-line distance between two points is less than 1.02.

Part 2 Restoration

Restoration shall be accomplished by any natural channel design approach that will lead to a self-maintaining reach able to provide both local habitat and watershed services (e.g. self-purification and valley floodwater storage).

- a. Construction of a floodplain, channel and habitat via natural channel design;
- b. Floodplain excavation necessary to promote interaction between stream and floodplain;
- c. Include a water quality setback of 100 feet from top of the streambank on each side.

The primary target shall be a frequently flooded width of 10 times the channel's self-forming width. Five times the self-forming channel width may be acceptable if sufficient elements of natural channel design are included in the restoration project.

Appendix C Rainfall Intensity for Calculation of Water Quality Flow (WQF)

DURATION t_c (minutes)	WATER QUALITY INTENSITY [i_{wq}] (inches/hour)	DURATION t_c (minutes)	WATER QUALITY INTENSITY [i_{wq}] (inches/hour)
5	2.37	33	0.95
6	2.26	34	0.93
7	2.15	35	0.92
8	2.04	36	0.90
9	1.94	37	0.88
10	1.85	38	0.86
11	1.76	39	0.85
12	1.68	40	0.83
13	1.62	41	0.82
14	1.56	42	0.80
15	1.51	43	0.78
16	1.46	44	0.77
17	1.41	45	0.76
18	1.37	46	0.75
19	1.33	47	0.74
20	1.29	48	0.73
21	1.26	49	0.72
22	1.22	50	0.71
23	1.19	51	0.69
24	1.16	52	0.68
25	1.13	53	0.67
26	1.10	54	0.66
27	1.07	55	0.66
28	1.05	56	0.65
29	1.03	57	0.64
30	1.01	58	0.64
31	0.99	59	0.63
32	0.97	60	0.62

Note: For $t_c < 5$ minutes, use $i = 2.37$ in/hr; for $t_c > 60$ minutes, use $i = 0.62$ in/hr. For all other t_c , use the appropriate value from this table.

Appendix D –NOI and Acknowledgement Letter



Mike DeWine, Governor
Jon Husted, Lt. Governor
Laurie A. Stevenson, Director

Nov 02, 2021

TMAN BVU
William Toner
1216 E main street, suite 120
chattanooga, OH 37408

Re: Approval Under Ohio EPA National Pollutant Discharge Elimination System (NPDES) - Construction Site Stormwater General Permit - OHC000005

Dear Applicant,

Your NPDES Notice of Intent (NOI) application is approved for the following facility/site. Please use your Ohio EPA Facility Permit Number in all future correspondence.

Facility Name:	Retail Project
Facility Location:	301 N Main Street
City:	Monroe
County:	Butler
Township:	Lemon
Ohio EPA Facility Permit Number:	1GC08412*AG
Permit Effective Date:	Nov 02, 2021

Please read and review the permit carefully. The permit contains requirements and prohibitions with which you must comply. Coverage under this permit will remain in effect until a renewal of the permit is issued by the Ohio EPA.

If more than one operator (defined in the permit) will be engaged at the site, each operator shall seek coverage under the general permit. Additional operator(s) shall submit a Co-Permittee NOI to be covered under this permit. There is no fee associated with the Co-Permittee NOI form.

Please be aware that this letter only authorizes discharges in accordance with the above referenced NPDES CGP. The placement to fill into regulated waters of the state may require a 401 Water Quality Certification and/or Isolated Wetlands Permit from Ohio EPA. Also, a Permit-To-Install (PTI) is required for the construction of sanitary or industrial wastewater collection, conveyance, storage, treatment, or disposal facility; unless a specific exemption by rule exists. Failure to obtain the required permits in advance is a violation of Ohio Revised Code 6111 and potentially subjects you to enforcement and civil penalties.

To view your electronic submissions and permits please Logon in to the Ohio EPA's eBusiness Center at <http://ebiz.epa.ohio.gov>.

If you need assistance or have questions please call (614) 644-2001 and ask for Construction Site Stormwater General Permit support or visit our website at <http://www.epa.ohio.gov>.

Sincerely,

Laurie A. Stevenson
Director

Appendix E –Inspection Reports

Stormwater Construction Site Inspection Report

General Information			
Project Name	O'Reilly Auto Part store		
NPDES Tracking No	1GC08412*AG	Location	301 N. Main St, Monroe, Ohio
Date of Inspection		Start/End Time	
Inspector's Name(s)			
Inspector's Title(s)			
Inspector's Contact Information			
Inspector's Qualifications			
Describe present phase of construction			
Type of Inspection			
☐ Regular ☐ Pre-storm event ☐ During storm event ☐ Post-storm event			
Weather Information			
Has there been a storm event since the last inspection? ☐ Yes ☐ No			
If yes, provide:			
Storm Start (Date & Time)	Storm Duration (hrs)	Approximate Amount of Precipitation (inches)	
Weather at the time of this inspection?			
☐ Clear ☐ Cloudy ☐ Rain ☐ Sleet ☐ Fog ☐ Snowing ☐ High Winds ☐ Other:			
Temperature:			
Have any discharges occurred since the last inspection? ☐ Yes ☐ No			
If yes, describe:			
Are there any discharges at the time of inspection? ☐ Yes ☐ No			
If yes, describe:			

Site Specific BMPs

- Number the structural and non-structural BMPs identified in the SWPPP on your site map and list them below. Carry a copy of the numbered site map with you during your inspections. This list will ensure that you are inspected all required BMPs at your site.
- Describe corrective actions initiated, date completed, and note the person that completed the works in the Corrective Action Log.

	BMP	BMP Installed?	BMP Maintenance Required?	Corrective Action Needed and Notes
1	Stabilized Construction Exit	☐ Yes ☐ No	☐ Yes ☐ No	

2	Silt Fence	☐ Yes ☐ No	☐ Yes ☐ No	
3	Combined Staging & Materials Storage Area	☐ Yes ☐ No	☐ Yes ☐ No	
4	Dumpsters & Sanitary Facilities	☐ Yes ☐ No	☐ Yes ☐ No	
5	Vegetated Swale	☐ Yes ☐ No	☐ Yes ☐ No	
6	Sediment Trap	☐ Yes ☐ No	☐ Yes ☐ No	
7	Topsoil Stockpile	☐ Yes ☐ No	☐ Yes ☐ No	
8	Storm Drain Inlets	☐ Yes ☐ No	☐ Yes ☐ No	
9	Concrete Washout Area	☐ Yes ☐ No	☐ Yes ☐ No	
10		☐ Yes ☐ No	☐ Yes ☐ No	
11		☐ Yes ☐ No	☐ Yes ☐ No	
12		☐ Yes ☐ No	☐ Yes ☐ No	

Overall Site Issues

- Below are some general site issues that should be assessed during inspections. Customize this list as needed for conditions at your site.

	BMP/Activity	Implemented?	Maintenance Required?	Corrective Action Needed and Notes
1	Are all slopes and disturbed areas not	☐ Yes ☐ No	☐ Yes ☐ No	

	actively being worked properly stabilized?			
2	Are natural resource areas (e.g., streams, wetlands, mature trees, etc.) protected with barriers or similar BMPs?	☐ Yes ☐ No	☐ Yes ☐ No	
3	Are perimeter controls and sediment barriers adequately installed (keyed into substrate) and maintained?	☐ Yes ☐ No	☐ Yes ☐ No	
4	Are discharge points and receiving waters free of any sediment deposits?	☐ Yes ☐ No	☐ Yes ☐ No	
5	Are storm drain inlets properly protected?	☐ Yes ☐ No	☐ Yes ☐ No	
6	Is the construction exit preventing sediment from being tracked into the street?	☐ Yes ☐ No	☐ Yes ☐ No	
7	Is trash/litter from work areas collected and placed in covered dumpsters?	☐ Yes ☐ No	☐ Yes ☐ No	
8	Are washout facilities (e.g., paint, stucco, concrete) available, clearly marked, and maintained?	☐ Yes ☐ No	☐ Yes ☐ No	
9	Are vehicle and equipment fueling, cleaning, and maintenance areas free of spills, leaks, or any other deleterious material?	☐ Yes ☐ No	☐ Yes ☐ No	
10	Are materials that are potential stormwater contaminants stored inside or under cover?	☐ Yes ☐ No	☐ Yes ☐ No	
11	Are non-stormwater discharges (e.g., wash water, dewatering) properly controlled?	☐ Yes ☐ No	☐ Yes ☐ No	
12	(Other)	☐ Yes ☐ No	☐ Yes ☐ No	

Non-Compliance

Describe any incidents of non-compliance not described above:

CERTIFICATION STATEMENT

Check box if:

☐ No incidents of non-compliance were found, and I certify that this inspection found this site to be fully in compliance with the both the Stormwater Pollution Prevention Plan (SWPPP) and EPA's Construction General Permit (CGP).

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Print name and title: _____

Signature: _____ **Date:** _____

[illegible]

Appendix G – SWPPP Amendment Log

Project Name: O'Reilly Auto Parts store
SWPPP Contact:

[illegible]

Appendix H – Contractor Contact Sheet and Certification Form

SUBCONTRACTOR CERTIFICATION STORMWATER POLLUTION PREVENTION PLAN

Project Number: OHIO EPA NPDES # 1GC08412*AG

Project Title: O'Reilly Auto Parts store, 301 N. Main Street, City of Monroe, Ohio

Operator(s): O'Reilly Auto Parts store

As a subcontractor, you are required to comply with the Stormwater Pollution Prevention Plan (SWPPP) for any work that you perform on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the office trailer.

Each subcontractor engaged in activities at the construction site that could impact stormwater must be identified and sign the following certification statement:

I certify under the penalty of law that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the BMPs and practices described in the SWPPP.

This certification is hereby signed in reference to the above named project:

Company: _____

Address: _____

Telephone Number: _____

Type of construction service to be provided: _____

Signature: _____

Title: _____

Date: _____

Project Name: O'Reilly Auto Parts store
SWPPP Contact:

[illegible]

Appendix J – SWPPP Training Log

Stormwater Pollution Prevention Training Log

Project Name:

Project Location:

Instructor's Name(s):

Instructor's Title(s):

Course Location: _____ Date: _____

Course Length (hours): _____

Stormwater Training Topic: *(check as appropriate)*

- ☐ Erosion Control BMPs ☐ Emergency Procedures
☐ Sediment Control BMPs ☐ Good Housekeeping BMPs
☐ Non-Stormwater BMPs

Specific Training Objective: _____

Attendee Roster: *(attach additional pages as necessary)*

No.	Name of Attendee	Company
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Appendix K – Delegation of Authority Form

Delegation of Authority

I, Jake Toner (name), hereby designate the person or specifically described position below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including the Construction General Permit, at the **Gerber Collision & Glass** construction site. The designee is authorized to sign any reports, stormwater pollution prevention plans and all other documents required by the permit.

<u>Lawrence Emery, PE</u>	(name of person or position)
<u>NE Group LLC</u>	(company)
<u>PO Box 80843</u>	(address)
<u>Chattanooga, TN 37414</u>	(city, state, zip)
<u>(423) 799-0788</u>	(phone)

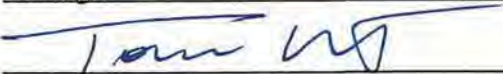
By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in 1GC08412*AG (Reference State Permit), and that the designee above meets the definition of a “duly authorized representative” as set forth in 1GC08412*AG (Reference State Permit).

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Jake Toner

Company: Tuckerman Development

Title: Manager

Signature: 

Date: 11/22/2021

Appendix L – Long Term Maintenance Plan

Property Owner shall be responsible for the continued operational efficiency of the on-site stormwater management system. In order to achieve this, the Owner shall, on a continual basis, maintain the stormwater management system as listed below.

Tasks	Schedule	Retention Basin	General Site
Litter / Debris Removal	Weekly	X	X
Overall System/Structure (inspect & repair)	Monthly	X	X
Mowing (bagging clippings) and/or leaf removal	Bi-Weekly/Monthly	X	X
Removal of Invasives	Quarterly	X	X
Open & Inspect all applicable: grate inlets, water quality inlets or control structures	Quarterly	X	X
Parking lot sweeping (as needed), but at minimum once per year	Quarterly		X
Tree/shrub maintenance – pruning, mulching, trimming (for entire site)	Annually		X
Vacuum/sweep/clean – Debris, Oils & floatables from Catch basin sumps & retention basin	Annually	X	

Property Owner shall complete with quarterly inspections and maintain copies of all inspections. Refer to the SWPPP report – Appendix E – Inspection Reports, for inspection checklists for inspection completion.



Construction General Permit OHC000005
Storm Water Pollution Prevention Plan Checklist
 State of Ohio Environmental Protection Agency
 Division of Surface Water

Facility Name: O'Reilly Auto Part store	Date Received:
SWP3 Reviewer:	Date Reviewed:

Part III.G.1 - Site Description				
Does the SWP3 describe, show or include:	Y	N	N/A	Comments
(a) the nature and type of construction activity (e.g., low density residential, shopping mall, highway, etc.)?	✓			
(b) the area of the site to be disturbed	✓			see sheet C100
(c) the impervious area and percent imperviousness created by the construction activity?	✓			see sheet C100
(d) storm water calculations, (pre and post-construction volumetric runoff coefficients and resulting water quality volume; design details for post-construction storm water facilities and pretreatment practices (e.g. drainage areas, capacities, elevations, outlet details and drain times) and if applicable, explanation of the use of existing post-construction facilities?	✓			see drainage rates
(e) any existing data describing the soil?	✓			
any information on the quality of the storm water discharge from the construction site?	✓			
(f) any information about prior land uses at the site (e.g., was the property used to manage solid or hazardous waste)?	✓			
(g) a description of the condition of on-site streams (e.g. prior channelization, bed instability or headcuts, channels on public maintenance, or natural channels)?			✓	
(h) an implementation schedule which describes the sequence of major construction operations (i.e., grubbing, excavating, grading, utilities infrastructure installation and others) and the implementation of erosion, sediment and storm water management practices or facilities to be employed during each operation of the sequence?	✓			
(i) the name(s) or location(s) of the initial and subsequent surface water bodies receiving the storm water discharge?	✓			
the areal extent and description of the wetland or other special aquatic sites which will be disturbed and/or will receive the storm water discharges?			✓	
(j) a detail drawing of a typical individual lot showing sediment and erosion controls or storm water control practices? (This does not remove responsibility to designate control practices in a SWP3 for critical areas such as steep slopes, stream banks, drainage ways & riparian zones.)	✓			see plans
(k) the location and description of storm water discharges associated with dedicated asphalt and/or concrete batch plants covered by the NPDES construction storm water general permit?			✓	
(l) a cover page identifying the name and location of the site, the name and contact information for site operators and SWP3 authorization agents as well as preparation date, start date, and completion date?	✓			
(m) a log documenting grading & stabilization activity as well as SWP3 amendments that occur after construction commencement?	✓			

Part III.G.1.n - Site Map Requirements				
Does the SWP3 site map show:	Y	N	N/A	Comments
(i) limits of earth-disturbing activity of the site including associated off-site borrow or spoil areas that are not addressed by a separate NOI and associated SWP3?	✓			
(ii) soils types depicted for all areas of the site, including locations of unstable, highly erodible and/or known contaminated soils?	✓			
(iii) existing and proposed contours to delineate drainage watersheds expected during and after major grading activities as well as the size of each drainage watershed, in acres?	✓			
(iv) location of any delineated boundary for required riparian setbacks?			✓	
(v) conservation easements for areas designated as open space, preserved vegetation or otherwise protected from earth disturbing activities with a description of any associated temporary or permanent fencing or signage?			✓	
(vi) surface water locations including springs, wetlands, streams, lakes, water wells, etc., on or within 200 feet of the site, including the boundaries of wetlands or stream channels and first subsequent named receiving water(s) the permittee intends to fill or relocate for which the permittee is seeking approval from the Army Corps of Engineers and/or Ohio EPA?			✓	
(vii) the location of existing and planned buildings, roads, parking facilities, and utilities?	✓			
(viii) include the location of all erosion and sediment control practices, including the location of areas likely to require temporary stabilization during site development?	✓			
(ix) location of sediment traps and basins noting their sediment storage volume and dewatering (detention) volume and contributing drainage area?	✓			
(x) location of permanent storm water management practices (new & existing) as well as pretreatment practices to be used to control pollutants in storm water after construction operations have been completed along with the location of existing and planned drainage features (e.g. catch basins, culverts, ditches, swales, surface inlets and outlet structures)?	✓			
(xi) areas designated for the storage or disposal of solid, sanitary, and toxic wastes (including dumpster areas), areas designated for cement truck washout, and areas for vehicle fueling?	✓			
(xii) location of designated construction entrances where the vehicles will access the construction site?	✓			
(xiii) location of any areas of proposed floodplain fill, floodplain excavation, stream restoration or known temporary or permanent stream crossings?			✓	

Part III.G.2 - Sediment & Erosion Controls				
(a) Preservation Methods	Y	N	N/A	Comments
(1) Has every effort been made to preserve the natural riparian setback adjacent to streams or other surface water bodies? (E.g. preserving existing vegetation, vegetative buffer strips, and existing soil profile and topsoil; and designating tree preservation areas or other protective clearing or grubbing practices.	✓			undeveloped portion of site to remain as is / undisturbed

(2) Have efforts been made to phase in construction activities to minimize the amount of land disturbance at one time?			✓	to small to phase
(3) Will any portions of the site be left undisturbed (e.g., tree preservation areas)?	✓			near
(b) Erosion Control Practices	Y	N	N/A	Comments
(1) Does the SWP3 include erosion controls to provide cover over disturbed soils?	✓			
(2) Does the SWP3 describe the control practices used to re-establish suitable cover (e.g. vegetation) on disturbed areas after grading?	✓			
(3) Does the SWP3 specify the types of stabilization measures to be employed for any time of the year?	✓			
(b)(i) & Part II.B (Table 2): Temporary Stabilization	Y	N	N/A	Comments
For disturbed areas within 50 feet of a stream remaining dormant for over 14 days, will temporary erosion controls be applied within 2 days?			✓	No streams
For disturbed areas over 50 feet away from a stream remaining dormant for over 14 days, will temporary erosion controls be applied within 7 days?	✓			
For disturbed areas that will be left idle over winter, will temporary erosion controls be applied prior to onset of winter weather?	✓			
(b)(i) & Part II.B (Table 1): Permanent Stabilization	Y	N	N/A	Comments
For disturbed areas within 50 feet of a stream at final grade, will permanent erosion controls be applied within 2 days of reaching final grade?			✓	No streams
For disturbed areas remaining dormant for over 1 year or at final grade, will permanent erosion controls be applied within 7 days of the most recent disturbance?	✓			
(b)(ii) Permanent Stabilization of Conveyance Channels				
Will operators undertake special measures to stabilize channels and outfalls and prevent erosive flows?			✓	
(c) Runoff Control Practices - Does the SWP3 incorporate	Y	N	N/A	Comments
(1) measures to reduce flow rates on disturbed areas (e.g., riprap, rock check dams, & pipe slope drains)?	✓			
(2) measures to divert runoff from disturbed areas and steep slopes?	✓			
(d) Sediment Control Practices	Y	N	N/A	Comments
(1) Will sediment control devices be implemented for all areas remaining disturbed for over 14 days?	✓			
(2) Are detail drawings of the sediment controls to be used included in the SWP3?	✓			
(d)(i) Timing of Installing Sediment Controls.	Y	N	N/A	Comments
Does the SWP3 specify that sediment controls will be implemented prior to grading and within 7 days of grubbing?	✓			
Does the SWP3 require additional sediment controls or modifications for changing slopes and topography?	✓			
(d)(ii) Sediment Settling Ponds	Y	N	N/A	Comments
Does the SWP3 include the use of a sediment settling pond? <i>NOTE: This is required for areas with concentrated runoff or when the capacity of sediment barriers or inlet protection has been exceeded.</i>	✓			
Are alternatives proposed in lieu of a required settling pond? These must be equivalent to a sediment settling pond effectiveness.		✓		
Is the dewatering volume appropriately sized (67 yd ³ or 1800 ft ³ per acre of drainage area)?				

OHC000005 – SWP3 Checklist

Is the depth of the dewatering volume for each sediment settling pond ≤ 5 feet?	✓			
Will the dewatering volume drain in 48 hours to 72 hours?	✓			
Is a skimmer specified in the SWP3?	✓			faircloth skimmer
Has a sediment storage zone volume been provided (≥ 1000 ft ³ per disturbed acre or based on RUSLE calculations)?	✓			
Is the length to width ratio of the settling pond $\geq 2:1$? <i>NOTE: Greater distances from storm water inlet of the pond to the outlet increase effectiveness of sediment settlement.</i>	✓			
Is clean-out of the sediment storage zone specified in the SWP3? (E.g. when sediment occupies 50 percent of the sediment storage zone and prior to conversion to a post-construction BMP.)	✓			
Have public safety concerns been considered in pond design and alternative sediment controls?	✓			
(d)(iii) Sediment Barriers & Diversions	Y	N	N/A	Comments
Are sediment barriers or diversions used to intercept sheet flow? <i>NOTE: Sediment barriers are suitable for sheet flow and not for concentrated storm water flow.</i>	✓			
Are alternative sediment barriers, used in lieu of silt fence, at least 12-inches in diameter?	✓			compact Altr rocks
Are diversions used to keep runoff away from steep slopes or concentrated flow?	✓			
Do sediment barriers meet the maximum drainage area limits of table 3 or the Rainwater and Land Development manual?	✓			

(d)(iv) Inlet Protection	Y	N	N/A	Comments
Do drain inlets and curb inlets drain into a sediment settling pond?	✓			
Inlets not connected to a sediment settling pond are limited to runoff from $\leq$ one acres?	✓			
Does inlet protection meet acceptable standards?	✓			
(d)(v) Stream Protection	Y	N	N/A	Comments
No structural sediment controls are proposed for use in streams.			✓	
Have efforts been made to limit construction disturbance or activities on stream banks, and the width or number of stream crossings? <i>NOTE: If work along a stream bank is necessary, a non-erodible pad or non-erodible stream diversion dams (sand bags) must be installed. If stream crossings are necessary, a non-erodible stream crossing must be installed.</i>			✓	

Part III.G.2.e – Post-Construction Storm Water Management				
	Y	N	N/A	Comments
Does the SWP3 include the installation of a structural post-construction BMP. <i>NOTE: Projects that do not significantly grade or impact pervious areas or install impervious surface such as park lands do not require the installation of post-construction BMPs.</i>	✓			
Is the construction activity a linear project (e.g., pipeline or utility line installation) that does not result in the installation of additional impervious surface? <i>NOTE: If yes, then the installation of structural post-construction BMPs is not required.</i>		✓		
Maintenance Plans	Y	N	N/A	Comments
Has a long-term maintenance plan been developed or included in the SWP3 for maintenance of the structural post-construction BMP?	✓			

OHC000005 – SWP3 Checklist

NOTE: The long-term maintenance plan must be developed and provided to the post-construction site operator.	✓			
Does the long-term maintenance plan include the following?				
(1) an entity designated for storm water inspection and maintenance responsibilities?	✓			Not as of yet. Will be added once GC & grader are named.
(2) the routine and non-routine maintenance tasks to be undertaken?	✓			
(3) a schedule for inspection and maintenance?	✓			
(4) any necessary legally binding maintenance easements and agreements?			✓	
(5) construction drawings or excerpts showing the facility plan view and profile, as well as details of the outlet(s)?	✓			
(6) a map showing all access and maintenance easements?			✓	
(7) a description of how pollutants will be removed and disposed of?	✓			
Does the SWP3 include a structural post-construction BMP designed to release the water quality volume over a 24-hour to 48-hour time period?	✓			
Calculation of Water Quality Volume (WQv)	Y	N	N/A	Comments
Is the calculation of the WQv shown?	✓			w/ drainage rates
With correct values used for the following:				
(a) runoff coefficient (Rv), where $Rv = 0.05 + 0.9i$ i = ratio of impervious surface	✓			
(b) precipitation depth (P = 0.9 inches)?	✓			
(c) and the drainage area (A) to the BMP?	✓			
If the structural post-construction BMP will be used for sediment storage, does it include a sediment accumulation volume of at least 20% of the WQv?	✓			
If a regional storm water BMP will be used to meet the post-construction requirements, does it:				
(1) meet the design requirement for treating the WQv?	✓			
(2) have a legal agreement established with the BMP owner for long-term maintenance?		✓		not yet
Table 4a Do extended detention practices show an appropriate minimum drain time that shall not discharge more than the first half of the WQv in less than one-third of the drain time? NOTE: Dry = 48 hr; Wet, wetland, permeable pavement, underground storage, and sand/media filtration min. 24, <72 hr.	✓			
Table 4a Do extended detention practices show appropriate design features? - Wetland and wet basins: permanent pool = 1 WQv - Dry, wet and wetland: sediment storage = 0.2 WQv - Dry: forebay and micro-pool or acceptable pretreatment and a protected outlet. Underground storage: acceptable pretreatment capable of ≥ 50% TSS.	✓			
Table 4b Do planned infiltrating practices show an appropriate maximum drain time? Note: Bioretention and infiltration basin ≤ 24; infiltration trench, permeable pavement and underground storage ≤ 48 hours.			✓	
Table 4b Do planned infiltrating underground storage practices (for credit) show acceptable of pretreatment of ≥ 80% TSS.			✓	
Small Construction Activities ≤ 2 Acres If the SWP3 proposes to use an alternative BMP instead of a Table 4a or 4b practice,	Y	N	N/A	Comments

OHC000005 – SWP3 Checklist

(1) does the SWP3 provide justification on why a standard BMP is infeasible and their use would prevent the project?			✓	
(2) Is the alternative BMP acceptable to the local MS4 or jurisdiction?			✓	
Transportation Projects	Y	N	N/A	Comments
For (public road construction activities), are the post-construction BMPs designed consistent with the Ohio Department of Transportation's "Location and Design Manual, Volume Two?"			✓	
Offsite Mitigation of Post-Construction	Y	N	N/A	Comments
If the SWP3 is proposing to use an offsite post-construction BMP, then does the SWP3 include:			✓	
(1) a maintenance agreement or policy is established to ensure operations and treatment long-term?				
(2) the offsite location discharges to the same HUC-12 watershed unit?				
(3) the mitigation ratio of the WQv is 1.5 to 1 or the WQv at the point of retrofit, whichever is greater?				
Previously Developed Areas (Redevelopment)	Y	N	N/A	Comments
For construction of a previously developed area, was one of the following options used to as a post-construction practice:			✓	
(a) 20% net reduction in the site's volumetric runoff coefficient?				
(b) a BMP sized to treat 20% of the WQv for the previously developed area using a standard BMP from Tables 4a or 4b?				
For construction involving both previously developed and undeveloped land, was equation 3 shown to calculate the WQv? $WQv = 0.9 \text{ inches} * A * [(Rv_1 * 0.2) + (Rv_2 - Rv_1)] / 12$	✓			
Runoff Reduction Practices:	Y	N	N/A	Comments
If the SWP3 proposes to use runoff reduction methods to reduce the WQv or size of post-construction practices, are one of the following acceptable practices being used with appropriate credit?				
• Green Roof • Impervious Surface Disconnection • Rainwater Harvesting • Bioretention Area/Cell • Infiltration Basin • Infiltration Trench • Permeable Pavement (Infiltration) • Underground Storage (Infiltration) • Grass Swale • Sheet Flow to Filter Strip			✓	
Sheet Flow to Conservation Area				
Do practices meet Ohio EPA's Rainwater and Land Development Manual specifications?	✓			
Is any runoff reduction practice(s) used to meet the groundwater recharge requirements for the Big Darby Creek Watershed shown in recharge calculations?			✓	
Is any runoff reduction practice used meet post-construction requirement for areas that cannot drain to a structural practice (e.g., backyards of residential lots) shown in calculations?			✓	
Alternative Post-Construction BMPs	Y	N	N/A	Comments

If the SWP3 proposes to use alternative post-construction BMPs to those of Tables 4a and 4b practices, has approval been obtained from Ohio EPA? (Attach correspondence & Alt. Practice Form)			✓	

Part III.G.2.f - Surface Water Protection				
	Y	N	N/A	Comments
Does the site contain any streams, rivers, lakes, or wetlands?		✓		
If so, has the U.S. Army Corps of Engineers been contacted for a determination of impacts requiring Clean Water Act 401 or 404 permitting? (Attach any reference numbers)			✓	
For storm water discharges from BMPs into wetlands, have appropriate BMPs been proposed to treat and diffuse flows?			✓	

Part III.G.2.g - Other Controls				
(Non-sediment pollutant controls, tracking, dust, wastes, dewatering, and contaminated sediments)				
Handling of Toxic or Hazardous Materials	Y	N	N/A	Comments
(1) The SWP3 considers and addresses potential toxic or hazardous wastes and their proper disposal?	✓			
(2) The SWP3 addresses the need and methods to exclude waste materials or wastewater (e.g. from washout) from storm water or waters of the state? and of responding to chemical spills and leaks (e.g. directs to onsite Spill Prevention Control and Countermeasure (SPCC) plan).	✓			
(3) The SWPPP addresses potential materials and responses to chemical spills and leaks (e.g. directs to onsite Spill Prevention Control and Countermeasure (SPCC) plan).	✓			
Waste Disposal	Y	N	N/A	Comments
Covered and leak-proof containers are planned for disposal of debris, trash, hazardous or petroleum wastes?	✓			
As applicable, the SWP3 states that all waste will comply with applicable state or local waste disposal requirements and provisions address issues such as open burning, sanitary wastes and construction and demolition debris?	✓			Burning/Smoking is not allowed. see sheet C100
Clean Hard Fill	Y	N	N/A	Comments
(1) If disposal of bricks, hardened concrete, and/or soil is planned, are these materials required to be free from contamination that may leach to waters of the state?	✓			
(2) If clean construction wastes will be disposed into the property, have are there any local prohibitions from this type of disposal?	✓			
Construction Chemical Compounds	Y	N	N/A	Comments
(1) Does the SWP3 designate areas used for mixing or storage of compounds such as fertilizers, lime, asphalt, or concrete?	✓			offsite
(2) If so, are these areas located away from watercourses, drainage ditches, field drains, or other storm water drainage areas?	✓			
Equipment Fueling & Maintenance	Y	N	N/A	Comments
(1) Does the SWP3 designate areas used for fueling or performing vehicle maintenance that provide separation from watercourses, drainage ditches, field drains, or other storm water drainage areas?	✓			offsite
(2) If applicable, has a spill prevention control and countermeasures (SPCC) plan been developed?	✓			

OHC000005 – SWP3 Checklist

<i>NOTE: An SPCC plan is required for sites which have the following:</i> • Aboveground oil/fuel storage capacity of more than 1,320 gallons in all containers 55 gallons or greater in volume, or • Underground oil/fuel storage capacity of more than 42,000 gallons.			✓	
Concrete Wash Waters	Y	N	N/A	Comments
(1) Does the SWP3 designate areas used for concrete chute cleaning or other concrete wash waters that are these areas located away from watercourses, drainage ditches, field drains, or other drainage areas?	✓			concr. wash
Trench & Ground Water Control	Y	N	N/A	Comments
Does the construction site have an onsite trench or pond that must be dewatered?		✓		
If so, does the SWP3 call for the discharge of potentially turbid water through a filter bag, sump pit, or other sediment removal device?			✓	
Contaminated Soils	Y	N	N/A	Comments
If applicable, does the SWP3 address proper handling and disposal of soils contaminated by petroleum or other chemical spills? <i>NOTE: Contaminated soils must be treated and/or disposed in Ohio EPA approved solid waste management facilities or hazardous waste treatment, storage or disposal facilities.</i>			✓	
If the facility contains contaminated soil, which of the following practices will be used to prevent contamination from being released?			✓	
(1) Berms, trenches, and pits used to collect contaminated runoff and prevent discharges;			✓	
(2) Runoff is planned to be pumped into a sanitary sewer (requires prior approval of the sanitary sewer operator) or into a container for transport to an appropriate treatment/disposal facility;			✓	
(3) Areas of contamination are planned for covering with tarps or other methods that prevent storm water from coming into contact with the material.			✓	
Spill Reporting Requirements	Y	N	N/A	Comments
(1) The SWP3 describes procedures in the event of a small release (less than 25 gallons) of petroleum waste? <i>NOTE: Petroleum-based and concrete curing compounds must have special handling procedures.</i>	✓			
(2) The SWP3 describe what to do in the event of a larger release (25 or more gallons) of petroleum waste? <i>NOTE: Ohio EPA (1-800-282-9378), the local fire department, and the local emergency planning committee (LEPC) must be contacted within 30 minutes of a spill of 25 or more gallons.</i>	✓			
Open Burning	Y	N	N/A	Comments
(1) If applicable, does the SWPPP restrict open burning to legal limits (as defined in OAC 3745-19)?			✓	Burning not allowed
Dust Controls/Suppressants	Y	N	N/A	Comments
(1) If dust suppressants are proposed in the SWP3, are application areas away from catch basins for storm sewers or other drainage ways? <i>NOTE: Used oil may not be used as a dust suppressant</i>	✓			
Air Permitting Requirements	Y	N	N/A	Comments
(1) If applicable (e.g. mobile concrete batch plants, mobile asphalt plants, concrete crushers, and large generators) have appropriate			✓	

OHC000005 – SWP3 Checklist

measures been taken to ensure that all air pollution permits have been obtained?				
(2) In the case of applicable restoration or demolition projects, a notification will be submitted to Ohio EPA, Division of Air Pollution Control to determine if asbestos corrective actions are required?			✓	
Process Wastewater/Leachate Management	Y	N	N/A	Comments
All process wastewaters (e.g., equipment washing, leachate associated with on-site waste disposal, and concrete wash-outs) be collected and disposed of properly (e.g., to a publicly-owned treatment works)? <i>NOTE: The NPDES construction storm water general permit only authorizes the discharge of storm water and certain uncontaminated non-storm waters. The discharge of non-storm waters to waters of the state may be in violation of local, state, and federal laws or regulations.</i>			✓	
Additional Concerns	Y	N	N/A	Comments
For construction activities involving the installation and/or replacement of a centralized sanitary system, (including sewer extensions) or a sewerage system (except those serving one, two, and three family dwellings) and potable water lines, a PTI application was submitted to Ohio EPA? <i>NOTE: Coverage under the NPDES construction storm water general permit does not alone authorize the installation of such sanitary sewerage systems or potable water lines.</i>			✓	sewer service only
Does the SWP3 include measures for implementing good housekeeping practices?	✓			
Does the SWP3 promote the use of protected storage areas for industrial or construction materials to minimize exposure of such materials to storm water?	✓			

Part III.G.2.h - Maintenance

	Y	N	N/A	Comments
The SWPPP describes adequate repair and maintenance procedures for each temporary and permanent control practice planned in order to ensure continued function.	✓			

Part III.G.2.i - Inspections

	Y	N	N/A	Comments
The SWP3 states that only “qualified inspection personnel” will perform the inspections?	✓			
The SWP3 requires construction site inspections to be performed once every 7 calendar days; and after every rain event ≥ 0.5 -inch in a 24-hour period by the end of next calendar day (excluding non-working weekends & holidays)?	✓			
The SWP3 states that the inspection frequency may be reduced to monthly for dormant sites if:	✓			
• the entire site is temporarily stabilized or	✓			
• runoff is unlikely due to weather conditions for extended periods of time (e.g., frozen ground)?	✓			
Does the SWP3 include an inspection checklist (to be completed and signed after every inspection) that includes:	✓			
• the inspection date;				
• names, titles, and qualifications of inspectors;				Appendix E

OHC000005 – SWP3 Checklist

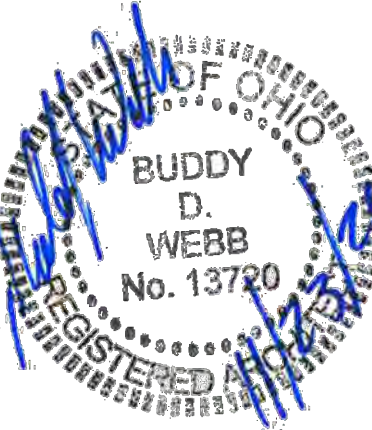
• weather for the period since the last inspection (e.g., beginning, duration, & rainfall amount of each storm event and whether a discharge occurred); • weather and a description of any discharges occurring at the time of the inspection; • location(s) of discharges of sediment or other pollutants from the site; • location(s) of BMPs that need to be maintained; • location(s) of BMPs that failed to operate as designed or proved inadequate for a particular location; • location(s) where additional BMPs are needed that did not exist at the time of inspection; • and corrective action required including any changes to the SWP3 necessary and implementation dates				
The SWP3 details the areas to inspect (disturbed areas; material storage areas; erosion and sediment controls; discharge locations; and vehicle entrance/exit locations)?	✓			
Does the SWP3 state that inspection records will be kept for 3 years after termination of construction activities?	✓			
Does the SWP3 specify the time within which BMPS must be repaired, maintained or a new functional BMP installed? (Within 3 days of inspection for non-sediment pond BMPs, and within 10 days of inspection for sediment ponds to be repaired or cleaned out and replacing a BMP not meeting the intended function or missing from the site.)	✓			



AUTO PARTS

New O'Reilly Auto Parts Store
301 NORTH MAIN STREET
MONROE, OHIO

FIRM ARCHITECTURAL REGISTRATION
NO.: 20314259



SHEETS BEARING THIS SEAL ARE
AUTHENTICATED. RESPONSIBILITY FOR
ALL OTHER PLANS, SPECIFICATIONS
OR INSTRUMENTS ARE DISCLAIMED.

O'Reilly AUTO PARTS

CORPORATE OFFICES
233 SOUTH PATTERSON
SPRINGFIELD, MISSOURI 65802
(417) 862-2674 TELEPHONE

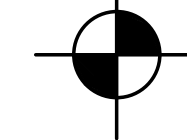
PROJECT:
NEW O'REILLY AUTO PARTS STORE
301 NORTH MAIN STREET
MONROE, OHIO

COVER SHEET

Buddy Webb & Company, Inc.

Architect - Consultant

3057 EAST CAIRO
SPRINGFIELD, MISSOURI 65802
(417) 877-1385 TELEPHONE
(417) 877-9736 FAX



DRAWN BY: RHV CHECKED BY: SB

DATE: 11/23/21

REVISION:

PROJECT NUMBER: MNO

SHEET NUMBER

T1.1

ABBREVIATIONS LEGEND

AFF	ABOVE FINISHED FLOOR	INSUL	INSULATE
AC	ACOUSTICAL	INT	INTERIOR
A/C	AIR CONDITIONING	JST	JOIST
ALT	ALTERNATE	JT	JOINT
AL	ALUMINUM	JNT	JOINT
ALUM	ALUMINUM	KIT	KITCHEN
AB	ANCHOR BOLT	LH	LEFT HAND
ARCH	ARCHITECT (URAL)	LF	LINEAL FOOT
BSMT	BASEMENT	LTL	LENGTH
BRG	BEARING	LL	LINTEL
BM	BENCH MARK	LL	LIVE LOAD
BEL	BELOW	MACH	MACHINE
BLK	BLOCK	MH	MANHOLE
BLKG	BLOCKING	MFR	MANUFACTURER
BD	BOARD	MAS	MASONRY
BW	BOTH WAYS	MD	MASONRY OPENING
BOT	BOTTOM	MAX	MAXIMUM
BOF	BOTTOM OF FOOTING	MECH	MECHANICAL
BOF	BOTTOM OF FOOTING	MED	MEDIUM
BRK	BRICK	MBR	MODIFIED BITUMEN ROOFING
BLDG	BUILDING	MET	METAL
BUR	BUILT-UP ROOFING	MTL	METAL
CAB	CABINET	M	METER(S)
C/G	CEILING	MMK	MILLWORK
CL	CENTER LINE	MIN	MINIMUM
C/O	CENTER OF	MISC	MISCELLANEOUS
CC	CENTER TO CENTER	MT	MOUNTED (ING)
CLR	CLEAR	NOM	NOMINAL
CLR	COLUMN	N	NORTH
CONC	CONCRETE	NIC	NOT IN CONTRACT
CMU	CONCRETE MASONRY UNIT	NTS	NOT TO SCALE
CONST	CONSTRUCTION	OC	ON CENTER(S)
CONTR	CONTRACTOR	OPG	OPENING
CONT	CONTINUOUS	OPH	OPPOSITE HAND
CNTR	COUNTER	OD	OUTSIDE DIAMETER
CFL	COUNTER FLASHING	OO	OUT TO OUT
CRK	COUNTERSUNK	OA	OVERALL
CRS	COURSE(S)	OH	OVERHEAD
CF	CUBIC FOOT	PC	PIECE
CY	CUBIC YARD	PNT	PAINT(ED)
DEM	DEMOLISH, DEMOLITION	PTD	PAINT(ED)
DTL	DETAIL	PKG	PACK
DIAG	DIAGONAL	PLAM	PLASTIC LAMINATE
DIAH	DIAMETER	PL	PLATE
DIM	DIMENSION	PWD	PLYWOOD
DR	DOOR	PVC	POLYVINYL CHLORIDE
DS	DOWN SPOUT	PSF	POUNDS PER SQUARE FT.
D	DRAIN	PSI	POUNDS PER SQUARE IN.
DWG	DRAWING	PT	PRESSURE TREATED
DF	DRINKING FOUNTAIN	PL	PROPERTY LINE
E	EAST	REM	REMOVE
EIPS	EXTERIOR INSULATION AND FINISH SYSTEM	RET	RETURN
ELEC	ELECTRIC (AL)	RH	RIGHT HAND
EWC	ELECTRIC WATER COOLER	RD	ROOF DRAIN
EL	ELEVATION	RFG	ROOFING
ELEV	ELEVATION	RM	ROOM
EMER	EMERGENCY	RO	ROUGH OPENING
EQ	EQUAL	SNT	SEALANT
ENG	EXISTING	SLNT	SEALANT
EXIST	EXISTING	SEC	SECTION
EXP	EXPOSED	SECT	SECTION
EXT	EXTERIOR	SHTG	SHEATHING
FO	FACE OF	SHT	SHEET
FO	FACE OF	SIM	SIMILAR
FO	FACE OF	SC	SOLID CORE
FO	FACE OF	S	SOUTH
FO	FACE OF	SF	SQUARE FOOT
FO	FACE OF	SI	SQUARE INCH
FO	FACE OF	SY	SQUARE YARD
FO	FACE OF	STD	STANDARD
FO	FACE OF	STO	STORAGE
FO	FACE OF	SUS	SUSPENDED
FO	FACE OF	SYM	SYMMETRY (ICAL)
FO	FACE OF	TEL	TELEPHONE
FO	FACE OF	TV	TELEVISION
FO	FACE OF	THK	THICKNESS
FO	FACE OF	T&G	TONGUE & GROOVE
FO	FACE OF	TM	TOP OF MASONRY
FO	FACE OF	TOM	TOP OF MASONRY
FO	FACE OF	TS	TOP OF STEEL
FO	FACE OF	TOS	TOP OF STEEL
FO	FACE OF	TW	TOP OF WALL
FO	FACE OF	TOW	TOP OF WALL
FO	FACE OF	TYP	TYPICAL
FO	FACE OF	UNO	UNLESS OTHERWISE NOTED
FO	FACE OF	UNO	UNLESS NOTED OTHERWISE
FO	FACE OF	VERT	VERTICAL
FO	FACE OF	VT	VINYL TILE
FO	FACE OF	WCS	WAINSCOT
FO	FACE OF	WC	WATER CLOSET
FO	FACE OF	WWF	WELDED WIRE FABRIC
FO	FACE OF	W	WEST
FO	FACE OF	W	WIDTH
FO	FACE OF	WIN	WINDOW
FO	FACE OF	WO	WITHOUT
FO	FACE OF	W/O	WITHOUT
FO	FACE OF	WD	WOOD
FO	FACE OF	WD	WOOD

SYMBOLS LEGEND

	SECTION NUMBER
	SECTION / ELEVATION MARK
	SHEET NUMBER
	DETAIL NUMBER
	DETAIL MARK
	SHEET NUMBER

WT?	WALL TYPE MARK
?	DOOR MARK
?	WINDOW MARK
#	GRID MARK

OWNER

TUCKERMAN DEVELOPMENT, LLC

C/O ERIC EMERY
1216 E MAIN ST.; SUITE 120
CHATTANOOGA, TN 37408
(423) 641-8607
eric@tuckermancre.com

TENANT



O'REILLY AUTOMOTIVE STORES, INC. A MISSOURI CORPORATION
(FORMERLY KNOWN AS O'REILLY AUTOMOTIVE, INC.)
CORPORATE OFFICES
233 SOUTH PATTERSON
SPRINGFIELD, MISSOURI 65802
417-862-2674 PHONE

BIDDING INFORMATION:
REFER TO OWNER'S WEB SITE:
HTTP://WWW.OREILLYPLANROOM.COM

NOTE: REFER TO CURRENT PROJECTS LIST, LOCATED
AT BOTTOM OF SIGN IN PAGE, FOR INVITED GENERAL
CONTRACTORS.

ALL SUB-CONTRACTOR BIDS TO BE SUBMITTED TO
INVITED GENERAL CONTRACTORS ONLY.

CONTACT OWNER'S DESIGNATED REPRESENTATIVE
FOR ADDITIONAL PROJECT INFORMATION.

MECH. / ELEC. ENGINEER



3855 S. JEFFERSON AVE.
SPRINGFIELD, MO 65807

P: 417.882.2200
F: 417.882.1188
WWW.SMITHGOOTH.COM

CIVIL ENGINEER

SPECIAL NOTE

CIVIL DESIGN BY OTHERS AND IS
NOT INCLUDED WITHIN THESE
CONSTRUCTION DOCUMENTS.

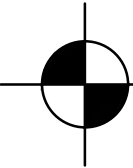
QUALITY CONTROL

1. REFER TO PROJECT MANUAL, SECTION 01 45 16 - QUALITY
CONTROL PROCEDURES, FOR ADDITIONAL REQUIREMENTS.

2. REFER TO STRUCTURAL DRAWINGS FOR SCHEDULE OF
SPECIAL INSPECTIONS, IF INDICATED.

3. WHERE REQUIRED, THE OWNER SHALL PROVIDE THE
SERVICES OF AN INDEPENDENT TESTING LABORATORY TO
PERFORM TESTING AND SPECIAL INSPECTIONS INDICATED.

ARCHITECT



Buddy Webb & Company, Inc.

Architect - Consultant

3057 EAST CAIRO
SPRINGFIELD, MISSOURI 65802
(417) 877-1385 TELEPHONE
(417) 877-9736 FAX



JS Smith Consulting Engineers, P.C.

Ohio Certificate of Authorization No. 01403

Aaron D. Smith P.E. 70658

P.O. Box 8102 • JOPLIN, MISSOURI 64802

PHONE: 417-624-0444 • FAX: 417-624-0430

GENERAL NOTES

A. CONTRACT ADMINISTRATION (LIMITED SERVICE): THE ARCHITECT
AND/OR ENGINEER OF RECORD INDICATED HEREIN ARE PROVIDING A
LIMITED SERVICE AND NOT PROVIDING CONTRACT ADMINISTRATION
SERVICES FOR THIS PROJECT WHICH IS THE RESPONSIBILITY OF
OTHERS. THE ARCHITECT AND/OR ENGINEER ARE NOT RESPONSIBLE
FOR FIELD ACTIVITIES ON THIS PROJECT WITHOUT DIRECT
INSPECTION OF THE WORK IN PROGRESS. IF FIELD CONDITIONS ARE
UNCOVERED THAT REQUIRE A CHANGE OR ADDITIONAL INFORMATION,
THE ARCHITECT AND/OR ENGINEER DOES NOT DELEGATE AUTHORITY
TO ANYONE ELSE FOR DETERMINING THE MEANING OF PLANS OR
SPECIFICATIONS AS AUTHENTICATED HEREIN.

B. QUALITY STANDARDS AND BUILDING CODES: CONTRACTORS SHALL
BE RESPONSIBLE FOR KNOWING THE QUALITY AND PUBLIC SAFETY
REGULATIONS SET FORTH IN THE GOVERNING CODES AND OTHER
APPLICABLE REGULATIONS OF LOCAL AND STATE AGENCIES HAVING
JURISDICTION WHICH GOVERN EACH CONTRACTOR'S WORK.

C. EXISTING CONDITIONS: FIELD VERIFY EXISTING CONDITIONS BY
DETAILED INSPECTION PRIOR TO SUBMITTING BID AND BEGINNING
WORK. NOTIFY THE ARCHITECT AND/OR ENGINEER OF RECORD IF
EXISTING CONDITIONS DEVIATE SUBSTANTIALLY FROM THOSE
INDICATED HEREIN.

SCOPE OF WORK SCHEDULE									
PROJECT MANUAL (CSI) SECTION REF. NUMBER	SECTION NAME REFERENCE	FURNISHED BY LANDLORD	INSTALLED BY LANDLORD	FURNISHED BY TENANT	INSTALLED BY TENANT	CONTACT INFORMATION			
	ITEM OR WORK DESCRIPTION					COMPANY & ADDRESS		POINT OF CONTACT, PHONE (P), FAX (F), OR EMAIL (E)	
01 11 00	SUMMARY OF WORK (GENERAL BUILDING PERMIT, STATE DEPARTMENT OF TRANSPORTATION PERMITS, STATE DEPARTMENT OF NATURAL RESOURCES PERMITS)	X				(REFER TO BOX NOTE THIS SHEET FOR LANDLORD'S CONTACT INFORMATION)		LANDLORD'S DESIGNATED PROJECT ADMINISTRATOR	
01 11 00	SUMMARY OF WORK (ALL TRADE PERMITS, UTILITY IMPACT AND CONNECTION FEES, OR PERMITS AND FEES REQUIRED FOR PROJECT COMPLETION)	X							
01 45 16	QUALITY CONTROL PROCEDURES (TESTING & SPECIAL INSPECTIONS)	X				(REFER TO BOX NOTE THIS SHEET FOR LANDLORD'S CONTACT INFORMATION)		LANDLORD'S DESIGNATED PROJECT ADMINISTRATOR	
07 21 00	BUILDING INSULATION (PRE-ENGINEERED METAL BUILDING BATT)		X	X		SILVERCOTE, LLC (INSULATION) 25 LOGUE COURT GREENVILLE, SOUTH CAROLINA 29615		JERRY MILLER P: 417.861.9513 E: JE.MILLER@SILVERCOTE.COM	
07 46 00	SIDING (FIBER CEMENT BOARD)	X	X			(REFER TO NOTE NO. 1) NICHIIHA USA, INC. 6465 EAST JOHNS CROSSING SUITE 250 JOHNS CREEK, GEORGIA 30097		RYAN PARKER P: 770.805.9468 F: 770.805.9467 E: oreilly@nichiha.com	
08 11 19	STEEL DOORS AND FRAMES (EXTERIOR SWING UNITS)		X	X		GLOBAL BUILDING PRODUCTS 1121 HERMAN STREET ELKHART, INDIANA 46516		ANDREW CARPENTER CLAYTON BJURSTROM P: 574.296.6868	
08 11 19	STEEL DOORS AND FRAMES (INTERIOR SWING UNITS)	X	X			(REFER TO NOTE NO. 1) LOCKNET 100 COURCELLE DRIVE NICHOLASVILLE, KY 40356		PAM PEEL P: 800.887.4307, EXT: 133 F: 859.881.5499 construction@locknet.com	
08 14 16	FLUSH WOOD DOORS (INTERIOR SWING UNITS)	X	X			(REFER TO NOTE NO. 1) LOCKNET 100 COURCELLE DRIVE NICHOLASVILLE, KY 40356		PAM PEEL P: 800.887.4307, EXT: 133 F: 859.881.5499 construction@locknet.com	
08 71 00	DOOR HARDWARE (EXTERIOR SWING UNITS)		X	X		GLOBAL BUILDING PRODUCTS 1121 HERMAN STREET ELKHART, INDIANA 46516		ANDREW CARPENTER CLAYTON BJURSTROM P: 574.296.6868	
08 71 00	DOOR HARDWARE (INTERIOR SWING UNITS)	X	X			(REFER TO NOTE NO. 1) LOCKNET 100 COURCELLE DRIVE NICHOLASVILLE, KY 40356		PAM PEEL P: 800.887.4307, EXT: 133 F: 859.881.5499 E: construction@locknet.com	
08 41 13	ALUMINUM ENTRANCES AND STOREFRONTS	X	X			(REFER TO NOTE NO. 1) COULTER & COMPANY 13711 E. 66TH STREET NORTH OWASSO, OK 74055		CARL YORMAN P: 918.272.4494 F: 918.272.7908 E: carl@coulterglass.com	
08 44 12 08 44 13	GLAZED ALUMINUM CURTAIN WALLS	X	X			(REFER TO NOTE NO. 1) COULTER & COMPANY 13711 E. 66TH STREET NORTH OWASSO, OK 74055		CARL YORMAN P: 918.272.4494 F: 918.272.7908 E: carl@coulterglass.com	
10 14 00	SIGNAGE (EXTERIOR PANEL SIGNAGE, ILLUMINATED PANEL SIGNAGE, POST AND PANEL/PYLON SIGNAGE, POST CONCRETE FOUNDATIONS)			X	X	O'REILLY AUTOMOTIVE STORES, INC. 233 SOUTH PATTERSON SPRINGFIELD, MO 65802		TENANT'S DESIGNATED PROJECT ADMINISTRATOR	
10 14 00	SIGNAGE (MONUMENT SIGN CONCRETE FOUNDATIONS AND MASONRY, ELECTRICAL ROUGH-IN SYSTEMS)	X	X						
10 28 13	TOILET ACCESSORIES (TISSUE PAPER DISPENSERS, SOAP DISPENSERS, PAPER TOWEL DISPENSERS)		X	X		O'REILLY AUTOMOTIVE STORES, INC. 233 SOUTH PATTERSON SPRINGFIELD, MO 65802		TENANT'S DESIGNATED PROJECT ADMINISTRATOR	
10 71 16	STORM PANELS			X	X	TOWN & COUNTRY INDUSTRIES 400 WEST MCNAB ROAD FORT LAUDERDALE, FLORIDA 33309		TOM JOHNSON P: 561.512.9702	
11 16 16	SAFES (WHERE REQUIRED)			X	X	O'REILLY AUTOMOTIVE STORES, INC. 233 SOUTH PATTERSON SPRINGFIELD, MO 65802		TENANT'S DESIGNATED PROJECT ADMINISTRATOR	
12 57 00	INDUSTRIAL FURNITURE (RACKING AND SHELVING)			X	X	O'REILLY AUTOMOTIVE STORES, INC. 233 SOUTH PATTERSON SPRINGFIELD, MO 65802		TENANT'S DESIGNATED PROJECT ADMINISTRATOR	
13 34 18	PRE-ENGINEERED METAL BUILDING SYSTEMS	X	X			BUTLER MANUFACTURING, INC. 1540 GENESSEE STREET KANSAS CITY, MO 64102		SCOTT CARLETON P: 816.968.3472 F: 816.627.8964	
						CHIEF BUILDINGS, INC. P.O. BOX 2078 1821 SOUTH NORTH ROAD GRAND ISLAND, NE 68802-2078		MICHAEL LOYD P: 308.390.6695	
13 34 19	PRE-ENGINEERED METAL BUILDING SYSTEM ERECTION		X						
22 40 00	PLUMBING FIXTURES (ONLY WATER HEATERS, SHELF, STAND, & THERMAL EXPANSION TANK)		X	X		SOURCEONE SOLUTIONS O'REILLY TEAM 2081 EXCHANGE DRIVE ST. CHARLES, MO 63303		SOURCEONE SOLUTIONS O'REILLY TEAM P: 314.499.6400 EMAIL: NCOREILLY@SOURCEONESOLUTIONS.COM	
23 74 00 THRU 23 81 43	HEATING/COOLING UNITS		X	X		CARRIER CORPORATION STRATEGIC ACCOUNTS CARRIER PARKWAY SYRACUSE, NY 13221		TARA ROWSER P: 315.432.6979 EMAILS: TARA.ROWSER@CARRIER.COM STRATEGICACCOUNTS@CARRIER.COM	
25 00 00	INTEGRATED AUTOMATION (ENERGY MANAGEMENT SYSTEM - SOFTWARE, HARDWARE, CONDUIT, WIRING, EQUIPMENT)		X	X		GRIDPOINT 5305 VALLEY PARK DRIVE, SUITE 2 ROANOKE, VA 24019		(TECHNICAL SUPPORT) P: 866.800.8906 EMAIL: SUPPORT@GRIDPOINT.COM	
25 00 00	INTEGRATED AUTOMATION (ENERGY MANAGEMENT SYSTEM - INSTALLATION)	X	X			(CONTACT GRIDPOINT INSTALLATION MANAGEMENT FOR INSTALLER CONTACT BASED ON PROJECT LOCATION.)		(INSTALLATION MGMT.) P: 866.800.8906	

26 24 13	ELECTRICAL EQUIPMENT (PANEL BOARDS, TRANSFORMERS, TRANSFER SWITCH KIT, TEST BOX, AND DISCONNECTS)		X	X		SOURCEONE SOLUTIONS 2081 EXCHANGE DRIVE ST. CHARLES, MO 63303	SOURCEONE SOLUTIONS O'REILLY TEAM P: 314.499.6400 EMAIL: NCOREILLY@SOURCEONESOLUTIONS.COM
26 50 00	LIGHTING (LIGHT FIXTURES, SENSORS, DIMMERS, POWER PACKS, POLE LIGHTS)		X	X		SOURCEONE SOLUTIONS 2081 EXCHANGE DRIVE ST. CHARLES, MO 63303	SOURCEONE SOLUTIONS O'REILLY TEAM P: 314.499.6400 EMAIL: NCOREILLY@SOURCEONESOLUTIONS.COM
27 00 00	COMMUNICATIONS - VOICE AND DATA (ELECTRONIC SYSTEMS AND CONDUCTORS)			X	X	O'REILLY AUTOMOTIVE STORES, INC. 233 SOUTH PATTERSON SPRINGFIELD, MO 65802	TENANT'S DESIGNATED PROJECT ADMINISTRATOR
27 00 00	COMMUNICATIONS - VOICE AND DATA (CONDUIT, BOXES)	X	X				
28 00 00	ELECTRONIC SAFETY AND SECURITY SYSTEM			X	X	O'REILLY AUTOMOTIVE STORES, INC. 233 SOUTH PATTERSON SPRINGFIELD, MO 65802	TENANT'S DESIGNATED PROJECT ADMINISTRATOR
28 30 00	(ONLY WHERE SPECIFIED IN CONSTRUCTION DOCUMENTS) FIRE DETECTION (CONDUIT, BOXES, WIRING) REFER TO FIRE PROTECTION, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.	X	X				
28 30 00	(ONLY WHERE SPECIFIED IN CONSTRUCTION DOCUMENTS) FIRE DETECTION AND ALARM MONITORING SYSTEMS (EQUIPMENT) REFER TO FIRE PROTECTION, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.			X	X	O'REILLY AUTOMOTIVE STORES, INC. 233 SOUTH PATTERSON SPRINGFIELD, MO 65802	LEIGH SIDES P: 417.874.7132
SCOPE OF WORK SCHEDULE NOTES: 1. CONTRACTOR'S OPTION TO PURCHASE MATERIALS THROUGH COMPANY(S) INDICATED.							

- GENERAL NOTES
- A

REFER TO PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.
- B

REFER TO DRAWINGS FOR ADDITIONAL REQUIREMENTS.
- C

CONTACT LANDLORD'S OR TENANT'S DESIGNATED PROJECT ADMINISTRATOR FOR QUESTIONS OR CLARIFICATIONS.
- D

REFER TO SHEET M1 FOR "MECHANICAL RESPONSIBILITY SCHEDULE" FOR ADDITIONAL SCOPE OF WORK.

SPECIAL NOTE:
SCOPE OF WORK SCHEDULE MAY INCLUDE ITEMS NOT REQUIRED FOR PROJECT SPECIFIC CONDITIONS. REFER TO CONSTRUCTION DOCUMENTS FOR PROJECT DESIGN REQUIREMENTS.

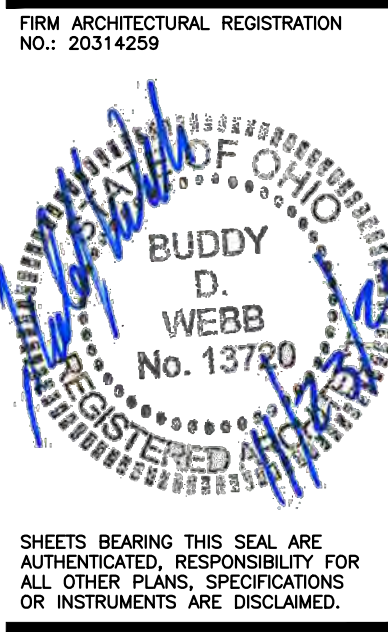
LANDLORD'S CONTACT INFORMATION:
TUCKERMAN DEVELOPMENT, LLC
C/O JAKE TONER
1216 E MAIN ST., SUITE 120
CHATTANOOGA, TN 37408
(423) 641-8607
eric@tuckermancre.com

BIDDING INFORMATION:
REFER TO TENANT'S WEB SITE:
HTTP://WWW.OREILLYPLANROOM.COM

NOTE: REFER TO CURRENT PROJECTS LIST, LOCATED AT BOTTOM OF SIGN IN PAGE, FOR INVITED GENERAL CONTRACTORS.

ALL SUB-CONTRACTOR BIDS TO BE SUBMITTED TO INVITED GENERAL CONTRACTORS ONLY.

CONTACT LANDLORD'S DESIGNATED REPRESENTATIVE FOR ADDITIONAL PROJECT INFORMATION.



O'Reilly AUTO PARTS
CORPORATE OFFICES
233 SOUTH PATTERSON
SPRINGFIELD, MO 65802
(417) 862-2674 TELEPHONE

PROJECT:
NEW O'REILLY AUTO PARTS STORE
301 NORTH MAIN STREET
MONROE, OHIO

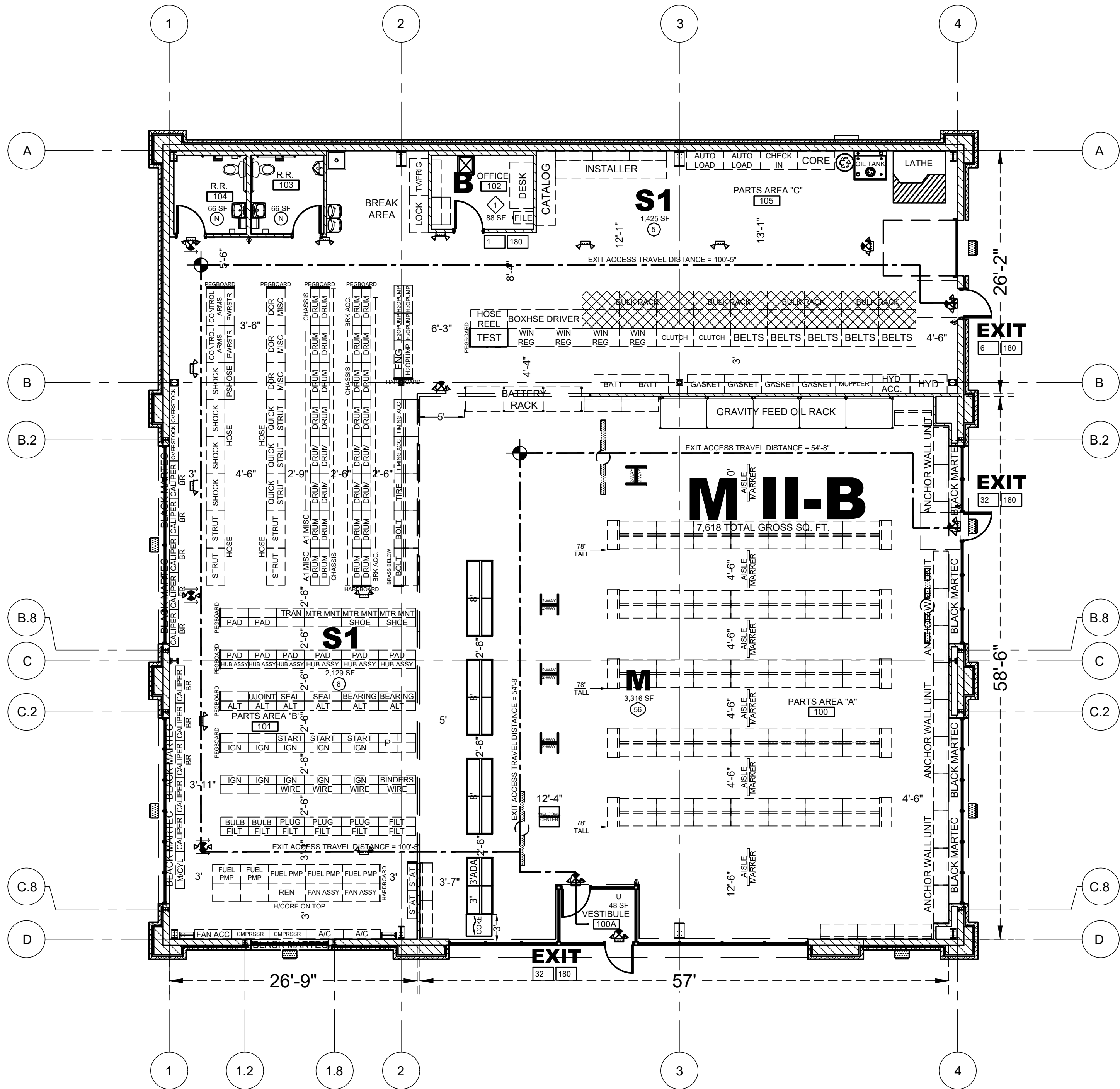
SCOPE OF WORK SCHEDULE

Buddy Webb & Company, Inc.
Architect - Consultant
3057 EAST CAIRO
SPRINGFIELD, MISSOURI 65802
(417) 877-1385 TELEPHONE
(417) 877-9736 FAX

DRAWN BY: RHV
CHECKED BY: SB
DATE: 11/23/21
REVISION:

PROJECT NUMBER:
MNO
SHEET NUMBER

T1.2



1 CODE SUMMARY PLAN
G1.1 SCALE: 1/8" = 1'-0"

PROJECT DATA

REAL ESTATE PROPERTY GROSS AREA:	130,401 GSF
SITE PARKING GROSS AREA:	29,181 GSF
BUILDING BUILDING GROSS AREA:	7,618 GSF
BUILDING INTERIOR AREA:	7,225 SF

**HAZARDOUS
MATERIALS
INVENTORY
STATEMENT (HMIS)**

- (A) UPON REQUEST OWNER TO PROVIDE UNDER SEPERATE COVER, PROJECT HAZARDOUS MATERIALS INVENTORY STATEMENT (HMIS) FOR COMMODITY TYPES, HAZARD CLASS, AND QUANTITIES.
- (B) OWNER RESPONSIBLE FOR MONITORING INVENTORY COMMODITY TYPES AND QUANTITIES TO NOT EXCEED CODE REQUIREMENTS.

**OCCUPANCY LOAD
SUMMARY**

ROOM OR AREA (REFER TO FLOOR PLAN)	AREA PER OCCUPANT(S.F.)	OCCUPANTS (QTY.)
100A - VESTIBULE	N/A	0
100 - PARTS AREA "A"	60	56
101 - PARTS AREA "B"	300	8
102 - OFFICE	100	1
103 - RESTROOM	N/A	0
104 - RESTROOM	N/A	0
105 - PARTS AREA "C"	300	5
TOTAL OCCUPANCY		70

BUILDING CODE

BUILDING OFFICIAL CONTACT NUMBER: (888) 433-4642
COUNTY: BUTLER
ZIP CODE: 45050

GOVERNING CODES AND ORDINANCES
BUILDING CODE: 2017 OBC (2015 IBC)
PLUMBING CODE: 2017 OPC (2015 IPC)
MECHANICAL CODE: 2017 OMC (2015 IMC)
ELECTRICAL CODE: 2017 OEC (2017 NEC)
FIRE CODE: 2017 OFC (2015 IFC)
ENERGY CODE: 2017 OECC (2012 IECC)
ACCESSIBILITY CODE: 2009 ICC A117.1
AMENDING ORDINANCE: 2010 ADA
CITY OF MONROE
STATE OF OHIO

USE GROUP & CONSTRUCTION TYPE
PRIMARY USE GROUP: M (MERCANTILE)
MIXED USE AND OCCUPANCY: NONSEPARATED
CONSTRUCTION TYPE: II-B
(NON-COMBUSTIBLE / UNPROTECTED)

AREA MODIFICATIONS
FRONTAGE INCREASE: NOT APPLIED
AUTOMATIC SPRINKLER INCREASE: NOT PROVIDED

ALLOWABLE HEIGHT & BUILDING AREA
NO. STORIES: 2 STORIES
AREA: 12,500 SQ. FT.

ACTUAL HEIGHT & BUILDING AREA
NO. OF STORIES: 1 STORY
BUILDING HEIGHT: 22'-00"
GROSS BUILDING AREA: 7,618 SQ. F.T.

FIRE PROTECTION SYSTEMS
AUTOMATIC SPRINKLER SYSTEM: NOT REQUIRED
PORTABLE FIRE EXTINGUISHERS: REQUIRED
FIRE ALARM SYSTEM: NOT REQUIRED
AUTOMATIC DETECTION SYSTEM: NOT REQUIRED

STRUCTURAL DESIGN
(REFER TO STRUCTURAL DRAWINGS)
1. LIVE LOADS
ROOF (1/4"12): 20 PSF
(REDUCIBLE)

2. ROOF COLLATERAL LOADS
ARCHITECTURAL / MECHANICAL: 2.5 PSF
SUSPENDED ACOUSTICAL CEILING
SYSTEM LOAD (WHERE OCCURS): 2.0 PSF
SPRINKLER SYSTEM
UNIFORM BRANCH PIPE LOAD: 0.0 PSF
LINEAL LOOP / TEE MAIN PIPE LOAD: 0.0 PLF

3. SNOW LOADS Ce = 1.0 Ct = 1.0
GROUND LOAD (Pg): 20 PSF
MINIMUM ROOF SNOW LOAD (Pf): 20 PSF
IMPORTANCE FACTOR (Is): 1.0

4. WIND LOADS Gcpi = ± 0.18
BASIC WIND SPEED: 89.1 MPH (Vasd)
115 MPH (Vult)
C

EXPOSURE:
5. SEISMIC
Ss: 0.142
S1: 0.074
Sds: 0.095
Sd1: 0.049
IMPORTANCE FACTOR (Ie): 1.0
SITE CLASS: B
DESIGN CATEGORY: A

6. BUILDING LATERAL DEFLECTION LIMITS:
(REFERENCE CODE DEFLECTION LIMITS, WHERE MORE
STRINGENT LIMITS APPLY, THEY SHALL SUPERSEDE THE
FOLLOW)
MAX. ROOF SNOW OR LIVE LOAD: SPAN/240
MAX. ROOF TOTAL LOAD: SPAN/180
MAX. METAL BUILDING RIGID FRAME
LATERAL: HEIGHT/150
MAX. METAL BUILDING HORIZONTAL GIRT
LATERAL: SPAN/240

COMMERCIAL ENERGY EFFICIENCY CODE
COMPLIANCE WITH BUILDING ENERGY EFFICIENCY
REQUIREMENTS BASED UPON APPLICABLE ENERGY CODE
(PERFORMANCE METHOD).

CERTIFICATE OF COMPLIANCE AND CALCULATIONS TO BE
PROVIDED UPON REQUEST UNDER SEPARATE COVER.

GENERAL NOTES

- (A) REFER TO PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.
- (B) REFER TO PLANS, SECTIONS, AND DETAILS FOR CONSTRUCTION OF
FIRE RATED ASSEMBLIES. WHERE UNDERWRITERS LABORATORY
(UL) TEST NUMBERS ARE REFERENCED, CONTRACTOR SHALL
PROVIDE CONSTRUCTION MATERIALS, MEANS AND METHODS TO
COMPLY WITH TESTED ASSEMBLY.
- (C) REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR
ADDITIONAL REQUIREMENTS.
- (D) OWNER FURNISHED AND INSTALLED FURNISHINGS AND FIXTURES
SHOWN FOR REFERENCE ONLY.
- (E) CONTRACTOR TO PROVIDE PORTABLE FIRE EXTINGUISHERS
DURING CONSTRUCTION AS REQUIRED TO PROTECT THE WORK
AREA AND EACH STORAGE UNIT AND JOB TRAILER PER THE FIRE
CODE.
- (F) SURFACE MOUNTED PORTABLE FIRE EXTINGUISHERS SHALL BE UL
LISTED ABC TYPE, WITH 10 LBS. CAPACITY. REFER TO DETAIL
10/A4.2 FOR TYPICAL MOUNTING REQUIREMENTS.
- (G) EXIT DISCHARGE DOORS, PROVIDE TACTILE EXIT SIGNS STATING
"EXIT" WITH BRAILLE (GRADE 2 CONTRACTED) LETTERING. SIGN
CONSTRUCTION AND MOUNTING TO COMPLY WITH ANSI A117.1.
REFER TO FLOOR PLAN FOR LOCATIONS.

SYMBOLS LEGEND

- M** PRIMARY USE GROUP: (MERCANTILE)
II-B CONSTRUCTION TYPE: (COMBUSTIBLE/PROTECTED)
ROOM SQUARE FOOTAGE:
DESIGN OCCUPANT LOAD SERVED BY EXIT:
MAXIMUM ALLOWABLE CAPACITY (EXAMPLE: 36' / 2" = 180):
(1) HOUR FIRE SEPARATION ASSEMBLY EXTENDS UP
TO DECK, FIRE SEAL COMPLETELY.
(2) HOUR FIRE SEPARATION ASSEMBLY EXTENDS UP
TO DECK OR MIN. 30" ABOVE DECK, FIRE SEAL
COMPLETELY.
ROOM OCCUPANT LOAD NOT COUNTED IN:
ROOM OCCUPANT LOAD AT 5 SQ. FT. NET PER PERSON:
ROOM OCCUPANT LOAD AT 7 SQ. FT. NET PER PERSON:
ROOM OCCUPANT LOAD AT 15 SQ. FT. NET PER PERSON:
ROOM OCCUPANT LOAD AT 20 SQ. FT. NET PER PERSON:
ROOM OCCUPANT LOAD AT 60 SQ. FT. GROSS PER PERSON:
ROOM OCCUPANT LOAD AT 100 SQ. FT. GROSS PER
PERSON:
ROOM OCCUPANT LOAD AT 200 SQ. FT. GROSS PER
PERSON:
ROOM OCCUPANT LOAD AT 300 SQ. FT GROSS PER
PERSON:
ROOM OCCUPANT LOAD AT 500 SQ. FT GROSS PER
PERSON:
ROOM OCCUPANT LOAD AT 18" OF SEAT PER PERSON:
FIRE ALARM PULL STATION
FIRE AUDIBLE & VISUAL ALARM
FIRE ALARM STROBE
EMERGENCY EXIT LIGHTING
EMERGENCY LIGHTING
LIGHT FIXTURE WITH EMERGENCY LIGHTING
FIRE EXTINGUISHER (SURFACE MOUNTED)
FLOOR/CEILING FIRE RATED ASSEMBLY
EXIT ACCESS TRAVEL DISTANCE (LENGTH IN FEET)
CLEAR FLOOR AREA (EXIT DOOR AND / OR FIRE EXTINGUISHER)

**PLUMBING FIXTURE
SUMMARY**

GENERAL
OHIO PLUMBING CODE TABLE 403.1 (4101:3-4-01)
PRIMARY OCCUPANCY: (M) MERCANTILE
TOTAL OCCUPANCY: 70

OCCUPANCY LOAD CALCULATED PER SEX:
FEMALE: 70 / 2 = 35
MALE: 70 / 2 = 35

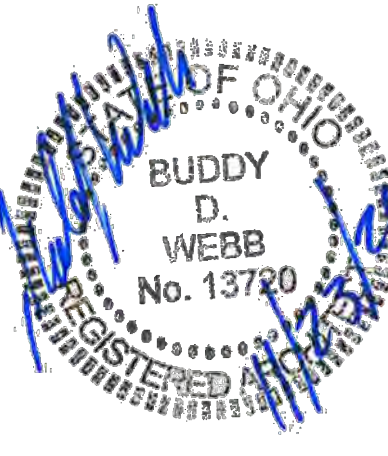
PLUMBING FIXTURES
WATER CLOSETS (URINALS): 1 PER 500
REQUIRED FOR FEMALE: 35/500 = 1
PROVIDED FOR FEMALE: 1
REQUIRED FOR MALE: 35/500 = 1
PROVIDED FOR MALE: 1 AND 1
URINAL

LAVATORIES: 1 PER 750
REQUIRED FOR FEMALE: 35/750 = 1
PROVIDED FOR FEMALE: 1
REQUIRED FOR MALE: 35/750 = 1
PROVIDED FOR MALE: 1

DRINKING FOUNTAINS: 1 PER 1,000
REQUIRED: 70/1000 = 1
PROVIDED: 2

SERVICE SINK REQUIRED: 1
SERVICE SINK PROVIDED: 1

FIRM ARCHITECTURAL REGISTRATION
NO.: 20314259



SHEETS BEARING THIS SEAL ARE
AUTHENTICATED, RESPONSIBILITY FOR
ALL OTHER PLANS, SPECIFICATIONS
OR INSTRUMENTS ARE DISCLAIMED.

O'Reilly AUTO PARTS
CORPORATE OFFICES
535 SOUTH PATTERSON
MONROE, MISSOURI 65802
(417) 882-2874 TELEPHONE

PROJECT:
NEW O'REILLY AUTO PARTS STORE
301 NORTH MAIN STREET
MONROE, OHIO
CODE SUMMARY PLAN

Buddy Webb & Company, Inc.
Architect - Consultant
3057 EAST CAIRO
SPRINGFIELD, MISSOURI 65802
(417) 877-1385 TELEPHONE
(417) 877-9736 FAX

DRAWN BY: RHV
CHECKED BY: SB
DATE: 11/23/21
REVISION:
PROJECT NUMBER: MNO
SHEET NUMBER

G1.1

STRUCTURAL NOTES

(REFER TO PROJECT MANUAL FOR ADDITIONAL INFORMATION)

1. FOOTINGS & FOUNDATION EXCAVATION:

- A. A GEOTECHNICAL ANALYSIS HAS BEEN PERFORMED ON THIS SITE. SEE PROJECT MANUAL FOR GEOTECHNICAL INFORMATION. APPROPRIATE RECOMMENDATIONS STATED IN THE GEOTECHNICAL REPORT ISSUED BY ALT & WITZIG ENGINEERING, INC. DATED JUNE 30, 2021 SHALL BE FOLLOWED.
- B. THESE FOUNDATIONS HAVE BEEN DESIGNED FOR A SOIL BEARING OF 3500 PSF FOR CONTINUOUS AND ISOLATED FOOTINGS.
- C. FOUNDATIONS AND SLAB SHOULD BEAR ON ADEQUATE NATURAL SOILS OR ON PROPERLY PLACED AND COMPACTED ENGINEERED FILL. SEE GEOTECHNICAL REPORT FOR SPECIFIC REQUIREMENTS REGARDING EXCAVATION AND PREPARATION OF SUBGRADE. A GEOTECHNICAL ENGINEER SHOULD BE PRESENT TO DIRECT THE REMOVAL OF UNSUITABLE SOILS AND TO DETERMINE THE ADEQUACY OF THE BEARING SURFACE PRIOR TO PLACEMENT OF THE REINFORCEMENT AND CONCRETE.
- D. FOOTING WIDTHS TO BE AS SHOWN ON PLANS AND DETAILS. BOTTOM OF FOOTING IS TO BE EXCAVATED SQUARE AND TRUE.
- E. WHERE ANY OPEN TRENCH HAS BEEN EXPOSED TO RAIN, SNOW OR ICE PRIOR TO POURING CONCRETE, ALL REINFORCING IN THAT TRENCH SHALL BE REMOVED AND THE BOTTOM OF THE TRENCH SHALL BE DRAINED OF ALL WATER AND CLEANED OF MUD, SNOW OR ICE. A GEOTECHNICAL ENGINEER OR HIS TECHNICAL REPRESENTATIVE SHALL INSPECT THE BOTTOM OF THE TRENCH AND OBSERVE THE RE-COMPACTATION OF SOILS PRIOR TO PLACING REINFORCEMENT AND POURING OF CONCRETE.
- F. ALL STRIP FOOTINGS SHALL BE CENTERED UNDER WALLS BEING SUPPORTED AND ALL ISOLATED FOOTINGS SHALL BE CENTERED UNDER COLUMNS, UNLESS NOTED OTHERWISE.
- G. MINIMUM EXTERIOR FOOTING DEPTH SHALL BE AS INDICATED ON THE FOUNDATION PLAN SHEET S2.
- H. IN THE EVENT THAT ORGANIC SOIL OR UNCOMPACTED FILL IS FOUND BELOW FOOTINGS OR FLOOR SLABS, IT SHALL BE REMOVED AND REPLACED WITH SELECT FILL, COMPACTED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
- I. STRUCTURAL FILL SHOULD BE PLACED IN NO GREATER THAN 8" LOOSE LIFTS AND COMPACTED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT. ADEQUATE DENSITY AND MOISTURE CONTENT TESTS SHOULD BE PERFORMED TO INSURE COMPLIANCE WITH PROJECT SPECIFICATIONS. SUBGRADE INSPECTION AND FILL TESTING UNDER CONTROLLED CONDITIONS IS CONSIDERED ESSENTIAL IF THE FOOTINGS ARE TO BE FOUNDED IN FILL. A TESTING FREQUENCY OF AT LEAST ONE FIELD DENSITY TEST FOR EACH 2500 SQUARE FEET OF LIFT, BUT NOT LESS THAN 3 TESTS PER LIFT IS RECOMMENDED WITHIN THE BUILDING AREAS.

2. CONCRETE:

- A. ALL READY MIX CONCRETE SHALL BE 4000 psi FOR ALL CONCRETE PLACEMENT. DO NOT ADD WATER TO THE MIX DESIGN AFTER DELIVERY TO THE PROJECT SITE.
- B. EXPOSED EXTERIOR CONCRETE SHALL BE AIR-ENTRAINED (TOTAL AIR CONTENT = 6% ±1.5%). INTERIOR CONCRETE SHALL NOT BE AIR-ENTRAINED.
- C. UNLESS NOTED OTHERWISE, CONCRETE COVER OVER STEEL REINFORCEMENT SHALL CONFORM TO THE MINIMUM REQUIREMENT BY ACI 318.
- D. REINFORCEMENT DETAILING AND PLACEMENT SHALL CONFORM TO ACI 318 AND ACI 315, EXCEPT WHERE OTHERWISE INDICATED.
- E. HOT OR COLD WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 305-89 AND ACI 306-1-90, RESPECTIVELY.
- F. ANY CONCRETE PLACED BY MEANS OF PUMPING SHALL BE DONE IN ACCORDANCE WITH ACI 304.2R (82).
- G. CEMENT SHALL CONFORM TO A.S.T.M. C-150 TYPE I.
- H. AGGREGATES SHALL CONFORM TO A.S.T.M. C-33 FOR NORMAL WEIGHT CONCRETE & A.S.T.M. C-330 FOR LIGHTWEIGHT CONCRETE.
- I. READY MIX CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH A.S.T.M. C-94.
- J. ADMIXTURES MAY BE USED WITH THE APPROVAL OF THE STRUCTURAL ENGINEER. ADMIXTURES USED TO INCREASE THE WORKABILITY OF THE CONCRETE SHALL NOT BE CONSIDERED TO REDUCE THE CEMENT CONTENT. NO CALCIUM CHLORIDE ADMIXTURES ALLOWED.

3. SLABS ON GRADE:

- A. FLOOR SLABS ARE TO BE PLACED AND FINISHED IN ACCORDANCE WITH ACI 302 (SEE PROJECT MANUAL FOR ADDITIONAL INFORMATION).
- B. THICKNESS TOLERANCE FOR ALL SLABS IS TO BE PER ACI 117 AND IS TO BE NO MORE THAN + $\frac{3}{8}$ " (THICKER) AND NO MORE THAN - $\frac{1}{4}$ " (THINNER) FROM THE DESIGN THICKNESS.
- C. CONCRETE USED FOR FLOOR SLABS SHALL INCLUDE SUPERPLASTOIZER. SEE PROJECT MANUAL FOR ADDITIONAL INFORMATION.

4. REINFORCING:

- A. REINFORCING BARS SHALL BE BILLET STEEL, ASTM A 615, GRADE 60. PROVIDE CONTINUOUS BENT BARS AT FOOTING STEPS AND 90 DEGREE BENT TIES AT CORNERS. UNLESS OTHERWISE NOTED, LAP SPLICES OR EMBEDMENT LENGTHS SHALL CONFORM TO CLASS B SPLICE (SEE SPLICE TABLE). ADJACENT BAR SPLICES IN WALLS AND FOOTINGS TO BE ALTERNATED. ALL FOOTINGS SHALL REQUIRED HOOKED REINFORCING PROJECTED INTO WALLS, PILASTERS OR COLUMNS. THE SIZE AND SPACING OF DOWELS ARE TO MATCH VERTICAL REINFORCING.
- B. WELDED WIRE FABRIC (WVF) SHALL CONFORM TO THE CURRENT ASTM SPECIFICATION FOR COLD DRAWN STEEL REINFORCEMENT WIRE. LAP END AND EDGES MINIMUM 6".
- C. REINFORCING DETAILING, BENDING, AND PLACING SHALL CONFORM TO ACI 315.
- D. MINIMUM CONCRETE COVERAGE: THE MINIMUM CLEAR DISTANCES BETWEEN REINFORCING STEEL AND FACE OF CONCRETE SHALL BE MAINTAINED UNLESS NOTED OTHERWISE:
SLABS ON EARTH.....CENTER OF SLAB
CONCRETE BELOW GRADE, FORMED.....2"
CONCRETE BELOW GRADE, UNFORMED AND POURED AGAINST EARTH.....3"

5. LUMBER:

- A. ALL LUMBER SHALL BE FIRE TREATED IN ACCORDANCE WITH PROJECT SPECIFICATIONS. REFER TO ARCHITECTURAL AND PROJECT MANUAL FOR MORE INFORMATION AND SPECIFIC REQUIREMENTS.
- B. TREATED LUMBER: IN LOCATIONS WHERE TREATED LUMBER IS SHOWN ON DRAWINGS, THE APPROVED PRESSURE TREATED WOODS ARE ACQ-Q (CARBONATE) OR CA-B TREATED WOODS WITHOUT AMMONIA CARRIERS. THE CHEMICAL RETENTION LEVELS ARE TO BE NO GREATER THAN 0.4 PCF FOR ACQ-Q, 0.21 PCF FOR CA-B. ALL METAL CONNECTORS ARE TO HAVE A GALVANIZED COATING OF NO LESS THAN 1.85 OUNCES OF ZINC PER SQUARE FOOT PER ASTM A653. ALL BOLTS, SCREWS NAILS AND OTHER FASTENERS ARE TO BE GALVANIZED PER ASTM A153. WHERE TREATED LUMBER IS SHOWN IN EXTERIOR INSTALLATIONS WITH NO ROOF COVERINGS TO PREVENT DIRECT EXPOSURE TO RAIN, USE HOT DIP GALVANIZED CONNECTORS PER ASTM A123.

6. STRUCTURAL STEEL:

- A. FABRICATOR QUALIFICATIONS: FABRICATOR MUST PARTICIPATE IN THE AISC QUALITY CONTROL PROGRAM AND BE DESIGNATED AN AISC-CERTIFIED PLANT.
- B. MATERIALS (UNLESS NOTED OTHERWISE):
STRUCTURAL STEEL ASTM A992, GRADE 50
PLATES, ANGLES, CHANNELS, AND MISCELLANEOUS STEEL ASTM A36
ANCHOR RODS ASTM F1554, GRADE 36
HIGH STRENGTH BOLTS ASTM F3125
WELDING ELECTRODES AWS A5.1 (E70XX)
PIPE ASTM A53, GRADE B
SQUARE AND RECTANGULAR HOLLOW STRUCTURAL SECTIONS (HSS)..... ASTM A500, GRADE B

7. LIGHT GAUGE STEEL: SHALL CONFORM TO AISI (LATEST EDITION) AND THE FOLLOWING:

- A. ALL LIGHT GAUGE METAL STUDS, JOISTS AND HEADERS ARE TO MEET OR EXCEED INDUSTRY STANDARDS AS SET FORTH BY THE STEEL STUDS MANUFACTURER'S ASSOCIATION (SSMA).
- B. LIGHT GAUGE STEEL MEMBER DESIGNATIONS SHOWN ON THE CONSTRUCTION DOCUMENTS ARE SSMA STANDARD DESIGNATIONS.
- C. ALL LIGHT GAUGE STEEL WALLS SHALL BE LATERALLY BRIDGED AT 48" O.C. (VERTICALLY) USING 2"x20g STRAP BRACING ATTACHED TO EACH STUD FLANGE. SOLID BRIDGING WITHIN THE PLANE OF THE STRAP BRACING MUST BE PROVIDED AT EACH END OF WALL, ADJACENT TO WALL OPENINGS, AND AT 8' O.C. MAXIMUM. ALL BRIDGING AND BRACING IS TO BE POSITIVELY CONNECTED TO STUDS.
- D. MINIMUM TRACK GAUGE TO MEET OR EXCEED GAUGE OF SUPPORTED STUDS.
- E. BOTTOM TRACK FASTENERS TO BE SPACED AT EACH END OF WALL, ADJACENT TO WALL OPENINGS, AND AT 48" O.C. MAXIMUM.
- F. POWDER ACTUATED FASTENERS SHALL BE DS HEAVY DUTY 0.177x1 $\frac{1}{2}$ " LONG MANUFACTURED FROM MODIFIED AISI 1061 STEEL AUSTEMPERED TO A HARDNESS OF 52-56 HRC AND ZINC PLATED IN ACCORDANCE WITH ASTM B633,SC1, TYPE III. FASTENERS SHALL BE INSTALLED BY A QUALIFIED OPERATOR IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. POWDER ACTUATED FASTENERS SHALL BE AS MANUFACTURED BY "HILTI FASTENING SYSTEMS" OR EQUIVALENT.
- G. ALL LOAD BEARING STUDS TO BE SEATED SQUARELY INTO TOP AND BOTTOM WALL TRACKS WITH NO MORE THAN A $\frac{1}{16}$ " GAP.
- H. THE DESIGN OF SLIP TRACKS SHALL CONFORM TO THE GUIDELINES ESTABLISHED IN SSMA TECHNICAL NOTE NO. 1 PUBLISHED JANUARY, 2001.

8. GENERAL:

- A. CONTRACTOR HAS SOLE RESPONSIBILITY TO COMPLY WITH ALL OSHA REGULATIONS.
- B. THE STRUCTURAL DESIGN OF THE BUILDING IS BASED UPON THE FULL INTERACTION OF ALL ITS COMPONENT PARTS, WITH NO PROVISION MADE FOR CONDITIONS OCCURRING DURING CONSTRUCTION. THE STRUCTURE IS STABLE ONLY IN ITS COMPLETED FORM. THE CONTRACTOR SHALL PROVIDE ADEQUATE BRACING DURING CONSTRUCTION. TEMPORARY SUPPORTS REQUIRED FOR STABILITY DURING ALL INTERMEDIATE STAGES OF CONSTRUCTION SHALL BE DESIGNED, FURNISHED AND INSTALLED BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTIBILITY ANALYSIS AND ERECTION PROCEDURES, INCLUDING DESIGN AND ERECTION OF FALSEWORK, TEMPORARY BRACING, ETC. THE STRUCTURAL ENGINEER ASSUMES NO LIABILITY FOR THE STRUCTURE DURING CONSTRUCTION.
- C. CORRECTIONS DUE TO UNFORESEEN FIELD CONDITIONS OR DIMENSIONAL DISCREPANCIES ON CONSTRUCTION DOCUMENTS MUST BE BROUGHT TO THE ATTENTION OF THE PROJECT ARCHITECT FOR REVIEW AND AUTHORIZATION PRIOR TO CORRECTIVE MEASURES BEING IMPLEMENTED.
- D. STRUCTURAL DRAWINGS ARE TO BE USED IN CONJUNCTION WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS.
- E. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER THESE GENERAL NOTES.
- F. ALL SHOP DRAWINGS SHALL BE REVIEWED AND APPROVED BY THE PROJECT ARCHITECT/ENGINEER PRIOR TO SUBMITTING TO THE BUILDING DEPARTMENT FOR REVIEW AND APPROVAL.

9. SIMPSON "AT-XP" ADHESIVE SYSTEM: CONCRETE LAPMO UFS ER-263 - MASONRY LAPMO ES-281:

- A. CONTRACTOR TO FOLLOW ALL REQUIREMENTS, INSTRUCTIONS, AND RECOMMENDATIONS FOR ADHESIVE APPLICATION.
- B. SUBSTITUTIONS FOR SIMPSON "AT-XP" ANCHORING ADHESIVE SHALL BE ONLY UPON THE APPROVAL OF THE PROJECT ENGINEER OF RECORD.

10. SPECIAL INSPECTIONS REQUIREMENTS:

- A. OWNER SHALL ENGAGE ONE OR MORE QUALIFIED SPECIAL INSPECTORS AND/OR TESTING AGENCIES TO CONDUCT STRUCTURAL TESTS, CONSTRUCTION MATERIAL TESTING, AND SPECIAL INSPECTIONS SPECIFIED IN THE "STATEMENT OF SPECIAL INSPECTIONS".
- B. FOR THE SPECIFIC RESPONSIBILITY OF THE OWNER, CONTRACTOR, AND SPECIAL INSPECTOR REFER TO THE PROJECT MANUAL.

DESIGN CRITERIA

BUILDING CODE: 2017 OHIO BUILDING CODE

DESIGN LOADS:

ROOF DEAD LOAD.....5.0 psf
ROOF COLLATERAL LOAD.....2.5 psf
ADDITIONAL CEILING SYSTEM COLLATERAL
AT PARTS AREA "A"..... 2.0 psf
ROOF LIVE LOAD.....20.0 psf
SPRINKLER LOADS
UNIFORM BRANCH PIPE LOAD..... 0.0 psf
LINEAL LOOP/TEE MAIN PIPE LOAD..... 0.0 pif

SNOW LOAD:

P_g = 20 psf
P_f = 20 psf
C_e = 1.0
C_t = 1.0
I_s = 1.0

WIND CALCULATION METHOD: ENVELOPE

V_{ult} = 115 mph V_{asd} = 89.1 mph
EXPOSURE = C
RISK CATEGORY = II
BUILDING, ENCLOSED GC_p = ±0.18

MAIN FORCE RESISTING SYSTEM:

WALL AND ROOFS q = 14.7 psf
PARAPETS q_p = 15.8 psf

WIND COMPONENTS & CLADDING: All Wind Pressures & Forces in "ASD"

(Wind pressures below were used by JS Smith Consulting Engineers, P.C. for design. Components designed by others for use in this project will require wind pressures derived by that supplier.)

WALL AREAS 10 SQUARE FEET OR LESS = 21.1 psf
WALL INTERIOR ZONES = 13.2 psf & -14.5 psf
WALL END ZONES = 13.2 psf & -15.9 psf
PARAPETS AT INTERIOR ZONES = 11.5 psf & -17.4 psf
PARAPETS AT END ZONES = 11.5 psf & -17.4 psf
ROOF INTERIOR ZONES = 10.0 psf & -15.9 psf
ROOF EDGE ZONES = 10.0 psf & -18.8 psf
ROOF CORNER ZONES = 10.0 psf & -18.8 psf

BASE SHEAR:

V_x: WIND = 29.2 k
SEISMIC = 4.4 k
V_y: WIND = 31.7 k
SEISMIC = 4.4 k

SEISMIC DESIGN: EQUIVALENT FORCE PROCEDURE

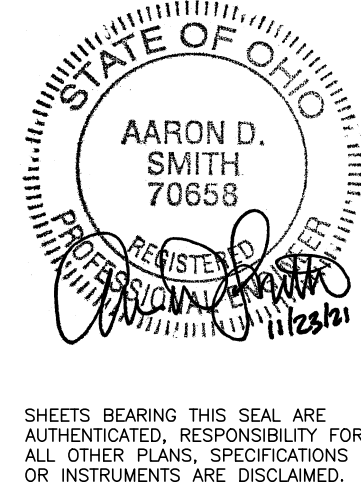
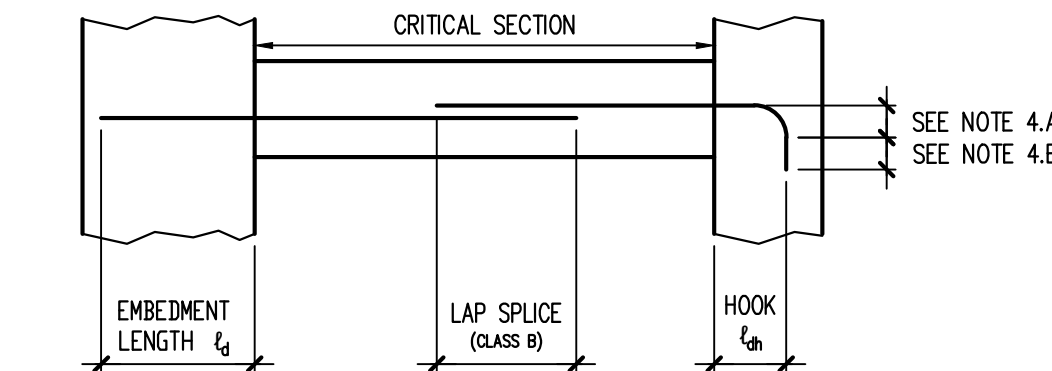
S_s = 0.142
S₁ = 0.074
S_{ps} = 0.095
S_{p1} = 0.049
SITE CLASS = B
SEISMIC DESIGN CATEGORY = A
I_e = 1.0

SEISMIC FORCE RESISTING SYSTEM:

STEEL NOT DETAILED FOR SEISMIC
R = 3.0
C_s = 0.010
p = 1.00

SPLICE TABLE ¹ (UNLESS NOTED OTHERWISE)					
BAR SIZE	LAP SPLICES (in.) ²		EMBED LENGTH (in.)		
	TOP BARS ³ Class B	OTHERS Class B	TOP BARS ³ Id	OTHERS Id	HOOKS ⁵ ldh
#3	25	19	19	15	8
#4	33	25	25	19	10
#5	41	31	31	24	12
#6	49	37	37	29	15
#7	71	54	54	42	17

1. SPLICE TABLE IS BASED ON THE FOLLOWING:
A. CONCRETE f'_c = 4000 psi
B. GRADE 60 REBAR
C. BAR SPACING NOT LESS THAN 2 BAR DIAMETERS OR 1"
D. CONCRETE COVER NOT LESS THAN ONE BAR DIAMETER
2. LAP LENGTHS SHOWN ARE FOR CLASS "B" TENSION SPLICES PER ACI 318-11 CHAPTER 12.
3. TOP BARS ARE DEFINED AS HORIZONTAL REINFORCEMENT PLACED SO THAT MORE THAN 12" OF CONCRETE IS CAST BELOW THE REINFORCEMENT IN THAT MEMBER.
4. STANDARD 90° HOOKS:
A. RADIUS = 4 BAR DIAMETERS FOR #3 THRU #8
B. LENGTH = 12 BAR DIAMETERS
5. HOOK LENGTH MAY BE REDUCED IN ACCORDANCE WITH ACI 318-11 CHAPTER 12.5



O'Reilly AUTO PARTS
CORPORATE OFFICES
233 SOUTH PATTERSON
SPRINGFIELD, MISSOURI 65802
(417) 862-2674 TELEPHONE

PROJECT:
NEW O'REILLY AUTO PARTS STORE
301 NORTH MAIN STREET
MONROE, OHIO

JS Smith Consulting Engineers, P.C.
Ohio Certificate of Authorization No. 01403
Professional Engineer License No. 10000
1801 W 32nd St, Bldg E, Ste 104 • JOPLIN, MISSOURI 64804
P.O. Box 8102 • JOPLIN, MISSOURI 64802
PHONE: 417-624-9444 FAX: 417-624-6503

DRAWN BY: BTJ CHECKED BY: AS

DATE:
11/23/21

REVISION:

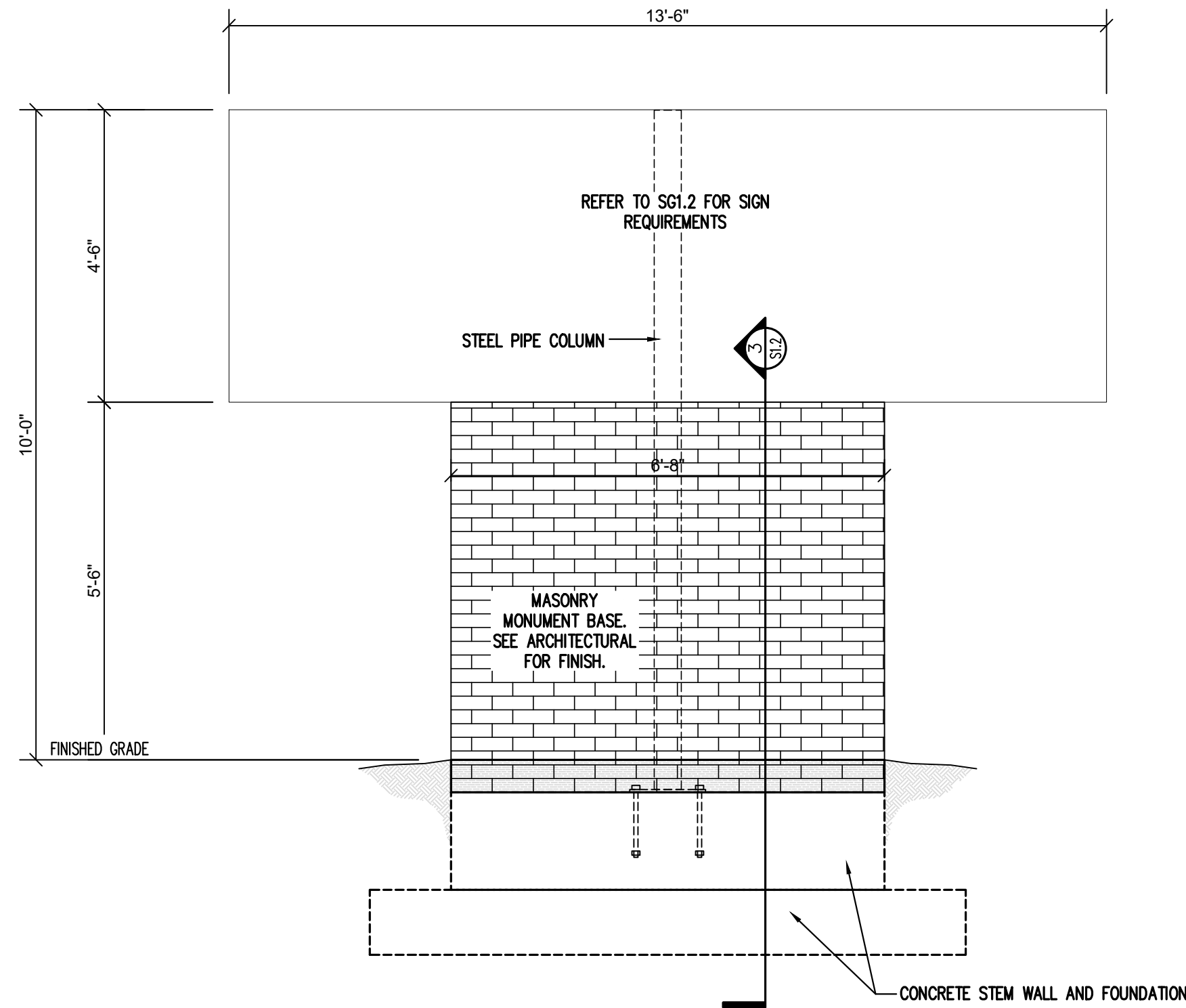
PROJECT NUMBER:
MNO

SHEET NUMBER

S1.1

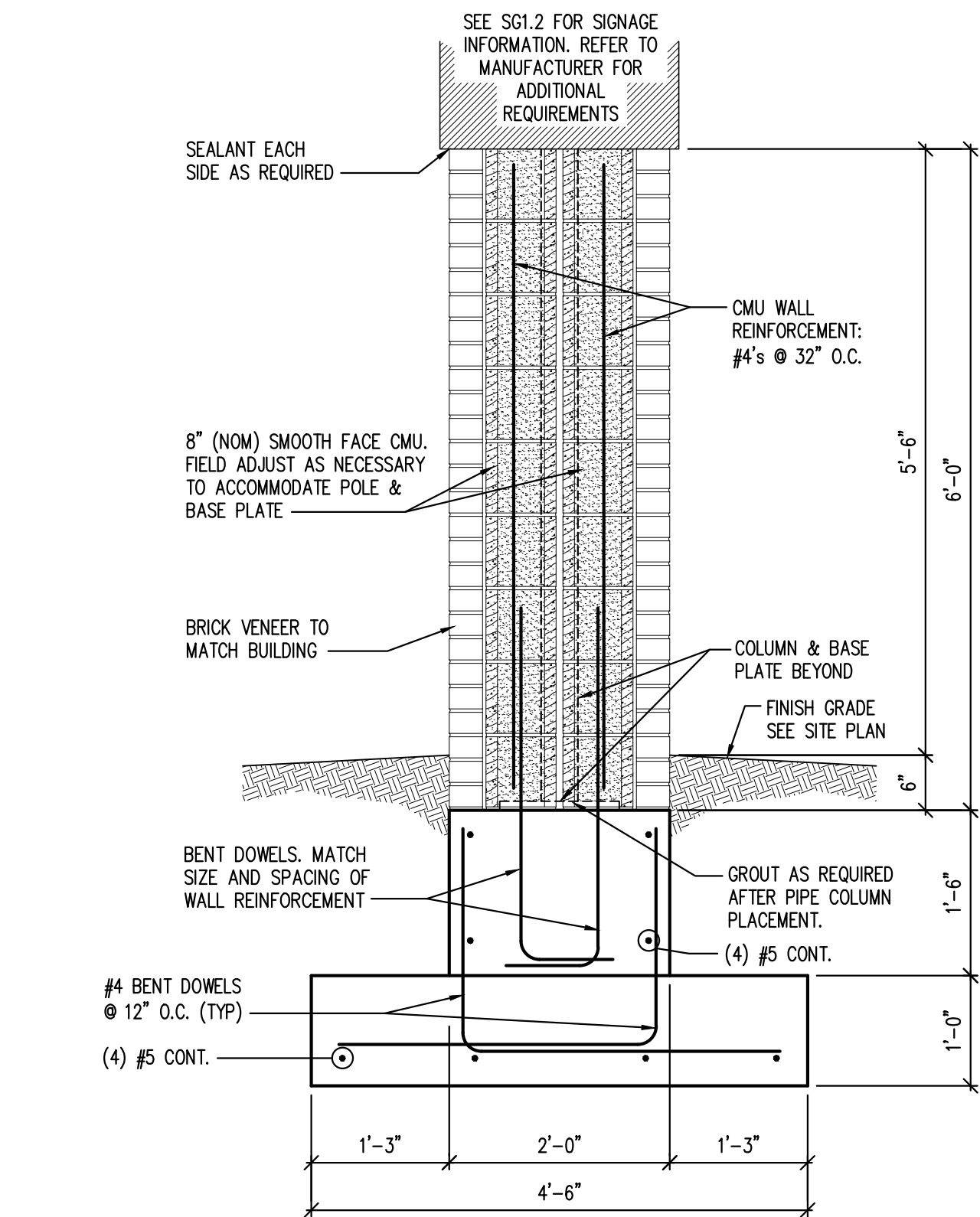
1 GROUND SIGN ELEVATION

S1.2 SCALE: 1/2" = 1'-0"



2 MONUMENT SIGN FOUNDATION PLAN

S1.2 SCALE: 3/4" = 1'-0"

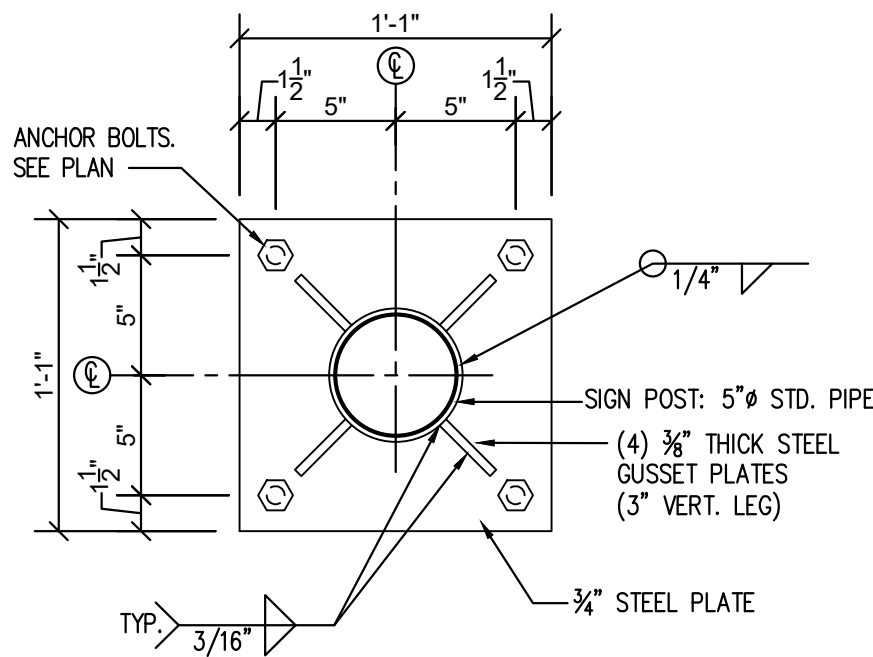


3 MONUMENT SIGN FOUNDATION SECTION

S1.2 SCALE: 3/4" = 1'-0"

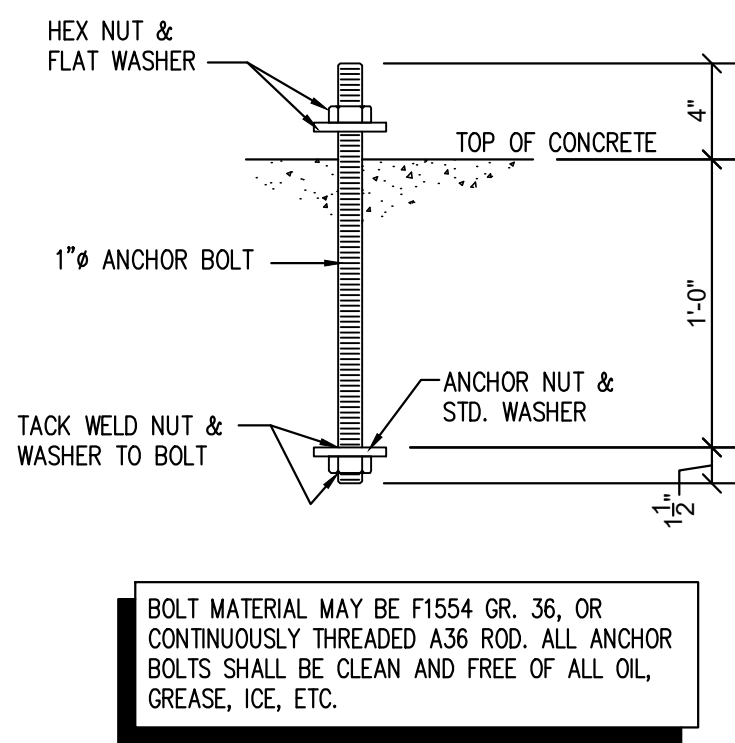
4 SIGN BASE PLATE

S1.2 SCALE: 1 1/2" = 1'-0"



5 ANCHOR BOLT DETAIL

S1.2 SCALE: 1 1/2" = 1'-0"



- ### GENERAL NOTES
- REFER TO PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.
 - CONTACT OWNER'S OR TENANT'S DESIGNATED PROJECT ADMINISTRATOR FOR QUESTIONS OR CLARIFICATIONS.
 - SITE SIGN FOUNDATIONS AND ROUGH-IN ELECTRICAL TO BE PROVIDED BY CONTRACTOR.
 - REQUIRED GOVERNMENTAL PERMITS FOR PERMANENT TYPE SIGNAGE TO BE PROVIDED BY OWNER OR OTHERS (N.I.C.).

- ### DESIGN CRITERIA
- GOVERNING BUILDING CODE**
2017 OHIO BUILDING CODE
 - WIND CRITERIA:**
 - RISK CATEGORY II
 - $V_{ult} = 115$ mph
 - $V_{sur} = 89.1$ mph
 - EXPOSURE "C"
 - SEISMIC CRITERIA:**
 - SITE CLASS = B
 - SDC = A
 - $S_D = 0.142$
 - $S_1 = 0.074$
 - $S_{1/8} = 0.095$
 - $S_{0.1} = 0.049$

- ### STRUCTURAL NOTES
- A GEOTECHNICAL ANALYSIS HAS BEEN PERFORMED ON THIS SITE. SEE PROJECT MANUAL FOR GEOTECHNICAL INFORMATION. APPROPRIATE RECOMMENDATIONS STATED IN THE GEOTECHNICAL REPORT ISSUED BY ALT & WITZIG ENGINEERING, INC. DATED JUNE 30, 2021 SHALL BE FOLLOWED.
 - THESE FOUNDATIONS HAVE BEEN DESIGNED FOR A VERTICAL SOIL BEARING OF 3500 psf.
 - BRACE POLE SIGN AGAINST LATERAL FORCES UNTIL CONCRETE HAS REACHED SPECIFIED COMPRESSIVE DESIGN STRENGTH.
 - ALL READY MIX CONCRETE SHALL BE 4000 psi FOR ALL CONCRETE PLACEMENT. DO NOT ADD WATER TO THE MIX DESIGN AFTER DELIVERY TO THE PROJECT SITE.
 - EXPOSED EXTERIOR CONCRETE SHALL BE AIR-ENTRAINED (TOTAL AIR CONTENT = 6% $\pm$ 1.5%).
 - HOT OR COLD WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 305-89 AND ACI 306-1-90, RESPECTIVELY.
 - ANY CONCRETE PLACED BY MEANS OF PUMPING SHALL BE DONE IN ACCORDANCE WITH ACI 304.2R (82).
 - CEMENT SHALL CONFORM TO A.S.T.M. C-150 TYPE III/L.
 - AGGREGATES SHALL CONFORM TO A.S.T.M. C-33 FOR NORMAL WEIGHT CONCRETE.
 - READY MIX CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH A.S.T.M. C-94.
 - ADMIXTURES MAY BE USED WITH THE APPROVAL OF THE STRUCTURAL ENGINEER. ADMIXTURES USED TO INCREASE THE WORKABILITY OF THE CONCRETE SHALL NOT BE CONSIDERED TO REDUCE THE CEMENT CONTENT. NO CALCIUM CHLORIDE ADMIXTURES ALLOWED.
 - FABRICATOR QUALIFICATIONS: FABRICATOR MUST PARTICIPATE IN THE AISC QUALITY CONTROL PROGRAM AND BE DESIGNATED AN AISC-CERTIFIED PLANT.
 - MATERIALS:**
 - STRUCTURAL STEEL..... ASTM A992, GRADE 50ksi
 - PLATES, ANGLES, AND MISC STEEL..... ASTM A36ksi
 - ANCHOR RODS..... ASTM F1554, GRADE 36
 - HIGH STRENGTH BOLTS..... ASTM F3125
 - WELDING ELECTRODES..... AWS A5.1 (E70XX)
 - PIPE..... ASTM A53, GRADE B
 - ROUND HSS..... ASTM A500, GRADE B, Fy = 42ksi

- ### CMU NOTES
- CMU SHALL CONFORM TO CURRENT BUILDING CODE PROVISIONS.
 - VERTICAL CELLS TO BE FILLED SHALL ALIGN TO MAINTAIN AN UNOBSTRUCTED VERTICAL SHAFT NOT LESS THAN 2"x3".
 - PROVIDE 9 ga. LADDER TYPE JOINT REINFORCEMENT AT 16" O.C.
 - CENTER VERTICAL REINFORCEMENT WITH 9 ga. HOT DIP GALVANIZED REBAR POSITIONERS 24" AT O.C.

- ### SEQUENCE OF WORK
- CONTRACTOR TO PROVIDE MONUMENT SIGN ROUGH-IN ELECTRICAL POINT OF CONNECTION, CONCRETE FOUNDATION, AND ANCHOR BOLT CONSTRUCTION (COORDINATE REQUIREMENTS WITH SIGN CONTRACTOR).
 - SIGN CONTRACTOR (BY OTHERS) TO INSTALL SIGN CONSTRUCTION.
 - CONTRACTOR TO PROVIDE MONUMENT SIGN MASONRY AND SEALANT CONSTRUCTION AFTER SIGN AND POST HAVE BEEN ERECTED.

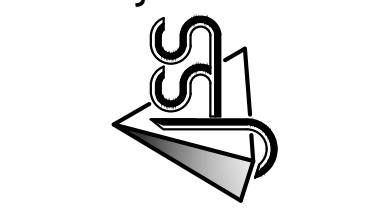


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O'Reilly AUTO PARTS
CORPORATE OFFICES
233 SOUTH PATTERSON
SPRINGFIELD, MISSOURI 65802
(417) 862-2674 TELEPHONE

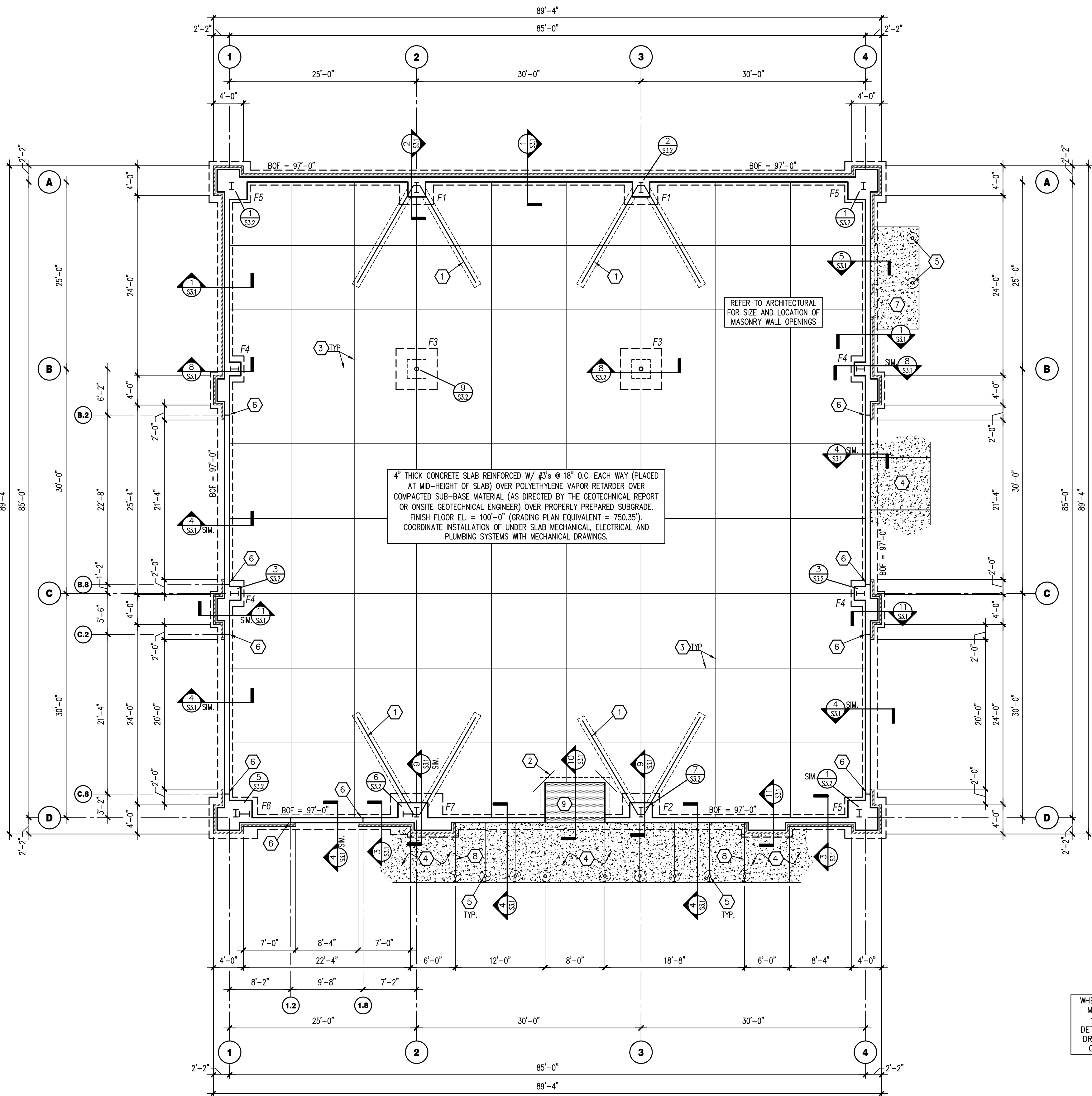
PROJECT:
NEW O'REILLY AUTO PARTS STORE
301 NORTH MAIN STREET
MONROE, OHIO
SIGN FOUNDATION DETAILS

JS Smith Consulting Engineers, P.C.
Ohio Certificate of Authorization No. 01403
1801 W 32nd St. Bldg E Ste 104 • JOPLIN, MISSOURI 64804
P.O. Box 8102 • JOPLIN, MISSOURI 64802
PHONE: 417-624-0444 FAX: 417-624-0403



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CHECKED BY: AS
DATE: 11/23/21
REVISION:
PROJECT NUMBER: MNO
SHEET NUMBER

S1.2



FOUNDATION PLAN

SCALE: 1/8" = 1'-0"



NORTH

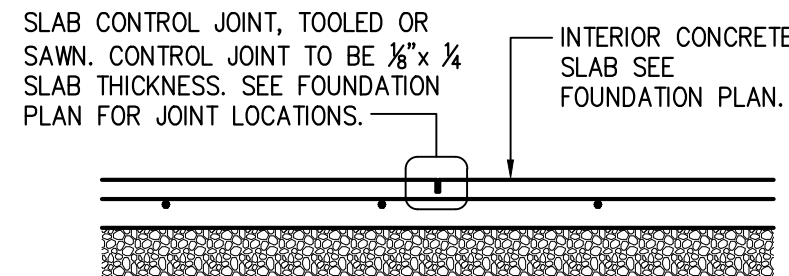
KEYNOTES

- 1 SLAB HAIRPIN. SEE DETAIL 6/S3.1
- 2 PROVIDE #4x4'-0" DOWEL. TURN 45 DEGREES AT SLAB INSIDE CORNERS
- 3 CONTROL/CONSTRUCTION JOINT SEE DETAILS 1 & 2/S2
- 4 SIDEWALK: PROVIDE 4" THICK CONCRETE REINFORCED W/ #3's @ 18" O.C. EACH WAY (PLACED AT MID-HEIGHT OF SLAB) OVER COMPACTED SUB-BASE MATERIAL (AS DIRECTED BY THE GEOTECHNICAL REPORT OR ONSITE GEOTECHNICAL ENGINEER) PROPERLY PREPARED SUBGRADE. SEE CIVIL DRAWINGS FOR JOINT REQUIREMENTS, EXTENTS OF FLATWORK, AND TOP OF CONCRETE SPOT ELEVATIONS.
- 5 STEEL BOLLARD: SEE SITE DEVELOPMENT PLANS AND DETAILS. (WHERE APPLICABLE, ALIGN WITH CENTERLINE OF STOREFRONT MULLIONS AND JAMBS OF OVERHEAD DOOR.)
- 6 PEMB SUPPLIED BRICK SUPPORT COLUMN IN PLANE OF STUDS. SEE 10/S3.2 FOR COLUMN BASE REQUIREMENTS. REFER TO PEMB DRAWINGS FOR ALL OTHER COLUMN INFORMATION.
- 7 6" WIDE DOORPAD: PROVIDE 4" THICK CONCRETE REINFORCED W/ #3's @ 18" O.C. EACH WAY (PLACED AT MID-HEIGHT OF SLAB) OVER COMPACTED SUB-BASE MATERIAL (AS DIRECTED BY THE GEOTECHNICAL REPORT OR ONSITE GEOTECHNICAL ENGINEER) ON PROPERLY PREPARED SUBGRADE. EXTEND CONCRETE 1'-6" PAST DOOR JAMBS. SEE CIVIL DRAWINGS FOR TOP OF CONCRETE SPOT ELEVATIONS.
- 8 SIDE WALK ISOLATION JOINT. SEE SECTION 3/S2.
- 9 ENTRY SLAB: 8" THICK CONCRETE SLAB REINFORCED W/ #3's @ 18" O.C. EACH WAY (PLACED AT MID-HEIGHT OF SLAB) OVER POLYETHYLENE VAPOR RETARDER OVER COMPACTED SUB-BASE MATERIAL (AS DIRECTED BY THE GEOTECHNICAL REPORT OR ON-SITE GEOTECHNICAL ENGINEER) OVER PROPERLY PREPARED SUB-GRADE. TOP OF SLAB EL. = 100'-0"

FOUNDATION SCHEDULE

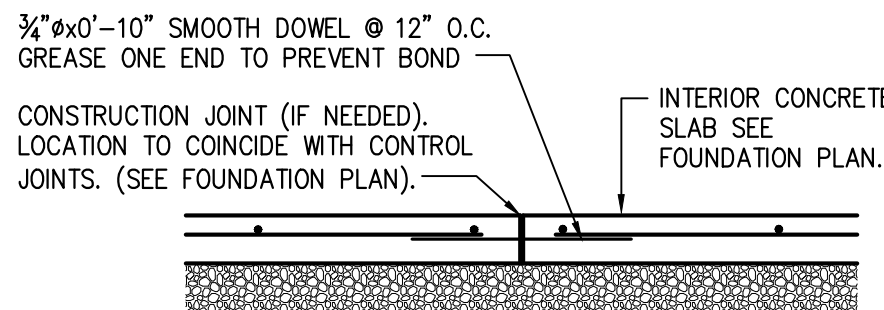
MARK	FOOTING SIZE (W x L x I)	FOOTING REINFORCEMENT		BOTTOM OF FOOTING ELEVATION	PILASTER SIZE	PILASTER REINFORCEMENT		TOP OF PILASTER ELEVATION	NOTES	MARK
		LONG.	TRANS.			VERT.	TIES			
F1	4'-6"x4'-6"x1'-0"	(6) #4's	(6) #4's	97'-0"	SEE 2/S3.2	(10) #6	SEE SECTION 2/S3.1	100'-0"	1,2,3,4,5	F1
F2	5'-0"x5'-0"x1'-0"	(7) #4's	(7) #4's	97'-0"	SEE 7/S3.2	(14) #6	SEE SECTION 9/S3.1	100'-0"	1,2,3,4,5	F2
F3	5'-6"x5'-6"x1'-6"	(6) #4 EACH WAY TOP & BOT.		96'-0"	SEE 9/S3.2	(12) #6	SEE SECTION 8/S3.2	99'-4"	1,2,4,5	F3
F4	4'-0"x4'-0"x1'-0"	(6) #4's	(6) #4's	97'-0"	SEE 3/S3.2	(8) #6	SEE SECTION 8/S3.1	100'-0"	1,2,3,4,5	F4
F5	5'-6"x5'-6"x1'-0"	(8) #4's	(8) #4's	97'-0"	SEE 1/S3.2	(22) #6	SEE SECTION 8/S3.1 SIM.	100'-0"	1,2,3,4,5	F5
F6	5'-6"x7'-0"x1'-0"	(8) #4's	(10) #4's	97'-0"	SEE 5/S3.2	(24) #6	SEE SECTION 8/S3.1 SIM.	100'-0"	1,2,3,4,5	F6
F7	5'-6"x7'-0"x1'-0"	(8) #4's	(10) #4's	97'-0"	SEE 6/S3.2	(18) #6	SEE SECTION 9/S3.1	100'-0"	1,2,3,4,5	F7

- NOTES:
1. ALL ANCHOR BOLTS SHALL BE SIZE, QUANTITY AND SPACING AS SPECIFIED BY THE PRE-ENGINEERED METAL BUILDING MANUFACTURER. MAINTAIN 3" MINIMUM CONCRETE COVER AROUND BOLTS. TIES SHALL WRAP AROUND ANCHOR BOLTS.
 2. COLUMN BASE PLATES ARE TO REST ON TOP OF CONCRETE. PROVIDE LEVEL BEARING SURFACE FOR EVEN CONTACT.
 3. COLUMN FOOTING REINFORCEMENT TO BE INTEGRAL WITH CONTINUOUS FOUNDATION REINFORCEMENT.
 4. PROVIDE ANCHOR BOLT TEMPLATES AT COLUMN.
 5. ALL SPREAD FOOTINGS ARE TO BE CENTERED BENEATH COLUMNS UNLESS NOTED OTHERWISE.



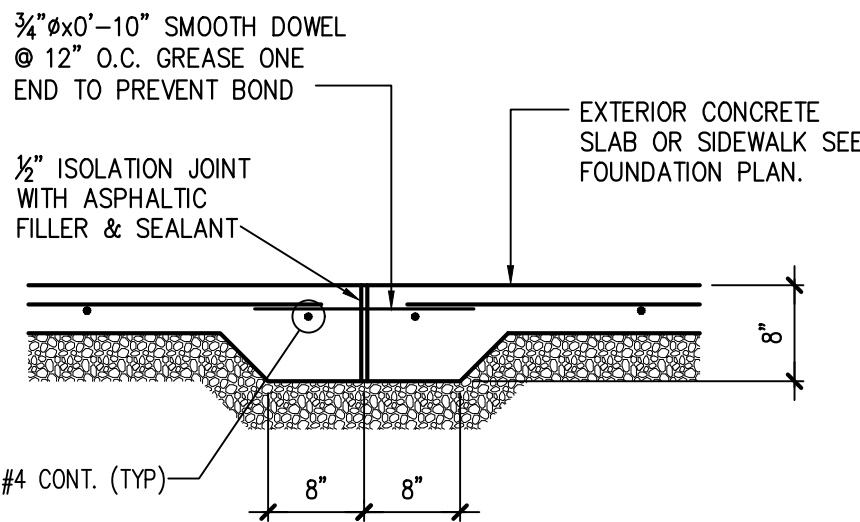
1 TYP. CONTROL JOINT DETAIL

SCALE: 3/4" = 1'-0"



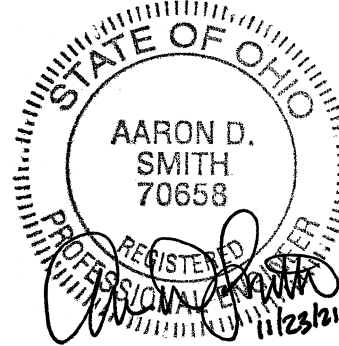
2 TYP. CONSTR. JOINT DETAIL

SCALE: 3/4" = 1'-0"



3 SIDEWALK ISOLATION JOINT

SCALE: 3/4" = 1'-0"



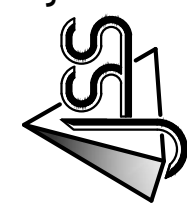
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O'Reilly AUTO PARTS
CORPORATE OFFICES
233 SOUTH PATTERSON
SPRINGFIELD, MISSOURI 65802
(417) 862-2674 TELEPHONE

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MONROE, OHIO

FOUNDATION PLAN

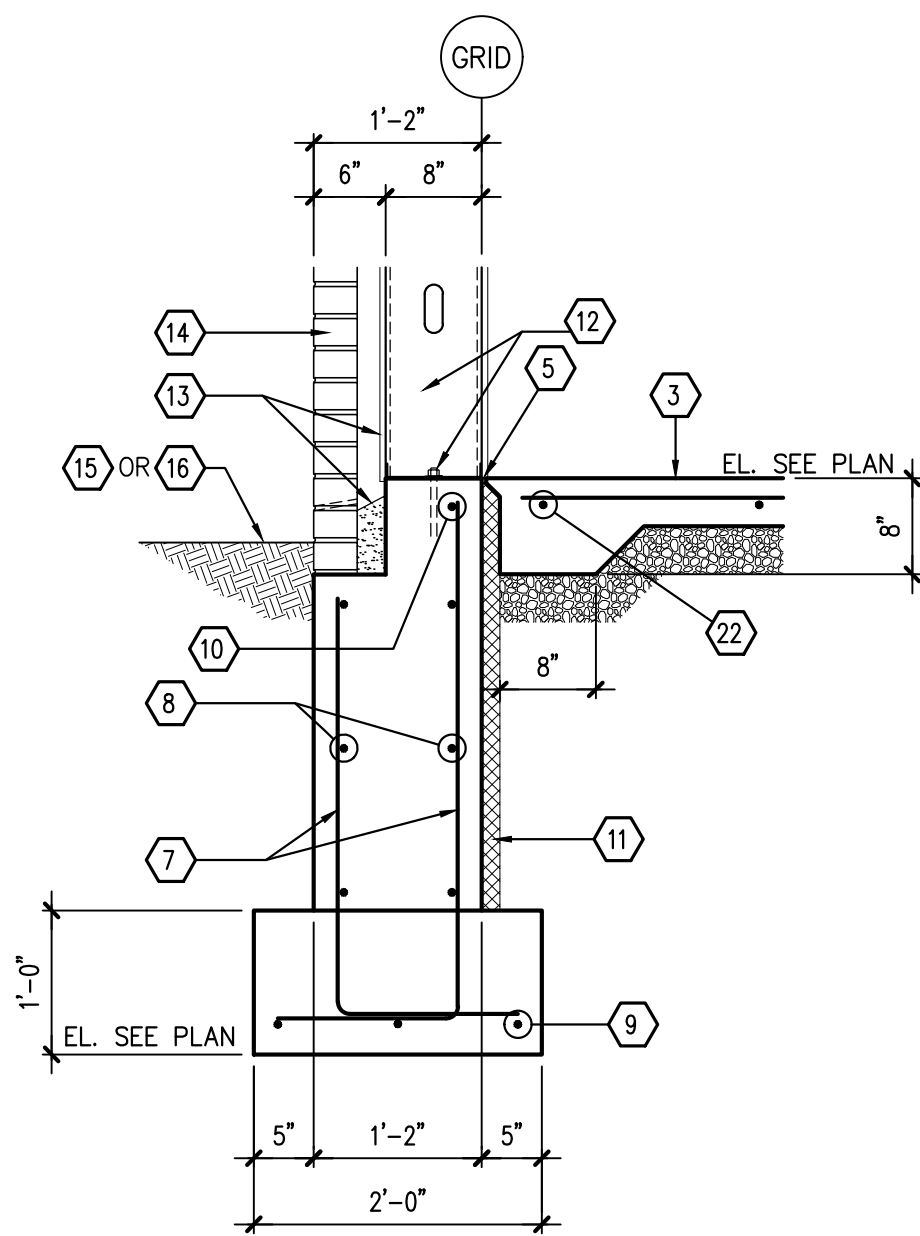
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1801 W 32nd St. Bldg E Ste 104 • JOPLIN, MISSOURI 64804
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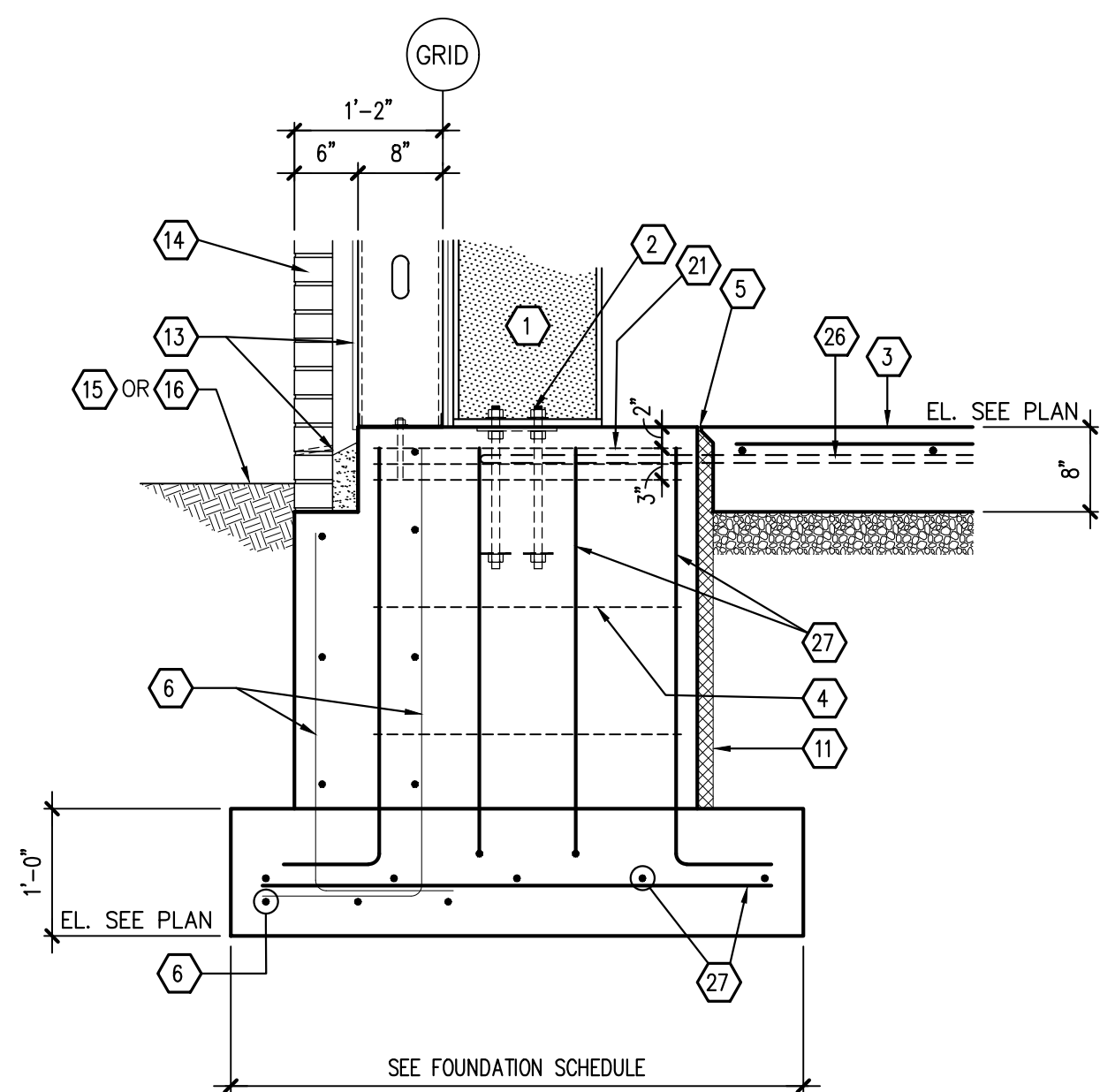
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REVISION:

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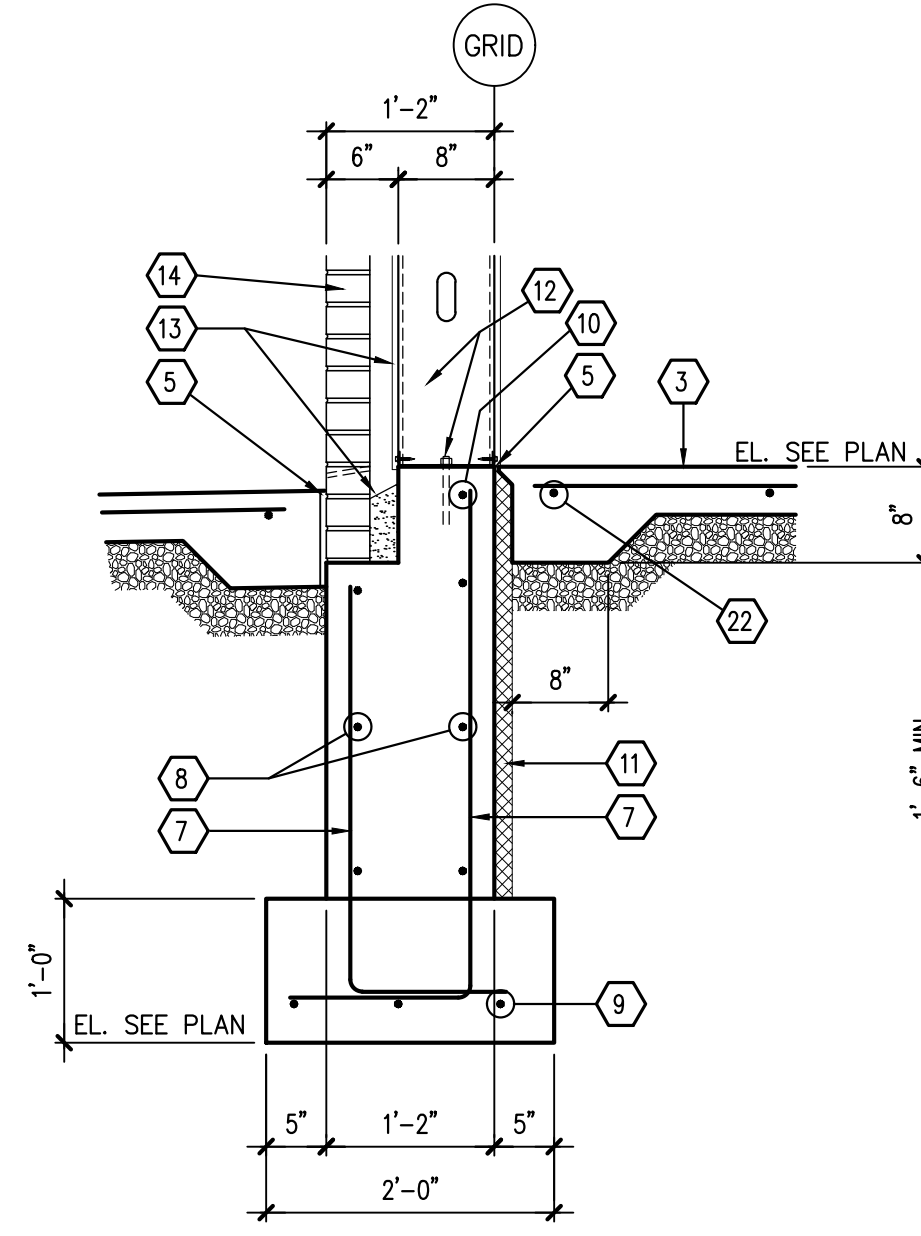
S2



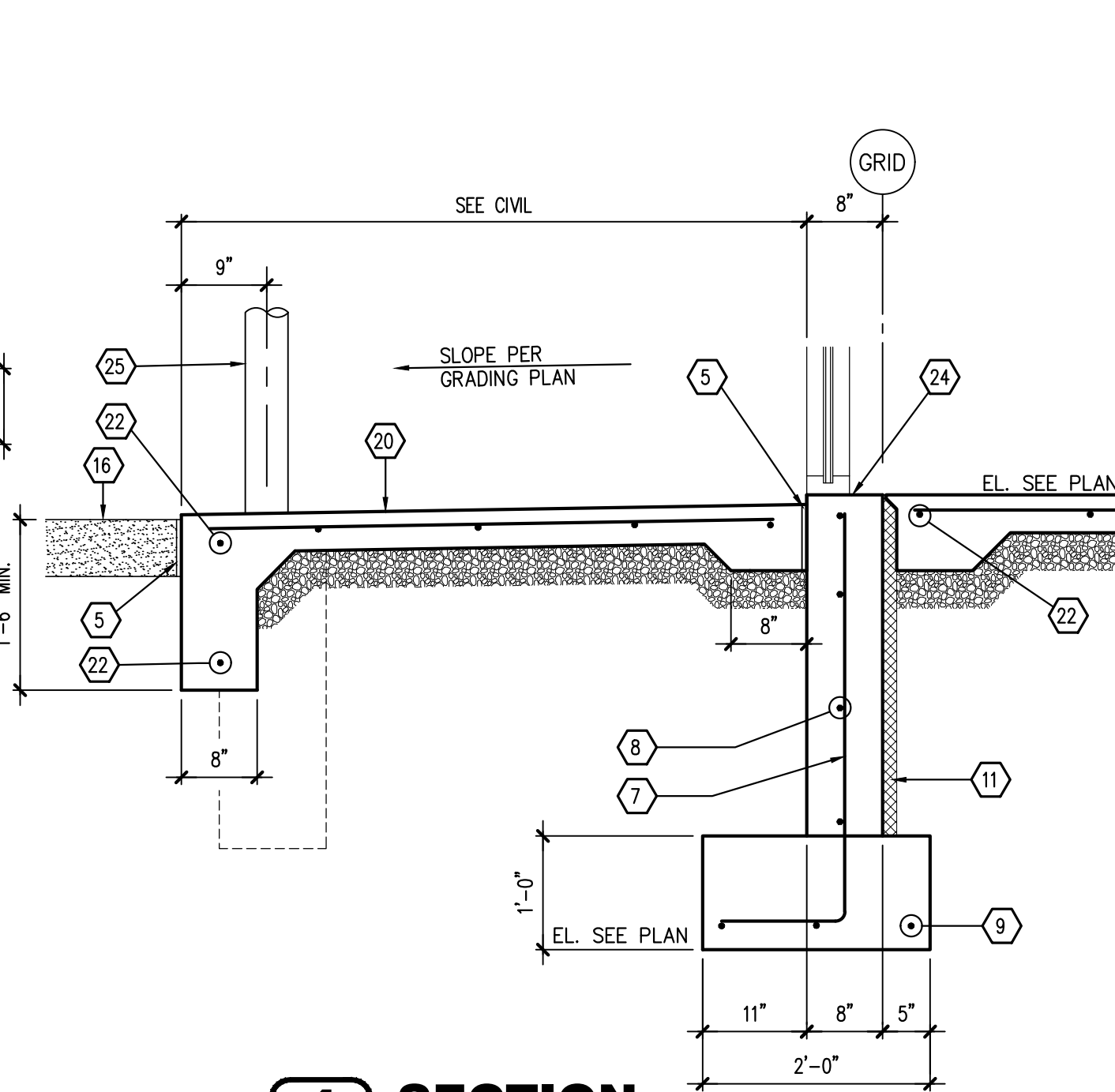
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S3.1 SCALE: 3/4" = 1'-0"



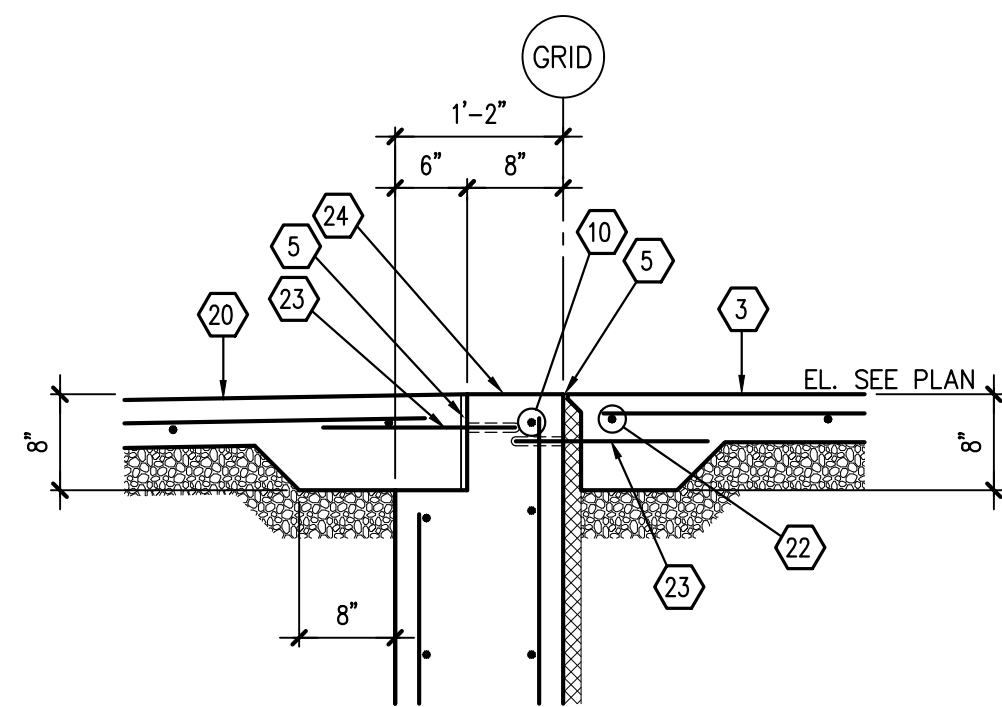
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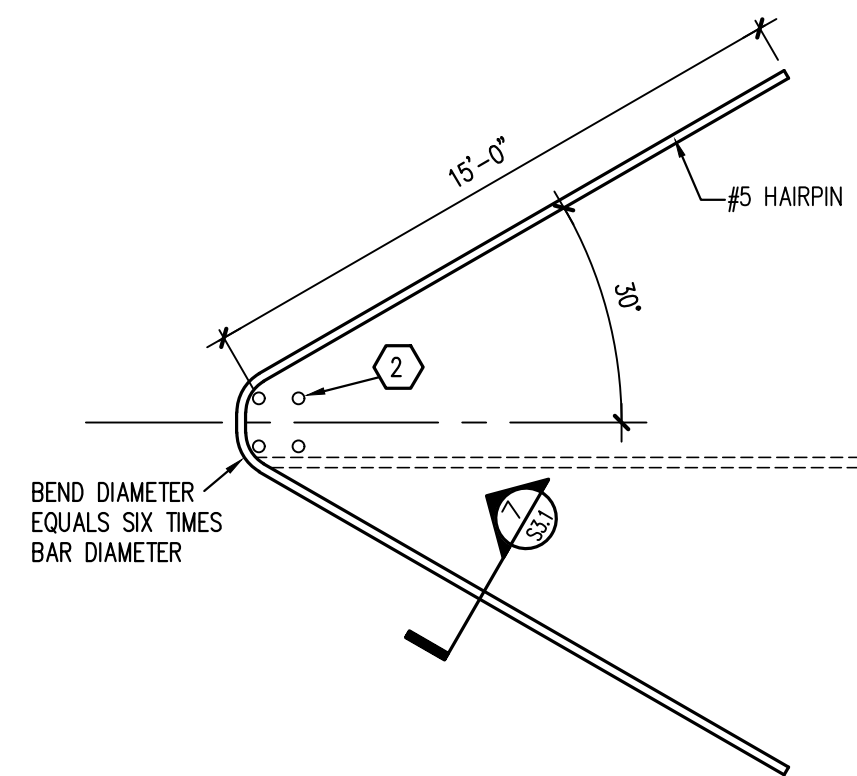
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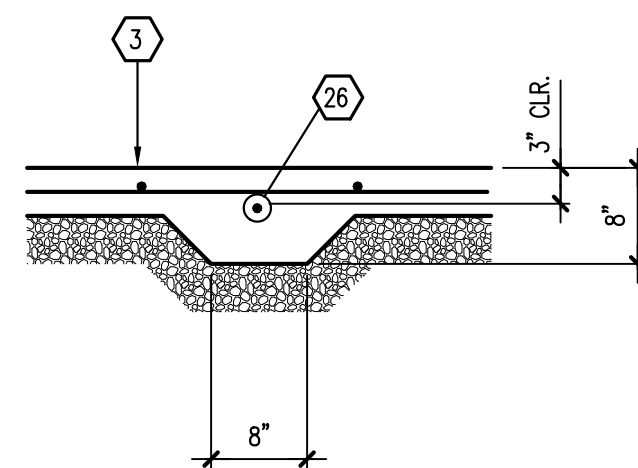
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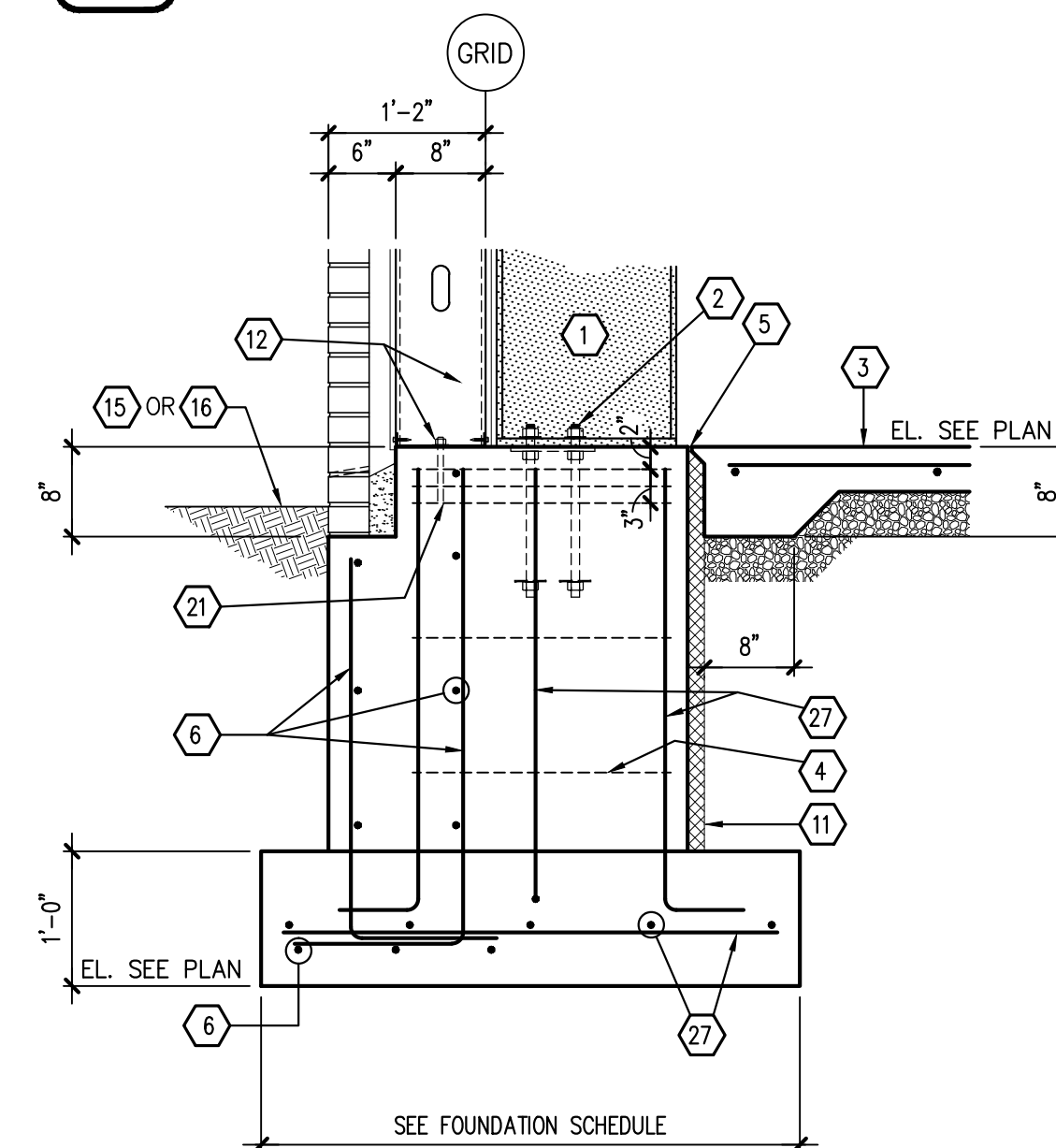
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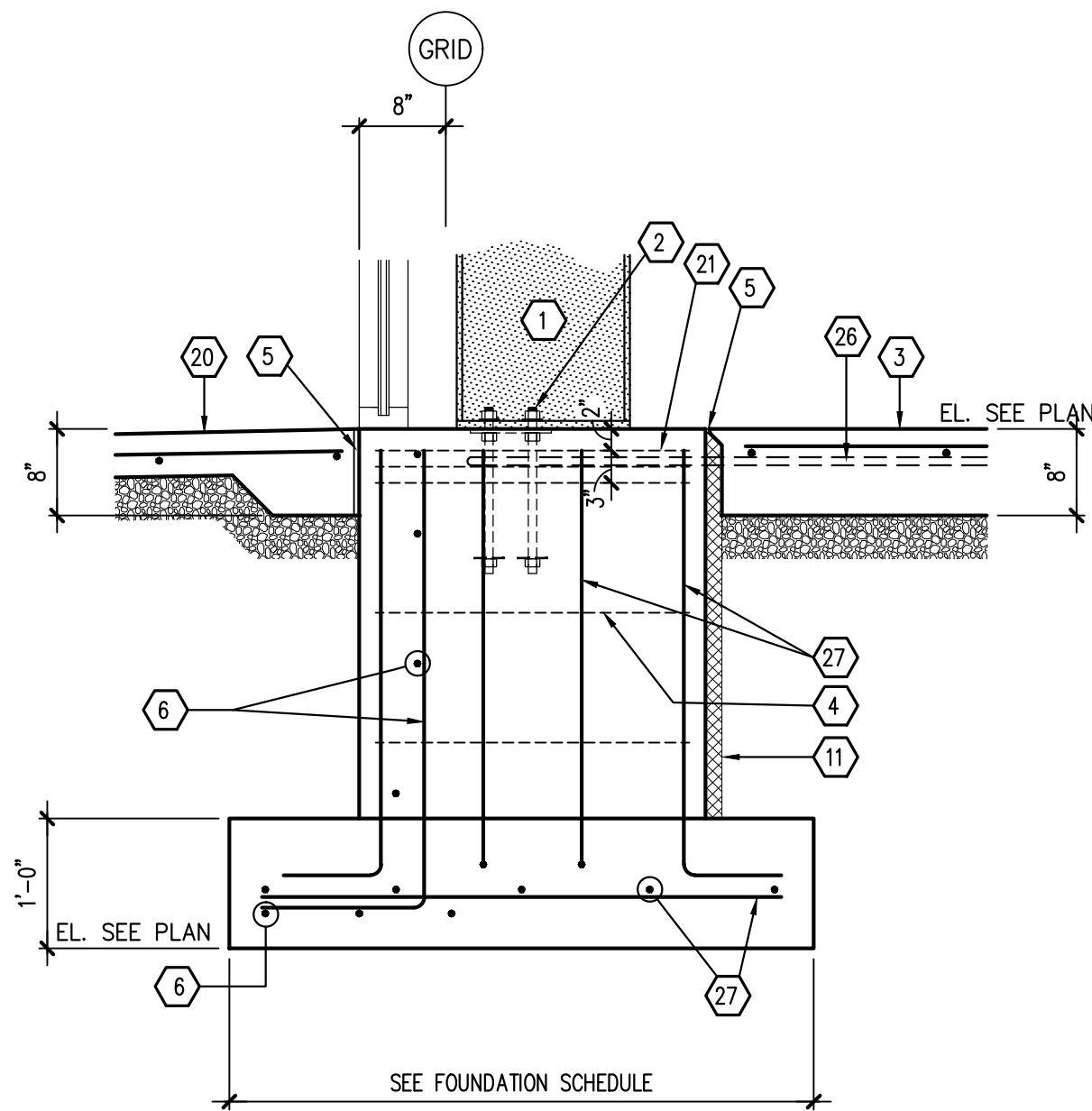
6 TYPICAL HAIRPIN DETAIL
S3.1 SCALE: NONE



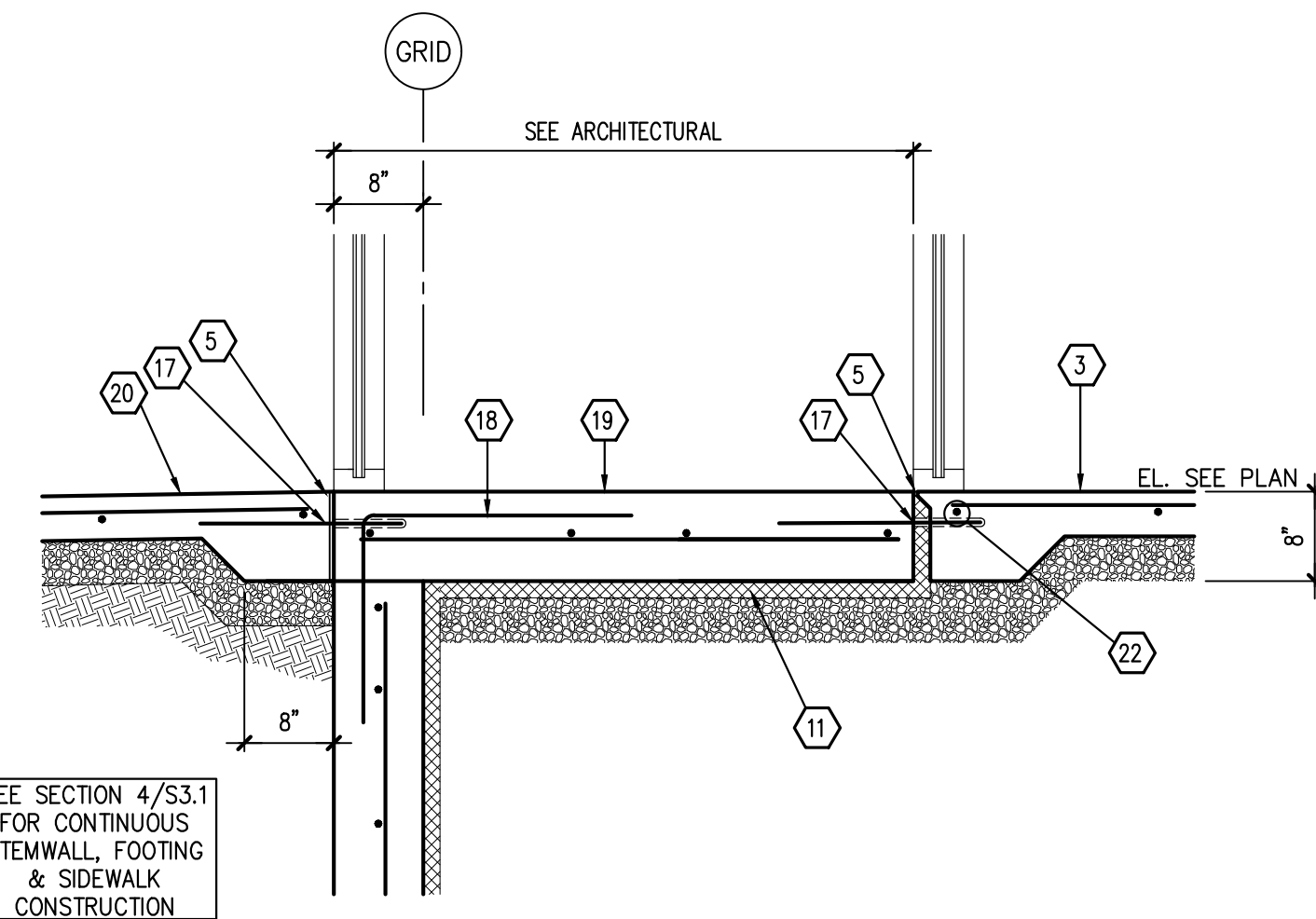
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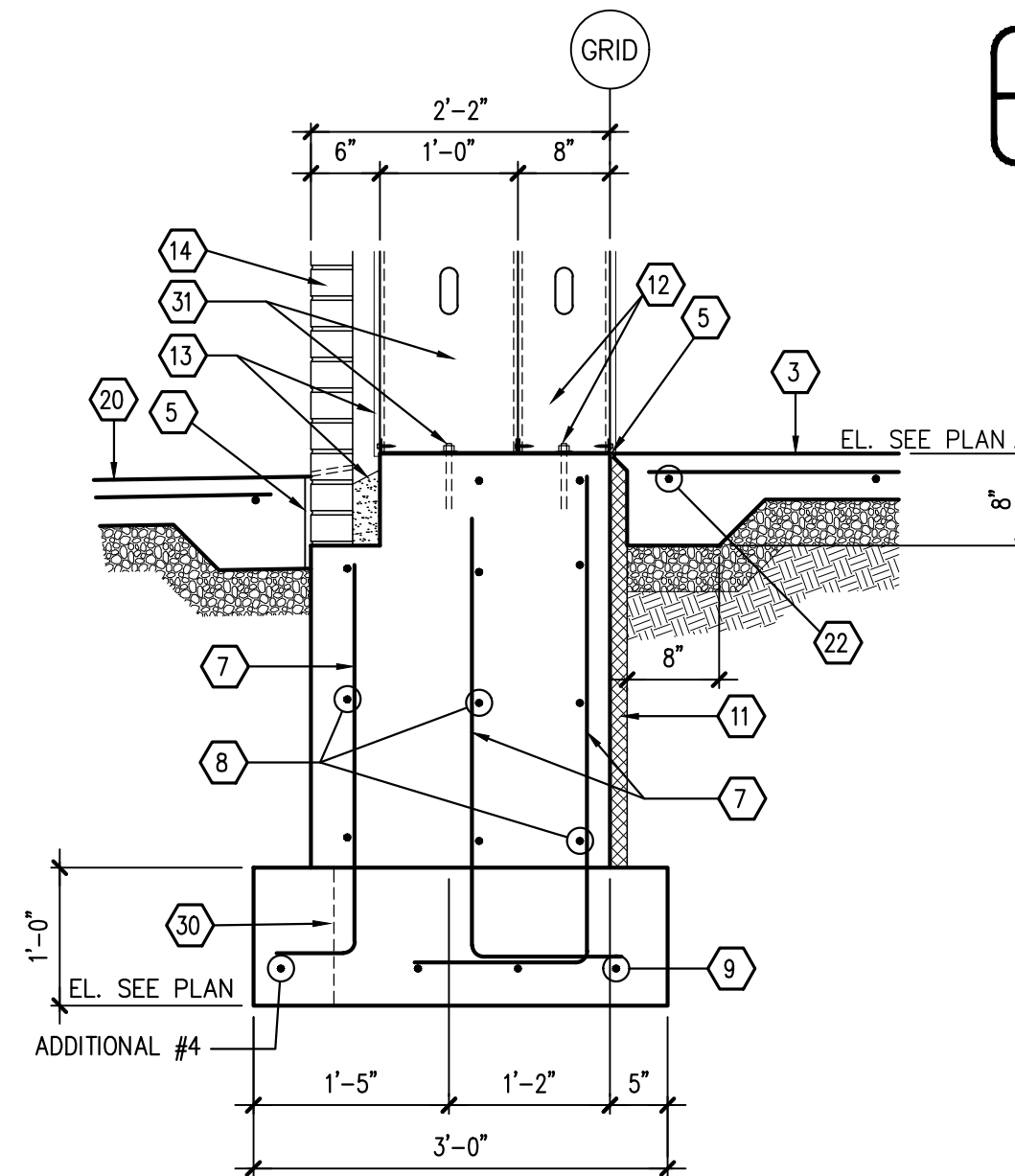
8 SECTION
S3.1 SCALE: 3/4" = 1'-0"



9 SECTION
S3.1 SCALE: 3/4" = 1'-0"



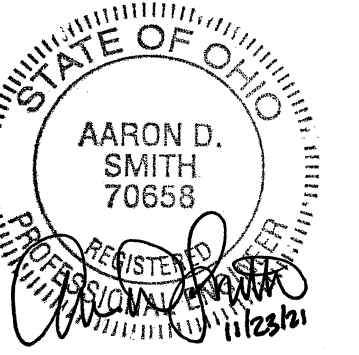
10 SECTION
S3.1 SCALE: 3/4" = 1'-0"



11 SECTION
S3.1 SCALE: 3/4" = 1'-0"

KEYNOTES

- 1 PRE-ENGINEERED METAL BUILDING STRUCTURAL SYSTEM. SEE P.E.M.B. SHOP DRAWINGS FOR ADDITIONAL INFORMATION.
- 2 ANCHOR BOLTS. SEE FOUNDATION SCHEDULE AND PRE-ENGINEERED METAL BUILDING DRAWINGS FOR SIZE, QUANTITY AND PLAN LOCATION. SEE 4/S3.2 FOR TYPICAL SHOP FABRICATED ANCHOR ASSEMBLY.
- 3 INTERIOR CONCRETE SLAB SEE FOUNDATION PLAN.
- 4 #3 TIES @ 12" O.C.
- 5 1/2" ISOLATION JOINT WITH ASPHALTIC FILLER & SEALANT
- 6 STEM WALL AND FOOTING REINFORCEMENT TO RUN CONTINUOUS THROUGH COLUMN PILASTERS AND SPREAD FOOTINGS.
- 7 #4 BENT DOWELS @ 18" O.C.
- 8 #4's CONTINUOUS AT 12" O.C.
- 9 (3) #4's CONTINUOUS
- 10 ADDITIONAL #4 CONTINUOUS IN TOP OF STEM WALL
- 11 REFER TO ARCHITECTURAL FOR RIGID INSULATION BOARD. TAPER TOP AS SHOWN.
- 12 8" METAL STUD. SEE S4 FOR GAUGE AND SPACING - SEE STRUCTURAL NOTES (SHEET S1.1) FOR ADDITIONAL REQUIREMENTS.
- 13 REFER TO ARCHITECTURAL DRAWINGS FOR EXTERIOR WALL SHEATHING, FLASHING, AND GROUT SPACE BEHIND BRICK VENEER. SEE SHEET S4 FOR SHEATHING ATTACHMENT INFORMATION.
- 14 BRICK VENEER, SEE ARCHITECTURAL ELEVATIONS FOR ADDITIONAL INFORMATION.
- 15 SEE GRADING PLAN FOR FINISHED GRADES.
- 16 PAVING, SEE SITE DEVELOPMENT DRAWINGS FOR ADDITIONAL INFORMATION.
- 17 DRILL 4" DEEP HOLES FOR #4x1'-4" DOWELS @ 18" O.C. DRILL AND ADHERE INTO FOUNDATION. SEE SHEET S1 FOR ADHESIVE ANCHOR INSTALLATION.
- 18 #3x4'-0" DOWEL @ 18" O.C. FIELD BEND AS SHOWN
- 19 ENTRY SLAB SEE FOUNDATION PLAN
- 20 EXTERIOR CONCRETE SLAB OR SIDEWALK SEE FOUNDATION PLAN. REFER TO SITE DEVELOPMENT DRAWINGS FOR ALL EXTERIOR TOP OF CONCRETE ELEVATIONS.
- 21 (3) #3 TIES @ 12" O.C.
- 22 #4 CONTINUOUS
- 23 DRILL 4" DEEP HOLES FOR #4x1'-4" DOWELS @ 18" O.C. DRILL AND ADHERE INTO FOUNDATION. SEE SHEET S1 FOR ADHESIVE ANCHOR INSTALLATION.
- 24 PROVIDE SMOOTH TRANSITION ON TOP OF STEM WALL AT ALL DOOR & WINDOW OPENINGS
- 25 STEEL BOLLARD SEE SITE PLAN.
- 26 SLAB HAIRPIN SEE DETAIL 6/S3.1
- 27 SEE FOUNDATION SCHEDULE FOR FOOTING & PILASTER REINFORCEMENT.
- 28 REFER TO SECTIONS FOR REBAR TIE SIZE AND SPACING.
- 29 #4x4'-0" DOWEL CENTERED IN SLAB. TURN 45 DEGREES AS SHOWN.
- 30 LINE OF STEM WALL AND FOOTING BEYOND
- 31 12" METAL STUD. SEE S4 FOR GAUGE AND SPACING - SEE STRUCTURAL NOTES (SHEET S1.1) FOR ADDITIONAL REQUIREMENTS.
- 32 DRILL (4) 6" DEEP HOLES FOR 3/4" A36 THREADED ROD ANCHORS. ADHERE IN PLACE W/ SIMPSON AT-XP. SEE S1.1 ADHESIVE NOTES.



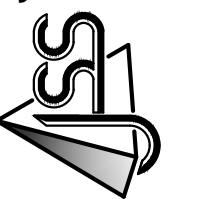
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O'Reilly AUTO PARTS
CORPORATE OFFICES
233 SOUTH PATTERSON
SPRINGFIELD, MISSOURI 65802
(417) 862-2674 TELEPHONE

PROJECT:
NEW O'REILLY AUTO PARTS STORE
301 NORTH MAIN STREET
MONROE, OHIO

FOUNDATION DETAILS

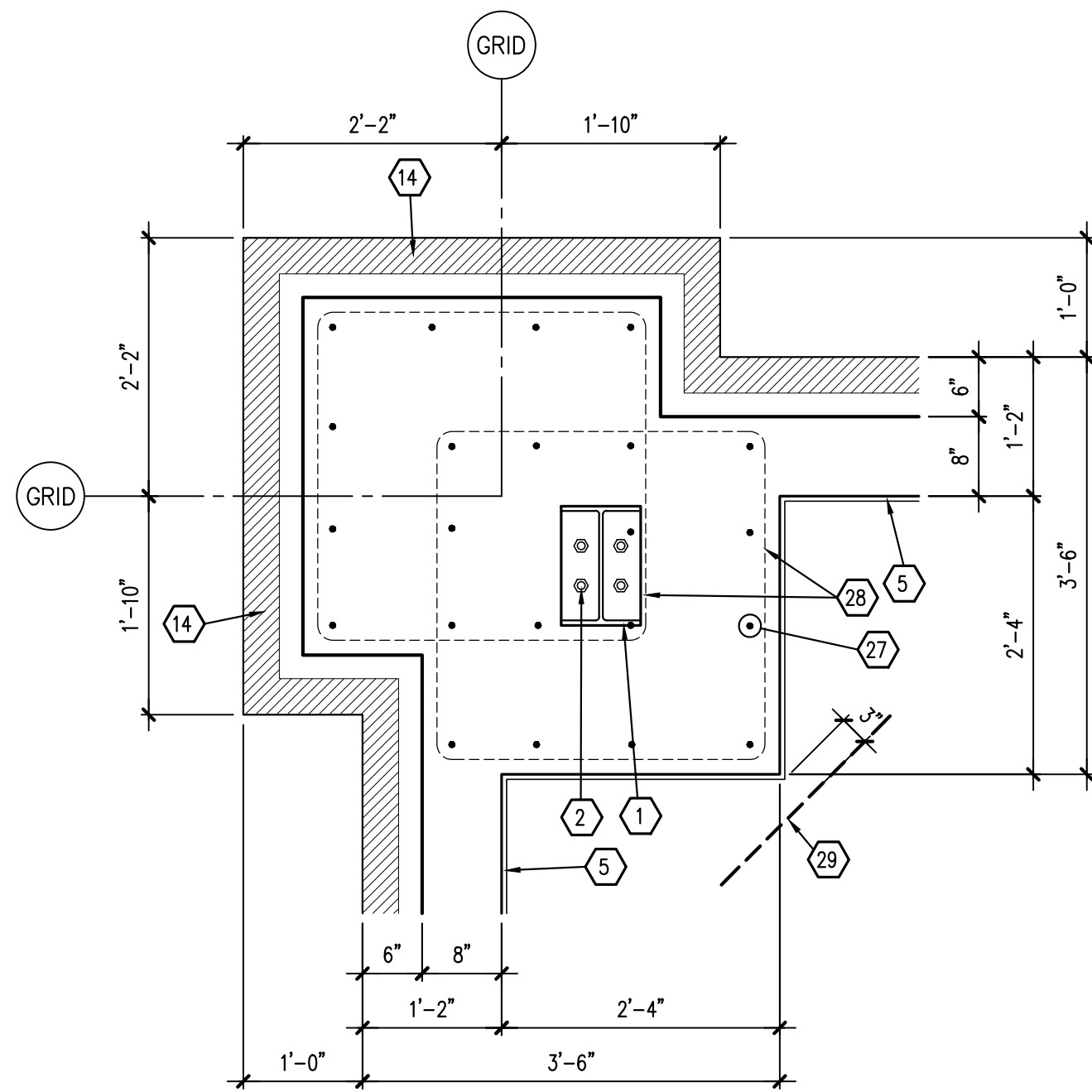
JS Smith Consulting Engineers, P.C.
Ohio Certificate of Authorization No. 01403
Professional Engineer License No. 10680
1801 W 32nd St. Bldg E Ste 104 • JOPLIN, MISSOURI 64804
P.O. Box 8102 • JOPLIN, MISSOURI 64802
PHONE: 417-624-0444 FAX: 417-624-0503



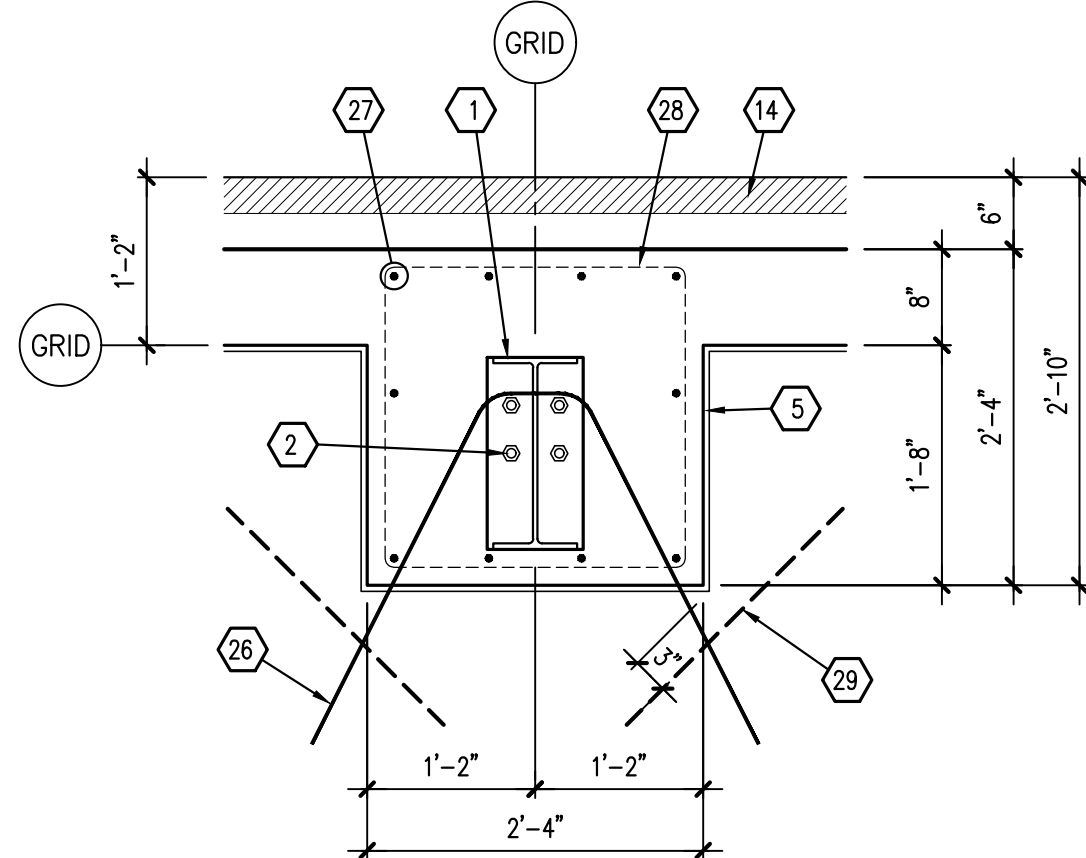
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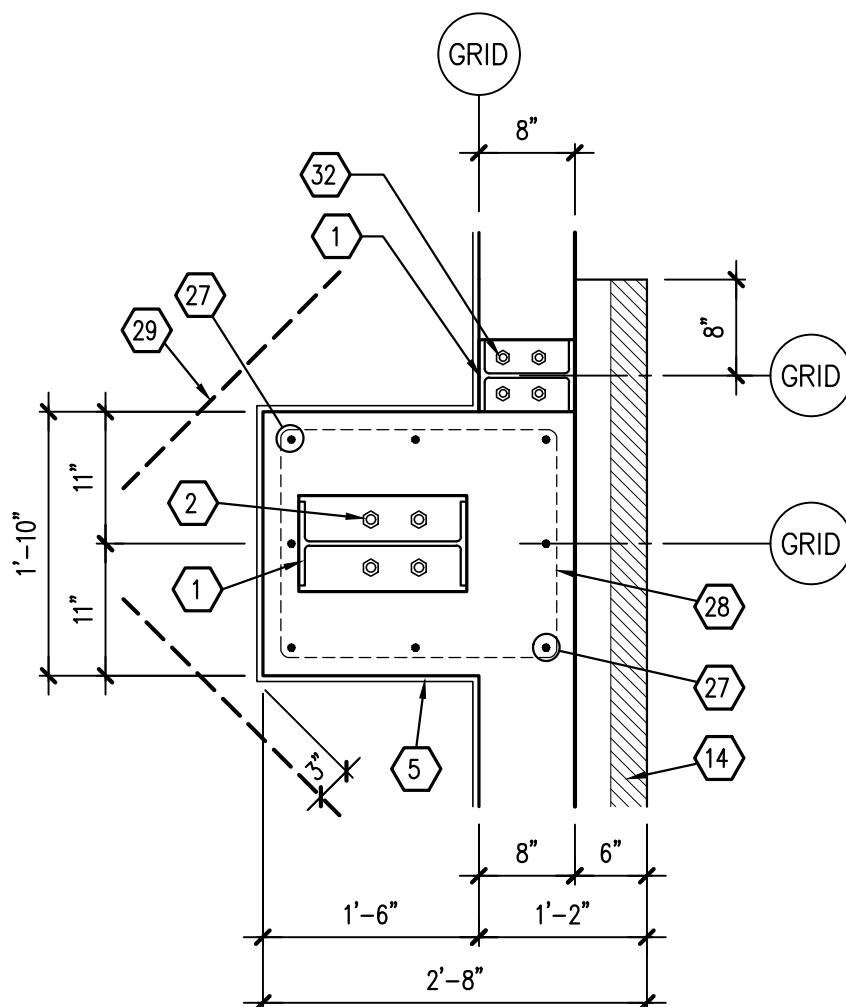
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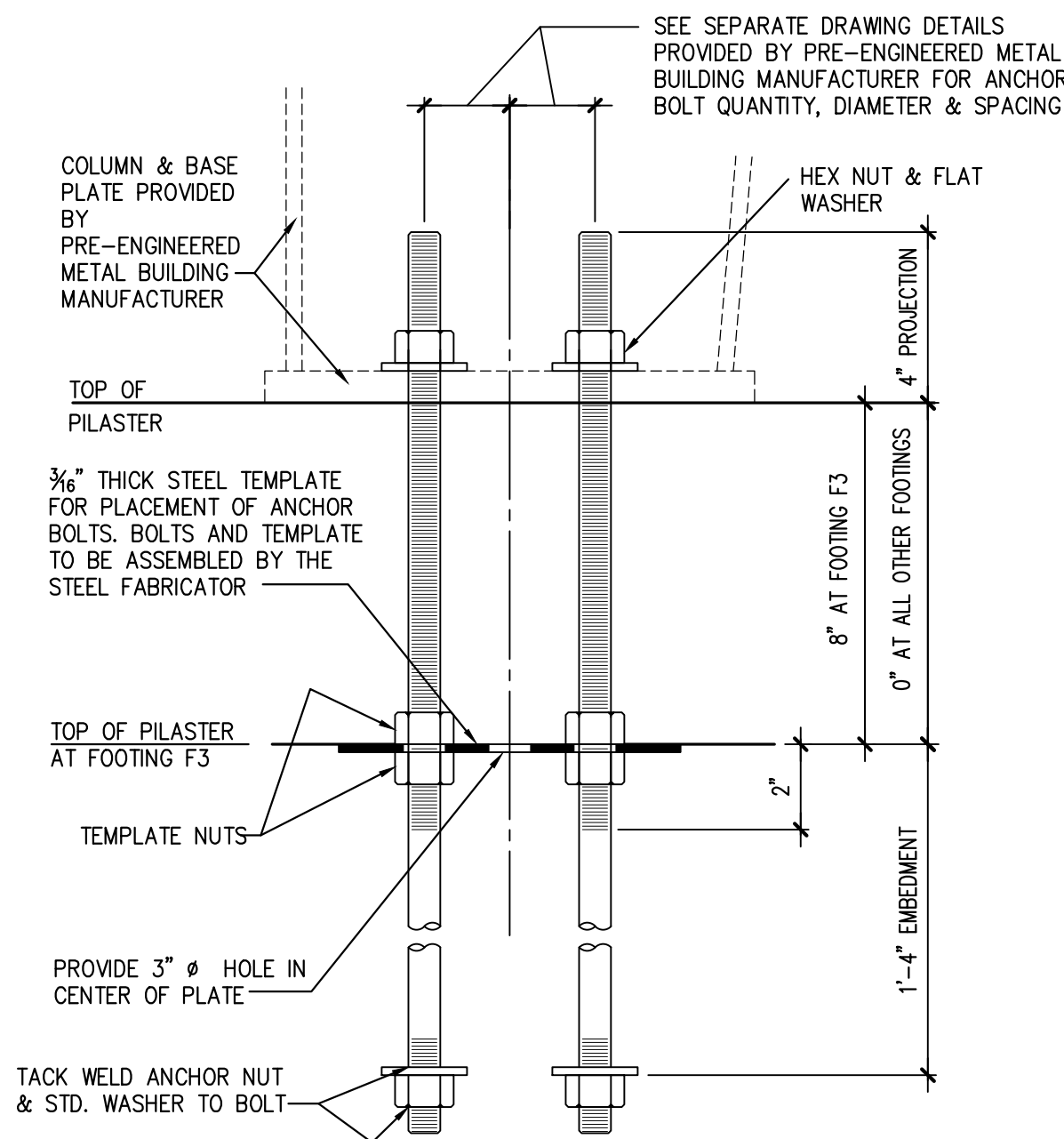
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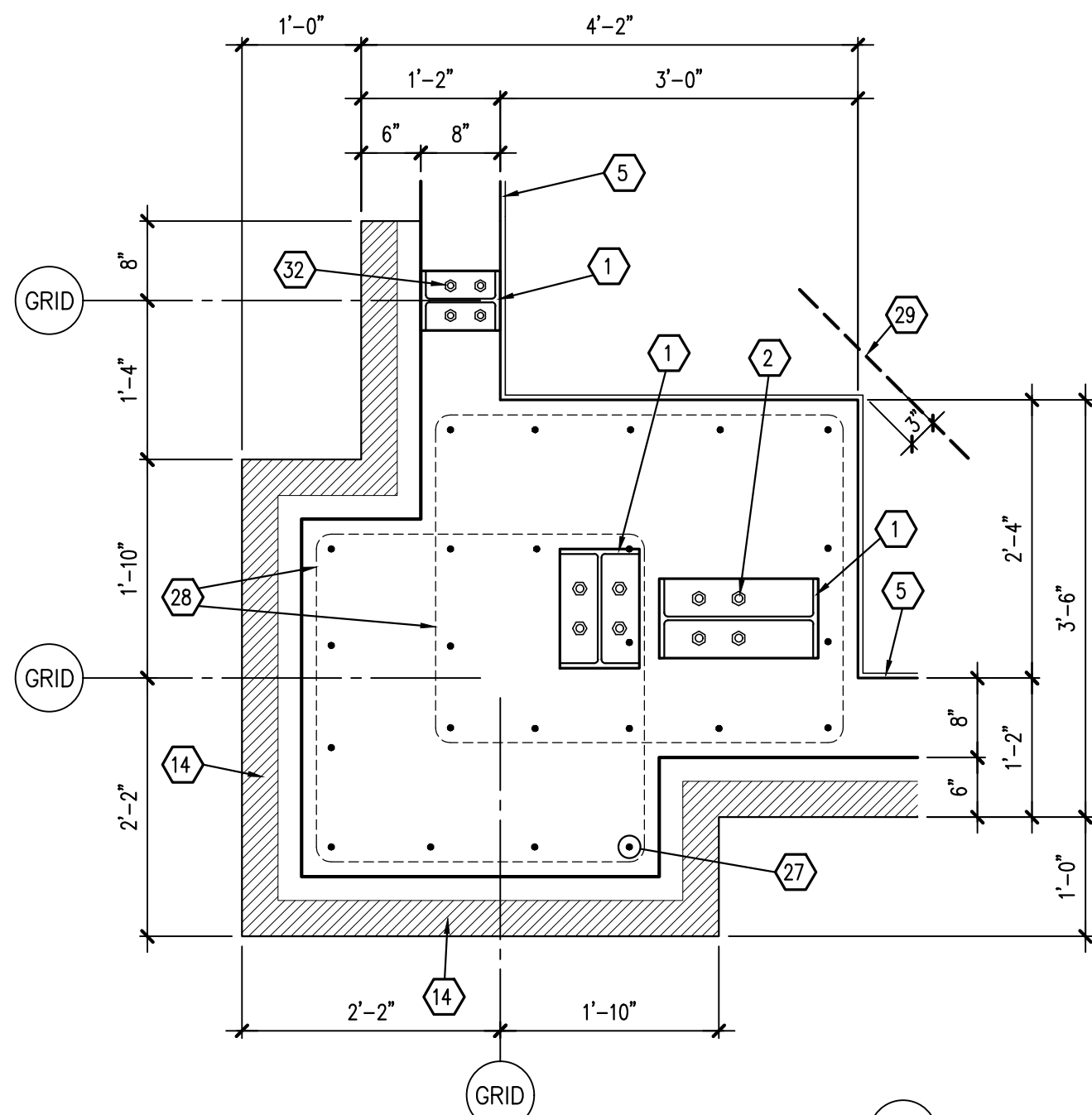
2 DETAIL
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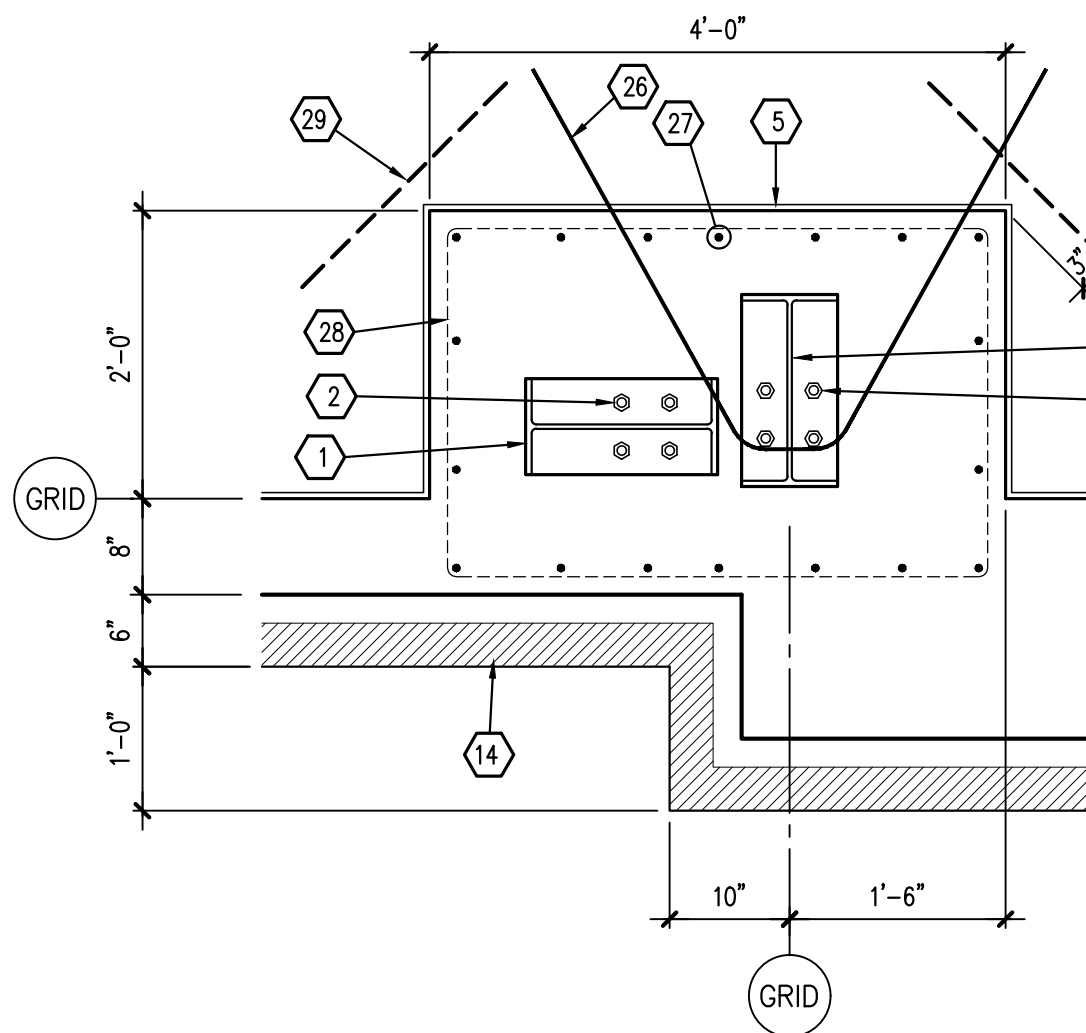
3 DETAIL
S3.2 SCALE: 3/4" = 1'-0"



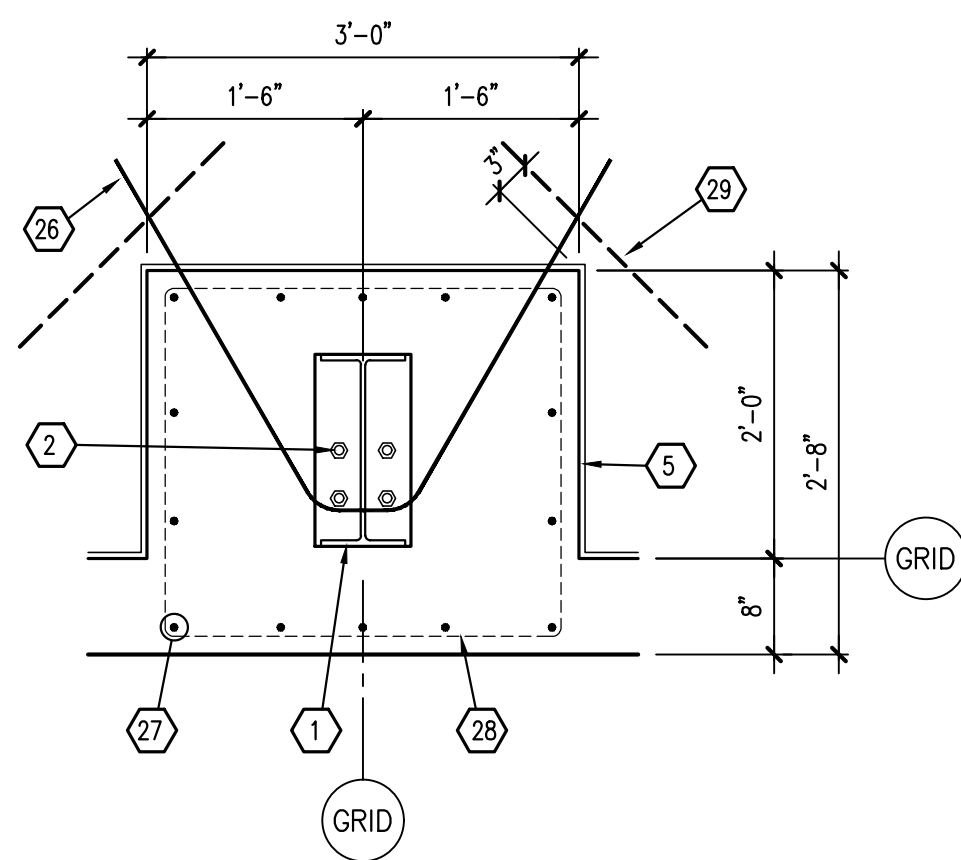
4 SHOP FABRICATED ANCHOR ASSEMBLY
S3.2 SCALE: NONE (DO NOT SHIP UNASSEMBLED TO FIELD)



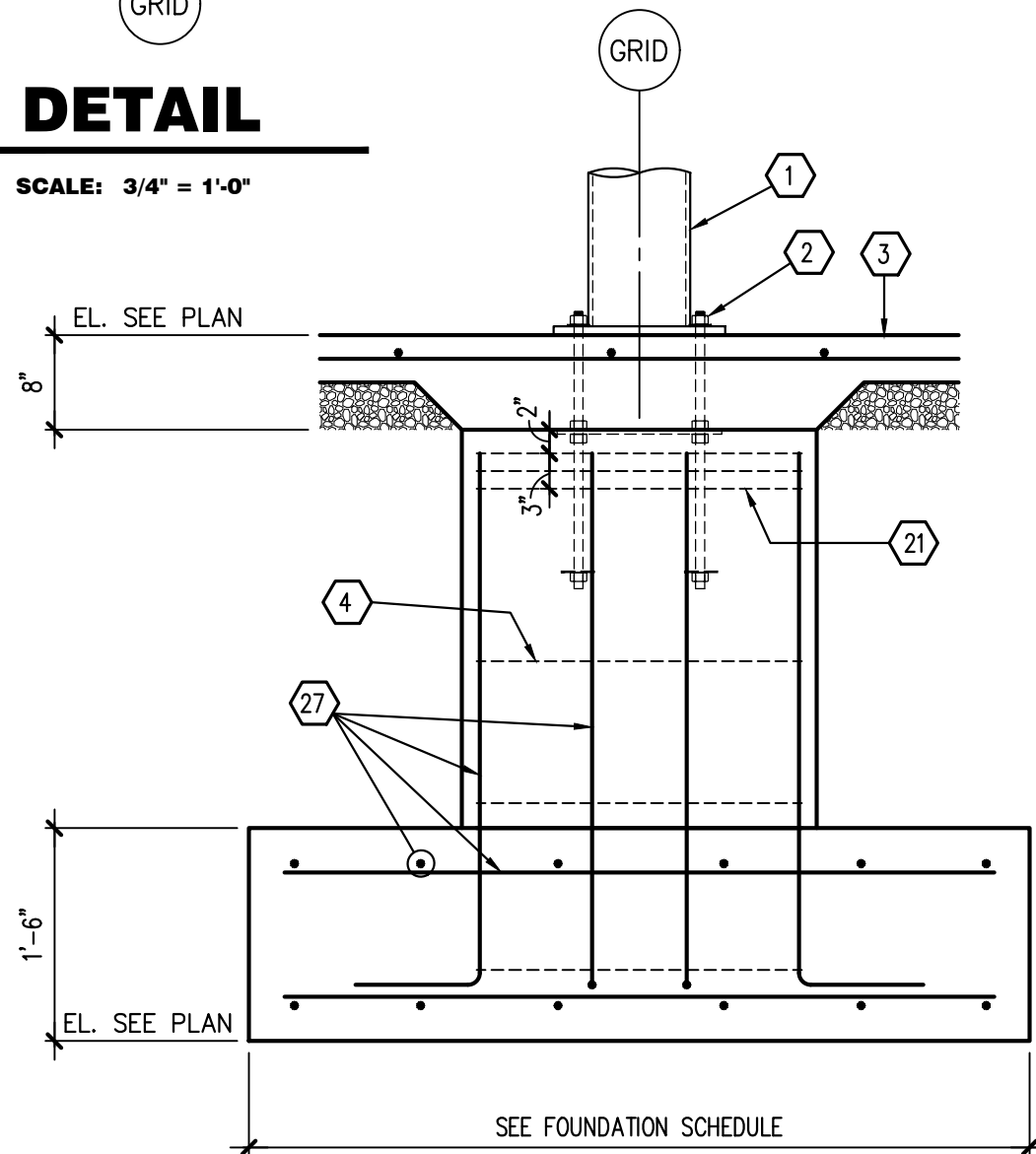
5 DETAIL
S3.2 SCALE: 3/4" = 1'-0"



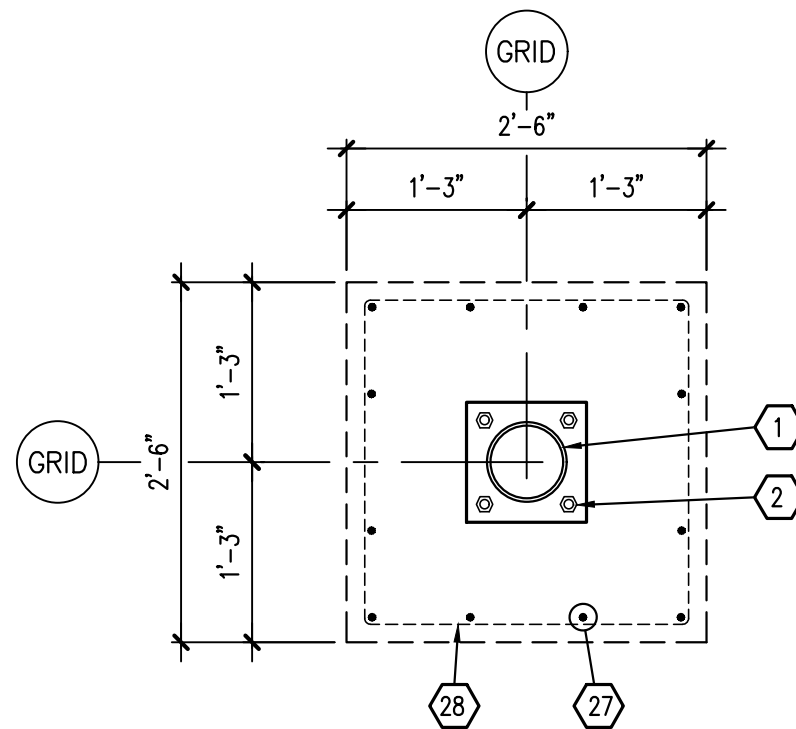
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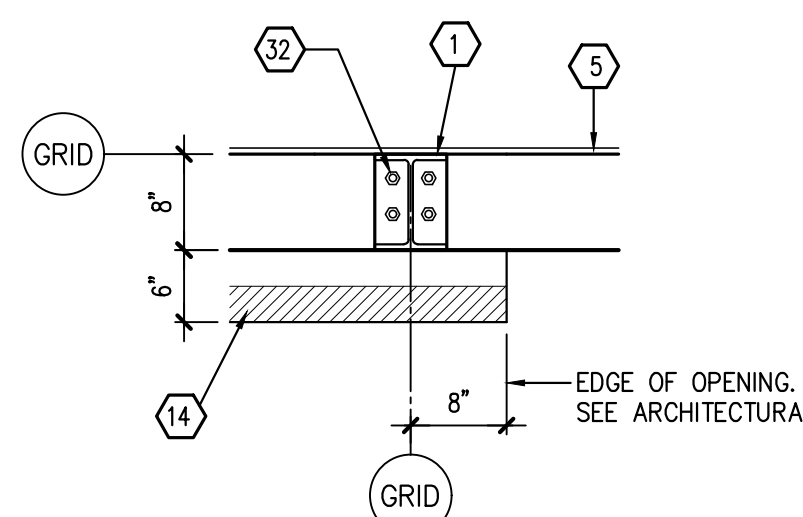
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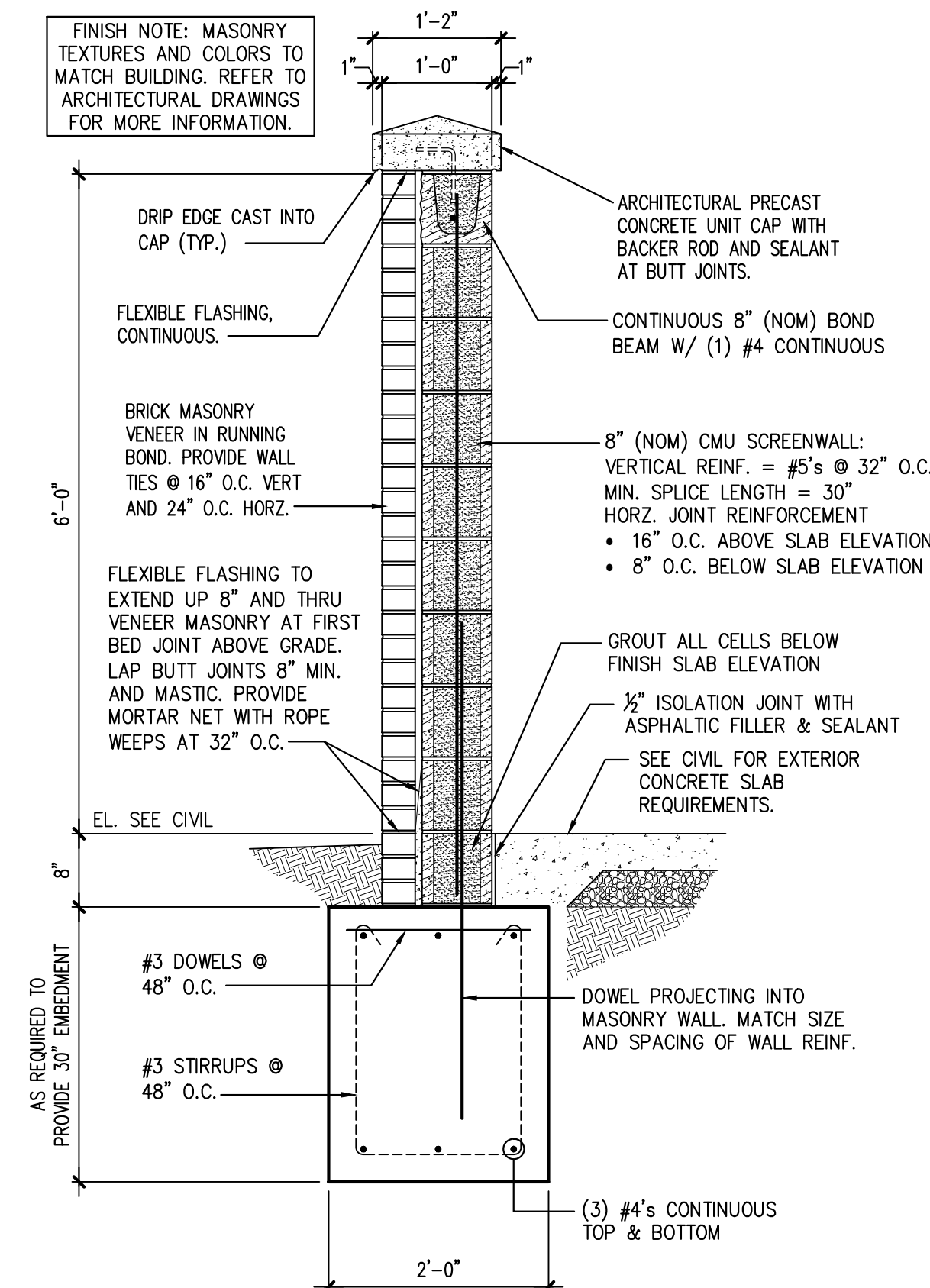
8 SECTION
S3.2 SCALE: 3/4" = 1'-0"



9 DETAIL
S3.2 SCALE: 3/4" = 1'-0"

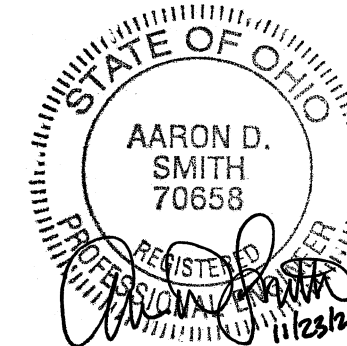


10 DETAIL
S3.2 SCALE: 3/4" = 1'-0"



11 SCREEN WALL
S3.2 SCALE: 3/4" = 1'-0"

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 - REFER TO ARCHITECTURAL DRAWINGS FOR EXTERIOR WALL SHEATHING, FLASHING, AND GROUT SPACE BEHIND BRICK VENEER. SEE SHEET S4 FOR SHEATHING ATTACHMENT INFORMATION.
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 - SLAB HAIRPIN SEE DETAIL 6/S3.1
 - SEE FOUNDATION SCHEDULE FOR FOOTING & PILASTER REINFORCEMENT.
 - REFER TO SECTIONS FOR REBAR TIE SIZE AND SPACING.
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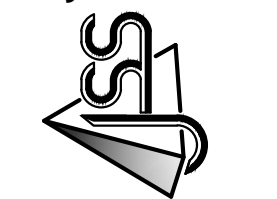
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O'Reilly AUTO PARTS
CORPORATE OFFICES
233 SOUTH PATTERSON
SPRINGFIELD, MISSOURI 65802
(417) 862-2674 TELEPHONE

PROJECT:
NEW O'REILLY AUTO PARTS STORE
301 NORTH MAIN STREET
MONROE, OHIO

FOUNDATION DETAILS

JS Smith Consulting Engineers, P.C.
Ohio Certificate of Authorization No. 01403
1801 W 32nd St, Bag 8, Ste 104 • JOPLIN, MISSOURI 64804
P.O. Box 8102 • JOPLIN, MISSOURI 64802
PHONE: 417-624-0444 FAX: 417-624-0503



DRAWN BY: **BTJ** CHECKED BY: **AS**

DATE: **11/23/21**

REVISION:

PROJECT NUMBER: **MNO**

SHEET NUMBER

S3.2

KEYNOTES

- PRE-ENGINEERED METAL BUILDING STRUCTURAL SYSTEM. SEE P.E.M.B. SHOP DRAWINGS FOR ALL MEMBERS AND CONNECTIONS
- 8"x18 ga. METAL STUDS (800S162-43) @ 16" O.C. SEE STRUCTURAL NOTES FOR BLOCKING/BRIDGING REQUIREMENTS AND ADDITIONAL INFORMATION.
- REFER TO ARCHITECTURAL DRAWINGS FOR FLASHING AND PARAPET CAP.
- PRE-ENGINEERED METAL BUILDING ROOFING SYSTEM. SEE P.E.M.B. SHOP DRAWINGS FOR ADDITIONAL INFORMATION
- MASONRY OR BRICK VENEER. SEE ARCHITECTURAL ELEVATIONS FOR ADDITIONAL INFORMATION.
- 16 ga SIMPSON FCB 43.5 CONNECTOR W/ (4) #12-14 SCREWS TO STUDS AND (2) #12-24 TO MIN. 3/16" THICK STEEL
- REFER TO ARCHITECTURAL FOR WALL FINISHES
- REFER TO ARCHITECTURAL DRAWINGS FOR EXTERIOR WALL SHEATHING. WALL SHEATHING SHALL BE ATTACHED TO EACH STUD AS PER SHEATHING MANUFACTURER'S REQUIREMENTS FOR WIND PRESSURES INDICATED ON SHEET S1. MINIMUM ATTACHMENT REQUIREMENT TO BE #8 CORROSION-RESISTANT (1" LONG) SCREWS @ 8" O.C. AT PERIMETER OF SHEETS AND AT 8" O.C. IN THE INTERIOR FIELD.
- PRE-ENGINEERED METAL BUILDING WIND BEAM. SEE P.E.M.B. SHOP DRAWINGS FOR LOCATIONS
- CONNECT STUDS TOGETHER WITH #12 SCREWS @ 24" O.C.
- 12"x18ga METAL STUDS (1200S162-43) @ 16" O.C.
- 8"x16 ga. METAL STUDS (800S162-54) @ 16" O.C. SEE STRUCTURAL NOTES FOR BLOCKING/BRIDGING REQUIREMENTS AND ADDITIONAL INFORMATION.
- 3/8"x18 ga. METAL STUD TIES (362S162-43) @ 48" O.C. WITH MINIMUM (2) #8 SCREWS TO EACH VERTICAL STUD
- 3/8" OR 6"x18ga METAL STUD CORNICE/OUTLOOKER FRAMING. ALIGNED WITH EACH STUD. FASTEN W/ MIN (2) #10 SDS. REFER TO ARCHITECTURAL FOR FRAMING PROFILE.
- 16 ga SIMPSON FCB 43.5 CONNECTOR W/ (4) #12-14 SCREWS TO STUDS AND (3) #12-24 TO MIN. 3/16" THICK STEEL



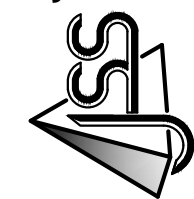
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CORPORATE OFFICES
233 SOUTH PATTERSON
SPRINGFIELD, MISSOURI 65802
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FRAMING DETAILS

JS Smith Consulting Engineers, P.C.
Ohio Certificate of Authorization No. 01403
Professional Engineer
P.O. Box 8102 • JOPLIN, MISSOURI 64602
PHONE: 417-624-0444 FAX: 417-624-0403



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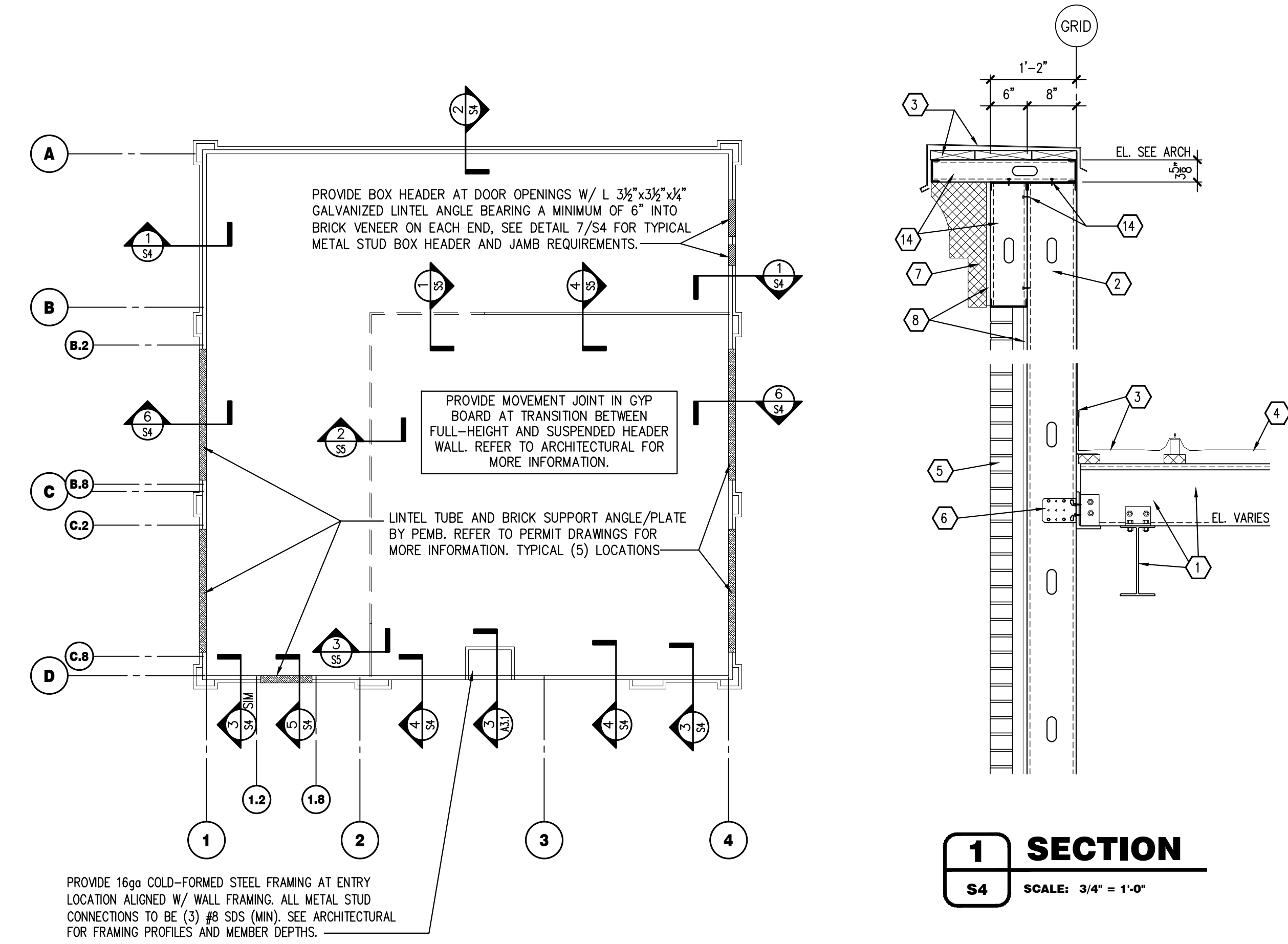
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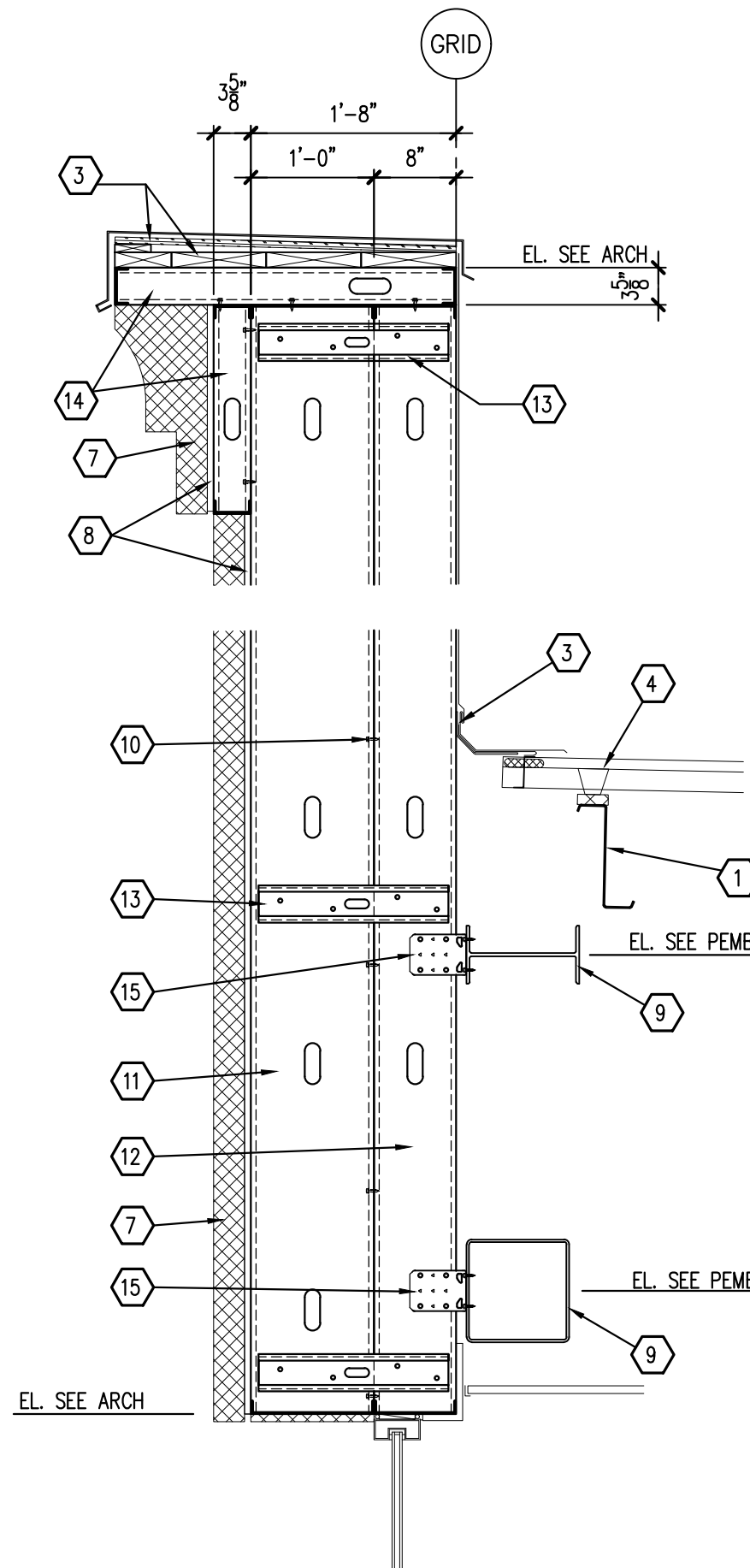
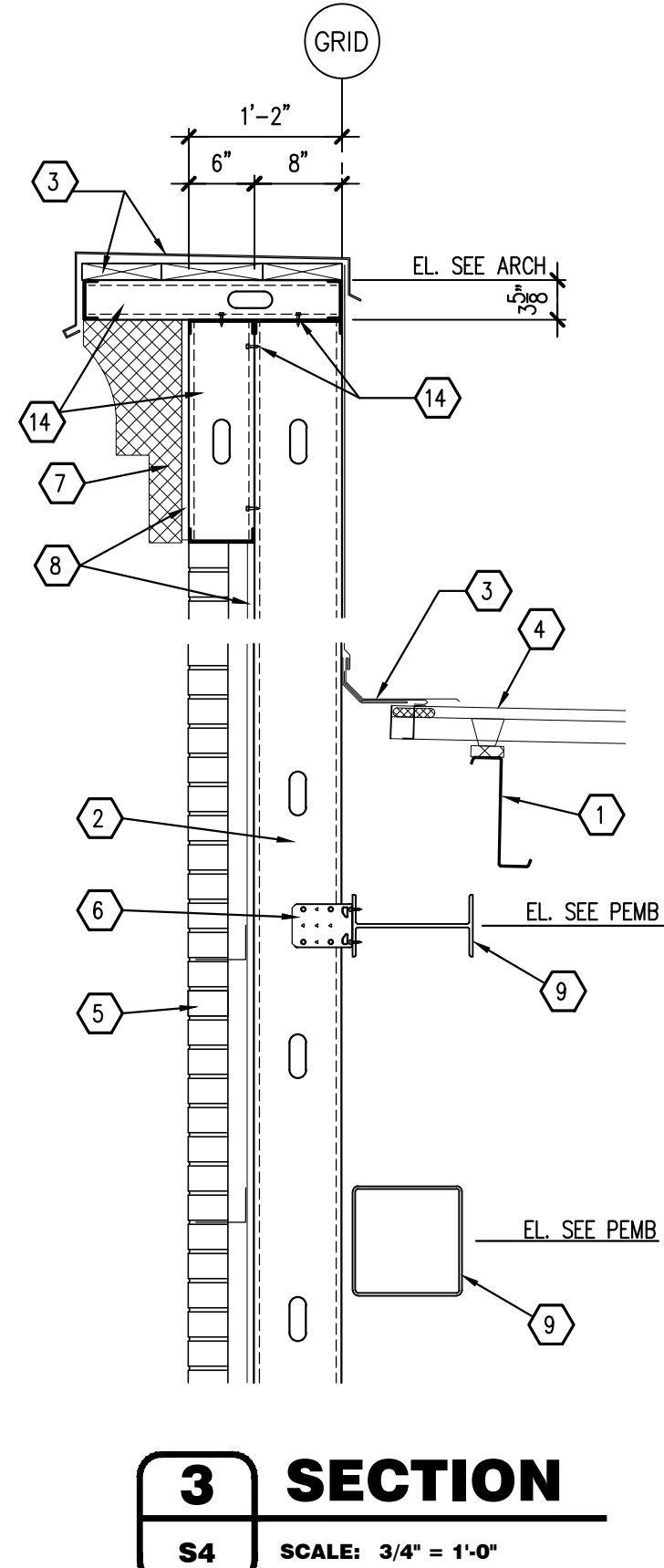
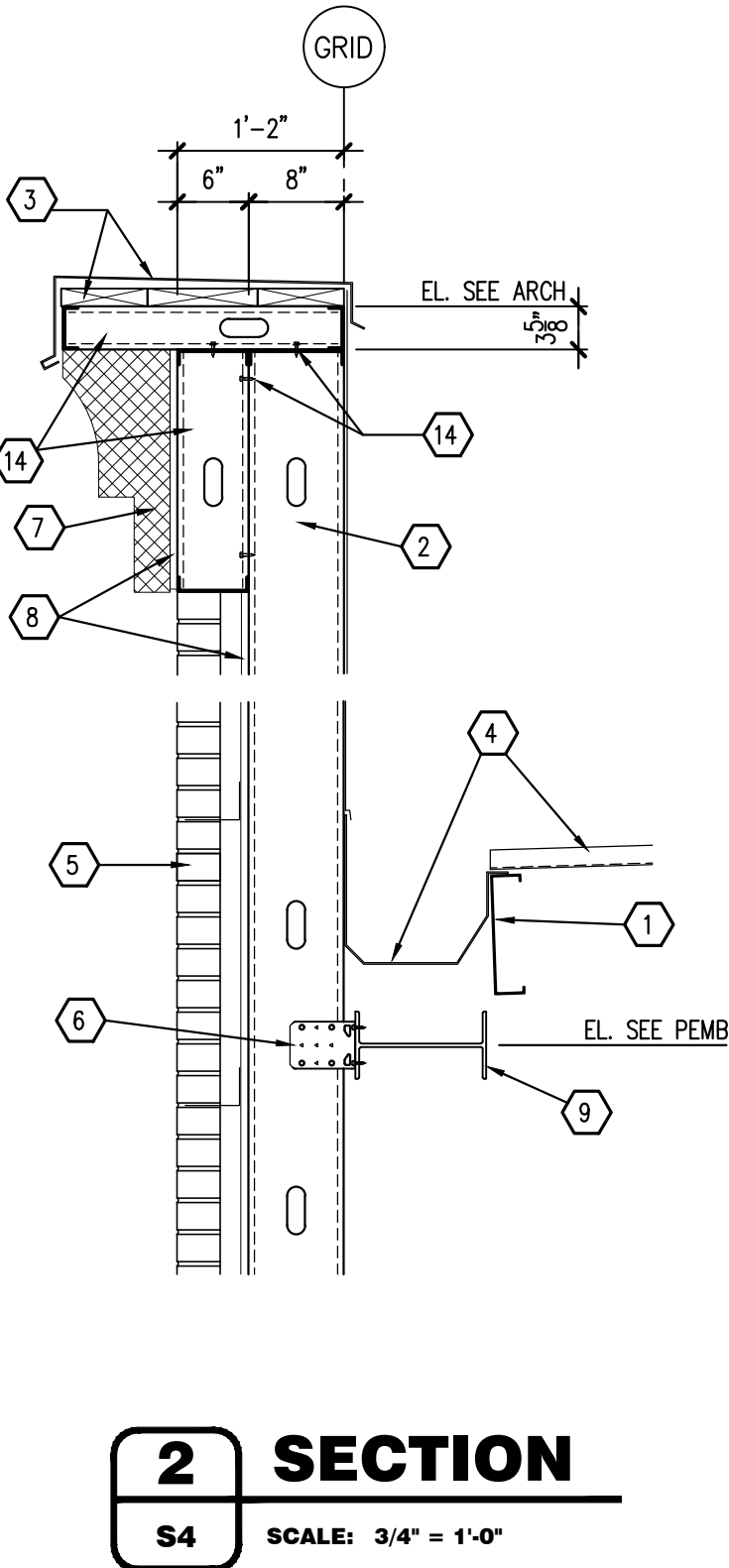
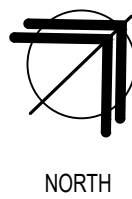
S4

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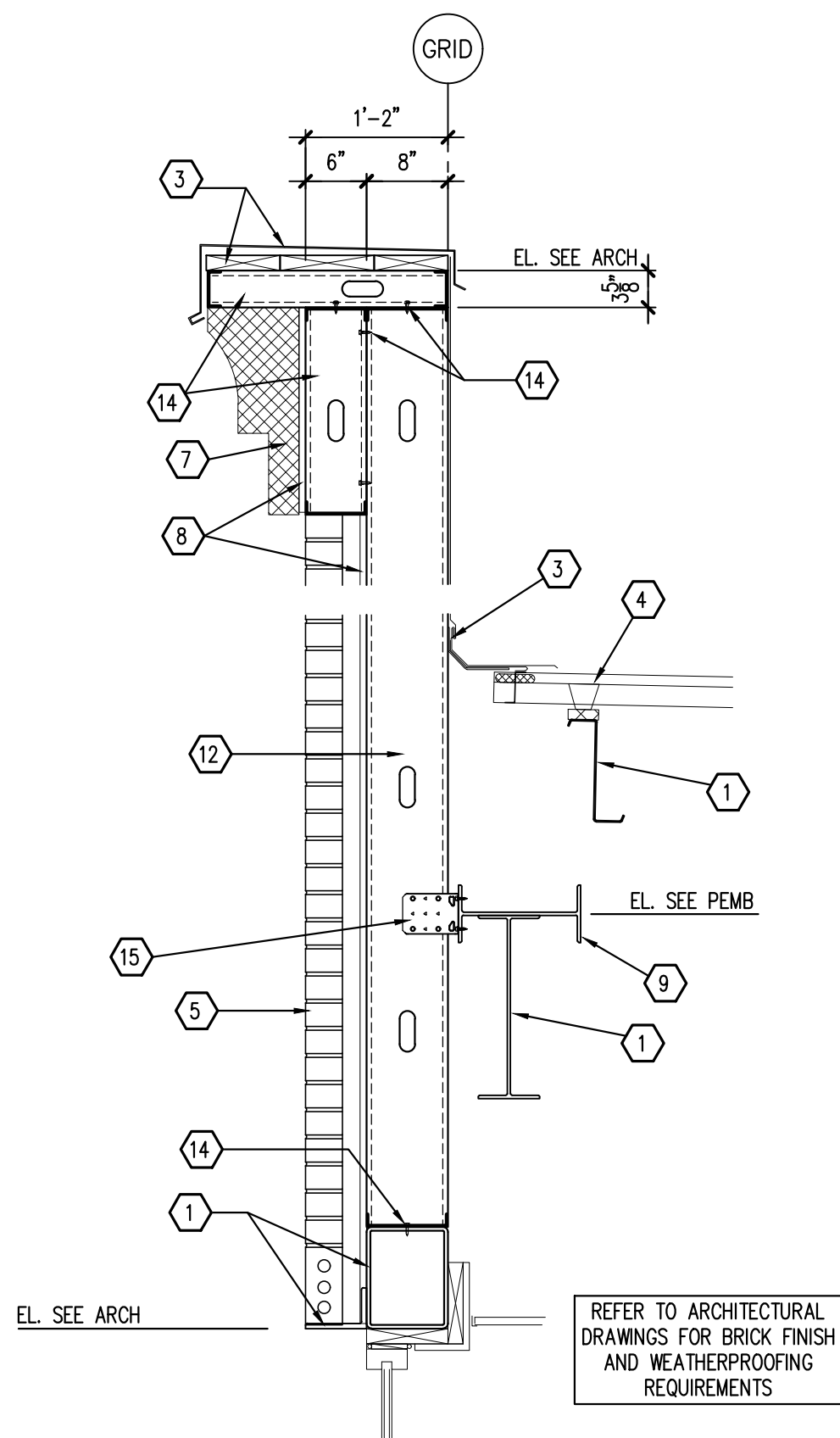
ROOF KEY PLAN

SCALE: NONE



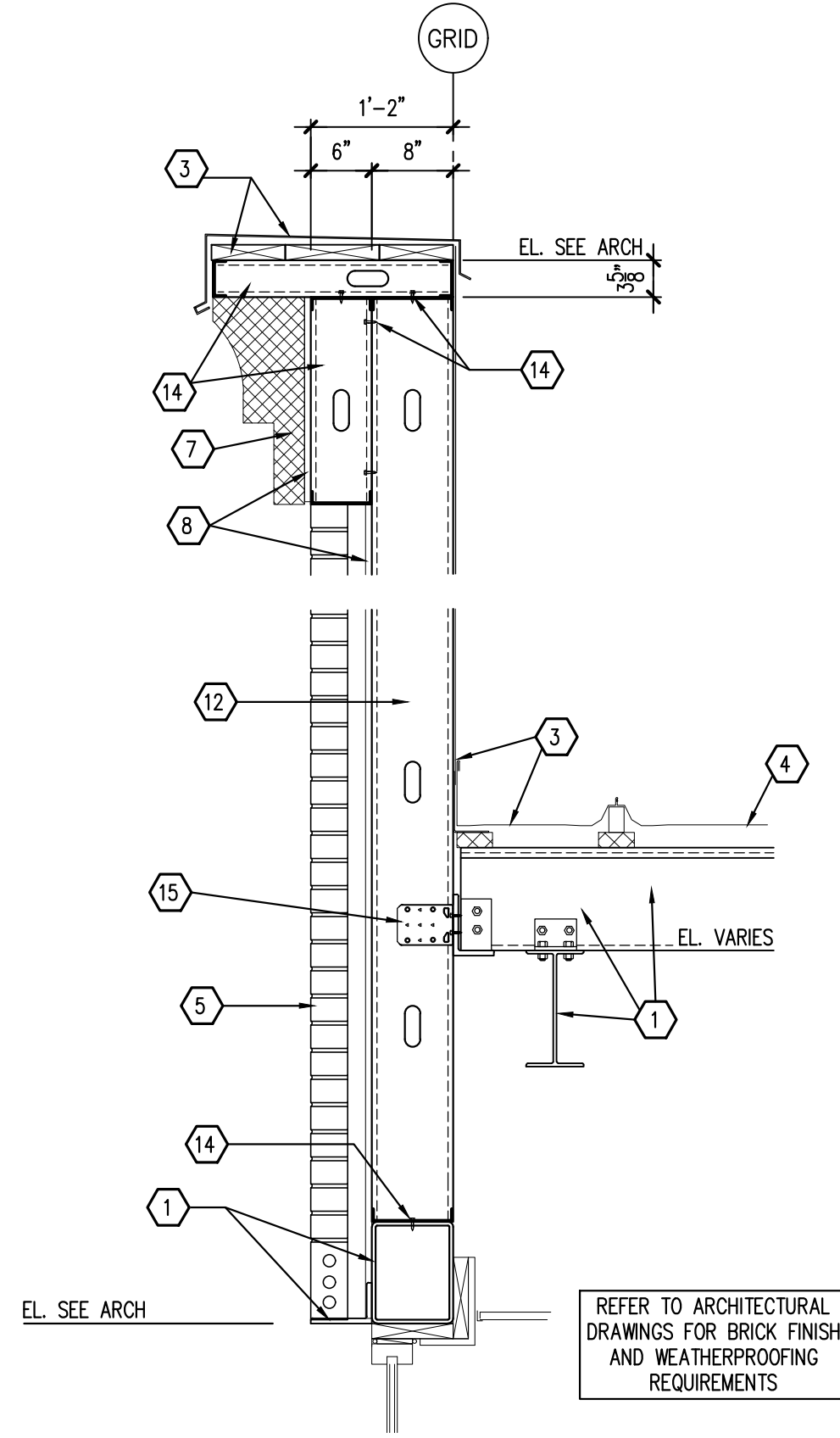
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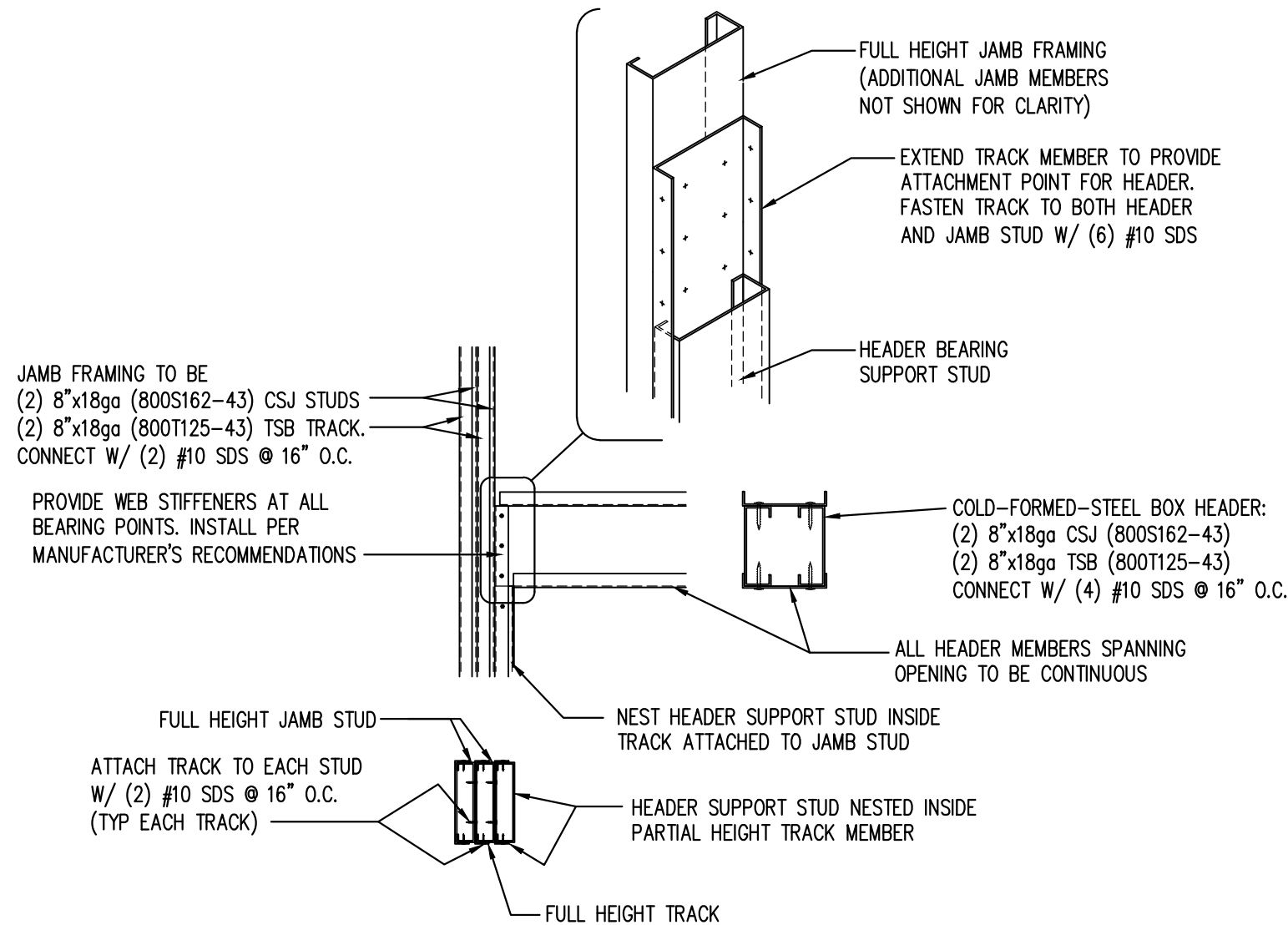
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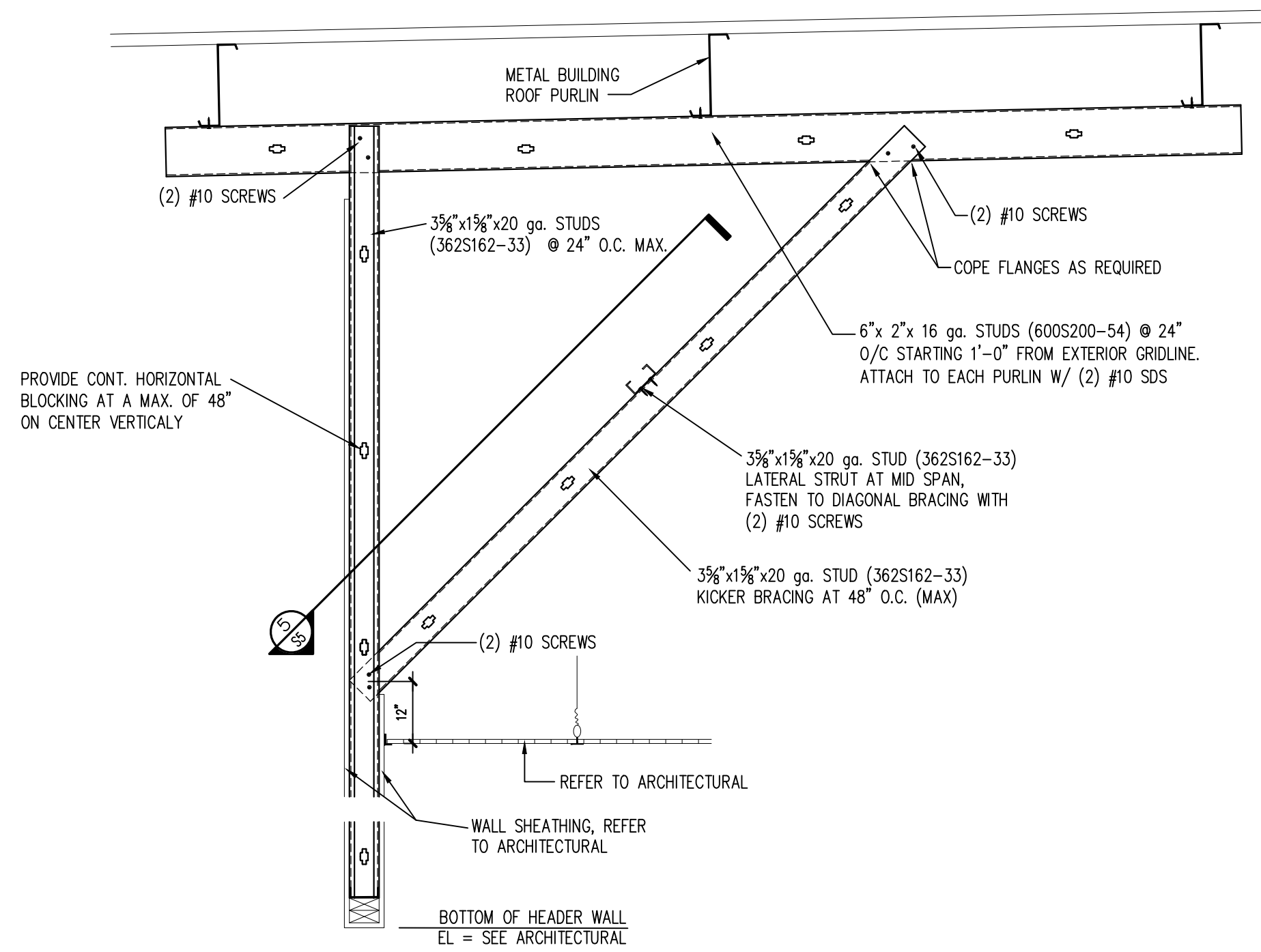
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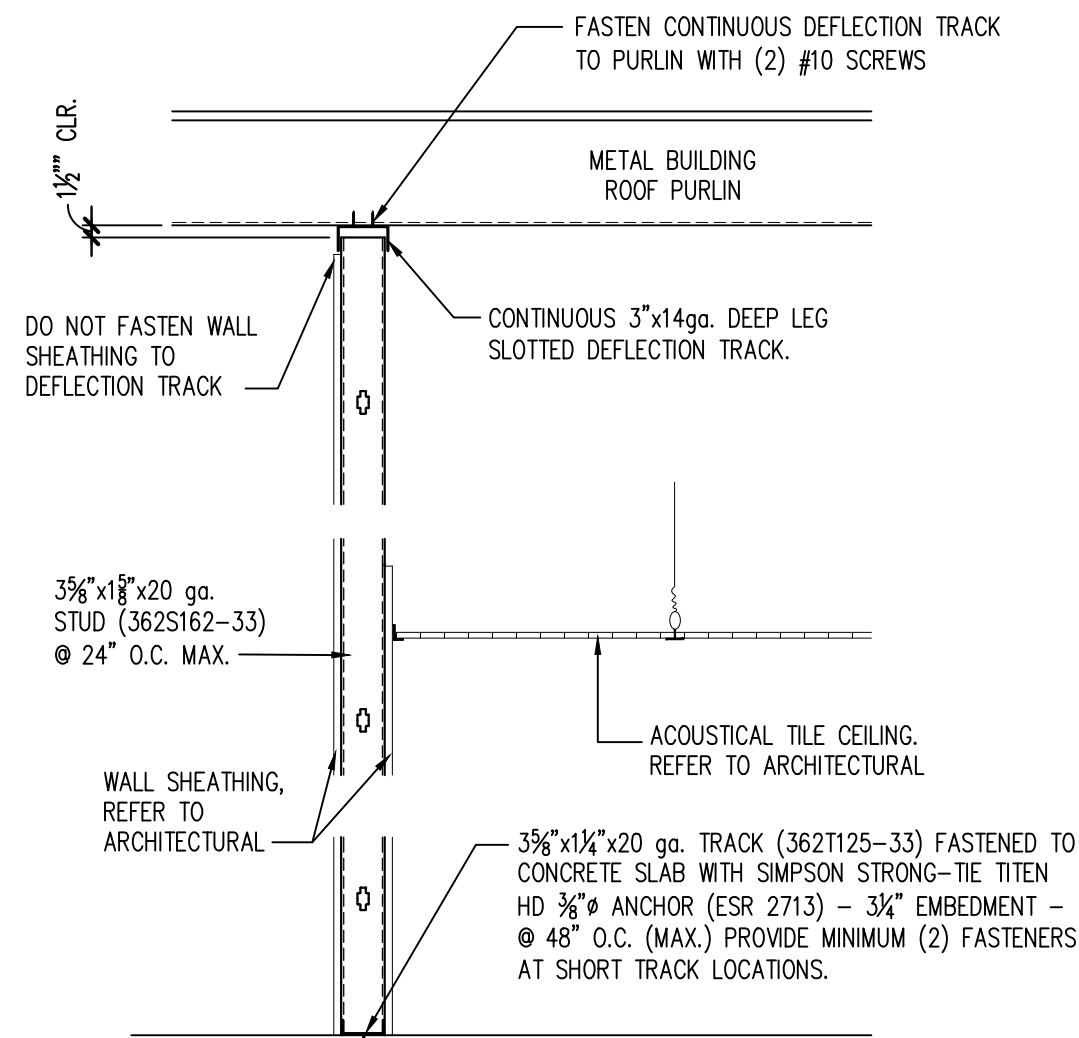


7 TYP 8" WALL HEADER AND JAMB

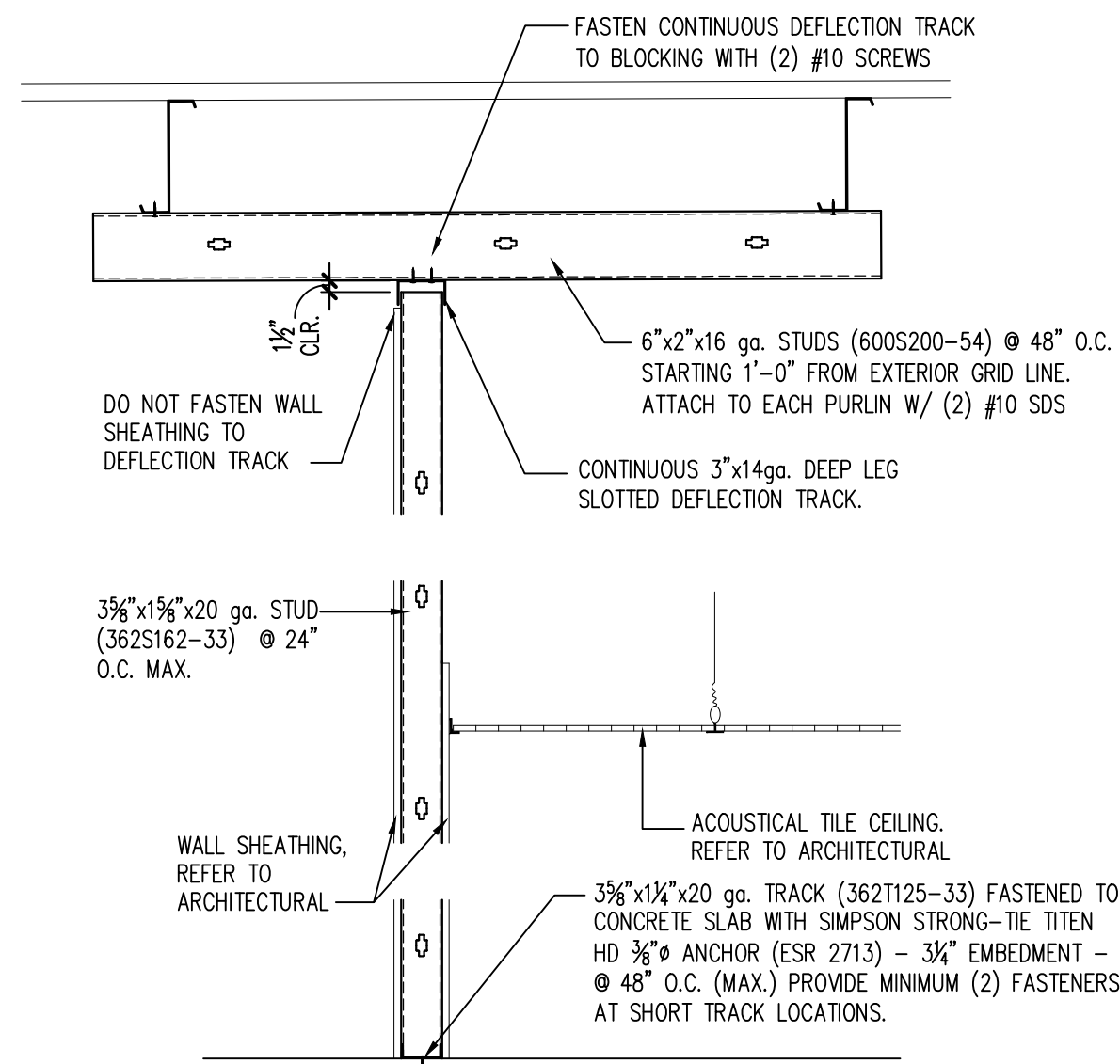
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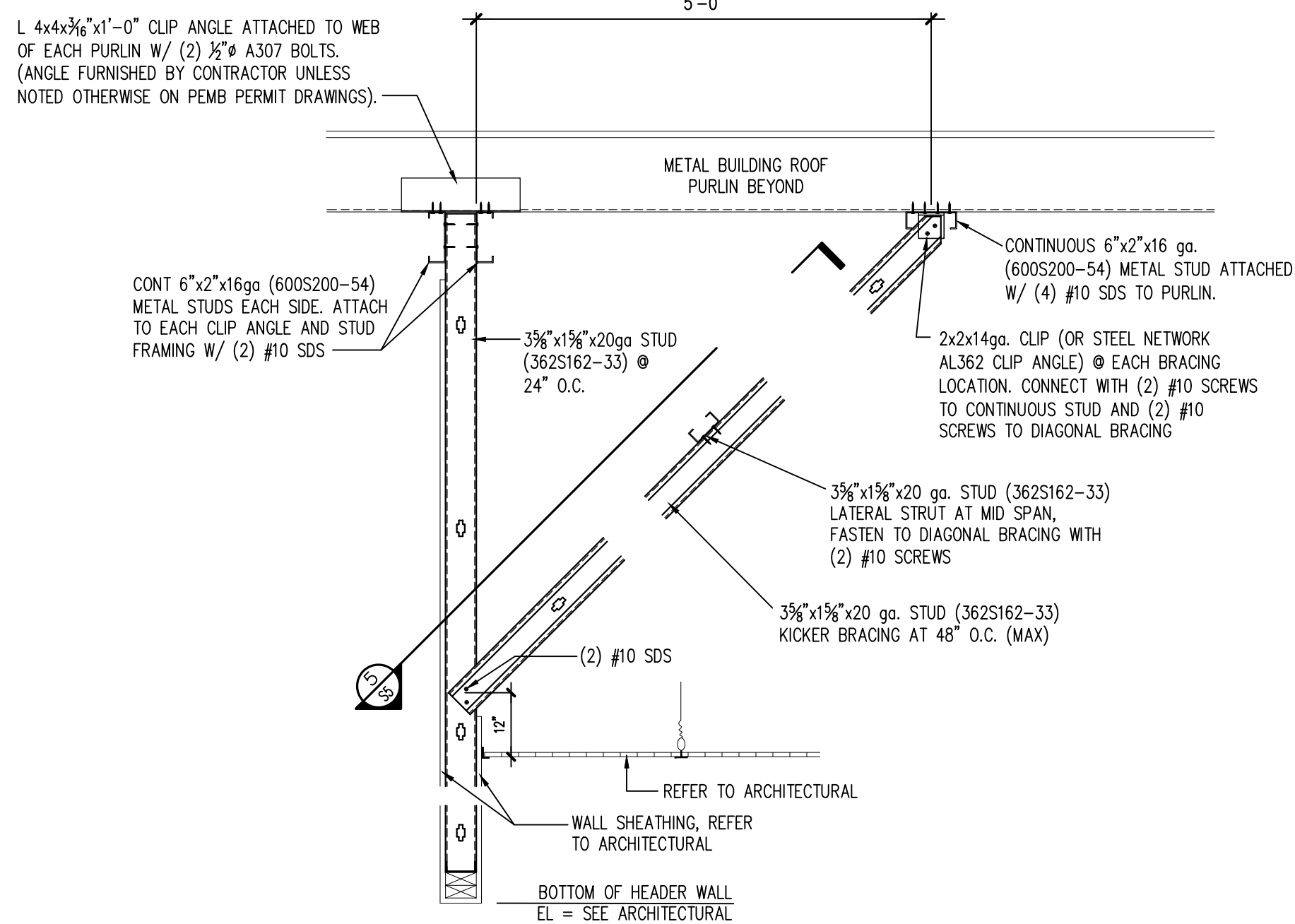
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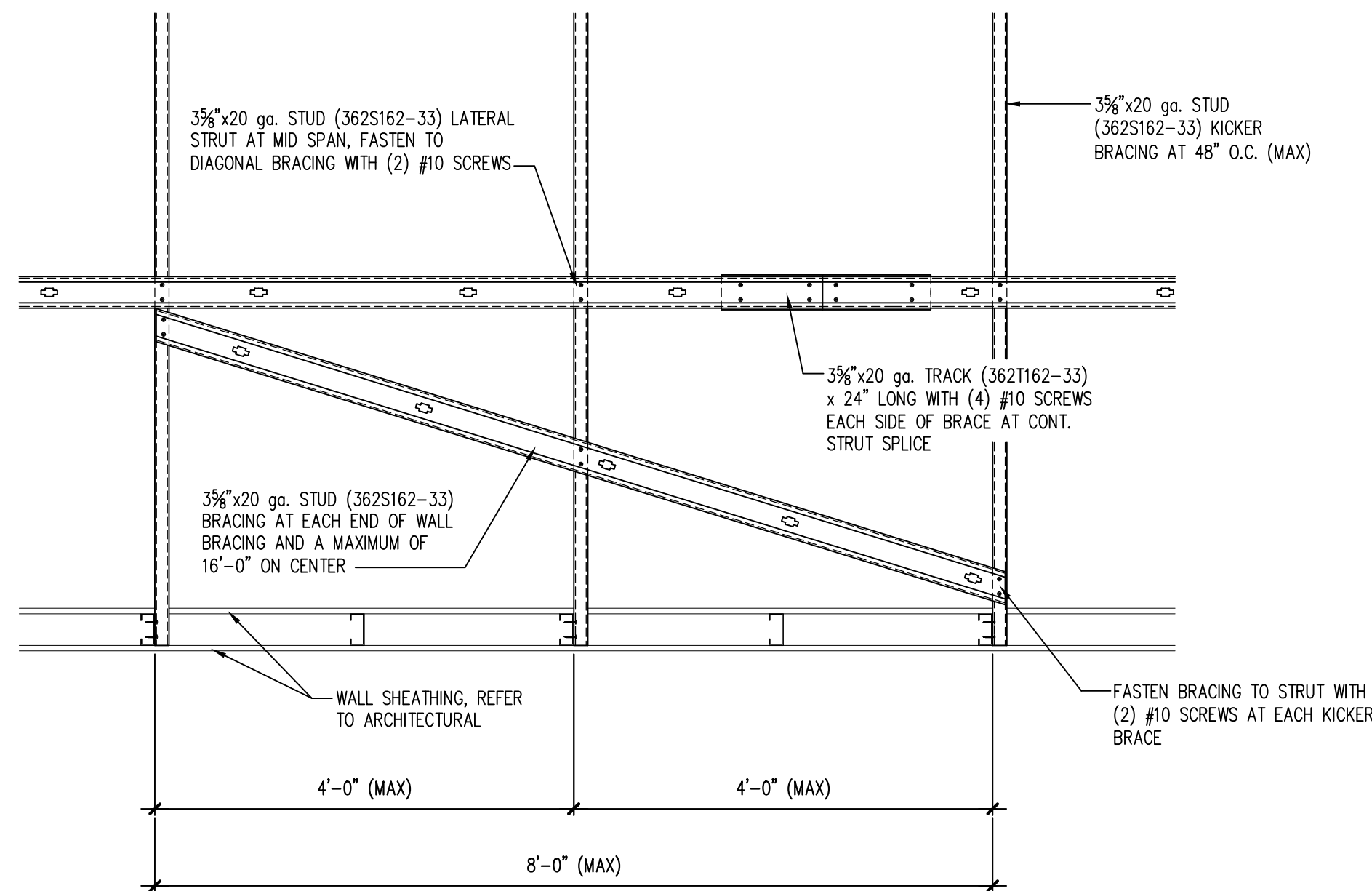
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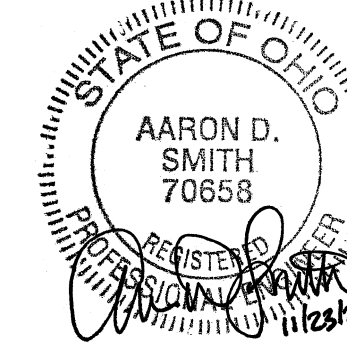
4 SECTION
S5 SCALE: 3/4" = 1'-0"



2 SECTION
S5 SCALE: 3/4" = 1'-0"



5 SECTION
S5 SCALE: 3/4" = 1'-0"



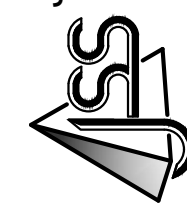
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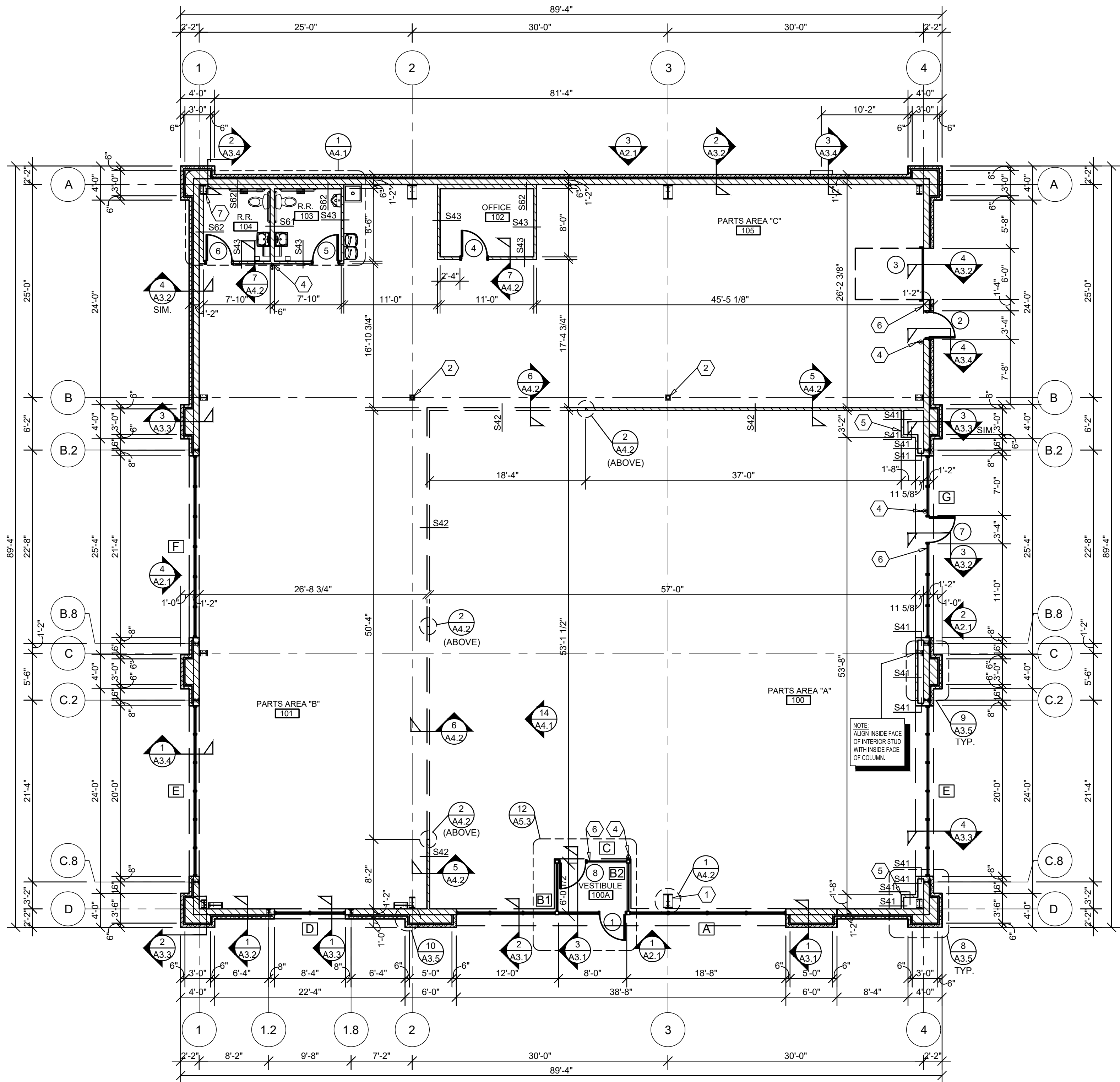
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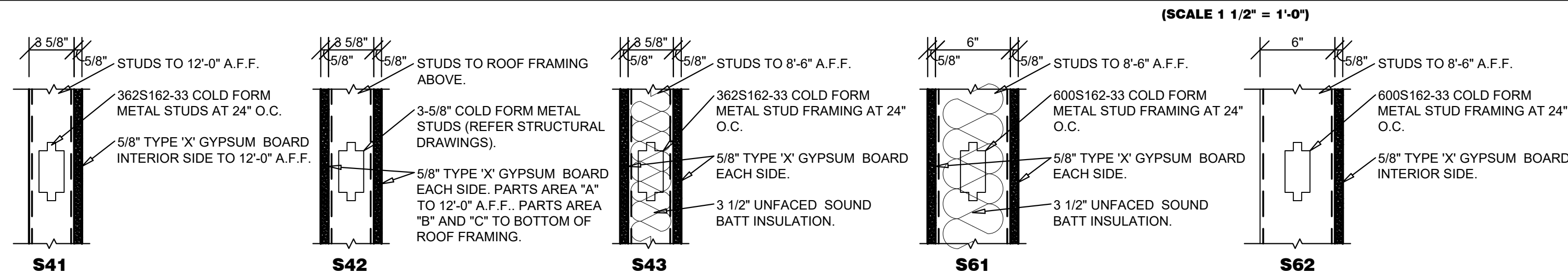
S5



1 FLOOR PLAN
A1.1 SCALE: 1/8" = 1'-0"



INTERIOR WALL TYPES



GENERAL NOTES

- REFER TO PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.
- ALL DIMENSIONS TO ROUGH FACE OF ROUGH FRAMING, CONCRETE, MASONRY OR CENTERLINE OF STRUCTURE, UNLESS OTHERWISE NOTED. COLD FORM METAL STUD INTERIOR PARTITION DIMENSIONS 3/8" UNLESS OTHERWISE INDICATED AND NOT SHOWN FOR CLARITY.
- REFER TO EXTERIOR AND INTERIOR FINISH SCHEDULES FOR ADDITIONAL REQUIREMENTS.
- REFER TO PRE-ENGINEERED METAL BUILDING SHOP DRAWINGS FOR ADDITIONAL REQUIREMENTS. NOTIFY ARCHITECT IF FINAL DESIGN CONDITIONS DEVIATE SUBSTANTIALLY FROM THOSE INDICATED HEREIN.

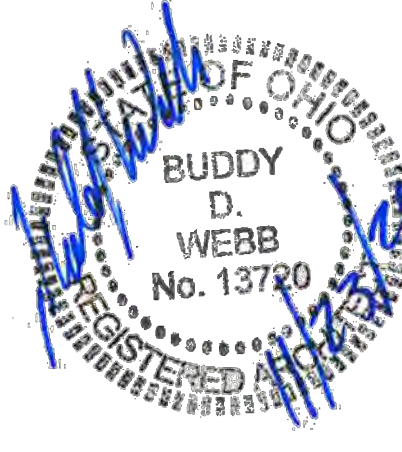
KEY NOTES

- CONCEALED STEEL COLUMN, REFER TO PRE-ENGINEERED METAL BUILDING SHOP DRAWINGS. PROVIDE SHEET METAL COVER WITH NO EXPOSED HORIZONTAL SEAMS. FINISH TO MATCH WINDOW FRAMING.
- EXPOSED STEEL COLUMN, REFER TO PRE-ENGINEERED METAL BUILDING SHOP DRAWINGS. (PAINT W-3, REFER INTERIOR FINISH SCHEDULE).
- (NOT USED)
- SURFACE MOUNTED PORTABLE FIRE EXTINGUISHER, REFER TO DETAIL 10/A4.2.
- SHOWROOM CORNER WALL BOX OUT. INSTALL 5/8" FIRE TREATED PLYWOOD BACKING TO BACK SIDE OF STUD INTERIOR FLANGE ON EACH EXPOSED WALL FACE FROM 8'-0" TO 10'-0" A.F.F. FOR INSTALLATION OF SECURITY MIRRORS. REFER TO 4/A4.2 (TYPICAL).
- TACTILE EXIT SIGN AT EXIT DISCHARGE DOOR STATING "EXIT" WITH BRAILLE (GRADE 2 CONTRACTED) LETTERING. SIGN CONSTRUCTION AND LOCATION TO COMPLY WITH ANSI A117.1. MOUNT 48" MINIMUM ABOVE FINISH FLOOR TO BOTTOM OF LOWEST TACTILE CHARACTER AND 60" MAXIMUM ABOVE FINISH FLOOR TO BOTTOM OF HIGHEST TACTILE CHARACTER.
- STEEL COLUMN. PROVIDE 7/8" COLD FORM FURRING (20 GA.) OR FIRE TREATED 2X NAILERS AT 24" O.C. WITH 5/8" TYPE "X" GYPSUM BOARD. HOLD TIGHT AND PLUMB WITH COLUMN.

INTERIOR WALL & CEILING NOTES

- GENERAL:
 - REFER TO FINISH SCHEDULES FOR ADDITIONAL WALL FINISH MATERIAL APPLICATIONS.
 - REFER TO WALL SECTIONS AND DETAILS FOR ADDITIONAL CONDITIONS.
- FRAMING:
 - PROVIDE FIRE TREATED 2X BLOCKING AS REQUIRED FOR INSTALLATION OF ACCESSORIES PER MANUFACTURER'S RECOMMENDATIONS.
 - PROVIDE DIAGONAL WALL BRACING (3" X 16 GA. FLAT STRIP) AT CORNER FACES OF FREE STANDING PARTITION SYSTEMS.
 - WHERE WALL FRAMING EXTENDS TO BOTTOM OF ROOF DECK OR STRUCTURE, PROVIDE DEFLECTION CHANNELS AT TOP TRACK FOR 1 1/2" MINIMUM DEFLECTION.
 - REFER TO STRUCTURAL DRAWINGS FOR STRUCTURAL STUD REQUIREMENTS.
 - REFER TO WINDOW AND DOOR HEAD, JAMB AND SILL DETAILS FOR ADDITIONAL FRAMING REQUIREMENTS.
 - PROVIDE HORIZONTAL STUD BRIDGING AT 4'-0" O.C. VERTICAL.
- GYPSUM AND BACKING BOARD:
 - EXPANSION/CONTROL JOINTS: INSTALL EXPANSION/CONTROL JOINTS IN CEILINGS EXCEEDING 2500 SQ. FT. IN AREA AND IN PARTITION WALL LENGTHS EXCEEDING 30 FEET. DO NOT EXCEED A DISTANCE OF 50 FEET IN ANY DIRECTION BETWEEN CEILING JOINTS. INSTALL CONTROL JOINTS WHERE FRAMING OR FURRING CHANGES DIRECTION.
- PROVIDE MOISTURE RESISTANT TYPE "X" GYPSUM BOARD AT ALL WET LOCATIONS (RESTROOMS, WET WALLS, AND JANITOR'S SINK AREAS).
- PROVIDE "J" MOLDING, REGLETS, OR CORNER BEAD AT GYPSUM BOARD PERIMETER CONDITIONS TRANSITIONING TO DISSIMILAR EXPOSED FINISH MATERIALS.
- INSULATION:
 - INSULATION SHALL HAVE A FLAME SPREAD RATING OF 0-25 AND A SMOKE DEVELOPMENT RATING OF 0-450.
- PROVIDE SEALANT ON BOTH SIDES OF STUD BOTTOM TRACKS AT ACOUSTICAL INSULATED WALL LOCATIONS.
- FIRE STOPPING:
 - PROVIDE FIRE STOPPING AND FIRE SEALANT MATERIALS AS REQUIRED AT ALL FIRE RATED ASSEMBLY TRANSITIONS, PENETRATIONS, AND PERIMETER CONDITIONS. RATING TO BE EQUAL TO RATED ASSEMBLY.

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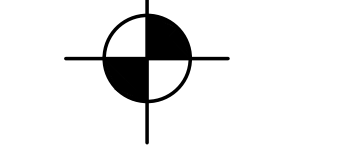
SHEETS BEARING THIS SEAL ARE
AUTHENTICATED. RESPONSIBILITY FOR
ALL OTHER PLANS, SPECIFICATIONS
OR INSTRUMENTS ARE DISCLAIMED.

O'Reilly AUTO PARTS
CORPORATE OFFICES
535 SOUTH PATTERSON
SPRINGFIELD, MISSOURI 65802
(417) 882-2874 TELEPHONE

PROJECT:
NEW O'REILLY AUTO PARTS STORE
301 NORTH MAIN STREET
MONROE, OHIO

FLOOR PLAN

Buddy Webb & Company, Inc.
Architect - Consultant
3057 EAST CAIRO
SPRINGFIELD, MISSOURI 65802
(417) 877-1385 TELEPHONE
(417) 877-9736 FAX



DRAWN BY: RHV CHECKED BY: SB

DATE: 11/23/21

REVISION:

PROJECT NUMBER: MNO

SHEET NUMBER

A1.1

- (A) REFER TO PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS
- (B) FIXTURES AND EQUIPMENT SHOWN FOR REFERENCE ONLY AND ARE OWNER FURNISHED AND INSTALLED.
- (C) DIMENSIONS TO ROUGH FACE OF ROUGH FRAMING OR FACE OF FIXTURE UNLESS OTHERWISE NOTED.
- (D) PROVIDE SUSPENDED CEILING SEISMIC BRACING WHERE REQUIRED, REFER TO DETAIL 9/4A.2.
- (E) ALL FINISH SUBSTITUTION REQUEST REQUIRE OWNER PRIOR APPROVAL.



FLOORS

F-1:
TYPE: POLISHED CONCRETE FINISH
MFG: (REFER TO PROJECT MANUAL - SECTION 03 35 43)
COLOR: NATURAL CONCRETE, CLEAR

F-2:
TYPE: LIQUID DENSIFIER TREATED CONCRETE FINISH
MFG: (REFER TO PROJECT MANUAL - SECTION 03 30 00)
COLOR: NATURAL CONCRETE, CLEAR

B-1:
TYPE: RESILIENT BASE
MFG: EQUAL TO VPI
SIZE: 4" COVE
COLOR: JET, #01

W-1: (ONLY WHERE INDICATED)
 TYPE: PRE-ENGINEERED METAL BUILDING INTERIOR LINER PANEL
 MFG: (REFER TO PRE-ENGINEERED METAL BUILDING SHOP DRAWINGS
 SERIES: EQUAL TO BUTLER BUILDING "MOD 36" (28 GA.)
 COLOR: PREFINISHED EQUAL TO BUTLER BUILDING "WHITE" OR "LIGHT
 STONE"

TYPE: PAINT
MFG: SHERWIN WILLIAMS
SERIES: SEMI GLOSS LATEX
COLOR: SW6126 *NAVAJO WHITE

TYPE: PAINT
MFG: SHERWIN WILLIAMS
SERIES: SEMI GLOSS LATEX
COLOR: SW6468 "HUNT CLUB"

TYPE: SANITARY WALL AND CEILING PANEL SYSTEM
MFG: (REFER PROJECT MANUAL)
COLOR: WHITE

C-1:
TYPE: ACOUSTICAL TILE CEILING
SIZE: 24" X 48" X 5/8", SQUARE EDGE
MFG: ARMSTRONG SPECIFIED
SERIES: 1729 "FINE FISSURED"
COLOR: WHITE
GRID SERIES: "PRELUDE" 15/16" EXPOSED TEE SYSTEM
GRID COLOR: WHITE

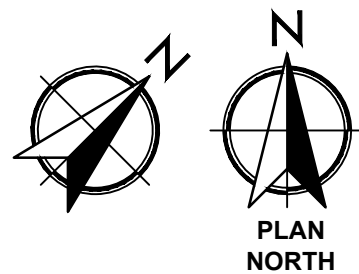
TYPE: EXPOSED INSULATION VAPOR BARRIER (WHITE) AND EXPOSED
STEEL FRAMING SYSTEM (FACTORY PRIMED)

TYPE: PAINT
MFG: SHERWIN WILLIAMS
SERIES: SEMI GLOSS LATEX
COLOR: SW6126 *NAVAJO WHITE

TYPE: STAIN
SPECIES: CUSTOM GRADE ROTARY SLICED NATURAL BIRCH
FINISH: FACTORY FINISHED
COLOR: EQUAL TO "GRAHAM" #300, MEDIUM BROWN

TYPE: PAINT
MFG: SHERWIN WILLIAMS
SERIES: SEMI GLOSS ENAMEL
COLOR: SW6468 "HUNT CLUB"

TYPE: PAINT
FINISH: REFER TO EXTERIOR FINISH SCHEDULE
COLOR: REFER TO EXTERIOR FINISH SCHEDULE



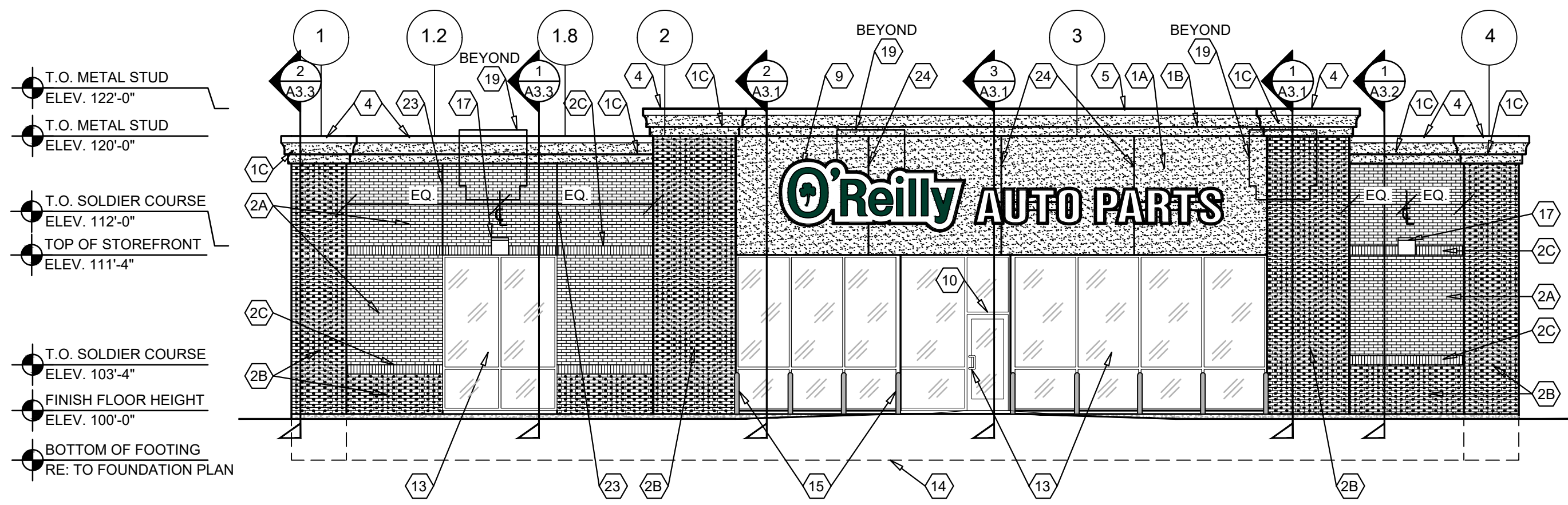
A1.2 | **SCALE: 1/8" = 1'-0"**

[illegible]

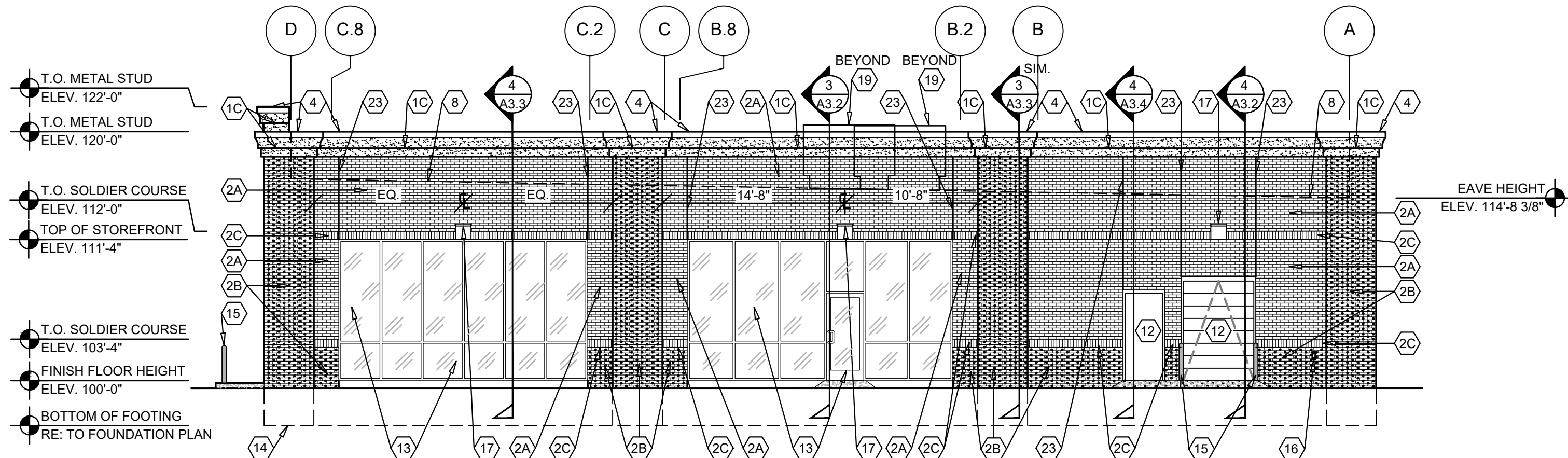
 F-1: POLISHED CONCRETE:

 F-2: LIQUID DENSIFIER TREATED CONCRETE

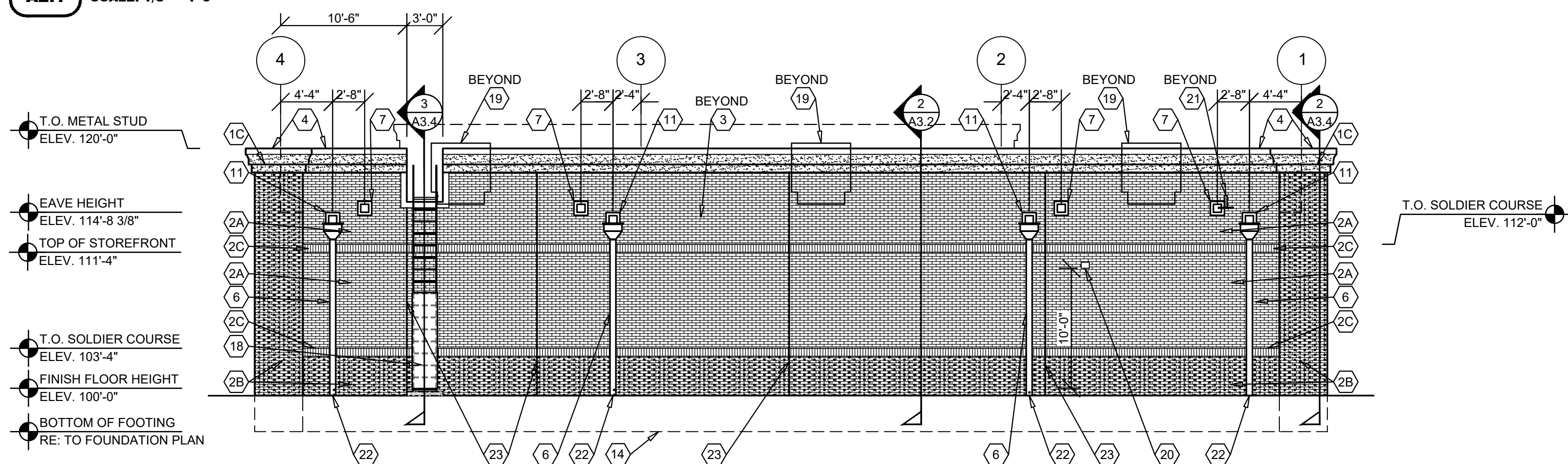
 B-1: BASE:



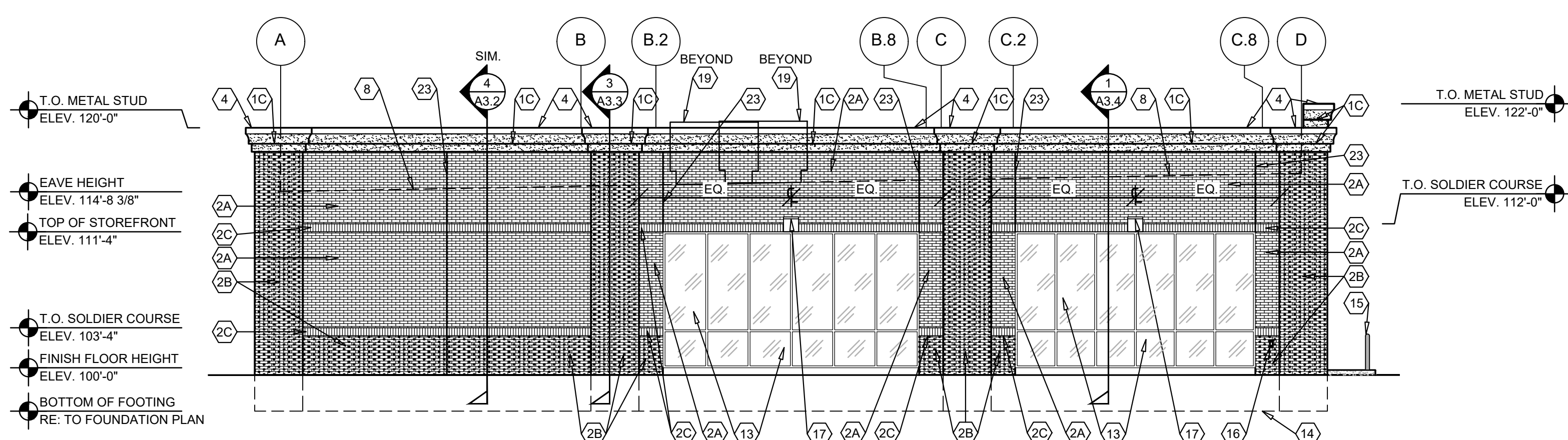
1 FRONT EXTERIOR ELEVATION
A2.1 SCALE: 1/8" = 1'-0"



2 RIGHT EXTERIOR ELEVATION
A2.1 SCALE: 1/8" = 1'-0"



3 REAR EXTERIOR ELEVATION
A2.1 SCALE: 1/8" = 1'-0"



4 LEFT EXTERIOR ELEVATION
A2.1 SCALE: 1/8" = 1'-0"

EXTERIOR FINISH SCHEDULE

EXTERIOR INSULATION AND FINISH SYSTEM (EIFS)

KEY NOTE NO. 1A:

MFG: DRYVIT SPECIFIED. EQUAL BY STO OR MASTER BUILDERS (NO SUBSTITUTES)
SERIES: OUTSULATION PLUS MD
TEXTURE: SANDBLAST
COLOR: DRYVIT "ORAP011030S" STRATOTONE HIGH PERFORMANCE
COLOR STANDARD: SHERWIN WILLIAMS "POSITIVE RED" SW6871 (SHER-CRYL) GLOSS

KEY NOTE NO. 1B (CORNICHE AT PORTAL):

MFG: DRYVIT SPECIFIED. EQUAL BY STO OR MASTER BUILDERS (NO SUBSTITUTES)
SERIES: OUTSULATION PLUS MD
TEXTURE: SANDBLAST
COLOR: DRYVIT "ORAP011030S" STRATOTONE HIGH PERFORMANCE
COLOR STANDARD: SHERWIN WILLIAMS "POSITIVE RED" SW6871 (SHER-CRYL) GLOSS

KEY NOTE NO. 1C (CORNICHE AT MASONRY):

MFG: DRYVIT SPECIFIED. EQUAL BY STO OR MASTER BUILDERS (NO SUBSTITUTES)
SERIES: OUTSULATION PLUS MD
TEXTURE: SANDBLAST
COLOR STANDARD: SHERWIN WILLIAMS "SOFTER TAN" SW6141

UNIT MASONRY

KEY NOTE NO. 2A:

TYPE: CLAY MASONRY UNIT
MFG: ACME BRICK
SIZE: 2 1/4" X 3 5/8" X 7 5/8" (MODULAR)
COURSING: RUNNING BOND
COLOR: (FIELD COLOR) BLEND 30 DOVE GRAY VELOUR
MORTAR COLOR: NATURAL GRAY

KEY NOTE NO. 2B:

TYPE: CLAY MASONRY UNIT
MFG: ACME BRICK
SIZE: 2 1/4" X 3 5/8" X 7 5/8" (MODULAR)
COURSING: RUNNING BOND
COLOR: (ACCENT COLOR) BLEND 600 OXFORD BROWN VELOUR
MORTAR COLOR: NATURAL GRAY

KEY NOTE NO. 2C:

TYPE: CLAY MASONRY UNIT
MFG: ACME BRICK
SIZE: 2 1/4" X 3 5/8" X 7 5/8" (MODULAR)
COURSING: SOLDIER COURSE
COLOR: (ACCENT COLOR) BLEND 600 OXFORD BROWN VELOUR
MORTAR COLOR: NATURAL GRAY

FLASHING AND SHEET METAL

KEY NOTE NO. 3:

TYPE: STANDING SEAM ROOFING SYSTEM
MFG: (REFER TO PRE-ENGINEERED METAL BUILDING SHOP DRAWINGS)
COLOR: GALVALUME

KEY NOTE NO. 4:

TYPE: CAP FLASHING AT EIFS CORNICHE AND REAR (FIELD BROKEN)
MFG: (REFER TO PRE-ENGINEERED METAL BUILDING SHOP DRAWINGS)
FINISH: PREFINISHED
COLOR: EQUAL TO BUTLER BUILDING "COOL BIRCH WHITE"

KEY NOTE NO. 5:

TYPE: CAP FLASHING AT EXTERIOR INSULATION FINISH SYSTEM (EIFS) (FIELD BROKEN)
MFG: (REFER TO PRE-ENGINEERED METAL BUILDING SHOP DRAWINGS)
FINISH: FACTORY PRIMED AND FIELD PAINT
COLOR: SHERWIN WILLIAMS "POSITIVE RED" SW6871 (SHER-CRYL) GLOSS WITH SHERWIN WILLIAMS THREE COMPONENT (B65T105 / B65V105 / B65C105) CLEAR URETHANE

KEY NOTE NO. 6:

TYPE: PRE-ENGINEERED METAL BUILDING CONDUCTOR HEAD AND DOWNSPOUTS
MFG: (OWNER FURNISHED / CONTRACTOR INSTALLED)
FINISH: FACTORY PRIMED AND FIELD PAINTED
COLOR: SHERWIN WILLIAMS (MATCH MASONRY FIELD COLOR) (SEMI-GLOSS)

DOORS AND WINDOWS

KEY NOTE NO. 12:

TYPE: STEEL DOORS AND FRAMES (DOORS NO. 2 AND 7)
MFG: (OWNER FURNISHED / CONTRACTOR INSTALLED)
FINISH: FACTORY PRIMED AND FIELD PAINTED
COLOR: SHERWIN WILLIAMS "SOFTER TAN" SW6141 (SEMI-GLOSS)

KEY NOTE NO. 12:

TYPE: STEEL DOORS AND FRAMES (DOORS NO. 3)
MFG: (REFER PROJECT MANUAL)
FINISH: FACTORY PRIMED AND FIELD PAINTED
COLOR: SHERWIN WILLIAMS "SOFTER TAN" SW6141 (SEMI-GLOSS)

KEY NOTE NO. 13:

TYPE: (REFER TO WINDOW SCHEDULE)
MFG: EFCO, KAWNEER, OR OLD CASTLE (VISTA WALL). (NO SUBSTITUTES)
COLOR: EFCO "IVY", KAWNEER "DARK IVY", VISTA WALL "INTERSTATE GREEN"

PAINTING

KEY NOTE NO. 15:

TYPE: STEEL BOLLARDS (REFER TO CIVIL DRAWINGS)
FINISH: FIELD PRIMED AND PAINTED
COLOR: SHERWIN WILLIAMS "HUNT CLUB" SW6468 (SEMI-GLOSS)

ROOF ACCESS LADDER:

KEY NOTE NO. 18

TYPE: PRE-FABRICATED ROOF ACCESS LADDER
MFG: LOCAL SUPPLIER
FINISH: FACTORY PRIME, FIELD PAINT
COLOR: SHERWIN WILLIAMS "SOFTER TAN" SW6141 (SEMI-GLOSS)

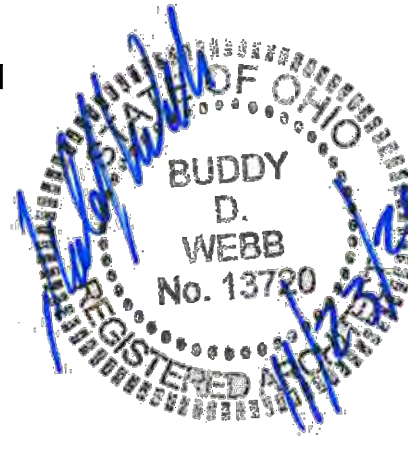
GENERAL NOTES

- (A) REFER TO PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.
- (B) REFER TO CIVIL DRAWINGS FOR ADDITIONAL REQUIREMENTS.
- (C) REFER TO PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR SYSTEM TYPES AND ADDITIONAL REQUIREMENTS.
- (D) REFER TO EXTERIOR FINISH SCHEDULE FOR MATERIAL TYPES.
- (E) REFER TO PRE-ENGINEERED METAL BUILDING SHOP DRAWINGS FOR ADDITIONAL REQUIREMENTS.
- (F) REFER TO SCOPE OF WORK SCHEDULE FOR ADDITIONAL REQUIREMENTS.

KEY NOTES

- (1A) EXTERIOR INSULATION AND FINISH SYSTEM (EIFS).
- (1B) EXTERIOR INSULATION AND FINISH SYSTEM (EIFS) CORNICHE IN PROFILE AS INDICATED.
- (1C) EXTERIOR INSULATION AND FINISH SYSTEM (EIFS) CORNICHE IN PROFILE AS INDICATED.
- (2A) CLAY MASONRY UNIT EXTERIOR WALL CONSTRUCTION (FIELD COLOR). REFER TO PLANS, SECTIONS, AND DETAILS FOR ADDITIONAL REQUIREMENTS.
- (2B) CLAY MASONRY UNIT EXTERIOR WALL CONSTRUCTION (ACCENT COLOR). REFER TO PLANS, SECTIONS, AND DETAILS FOR ADDITIONAL REQUIREMENTS.
- (2C) CLAY MASONRY UNIT EXTERIOR WALL CONSTRUCTION (ACCENT COLOR). REFER TO PLANS, SECTIONS, AND DETAILS FOR ADDITIONAL REQUIREMENTS.
- (3) PRE-ENGINEERED METAL BUILDING SHEET METAL ROOFING SYSTEM.
- (4) PRE-ENGINEERED METAL BUILDING SHEET METAL FLASHING (AT MASONRY)
- (5) PRE-ENGINEERED METAL BUILDING SHEET METAL FLASHING (AT EIFS)
- (6) PRE-ENGINEERED METAL BUILDING SHEET METAL CONDUCTOR HEAD AND DOWNSPOUT SYSTEM.
- (7) PRE-ENGINEERED METAL BUILDING SECONDARY THRU WALL SCUPPER SYSTEM. REFER TO DETAIL 2/A3.6.
- (8) LINE OF ROOF BEYOND WITH 1/4":12" SLOPE MINIMUM.
- (9) SURFACE MOUNTED SIGN OWNER FURNISHED AND INSTALLED. PROVIDE BACKING FOR MOUNTING AND ROUGH-IN ELECTRICAL COORDINATE REQUIREMENTS WITH OWNER. REFER TO SHEET SG2.1.
- (10) BUILDING ADDRESS NUMBERS IN 6" HIGH HELVETICA WHITE VINYL ADHERED TO EXTERIOR FACE OF GLAZING.
- (11) PRE-ENGINEERED METAL BUILDING PRIMARY THRU WALL SCUPPER SYSTEM. REFER TO DETAIL 1/A3.6.
- (12) EXTERIOR DOOR AND FRAME SYSTEM. REFER TO FLOOR PLAN AND DOOR SCHEDULE FOR TYPES.
- (13) EXTERIOR WINDOW SYSTEM. REFER TO FLOOR PLAN AND WINDOW SCHEDULE FOR TYPES.
- (14) APPROXIMATE LINE OF FOUNDATION. REFER TO STRUCTURAL DRAWINGS.
- (15) STEEL BOLLARDS. REFER TO CIVIL AND STRUCTURAL DRAWINGS.
- (16) HOSE BIB. REFER TO PLUMBING DRAWINGS.
- (17) LIGHT FIXTURE. REFER TO ELECTRICAL DRAWINGS.
- (18) ROOF ACCESS LADDER. REFER TO EXTERIOR FINISH SCHEDULE.
- (19) MECHANICAL ROOF TOP UNIT. REFER TO MECHANICAL DRAWINGS.
- (20) MECHANICAL WALL PENETRATIONS. REFER TO MECHANICAL DRAWINGS. PROVIDE FRAMING, FLASHING, AND SEALANT AS REQUIRED. INSTALL RESTROOM EXHAUST FANS 12" MINIMUM ABOVE INTERIOR CEILING FRAMING.
- (21) PLUMBING ROOF VENT. REFER TO PLUMBING DRAWINGS AND DETAIL 11/A4.2.
- (22) DOWNSPOUT COLLECTION SYSTEM. REFER TO 1/A6.1 AND CIVIL DRAWINGS FOR CONTINUATION.
- (23) MASONRY CONTROL JOINT. PROVIDE SEALANT OVER 1/2" DIAMETER FOAM BACKER ROD. COLOR TO MATCH ADJACENT MASONRY.
- (24) RUSTICATION JOINT. REFER TO DETAIL 4/A3.5.

FIRM ARCHITECTURAL REGISTRATION
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O'Reilly AUTO PARTS
CORPORATE OFFICES
638 SOUTH PATTERSON
SPRINGFIELD, MISSOURI 65802
(417) 882-2674 TELEPHONE

PROJECT:
NEW O'REILLY AUTO PARTS STORE
301 NORTH MAIN STREET
MONROE, OHIO
EXTERIOR ELEVATIONS

Buddy Webb & Company, Inc.
Architect - Consultant
3057 EAST CAIRO
SPRINGFIELD, MISSOURI 65802
(417) 877-1385 TELEPHONE
(417) 877-9736 FAX

DRAWN BY: RHV
CHECKED BY: SB
DATE: 11/23/21
REVISION:

PROJECT NUMBER:
MNO
SHEET NUMBER

A2.1

NOTE:
REFER TO STRUCTURAL DRAWINGS FOR FOOTINGS,
FOUNDATIONS, SLABS AND REINFORCEMENT.

GENERAL NOTES

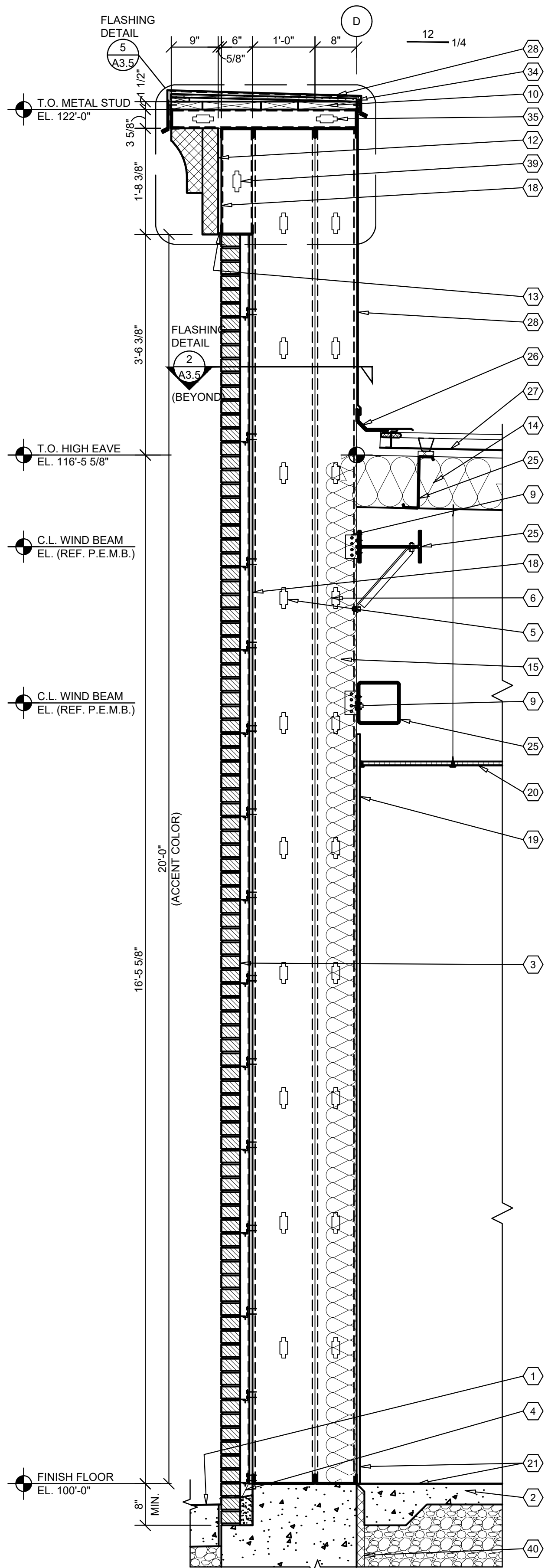
- (A) REFER TO PROJECT MANUAL AND SCOPE OF WORK SCHEDULE FOR ADDITIONAL REQUIREMENTS.
- (B) REFER TO CIVIL, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND PRE-ENGINEERED METAL BUILDING (P.E.M.B.) SHOP DRAWINGS FOR ADDITIONAL REQUIREMENTS.
- (C) REFER TO INTERIOR AND EXTERIOR FINISH SCHEDULES FOR MATERIAL TYPES, COLORS AND FINISHES.
- (D) DIMENSIONS ARE TO FACE OF CONCRETE, MASONRY, FRAMING, OR CENTER LINE OF STRUCTURE UNLESS OTHERWISE INDICATED.

KEY NOTES

- (40) RIGID INSULATION BOARD (R-10) TO 24" BELOW SLAB. REFER TO STRUCTURAL DRAWINGS FOR FURTHER DETAIL.
- (41) PRE-ENGINEERED METAL BUILDING SHEET METAL (24 GA.) CONDUCTOR HEAD AND DOWNSPOUT SYSTEM. REFER TO EXTERIOR ELEVATIONS FOR LOCATIONS. PROVIDE WALL MOUNTING BRACKETS AT 8'-0" O.C. MAXIMUM. CONTRACTOR TO PROVIDE CONCRETE SPLASH BLOCKS UNLESS OTHERWISE INDICATED.

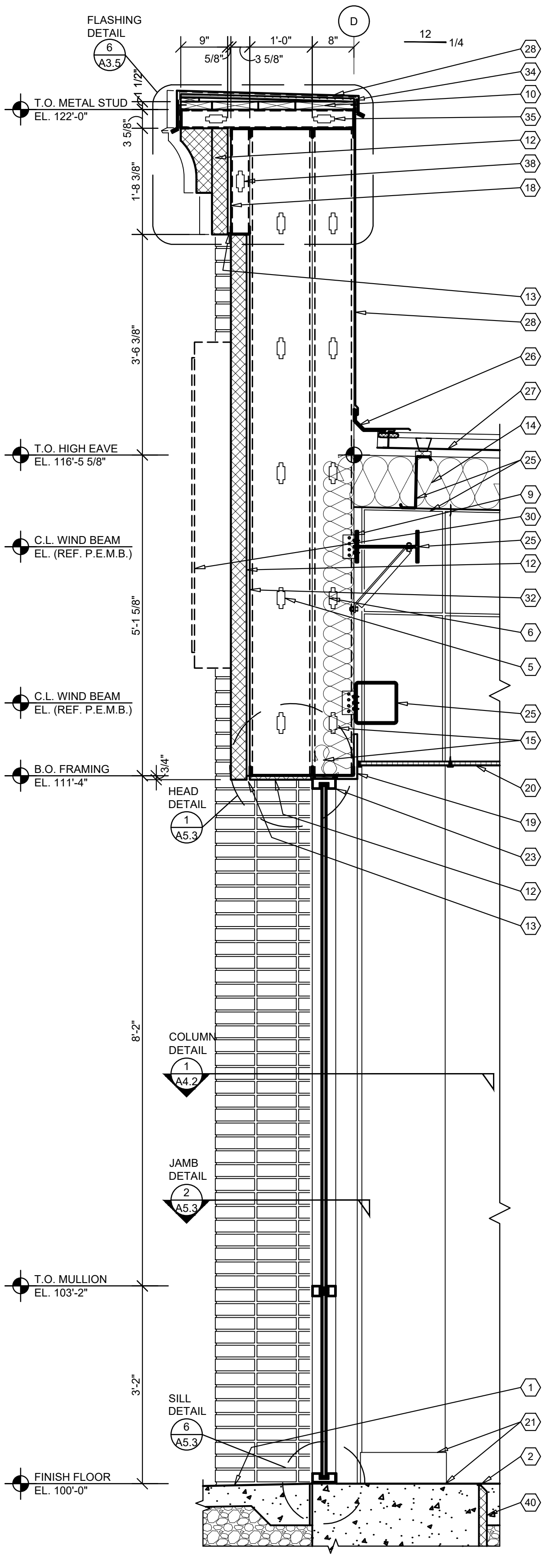
KEY NOTES

- (1) FINISH LAWN, PAVEMENT OR SIDEWALK, SLOPE TO DRAIN AWAY FROM BUILDING. REFER TO CIVIL DRAWINGS.
- (2) CONCRETE FLOOR SLAB. REFER TO STRUCTURAL DRAWINGS.
- (3) BRICK MASONRY VENEER IN RUNNING BOND. PROVIDE WALL TIES AT 16" O.C. VERTICAL AND 24" O.C. HORIZONTAL.
- (4) FLEXIBLE FLASHING TO EXTEND UP 8" MIN. AND THROUGH MASONRY VENEER AT FIRST BED JOINT BELOW FINISH FLOOR. LAP BUTT JOINTS 8" MIN. AND MASTIC. PROVIDE MORTAR NET ABOVE FLASHING. PROVIDE ROPE WEEPS AT 32" O.C. GROUT BELOW GRADE CAVITY FULL.
- (5) 12" COLD FORM METAL FRAMING, REFER TO STRUCTURAL DRAWINGS.
- (6) 8" COLD FORM METAL FRAMING, REFER TO STRUCTURAL DRAWINGS.
- (7) 600S162-43 COLD FORM METAL STUD FRAMING AT 24" O.C. ATTACHED TO PRE-ENGINEERED METAL BUILDING STRUCTURAL FRAMING SYSTEM.
- (8) 362S162-33 COLD FORM METAL STUD FRAMING AT 24" O.C. REFER TO INTERIOR WALL TYPES FOR ADDITIONAL REQUIREMENTS.
- (9) COLD FORM METAL STUD FRAMING CLIP, REFER TO STRUCTURAL DRAWINGS.
- (10) FIRE TREATED 2X NAILER(S) CONTINUOUS. CUT TO FIT WALL WIDTH. ATTACHED TO METAL STUD FRAMING WITH #12 SCREWS AT 24" O.C. STAGGERED.
- (11) FIRE TREATED 2X NAILER OR BLOCKING.
- (12) EXTERIOR INSULATION FINISH SYSTEM (EIFS) OVER CONTINUOUS INSULATION DRAINAGE BOARD IN THICKNESS INDICATED.
- (13) EXTERIOR INSULATION FINISH SYSTEM (EIFS) DRIP.
- (14) PRE-ENGINEERED METAL BUILDING ROOF INSULATION (R-36) LINER SYSTEM. (REFER TO SCOPE OF WORK SCHEDULE). VAPOR BARRIER OVER HIGH STRENGTH STEEL SUSPENSION STRAPS ATTACHED TO BOTTOM OF PRE-ENGINEERED METAL BUILDING ROOF PURLINS WITH (1) LAYER 8" (R-25) UN-FACED BATT INSULATION PARALLEL WITH ROOF PURLIN CAVITY AND (1) LAYER 3 1/2" (R-11) UN-FACED BATT INSULATION PERPENDICULAR OVER TOP OF ROOF PURLINS.
- (15) 6" (R-19) BATT INSULATION WITH FOIL FACE VAPOR BARRIER.
- (16) FLEXIBLE FLASHING CONTINUOUS TO LAP OVER NAILERS AND DOWN BEHIND CONTINUOUS CLEATS ON BOTH SIDES. LAP JOINTS 8" MINIMUM AND MASTIC.
- (17) SHEET METAL (24 GA.) FLASHING, COUNTER FLASHING, EDGES, DRIPS, TRIM, CLEATS AND ACCESSORIES.
- (18) 5/8" EXTERIOR FIBERGLASS REINFORCED SHEATHING WITH CONTINUOUS WEATHER BARRIER. REFER TO STRUCTURAL DRAWINGS FOR ATTACHMENT REQUIREMENTS.
- (19) 5/8" TYPE "X" GYPSUM BOARD. REFER TO INTERIOR WALL TYPES FOR ADDITIONAL REQUIREMENTS.
- (20) SUSPENDED ACOUSTICAL LAY - IN CEILING SYSTEM. REFER TO INTERIOR FINISH SCHEDULE FOR TYPES AND LOCATIONS.
- (21) FLOORING AND BASE. REFER TO INTERIOR FINISH SCHEDULE FOR TYPES AND LOCATIONS.
- (22) SEALANT WITH BACKER ROD.
- (23) ALUMINUM WINDOW SYSTEM. REFER TO FLOOR PLAN AND WINDOW SCHEDULES FOR TYPES.
- (24) DOOR AND FRAME SYSTEM, REFER TO FLOOR PLAN AND SCHEDULES FOR TYPES.
- (25) PRE-ENGINEERED METAL BUILDING PRIMARY AND SECONDARY STRUCTURAL FRAMING SYSTEMS.
- (26) PRE-ENGINEERED METAL BUILDING TRANSITION SUPPORT PLATE.
- (27) PRE-ENGINEERED METAL BUILDING ROOF PANEL SYSTEM WITH THERMAL SPACER BLOCKS (R-5 MIN.).
- (28) PRE-ENGINEERED METAL BUILDING SHEET METAL FLASHING, COUNTER - FLASHING, CONTINUOUS CLEATS, DRIPS CLOSURES, TRANSITIONS, COPINGS AND ACCESSORIES AS REQUIRED.
- (29) PRE-ENGINEERED METAL BUILDING STAINLESS STEEL INTERNAL GUTTER AND THRU WALL SCUPPER SYSTEM. REFER TO P.E.M.B. SHOP DRAWINGS FOR SIZES.
- (30) SURFACE MOUNTED WALL SIGN, OWNER FURNISHED AND INSTALLED. (REFER SCOPE OF WORK SCHEDULE). PROVIDE BACKING AND ELECTRICAL ROUGH-IN, REFER TO ELECTRICAL DRAWINGS.
- (31) RECESSED LIGHTING FIXTURE. REFER TO ELECTRICAL DRAWINGS FOR TYPE AND LOCATION.
- (32) 5/8" EXTERIOR FIRE TREATED PLYWOOD SHEATHING WITH CONTINUOUS WEATHER BARRIER. REFER TO STRUCTURAL DRAWINGS FOR ATTACHMENT REQUIREMENTS.
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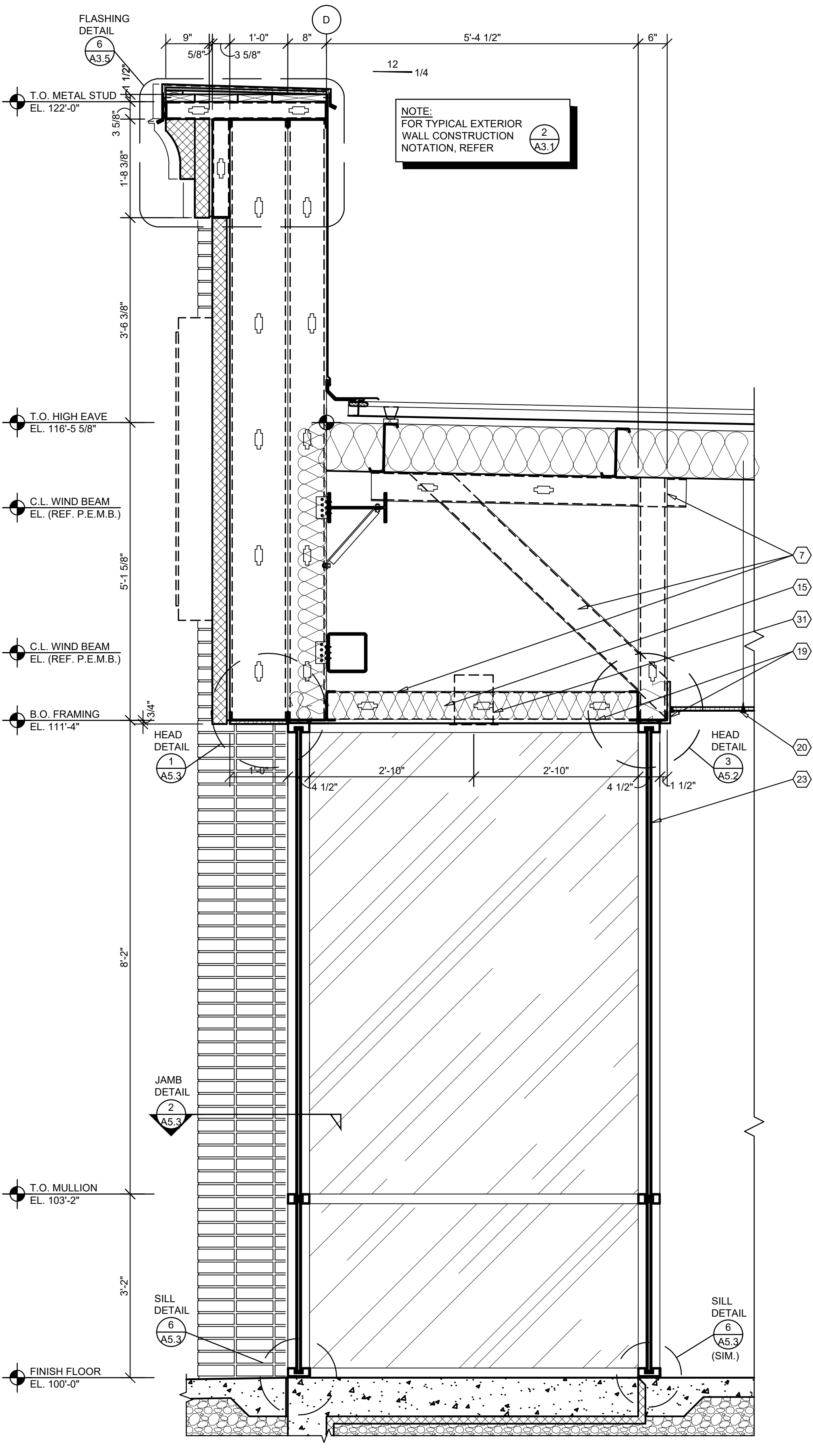
1 WALL SECTION

A3.1 SCALE: 3/4" = 1'-0"



2 WALL SECTION

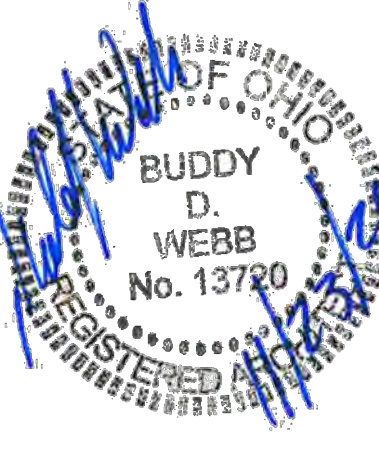
A3.1 SCALE: 3/4" = 1'-0"



3 WALL SECTION

A3.1 SCALE: 3/4" = 1'-0"

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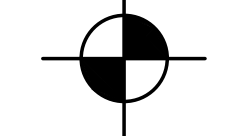
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SPRINGFIELD, MISSOURI 65802
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Buddy Webb & Company, Inc.
Architect - Consultant
3057 EAST CAIRO
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(417) 877-1385 TELEPHONE
(417) 877-9736 FAX



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REVISION:

PROJECT NUMBER:
MNO
SHEET NUMBER

A3.1

NOTE:
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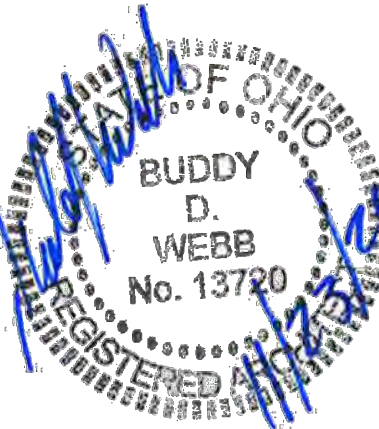
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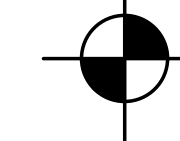
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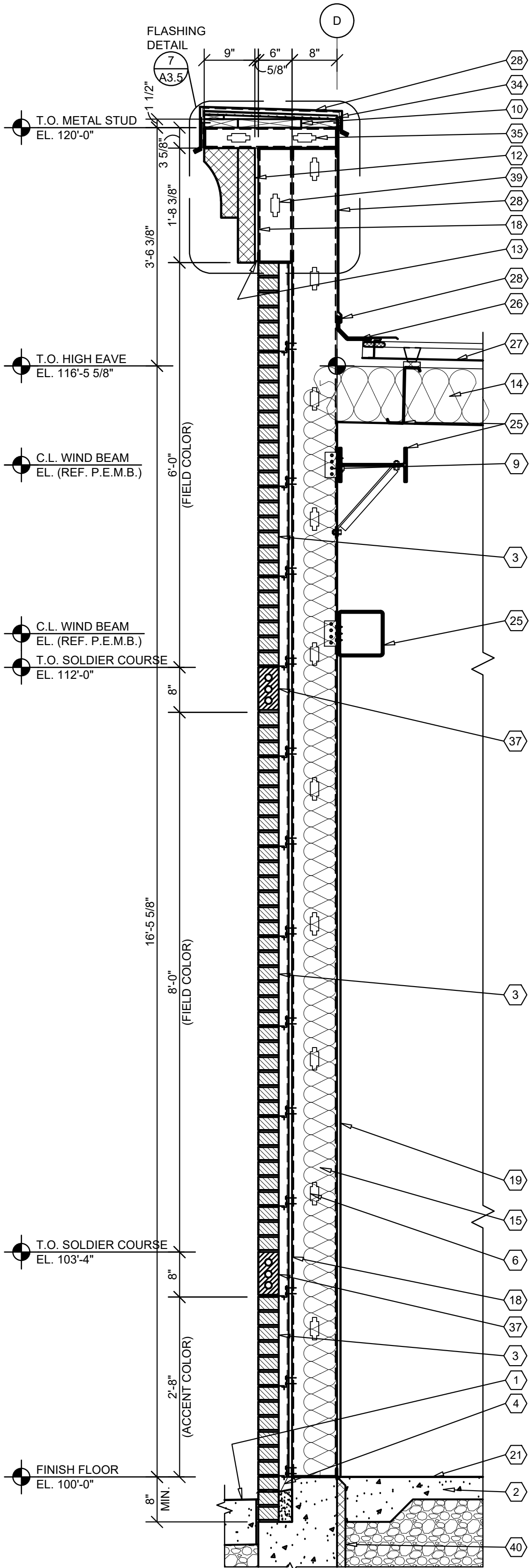
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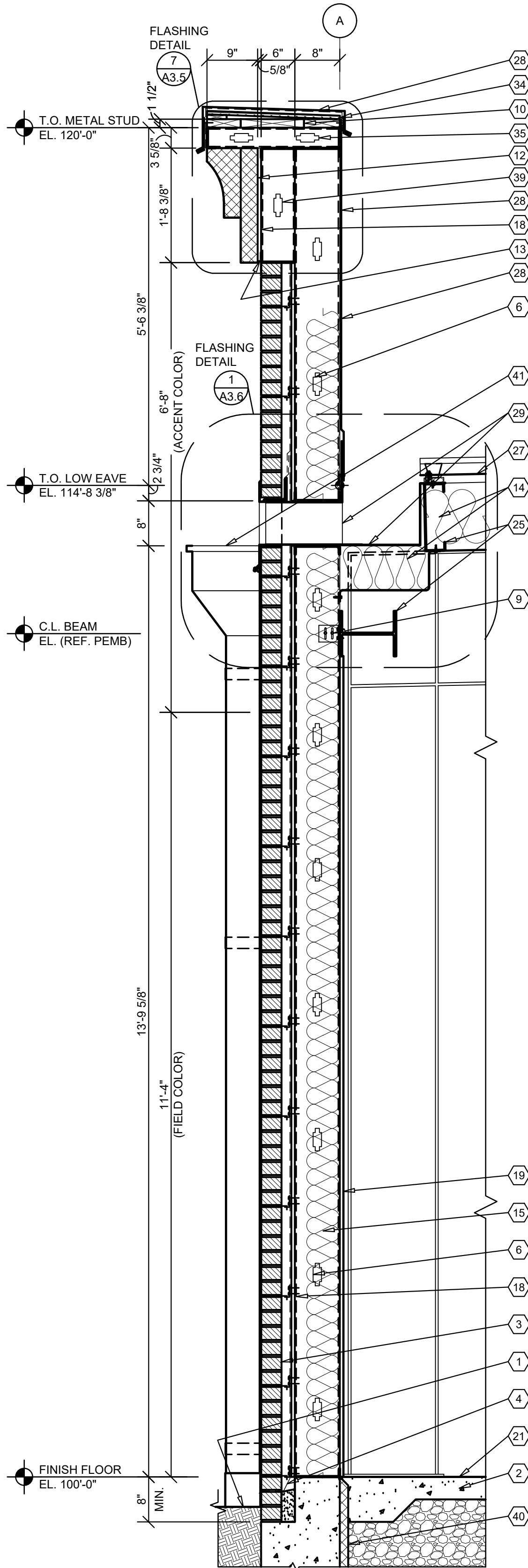
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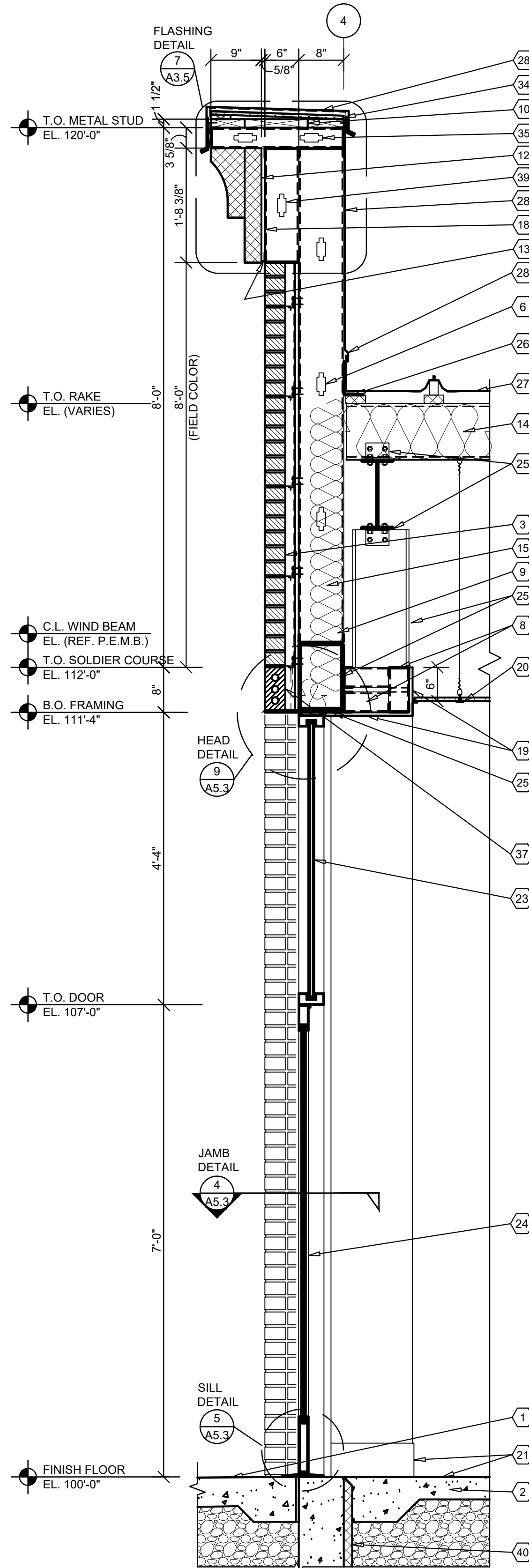
1 WALL SECTION

A3.2 SCALE: 3/4" = 1'-0"



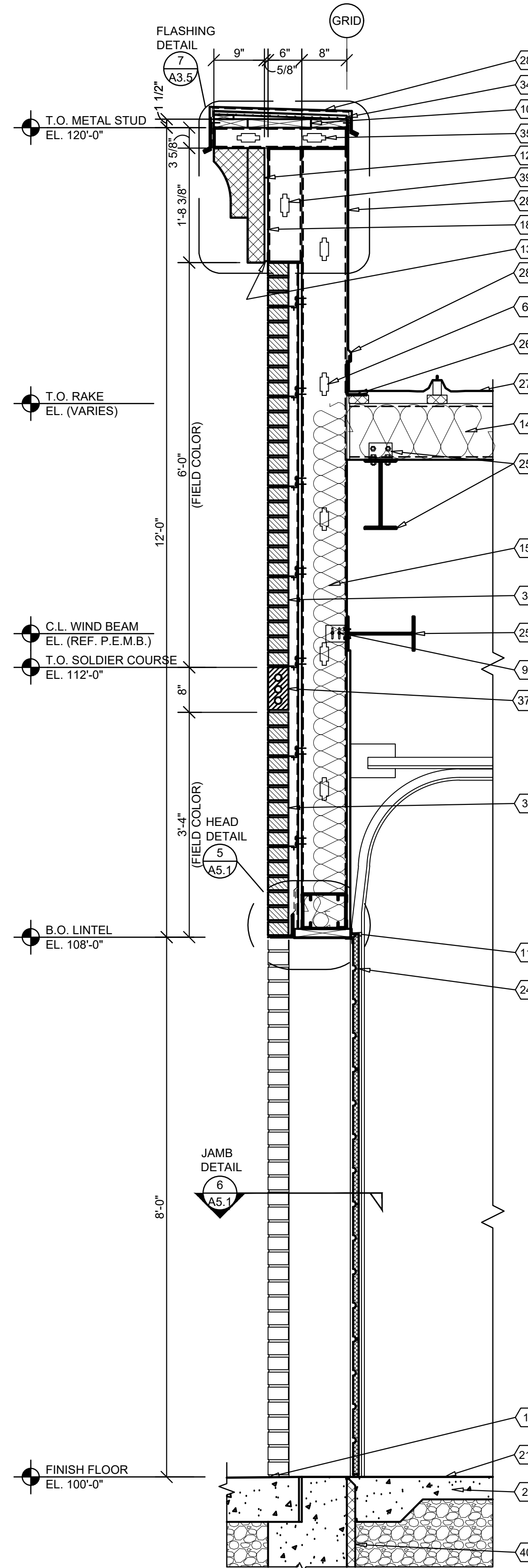
2 WALL SECTION

A3.2 SCALE: 3/4" = 1'-0"



3 WALL SECTION

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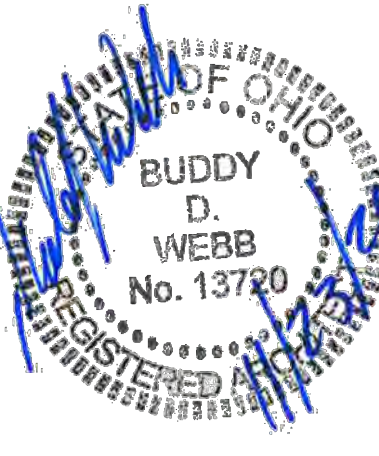
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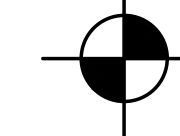
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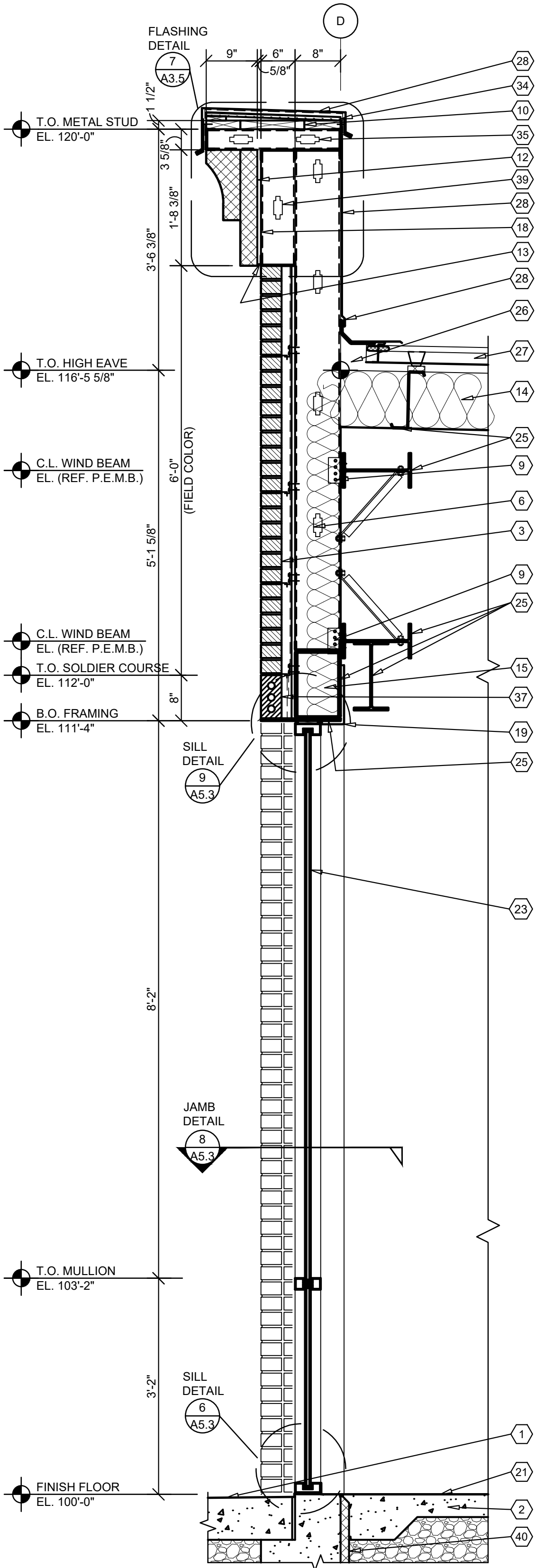
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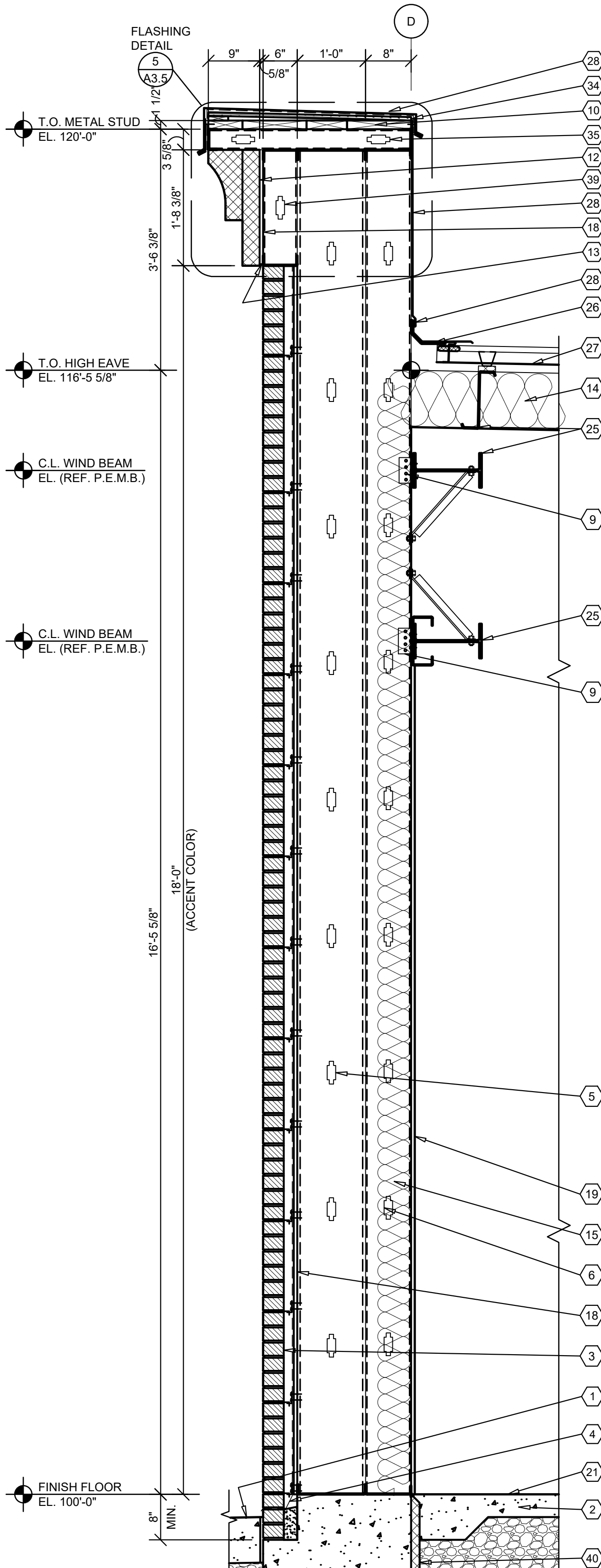
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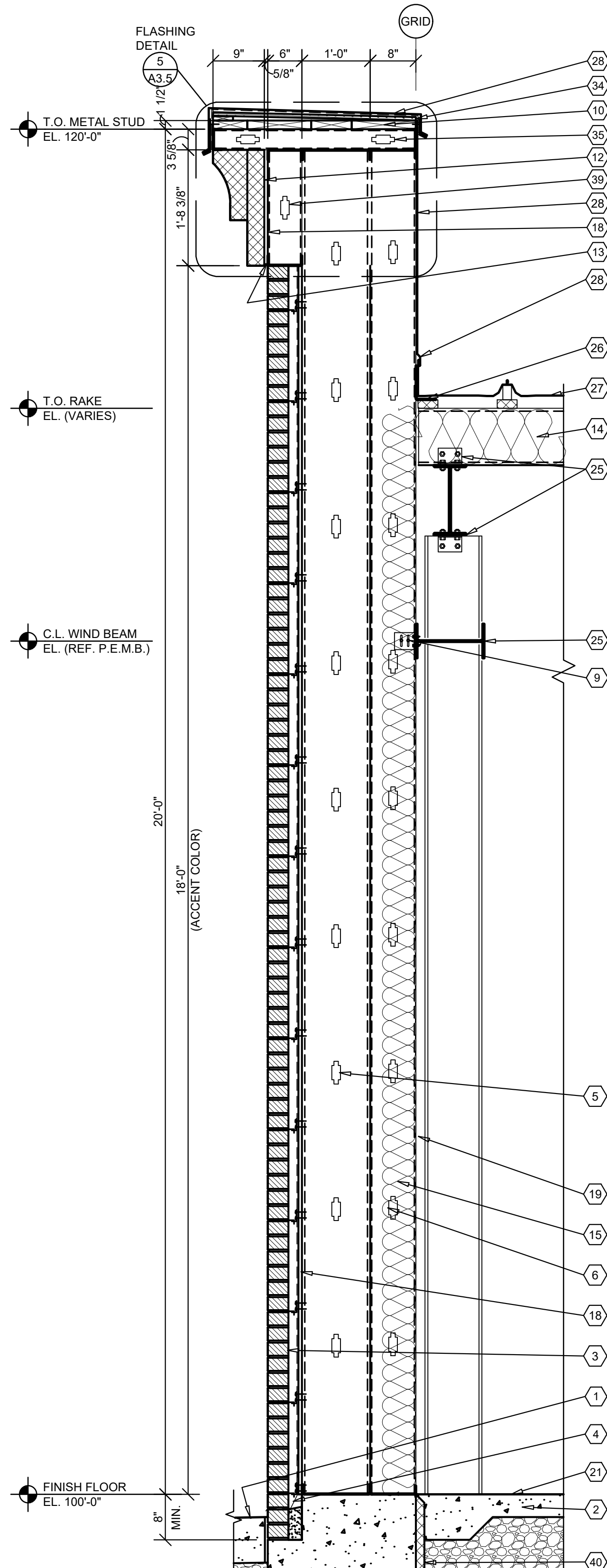
1 WALL SECTION

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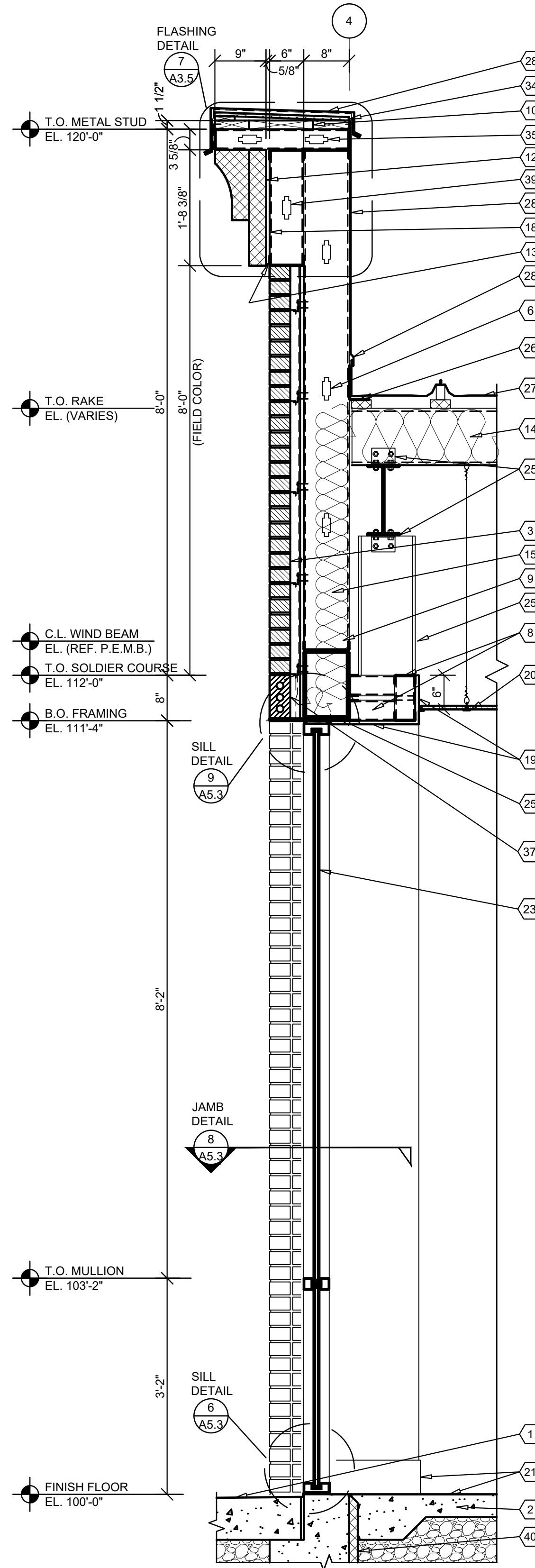
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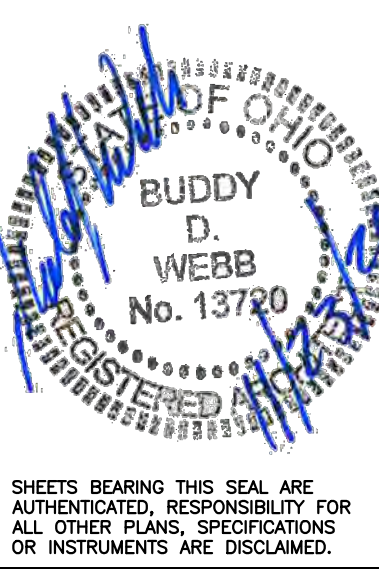
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- (3) BRICK MASONRY VENEER IN RUNNING BOND. PROVIDE WALL TIES AT 16" O.C. VERTICAL AND 24" O.C. HORIZONTAL.
- (4) FLEXIBLE FLASHING TO EXTEND UP 8" MIN. AND THROUGH MASONRY VENEER AT FIRST BED JOINT BELOW FINISH FLOOR. LAP BUTT JOINTS 8" MIN. AND MASTIC. PROVIDE MORTAR NET ABOVE FLASHING. PROVIDE ROPE WEEPS AT 32" O.C.. GROUT BELOW GRADE CAVITY FULL.
- (5) 12" COLD FORM METAL FRAMING, REFER TO STRUCTURAL DRAWINGS.
- (6) 8" COLD FORM METAL FRAMING, REFER TO STRUCTURAL DRAWINGS.
- (7) 600S162-43 COLD FORM METAL STUD FRAMING AT 24" O.C. ATTACHED TO PRE - ENGINEERED METAL BUILDING STRUCTURAL FRAMING SYSTEM.
- (8) 362S162-33 COLD FORM METAL STUD FRAMING AT 24" O.C. REFER TO INTERIOR WALL TYPES FOR ADDITIONAL REQUIREMENTS.
- (9) COLD FORM METAL STUD FRAMING CLIP, REFER TO STRUCTURAL DRAWINGS.
- (10) FIRE TREATED 2X NAILER(S) CONTINUOUS. CUT TO FIT WALL WIDTH. ATTACHED TO METAL STUD FRAMING WITH #12 SCREWS AT 24" O.C. STAGGERED.
- (11) FIRE TREATED 2X NAILER OR BLOCKING.
- (12) EXTERIOR INSULATION FINISH SYSTEM (EIFS) OVER CONTINUOUS INSULATION DRAINAGE BOARD IN THICKNESS INDICATED.
- (13) EXTERIOR INSULATION FINISH SYSTEM (EIFS) DRIP.
- (14) PRE-ENGINEERED METAL BUILDING ROOF INSULATION (R-36) LINER SYSTEM. (REFER TO SCOPE OF WORK SCHEDULE). VAPOR BARRIER OVER HIGH STRENGTH STEEL SUSPENSION STRAPS ATTACHED TO BOTTOM OF PRE-ENGINEERED METAL BUILDING ROOF PURLINS WITH (1) LAYER 8" (R-25) UN-FACED BATT INSULATION PARALLEL WITH ROOF PURLIN CAVITY AND (1) LAYER 3 1/2" (R-11) UN-FACED BATT INSULATION PERPENDICULAR OVER TOP OF ROOF PURLINS.
- (15) 6" (R-19) BATT INSULATION WITH FOIL FACE VAPOR BARRIER.
- (16) FLEXIBLE FLASHING CONTINUOUS TO LAP OVER NAILERS AND DOWN BEHIND CONTINUOUS CLEATS ON BOTH SIDES. LAP JOINTS 8" MINIMUM AND MASTIC.
- (17) SHEET METAL (24 GA.) FLASHING, COUNTER FLASHING, EDGES, DRIPS, TRIM, CLEATS AND ACCESSORIES.
- (18) 5/8" EXTERIOR FIBERGLASS REINFORCED SHEATHING WITH CONTINUOUS WEATHER BARRIER. REFER TO STRUCTURAL DRAWINGS FOR ATTACHMENT REQUIREMENTS.
- (19) 5/8" TYPE "X" GYPSUM BOARD. REFER TO INTERIOR WALL TYPES FOR ADDITIONAL REQUIREMENTS.
- (20) SUSPENDED ACOUSTICAL LAY - IN CEILING SYSTEM. REFER TO INTERIOR FINISH SCHEDULE FOR TYPES AND LOCATIONS.
- (21) FLOORING AND BASE. REFER TO INTERIOR FINISH SCHEDULE FOR TYPES AND LOCATIONS.
- (22) SEALANT WITH BACKER ROD.
- (23) ALUMINUM WINDOW SYSTEM. REFER TO FLOOR PLAN AND WINDOW SCHEDULES FOR TYPES.
- (24) DOOR AND FRAME SYSTEM, REFER TO FLOOR PLAN AND SCHEDULES FOR TYPES.
- (25) PRE-ENGINEERED METAL BUILDING PRIMARY AND SECONDARY STRUCTURAL FRAMING SYSTEMS.
- (26) PRE-ENGINEERED METAL BUILDING TRANSITION SUPPORT PLATE.
- (27) PRE-ENGINEERED METAL BUILDING ROOF PANEL SYSTEM WITH THERMAL SPACER BLOCKS (R-5 MIN.).
- (28) PRE-ENGINEERED METAL BUILDING SHEET METAL FLASHING, COUNTER - FLASHING, CONTINUOUS CLEATS, DRIPS CLOSURES, TRANSITIONS, COPINGS AND ACCESSORIES AS REQUIRED.
- (29) PRE-ENGINEERED METAL BUILDING STAINLESS STEEL INTERNAL GUTTER AND THRU WALL SCUPPER SYSTEM. REFER TO P.E.M.B. SHOP DRAWINGS FOR SIZES.
- (30) SURFACE MOUNTED WALL SIGN, OWNER FURNISHED AND INSTALLED. (REFER TO SCOPE OF WORK SCHEDULE). PROVIDE BACKING AND ELECTRICAL ROUGH-IN. REFER TO ELECTRICAL DRAWINGS.
- (31) RECESSED LIGHTING FIXTURE. REFER TO ELECTRICAL DRAWINGS FOR TYPE AND LOCATION.
- (32) 5/8" EXTERIOR FIRE TREATED PLYWOOD SHEATHING WITH CONTINUOUS WEATHER BARRIER. REFER TO STRUCTURAL DRAWINGS FOR ATTACHMENT REQUIREMENTS.
- (33) PRE-FABRICATED ALUMINUM ROOF ACCESS LADDER SYSTEM (PAINT). PROVIDE SECURITY PANEL WITH SIDE GUARDS. LADDER TO COMPLY WITH "OSHA" AND "ANSI" REQUIREMENTS. ALL CONNECTIONS TO BE FACTORY WELDED AND FIELD ANCHORED TO WALL AND CONCRETE SLAB CONSTRUCTION PER MANUFACTURER'S RECOMMENDATIONS. TREADS 12" O.C. MAX. WITH 300 LBS MINIMUM DESIGN LOAD. LADDER TO BE 2'-0" MINIMUM CLEAR WIDTH BETWEEN VERTICAL SIDE RAILS. SIDE RAILS TO EXTEND 42" MINIMUM ABOVE TOP OF LANDING PLATFORM AND FLARED TO PROVIDE BETWEEN 24" AND 30" CLEARANCE BETWEEN SIDERAILS. PROVIDE 7" MINIMUM CLEARANCE BETWEEN INSIDE FACE OF LADDER AND EXTERIOR WALL ASSEMBLY PROJECTIONS. SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL.
- (34) 3/4" TREATED PLYWOOD SHEATHING.
- (35) 3-5/8" COLD FORM METAL FRAMING, REFER TO STRUCTURAL DRAWINGS.
- (36) 1X FIRE TREATED BLOCKING OR NAILER.
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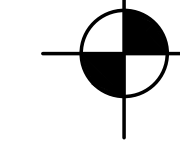
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O'Reilly AUTO PARTS
CORPORATE OFFICES
535 SOUTH PATTERSON
MONROE, OHIO 43062
(417) 882-2874 TELEPHONE

PROJECT:
NEW O'REILLY AUTO PARTS STORE
301 NORTH MAIN STREET
MONROE, OHIO

WALL SECTIONS

Buddy Webb & Company, Inc.
Architect - Consultant
3057 EAST CAIRO
SPRINGFIELD, MISSOURI 65802
(417) 877-1385 TELEPHONE
(417) 877-9736 FAX



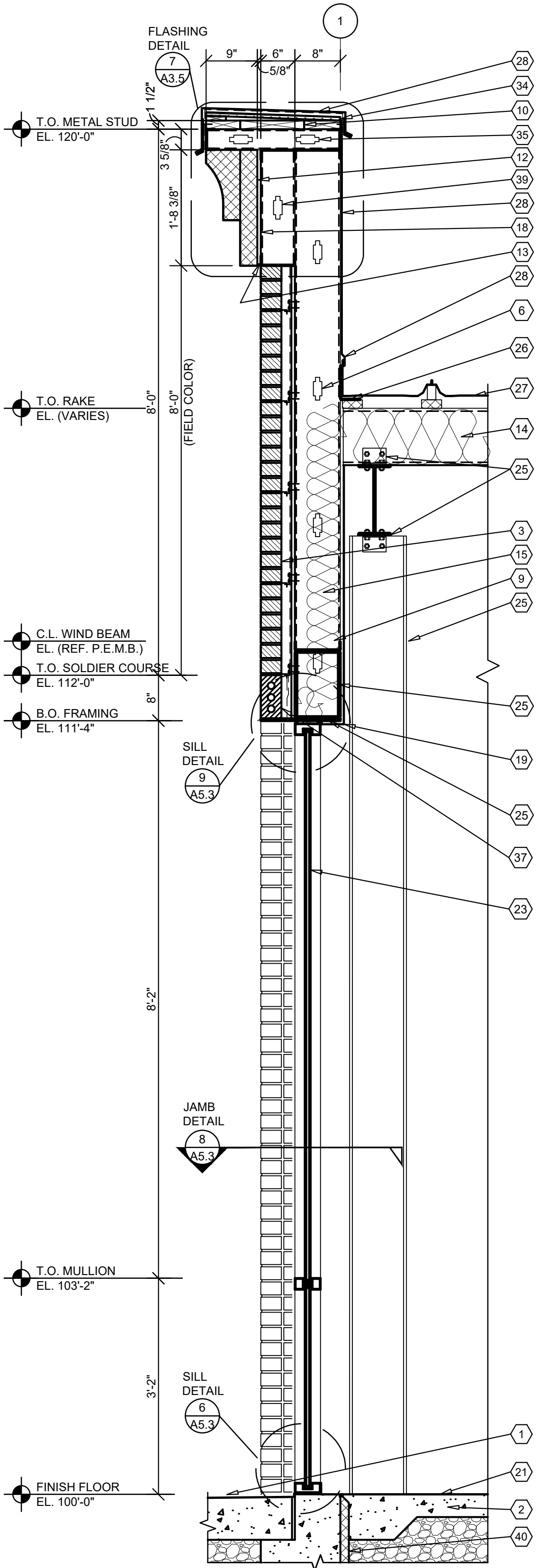
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DATE:
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REVISION:

PROJECT NUMBER:
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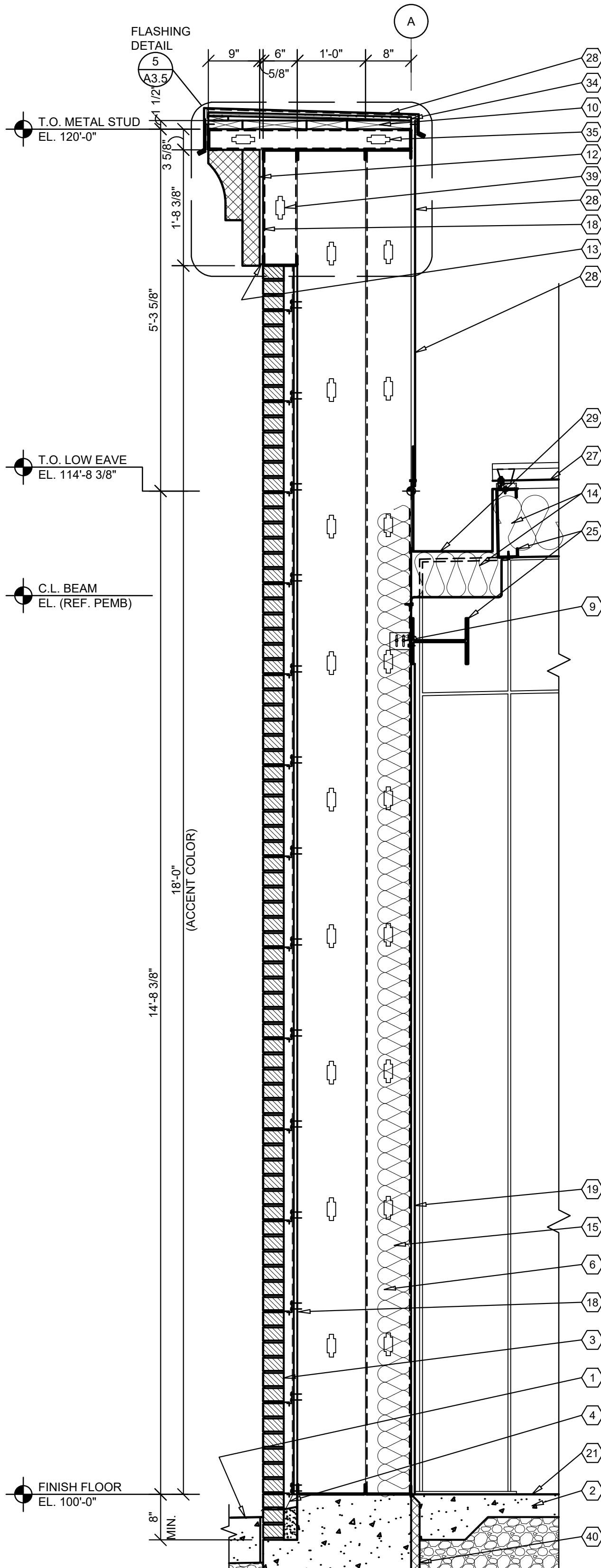
A3.4

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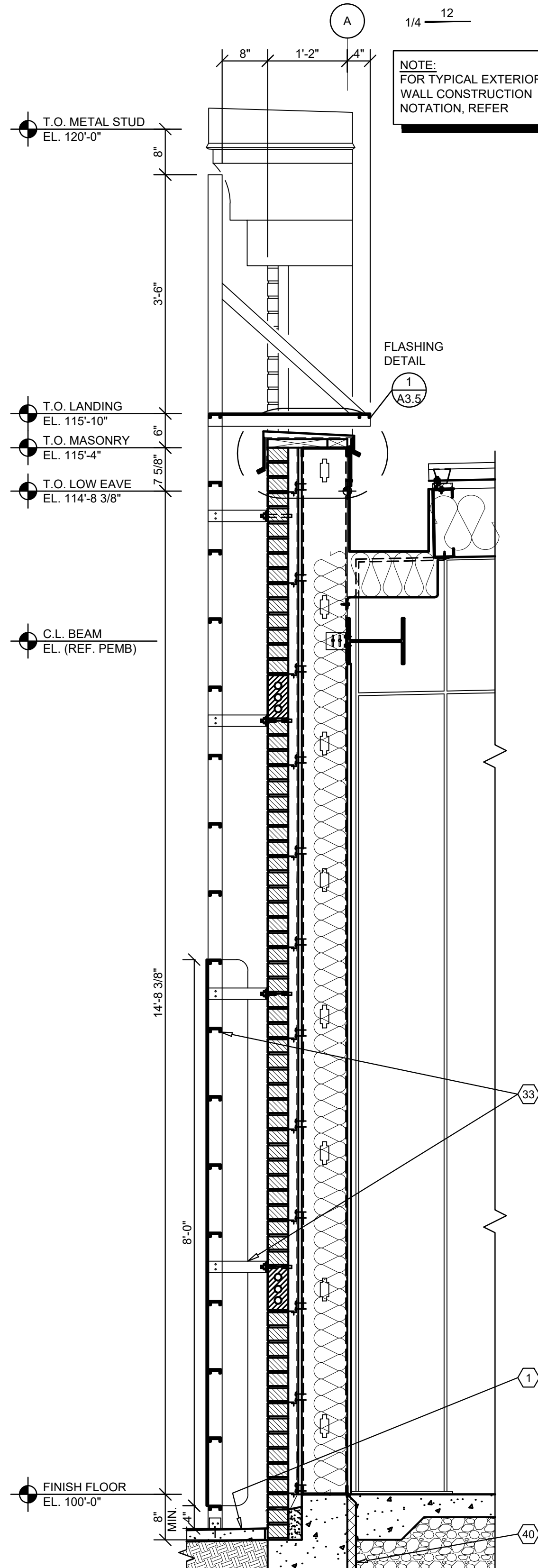
1 WALL SECTION

A3.4 SCALE: 3/4" = 1'-0"



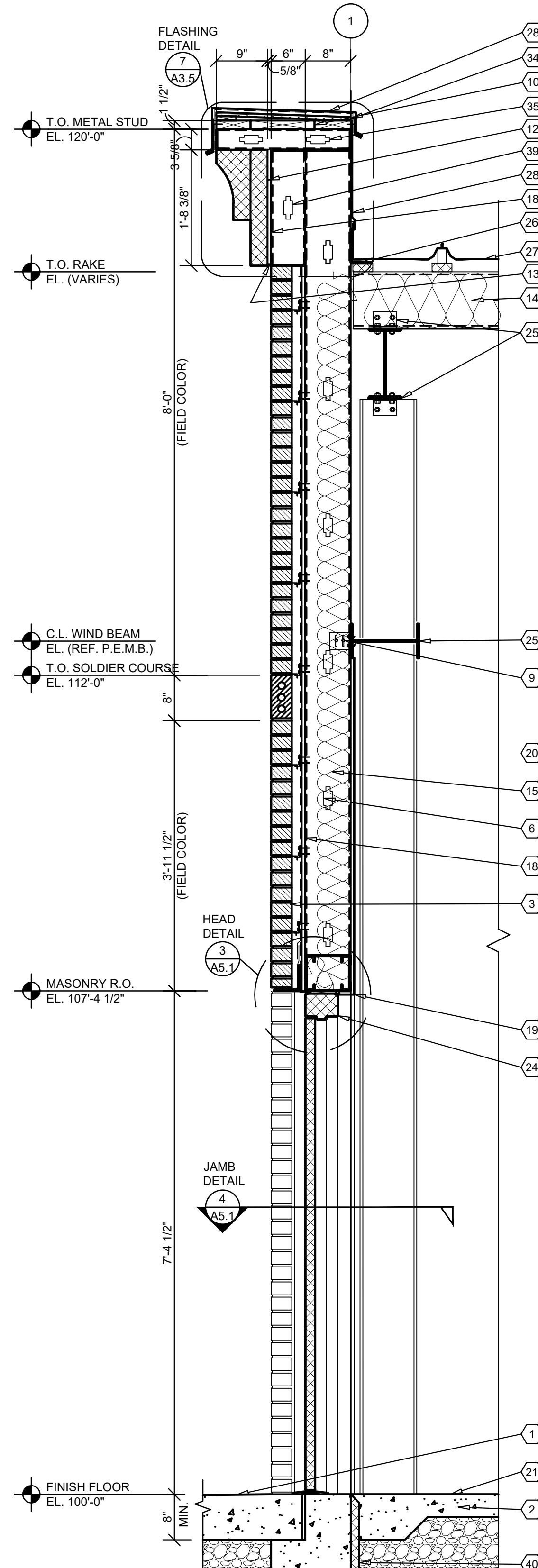
2 WALL SECTION

A3.4 SCALE: 3/4" = 1'-0"



3 WALL SECTION

A3.4 SCALE: 3/4" = 1'-0"



4 WALL SECTION

A3.4 SCALE: 3/4" = 1'-0"

NOTE:
REFER TO STRUCTURAL DRAWINGS FOR FOOTINGS,
FOUNDATIONS, SLABS AND REINFORCEMENT.

GENERAL NOTES

- (A) REFER TO PROJECT MANUAL AND SCOPE OF WORK SCHEDULE FOR ADDITIONAL REQUIREMENTS.
- (B) REFER TO CIVIL, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND PRE-ENGINEERED METAL BUILDING (P.E.M.B.) SHOP DRAWINGS FOR ADDITIONAL REQUIREMENTS.
- (C) REFER TO INTERIOR AND EXTERIOR FINISH SCHEDULES FOR MATERIAL TYPES, COLORS AND FINISHES.
- (D) DIMENSIONS ARE TO FACE OF CONCRETE, MASONRY, FRAMING, OR CENTER LINE OF STRUCTURE UNLESS OTHERWISE INDICATED.

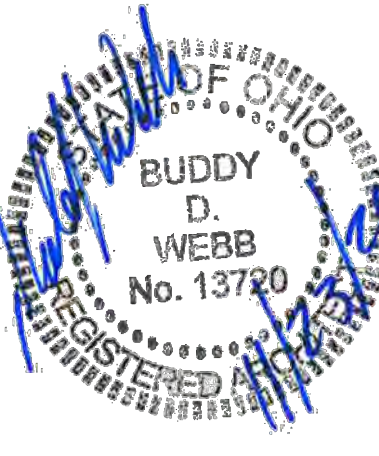
KEY NOTES

- (40) RIGID INSULATION BOARD (R-10) TO 24" BELOW SLAB. REFER TO STRUCTURAL DRAWINGS FOR FURTHER DETAIL.
- (41) PRE-ENGINEERED METAL BUILDING SHEET METAL (24 GA.) CONDUCTOR HEAD AND DOWNSPOUT SYSTEM. REFER TO EXTERIOR ELEVATIONS FOR LOCATIONS. PROVIDE WALL MOUNTING BRACKETS AT 8'-0" O.C. MAXIMUM. CONTRACTOR TO PROVIDE CONCRETE SPLASH BLOCKS UNLESS OTHERWISE INDICATED.

KEY NOTES

- (1) FINISH LAWN, PAVEMENT OR SIDEWALK, SLOPE TO DRAIN AWAY FROM BUILDING. REFER TO CIVIL DRAWINGS.
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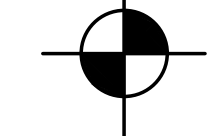
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O'Reilly AUTO PARTS
CORPORATE OFFICES
535 SOUTH PATTERSON
MONROE, OHIO 43062
(417) 882-2874 TELEPHONE

PROJECT:
NEW O'REILLY AUTO PARTS STORE
301 NORTH MAIN STREET
MONROE, OHIO

SECTIONS & DETAILS

Buddy Webb & Company, Inc.
Architect - Consultant
3057 EAST CAIRO
SPRINGFIELD, MISSOURI 65802
(417) 877-1385 TELEPHONE
(417) 877-9736 FAX



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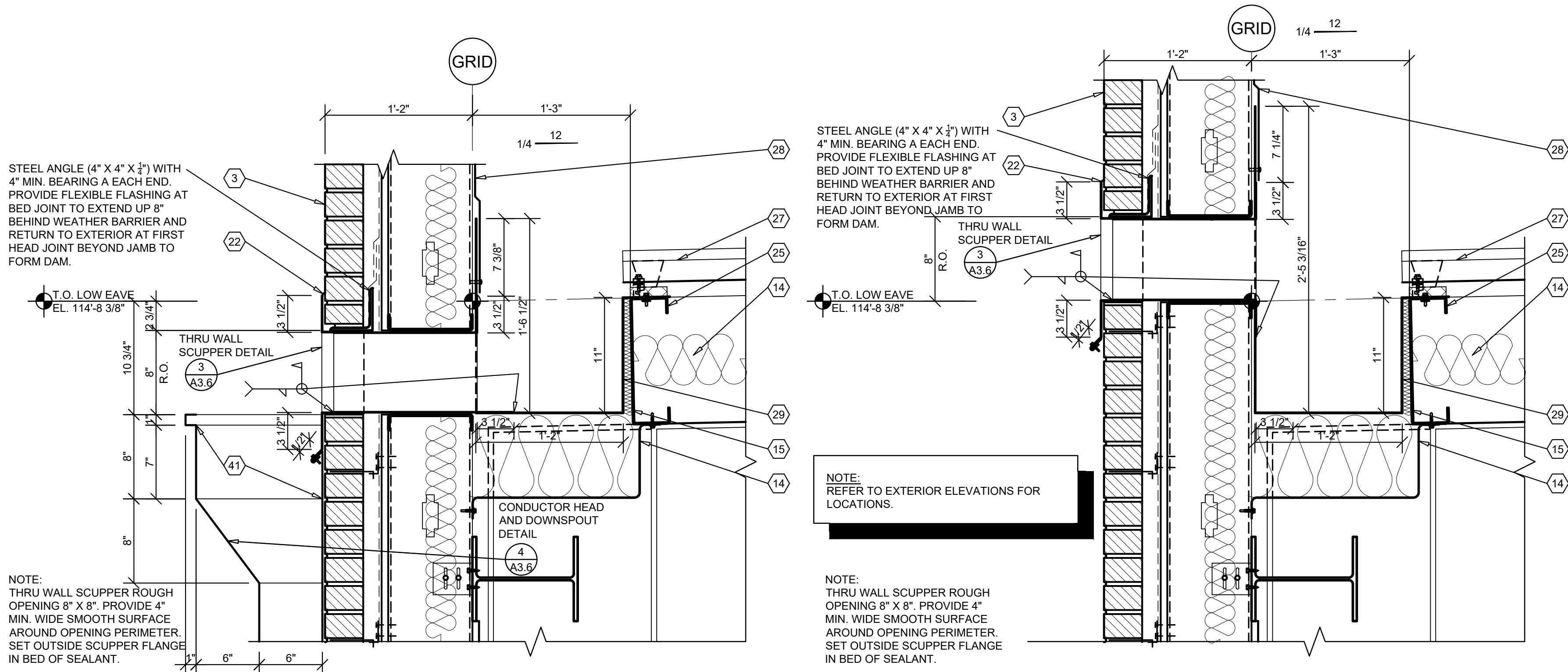
DATE:
11/23/21

REVISION:

PROJECT NUMBER:
MNO

SHEET NUMBER

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1 THRU WALL SCUPPER DETAIL-PRIMARY

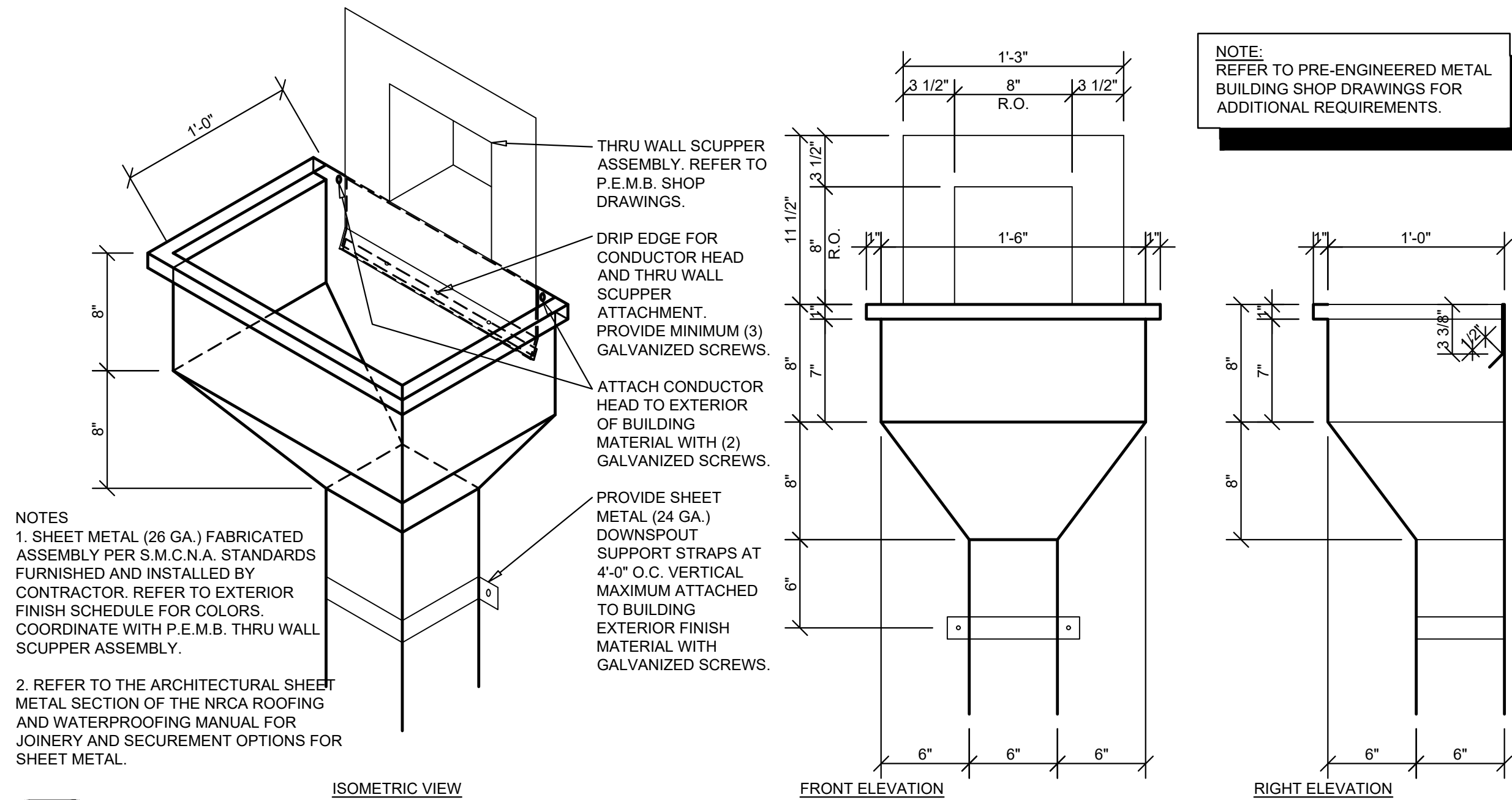
A3.6 SCALE: 1 1/2" = 1'-0"

2 THRU WALL SCUPPER DETAIL-SECONDARY

A3.6 SCALE: 1 1/2" = 1'-0"

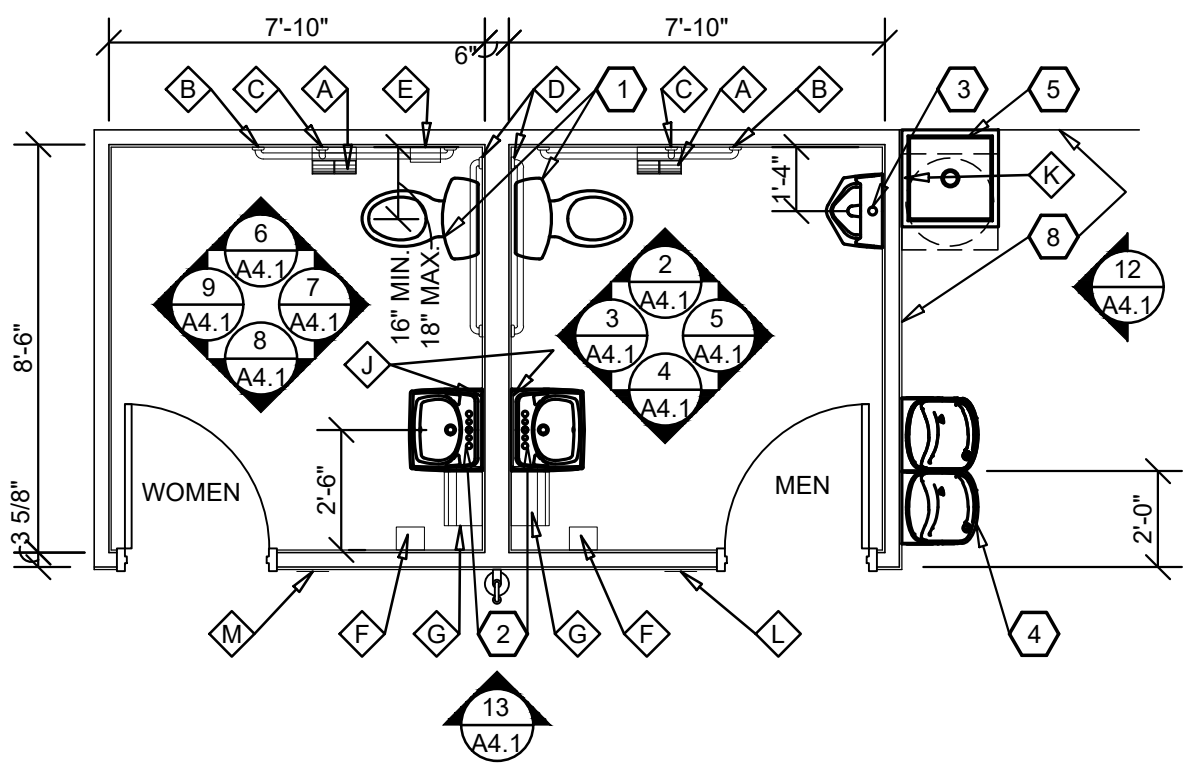
3 THRU WALL SCUPPER DETAIL

A3.6 SCALE: NOT TO SCALE

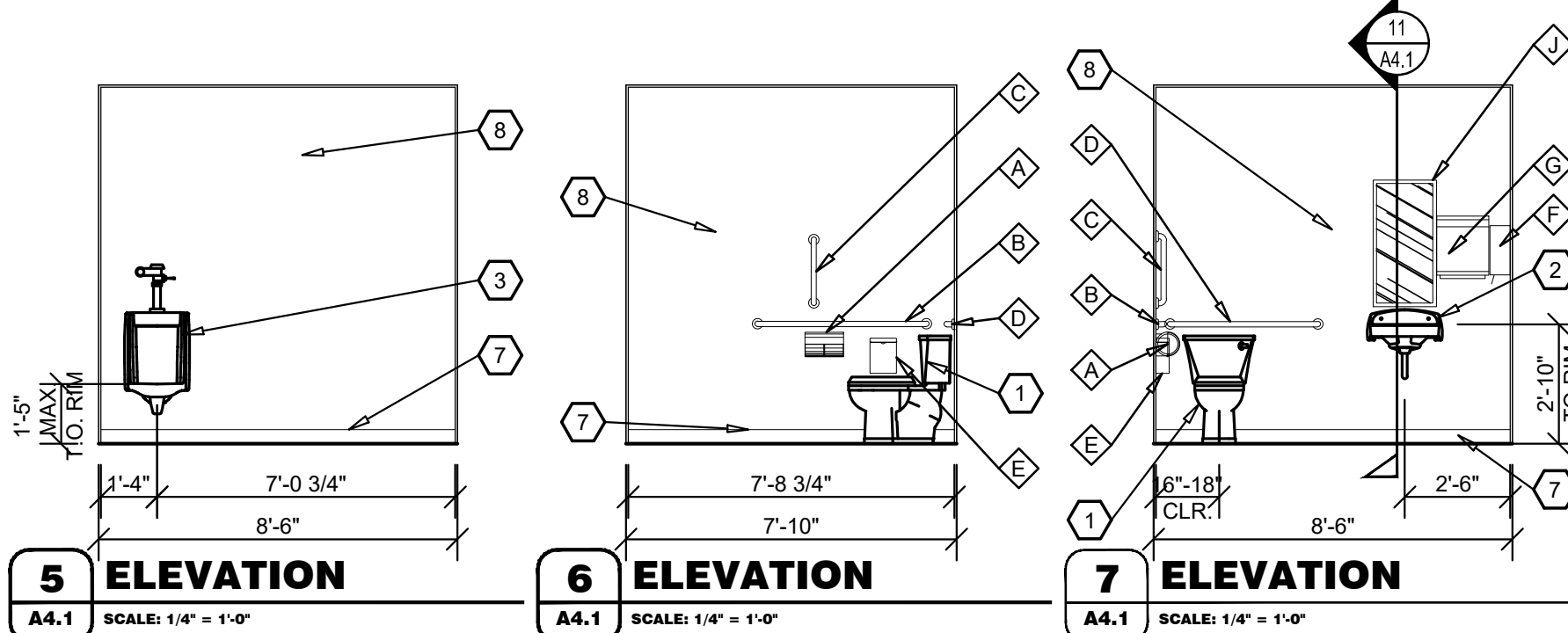
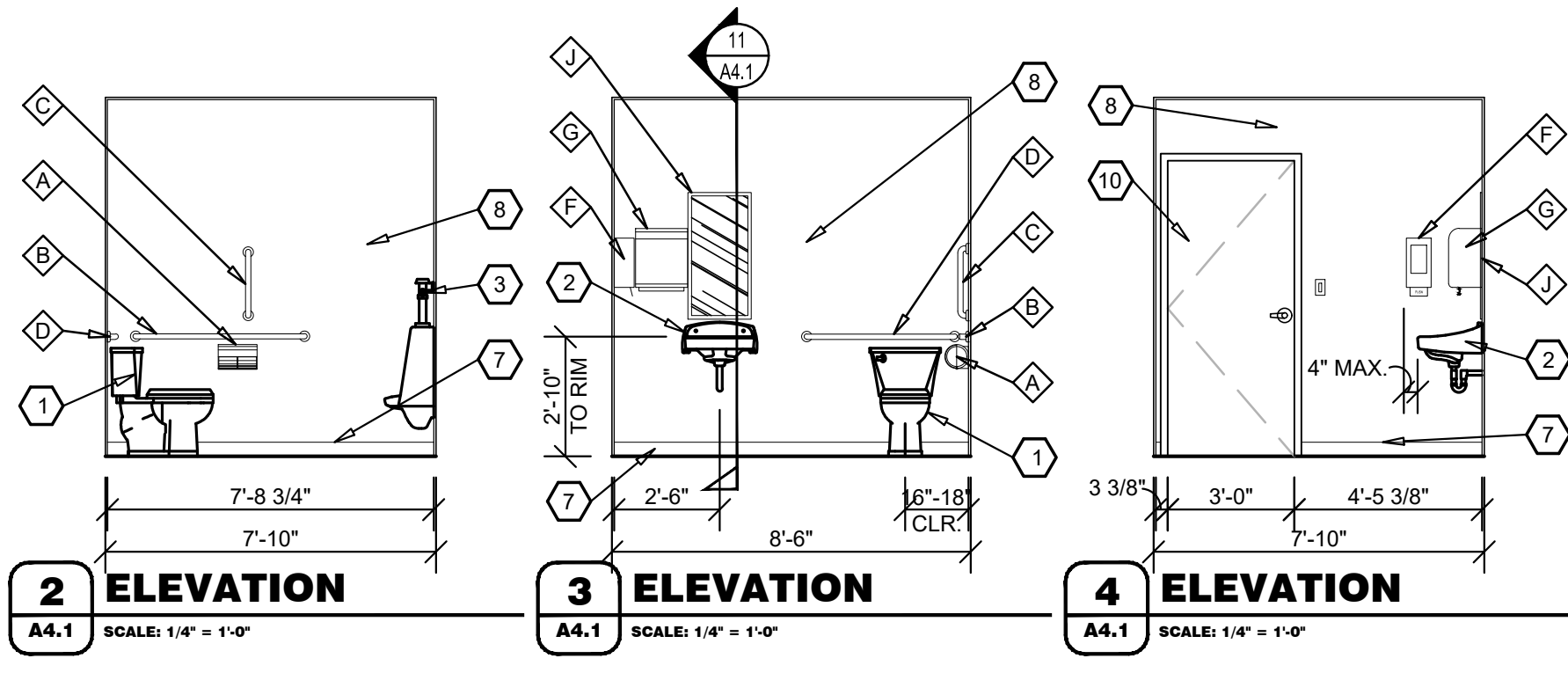
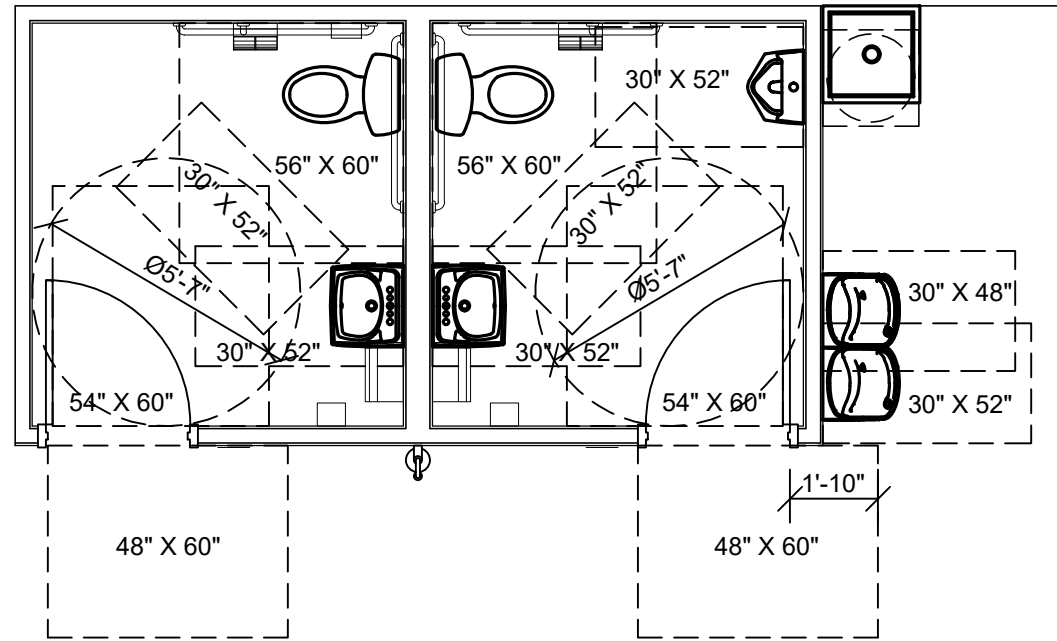


4 CONDUCTOR HEAD & DOWNSPOUT DETAIL

A3.6 SCALE: 1 1/2" = 1'-0"



NOTE:
REFER TO OVERALL FLOOR PLAN FOR
RESTROOM ORIENTATION AND LAYOUT OF
ADJACENT WALLS.



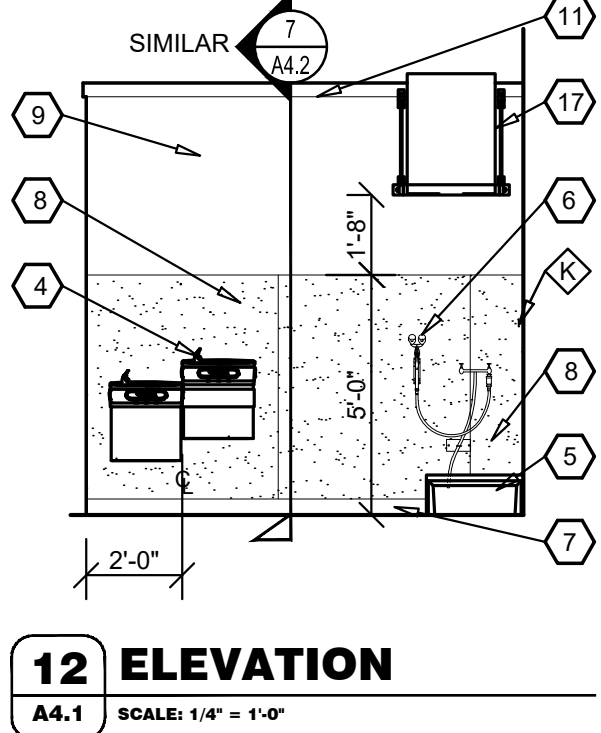
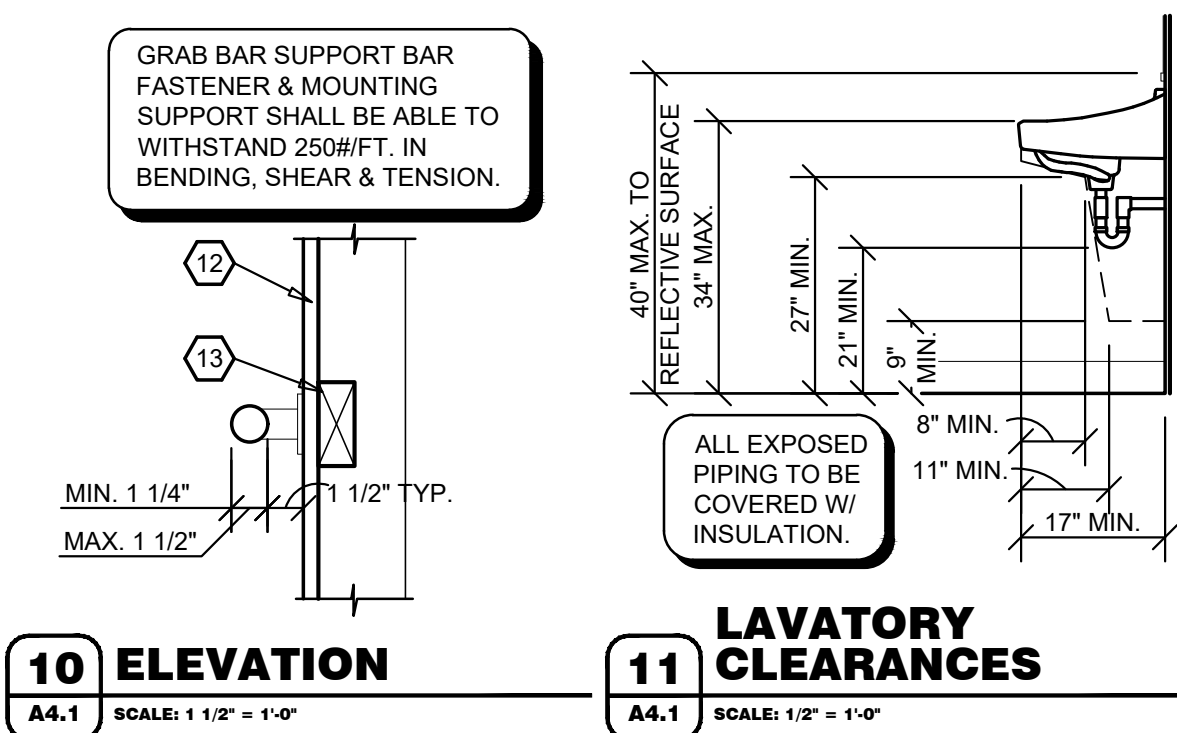
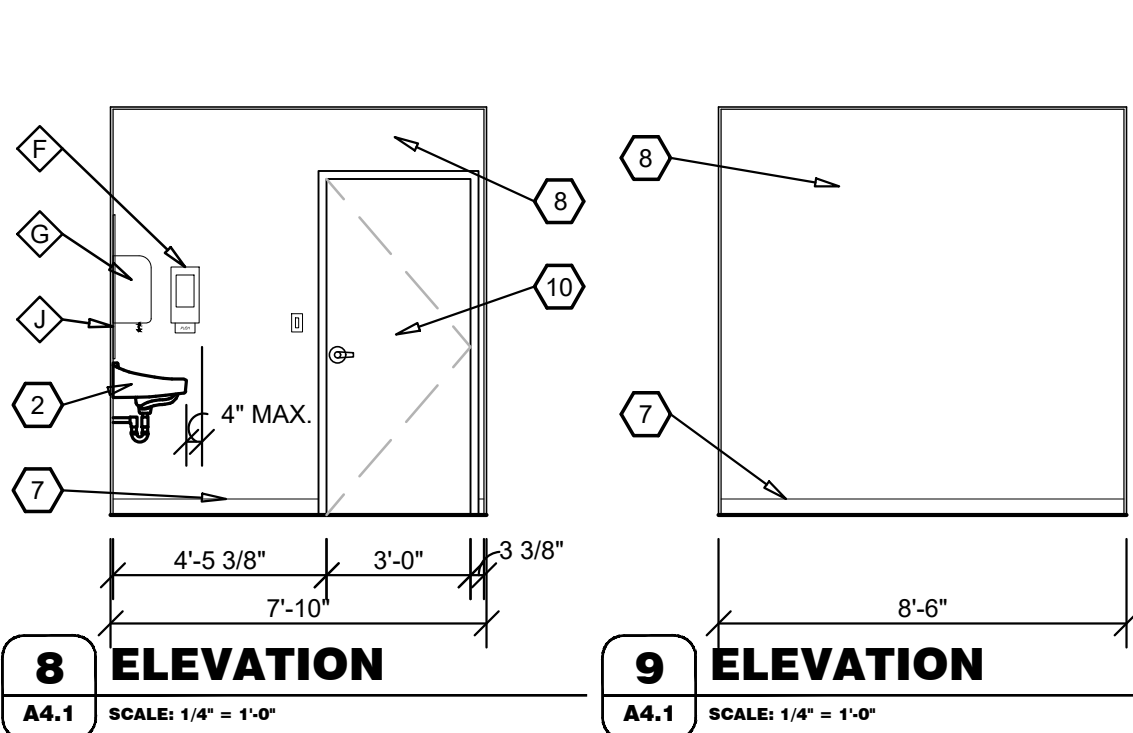
1A ENLARGED PLAN
A4.1 SCALE: 1/4" = 1'-0"

1B ENLARGED PLAN (ACCESSIBILITY CLEARANCE DIAGRAMS)
A4.1 SCALE: 1/4" = 1'-0"

5 ELEVATION
A4.1 SCALE: 1/4" = 1'-0"

6 ELEVATION
A4.1 SCALE: 1/4" = 1'-0"

7 ELEVATION
A4.1 SCALE: 1/4" = 1'-0"



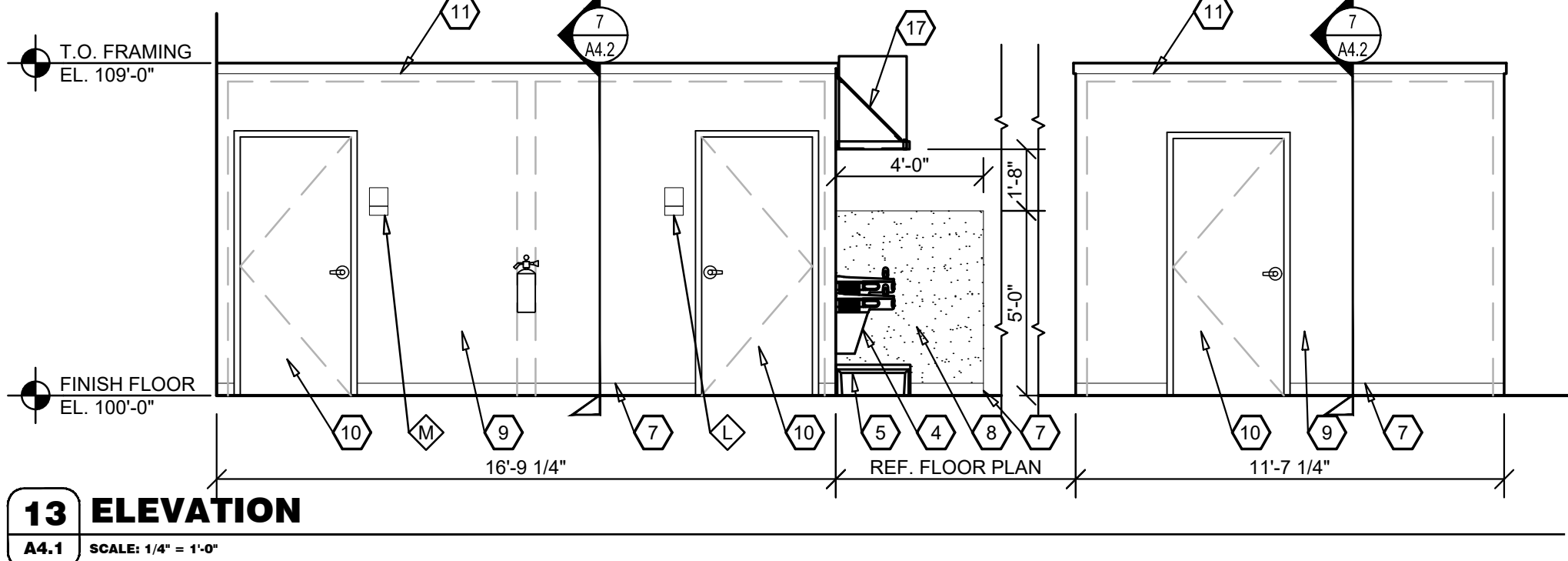
8 ELEVATION
A4.1 SCALE: 1/4" = 1'-0"

9 ELEVATION
A4.1 SCALE: 1/4" = 1'-0"

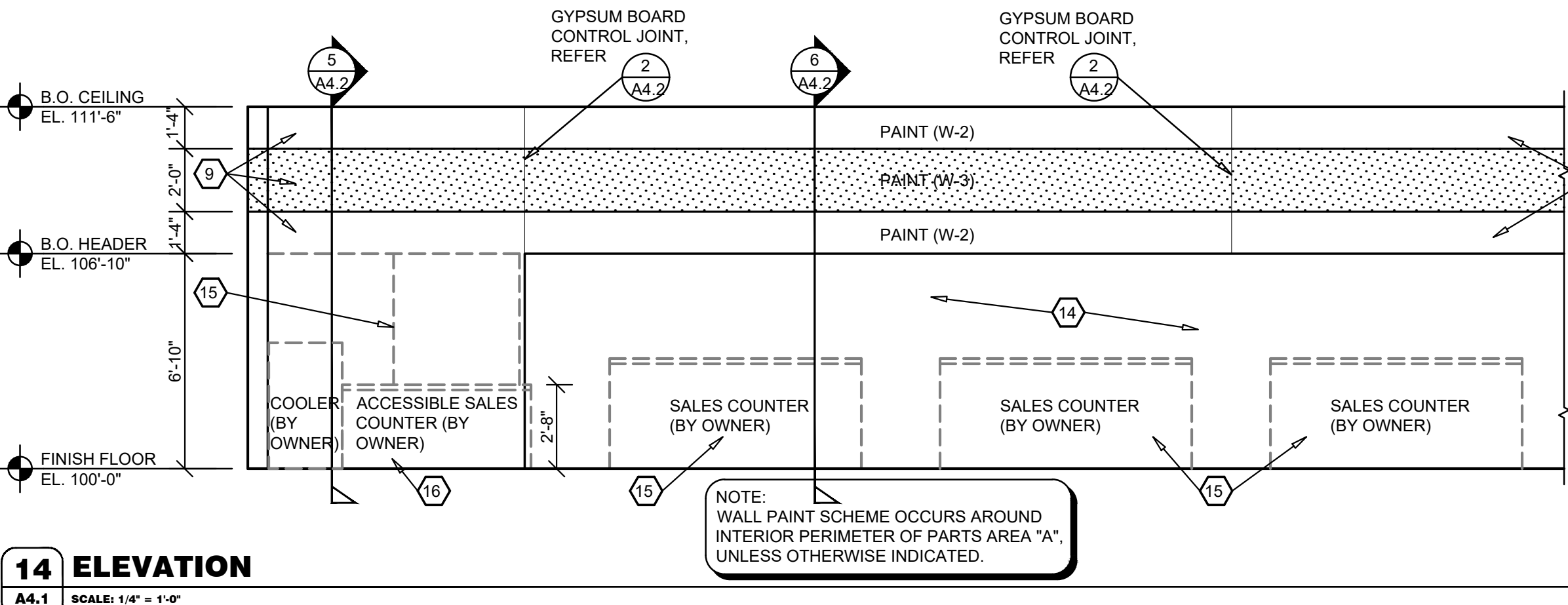
10 ELEVATION
A4.1 SCALE: 1 1/2" = 1'-0"

11 ELEVATION
A4.1 SCALE: 1/2" = 1'-0"

12 ELEVATION
A4.1 SCALE: 1/4" = 1'-0"

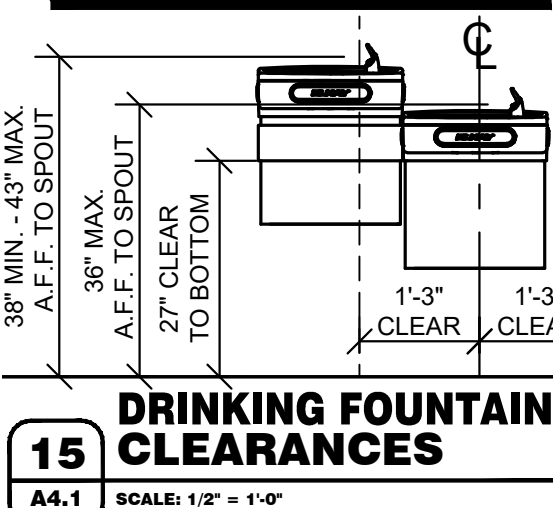


13 ELEVATION
A4.1 SCALE: 1/4" = 1'-0"



14 ELEVATION
A4.1 SCALE: 1/4" = 1'-0"

SPECIAL NOTE:
DRINKING FOUNTAIN UNIT TO BE
PROVIDED WITH CANE GUARD, REFER
TO PLUMBING DRAWINGS, REFER TO
ELEVATIONS FOR REQUIRED LEVEL
CONFIGURATIONS.



15 DRINKING FOUNTAIN CLEARANCES
A4.1 SCALE: 1/2" = 1'-0"

GENERAL NOTES

- A REFER TO PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.
- B LAYOUT DIMENSIONS OF PLUMBING FIXTURES AND ACCESSORIES TO FACE OF GYPSUM BOARD OR CENTER LINE OF FIXTURE. LAYOUT DIMENSIONS OF WALLS AND CEILINGS TO ROUGH FACE OF FRAMING, MASONRY, OR CENTER LINE OF STRUCTURE. ALL GYPSUM BOARD 5/8" THICK UNLESS OTHERWISE INDICATED AND DIMENSIONS NOT SHOWN FOR CLARITY.
- C REFER TO PLUMBING DRAWINGS FOR FIXTURE TYPES AND ADDITIONAL REQUIREMENTS. PROVIDE ADDITIONAL COLD FORM METAL FRAMING OR FIRE TREATED BLOCKING AS REQUIRED FOR PROPER SUPPORT.
- D REFER TO INTERIOR FINISH SCHEDULES FOR MATERIAL FINISH TYPES AND LOCATIONS.
- E ALL EXPOSED PIPING BELOW SINKS TO BE COVERED WITH INSULATION.

KEY NOTES

- 1 WATER CLOSET. ACCESSIBLE FIXTURE HEIGHT TO TOP OF SEAT TO BE 17" MINIMUM AND 19" MAXIMUM A.F.F.. ACCESSIBLE FIXTURE FLUSH CONTROLS TO BE ON WIDE SIDE OF TOILET.
- 2 WALL HUNG LAVATORY.
- 3 WALL HUNG URINAL. MOUNT RIM 1'-5" MAXIMUM ABOVE FINISH FLOOR.
- 4 HIGH / LOW DRINKING FOUNTAIN. REFER TO DETAIL 15/A4.1.
- 5 FLOOR MOUNTED JANITOR SINK.

KEY NOTES

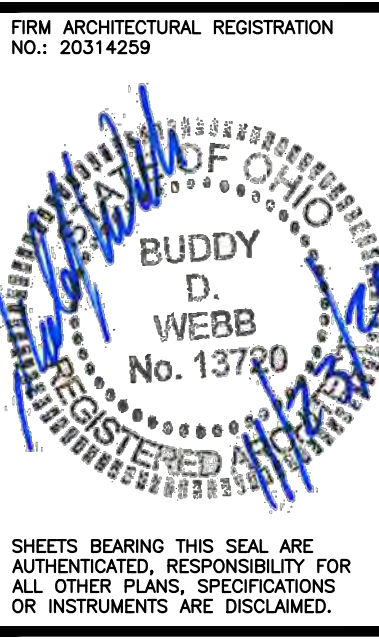
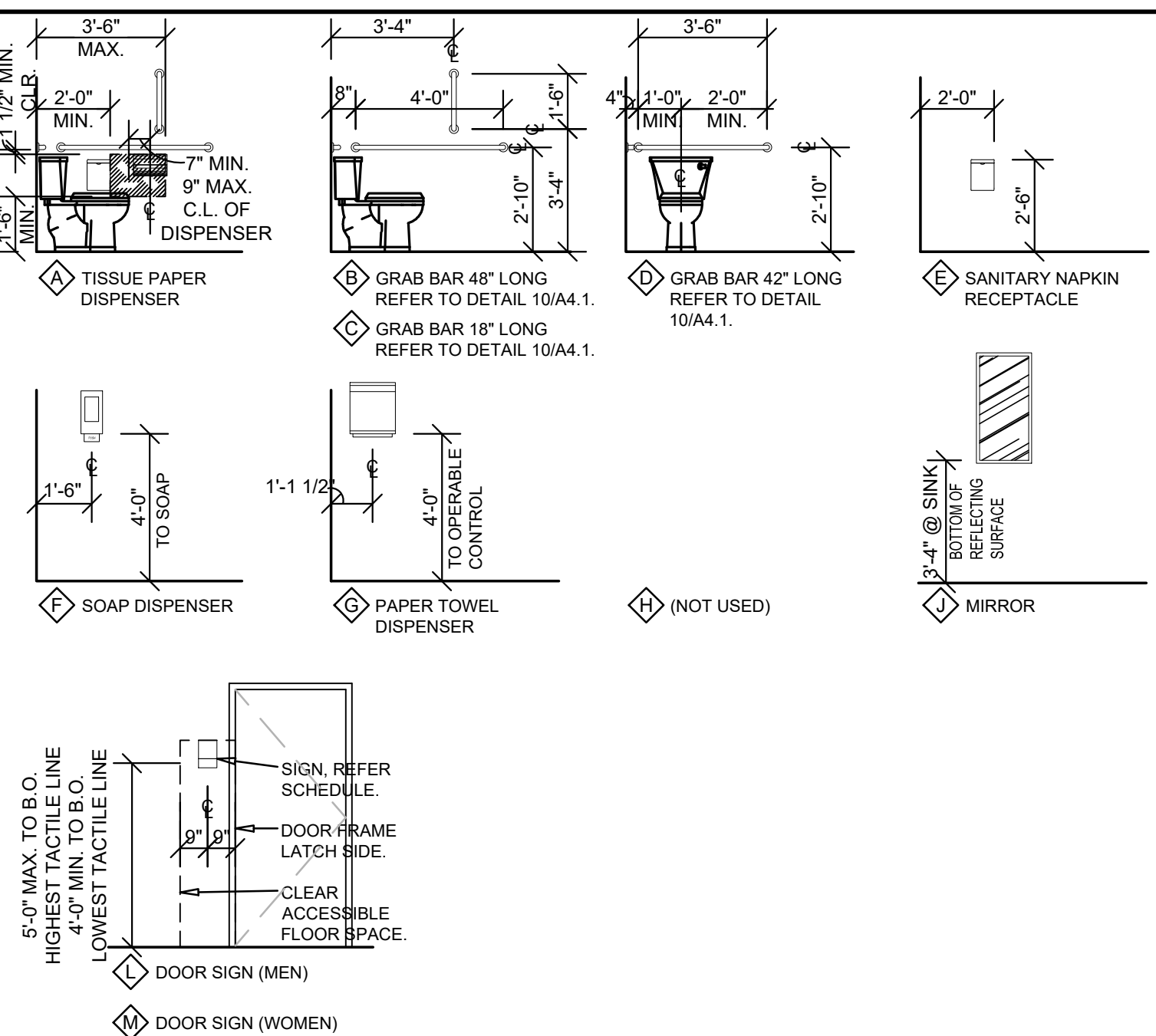
- 6 EYE WASH STATION. INSTALL WITH TOP AT 45" (MAX.) ABOVE FINISH FLOOR.
- 7 BASE, REFER TO FINISH SCHEDULE.
- 8 SANITARY WALL PANEL SYSTEM, REFER TO FINISH SCHEDULE. PROVIDE TRIM AND EDGE MOLDING AROUND PERIMETER. ATTACH TO SUBSTRATE AS REQUIRED.
- 9 PAINT, REFER TO FINISH SCHEDULE.
- 10 DOOR, REFER TO DOOR AND FINISH SCHEDULES.
- 11 WOOD TRIM, PAINT.
- 12 WALL CONSTRUCTION, REFER TO FLOOR PLAN FOR TYPES.
- 13 FIRE TREATED 2X WOOD BLOCKING.
- 14 WALL OPENING TO BEYOND, REFER TO FLOOR PLAN.
- 15 OWNER FURNISHED AND INSTALLED FURNISHING, SHELVING, OR FIXTURE. FOR REFERENCE ONLY (N.I.C.).
- 16 OWNER FURNISHED AND INSTALLED ACCESSIBLE CUSTOMER SERVICE COUNTER TO COMPLY WITH ACCESSIBILITY REQUIREMENTS. FOR REFERENCE ONLY (N.I.C.).
- 17 WALL MOUNTED WATER HEATER AND SUPPORT PLATFORM, REFER TO PLUMBING DRAWINGS. PROVIDE FIRE TREATED BLOCKING OR ADDITIONAL COLD FORM FRAMING AS REQUIRED FOR INSTALLATION.

ACCESSORY SCHEDULE

MK	DESCRIPTION	MANUFACTURER	SERIES / MODEL	MOUNTING LOCATION	ACCESSORY NOTES
A	TISSUE PAPER DISPENSER	GEORGIA PACIFIC	56783A	REFER PLANS, ELEVATIONS, LEGEND	NOTE 2
B	GRAB BAR	BOBRICK	B6806 x 48"	REFER PLANS, ELEVATIONS, LEGEND	
C	GRAB BAR	BOBRICK	B6806 x 18"	REFER PLANS, ELEVATIONS, LEGEND	
D	GRAB BAR	BOBRICK	B6806 x 42"	REFER PLANS, ELEVATIONS, LEGEND	
E	SANITARY NAPKIN RECEPTACLE	BOBRICK	B-270	REFER PLANS, ELEVATIONS, LEGEND	WOMEN'S RESTROOM ONLY
F	SOAP DISPENSER	GOJO	PRO 2000	REFER PLANS, ELEVATIONS, LEGEND	NOTE 2
G	PAPER TOWEL DISPENSER	GEORGIA PACIFIC	59460A	REFER PLANS, ELEVATIONS, LEGEND	NOTE 2
H	(NOT USED)				
J	MIRROR	BOBRICK	B-165-1836 18" W X 36" H	REFER PLANS, ELEVATIONS, LEGEND	
K	MOP HANGER	REFER TO PLUMBING DRAWINGS	REFER TO PLUMBING DRAWINGS	48" A.F.F. TO CENTER	
L	DOOR SIGN (MEN)	ROCKWOOD	BFM687	REFER PLANS, ELEVATIONS, LEGEND	NOTE 3
M	DOOR SIGN (WOMEN)	ROCKWOOD	BFM688	REFER PLANS, ELEVATIONS, LEGEND	NOTE 3

ACCESSORY GENERAL NOTES:
1. CONTRACTOR TO PROVIDE FIRE TREATED WOOD BLOCKING FOR INSTALLATION OF TOILET ACCESSORIES, INCLUDING OWNER FURNISHED AND CONTRACTOR INSTALLED ACCESSORIES. COORDINATE REQUIREMENTS WITH OWNER.
2. ACCESSORY OWNER FURNISHED AND CONTRACTOR INSTALLED. REFER TO SCOPE OF WORK SCHEDULE.
3. TACTILE (BRAILLE GRADE 2 CONTRACTED) SIGN WITH PICTOGRAMS IN COMPLIANCE WITH ADA STANDARDS AND GOVERNING ACCESSIBILITY CODE (REFER SHEET G1.1). COLORS WHITE TEXT AND SYMBOLS ON BLUE (NO. 15090 IN FEDERAL STANDARD 595B) BACKGROUND.

ACCESSORY MOUNTING LEGEND



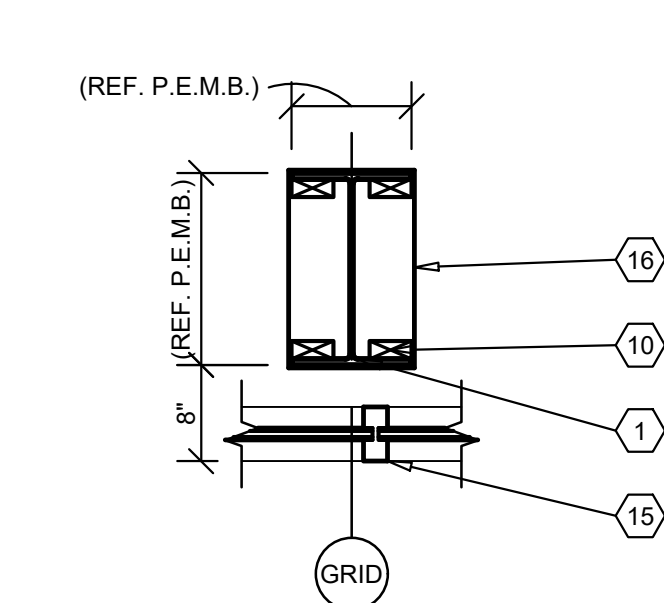
O'Reilly AUTO PARTS
CORPORATE OFFICES
535 SOUTH PATTERSON
SPRINGFIELD, MISSOURI 65802
(417) 882-2874 TELEPHONE

PROJECT:
NEW O'REILLY AUTO PARTS STORE
301 NORTH MAIN STREET
MONROE, OHIO
INTERIOR ELEVATIONS

Buddy Webb & Company, Inc.
Architect - Consultant
3057 EAST CAIRO
SPRINGFIELD, MISSOURI 65802
(417) 877-1385 TELEPHONE
(417) 877-9736 FAX

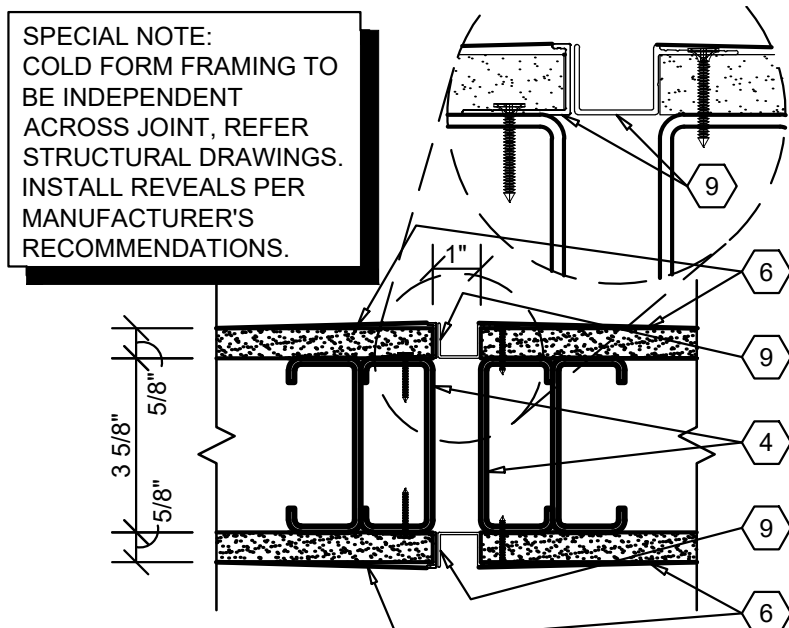
DRAWN BY: **RHV** CHECKED BY: **SB**
DATE: **11/23/21**
REVISION:
PROJECT NUMBER: **MNO**
SHEET NUMBER

A4.1



1 COLUMN DETAIL

A4.2 SCALE: 3/4" = 1'-0"

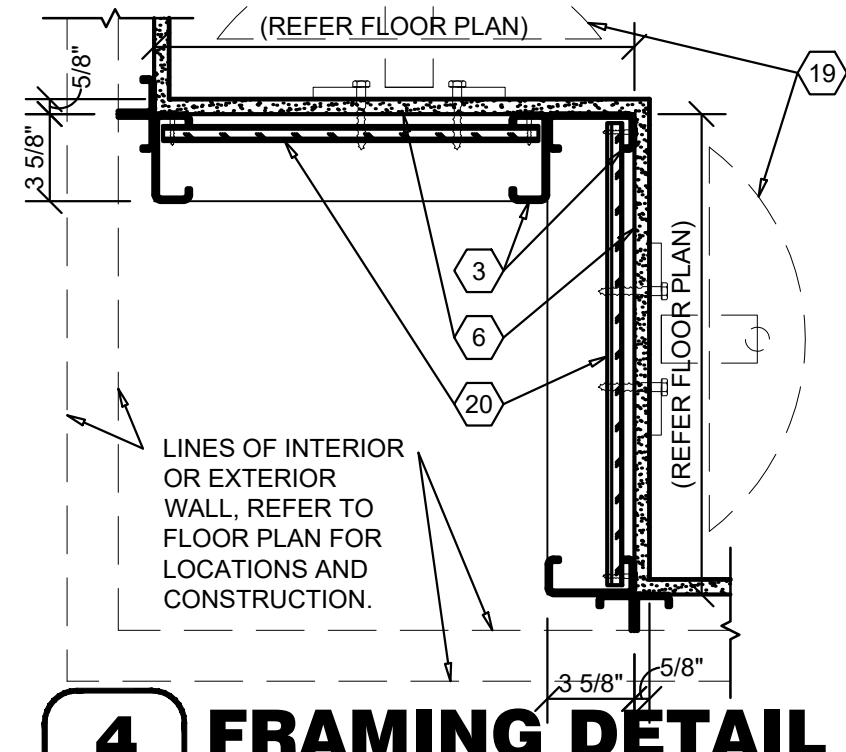


2 GYPSUM BOARD JOINT DETAIL

A4.2 SCALE: 3" = 1'-0"

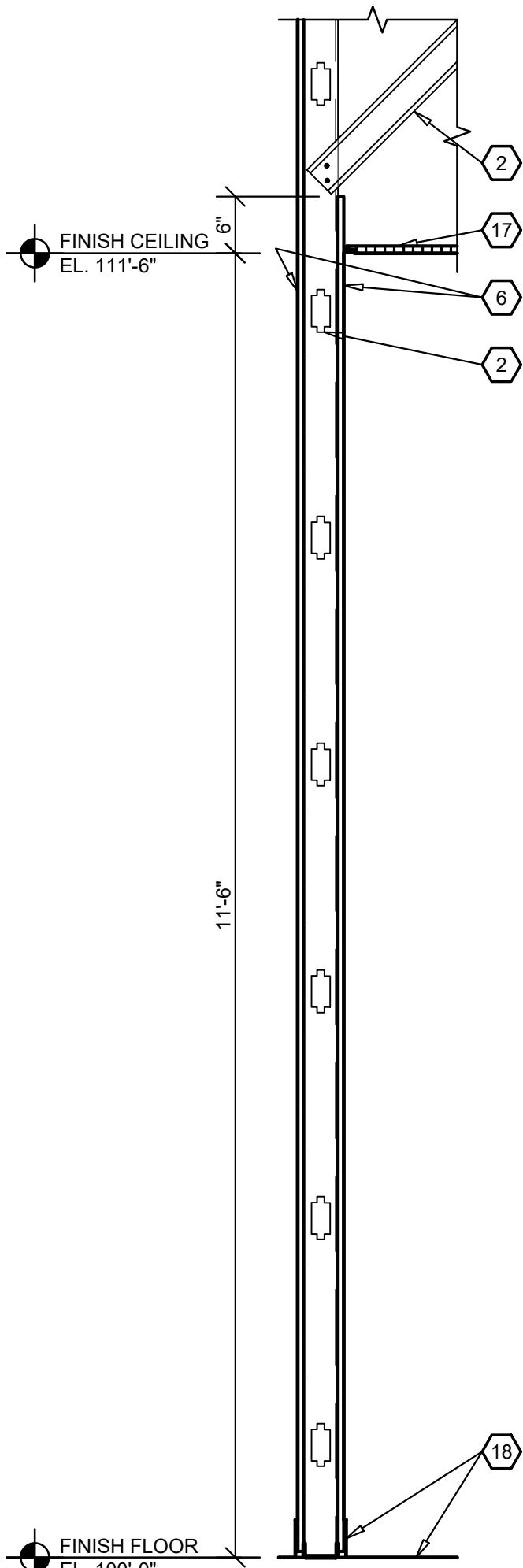
3 (NOT USED)

A4.2 SCALE: N.T.S.



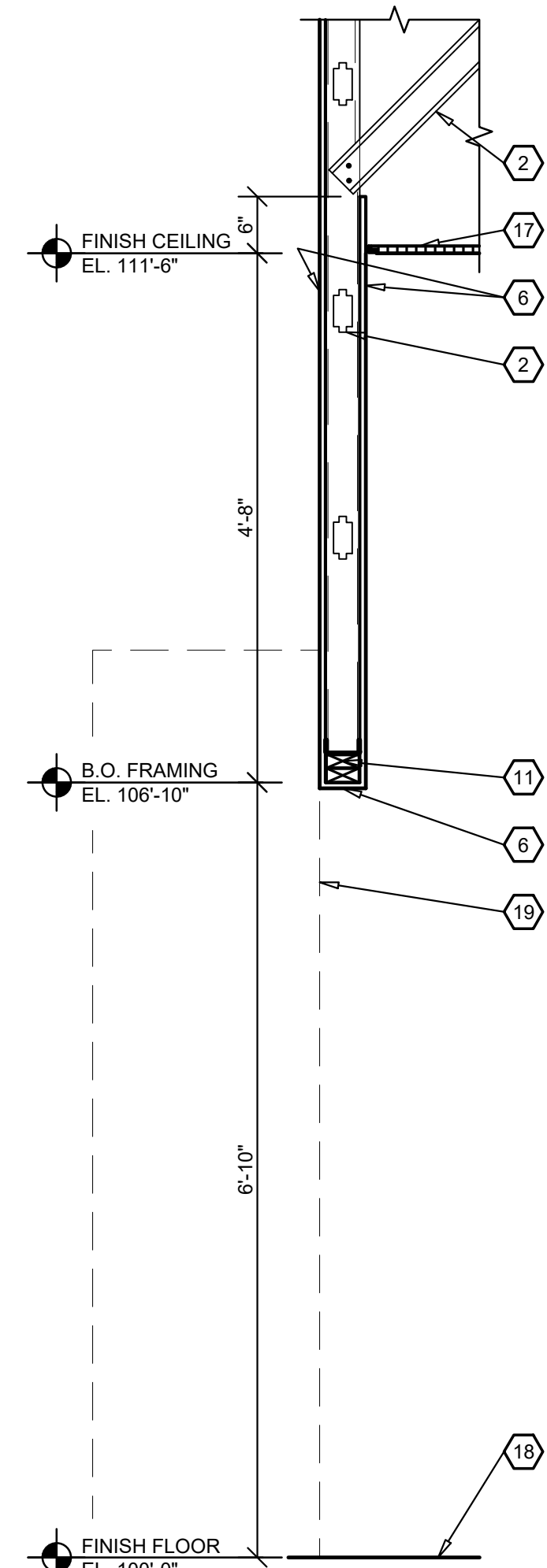
4 FRAMING DETAIL

A4.2 SCALE: 1 1/2" = 1'-0"



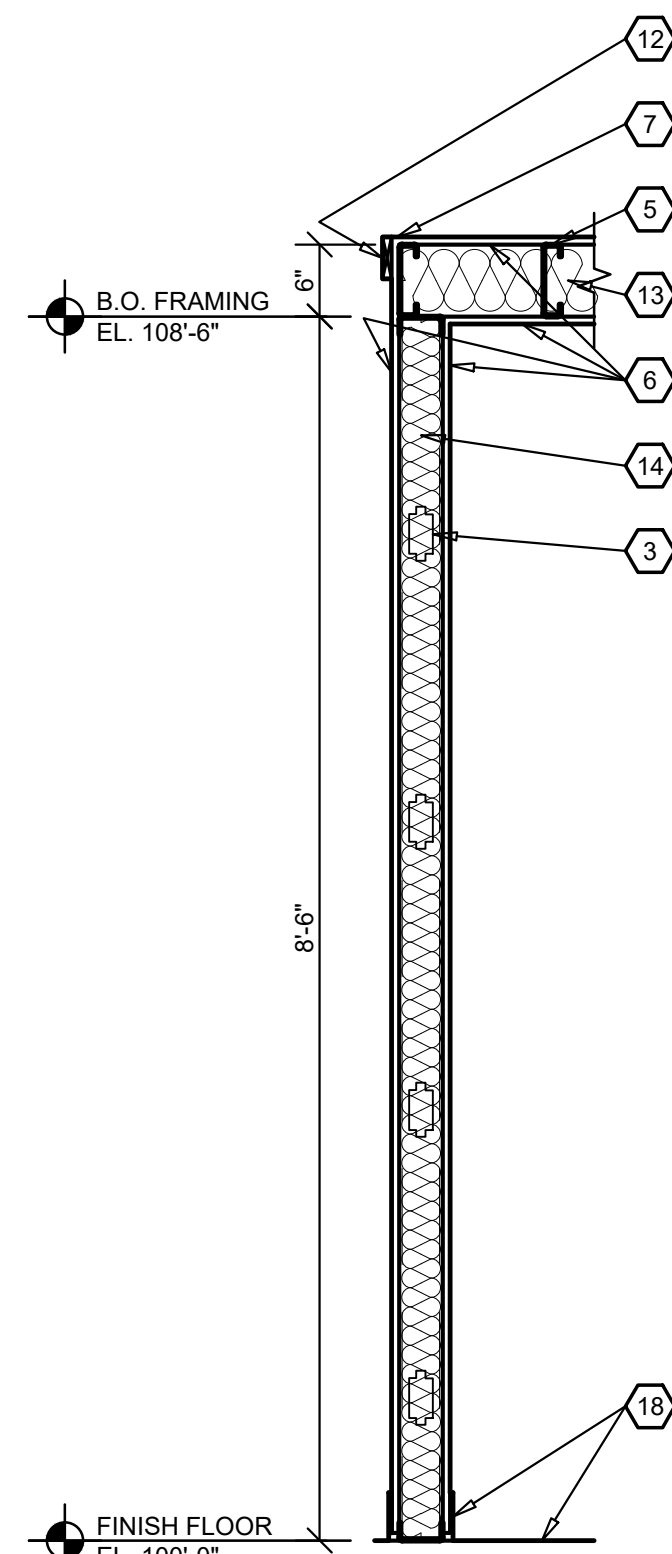
5 INTERIOR WALL SECTION

A4.2 SCALE: 3/4" = 1'-0"



6 INTERIOR WALL SECTION

A4.2 SCALE: 3/4" = 1'-0"



7 INTERIOR WALL SECTION

A4.2 SCALE: 3/4" = 1'-0"

8 (NOT USED)

A4.2 SCALE: N.T.S.

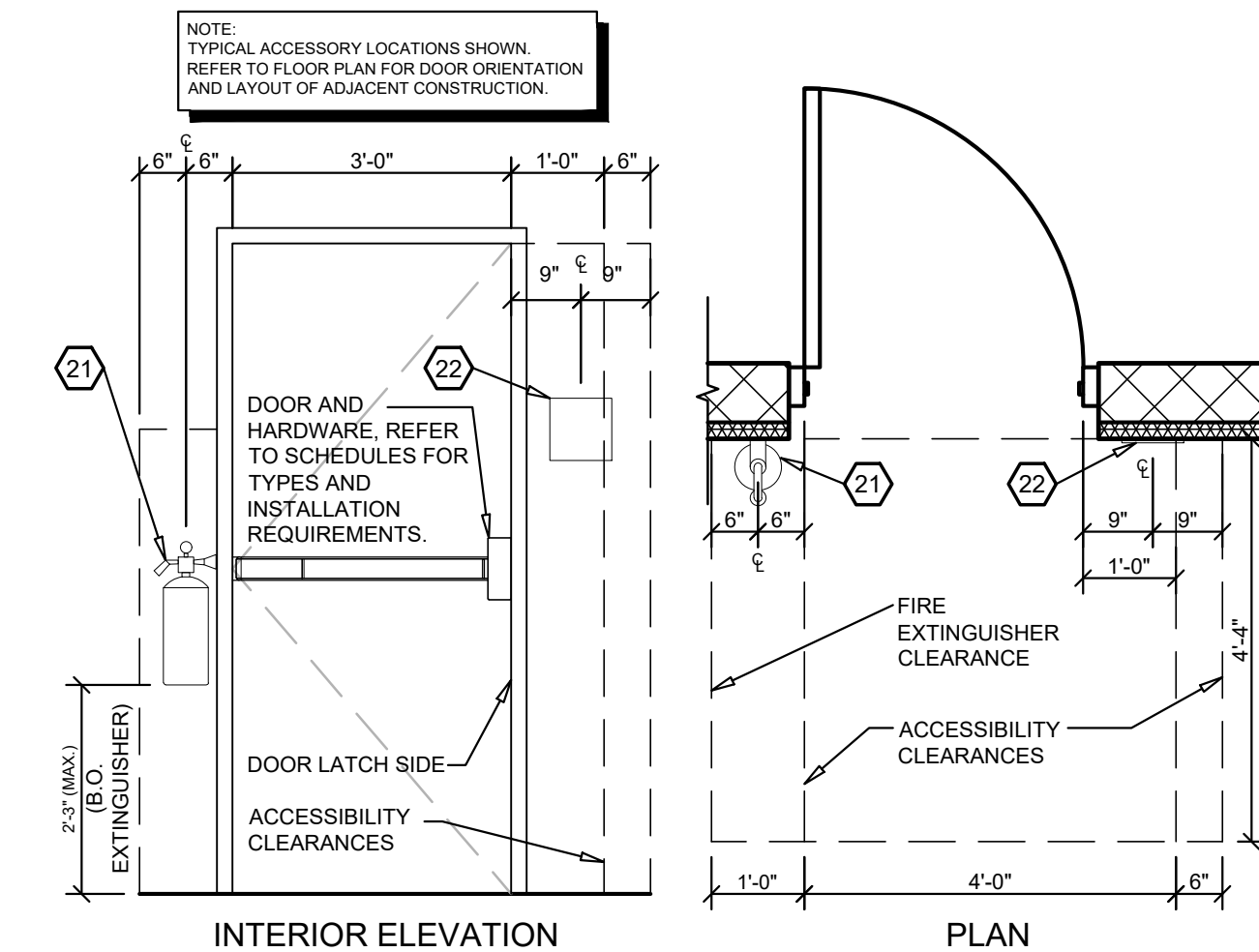
SPECIAL NOTE:
REFER TO SHEET G1.1 FOR PROJECTS
DEFINED SEISMIC DESIGN CATEGORY
TO DETERMINE INSTALLATION
REQUIREMENTS.

9 SUSPENDED CEILING SEISMIC BRACING

A4.2 NOT TO SCALE

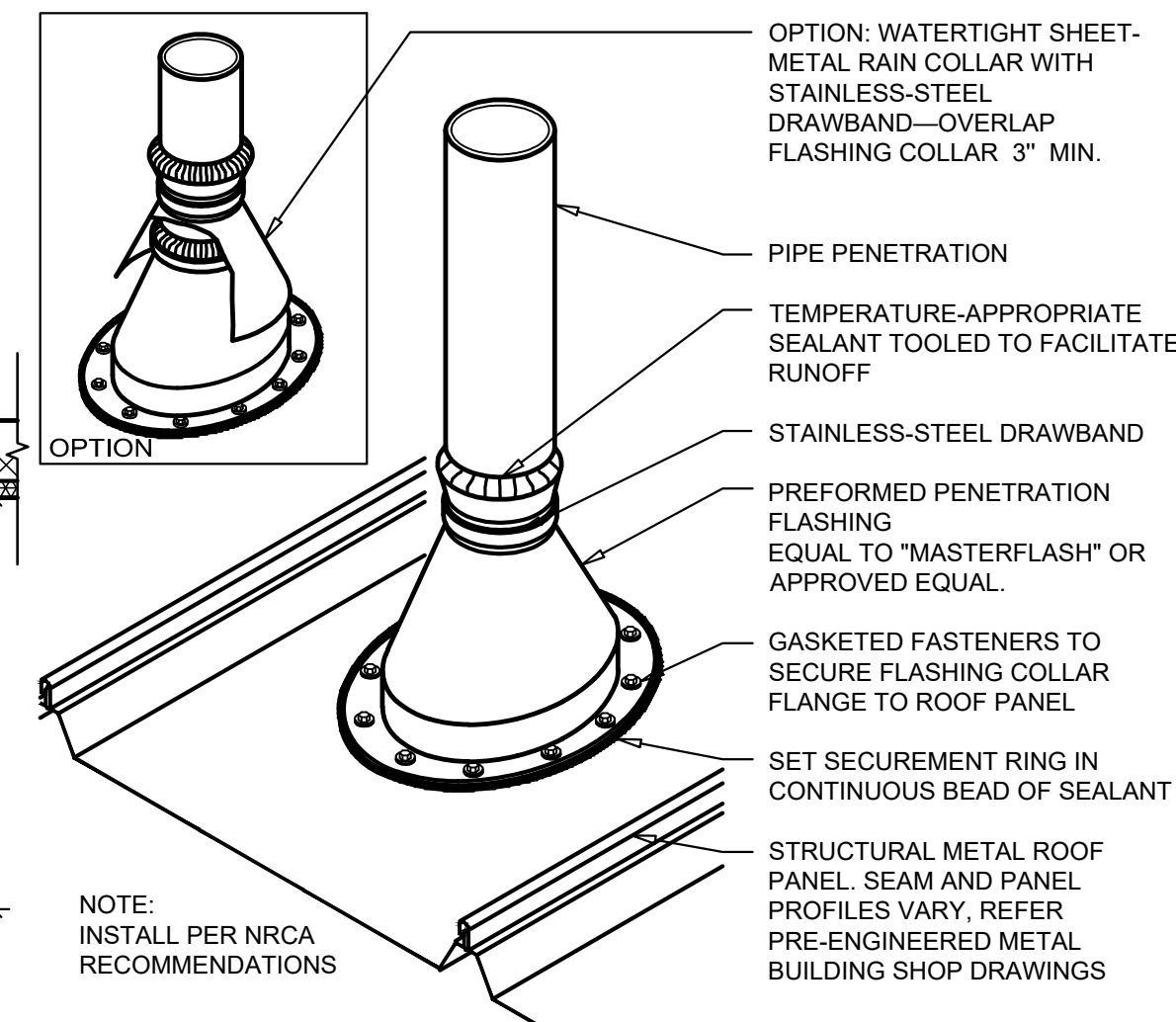
GENERAL INSTALLATION REQUIREMENTS
(REFER ALSO TO PROJECT MANUAL):

SEISMIC DESIGN CATEGORIES "A" AND "B".
CONFORM TO ASTM C636.



10 FIRE EXTINGUISHER DETAIL

A4.2 SCALE: 1/2" = 1'-0"



11 VENT THRU ROOF DETAIL

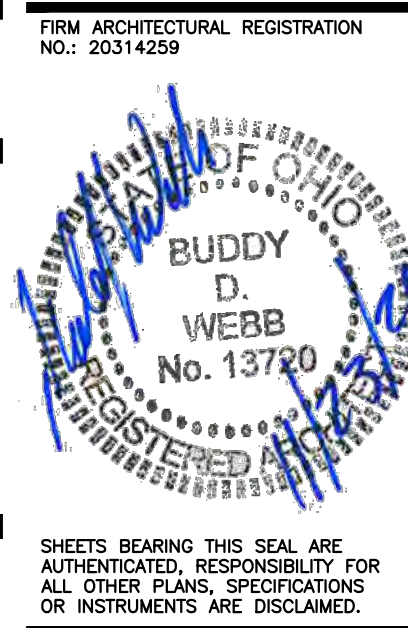
A4.2 NOT TO SCALE

GENERAL NOTES

- (A) REFER TO PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.
- (B) DIMENSIONS ARE TO ROUGH FACE OF CONCRETE, MASONRY, FRAMING, OR CENTER LINE OF STRUCTURE UNLESS OTHERWISE INDICATED.
- (C) REFER TO INTERIOR FINISH SCHEDULES FOR MATERIAL TYPES, COLORS AND FINISHES.

KEY NOTES

- (1) PRE-ENGINEERED METAL BUILDING STRUCTURAL STEEL COLUMN, REFER TO P.E.M.B. SHOP DRAWINGS FOR ADDITIONAL REQUIREMENTS. PAINT (WHERE INDICATED).
- (2) 362S162-33 COLD FORM METAL FRAMING ATTACHED TO ROOF STRUCTURE, REFER TO STRUCTURAL DRAWINGS FOR FRAMING REQUIREMENTS.
- (3) 362S162-33 COLD FORM METAL FRAMING AT 24" O.C., REFER TO INTERIOR WALL TYPES FOR ADDITIONAL REQUIREMENTS.
- (4) 362S162-33 COLD FORM METAL STUDS DOUBLED AT CONTROL JOINT.
- (5) 600S162-54 COLD FORM METAL CEILING JOIST FRAMING AT 24" O.C.
- (6) 5/8" TYPE "X" GYPSUM BOARD. REFER TO INTERIOR WALL TYPES FOR ADDITIONAL REQUIREMENTS.
- (7) GYPSUM BOARD CORNER BEAD CONTINUOUS.
- (8) (NOT USED)
- (9) GYPSUM BOARD CONTINUES EXPANSION JOINT. PROVIDE FRY REGLET "DRMF-625-75" AND "JDM-625" AT JOINT ON BOTH SIDES OF WALL AND BOTTOM.
- (10) FIRE TREATED 2X NAILERS OR BLOCKING.
- (11) (2) FIRE TREATED 2X NAILERS.
- (12) 1X4 WOOD TRIM (PAINT GRADE PINE) ATTACHED TO METAL STUD FRAMING WITH TECH 12 SCREWS AT 24" O.C. SET FLUSH. PAINT EXPOSED SURFACES TO MATCH WALL FINISH.
- (13) 6" UNFACED SOUND BATT INSULATION.
- (14) 3 1/2" UNFACED SOUND BATT INSULATION.
- (15) ALUMINUM WINDOW SYSTEM, REFER TO FLOOR PLAN AND WINDOW SCHEDULE FOR TYPES.
- (16) PRE-FINISHED SHEET METAL (24 GA.) COLUMN ENCLOSURE TO EXTEND THRU FINISH CEILING SYSTEM. COLOR TO MATCH WINDOW FRAMING FINISH. NO EXPOSED HORIZONTAL SEAMS PERMITTED.
- (17) SUSPENDED ACOUSTICAL CEILING SYSTEM, REFER TO INTERIOR FINISH SCHEDULE FOR TYPES AND LOCATIONS.
- (18) FINISH FLOORING AND BASE, REFER TO INTERIOR FINISH SCHEDULE FOR TYPES AND LOCATIONS.
- (19) OWNER FURNISHED AND INSTALLED FIXTURE, REFER TO INTERIOR FINISH PLAN FOR LAYOUT. (REFER TO SCOPE OF WORK SCHEDULE.)
- (20) 5/8" FIRE TREATED PLYWOOD BACKING TO BACK SIDE OF STUD INTERIOR FLANGE ON EACH EXPOSED WALL FACE FROM 8'-0" TO 10'-0" A.F.F. FOR INSTALLATION OF SECURITY MIRRORS (OWNER FURNISHED AND INSTALLED).
- (21) SURFACE MOUNTED PORTABLE FIRE EXTINGUISHER. FIRE EXTINGUISHERS SHALL BE UL LISTED ABC TYPE WITH 10 LBS. CAPACITY. SURFACE MOUNTING BRACKET QUICK RELEASE TYPE. REFER TO FLOOR PLAN FOR LOCATIONS. PROVIDE BLOCKING AS REQUIRED FOR MOUNTING.
- (22) TACTILE EXIT SIGN AT EXIT DISCHARGE DOOR STATING "EXIT" WITH BRAILLE (GRADE 2 CONTRACTED) LETTERING. SIGN CONSTRUCTION AND LOCATION TO COMPLY WITH ACCESSIBILITY CODE. MOUNT 48" MINIMUM ABOVE FINISH FLOOR TO BOTTOM OF LOWEST TACTILE CHARACTER AND 60" MAXIMUM ABOVE FINISH FLOOR TO BOTTOM OF HIGHEST TACTILE CHARACTER. REFER TO FLOOR PLAN FOR ADDITIONAL REQUIREMENTS.



SHEETS BEARING THIS SEAL ARE AUTHENTICATED. RESPONSIBILITY FOR ALL OTHER PLANS, SPECIFICATIONS OR INSTRUMENTS ARE DISCLAIMED.

O'Reilly AUTO PARTS
CORPORATE OFFICES
535 SOUTH PATTERSON
SPRINGFIELD, MISSOURI 65802
(417) 882-2674 TELEPHONE

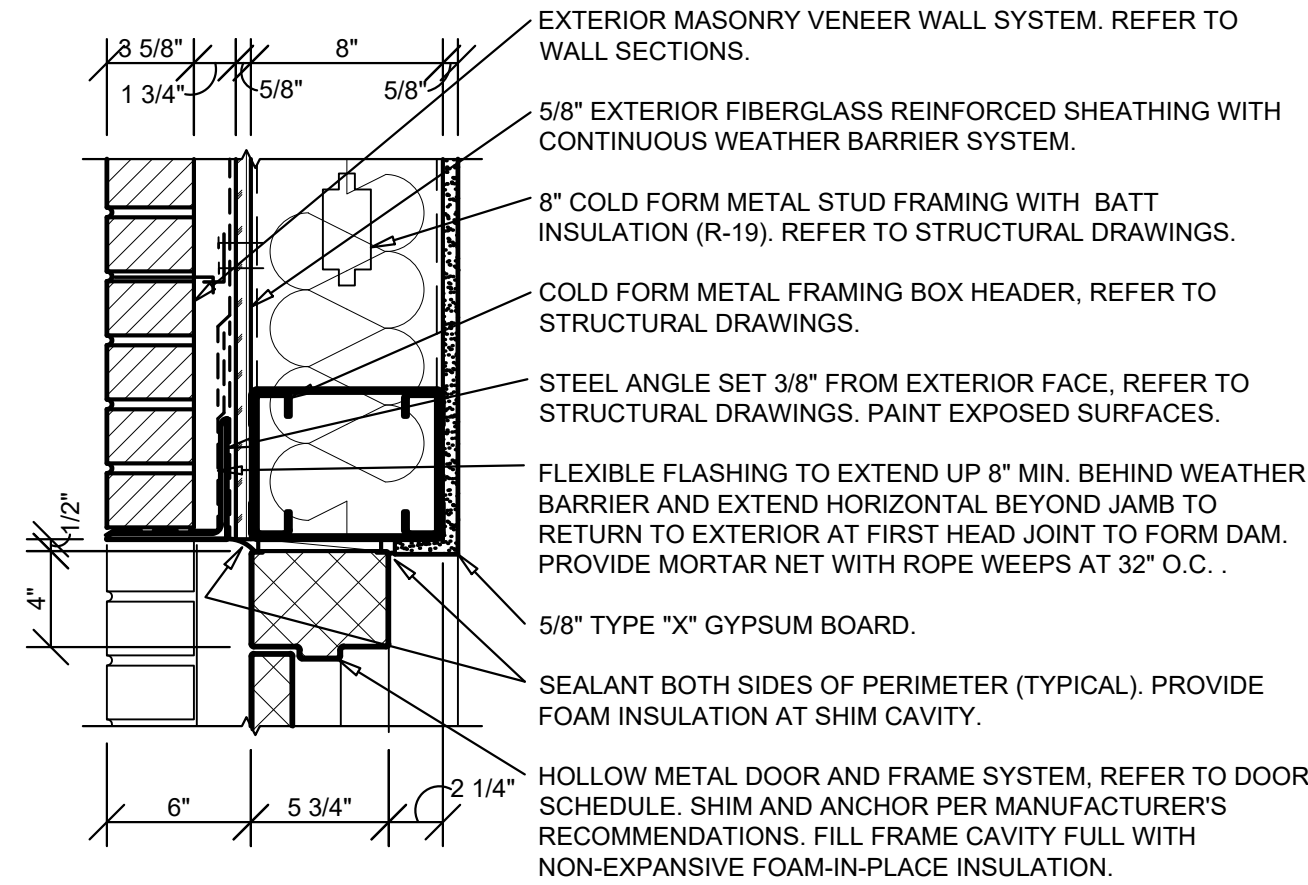
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Buddy Webb & Company, Inc.
Architect - Consultant
3057 EAST CAIRO
SPRINGFIELD, MISSOURI 65802
(417) 877-1385 TELEPHONE
(417) 877-9736 FAX

DRAWN BY: **RHV** CHECKED BY: **SB**
DATE: **11/23/21**
REVISION:

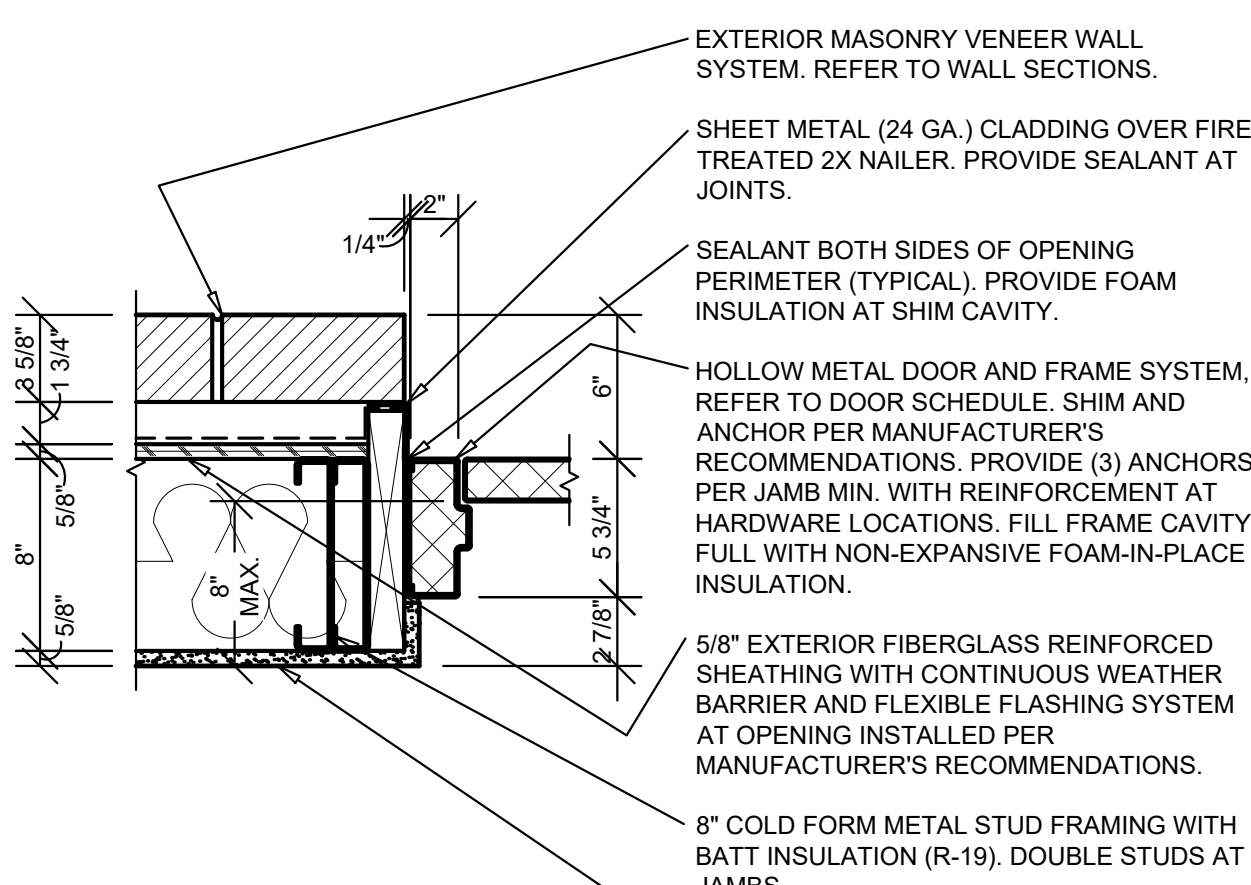
PROJECT NUMBER:
MNO
SHEET NUMBER

A4.2



1 HEAD DETAIL

A5.1 SCALE: 1 1/2" = 1'-0"

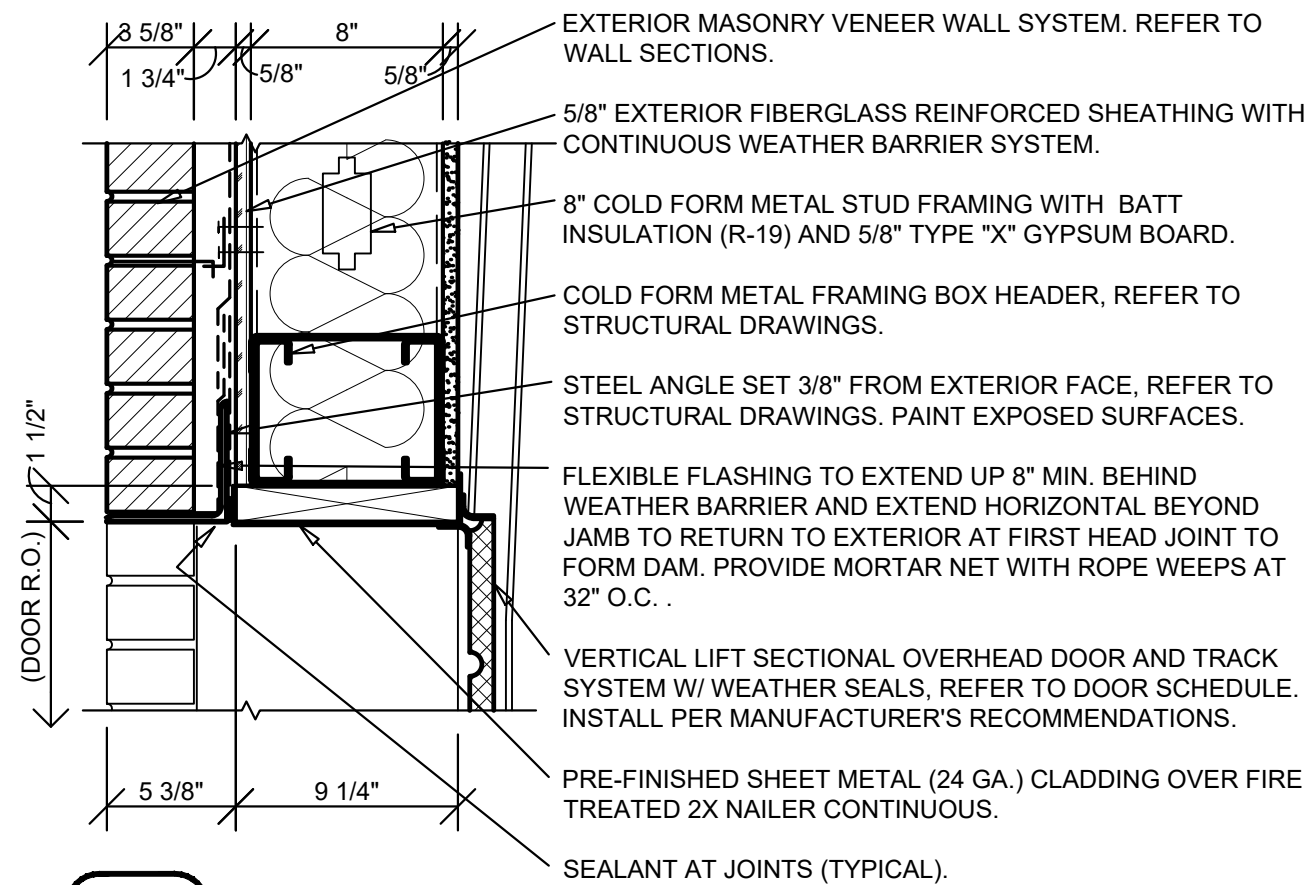


2 JAMB DETAIL

A5.1 SCALE: 1 1/2" = 1'-0"

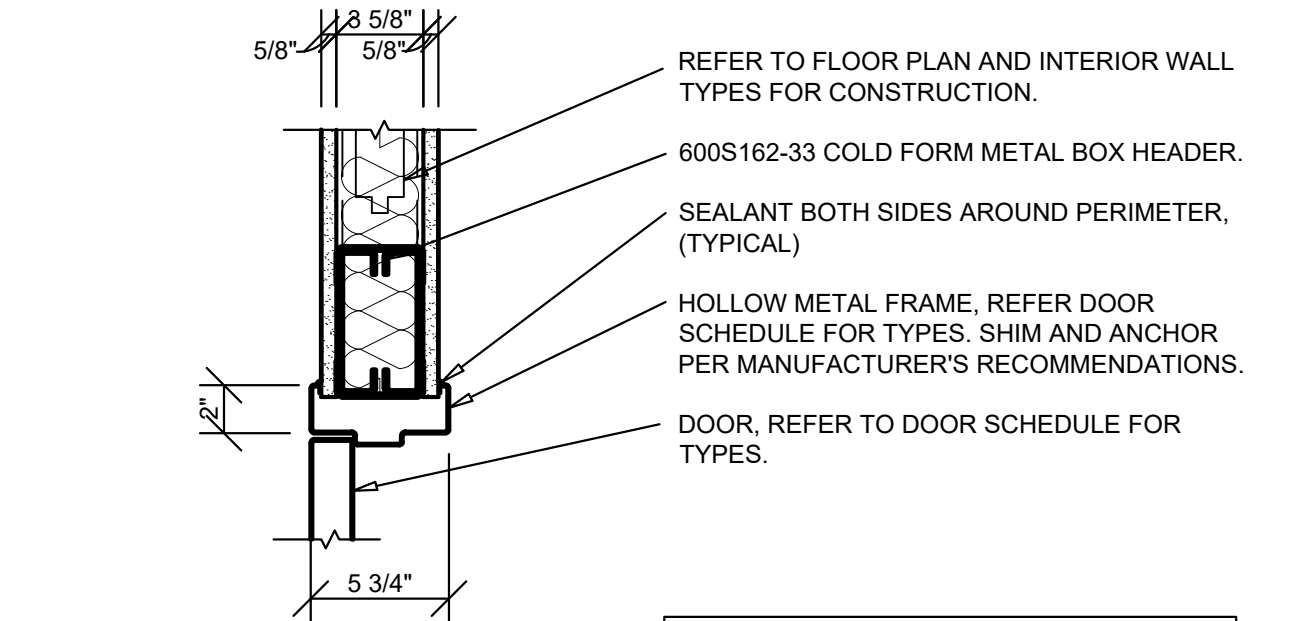
3 (NOT USED)

A5.1 SCALE: N.T.S.



5 HEAD DETAIL

A5.1 SCALE: 1 1/2" = 1'-0"

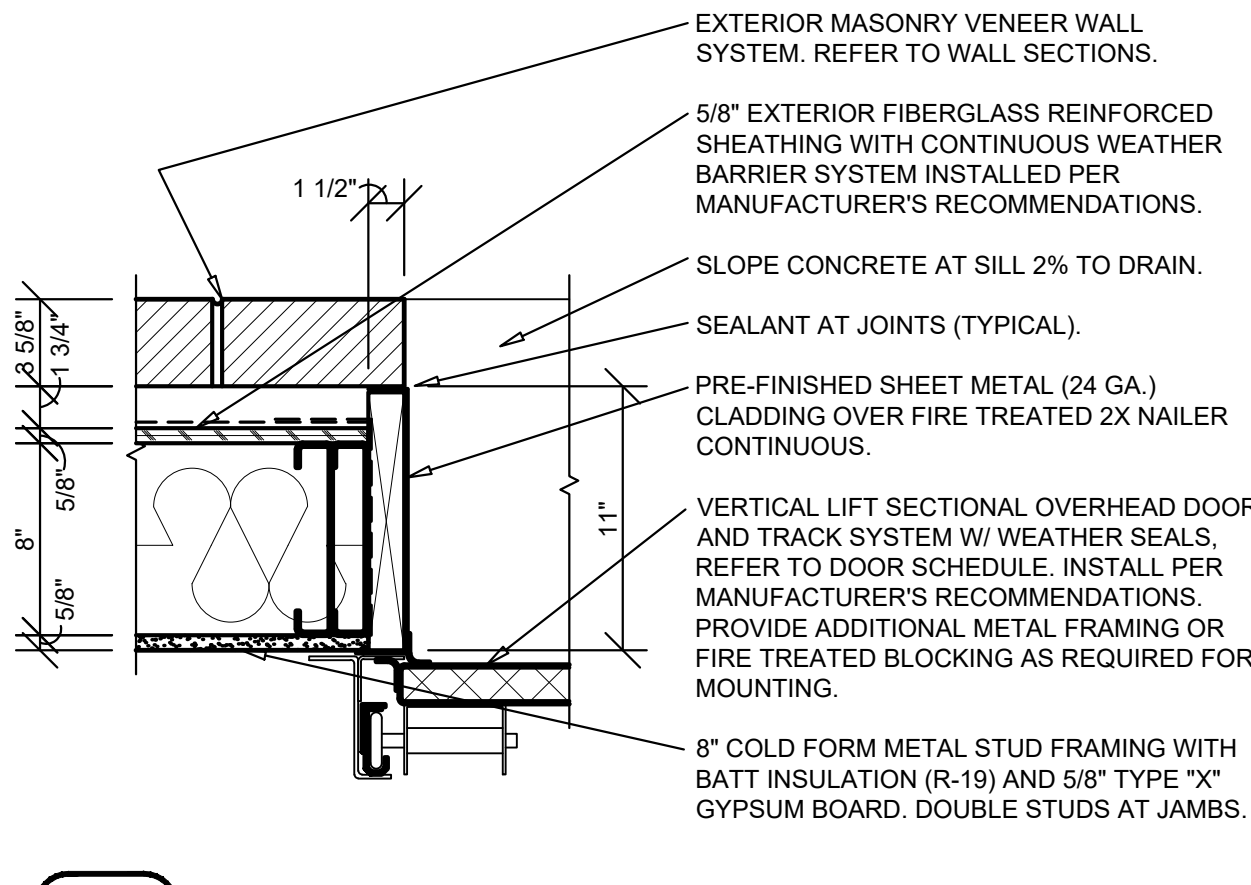


7 HEAD DETAIL

A5.1 SCALE: 1 1/2" = 1'-0"

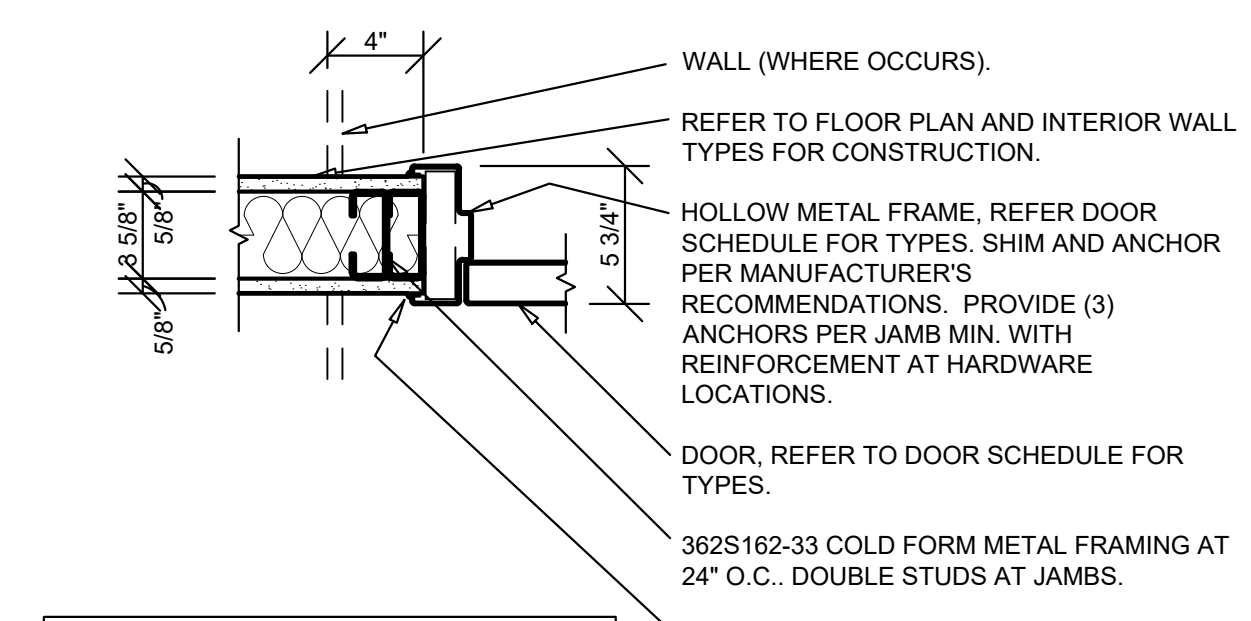
4 (NOT USED)

A5.1 SCALE: N.T.S.



6 JAMB DETAIL

A5.1 SCALE: 1 1/2" = 1'-0"



8 JAMB DETAIL

A5.1 SCALE: 1 1/2" = 1'-0"

DOOR SCHEDULE

MK	DOOR				DOOR HARDWARE			FRAME			DETAILS			FIRE RATING	REMARKS (REFER NOTES)
	SIZE (W x H x D)	TYPE	SWING	MATERIAL	GLAZ TYPE	SET #	KEYED	TYPE	MATERIAL	HEAD WIDTH	HEAD	JAMB	SILL		
1	3'-0" X 7'-0" X 1-3/4"	A	REFER TO FLOOR PLAN	ALUMINUM	1	1	A	1	ALUMINUM		4/A5.2	4/A5.2	5/A5.2		1, 2, 5
2	3'-0" X 7'-0" X 1-3/4"	B	REFER TO FLOOR PLAN	INSULATED METAL		2	A	2	INSULATED METAL	4"	1/A5.1	2/A5.1	5/A5.2 SIM.		1, 2, 3
3	6'-0" X 8'-0"	D	SECTIONAL OVERHEAD	INSULATED METAL		3			MANUFACTURER'S STANDARDS		5/A5.1	6/A5.1			1
4	3'-0" X 7'-0" X 1-3/4"	C	REFER TO FLOOR PLAN	SOLID WOOD		4		2	HOLLOW METAL		7/A5.1	8/A5.1			1, 4
5	3'-0" X 7'-0" X 1-3/4"	C	REFER TO FLOOR PLAN	SOLID WOOD		5		2	HOLLOW METAL		7/A5.1	8/A5.1			1, 4
6	3'-0" X 7'-0" X 1-3/4"	C	REFER TO FLOOR PLAN	SOLID WOOD		5		2	HOLLOW METAL		7/A5.1	8/A5.1			1, 4
7	3'-0" X 7'-0" X 1-3/4"	A	REFER TO FLOOR PLAN	ALUMINUM	1	6		1	ALUMINUM		4/A5.2	4/A5.2	5/A5.2 SIM.		1, 3
8	3'-0" X 7'-0" X 1-3/4"	A	REFER TO FLOOR PLAN	ALUMINUM	2	7		1	ALUMINUM		4/A5.2	4/A5.2	5/A5.2 SIM.		1

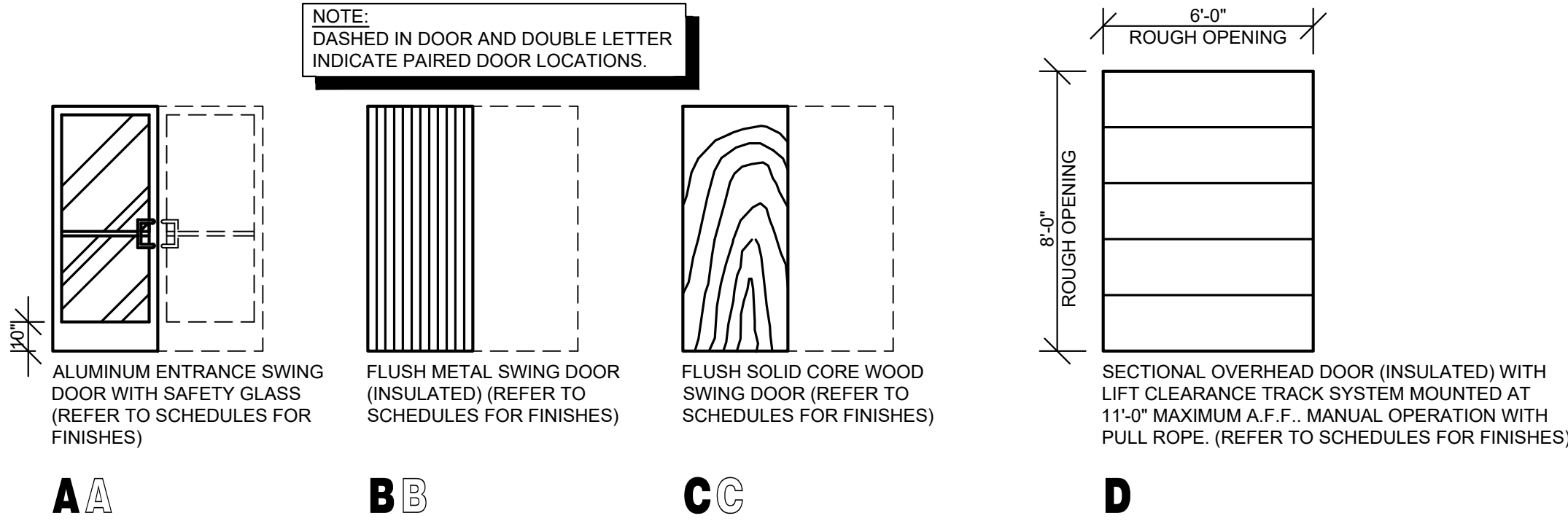
NOTES:
1. ALL DOORS SHALL BE SHOP PREPARED FOR HARDWARE.
2. ALL EXTERIOR DOORS TO BE KEYED ALIKE. CONTRACTOR TO FIELD VERIFY AND MATCH CORE OF DOOR MARKED "2".
3. EXTERIOR DOOR, FRAME AND HARDWARE OWNER FURNISHED AND CONTRACTOR INSTALLED. REFER TO SCOPE OF WORK SCHEDULE.
4. CONTRACTOR'S OPTION TO PURCHASE INTERIOR DOORS, FRAMES, AND HARDWARE THROUGH PREFERRED VENDOR. REFER TO SCOPE OF WORK SCHEDULE.
5. PROVIDE SIGN POSTED ON EGRESS SIDE ADJACENT TO DOOR STATING "THIS DOOR TO REMAIN UNLOCKED WHEN THIS SPACE IS OCCUPIED". SIGN CONSTRUCTION TO BE NON-GLARE 1" HIGH WHITE LETTERING ON CONTRASTING BLUE BACKGROUND. LOCATION TO COMPLY WITH ANSI A117.1. MOUNT 48" MINIMUM ABOVE FINISH FLOOR TO BOTTOM OF LOWEST CHARACTER AND 60" MAXIMUM ABOVE FINISH FLOOR TO BOTTOM OF HIGHEST CHARACTER.

LOCKNET
100 COURCHELLE DRIVE
NICHOLASVILLE, KY 40356
CONTACT: PAM PEEL
PHONE 800-887-4307 EXT 133
FAX 859-981-5489
EMAIL: construction@locknet.com

SPECIAL NOTE:
UNLESS OTHERWISE INDICATED, KNOCK DOWN (KD) TYPE DOOR FRAMES ARE NOT PERMITTED.

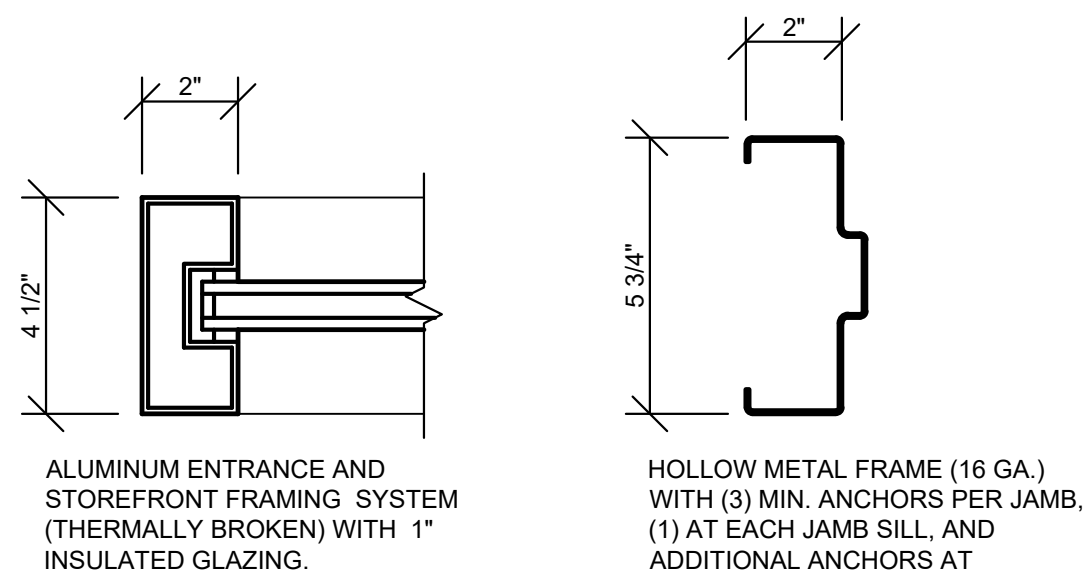
DOOR TYPES

(SCALE 1/4" = 1'-0")



FRAME TYPES

(SCALE 3" = 1'-0")



DOOR HARDWARE SCHEDULE

GENERAL HARDWARE NOTES:
1. ALL HINGED DOOR HARDWARE TO BE COMPLIANT WITH ADA STANDARDS AND GOVERNING ACCESSIBILITY CODES.
A. OPERATIONAL FORCE TO RETRACT LATCHES OR DISENGAGE DEVICES THAT HOLD DOORS IN CLOSED POSITION SHALL BE AS FOLLOWS:
(1). HARDWARE OPERATION BY A FORWARD, PUSHING, OR PULLING MOTION: 15 POUNDS MAXIMUM.
(2). HARDWARE OPERATION BY A ROTATIONAL MOTION: 28 INCH-POUNDS MAXIMUM.

B. HEIGHT OF OPERABLE PARTS SHALL BE 34 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE FLOOR.

C. CLOSING SPEEDS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO AN OPEN POSITION OF 12 DEGREES SHALL BE 5 SECONDS MINIMUM.

D. OPENING FORCE FOR FIRE DOORS, DOORS REQUIRED TO BE EQUIPPED WITH PANIC HARDWARE, BREAK AWAY FEATURES, OR OTHER FACTORS REQUIRING HIGHER OPENING FORCE FOR SAFETY REASONS SHALL HAVE THE MINIMUM OPENING FORCE ALLOWABLE BY AUTHORITIES HAVING JURISDICTION. FOR OTHER DOORS THE FORCE FOR PUSHING OR PULLING SHALL BE AS FOLLOWS:
(1). INTERIOR HINGED DOORS: 5.0 POUNDS MAXIMUM.

2. VERIFY COMPATIBILITY OF HARDWARE SPECIFIED. NOTIFY ARCHITECT OF INCOMPATIBILITY ISSUES PRIOR TO ORDERING AND INSTALLATION.

SET NO. 1 (DR. 1)
1 CYLINDER: 20-062 X 626 - "E" KEYWAY (REMOVABLE CORE).....SCHLAGE

(FOLLOWING REQUIRED HARDWARE FURNISHED WITH WINDOW FRAMING DOOR SYSTEM)
1 PAIR OFFSET PIVOTS: 195/180 X 626.....RIXON
1 DEADLOCK: MS1850S X 628.....ADAMS RITE
1 DEADLOCK LEVER (WITH "LOCKED" AND "OPEN" INDICATOR): 4550MS X 628.....ADAMS RITE
1 STRIKE: MS4002 X 628.....ADAMS RITE
1 SET PUSH / OFFSET PULL: CO-12 X CP-II X 626.....KAWNEER
1 CLOSER: 4040XP-3077-18TJ-TB X 689.....LCN
1 SET PERIMETER GASKETS: 027078 (POLYMERIC BULB) X LENGTH REQUIRED.....KAWNEER
1 SWEEP: 200799 X 689 X LENGTH REQUIRED.....KAWNEER
1 THRESHOLD: 069139 X 689 X LENGTH REQUIRED (OFFSET PIVOT COMPATIBLE) (ANSI & ADA COMPLIANT).....KAWNEER

SET NO. 2 (DR. 2)
1 CONTINUOUS HINGE: 780-112HD X 628 X LENGTH REQUIRED.....HAGER
1 CYLINDER: 20-057 X 626 - "E" KEYWAY (REMOVABLE CORE).....SCHLAGE
1 PROVIDE (2) SECURITY KEYS: (1) CORE KEY, (1) BITTED.....SCHLAGE
1 EXIT PANIC LOCK: 9300B X 486 X 689 X PRTO3 X 630 (THROUGH SEX BOLT MOUNTING).....DORMAKABA
1 CLOSER: 8616DST X FC X SNB1 X 689 (THROUGH SEX BOLT MOUNTING).....DORMAKABA
1 SET PERIMETER GASKETS: 12002 X 1116 X LENGTH REQUIRED.....SCHLEGEL
1 LATCH GUARD: LG1002/SF X 663 (STRAIGHT W/ PIN AND SEX BOLTS).....LATCHGUARD
1 DOOR VIEWER: 898-190 X 626.....IVES
1 KICK PLATE: 190S X 8" X 34" X 630.....HAGER
1 DOOR BOTTOM SEAL: 31321 X 689 X LENGTH REQUIRED.....GLOBAL
1 THRESHOLD: 31206 X 689 X LENGTH REQUIRED.....GLOBAL

SET NO. 3 (DR. 3)
REQUIRED HARDWARE FURNISHED WITH OVERHEAD DOOR SYSTEM (LOCKING FROM INSIDE ONLY)
1 SET PERIMETER GASKETS: 027078 (POLYMERIC BULB) X LENGTH REQUIRED.....KAWNEER
1 SWEEP: 200799 X 689 X LENGTH REQUIRED.....KAWNEER
1 THRESHOLD: 069139 X 689 X LENGTH REQUIRED (OFFSET PIVOT COMPATIBLE) (ANSI & ADA COMPLIANT).....KAWNEER

SET NO. 4 (DR. 4)
3 HINGES: BB1279 X 4 1/2" X 4 1/2" X 626.....HAGER
1 OFFICE LOCK (LEVER HANDLE): AU5307LN X 626.....YALE
1 WALL BUMPER: 409 X 626.....ROCKWOOD
SET NO. 5 (DR. 5, 6)
3 HINGES: BB1279 X 4 1/2" X 4 1/2" X 626.....HAGER
1 PRIVACY LOCK (LEVER HANDLE): AU5302LN X 626.....YALE
1 WALL BUMPER: 409 X 626.....ROCKWOOD

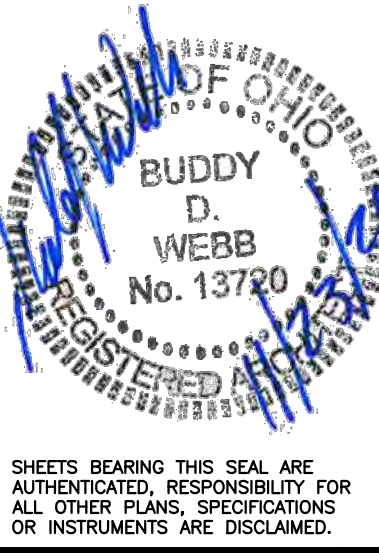
SET NO. 6 (DR. 7)
(FOLLOWING REQUIRED HARDWARE FURNISHED WITH WINDOW FRAMING DOOR SYSTEM)
1 PAIR OFFSET PIVOTS: 195/180 X 626.....RIXON
1 EXIT ONLY PANIC LOCK: 8300B X 486 X SNB X 689.....DORMAKABA
1 CLOSER: 4040XP-3077-18TJ-TB X 689.....LCN
1 SET PERIMETER GASKETS: 027078 (POLYMERIC BULB) X LENGTH REQUIRED.....KAWNEER
1 SWEEP: 200799 X 689 X LENGTH REQUIRED.....KAWNEER
1 THRESHOLD: 069139 X 689 X LENGTH REQUIRED (OFFSET PIVOT COMPATIBLE) (ANSI & ADA COMPLIANT).....KAWNEER

SET NO. 7 (DR. 8)
(FOLLOWING REQUIRED HARDWARE FURNISHED WITH WINDOW FRAMING DOOR SYSTEM)
1 PAIR OFFSET PIVOTS: 195/188 X 626.....RIXON
1 SET PUSH / OFFSET PULL: CO-12 X CP-II X 626.....KAWNEER
1 CLOSER: 4040XP-3077-18TJ-TB X 689.....LCN
1 SET PERIMETER GASKETS: 027078 (POLYMERIC BULB) X LENGTH REQUIRED.....KAWNEER

GENERAL NOTES

- (A) REFER TO PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.
- (B) REFER TO BUILDING CODE SUMMARY FOR PROJECT STRUCTURAL DESIGN CRITERIA. DOOR FRAMING AND ANCHORING SYSTEMS SHALL BE DESIGNED BY MANUFACTURER TO CONFORM TO PERFORMANCE AND TESTING REQUIREMENTS SPECIFIED.
- (C) REFER TO FLOOR PLAN, ELEVATIONS, AND SECTIONS FOR ADDITIONAL REQUIREMENTS.
- (D) REFER TO EXTERIOR AND INTERIOR FINISH SCHEDULES FOR COLORS. PERIMETER SEALANT COLOR TO MATCH FRAME COLOR UNLESS OTHERWISE INDICATED.

FIRM ARCHITECTURAL REGISTRATION
NO.: 20314259



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O'Reilly AUTO PARTS
CORPORATE OFFICES
538 SOUTH PATTERSON
ST. LOUIS, MISSOURI 63102
(417) 882-2874 TELEPHONE

PROJECT:
NEW O'REILLY AUTO PARTS STORE
301 NORTH MAIN STREET
MONROE, OHIO
DOOR SCHEDULE

Buddy Webb & Company, Inc.
Architect - Consultant
3057 EAST CAIRO
SPRINGFIELD, MISSOURI 65802
(417) 877-1385 TELEPHONE
(417) 877-9736 FAX

DRAWN BY: RHV CHECKED BY: SB

DATE: 11/23/21

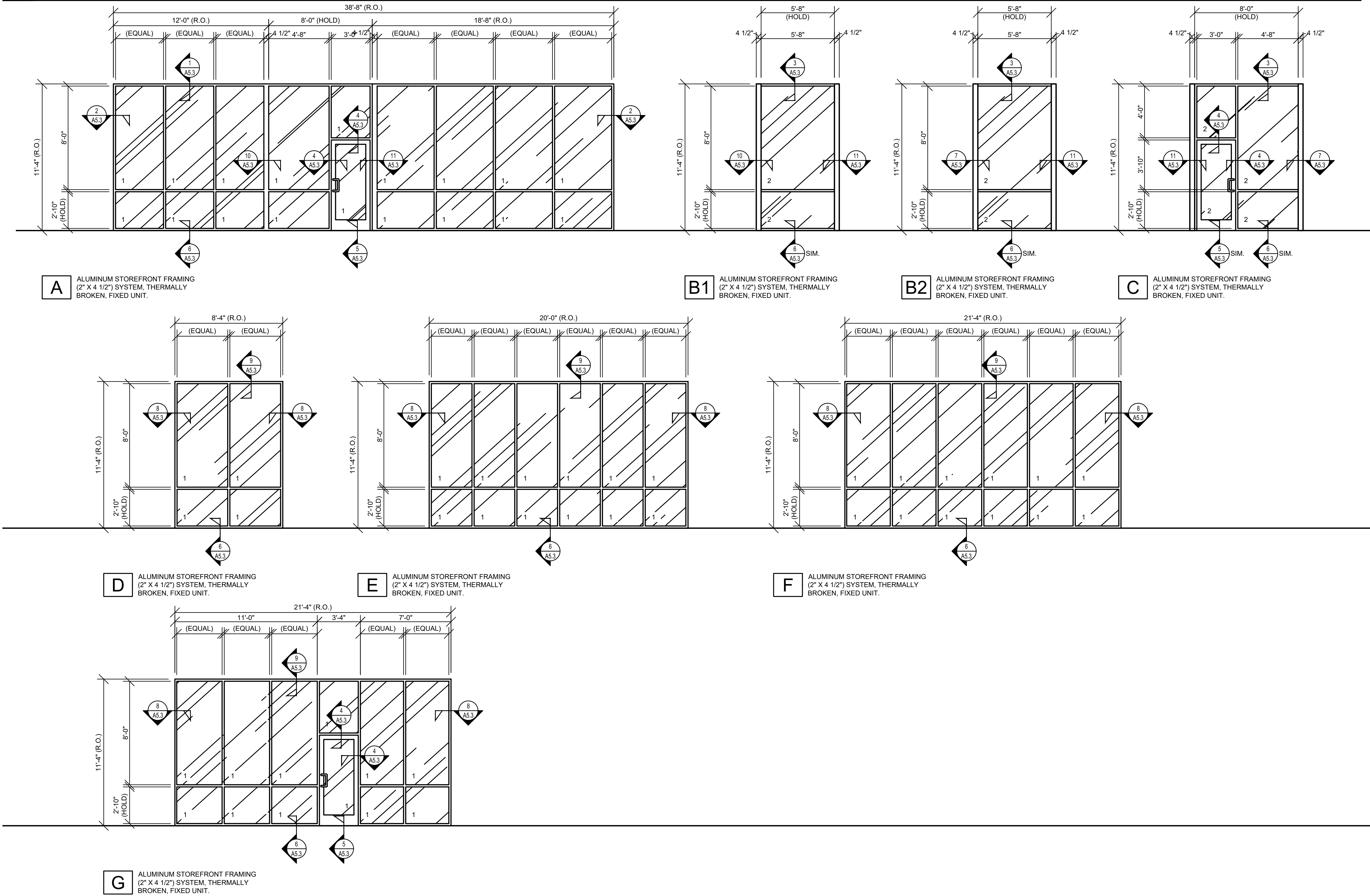
REVISION:

PROJECT NUMBER: MNO

SHEET NUMBER

A5.1

WINDOW TYPES



GENERAL NOTES

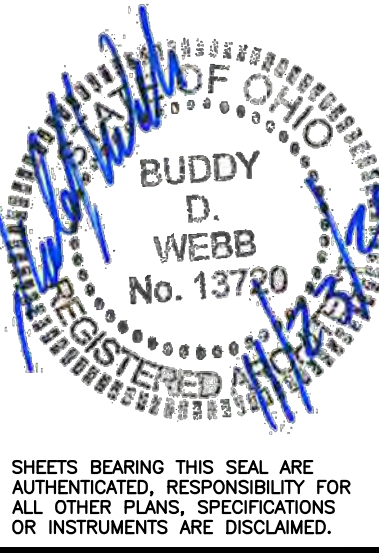
- A** REFER TO PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.
- B** REFER TO BUILDING CODE SUMMARY FOR PROJECT STRUCTURAL DESIGN CRITERIA. WINDOW FRAMING AND ANCHORING SYSTEMS SHALL BE DESIGNED BY MANUFACTURER TO CONFORM TO PERFORMANCE AND TESTING REQUIREMENTS SPECIFIED.
- C** REFER TO FLOOR PLAN, ELEVATIONS, AND SECTIONS FOR ADDITIONAL REQUIREMENTS.
- D** WINDOW TYPE ELEVATIONS SHOWN VIEWED FROM EXTERIOR SIDE.
- E** REFER TO EXTERIOR FINISH SCHEDULES FOR ALUMINUM WINDOW FRAMING COLORS. PERIMETER SEALANT COLOR TO MATCH WINDOW FRAMING COLOR UNLESS OTHERWISE INDICATED.
- F** ALL DIMENSIONS TO ROUGH FACE OF FRAMING UNLESS OTHERWISE INDICATED. FIELD VERIFY FINAL ROUGH OPENINGS PRIOR TO FABRICATION.
- G** REFER TO DOOR AND HARDWARE SCHEDULES FOR ADDITIONAL REQUIREMENTS.
- H** SECURITY SHUTTERS MAY BE REQUIRED. CONTACT PROJECT ADMINISTRATOR FOR VERIFICATION. (REFER TO SCOPE OF WORK SCHEDULE). PROVIDE ADDITIONAL SUPPORT FRAMING SYSTEM AS REQUIRED.
- I** WHEN WIND SPEED IS EQUAL TO OR GREATER THAN 120 MPH, A STORM PANEL SYSTEM SHALL BE OWNER FURNISHED AND INSTALLED. CONTACT PROJECT ADMINISTRATOR TO VERIFY AND COORDINATE WITH SYSTEM PROVIDED BY OTHERS. (REFER TO SCOPE OF WORK SCHEDULE). PROVIDE ADDITIONAL SUPPORT FRAMING SYSTEM AS REQUIRED.
- J** CONTRACTOR'S OPTION TO DIRECT ORDER AND PURCHASE WINDOW FRAMING SYSTEM AND GLAZING FROM THE FOLLOWING SUPPLIER (REFER TO SCOPE OF WORK SCHEDULE):

COULTER & COMPANY
13711 E. 66TH ST. N.
OWASSO, OK. 74055
PHONE: (918) 272-4494
FAX: (918) 272-7908
EMAIL: carl@coulterglass.com
CONTACT: Carl Yorman

GLAZING SCHEDULE

- 1** 1" INSULATED SAFETY GLAZING (1/4" VITRO "SOLAR-COOL (2) AZURIA" EXTERIOR PANE / 1/2" AIR SPACE / 1/4" CLEAR INTERIOR PANE) SHADING COEFFICIENT 0.29
- 2** 1/4" SAFETY GLAZING

FIRM ARCHITECTURAL REGISTRATION
NO.: 20314259



O'Reilly AUTO PARTS
CORPORATE OFFICES
535 SOUTH PATTERSON
ST. LOUIS, MISSOURI 63102
(417) 882-2874 TELEPHONE

PROJECT:
NEW O'REILLY AUTO PARTS STORE
301 NORTH MAIN STREET
MONROE, OHIO

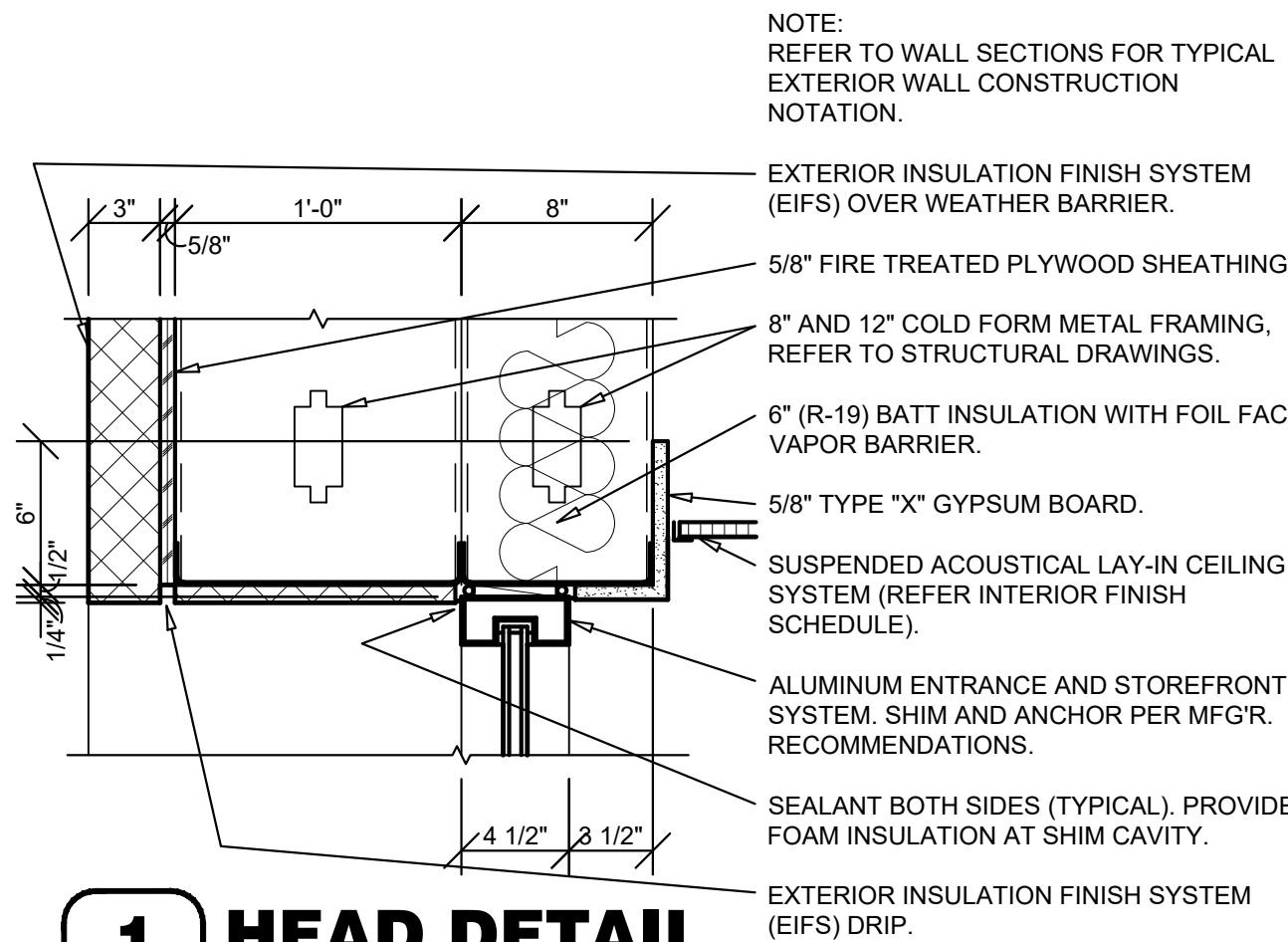
WINDOW SCHEDULE

Buddy Webb & Company, Inc.
Architect - Consultant
3057 EAST CAIRO
SPRINGFIELD, MISSOURI 65802
(417) 877-1385 TELEPHONE
(417) 877-9736 FAX

DRAWN BY: **RHV** CHECKED BY: **SB**
DATE: **11/23/21**
REVISION:

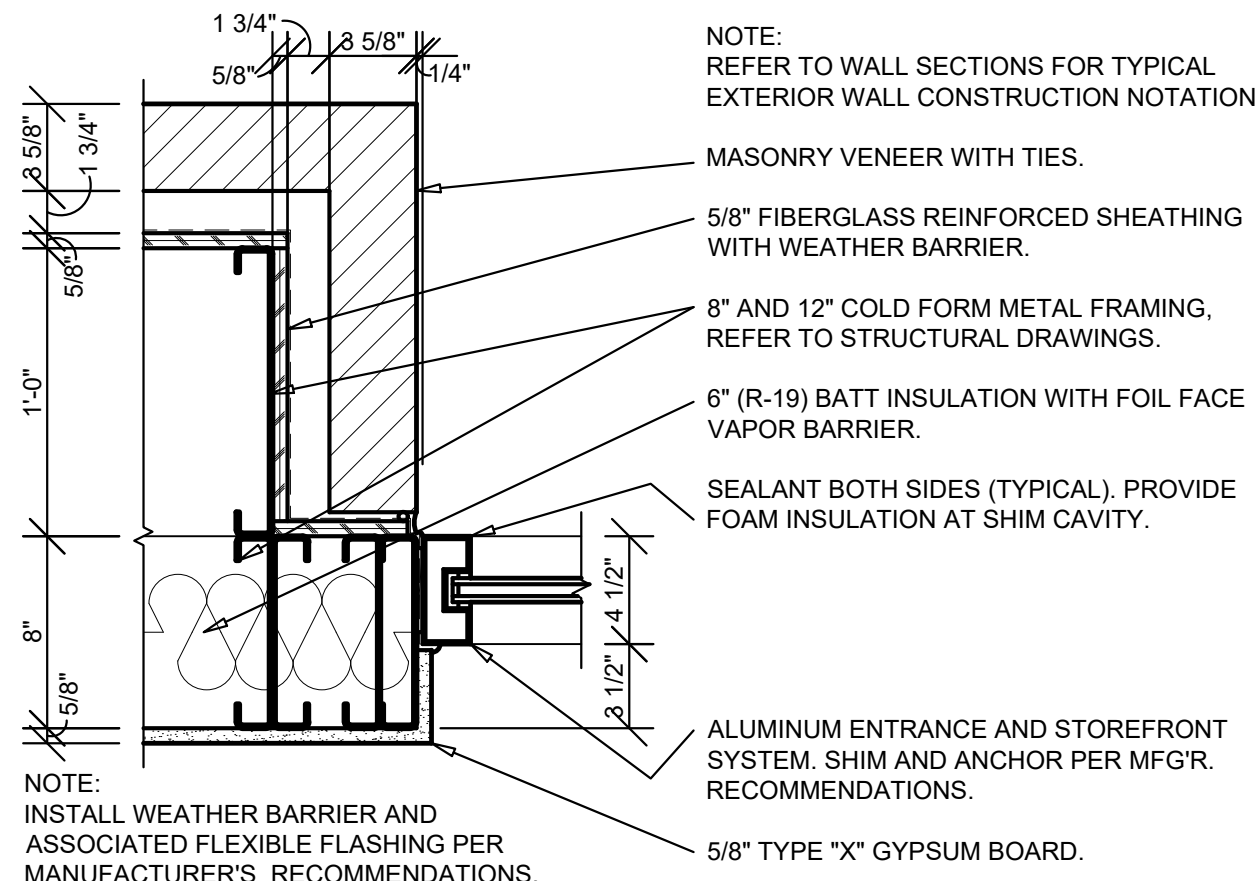
PROJECT NUMBER:
MNO
SHEET NUMBER

A5.2



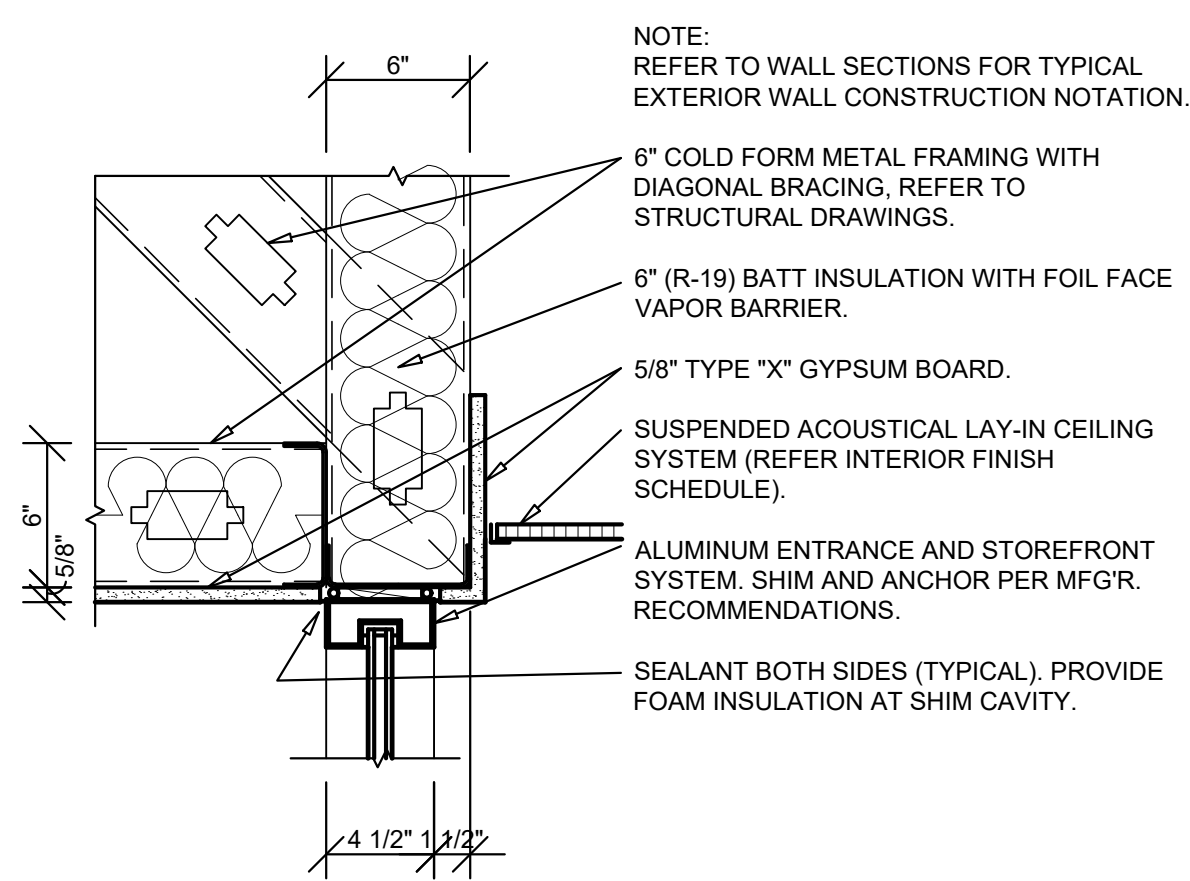
1 HEAD DETAIL

A5.3 SCALE: 1 1/2" = 1'-0"



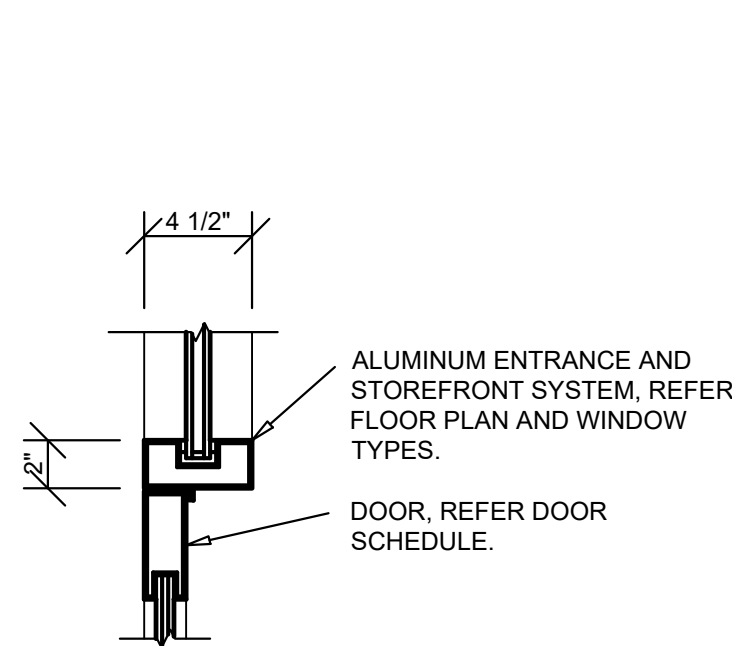
2 JAMB DETAIL

A5.3 SCALE: 1 1/2" = 1'-0"



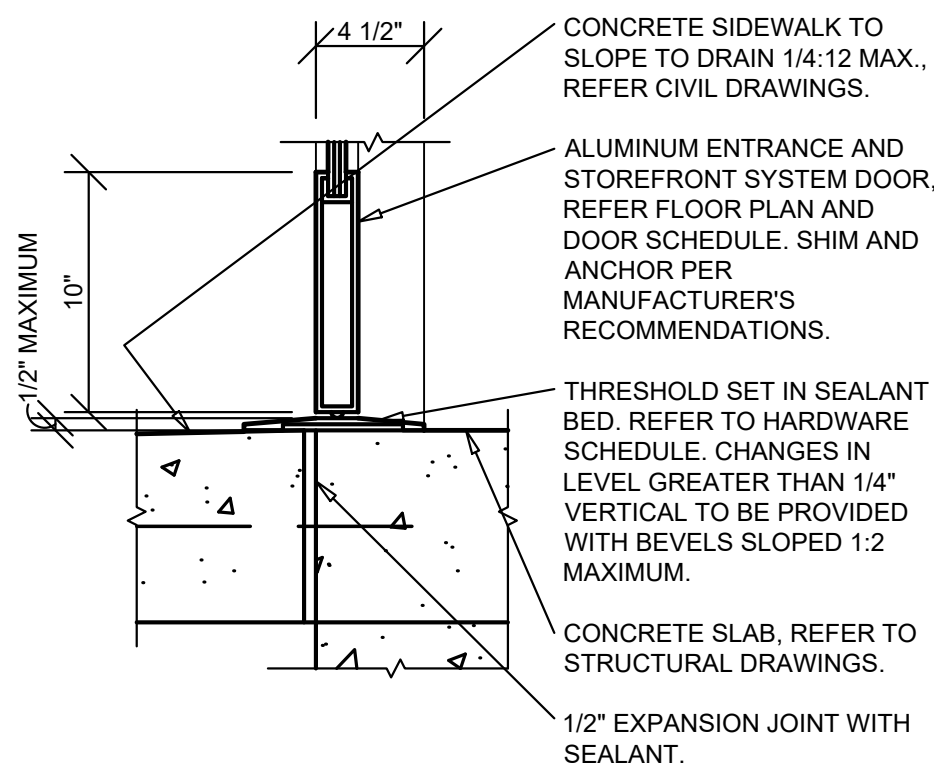
3 HEAD DETAIL

A5.3 SCALE: 1 1/2" = 1'-0"



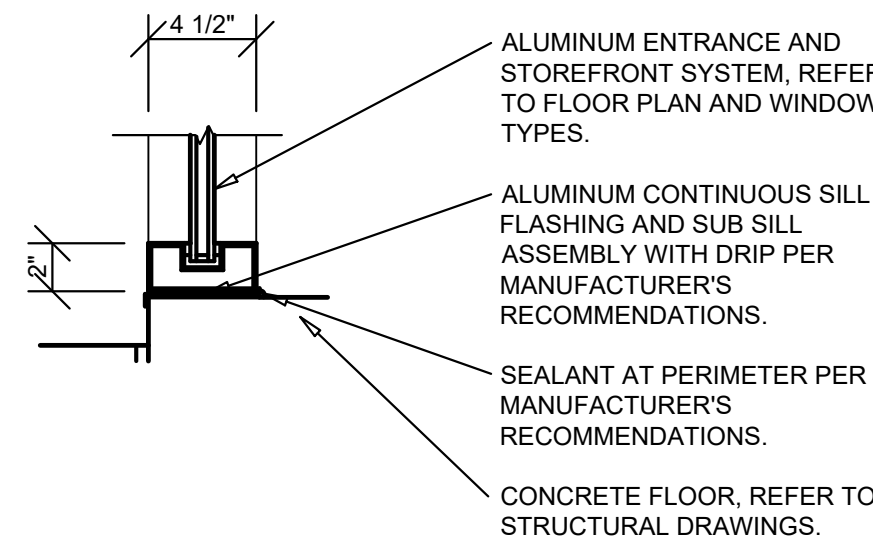
4 HEAD / JAMB DETAIL

A5.3 SCALE: 1 1/2" = 1'-0"



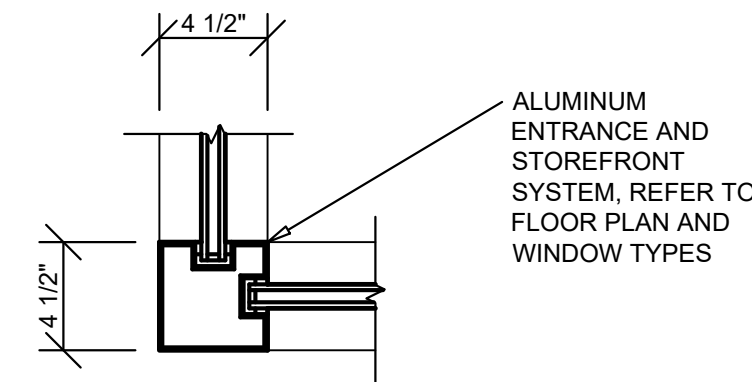
5 SILL DETAIL

A5.3 SCALE: 1 1/2" = 1'-0"



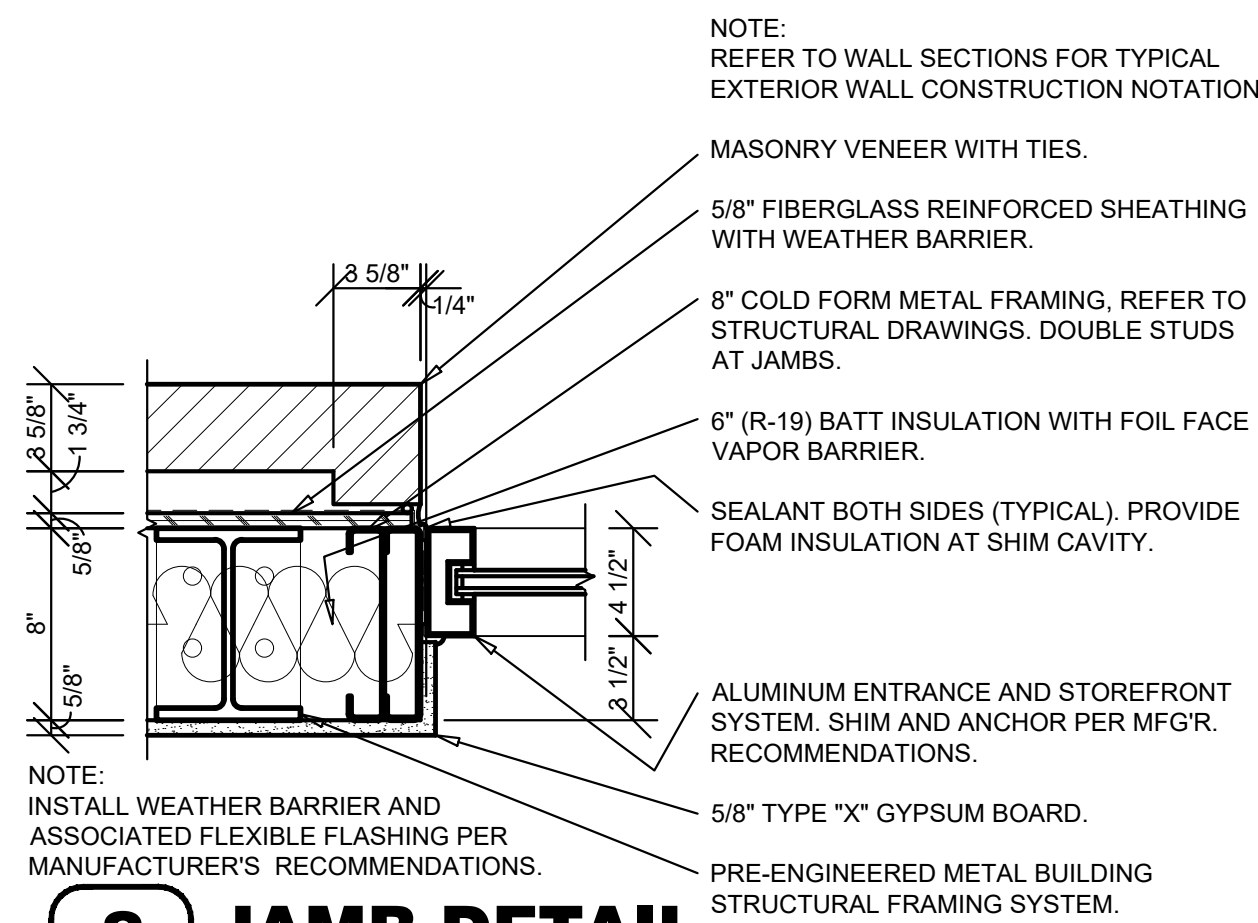
6 SILL DETAIL

A5.3 SCALE: 1 1/2" = 1'-0"



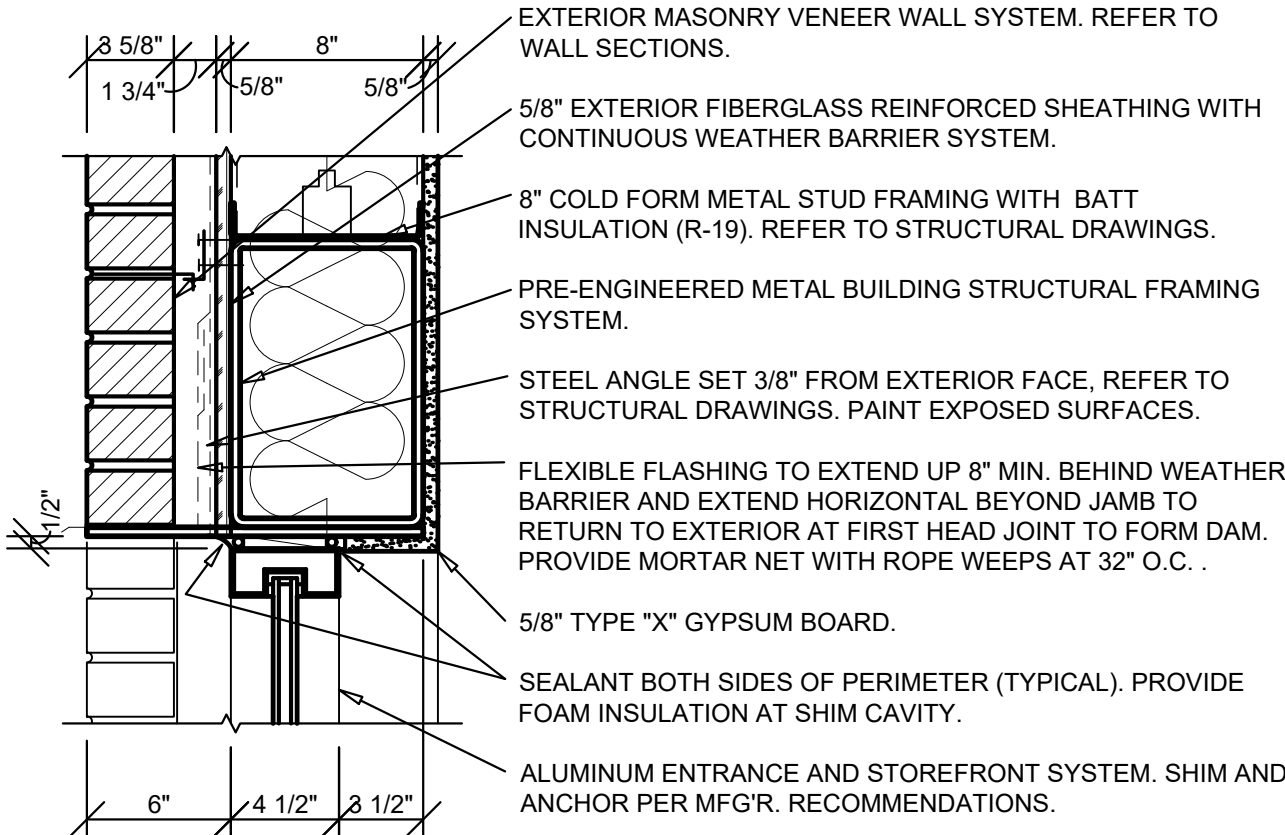
7 JAMB DETAIL

A5.3 SCALE: 1 1/2" = 1'-0"



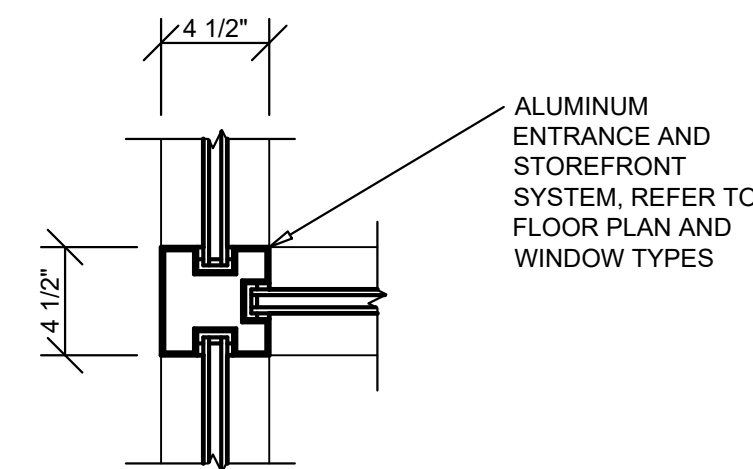
8 JAMB DETAIL

A5.3 SCALE: 1 1/2" = 1'-0"



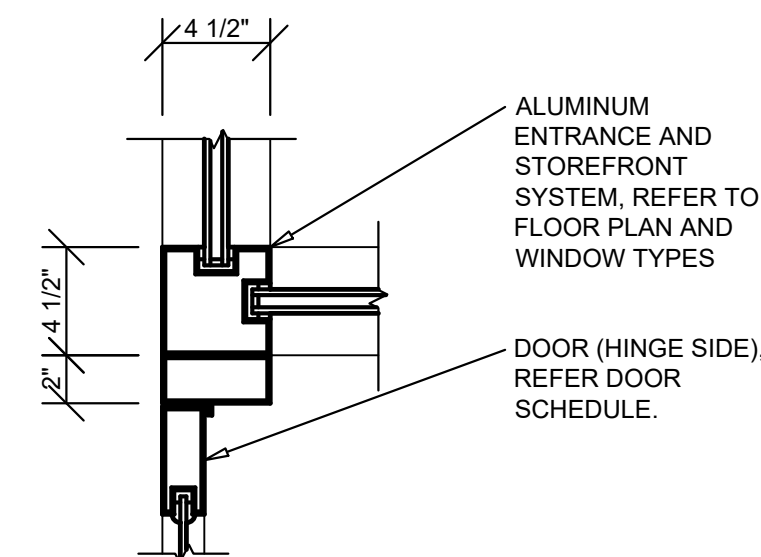
9 HEAD DETAIL

A5.3 SCALE: 1 1/2" = 1'-0"



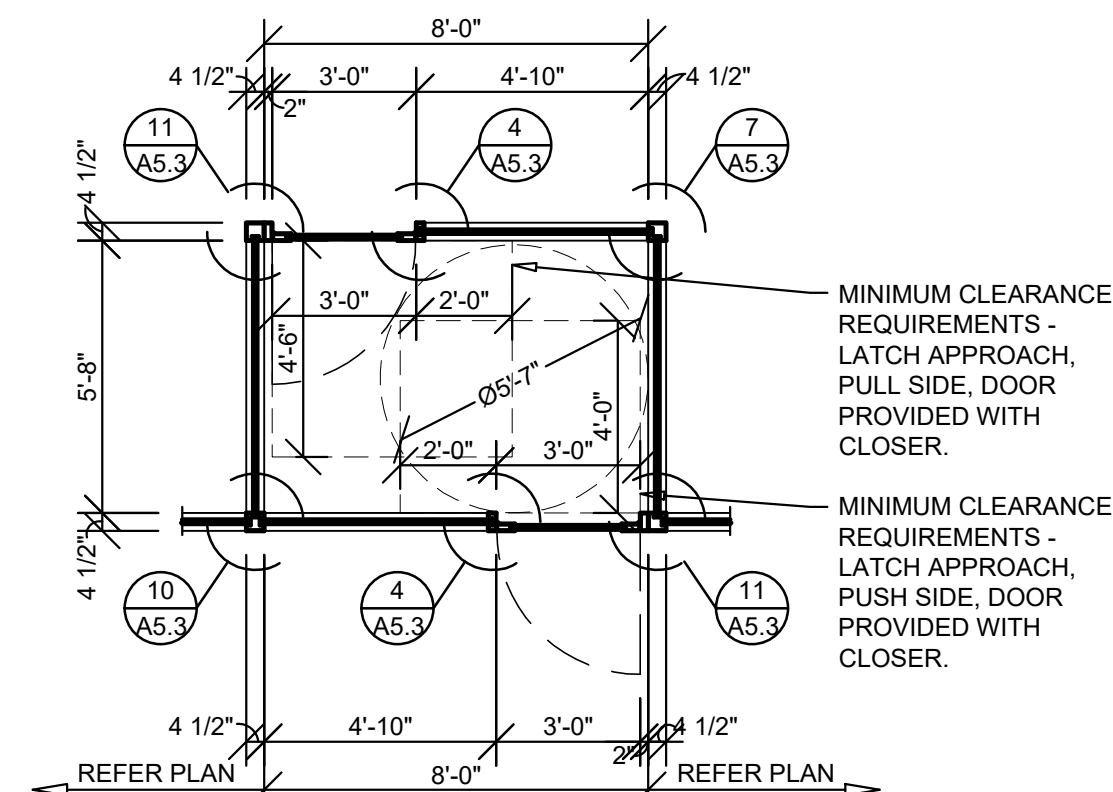
10 JAMB DETAIL

A5.3 SCALE: 1 1/2" = 1'-0"



11 JAMB DETAIL

A5.3 SCALE: 1 1/2" = 1'-0"



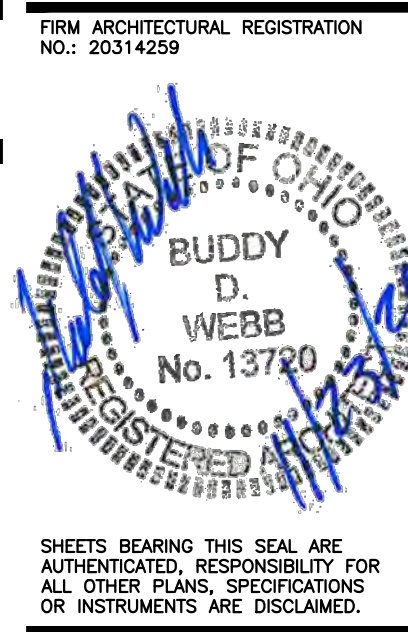
12 VESTIBULE ENLARGE PLAN

A5.3 SCALE: 1/4" = 1'-0"

GENERAL NOTES

- A REFER TO PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.
- B REFER TO BUILDING CODE SUMMARY FOR PROJECT STRUCTURAL DESIGN CRITERIA. WINDOW FRAMING AND ANCHORING SYSTEMS SHALL BE DESIGNED BY MANUFACTURER TO CONFORM TO PERFORMANCE AND TESTING REQUIREMENTS SPECIFIED.
- C REFER TO FLOOR PLAN, ELEVATIONS, AND SECTIONS FOR ADDITIONAL REQUIREMENTS.
- D WINDOW TYPE ELEVATIONS SHOWN VIEWED FROM EXTERIOR SIDE.
- E REFER TO EXTERIOR FINISH SCHEDULES FOR ALUMINUM WINDOW FRAMING COLORS. PERIMETER SEALANT COLOR TO MATCH WINDOW FRAMING COLOR UNLESS OTHERWISE INDICATED.
- F ALL DIMENSIONS TO ROUGH FACE OF FRAMING UNLESS OTHERWISE INDICATED. FIELD VERIFY FINAL ROUGH OPENINGS PRIOR TO FABRICATION.
- G REFER TO DOOR AND HARDWARE SCHEDULES FOR ADDITIONAL REQUIREMENTS.
- H SECURITY SHUTTERS MAY BE REQUIRED. CONTACT PROJECT ADMINISTRATOR FOR VERIFICATION. (REFER TO SCOPE OF WORK SCHEDULE). PROVIDE ADDITIONAL SUPPORT FRAMING SYSTEM AS REQUIRED.
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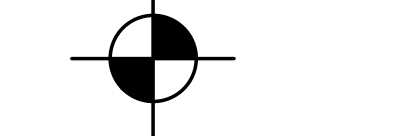


O'Reilly AUTO PARTS
CORPORATE OFFICES
535 SOUTH PATTERSON
ST. LOUIS, MISSOURI 63102
(417) 882-2874 TELEPHONE

PROJECT:
NEW O'REILLY AUTO PARTS STORE
301 NORTH MAIN STREET
MONROE, OHIO

WINDOW DETAILS

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Architect - Consultant
3057 EAST CAIRO
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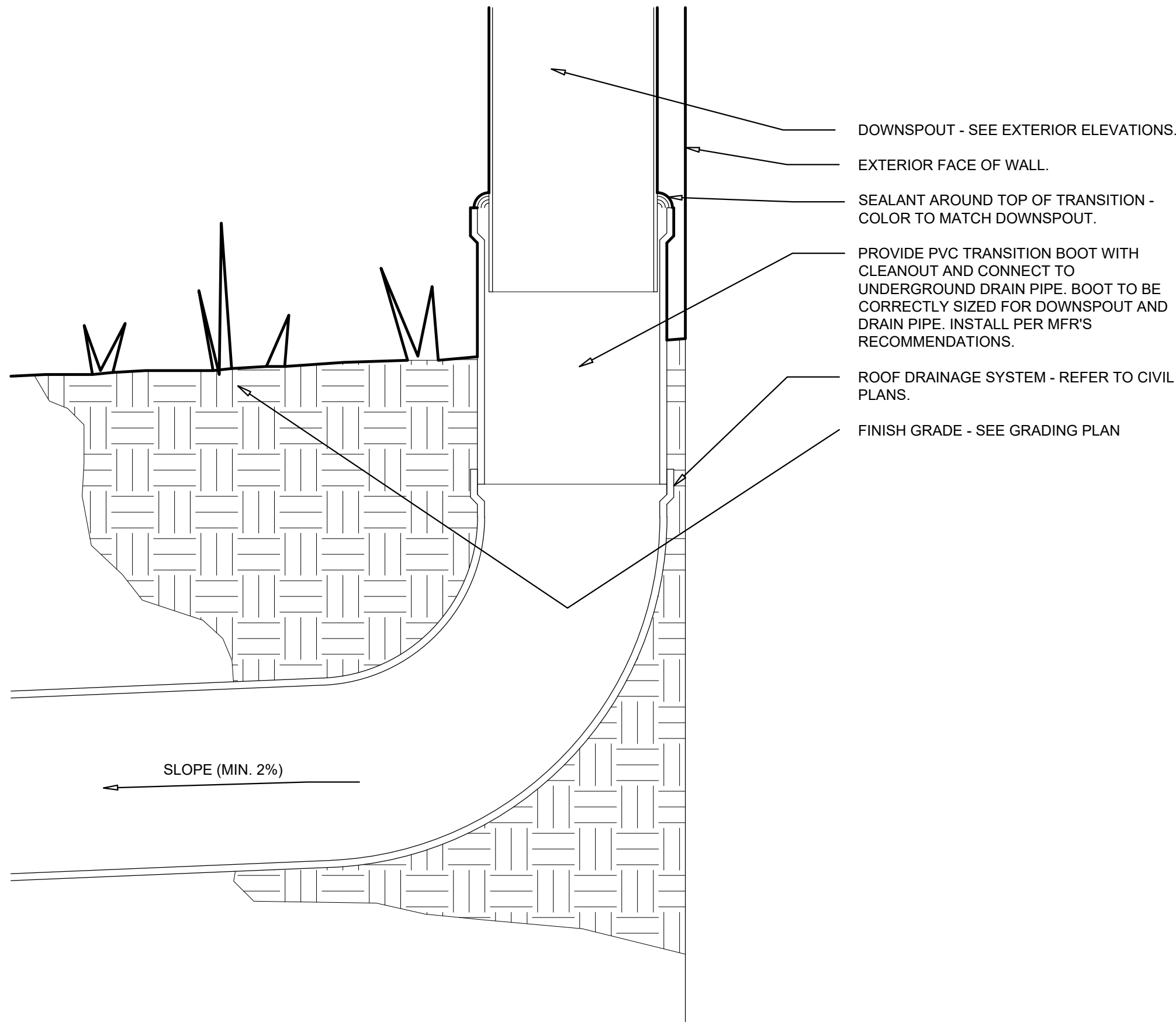


DRAWN BY: **RHV** CHECKED BY: **SB**
DATE: **11/23/21**
REVISION:

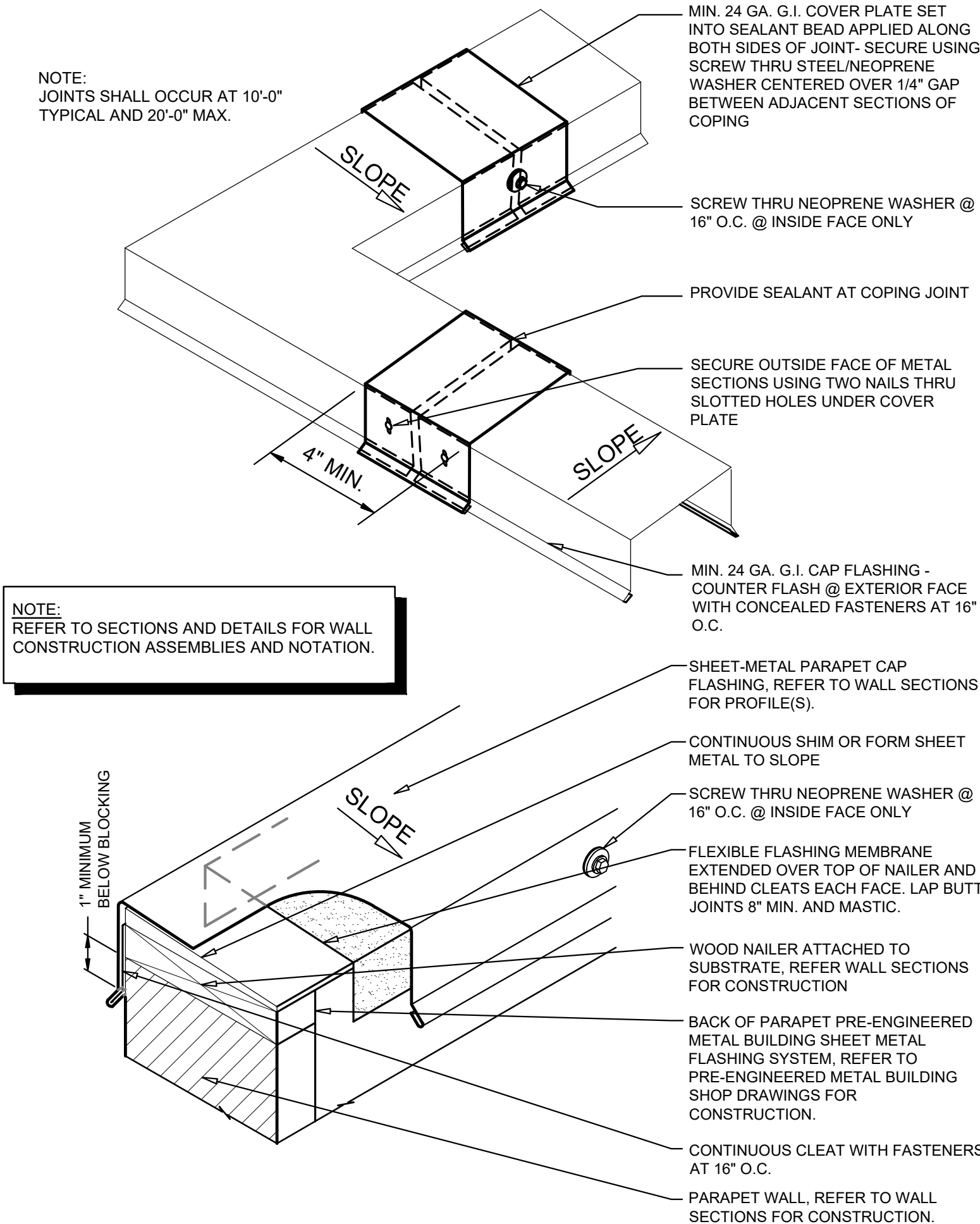
PROJECT NUMBER:
MNO

SHEET NUMBER

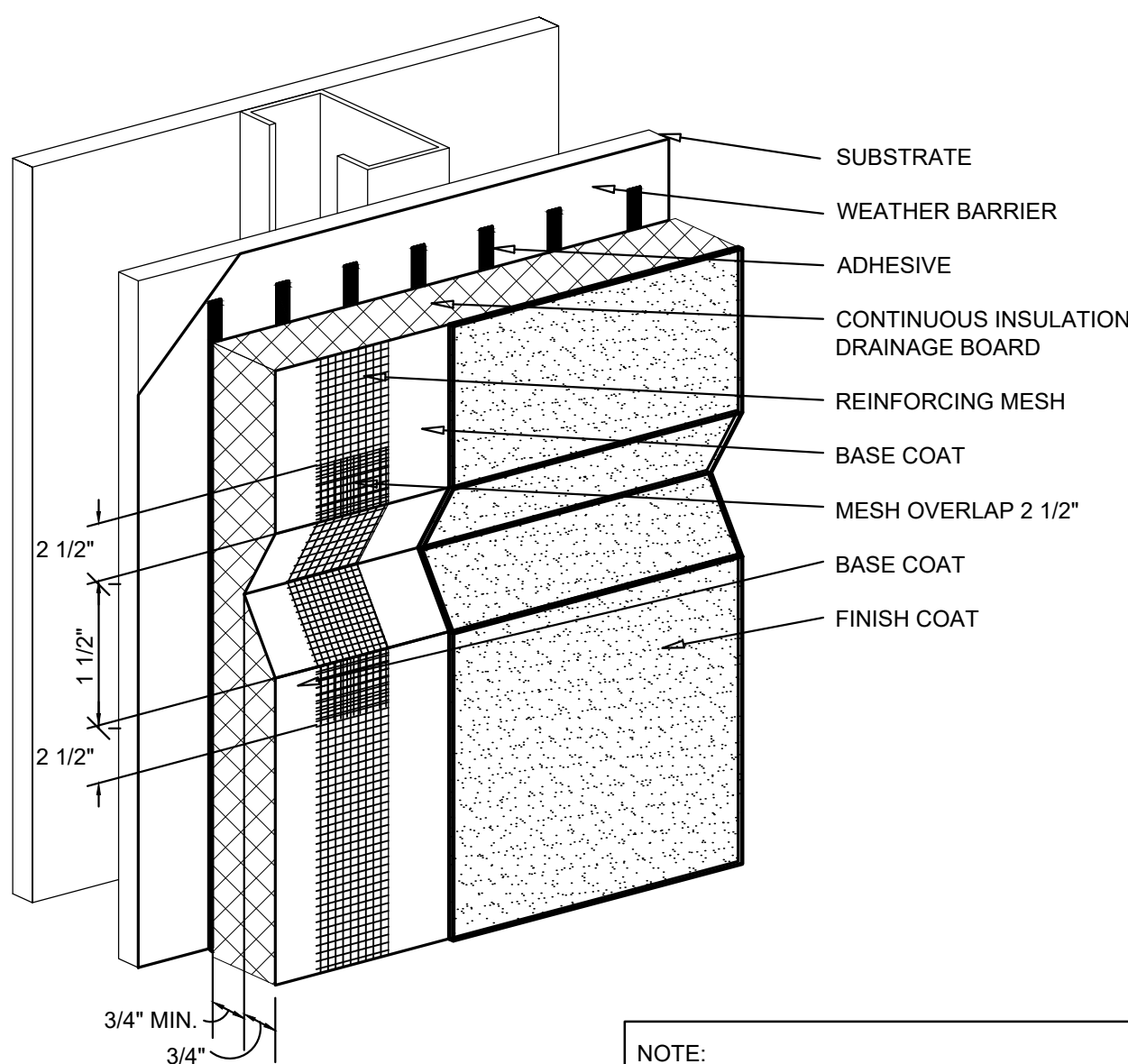
A5.3



1 DOWNSPOUT COLLECTION SYSTEM SECTION
A6.1 SCALE: N.T.S.



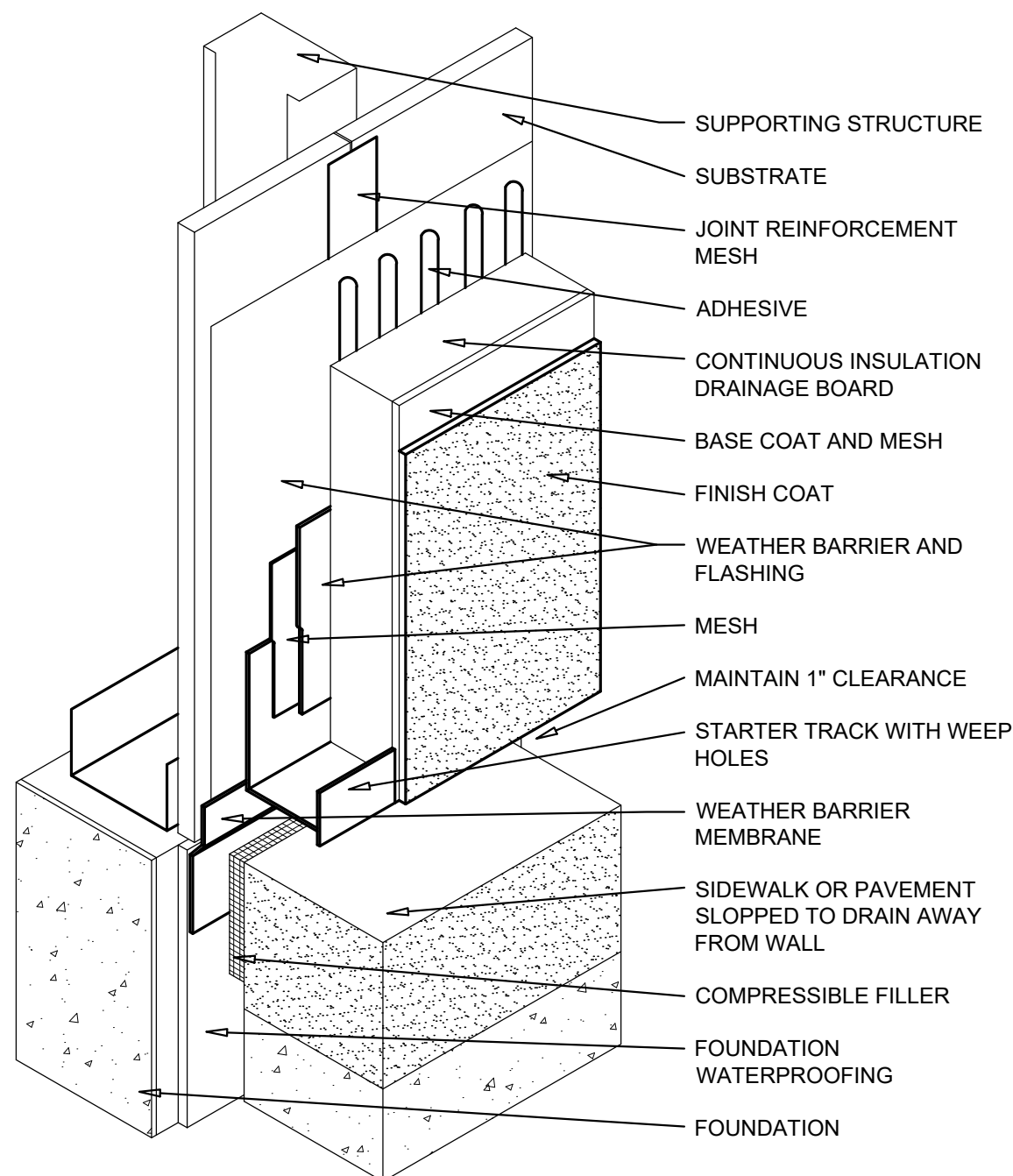
2 TYPICAL COPING FLASHING DETAIL
A6.1 SCALE: N.T.S.



NOTE:
REFER TO SECTIONS AND DETAILS FOR WALL CONSTRUCTION ASSEMBLIES AND NOTATION.

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

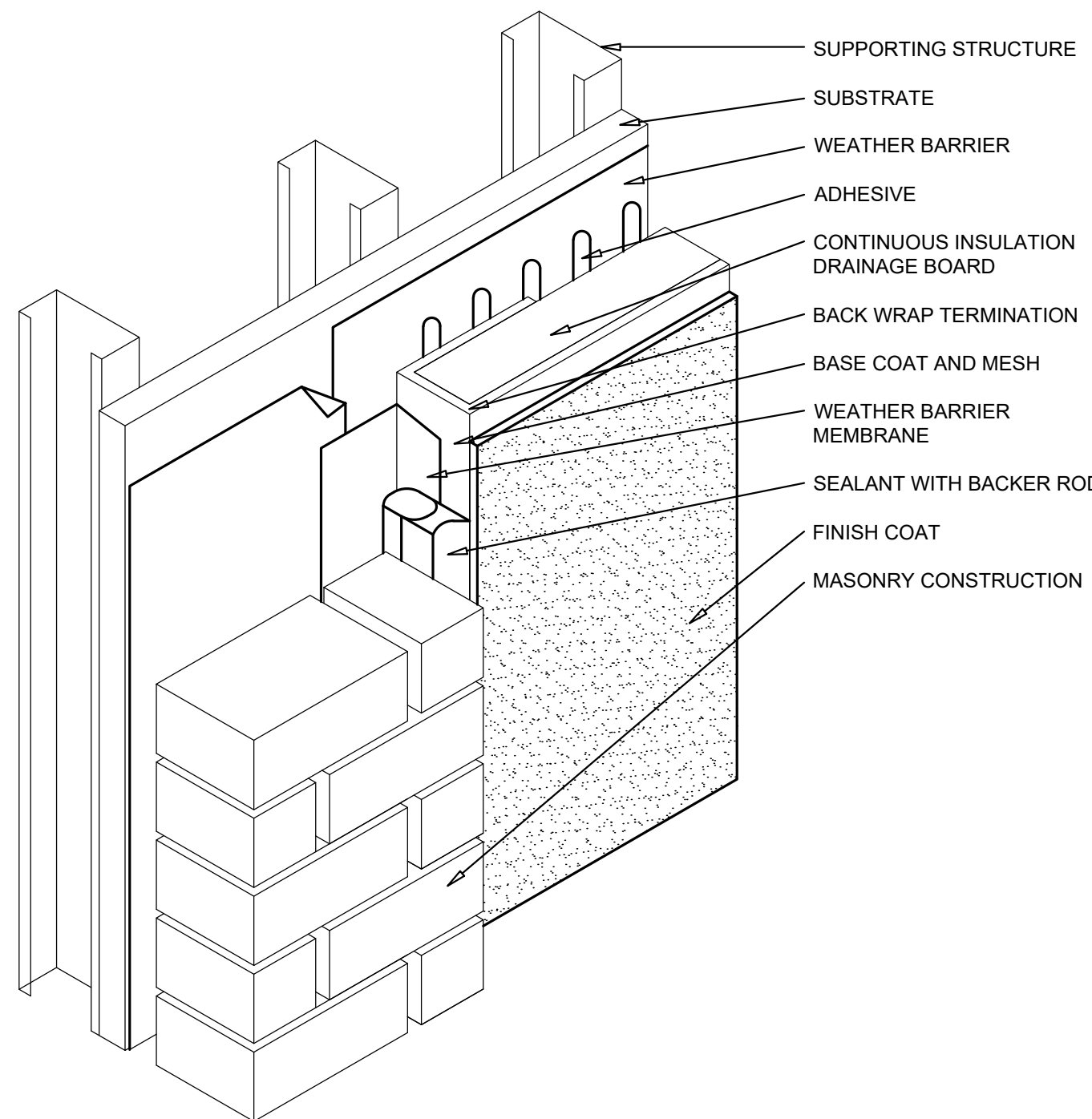
3 EIFS DECORATIVE JOINT DETAIL
A6.1 SCALE: N.T.S.



NOTE:
REFER TO SECTIONS AND DETAILS FOR WALL CONSTRUCTION ASSEMBLIES AND NOTATION.

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

4 EIFS TERMINATION DETAIL
A6.1 SCALE: N.T.S.



NOTE:
REFER TO SECTIONS AND DETAILS FOR WALL CONSTRUCTION ASSEMBLIES AND NOTATION.

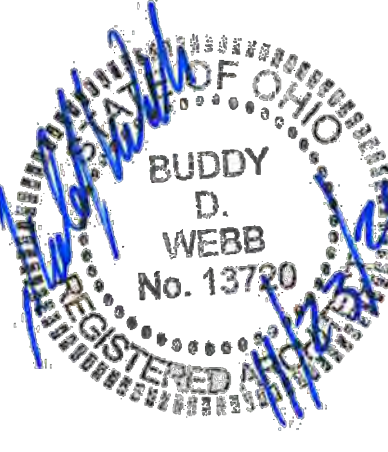
NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

5 EIFS TERMINATION DETAIL
A6.1 SCALE: N.T.S.

GENERAL NOTES

- (A) REFER TO PROJECT MANUAL AND SCOPE OF WORK SCHEDULE FOR ADDITIONAL REQUIREMENTS.
- (B) SHEET METAL AND ROOFING CONSTRUCTION SHALL COMPLY WITH NATIONAL ROOFING CONTRACTORS ASSOCIATION (NRCA) AND SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION (SMACNA) DESIGN STANDARDS AND RECOMMENDATIONS.

FIRM ARCHITECTURAL REGISTRATION
NO.: 20314259



SHEETS BEARING THIS SEAL ARE AUTHENTICATED. RESPONSIBILITY FOR ALL OTHER PLANS, SPECIFICATIONS OR INSTRUMENTS ARE DISCLAIMED.

O'Reilly AUTO PARTS
CORPORATE OFFICES
232 SOUTH PATTERSON
SPRINGFIELD, MISSOURI 65802
(417) 882-2874 TELEPHONE

PROJECT:
NEW O'REILLY AUTO PARTS STORE
301 NORTH MAIN STREET
MONROE, OHIO

EXTERIOR DETAILS

Buddy Webb & Company, Inc.
Architect - Consultant
3057 EAST CAIRO
SPRINGFIELD, MISSOURI 65802
(417) 877-1385 TELEPHONE
(417) 877-9736 FAX

DRAWN BY: **RHV** CHECKED BY: **SB**
DATE: **11/23/21**
REVISION:

PROJECT NUMBER:
MNO
SHEET NUMBER

A6.1

EXTERIOR LIGHT FIXTURE SCHEDULE															
ALL ITEMS LISTED ON THE "LIGHT FIXTURE SCHEDULE" WILL BE SUPPLIED BY THE OWNER (O'REILLY). ITEMS SHALL BE DIRECT ORDERED AND OR RELEASED FROM THE LISTED ELECTRICAL EQUIPMENT DISTRIBUTOR:				SOURCEONE SOLUTIONS 2081 EXCHANGE DRIVE ST. CHARLES, MO 63303				SOURCEONE SOLUTIONS O'REILLY TEAM EMAIL: ncoreilly@sourceonesolutions.com PHONE: 314-499-6400							
MARK	MFR.	CATALOG NUMBER	SUPPLY VOLTAGE	FINISH	MOUNTING		LAMPS			WATTAGE	NOTES	FIXTURE QUANTITY			
					SURFACE WALL	SURF. CEILING	OTHER	FLUORESCENT	LED				OTHER	QUANTITY	
									TYPE						TYPE
LED EXTERIOR LIGHTS															
WS1	LSI	XWM-FT-LED-06L-50-UE-BRZ NO SUBSTITUTIONS	120	DARK BRONZE	X			X	1	45	FULL CUT-OFF, BUG RATING B1-U0-G1. ARCHITECTURAL ELEVATIONS SHOW DIMENSIONED LOCATIONS.	6			
WSP	LSI	XWM-FT-LED-06L-50-UE-BRZ-PCI120 NO SUBSTITUTIONS	120	DARK BRONZE	X			X	1	45	FULL CUT-OFF, BUG RATING B1-U0-G1. ARCHITECTURAL ELEVATIONS SHOW DIMENSIONED LOCATIONS.	1			
LED POLE LIGHTS															
P1	LSI	MRM-LED-18L-SIL-FT-UNV-DIM-50-70CRI-BRZ-IL	120	DARK BRONZE			X	X	1	135	25' POLE LENGTH, ADVANCE BALLASTS, FULL CUT-OFF, NO SUBSTITUTIONS. ANCHOR BOLTS W/HARDWARE & TEMPLATE. WITH INTERNAL LOUVER HOUSE SIDE SHIELD, BUG RATING B2-U0-G3	3			
	LSI	5SQB3-S11G-25-S-BRZ-LAB-5BC													
FIXTURE QUANTITY TO BE VERIFIED WITH SITE PLAN QUANTITY															

BACKLIGHT-UGLIGHT-GLARE (BUG) RATING / FULL CUTOFF

ALL "LSI MRM" & "XWM" LED FIXTURES HAVE ZERO UPLIGHT AND ARE CONSIDERED FULL CUT OFF AND DARKSKY COMPLIANT. THE DELIVERED LUMEN CHART BELOW APPLIES TO "LSI XWM" FIXTURES AND CONFIRMS THAT IN EVERY CONFIGURATION THE FIXTURE PRODUCES ZERO UPLIGHT (U = 0). BUG RATING CHART FOR "LSI MRM" FIXTURES IS FOUND ON CORRESPONDING "SP" SHEETS.

DELIVERED LUMENS*															
Lumen Package	Distribution	CRI	2700K			3000K			4000K			5000K			Wattage
			Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
Q3L	2	70	2703	120	B1-U0-G1	2822	125	B1-U0-G1	3088	137	B1-U0-G1	3088	137	B1-U0-G1	22.6
	3	70	2752	122	B1-U0-G1	2873	127	B1-U0-G1	3144	139	B1-U0-G1	3144	139	B1-U0-G1	
	FT	70	2718	120	B1-U0-G1	2838	126	B1-U0-G1	3105	137	B1-U0-G1	3105	137	B1-U0-G1	
O4L	2	70	3546	120	B1-U0-G1	3702	125	B1-U0-G1	4051	137	B1-U0-G1	4051	137	B1-U0-G1	29.5
	3	70	3610	122	B1-U0-G1	3769	128	B1-U0-G1	4124	140	B1-U0-G1	4124	140	B1-U0-G1	
	FT	70	3565	121	B1-U0-G1	3722	126	B1-U0-G1	4073	138	B1-U0-G1	4073	138	B1-U0-G1	
O6L	2	70	5274	118	B2-U0-G2	5506	123	B2-U0-G2	6025	135	B2-U0-G2	6025	135	B2-U0-G2	44.7
	3	70	5369	120	B1-U0-G1	5606	125	B1-U0-G1	6134	137	B1-U0-G2	6134	137	B1-U0-G2	
	FT	70	5303	119	B1-U0-G2	5536	124	B1-U0-G2	6058	136	B1-U0-G2	6058	136	B1-U0-G2	
O8L	2	70	6996	113	B2-U0-G2	7304	118	B2-U0-G2	7993	129	B2-U0-G2	7993	129	B2-U0-G2	62.0
	3	70	7123	115	B1-U0-G2	7437	120	B1-U0-G2	8138	131	B2-U0-G2	8138	131	B2-U0-G2	
	FT	70	7035	113	B1-U0-G2	7345	118	B2-U0-G2	8037	130	B2-U0-G2	8037	130	B2-U0-G2	
12L	2	70	10516	103	B2-U0-G2	10979	107	B3-U0-G3	12014	118	B3-U0-G3	12014	118	B3-U0-G3	102.2
	3	70	10707	105	B2-U0-G2	11178	109	B2-U0-G2	12232	120	B2-U0-G2	12232	120	B2-U0-G2	
	FT	70	10574	103	B2-U0-G3	11040	108	B2-U0-G3	12080	118	B2-U0-G3	12080	118	B2-U0-G3	

AUTOMATIC LIGHTING CONTROL

COMPLIANCE WITH ENERGY CODE IS ACHIEVED BY:

- ONCE THE EMS HAS BEEN PROGRAMMED, THE INTERIOR AND EXTERIOR LIGHTS WILL TURN ON AND OFF USING THE FOLLOWING LOGIC: SEE EM SHEETS.

INTERIOR WORK LIGHTS WILL TURN ON WITH FIRST MOTION IN THE STORE AND WILL TURN OFF 15 MINUTES AFTER LAST MOTION ONCE THE STORE IS CLOSED.

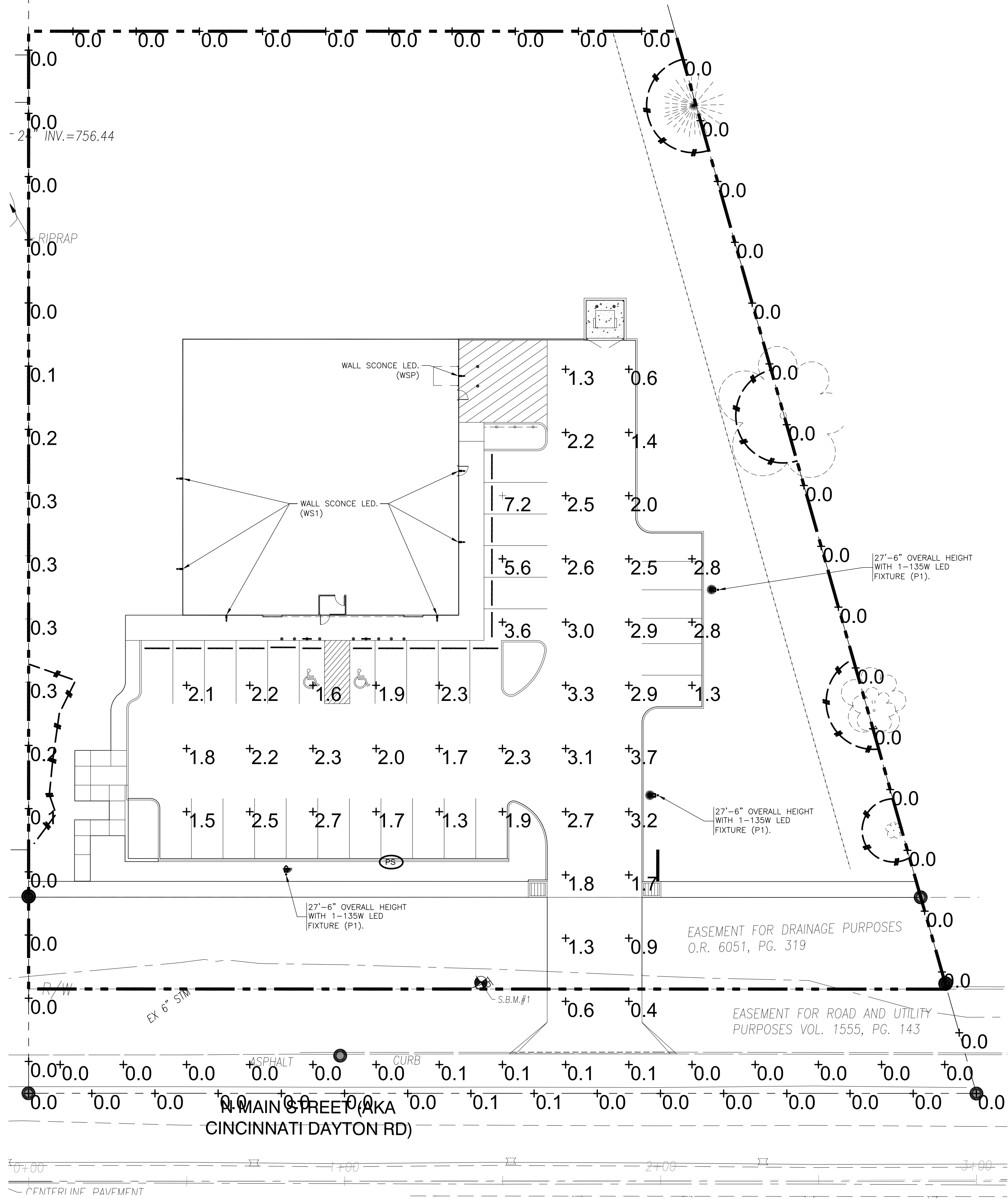
INTERIOR SALES LIGHTS WILL TURN ON AT STORE OPENING AND TURN OFF 15 MINUTES AFTER STORE CLOSING.

EXTERIOR SIGN LIGHTS WILL TURN ON WHEN ITS DARK ENOUGH OUTSIDE ANYTIME DURING STORE HOURS, AND WILL TURN OFF AT STORE CLOSING.

EXTERIOR SITE LIGHTS WILL TURN ON WHEN IT IS DARK ENOUGH OUTSIDE AND IT IS WITHIN STORE HOURS OR THERE IS MOTION IN THE STORE. THEY WILL TURN OFF 30 MINUTES AFTER LAST MOTION ONCE THE STORE IS CLOSED.

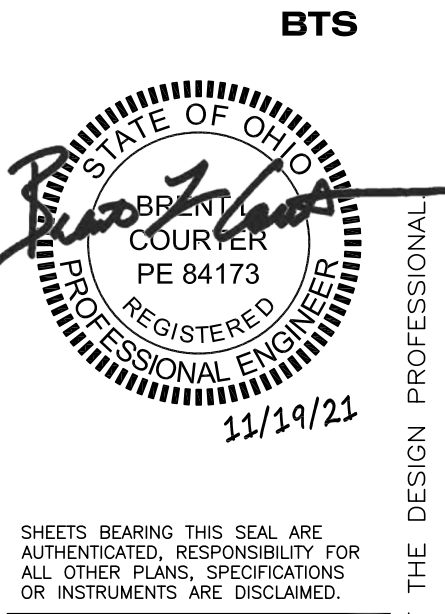
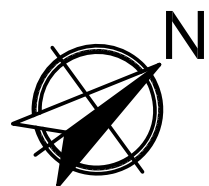
FOR NEW CONSTRUCTION LOCATIONS ONLY, THERE IS A TEMPORARY PROGRAM TO KEEP SIGN AND SITE LIGHTS ON UNTIL MIDNIGHT RATHER THAN THE TIMES INDICATED ABOVE. O'REILLY WILL DISABLE THIS PROGRAM ONE YEAR AFTER STORE OPENING.

- RESTROOMS AND OFFICES: ALL LIGHTING IN THESE AREAS ARE CONTROLLED BY OCCUPANT-SENSING DEVICES.



SITE LIGHTING PHOTOMETRICS

SCALE: 1"=20'



O'Reilly AUTO PARTS
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233 SOUTH PATTERSON
SPRINGFIELD, MISSOURI 65802
(417) 862-2674 TELEPHONE

PROJECT:
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301 NORTH MAIN STREET
MONROE, OHIO
SITE LIGHTING PHOTOMETRICS

3855 S. JEFFERSON AVE.
SPRINGFIELD, MO 65807
P: 417-862-2650
F: 417-862-2650
WWW.SMTGOTH.COM



DRAWN BY: **JTH** CHECKED BY: **ALT/BLC**

DATE: **11/19/21**

REVISION:

PROJECT NUMBER: **MNO**

SHEET NUMBER

SP1



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233 SOUTH PATTERSON
SPRINGFIELD, MISSOURI 65802
(417) 862-2674 TELEPHONE**

SITE LIGHTING DETAILS

	Catalog #: Prepared By: _____ Date: _____ Type: _____	Project: _____ 
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Mirada Medium (MRM)

Outdoor LED Area Light






IP66 IK08

OVERVIEW	
Lumen Package	7000 - 48,000
Wattage Range	48 - 401
Efficacy range (LPW)	117 - 160
Weight (lbs/kg)	30 (13.6)

FEATURES & SPECIFICATIONS

Construction

- Rugged die-cast aluminum housing contains factory prewired driver and optical cast. Aluminum wiring access door located underneath.
- Designed to mount to square or round poles.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Shipping weight: 37 lbs in carton.

Optical System

- State-of-the-Art one piece silicone optic shield delivers industry leading optical control with an integrated gasket to provide IP66 rated sealed optical chamber in 1 piece component.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in IES Types 2, 3, 5W, FT, FTA and AM.
- Silicone optical material does not yellow or crack with age and provides a smooth light transmission of 93%.
- Zero uplight.
- Available in 5000K, 4000K, and 3000K color temperatures per ANSI C78.377. Also Available in Phosphor Converted Amber with Peak intensity at 610nm.
- Minimum CR of 70.
- Integral louvers (LL) and house-side shield (HL) options available for improved backlight control without sacrificing street side performance. See page 3 for more details.

Electrical

- High-performance programmable driver features over-voltage, under-voltage, short-circuit and over temperature protection. Custom lumen and wattage packages available.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz or optional High Voltage Input 480-480 Vac).
- L80 Rated Life: 100k Hours (See Lumen Maintenance on Page 5)
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F). 42L and 48L lumen packages rated to +40°C.
- Power factor: >90.
- Input power stays constant over life.
- Field replaceable 10KV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High efficiency LEDs mounted to metal-core circuit board to maximize heat dissipation
- Components are fully enclosed in potting material for moisture resistance. Driver complies with FCC standards. Driver key electronic components can easily be accessed.

Controls

- Optional integral passive infrared Bluetooth™ motion and photocell sensor (see page 9 for more details)
- Fixtures operate independently and can be commissioned via iOS or Android configuration app.
- LSI's AirLink™ wireless control system options reduce energy and maintenance costs while optimizing light quality 24/7. (see page 9 for more details).

QUICK LINKS

Ordering Guide	Performance	Photometrics	Dimensions
--------------------------------	-----------------------------	------------------------------	----------------------------

Installation

- Designed to mount to square or round poles.
- A single fastener secures the hinged door, underneath the housing and provides quick & easy access to the electrical compartment.
- Included terminal block accepts up to 12 gauge wires.
- Utilizes LSI's traditional "J" drill pattern B3 for easy fastening of LSI products. (See drawing on page 9)

Warranty

- LSI LED Fixtures carry a 5-year warranty.

Listings

- Listed to UL 1598 and UL 8750.
- Meets Bay Area American City requirements.
- DA compliant: with 5000K color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet Locations.
- IP66 rated Luminaire per IEC 60598.
- 3C rated for ANSI C136.34 high vibration applications are qualified.
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/DPL to confirm which versions are qualified.
- Patented Silicone Optics (US Patent NO. 10,616,165 B2)
- IK08 rated luminaire per IEC 60662 mechanical impact code

Specifications and dimensions subject to change without notice



LSI Industries Inc., 10000 Alameda Rd, Cincinnati, OH 45242 • www.lsicorp.com
 (513) 372-3200 • ©2020 LSI Industries Inc. All Rights Reserved. Specifications subject to without notice.
sales@lsicorp.com

*high 1/8 inch dia./hole
 spec. listed as .125

Catalog #:

Project:

Prepared By:

Date:

Type:

Mirada Medium Wall Sconce (XWM)

Outdoor LED Wall Sconce

IK08

OVERVIEW	
Lumen Range	3,000 - 12,000
Wattage Range	23 - 102
Efficacy Range (LPW)	107 - 140
Weight lbs/kg	30 (13.6)

FEATURES & SPECIFICATIONS

Construction

- Rugged die-cast aluminum housing contains factory prewired driver and optical lens. Hinged die-cast aluminum wiring access door located underneath.
- Galvanized-steel universal wall mount brackets come standard with hinging mechanism to easily access the junction box wire connections without removing the luminaire.
- Optional pole-mounting bracket (XPKMA) permits mounting to standard poles.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Shipping weight: 30 lbs in carton.

Optical System

- State-of-the-Art one piece silicone optic shell delivers industry leading optical efficiency with an integrated gasket to provide IP65 rated sealed optical chamber in 1 year warranty.
- Proprietary silicone refractor optics provide exceptional beam and uniformity in Types 2, 3, and Forward Throw (FT) distributions.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 95%.
- Zero uplight.
- Available in 5000K, 4000K and 3000K color temperatures per ANSI C78-377. Also Available in Phosphor Coated Amber with Peak Intensity at 610nm.
- Minimum CR of 70.

Electrical

- High performance programmable driver

QUICK LINKS

[Ordering Guide](#)

[Performance](#)

[Photometrics](#)

[Dimensions](#)

- features over-voltage, under-voltage, short-circuit and over temperature protection. Custom lumen and wattage packages available.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input/50/60 Hz or optional High Voltage (347-600 Vac).
- L80 eCalcTM Life: >100k Hours
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F).
- Power factor: >0.90
- Input power stays constant over life.
- Optional 10KV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficiency LEDs mounted to metal-core circuit board to maximize heat dissipation
- Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed via hinged door.
- Optional integral emergency battery pack provides 90-minutes of constant power to the LED system, ensuring code compliance.
- The select switch/button control is installed on the housing for ease of maintenance. The fixture delivers 1500 lumens during emergency mode.

Controls

- Integral passive Infrared Bluetooth™ motion and photocell sensor options. Fixtures operate independently and can be commissioned via an iOS or Android configuration app. Updates and modifications to the control strategy are easily implemented via an intuitive app.
- LSI's AcLiM™ Blue lighting control system is a simple flexible blue wireless Bluetooth

mesh network. The integrated fixture sensor module provides wireless control of grouped fixtures based on motion sensors, daylight or a fully customizable schedule.

Installation

- Universal wall mounting plate easily mounts directly to 4" octagonal or square junction box.
- 2 fasteners secure the hinged door underneath the housing and provide quick & easy access to the electrical compartment for installing/servicing.
- Optional terminal block accepts up to 12 ga wires.

Warranty

- LSI LED Fixtures carry a 5-year warranty.
- 1 Year warranty on Battery Back-up option.

Listings

- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- IDA compliant: with 3000K or lower color temperature selection.
- Title 24 compliant: see local ordinance for qualification information.
- Suitable for wet Locations.
- IP65 rated luminaires per IEC 60598.
- 3G tested for ANSI C136.31 high vibration applications when pole mounted (using optional XPKMA bracket) or wall mounted.
- IK08 rated luminaire per IEC 66622
- No mechanical impact code
- DesignLights Consortium (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/DLC to confirm which versions are qualified.

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SPCL-304-XWM

Type:

Mirada Medium Outdoor LED Light

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ORDERING GUIDE

TYPICAL ORDER EXAMPLE: **MRM LED 36L SIL FTA UV DIM 50 70CR1 ALSCSD4 BRZ IL**

Luminaires Profile	Light Source	Lenses Package	Light Output	Distribution	Orientation*	Voltage	Order
MRM - Mirada	LED	TL - 7,000 lms R - 9,000 lms 1X - 12,000 lms 2X - 18,000 lms 2XL - 24,000 lms 3XL - 30,000 lms 3SL - 36,000 lms 4XL - 48,000 lms Custom Lenses Package†	SIL - Silhouette	2 - Type 2 3 - Type 3 SW - Type 5 Wide FT - Forward Throw FTM - Forward Throw Automotive AM - Automotive Beam	(Blank) - standard L - Optics rotated left 90° R - Optics rotated right 90°	UVW - Universal Voltage (115-277V) HW - High Voltage (240-480V)	DM - 0-10V Dimming (0-10V) D - 0-10V Dimming (0-10V)
Color Temp	Color Rendering	Finish	Options				
SP - 5,000 CCT 40 - 4,000 CCT 40 - 4,000 CCT AMS - Phosphor Converted Amber®	70CRI - 70 CRI	BLK - Black GRY - Dark Bronze DMZ - Dark Metal Gray OPF - Opaline MSV - Metallic Silver PLP - Platinum Plus SVC - Semi-Venetic Green WHT - White	(Blank) - None IM - Integral Homogeneous Shield† IL - Integral Lumen (Sharp Light Cutoff)†				

Controls (Choose One)

(Blank) - None

Wireless Control Systems

ALSC - All-in-One Simplex Control System with 100' Span†
ALSC4 - All-in-One Simplex Control System with 100' Span†
ALSC4S - All-in-One Simplex Control System with 100' Span†
ALSC4S2 - All-in-One Simplex Control System with 100' Span†
ALSC4S3 - All-in-One Simplex Control System with 100' Span†
ALSC4S4 - All-in-One Simplex Control System with 100' Span†
ALSC4S5 - All-in-One Simplex Control System with 100' Span†
ALSC4S6 - All-in-One Simplex Control System with 100' Span†
ALSC4S7 - All-in-One Simplex Control System with 100' Span†
ALSC4S8 - All-in-One Simplex Control System with 100' Span†
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ALSC4S94 - All-in-One Simplex Control System with 100' Span†
ALSC4S95 - All-in-One Simplex Control System with 100' Span†
ALSC4S96 - All-in-One

Type: _____

Mirada Wall Sconce (XWM)

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ORDERING GUIDE

TYPICAL ORDER EXAMPLE: **XWM 2 LED 03L 30 UE BRZ ALSC**

Luminaire Prefix	Distribution	LED Technology	Lumen Package	Color Temperature	Voltage
XWM - Mirada Medium Wall Sconce	2 - Type 2 3 - Type 3 FT - Type 4 Forward Throw	LED	3L - 3,000 lms 4L - 4,000 lms 6L - 6,000 lms 8L - 8,000 lms 12L - 12,000 lms Custom Lumen Package*	2B - 2000K 4B - 4000K 2B - 2000K 4B - 4000K AMB - Phosphor Converted Amber†	UE - Universal Voltage (110-277V) HV - High Voltage (347-480V)

Finish	Controls (Cheese One)	Options
BLK - Black BRZ - Dark Bronze GNP - Gun Metal Gray GPT - Graphite MSF - Matte Silver PLP - Platinum Plus SWG - Satin White Green WST - White	Wireless Control ALSC - Active Sympex Control System ALSC20R - Act Link Sympex Control System with 8-17' Motion Sensor ALSC30 - Act Link Sympex Control System with 17-30' Motion Sensor ALSC31 - Act Link Bio Wireless Motion & Photo Sensor Control (8-24' mounting height) ALSC32 - Act Link Bio Wireless Motion & Photo Sensor Control (25-47' mounting height) Standard Controls DMR - 15-30' dimming lights, add-on to housing exterior IMSBT1 - Integral Bluetooth® Motor and Photocell Sensor max 8-24' mounting height † IMSBT2 - Integral Bluetooth® Motor and Photocell Sensor max 25-47' mounting height † Button-Touch Photocell PC120 - 120V PC208-277 - 208-277V PC347 - 347V Lumen/Lightweight Controls LLC - Limited light Integral Wireless Radio Control by Lutron® LLCS1 - Limited light Integral Wireless Radio Control and PIR Motion† Daylight Sensor by Lutron 8-15' mt height† LLCS2 - Limited light Integral Wireless Radio Control and PIR Motion† Daylight Sensor by Lutron 16-30' mt height† LLCS3 - Limited light Integral Wireless Radio Control and PIR Motion† Daylight Sensor by Lutron 31-47' mt height†	BB - Battery Back-up (P/C) CWV - Custom Weather Battery Backup (P/C)† KPM - Pole Mounting Bracket SP1 - 1/4W Surge Protection TR - Terminal Block

ACCESSORY ORDERING INFORMATION†

Description	Order Number	Description	Order Number
XWM SW BLK - Surface Wiring Box (Available in black only)	306915BLK	DFK - Double Fasting	DFK20B†
FK120 - Single Fasting	FKC20†	DFK - Double Fasting (240V)	DFK24P†
FK277 - Single Fasting	FKC27†	DFK - Double Fasting (480V)	DFK48B†
FK347 - Single Fasting	FKC34†	10' Linear Bend Spike Kit (2' Recommended per Luminaire)	751632

FOOTNOTES:

- Not available in 6L Lumen Package. Consult factory for lead time and availability.
- Not available in HV.
- Contact Factory for Site Layout.
- IMSBT is field configurable via the LSI app that can be downloaded from your smartphone's native app store.
- Fusing must be located in a hand hole for pole or in the junction box.
- Custom Lumen and wattage packages available contact factory. Values are within industry standard tolerances but not DULC listed.
- Accessories are shipped separately and field installed.

Luminaire Shown with IMSBT

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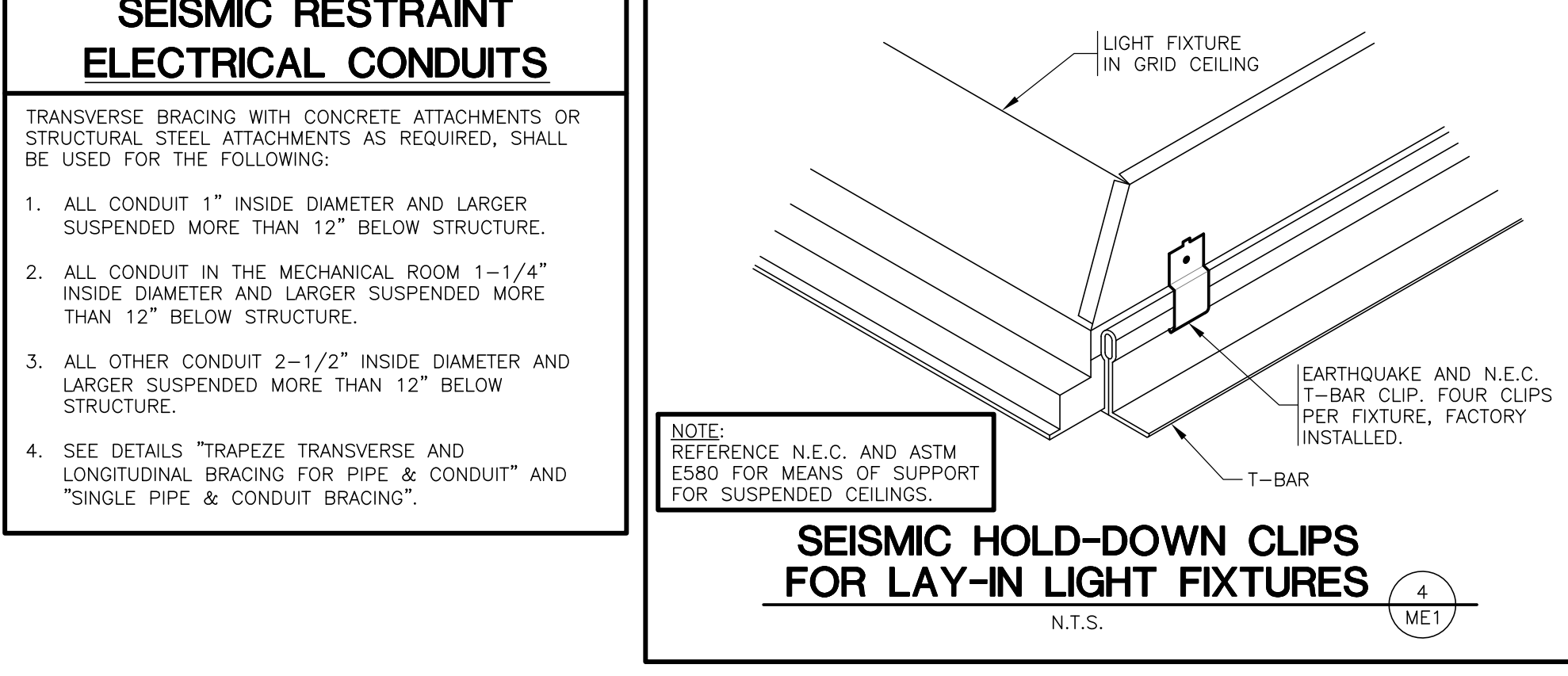
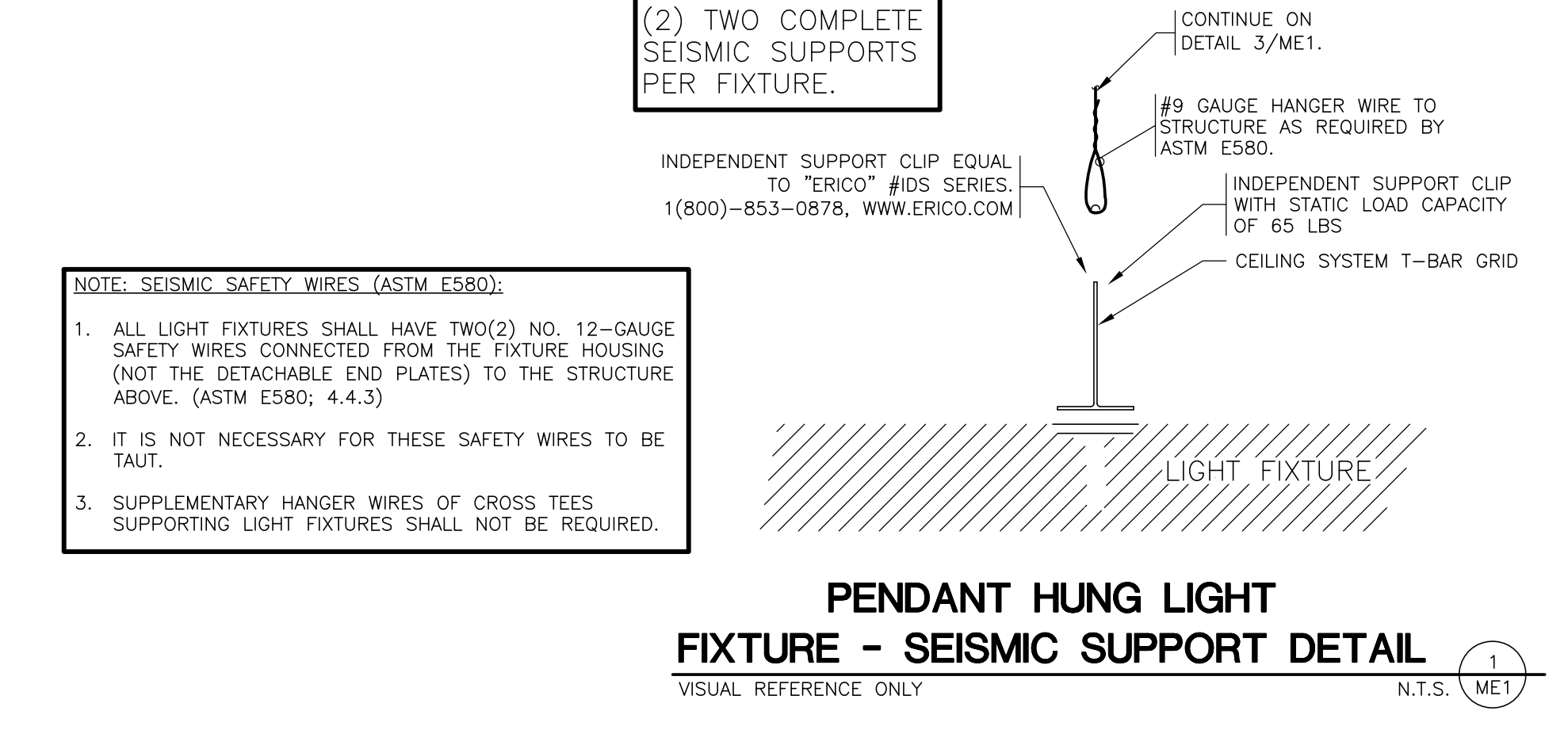
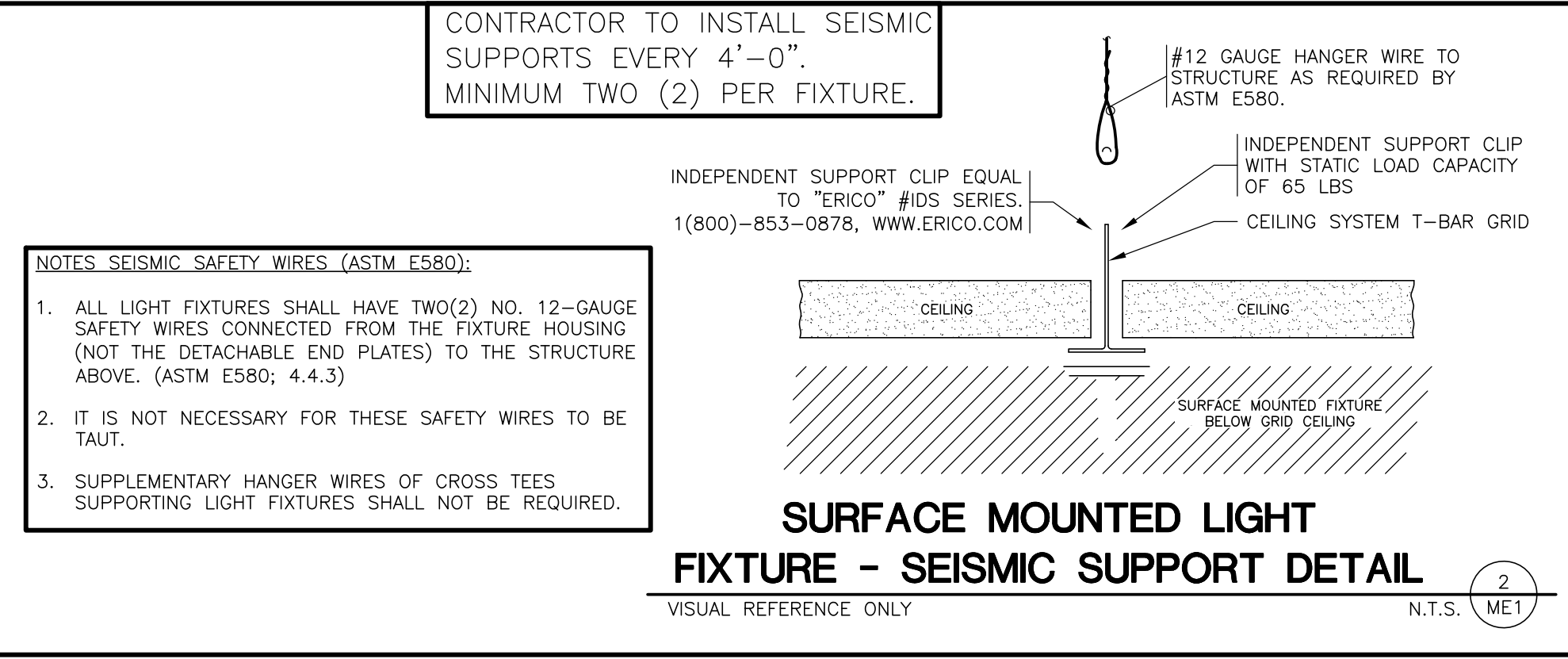
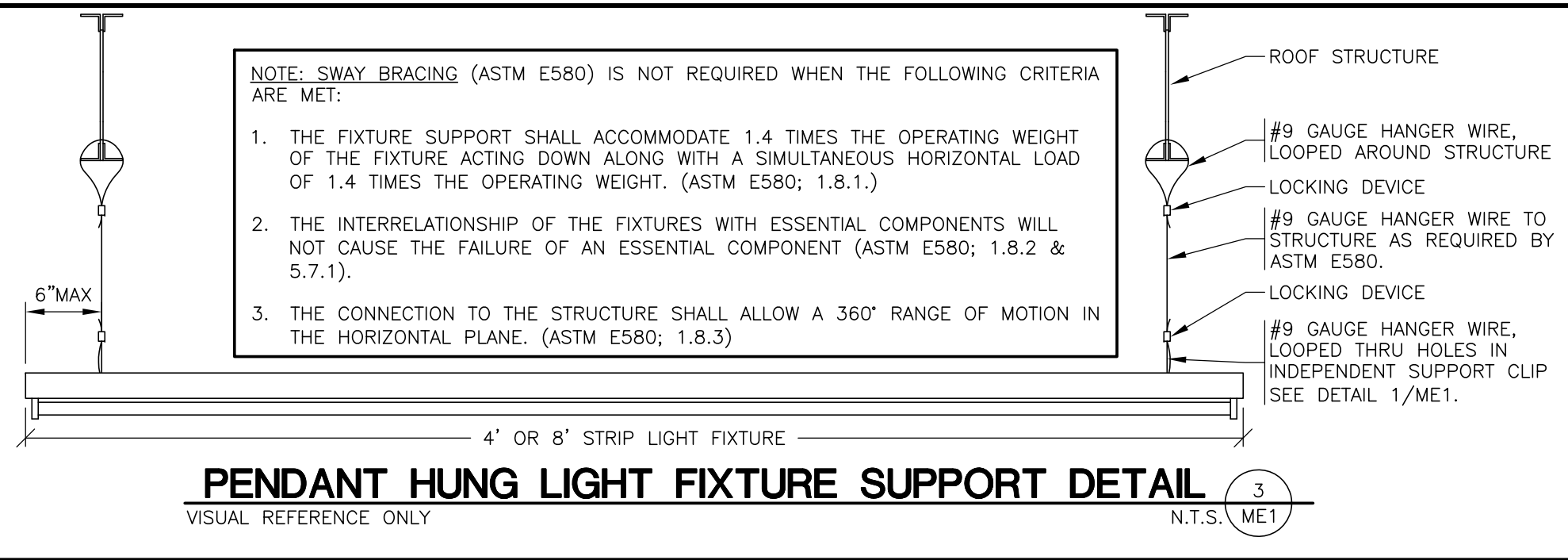
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ELECTRICAL

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CONTRACTOR TO PROVIDE SEISMIC BRACING AS REQUIRED BY CODE.

IF SEISMIC BRACING IS REQUIRED SEE BRACING DETAILS THIS SHEET.

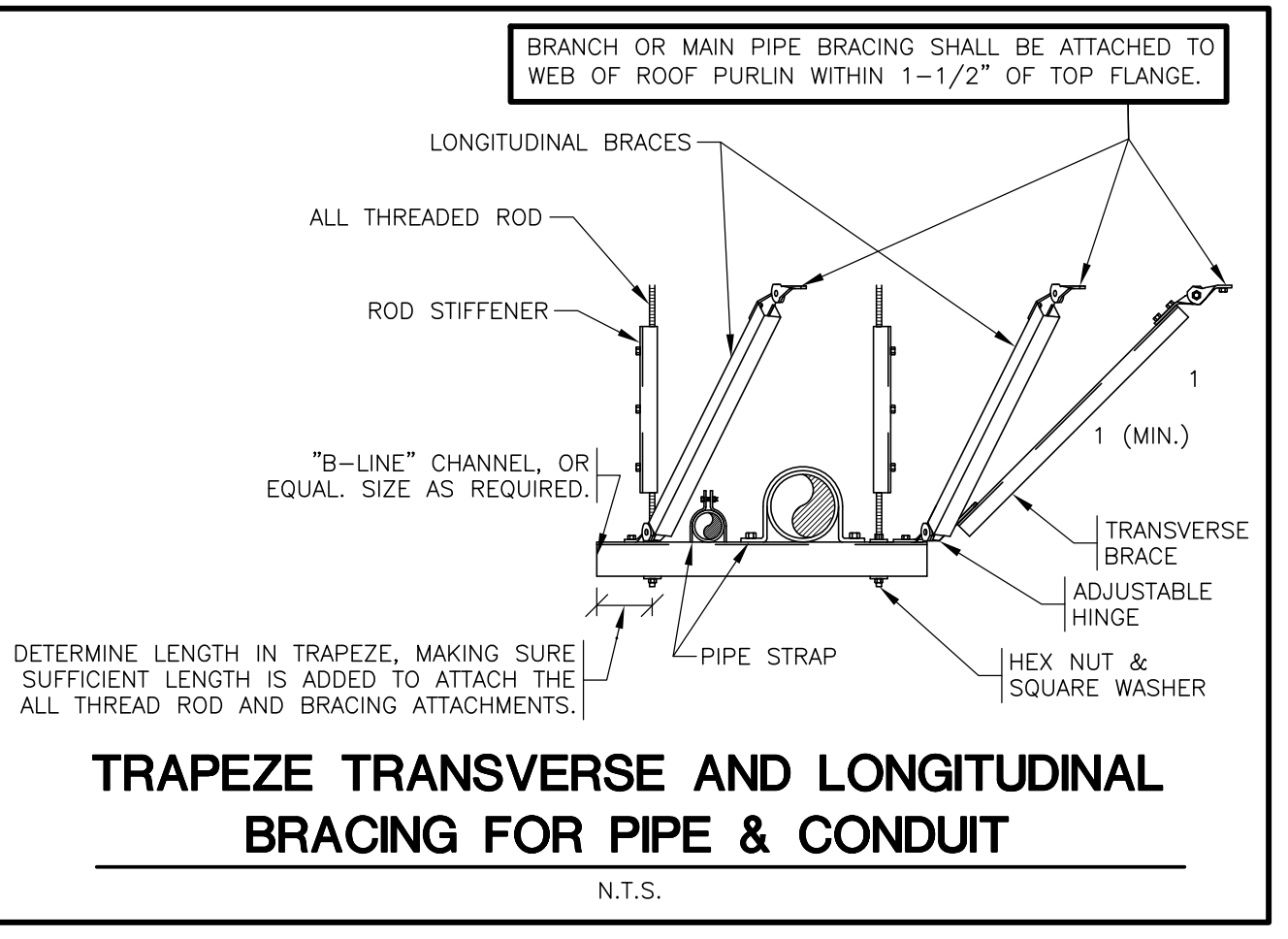
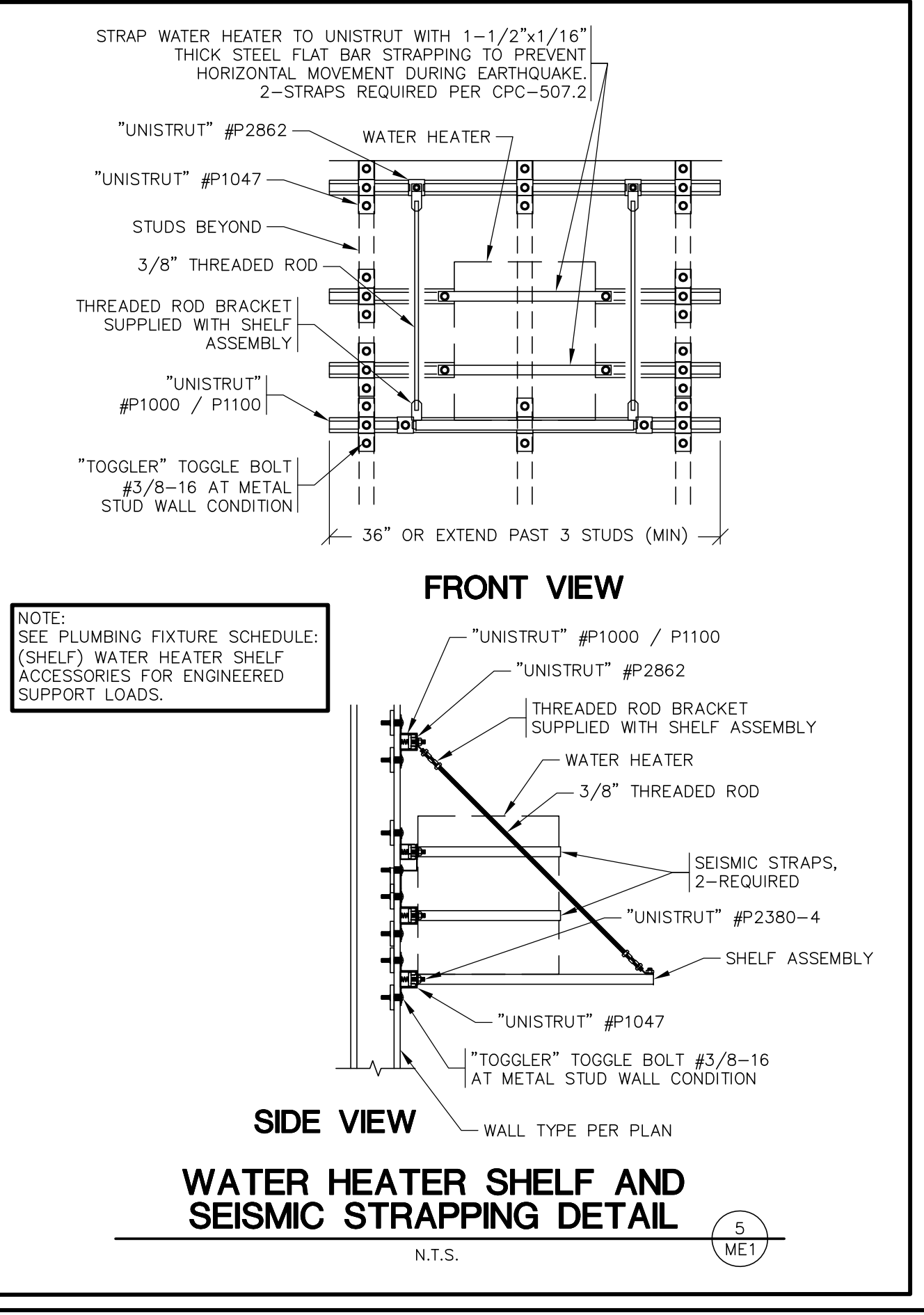


PLUMBING

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2. BRANCH OR MAIN PIPE BRACING SHALL BE ATTACHED TO WEB OF ROOF PURLIN WITHIN 1-1/2" OF TOP FLANGE.
3. SEE DETAILS "TRAPEZE TRANSVERSE AND LONGITUDINAL BRACING FOR PIPE & CONDUIT" AND "SINGLE PIPE & CONDUIT BRACING".

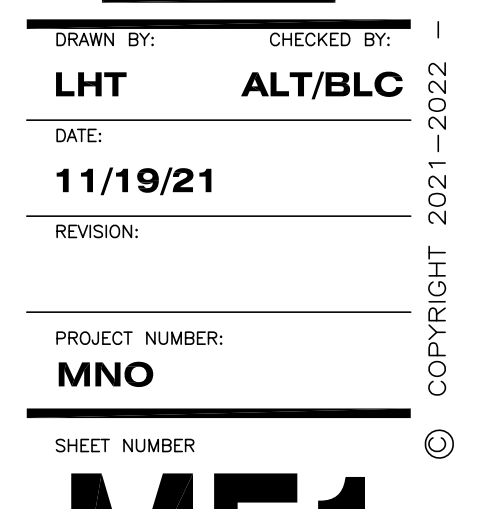
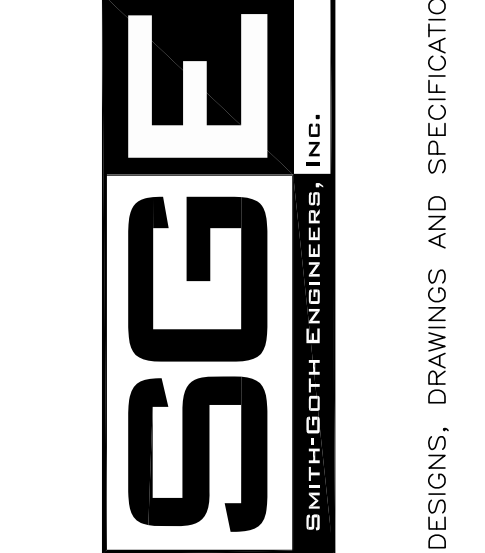
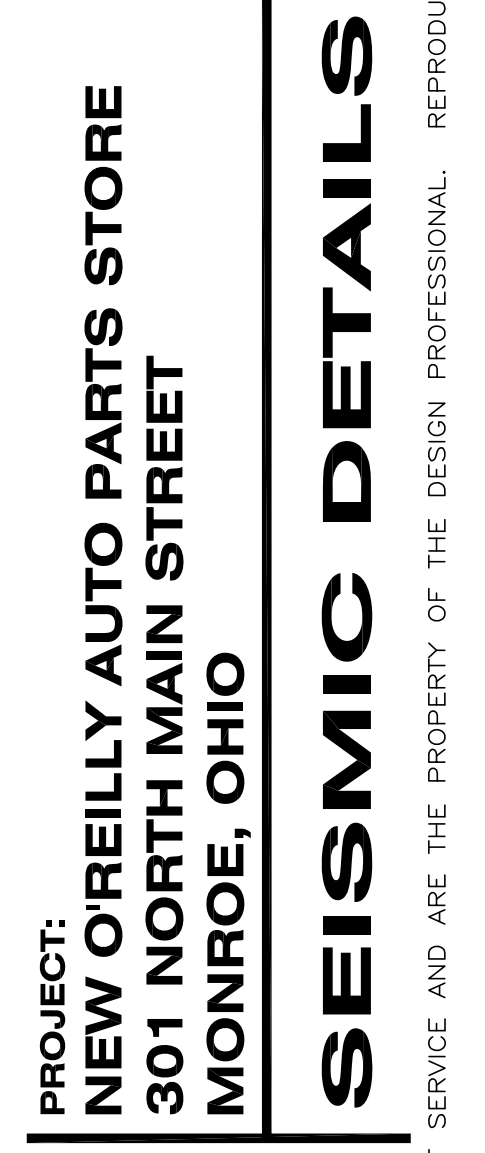
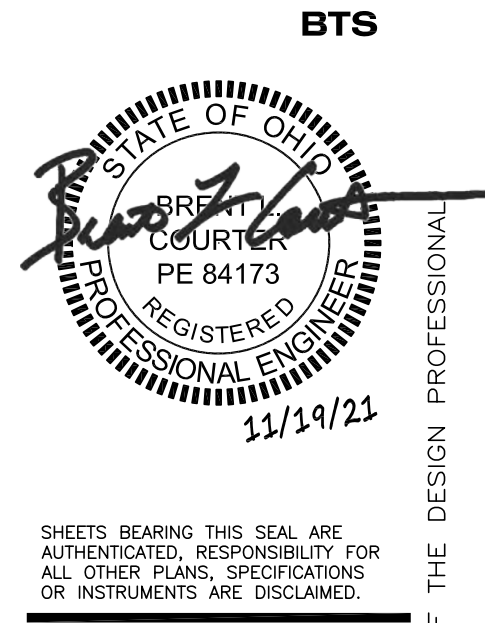
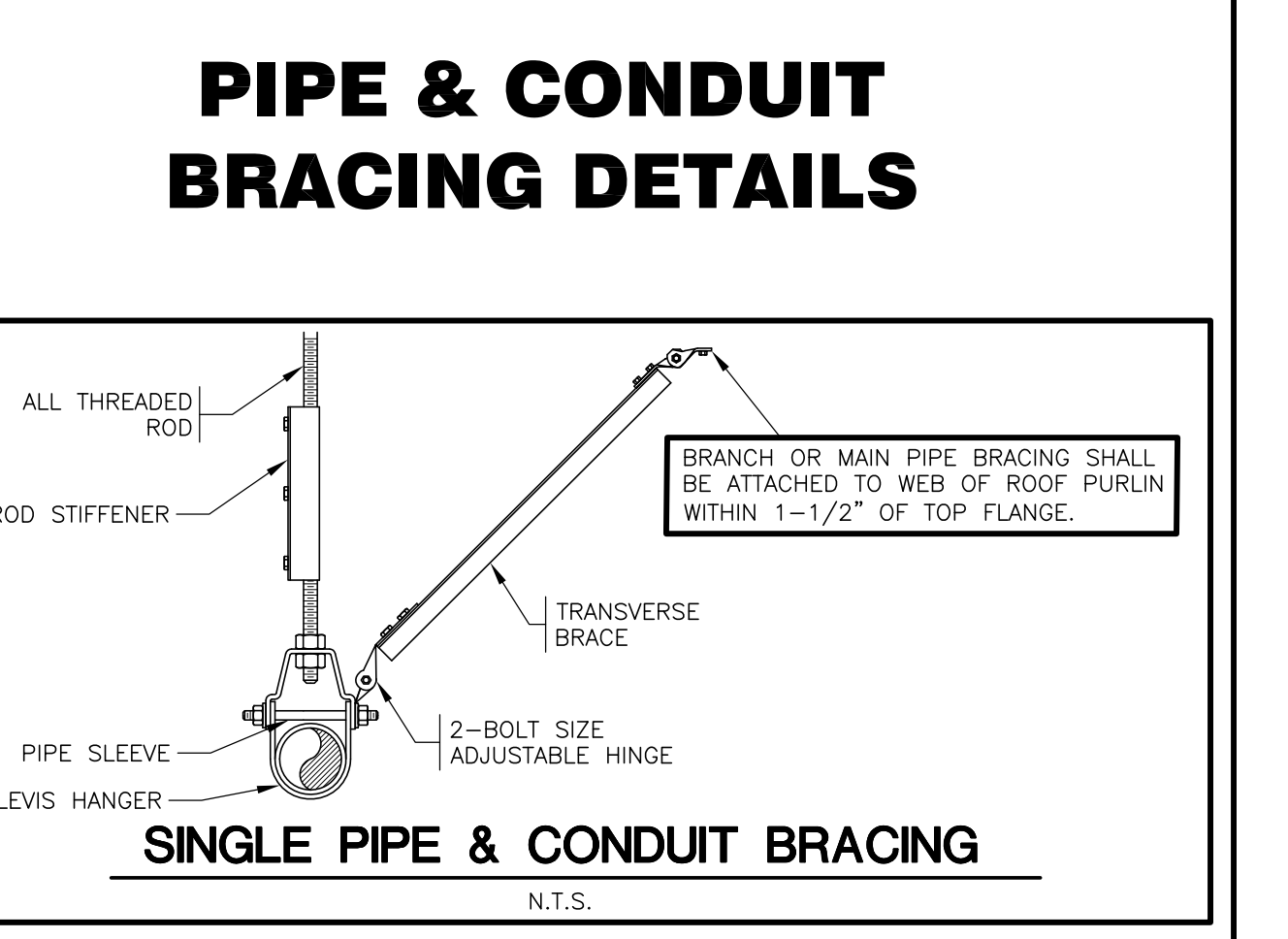
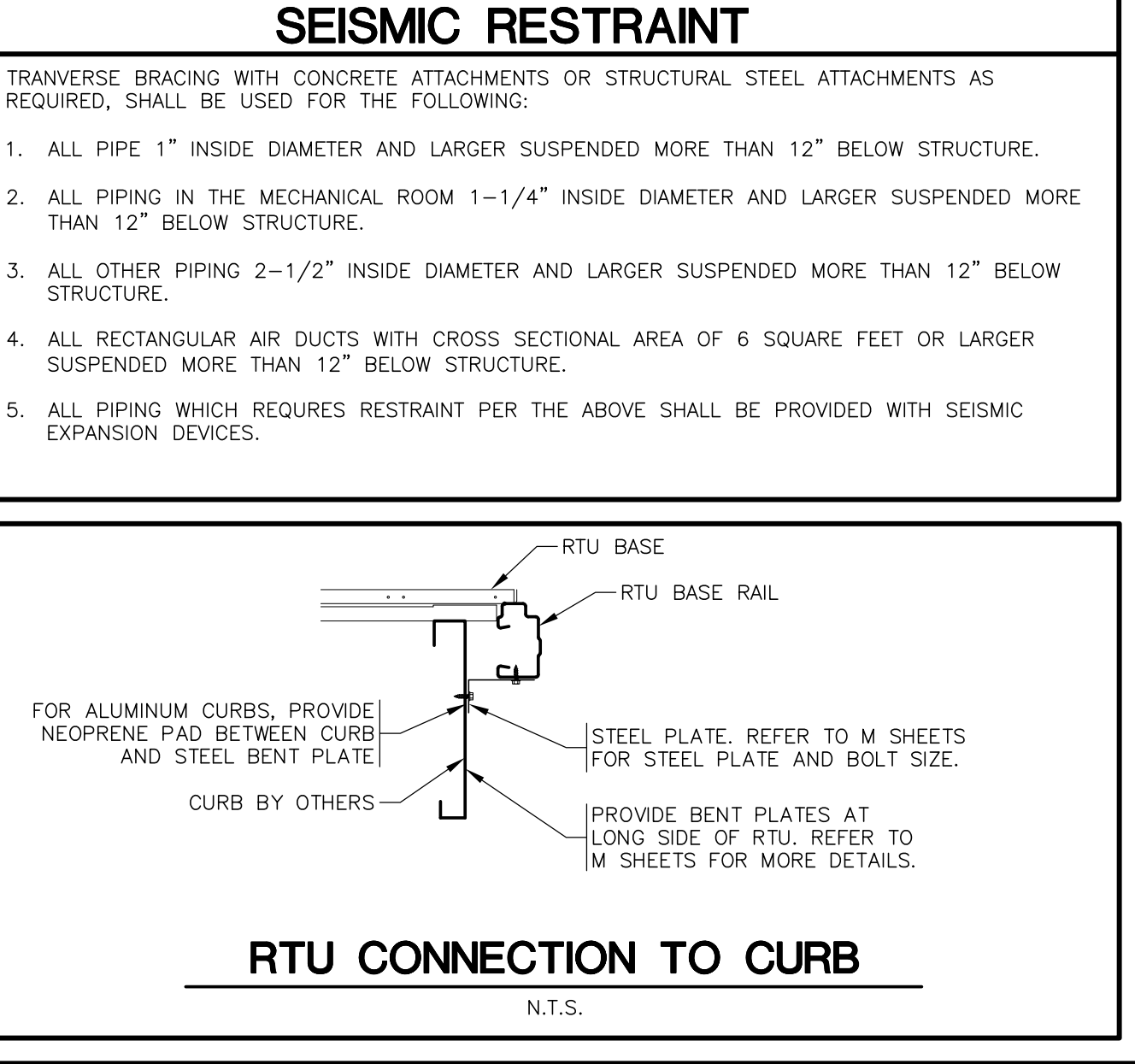


HVAC

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3. SEE DETAILS "TRAPEZE TRANSVERSE AND LONGITUDINAL BRACING FOR PIPE & CONDUIT" AND "SINGLE PIPE & CONDUIT BRACING".



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PLUMBING FIXTURE SCHEDULE / SPEC. 22 00 00 & 22 40 00 / ALL FIXTURES & FITTINGS MUST BE "LEAD FREE"										
MARK	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	ACCESSORIES	PIPING REQUIREMENTS			REMARKS	APPROVED MANUFACTURER'S	CODE APPROVALS
					WASTE	VENT	SUPPLY			
H.W.C.	HANDICAP ACCESSIBLE WATER CLOSET (TANK TYPE)	AMERICAN STANDARD	CADET RIGHT HEIGHT BOWL RIM @ 16-1/2" H PRESSURE-ASSISTED TOILET 2467.016	CHURCH 9500CT WHITE OPEN FRONT SEAT COMPLETE W/BOLT CAPS	4"	2"	1/2"	LOW-CONSUMPTION 1.6 GPF MAX. MEETS ADA GUIDELINES	ZURN	ANSI A117.1, ADA COMPLIANT
LAV.	HANDICAP ACCESSIBLE LAVATORY (WALL MOUNTED)	AMERICAN STANDARD	LUCERNE 0355.012 4" CENTERS	ZURN #28737 FLAT GRID SINK STRAINER, DELTA #501-DST CLASSIC CENTERSET FAUCET, JAY R. SMITH #0700-M31 FLOOR MOUNTED LAVATORY SUPPORTS IN WALL	2"	2"	3/4"	SEE NOTE 2, 1.5 GPM MAX.	ZURN	ANS A117.1, ASME A1112.18.1, ASME A112.18.2, ADA COMPLIANT
M.V.	THERMOSTATIC MIXING VALVE	WATTS	#LFMMV-M1-US-1/2"	THERMOSTATIC MIXING VALVE	-	-	1/2"	SEE DETAIL 3/P2 & NOTE #4 110°F MAXIMUM WATER TEMP.	WILKINS, POWERS	ASSE 1070, IAPMO, ADA COMPLIANT, CUPC, NSF/ANSI 61
H.D.F.	BARRIER-FREE TWO STATION HI-LO DRINKING FOUNTAIN	ELKAY	EZSTL8LC	ACCESSORY APRON #LKAPREZL	2"	2"	1/2"	REFER TO ARCHITECTURAL SHEETS FOR MOUNTING HEIGHTS	HALSEY TAYLOR	ADA COMPLIANT
F.D.	FLOOR DRAIN	ZURN	ZN415-B-P	1/2" TRAP PRIMER CONNECTION	2"	2"	-	COMBINATION WASTE VENT	WADE & JAY R. SMITH	ASSE 1019-B
C.O.	CLEANOUT (INTERIOR)	JAY R. SMITH	4100	W/CARPET CLAMPING RING WHERE REQUIRED	SEE PLAN	-	-	SAME SIZE AS LINE	WADE & ZURN	-
C.O.1	CLEANOUT (EXTERIOR)	JAY R. SMITH	4250	-	SEE PLAN	-	-	SAME SIZE AS LINE SEE DETAILS 2/P2 & 8/P2	WADE & ZURN	-
W.H.A.	WATER HAMMER ARRESTER	SIoux CHIEF	652-A	-	-	-	-	-	WILLIAMS	-
H.B.	HOSE BIBB	WOODFORD	MODEL 65	W/WALL CLAMP	-	-	3/4"	W/VACUUM BREAKER. OPERATING ROD ASSEMBLY MUST BE ORDERED PER WALL WIDTH	-	-
M.B.	MOP BASIN	FIAT	FIAT MSB-2424	FIAT #832-AA HOSE & BRACKET, FIAT #889-CC-24" MOP HANGER, ZURN #2842M4-WHK-5H SERVICE FAUCET	3"	2"	3/4"	W/VACUUM BREAKER ON FAUCET. ALSO ADD HOSE CONNECTION VACUUM BREAKER (WATTS #8) ON FAUCET'S SPOUT	STERN-WILLIAMS	-
E.W.	EYE WASH	SPEAKMAN	SEF-9200	SPEAKMAN THERMOSTATIC MIXING VALVE (SEF-TW), SEF-9200-ILR	-	-	3/4"	SET MIXING VALVE TO DELIVER 80°F NOTE: TEPID WATER RANGE IS 60°F-100°F	BRADLEY, HAWS	ASME A112.18.1-2000, CSA B125-98, ANSI Z358-1, ASSE 1011
SRBP	SPILL-RESISTANT BACKFLOW PREVENTER	WATTS	LF008PCQT-1/2"	HEALTH HAZARD, ANTI-SIPHON, SPILL-RESISTANT BACKFLOW PREVENTER	-	-	1/2"	MAY BE INSTALLED VERTICALLY	-	ASSE 1056
URN.	URINAL (WALL MOUNTED)	ZURN	Z5755-U OMNI-FLO	SLOAN ROYAL #186-1 FLUSH VALVE, ZURN #21222 FLOOR MOUNTED URINAL SUPPORT	2"	2"	3/4"	1.0 GPF. BACK OF URINAL TO BE MOUNTED FLUSH WITH THE FACE OF FINISHED WALL. SEE DETAIL 9/P2	AMERICAN STANDARD	ASME A1212.19.2, ANSI A117.1, ADA COMPLIANT
NOTES: 1. COORDINATE ROUGH-IN OF ALL PLUMBING FIXTURES W/ARCHITECTURAL DRAWINGS. 2. SINKS & LAVATORIES FOR HANDICAPPED ACCESS SHALL BE INSTALLED W/OFFSET TAILPIECES. ALL SINK & LAVATORY DRAIN & WATER LINES SHALL BE INSULATED W/PROTECTIVE DEVICES EQUAL TO "McGUIRE" #PW 2150 WC, WHITE MOLDED CLOSED CELL VINYL, OR "TRUEBRO" #103W, WHITE MOLDED VINYL. 3. FOR HANDICAPPED-ACCESSIBLE WATER CLOSET, FURNISH & INSTALL W/THE FLUSH HANDLE ON THE WIDE SIDE OF THE RESTROOM. 4. ALL LAVATORIES SHALL BE INSTALLED WITH A THERMOSTATIC MIXING VALVE.										
OWNER SUPPLIED, CONTRACTOR INSTALLED										
W.H.	WATER HEATER (ELECTRIC)	A.O. SMITH	EJCS-20	(19 GALLONS) 120V, 1 ϕ , 1.65 KW ELEMENT WITH T & P RELIEF VALVE	-	-	3/4"	PIPE DRAIN LINE FROM P & T RELIEF VALVE DOWN IN SHELF PAN SEE DETAIL 5/P2 & 6/P2	NO SUBSTITUTIONS	CSA, ASME RATED, NAECA
SHELF	WATER HEATER SHELF	HOLDRITE	#40-SWHP-WM	SUPPORTS WATER HEATERS UP TO 20 GALLON OR 300 LBS	-	-	-	PIPE DRAIN LINE FROM SHELF PAN SEE DETAIL 5/P2 & 6/P2	NO SUBSTITUTIONS	-
T.E.A.	THERMAL EXPANSION ABSORBER	AMTROL	ST-12	-	-	-	-	-	NO SUBSTITUTIONS	-
NOTE: WATER HEATER, SHELF AND T.E.A. SHALL BE DIRECT ORDERED AND OR RELEASED FROM THE LISTED ELECTRICAL EQUIPMENT DISTRIBUTOR:				SOURCEONE SOLUTIONS 2081 EXCHANGE DRIVE ST. CHARLES, MO 63303				SOURCEONE SOLUTIONS O'REILLY TEAM EMAIL: noreilly@sourceonesolutions.com PHONE: 314-499-6400		

PLUMBING NOTES
1. DRAWING IS DIAGRAMMATIC & IS NOT TO BE SCALED. REFER TO ARCHITECTURAL PLANS FOR DIMENSIONS.
2. ALL PLUMBING WORK IS TO BE DONE IN ACCORDANCE WITH THE APPLICABLE CODE(S) NOTED ON THE CODE SUMMARY SHEET.
3. VALVES ON WATER LINES SHALL BE BRONZE BALL VALVES. DO NOT SUBSTITUTE GATE OR GLOBE VALVES. VALVES SHALL BE THE SAME SIZE AS THEIR INLET PIPING. (SPEC 22 05 00)
4. ALL PLUMBING FIXTURES ARE TO BE FURNISHED COMPLETE WITH NECESSARY STOPS, TRAPS, TAILPIECES, TRIM, ETC. (SPEC 22 40 00)
5. THE CONTRACTOR SHALL COOPERATE WITH ALL OTHER CONTRACTORS & SUBCONTRACTORS IN LAYING HIS OUT & INSTALLING HIS WORK. COOPERATION DOES NOT MEAN "I WAS HERE FIRST."
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING A COMPLETE & FUNCTIONAL SYSTEM IN ACCORDANCE WITH THE INTENT OF THE PLANS, WHETHER OR NOT EVERY ELEMENT THEREOF IS SPECIFICALLY CALLED OUT.
7. DO NOT INSTALL CAPPED AIR CHAMBERS AT FIXTURES. INSTALL WATER HAMMER ARRESTERS AS CALLED FOR ON PLAN. ARRESTERS ARE TO BE RATED FOR INSTALLATION IN CONCEALED LOCATIONS. (SPEC 22 00 00)
8. ALL HOT & COLD WATER SUPPLY PIPING CONNECTIONS ARE TO BE 1/2" UNLESS NOTED OTHERWISE.
9. PLUMBING PIPING SHALL NOT BE INSTALLED ABOVE ELECTRICAL PANELS. PROVIDE REQUIRED CLEARANCES PER "N.E.C." COORDINATE ELECTRICAL PANEL LOCATIONS WITH THE ELECTRICAL CONTRACTOR.
10. INSTALL PIPE INSULATION ON ALL DOMESTIC WATER LINES ABOVE FINISH FLOOR. (SPEC 22 07 19)
11. CONTRACTOR SHALL COORDINATE WITH ALL STATE & LOCAL BUILDING REGULATION AGENCIES & UTILITY COMPANY(S) IN THE PROCUREMENT OF & PAYMENT OF ALL PERMITS, LICENSES, FEES & CHARGES REQUIRED FOR THE PERFORMANCE OF THE WORK.
12. PROVIDE CHROME ESCUTCHEON COVERPLATES AT ALL PIPE PENETRATIONS OF FINISHED WALL SURFACES.
13. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ROUTE ALL WATER PIPING AROUND SPACES WITH TEMPERATURES BELOW FREEZING (i.e. ATTICS, CHASES, EXTERIOR WALLS, ETC.). IF FREEZING OF ANY WATER PIPING OCCURS IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR THE PIPING THRU A NON-FREEZING SPACE TO THE FIXTURE/APPLIANCE ORIGINALLY SERVED BY THE FROZEN PIPING.
14. ALL CAULKING ON BUILDING PENETRATIONS SHALL BE A 1-COMPONENT NON-SAG URETHANE SEALANT. ANY CONTRACTOR WHO USED SILICONE OR ANY OTHER CAULKING WILL BE REQUIRED TO REMOVE & REPLACE WITH A SPECIFIED SEALANT. (SPEC 07 92 00)
15. PLUMBING SUB-CONTRACTOR SHALL INFORM THE ELECTRICAL SUB-CONTRACTOR OF THE VOLTAGE & POWER REQUIREMENTS OF ALL PLUMBING EQUIPMENT TO BE INSTALLED.
16. ALL GAS PIPING INSTALLATIONS SHALL COMPLY WITH "NFPA-54" NATURAL GAS OR "NFPA-58" LP GAS (latest edition).
17. ALL WATER HEATERS & HOT WATER STORAGE TANKS SHALL HAVE A DRAIN VALVE INSTALLED AT THE BOTTOM OF THE TANK AS REQUIRED BY CODE.

PLUMBING PIPE MATERIALS (SEE SPEC SECTION 22 00 00 FOR ADDITIONAL INFORMATION)
A. The following applications are for inside, below & above the building slab and ending at a point 5'-0" outside the perimeter building walls. 1. Domestic Water Distribution Piping Below Ground: All interior domestic water piping shall be type "K" hard drawn copper tubing (SIL-FOS 2, FOS-FLO 7 or other silver brazing material). This is required for the water service line from the shut-off valve in the building to a point 5 feet outside the building. 2. Domestic Water Distribution Piping Above Ground: Hard copper tube, Type L. 3. Soil, Waste, and Vent Piping Below Ground: Schedule 40 poly vinyl chloride (PVC) plastic DWV pipe; 4. Soil, Waste, and Vent Piping Above Ground: Hubless cast-iron soil pipe or Poly vinyl chloride (PVC) plastic DWV pipe 5. Note: PVC piping is not permitted in air-handling ceiling spaces, use only cast-iron or ductile iron pipe in these locations. B. The following applications are for only from 5'-0" outside the building to the utility point of connection (POC). Underground domestic water service piping from a point 5 feet outside the building to the POC. (See Site Utilities Plan for which piping material (Copper or PVC) is required): 1. 3'-4" - 1-1/4", Schedule 40 PVC pipe with solvent-welded joints. 2. 1-1/2" - 3", SDR-21, PVC pipe (ASTM D2241) Class 200, Bell and Spigot with rubber gasketed joints. 3. 3/4" - 3", Type "K" hard drawn copper tubing (SIL-FOS 2, FOS-FLO 7 or other silver brazing material). 4. 4" and larger, SDR-18 PVC pipe (AWWA C-900) Class 150 Bell and Spigot with rubber gasketed joints. Underground sanitary sewer service piping from a point 5 feet outside the building to the POC. 1. Polyvinyl chloride (PVC) sewer pipe shall conform to ASTM D3034 (SDR-35). 2. Cast iron or ductile iron pipe shall conform to USASI #A-21 class 50. C. GAS pipe material: Low-Pressure Gas Systems, above Ground within or outside Building: Use the following: 1. 2" and Smaller: Steel pipe, malleable-iron, threaded fittings, and threaded joints. 2. 2-1/2" and Larger: Steel pipe, butt-welding fittings, and welded joints.

SEISMIC RESTRAINTS (ONLY REQUIRED FOR SEISMIC DESIGN CATEGORIES C,D,E,F)
CONTRACTOR TO REFER TO ARCHITECTURAL SHEET G1.1 FOR SEISMIC DESIGN CATEGORY.
IF REQUIRED SEE SEISMIC DETAILS SHEET ME1.

PIPING LEGEND
WATER SERVICE (BELOW GRADE)
HOT WATER
COLD WATER
WASTE
WASTE (BELOW GRADE)
VENT
GAS
GAS SERVICE (BELOW GRADE)
WATER HAMMER ARRESTER, SEE SCHEDULE
FLOOR DRAIN, SEE SCHEDULE
CLEANOUT (INTERIOR), SEE SCHEDULE
CLEANOUT (EXTERIOR), SEE SCHEDULE
BALL VALVE

GAS LOAD

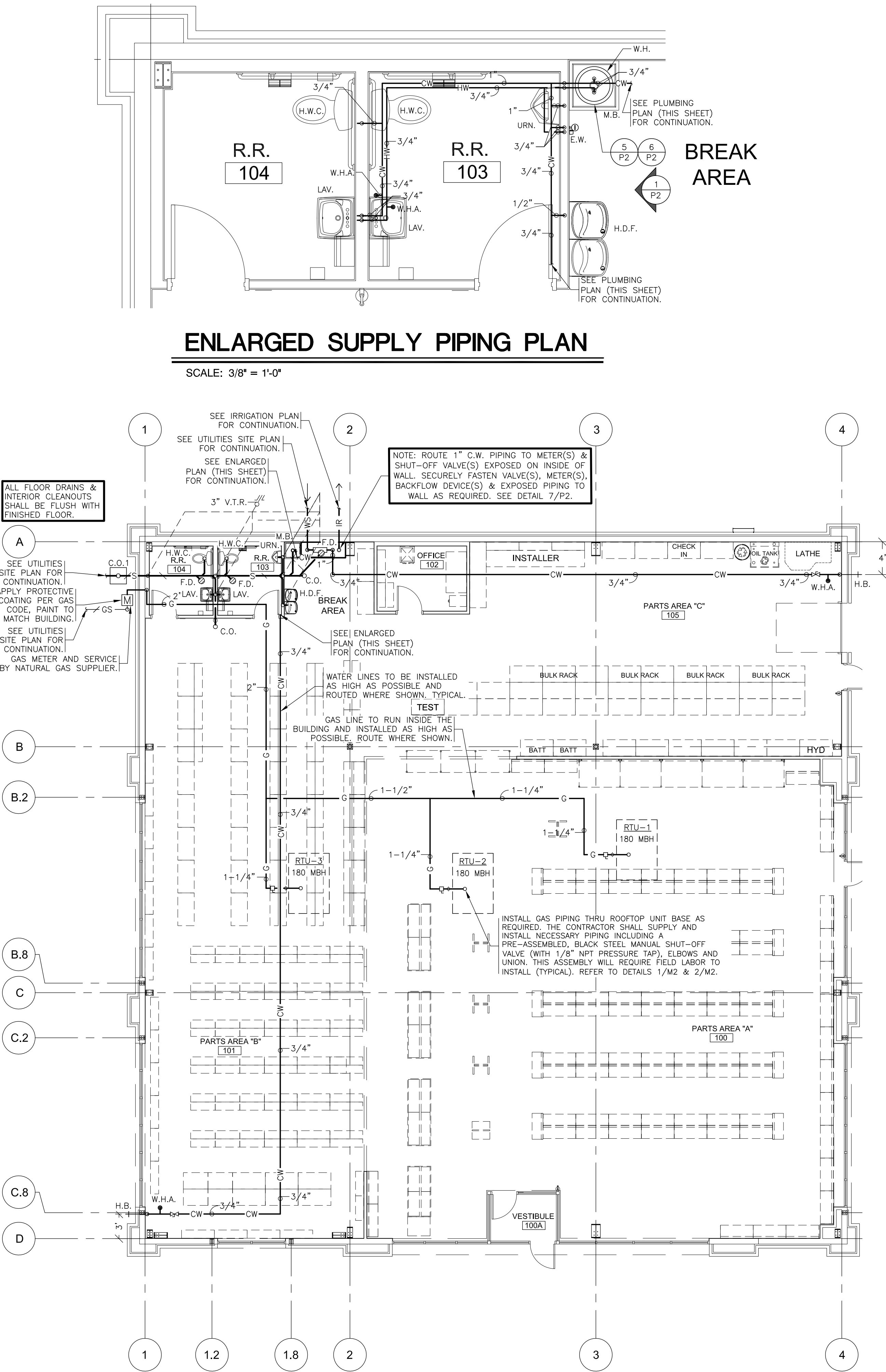
(PIPE SIZING BASED ON INTERNATIONAL
FUELGAS CODE, TABLE 402.4(2))

ITEM	MBH/INPUT
ROOFTOP UNIT (RTU-1)	180
ROOFTOP UNIT (RTU-2)	180
ROOFTOP UNIT (RTU-3)	180
TOTAL CONNECTED LOAD	540

GAS PIPING SIZED USING LONGEST
MAXIMUM RUN OF EQUIVALENT LENGTH OF
PIPING = 150'-0"

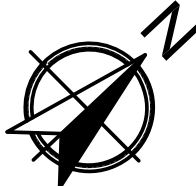
INLET PRESSURE = 7in W.C. OR 1/4 psig
MAXIMUM PRESSURE DROP = .5 INCH
W.C. AND .6 SPECIFIC GRAVITY

NOTE:
SEE THE APPLICABLE PLUMBING CODE FOR
MINIMUM WASTE PIPING SLOPE.

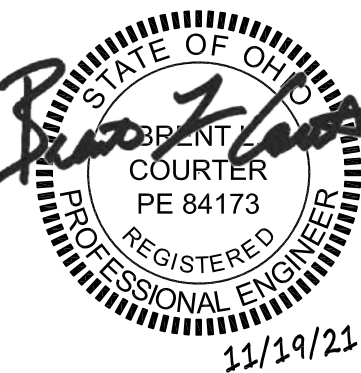


PLUMBING PLAN

SCALE: 1/8" = 1'-0"



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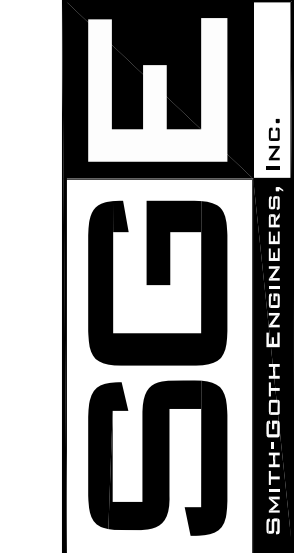


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O'Reilly AUTO PARTS
CORPORATE OFFICES
233 SOUTH PATTERSON
SPRINGFIELD, MISSOURI 65802
(417) 862-2674 TELEPHONE

PROJECT:
NEW O'REILLY AUTO PARTS STORE
301 NORTH MAIN STREET
MONROE, OHIO

3855 S. JEFFERSON AVE.
SPRINGFIELD, MO 65807
P: 417-882-2550
F: 417-882-2550
WWW.SMTGOTH.COM



DRAWN BY: **LHT** CHECKED BY: **ALT/BLC**

DATE:
11/19/21

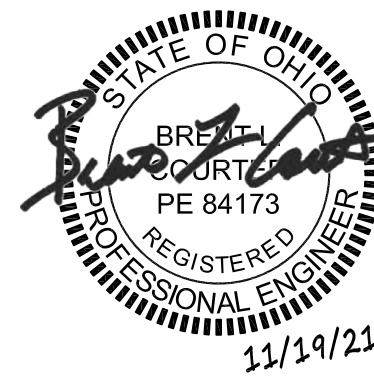
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O'Reilly AUTO PARTS
CORPORATE OFFICES
233 SOUTH PATTERSON
SPRINGFIELD, MISSOURI 65802
(417) 862-2674 TELEPHONE

PROJECT:
NEW O'REILLY AUTO PARTS STORE
301 NORTH MAIN STREET
MONROE, OHIO

PLUMBING DETAILS

3855 S. JEFFERSON AVE.
SPRINGFIELD, MO 65807
P: 417-862-2680
F: 417-862-2680
WWW.SMITHGOTH.COM



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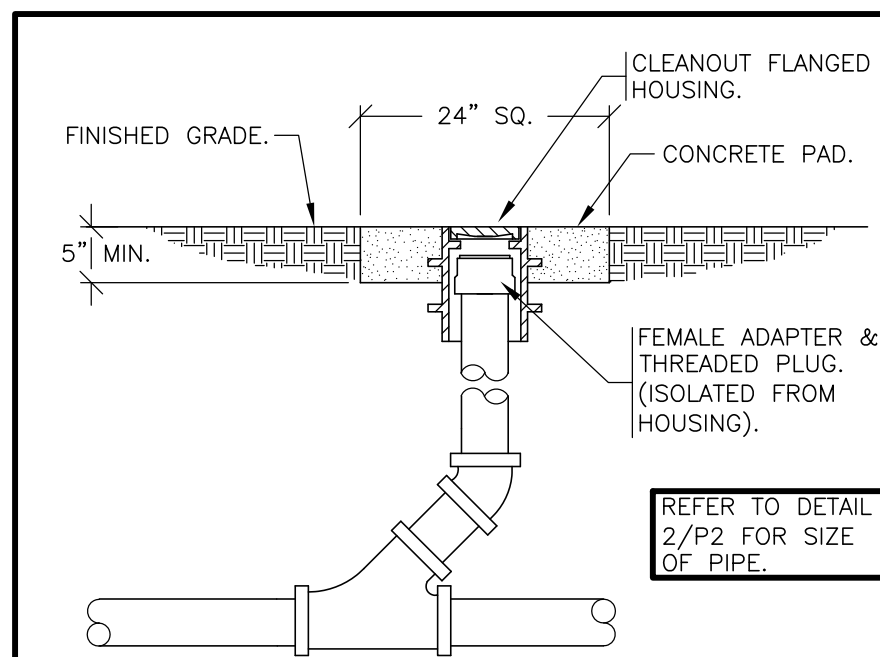
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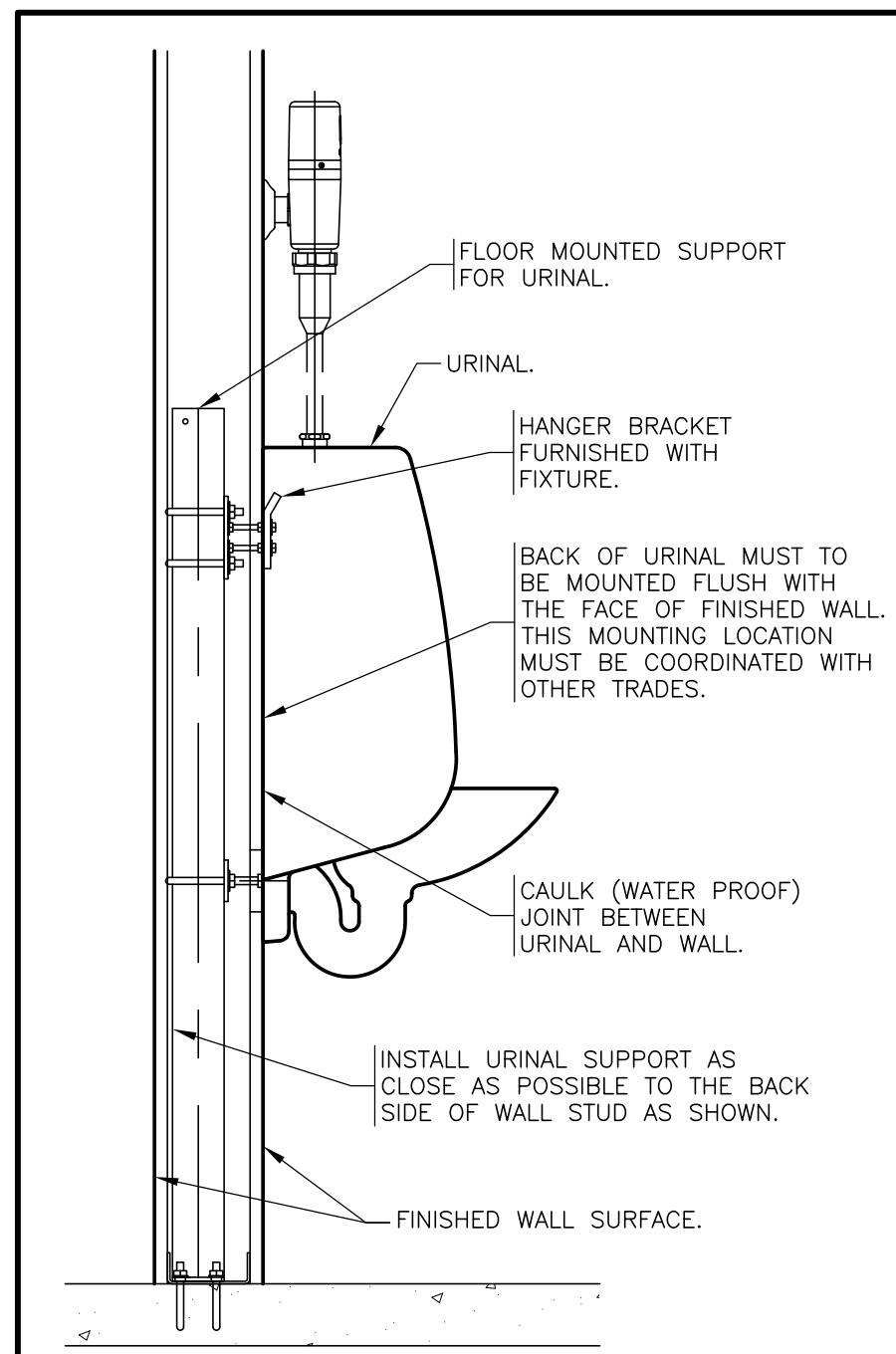
PLUMBING CALCULATIONS							
FIXTURE	QUANTITY	TOTAL-SFU	TOTAL	TOTAL-HW	TOTAL	DFU	TOTAL
W.C. (TANK)	2	5	10	0	0	4	8
URN. (URINAL)	1	5	5	0	0	4	4
LAV. (LAVATORY)	2	2	4	1.5	3.00	2	4
M.B. (MOP BASIN)	1	3	3	1.5	1.50	2	2
H.D.F. (FOUNTAIN)	1	0.25	0.25	0	0	0.5	0.50
H.B. (HOSE BIBB)	2	3	6	0	0	0	0
		TOTAL	28.25	TOTAL	4.50	TOTAL	18.50
TOTAL CW GPM	20			AVERAGE DAILY FLOW	= 125 gal/DAY		
COLD WATER SERVICE SIZE	1"						



TYPICAL EXTERIOR CLEANOUT DETAIL

N.T.S.

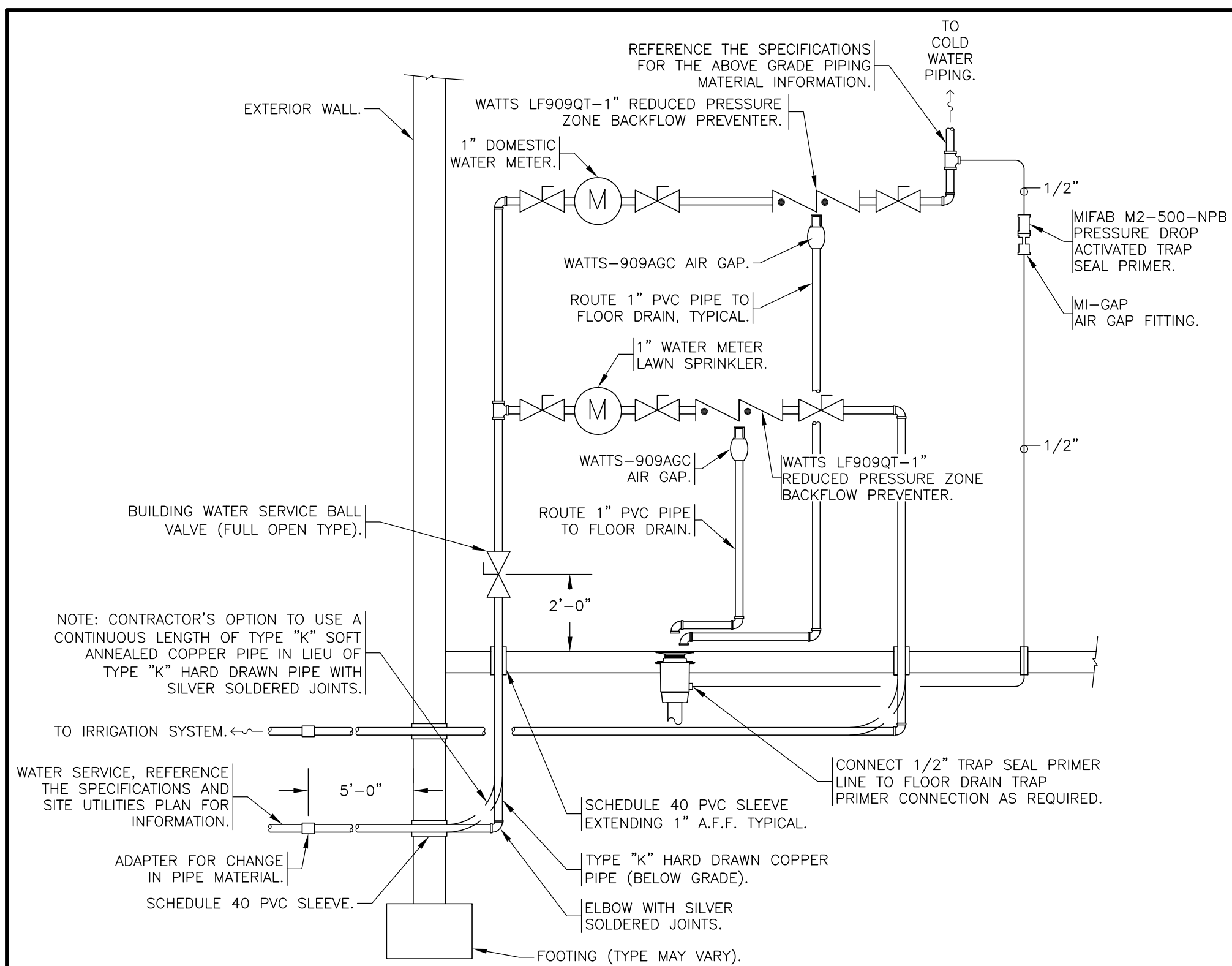
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URINAL WALL MOUNT DETAIL

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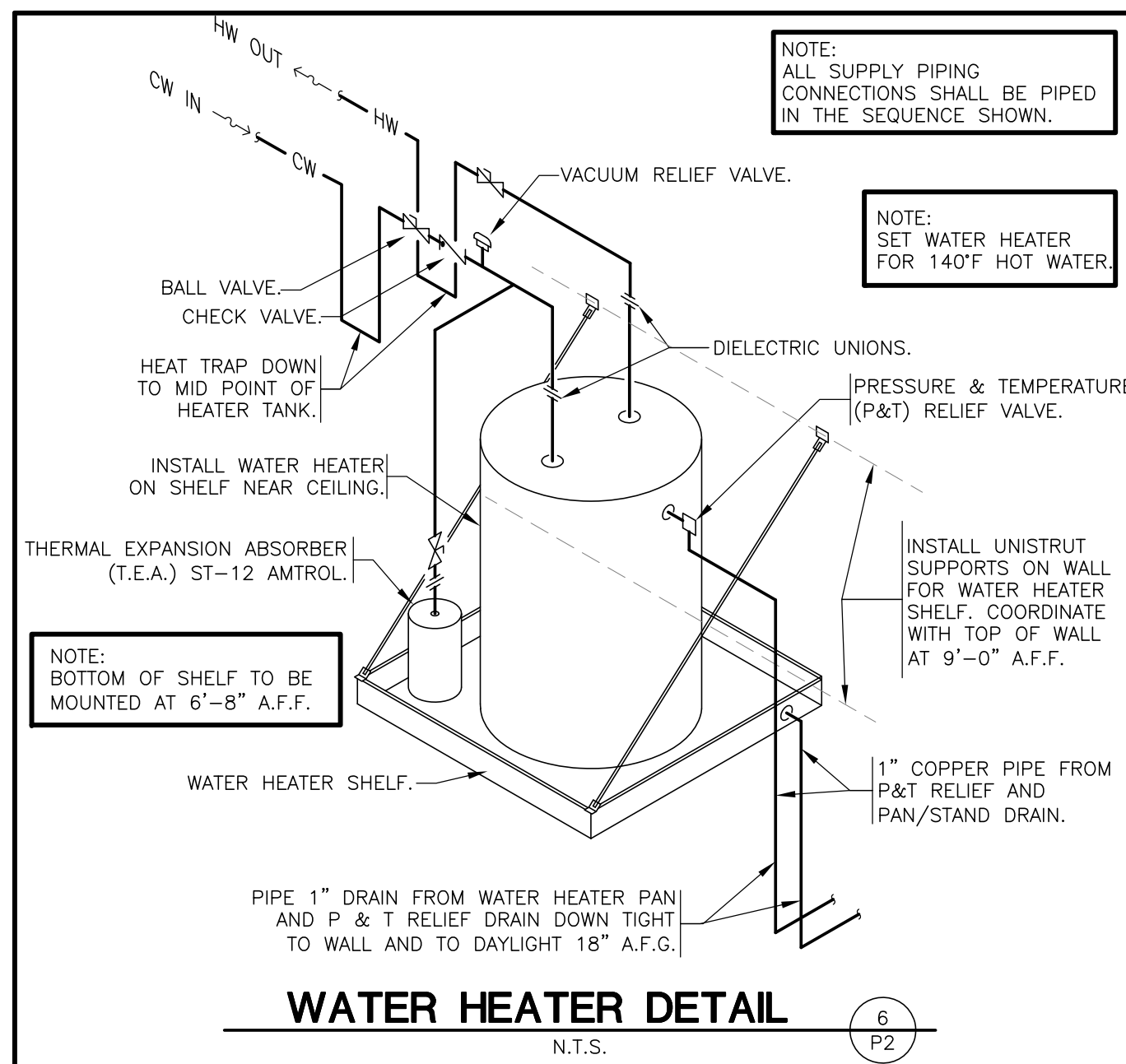
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WATER SERVICE DETAIL

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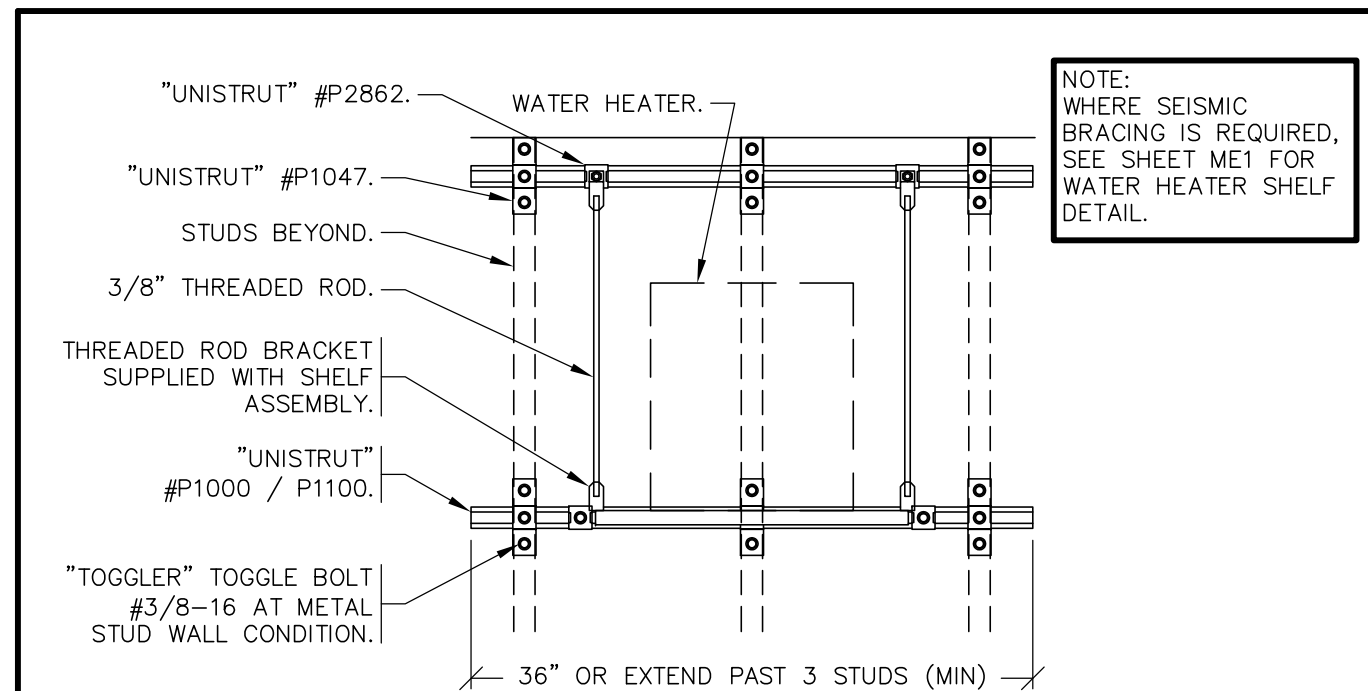
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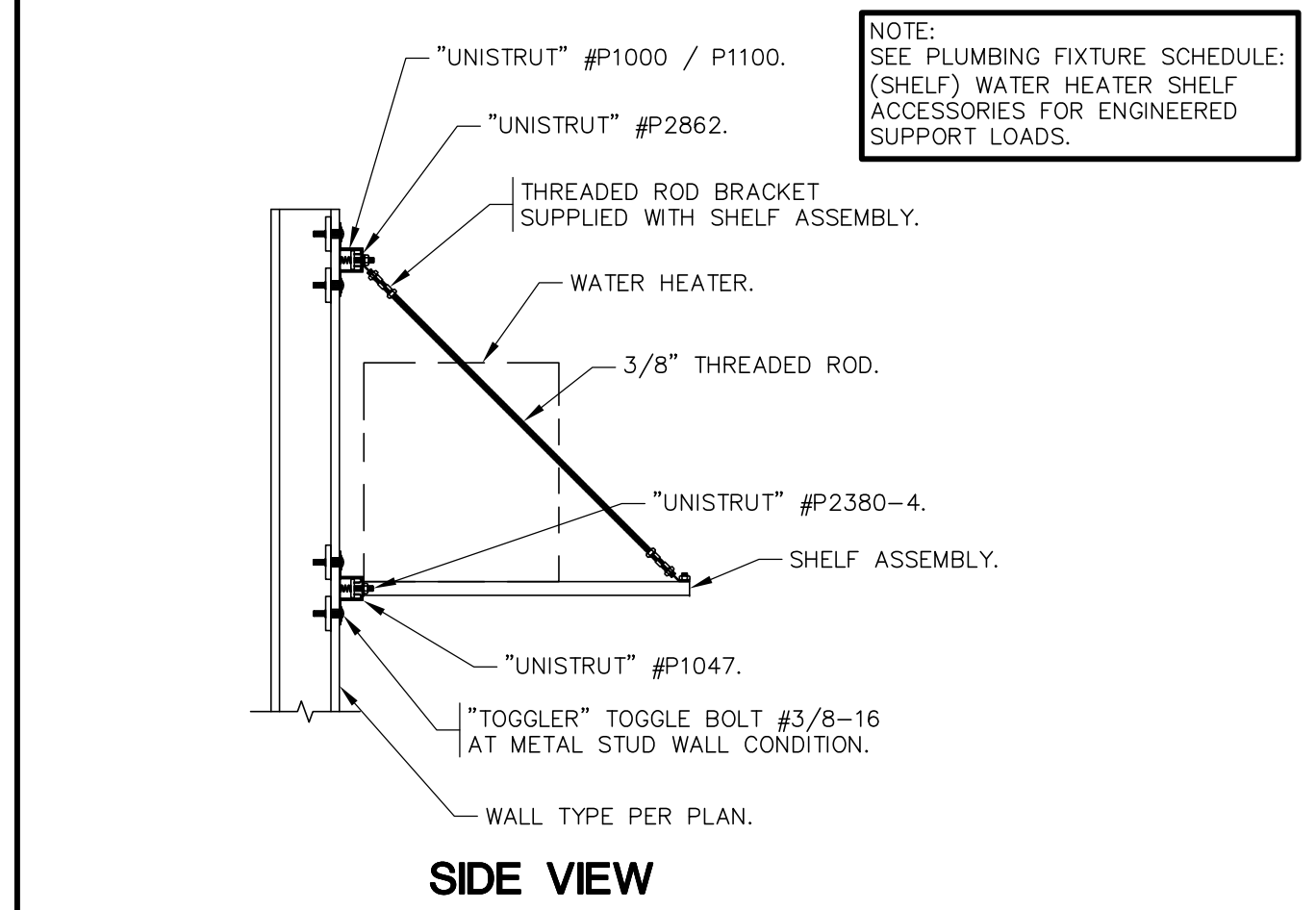
WATER HEATER DETAIL

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P2



FRONT VIEW

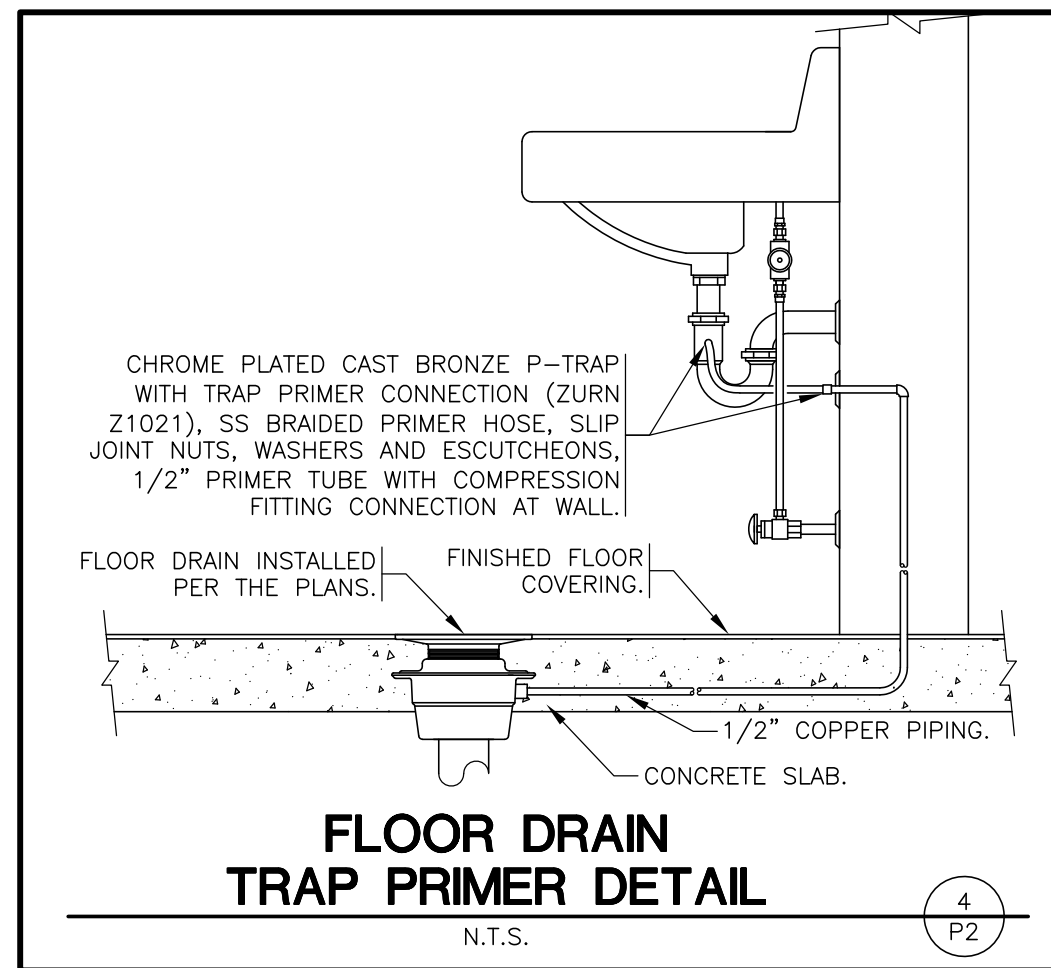


SIDE VIEW

WATER HEATER SHELF DETAIL

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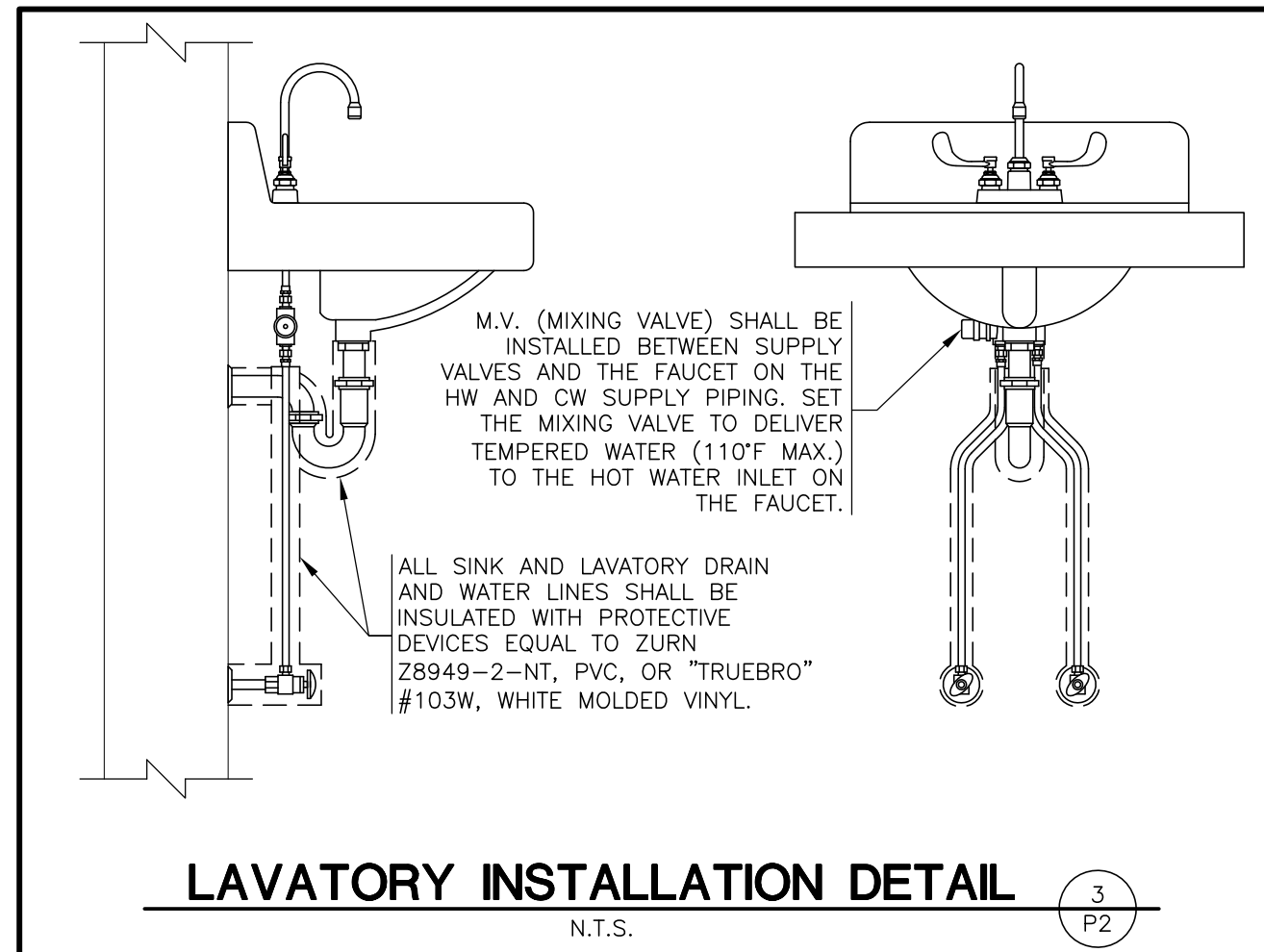
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FLOOR DRAIN TRAP PRIMER DETAIL

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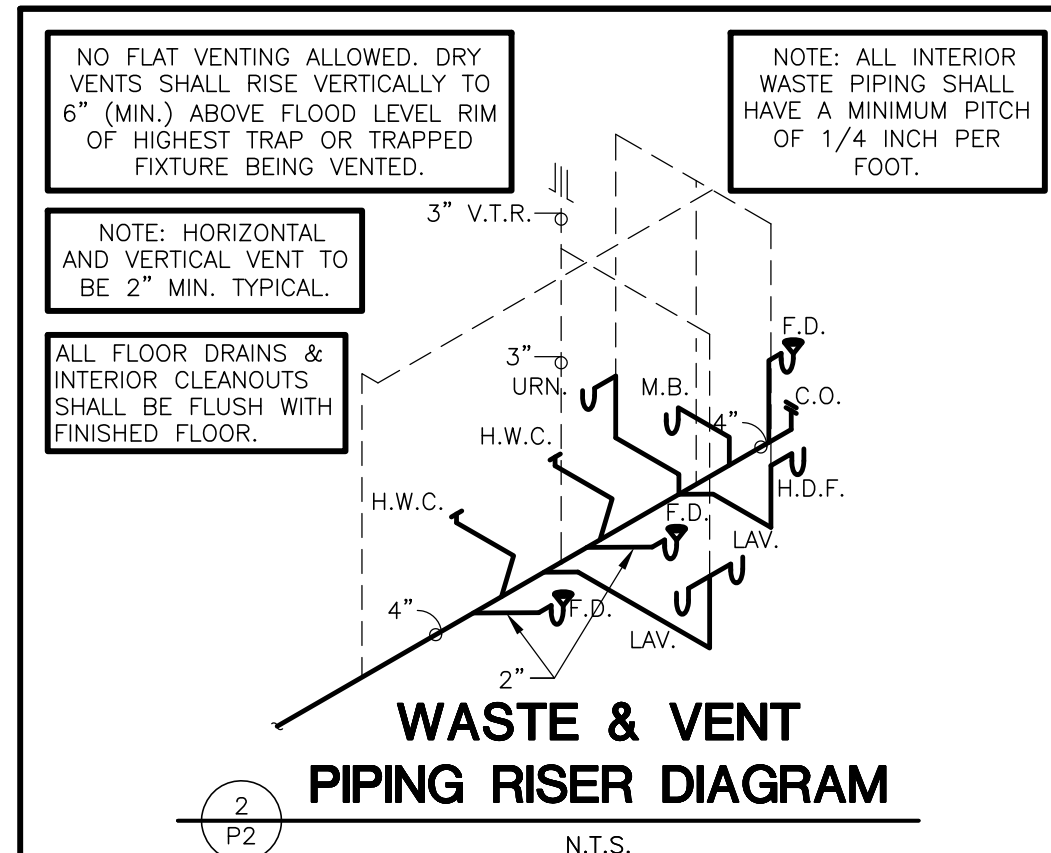
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LAVATORY INSTALLATION DETAIL

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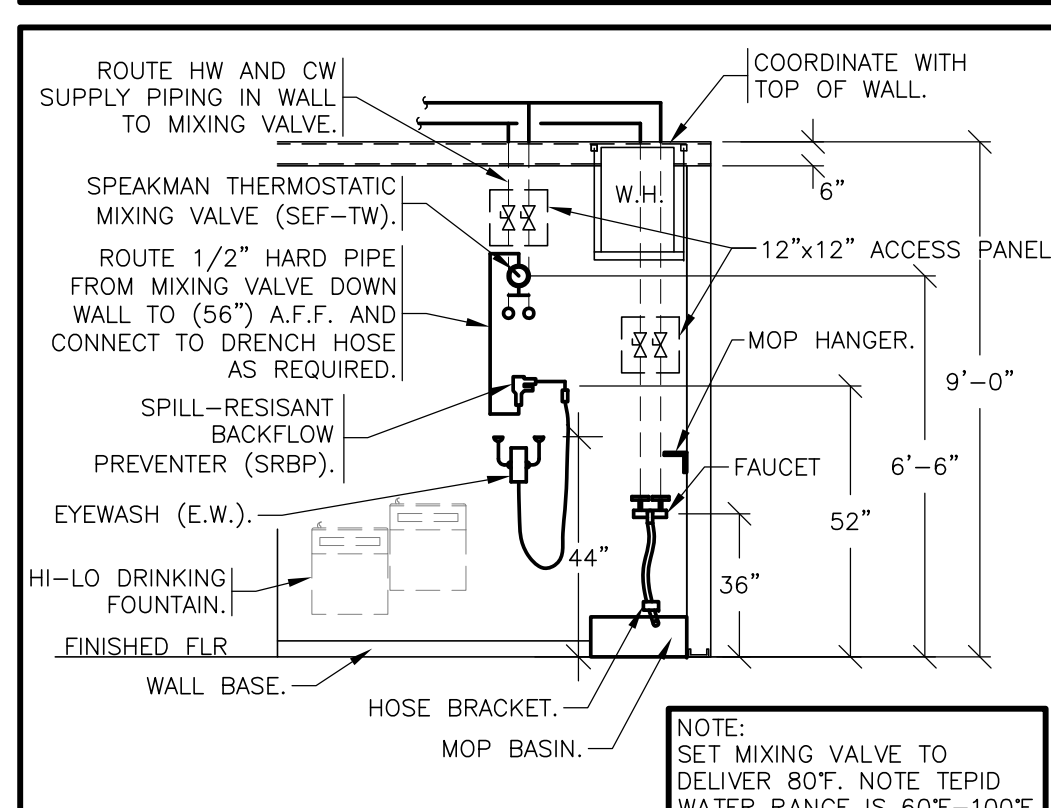
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WASTE & VENT PIPING RISER DIAGRAM

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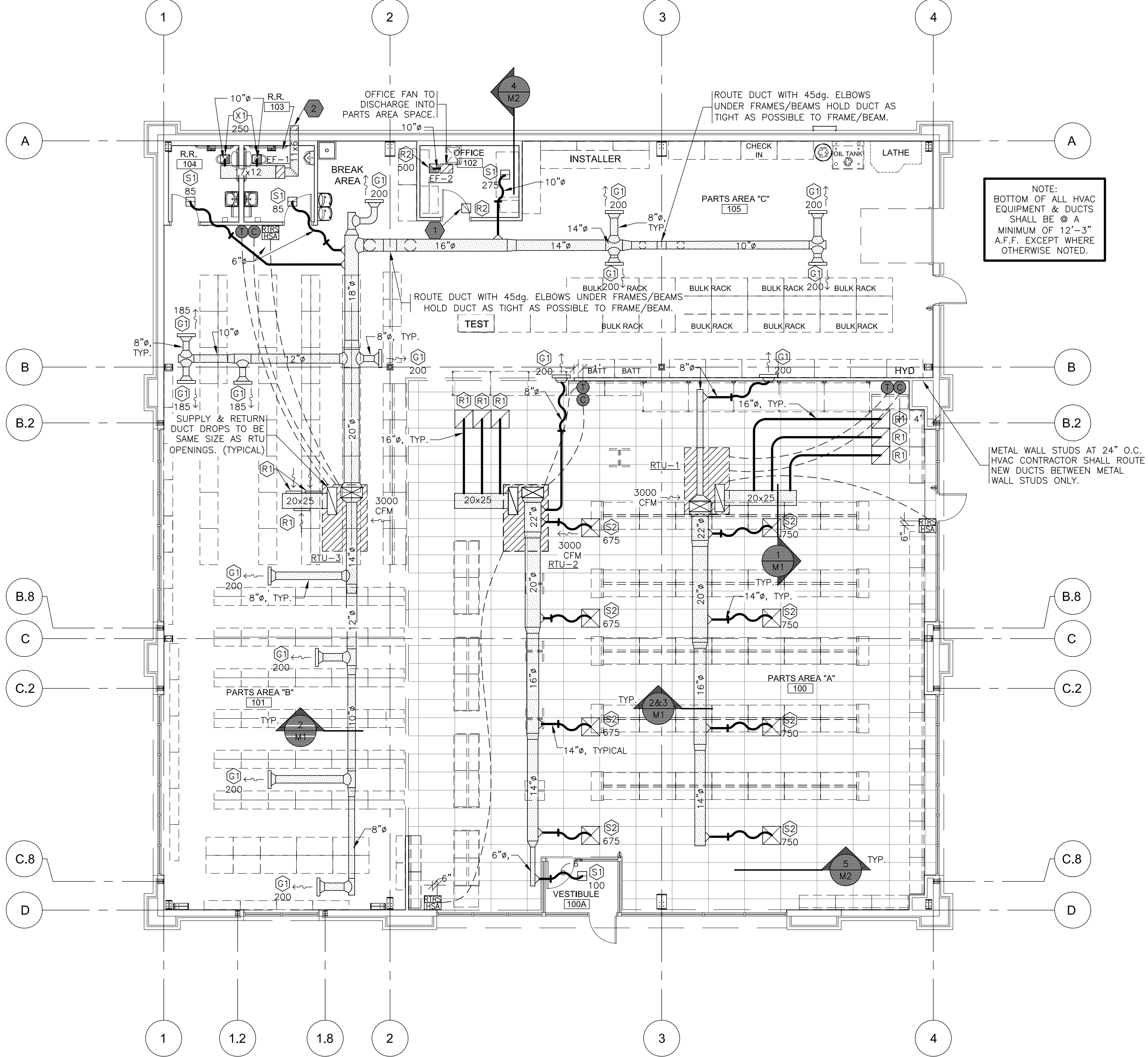
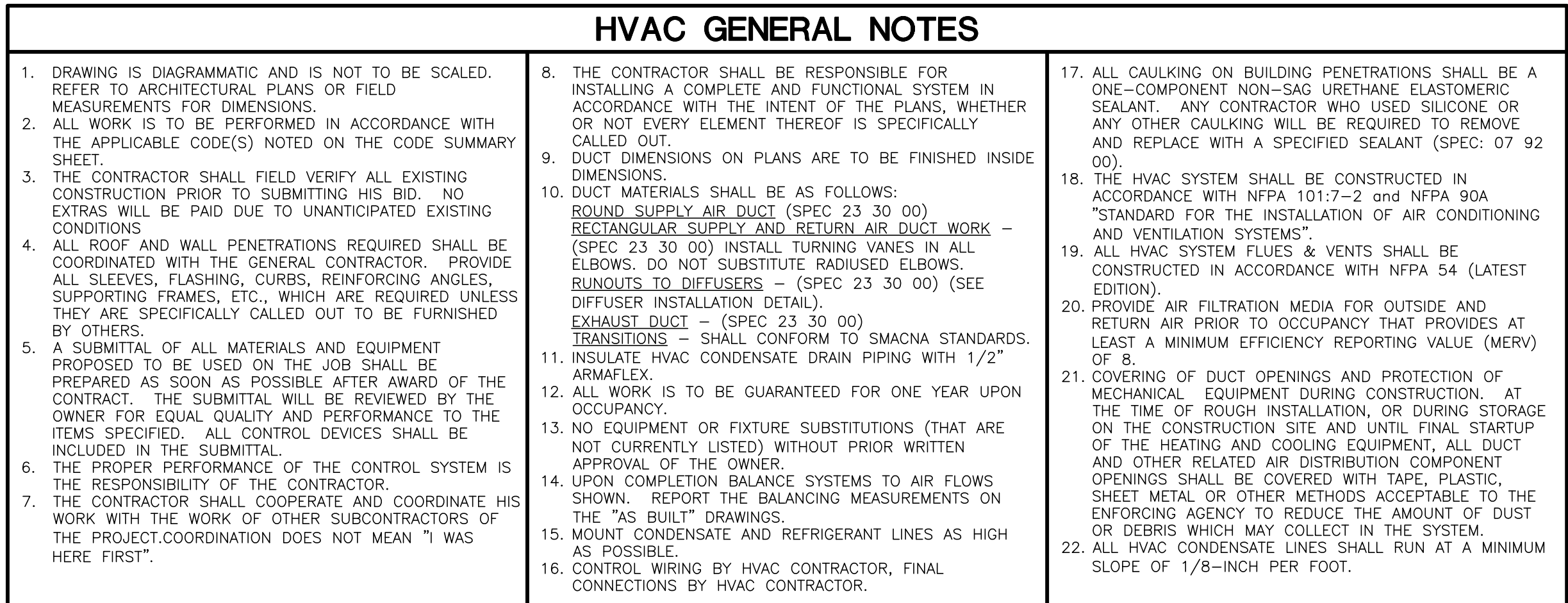
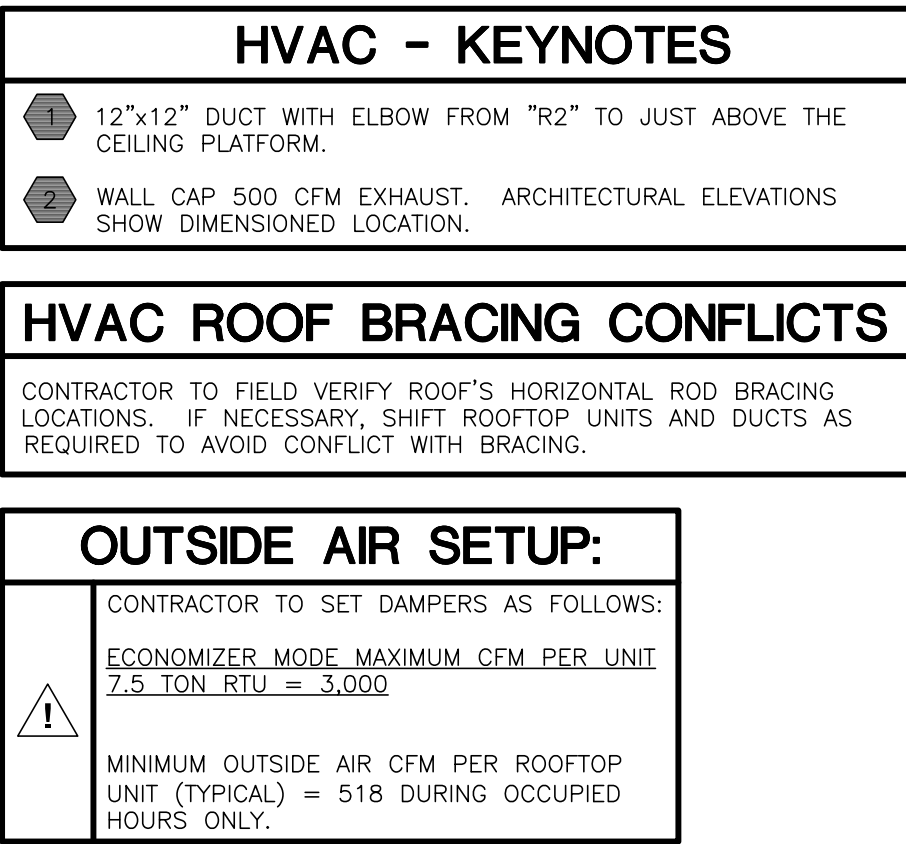
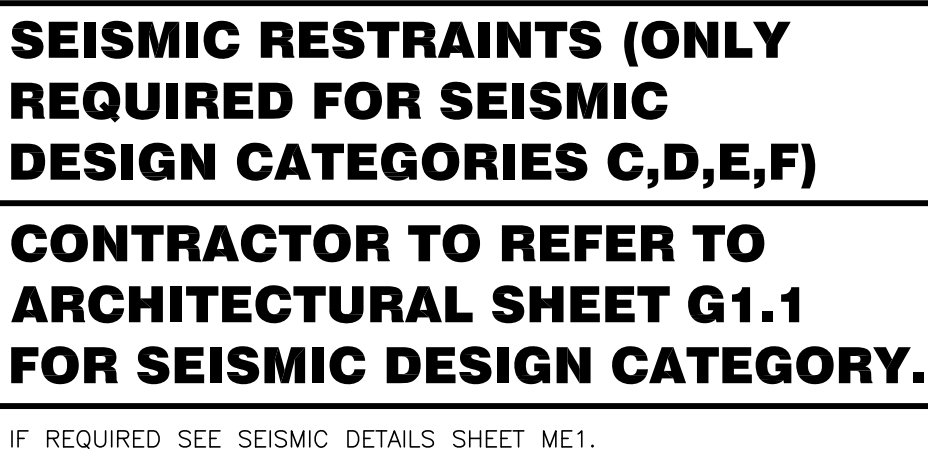
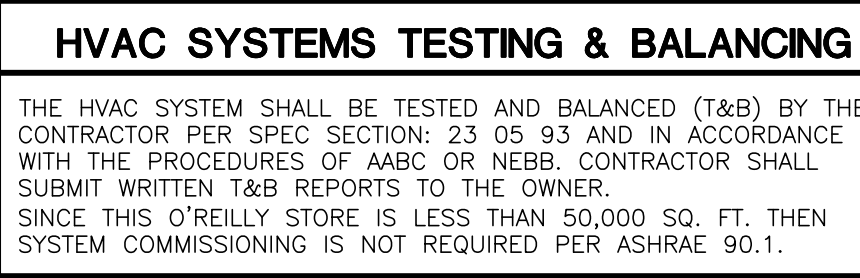
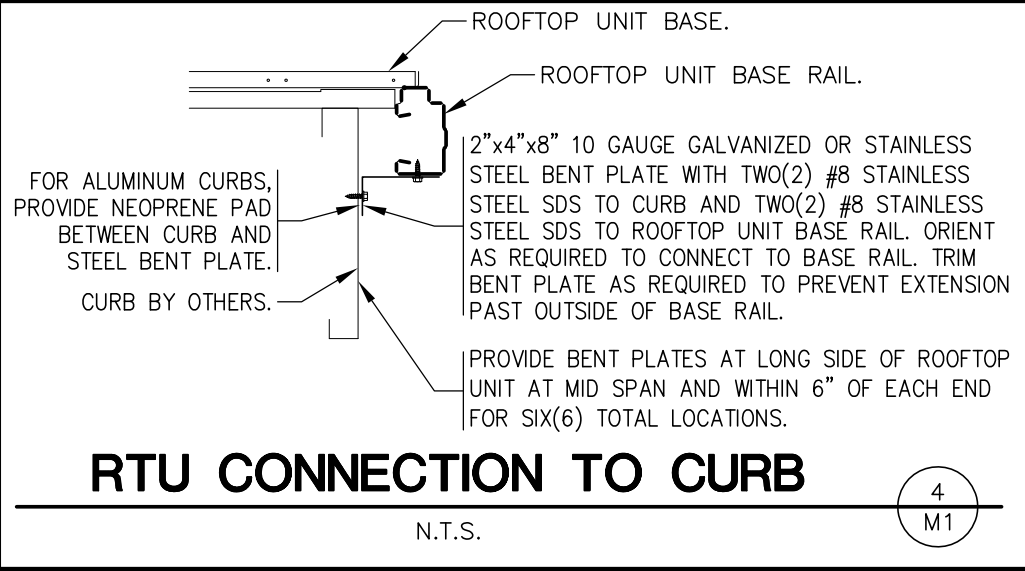
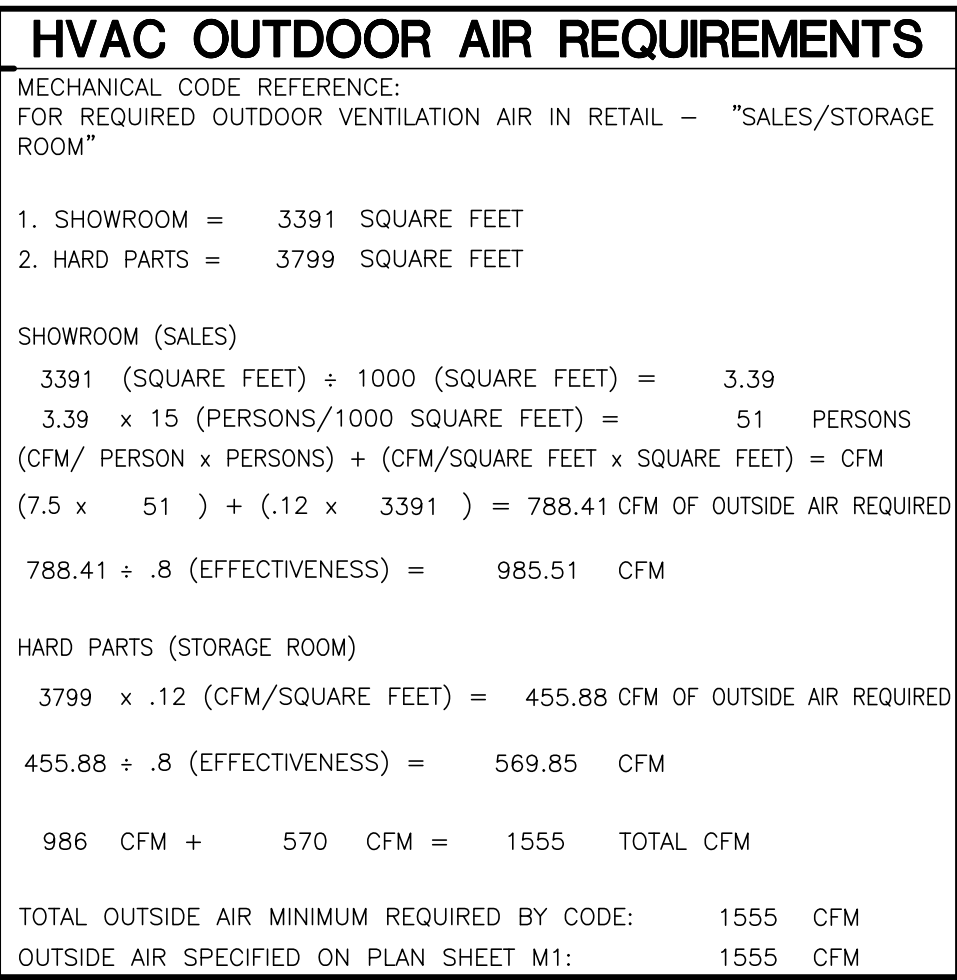
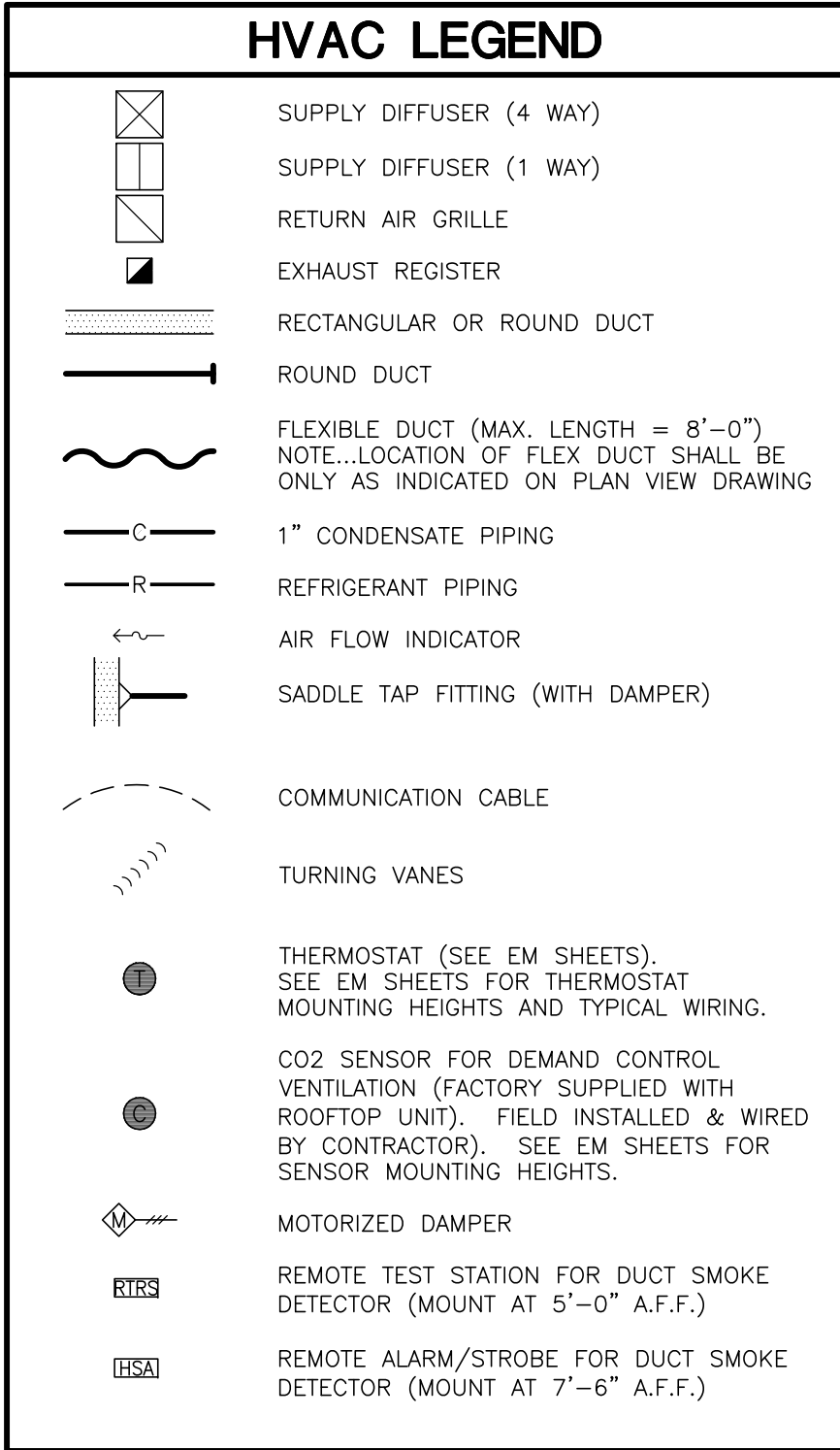
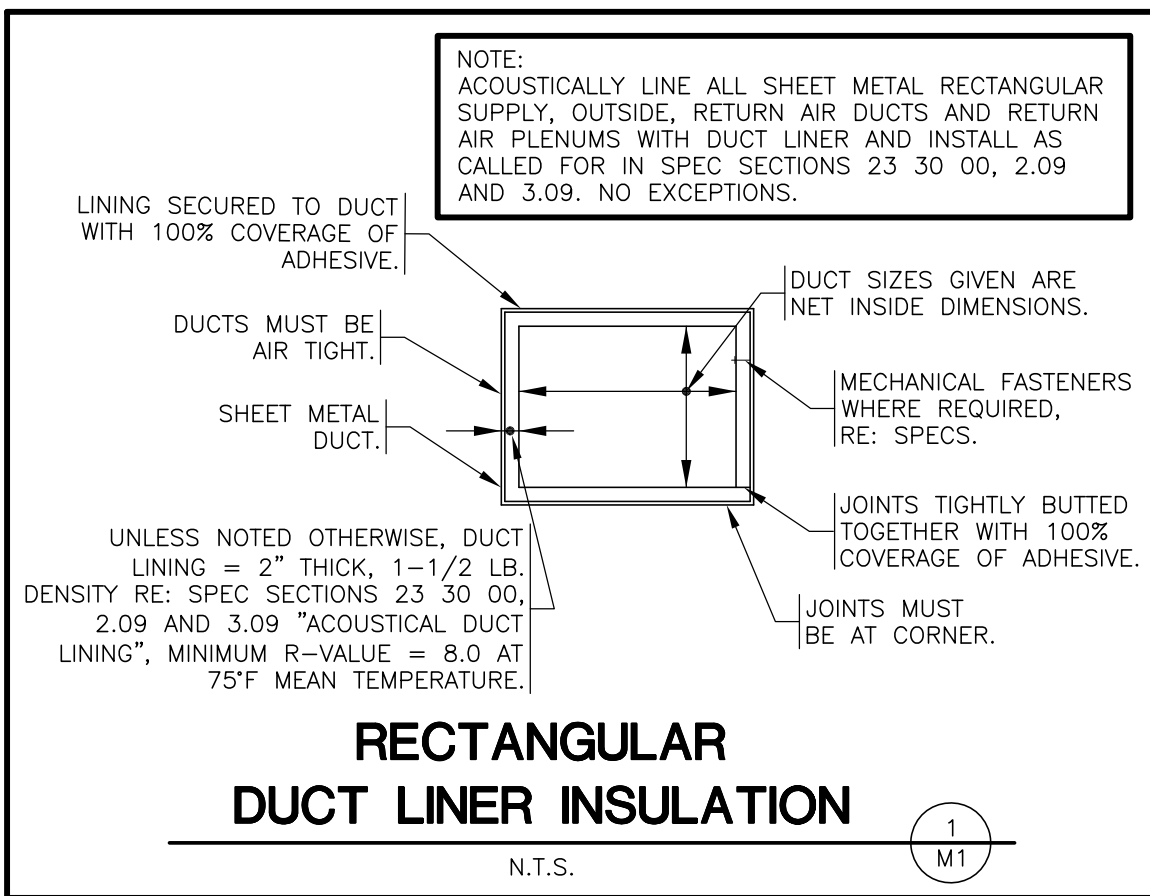
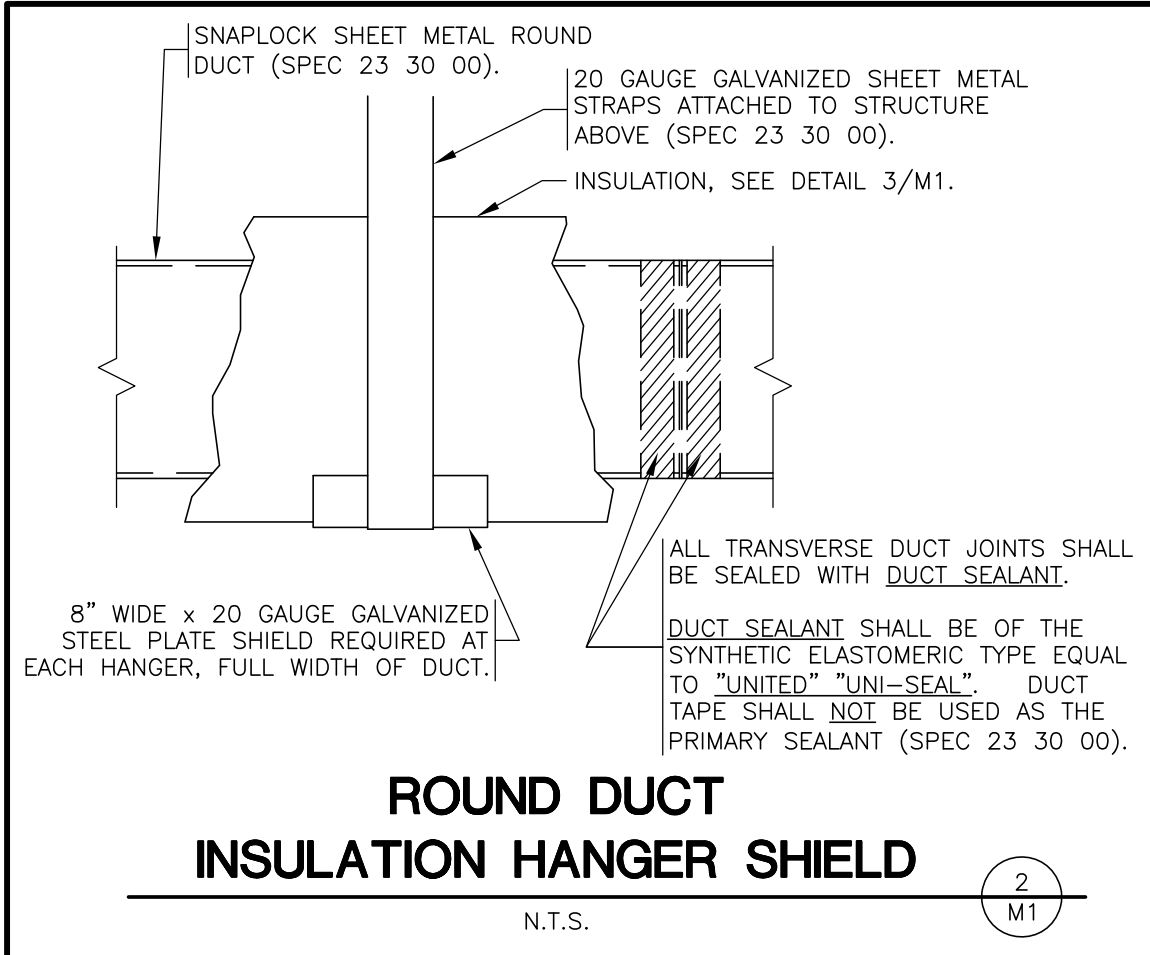
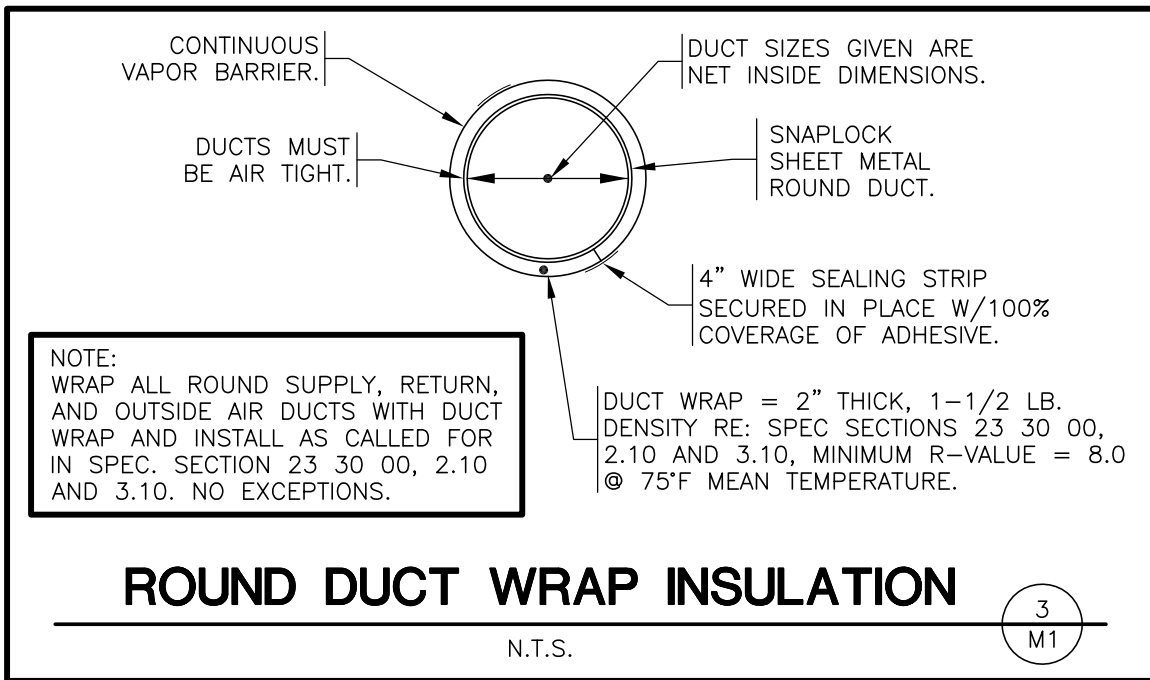
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MOP BASIN/EYEWASH ELEVATION

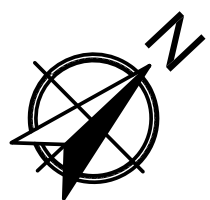
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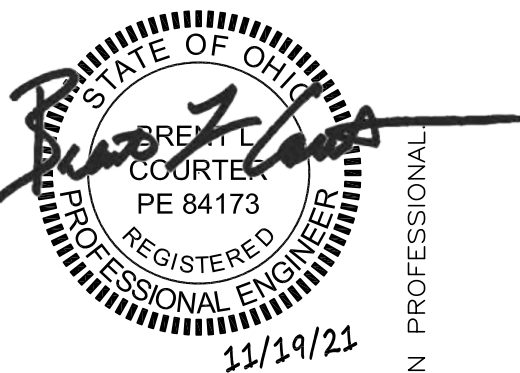


HVAC PLAN

SCALE: 1/8" = 1'-0"



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O'Reilly AUTO PARTS

CORPORATE OFFICES
233 SOUTH PATTERSON
SPRINGFIELD, MISSOURI 65802
(417) 862-2674 TELEPHONE

PROJECT:
NEW O'REILLY AUTO PARTS STORE
301 NORTH MAIN STREET
MONROE, OHIO

HVAC PLAN

3855 S. JEFFERSON AVE.
SPRINGFIELD, MO 65807
P: 417-862-2550
F: 417-862-2550
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SGE
SMITH-GOTH ENGINEERS, INC.

DRAWN BY: **LHT** CHECKED BY: **ALT/BLC**

DATE: **11/19/21**

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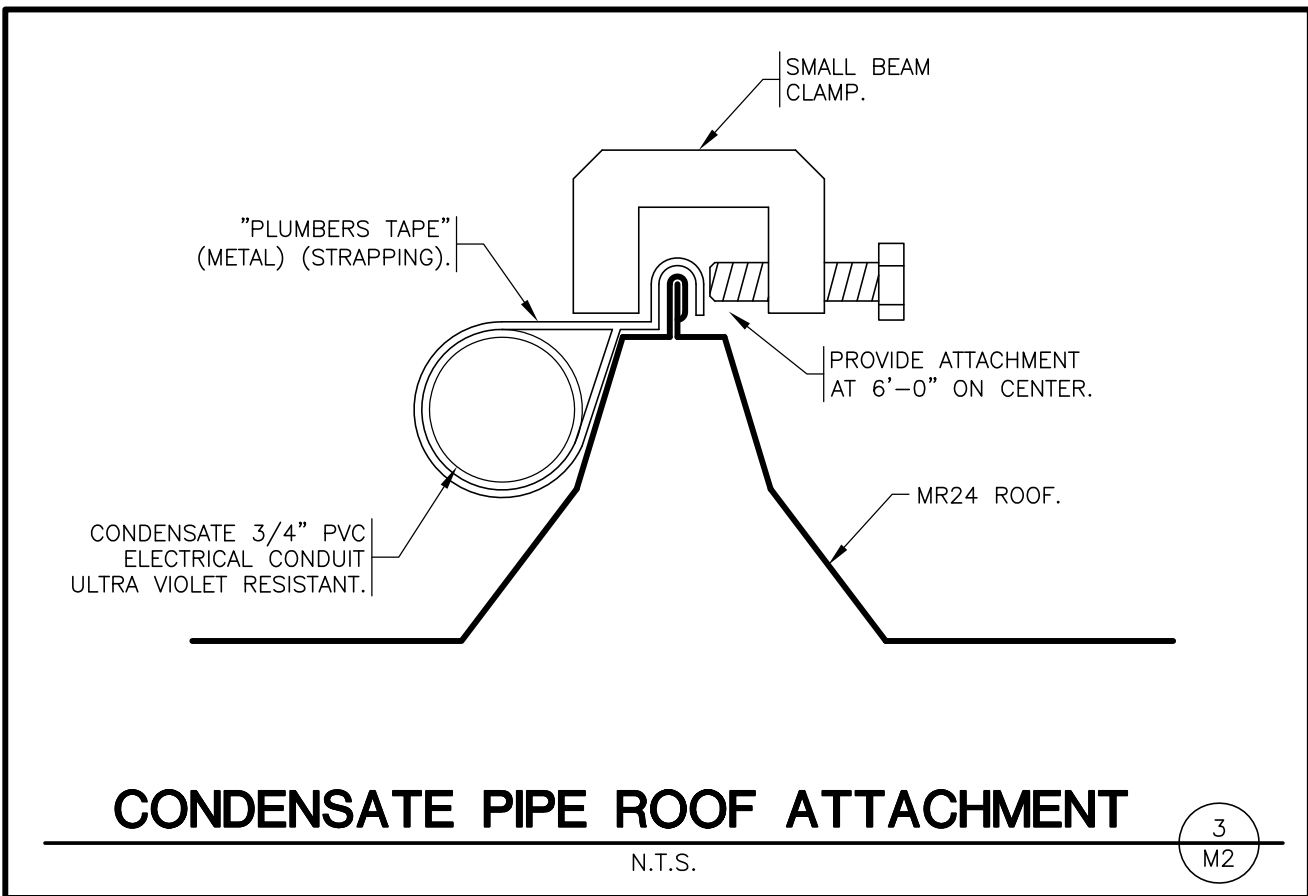
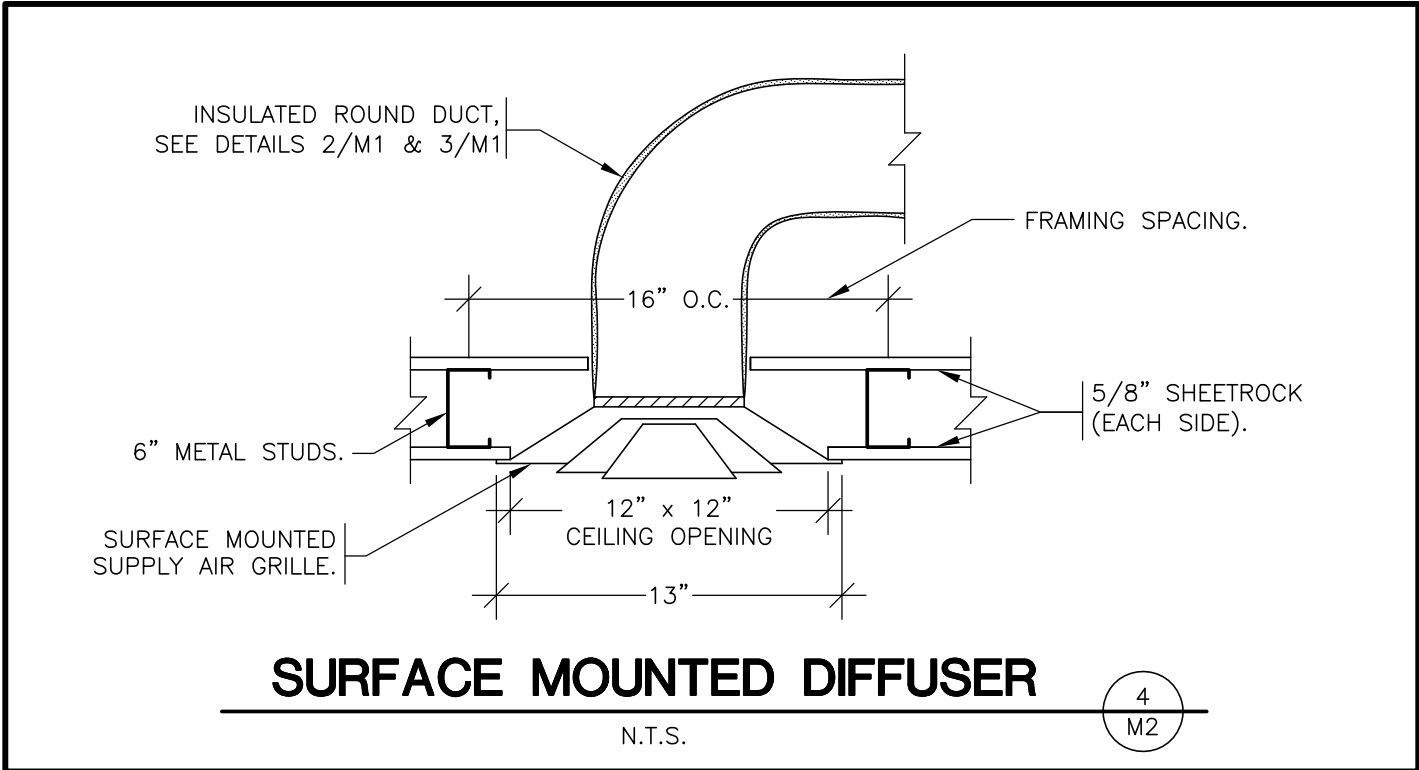
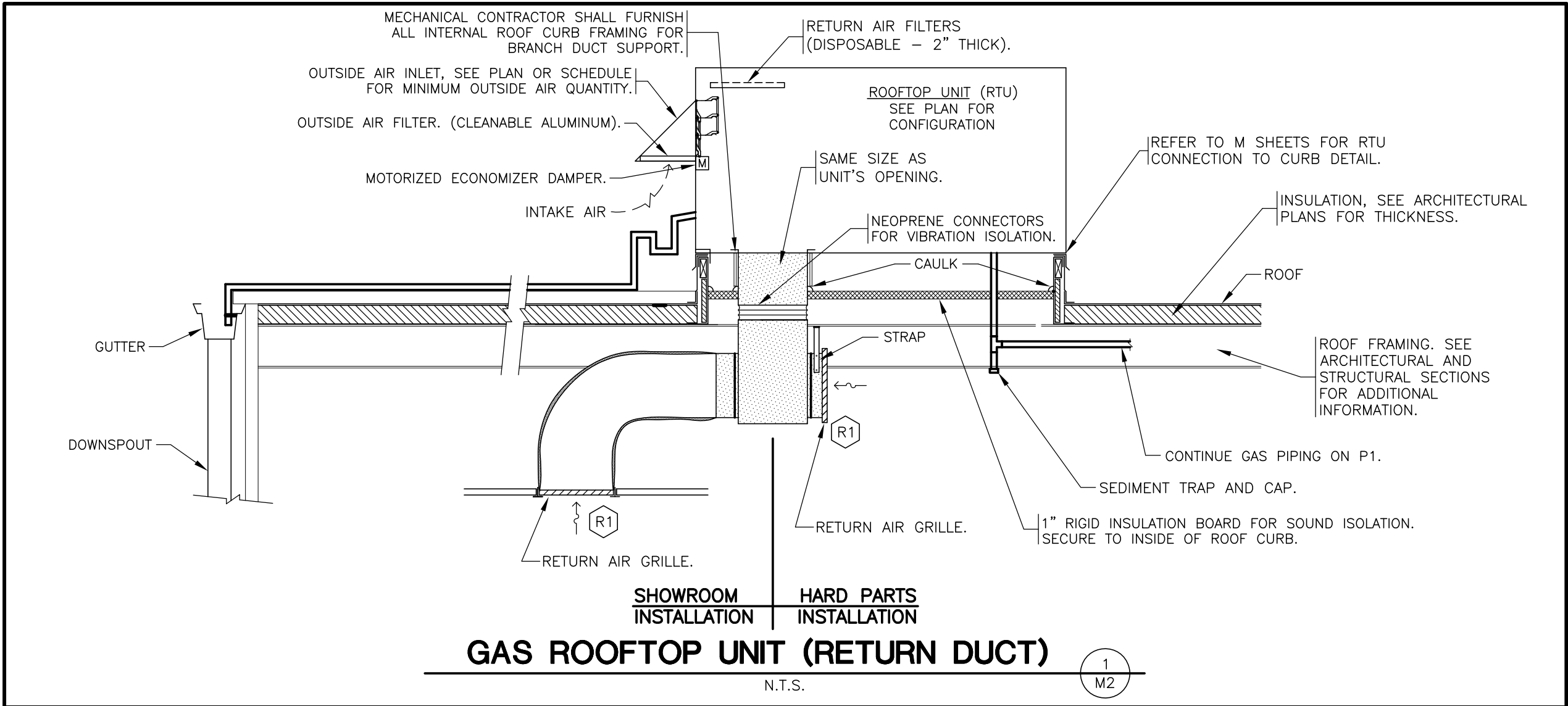
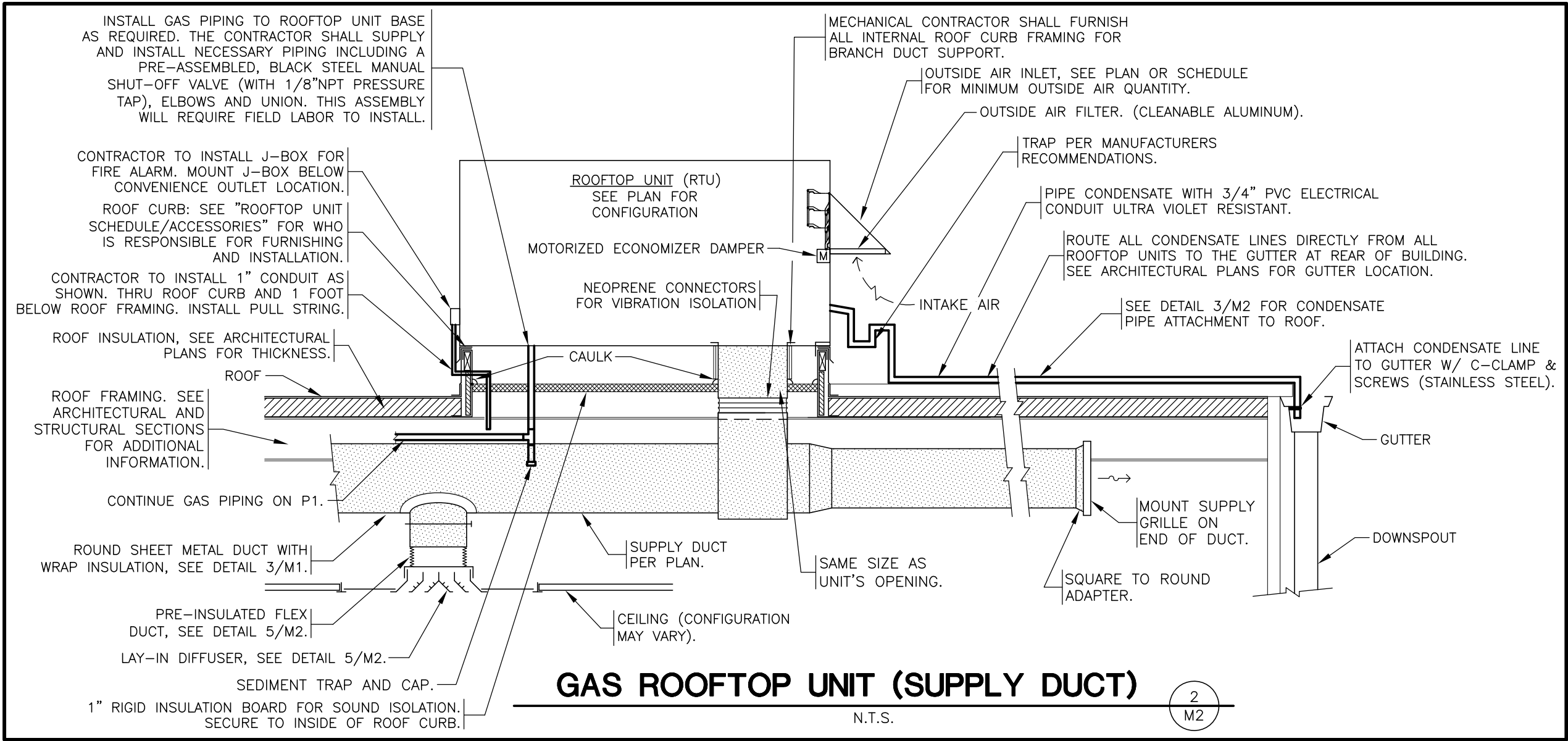
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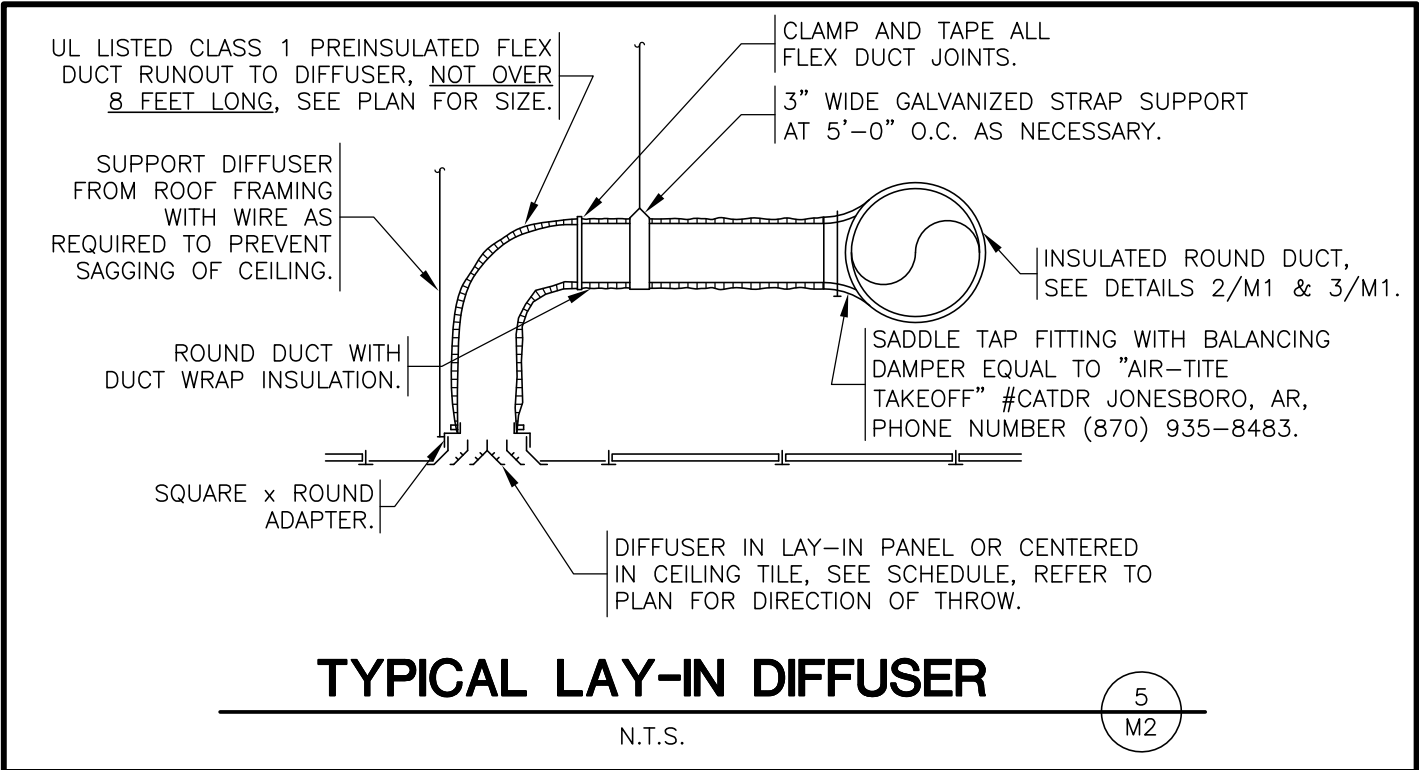
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NATIONAL ACCOUNT - ROOFTOP UNIT SCHEDULE - 7.5 TON - GAS (3-PHASE) - BY O'REILLY																							
RTU - RESPONSIBILITIES										CALL THE CARRIER CUSTOMER SERVICE REP. BELOW FOR CONFIRMATION OF ORDERS. DO NOT CALL CARRIER FOR QUOTES!													
1.) ALL CARRIER HVAC UNITS ARE OWNER SUPPLIED BY O'REILLY AUTOMOTIVE. 2.) MECHANICAL CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF ALL CARRIER HVAC UNITS. 3.) MECHANICAL CONTRACTOR IS RESPONSIBLE FOR THE FIRST YEAR LABOR WARRANTY ON ALL OWNER SUPPLIED EQUIPMENT. 4.) MECHANICAL CONTRACTORS WORKING ON O'REILLY PROJECTS MUST CALL "CARRIER CORPORATION'S NATIONAL ACCOUNTS" DEPARTMENT FOR CONFIRMATION OF ORDERS ONLY! 5.) MECHANICAL CONTRACTOR IS RESPONSIBLE FOR SCHEDULING, SHIPPING & RECEIVING OF ALL CARRIER UNITS FROM CARRIER NATIONAL ACCOUNTS. CONTACT CUSTOMER SERVICE REP. LISTED TO THE RIGHT.										CUSTOMER SERVICE REPS: TARA ROWSER 315-432-6979 Tara.rowser@carrier.com HEATHER THURSTON 315-432-7654 Heather.Thurston@carrier.com strategicaccounts1@carrier.com ACCOUNT MANAGER: PAUL WITZ paul.witz@carrier.com CELL 315-317-2481													
MARK	DESCRIPTION	MFR.	CATALOG NUMBER	STAGE 1 IN/OUT	HTG. MBH STAGE 2 IN/OUT	TTL. HTG. IN/OUT	THERM. EFF.	CLG. MBH STAGE 1 TOT./SENS.	STAGE 2 TOT./SENS.	TTL. COOL TOT./SENS.	IEER	EER	SUPPLY FAN			ELECTRICAL		Wt. (lbs.)	ACCESSORIES	REMARKS	REF. DTL.		
RTU-1 RTU-2 RTU-3	WEATHERMASTER PACKAGED ROOFTOP UNIT 7.5-TON	CARRIER	48HCRD08K2M5-0F1D0	120/98	60/50	180/148	82%	46.5/36	46.5/36	93/72	13.00	12.00	3000	△	0.6	1.50	208V/230V/3ø		41	50*	1172	SEE BELOW △△△ △△△	1/M2 2/M2
ACCESSORIES - FACTORY SUPPLIED AND INSTALLED										ACCESSORIES - FACTORY SUPPLIED & FIELD INSTALLED													
HE - STAINLESS STEEL GAS HEAT EXCHANGER, (HIGH HEAT) (15 YR. WARRANTY). SD - RETURN AIR SMOKE DETECTOR. MB - MEDIUM STATIC BLOWER, (SINGLE SPEED). HG - LOUVERED HAIL GUARDS. UPD - UN-POWERED CONVENIENCE OUTLET, (FIELD POWERED), 15AMP, 120V, GROUND FAULT CIRCUIT INTERRUPTER (GFCI) TYPE. TBEG - THRU-THE-BOTTOM-ELECTRIC & GAS SERVICES, (SEE ROOF TOP UNIT DETAILS) SS - HI & LOW REFRIGERANT SAFETY SWITCHES, (STANDARD ON EVERY UNIT) AF - 2" RETURN AIR FILTERS, (STANDARD ON EVERY UNIT) EC - ENTHALPY ECONOMIZER IV, W/BAROMETRIC RELIEF. COF - CONDENSATE OVERFLOW SWITCH, (CAN'T BE USED WITH HORIZONTAL RETURN UNITS).										CO2 - CO2 SENSOR, WALL MOUNT, #33ZCSPCT02LCD-01 CO2/SPACE TEMPERATURE SENSOR WITH LCD DISPLAY & NO OVERRIDE. RTRS - REMOTE TEST/RESET STATION, CARRIER #SD-TRM4(CRSDTEST001400) FOR REMOTE TESTING/RESETTING OF DUCT SMOKE DETECTOR. SEE HVAC PLAN FOR MOUNTING LOCATIONS. HSA - ALARM/STROBE, CARRIER #6536-C5(CRSDHNSB001A00), AUDIBLE/VISUAL SIGNAL DEVICE FOR SIGNALING ALARM OF DUCT SMOKE DETECTOR. SEE HVAC PLAN FOR MOUNTING LOCATIONS.													
ACCESSORIES - O'REILLY SUPPLIED & FIELD INSTALLED										ACCESSORIES - FIELD SUPPLIED & FIELD INSTALLED													
TS1 - GRIDPOINT THERMOSTAT, (NO SUBSTITUTIONS). REFER TO EM SHEETS. DS - NON-FUSED DISCONNECT SWITCH, SUPPLIED W/ ELECTRICAL BILL OF MATERIALS FROM ELECTRICAL EQUIPMENT DISTRIBUTOR. SEE E3 SHEET.										RC1 - ROOF CURB, (12" STANDARD, 14" IN EXTREME SNOW DRIFT AREA'S) ON NEW BUILDING, ROOF CURB IS BY BUILDING MANUFACTURER. ON EXISTING BUILDING, ROOF CURB IS BY GENERAL CONTRACTOR. WEIGHT OF ROOF CURB IS NOT INCLUDED IN THE WEIGHT ABOVE.													
REMARKS										REMARKS													
△ COOLING CAPACITY BASED ON 80°F EDB AND 67°F EWB. △ CAPACITY BASED ON 95°F AMBIENT TEMPERATURE. △ NOTE! HVAC COMPLETION, AT CONSTRUCTION COMPLETION: 1. CONTRACTOR SHALL REPLACE ALL RETURN AIR FILTERS INSIDE ALL HVAC UNITS W/CLEAN NEW AIR FILTERS. 2. CONTRACTOR SHALL SUPPLY AN ADDITIONAL CLEAN SET OF FILTERS TO THE OWNER AT JOB COMPLETION. 3. CONTRACTOR SHALL SHOW THE STORE MANAGER THE LOCATION OF & INSTRUCT HIM/HER HOW TO CHANGE ALL AIR FILTERS. △ FACTORY EQUIPPED WITH STANDARD LOW AMBIENT COOLING TO 35°F ODB.										△ OUTSIDE AIR, SEE PLAN FOR UNIT(S) REQUIRING OUTSIDE AIR. △ REFRIGERANT = R410A (PURON). △ THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WIRING AND CONNECTIONS REQUIRED BETWEEN THE SMOKE DETECTOR AND THE UNIT, AND SHALL PROVIDE SMOKE TESTING TO VERIFY PROPER OPERATION AND UNIT SHUT DOWN PRIOR TO OCCUPANCY. * MAXIMUM CIRCUIT BREAKER OR TIME-DELAY FUSE.													



FAN SCHEDULE											
MARK	DESCRIPTION	MFR.	CATALOG NUMBER	CFM (NOM)	STATIC PRESS.	MOTOR H.P.	ELECTRICAL		ACCESSORIES	REMARKS	REF. DETAIL
							V/PH	MCA	MOCP		
EF-1	INLINE EXHAUST FAN	COOK	GN-642	500	0.1	195W	120/1	-	-	BD,DS,WC	△△
EF-2	INLINE FAN	COOK	GN-642	500	0.1	195W	120/1	-	-	BD,DS,SS	△
ACCESSORIES							REMARKS				
BD - GRAVITY BACK DRAFT DAMPER DS - DISCONNECT SWITCH WC - WALL CAP, "COOK" #WCA-6, ALUMINUM SS - FAN SPEED SWITCH "COOK" #FSC (OFFICE ONLY)							△ ADJUST FOR CFM REQUIRED. △ EXHAUST FAN SHALL BE WIRED BY THE ELECTRICAL CONTRACTOR TO OPERATE WITH EITHER RESTROOM'S LIGHT SWITCH. △ FAN IN OFFICE TO BE CONTROLLED BY FAN SPEED SWITCH.				
APPROVED ALTERNATE MANUFACTURER'S											
FANS: *GREENHECK *CARNES											

GRILLE AND DIFFUSER SCHEDULE										
MARK	DESCRIPTION	MFR.	CATALOG NUMBER	SIZE (in.)	FINISH	MOUNTING	BRANCH DUCT SIZE	ACCESSORIES	REMARKS	REF. DETAIL
G1	SUPPLY GRILLE	ANEMOSTAT	S2H0	14x14	WHITE	DUCT	SEE PLAN	OB	△	-
S1	SUPPLY DIFFUSER	ANEMOSTAT	E-1-D	12x12	WHITE	SURFACE	SEE PLAN	DT	△△	4/M2
S2	SUPPLY DIFFUSER	ANEMOSTAT	EPL	24x24	WHITE	DUCT/LAY-IN	SEE PLAN	-	△	5/M2
R1	RETURN GRILLE	ANEMOSTAT	GC5	24x24	WHITE	LAY-IN/EXPOSED	SEE PLAN	-	NON-FILTERED GRILLE	5/M2
R2	RETURN GRILLE	ANEMOSTAT	GC5	12x12	WHITE	SURFACE	SEE PLAN	-	NON-FILTERED GRILLE	4/M2
X1	EXHAUST GRILLE	ANEMOSTAT	S3HS	12x12	WHITE	CEILING	SEE PLAN	OB	-	-
ACCESSORIES						REMARKS				
OB - OPPOSED BLADE DAMPER. DT - DIRECTIONAL TABS.						△ 1-WAY △ 4-WAY △ DIRECTIONAL TABS, ADJUST TO PROVIDE THROW AS INDICATED ON PLANS.				
APPROVED ALTERNATE MANUFACTURER'S										
GRILLES, DIFFUSERS & DAMPERS: *TUTTLE & BAILEY *NAILOR *ARROW *CARNES *PRICE INDUSTRIES *TITUS *KRUEGER										



STATE OF OHIO

BRETT J. REILLY

PE 84173

REGISTERED PROFESSIONAL ENGINEER

11/19/21

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PROJECT:
NEW O'REILLY AUTO PARTS STORE
301 NORTH MAIN STREET
MONROE, OHIO

3855 S. JEFFERSON AVE.
SPRINGFIELD, MO 65807
P: 417-882-2550
F: 417-882-2550
WWW.EMTIGHTH.COM

SGE

SMITH+GOTH ENGINEERS, INC.

DRAWN BY:
LHT

CHECKED BY:
ALT/BLC

DATE:
11/19/21

REVISION:

PROJECT NUMBER:
MNO

SHEET NUMBER
M2

LIGHT FIXTURE SCHEDULE																
ALL ITEMS LISTED ON THE "LIGHT FIXTURE SCHEDULE" WILL BE SUPPLIED BY THE OWNER (O'REILLY). ITEMS SHALL BE DIRECT ORDERED AND OR RELEASED FROM THE LISTED ELECTRICAL EQUIPMENT DISTRIBUTOR:																
SOURCEONE SOLUTIONS 2081 EXCHANGE DRIVE ST. CHARLES, MO 63303																
SOURCEONE SOLUTIONS O'REILLY TEAM EMAIL: noreilly@sourceone.com PHONE: 314-499-6400																
MARK	MFR.	CATALOG NUMBER	SUPPLY VOLTAGE	FINISH	MOUNTING			LAMPS				WATTAGE	DESCRIPTION OF ACCESSORIES	NOTES	FIXTURE QUANTITY	
					LAY-IN	RECESSED	SURFACE WALL	SURF. CEILING	OTHER	TYPE						(General Electric) LAMP CATALOG NUMBER/TYPE
										FLUORESCENT	LED					
LED DIMMABLE LIGHTS - ALL INDOOR LIGHT FIXTURES SHALL HAVE DISCONNECTING MEANS TO COMPLY WITH NEC 410.130(G)																
A	SAYLITE	SOSN-FR-96L-Q46W6600L-DMV-40K-ORY NO SUBSTITUTIONS	120	WHITE			X		X			---	46	GRID HANGER (2 PER FIXTURE)	GRID HANGER (OAPGH) (CEILING GRID ONLY). 0-10 VOLT DIMMING DRIVER STANDARD	49
B	SAYLITE	SOSN-FR-48L-Q23W3300L-DMV-40K-ORY NO SUBSTITUTIONS	120	WHITE			X		X			---	23	GRID HANGER (2 PER FIXTURE)	GRID HANGER (OAPGH) (CEILING GRID ONLY). 0-10 VOLT DIMMING DRIVER STANDARD. OMIT GRID HANGER @ HARD CEILING	14
C	SAYLITE	SOSN-FR-96L-Q46W6600L-DMV-40K-ORY NO SUBSTITUTIONS	120	WHITE					X	X		---	46	CHSS - 5' CHAIN HANGING KIT (1 KIT HAS 2 CHAINS & 2 V HOOKS)	HANG TOP OF FIXTURES AT 12" A.F.F WITH CHAIN HANGERS & 2 V HOOKS. VERIFY LENGTH OF CHAIN REQUIRED. 0-10 VOLT DIMMING, DRIVER STANDARD	32
D	SAYLITE	SOSN-FR-48L-Q23W3300L-DMV-40K-ORY NO SUBSTITUTIONS	120	WHITE					X	X		---	23	CHSS - 5' CHAIN HANGING KIT (1 KIT HAS 2 CHAINS & 2 V HOOKS)	HANG TOP OF FIXTURES AT 12" A.F.F WITH CHAIN HANGERS & 2 V HOOKS. VERIFY LENGTH OF CHAIN REQUIRED. 0-10 VOLT DIMMING, DRIVER STANDARD	11
LED DIMMABLE LIGHTS (EMERGENCY BATTERY PACK)																
AE	SAYLITE	SOSN-FR-96L-Q46W6600L-DMV-40K-ORY-EM NO SUBSTITUTIONS	120	WHITE				X		X		---	46	GRID HANGER (2 PER FIXTURE)	GRID HANGER (OAPGH) (CEILING GRID ONLY). 0-10 VOLT DIMMING DRIVER STANDARD. 10W EMERGENCY BATTERY PACK INSTALLED (EM10). INSTALL UNSWITCHED POWER SOURCE TO EACH FIXTURE. SEE DIAGRAM 1/E1	3
COMBINATION EXIT/EMERGENCY LIGHTS, EMERGENCY LIGHTS & EXTERIOR EMERGENCY REMOTE HEADS																
XR	HUBBELL LIGHTING	CCRRC	120	WHITE			X	X		X	2	LED EXIT + (2) 3.6V	4	UNIVERSAL (WALL/CLG.) SINGLE PR DOUBLE FACE	BACKUP BATTERIES SHALL MAINTAIN 100% ILLUMINATION FOR A MINIMUM OF 90 MINUTES TO COMPLY WITH ARTICLE 700.12(A) OF THE N.E.C. IF CEILING HEIGHT IS 11'-7" OR LOWER, CEILING MOUNT. IF CEILING IS HEIGHT IS HIGHER THAN 11'-7" WALL MOUNT AT 12'-8" AFF.	9
EM	HUBBELL LIGHTING	CU2	120	WHITE			X	X		X	2	3.6V	0.56	UNIVERSAL (WALL/CLG.)	BACKUP BATTERIES SHALL MAINTAIN 100% ILLUMINATION FOR A MINIMUM OF 90 MINUTES TO COMPLY WITH ARTICLE 700.12(A) OF THE N.E.C. MOUNT AT 12'-6" MINIMUM AFF.	9
RH2	HUBBELL	CORD	3V DC	WHITE			X			X	2	LED REMOTE HEAD	2	---	POWERED BY EMERGENCY "XR" FIXTURE.	3
LED EXTERIOR LIGHTS																
L	LSI	LAD6 41 LED 40 75 UE TR6R SFHAZ	120	CLEAR			X			X	1	---	42	---	RECESSED CAN.	1
WS-	SEE "SP1" SHEET FOR EXTERIOR LIGHTING WALL SCONCE FIXTURE SCHEDULE															
P-	SEE "SP1" SHEET FOR EXTERIOR LIGHTING POLE LIGHT FIXTURE SCHEDULE															
FIXTURE QUANTITY TO BE VERIFIED WITH LIGHTING PLAN QUANTITY																

EXIT SIGNS

REFER TO NOTES IN "LIGHT FIXTURE SCHEDULE" FOR MINIMUM MOUNTING HEIGHT FOR EXIT SIGNS (FIXTURE "XR"). ALL EXIT SIGNS MUST BE CLEARLY VISIBLE, NOT OBSCURED BY SHELVING AND/OR MERCHANDISE AND COORDINATED WITH INTERIOR PAINT SCHEME. CONFIRM SHELVING HEIGHT(S) AND PAINT SCHEME WITH O'REILLY REPRESENTATIVE PRIOR TO INSTALLATION.

THE MAXIMUM HEIGHT FOR AN EXIT LIGHT ASSOCIATED WITH A SPECIFIC OPENING (I.E. MOUNTED OVER A DOOR OR OPENING) SHALL BE NO GREATER THAN THE CODE ALLOWED 6'-8" ABOVE THE TOP EDGE OF THE DOOR OR OPENING.

CONDUIT REQUIREMENTS

ALL WIRING SHALL BE IN CONDUIT, EXCEPT THAT MC-CABLE MAY BE SUBSTITUTED ONLY AS FOLLOWS:

A. MC-CABLE (MAXIMUM CABLE LENGTH OF 10'-0") MAY BE INSTALLED ONLY FOR BRANCH CIRCUIT WIRING TO LIGHT FIXTURES.

B. MC-CABLE (MAXIMUM CABLE LENGTHS SHOWN ON DETAIL 2/E2) MAY BE INSTALLED ONLY ABOVE SLAB AND ONLY AT LOCATIONS INDICATED ON E2 SHEET.

SEE SHEET E4 FOR MORE REQUIREMENTS

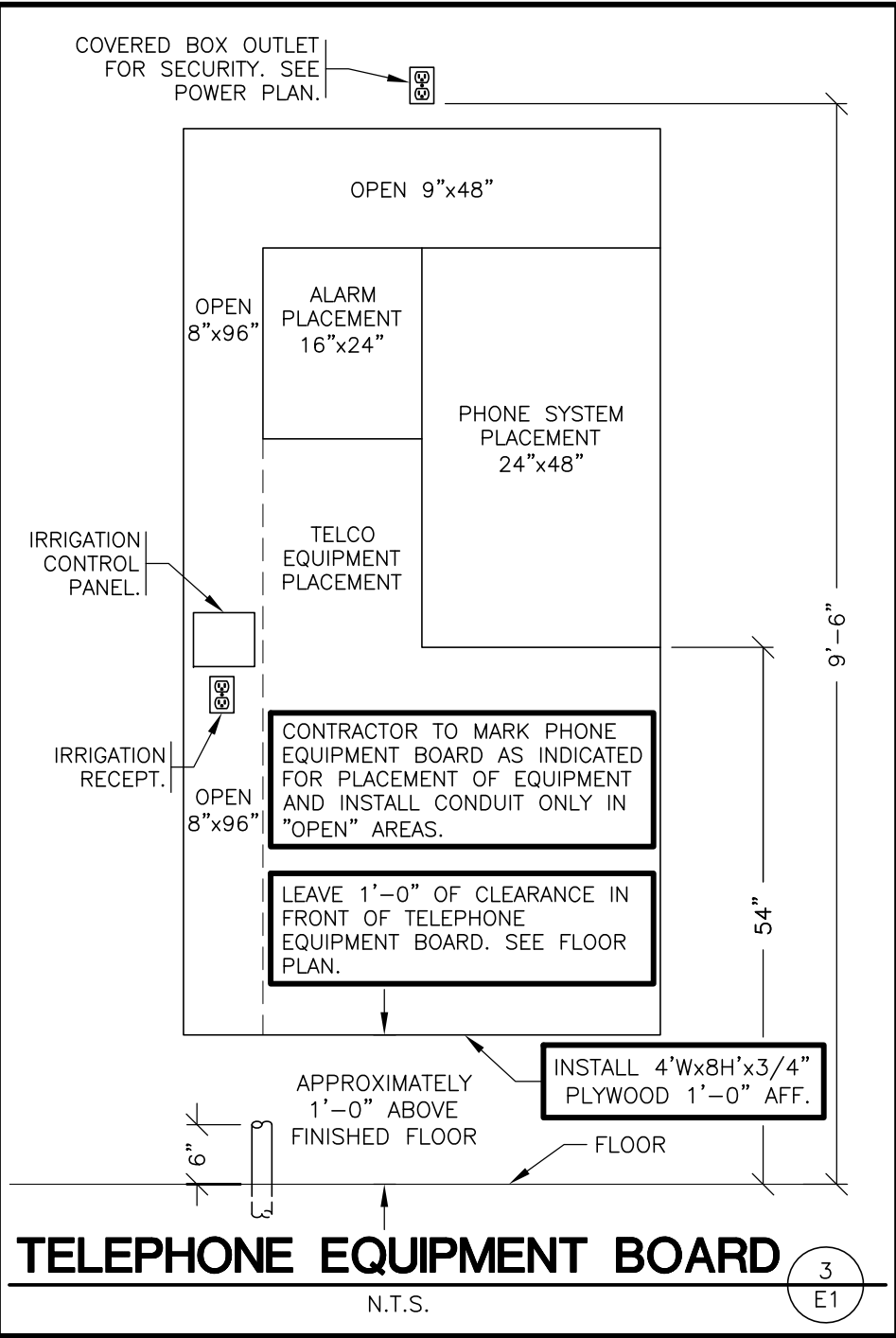
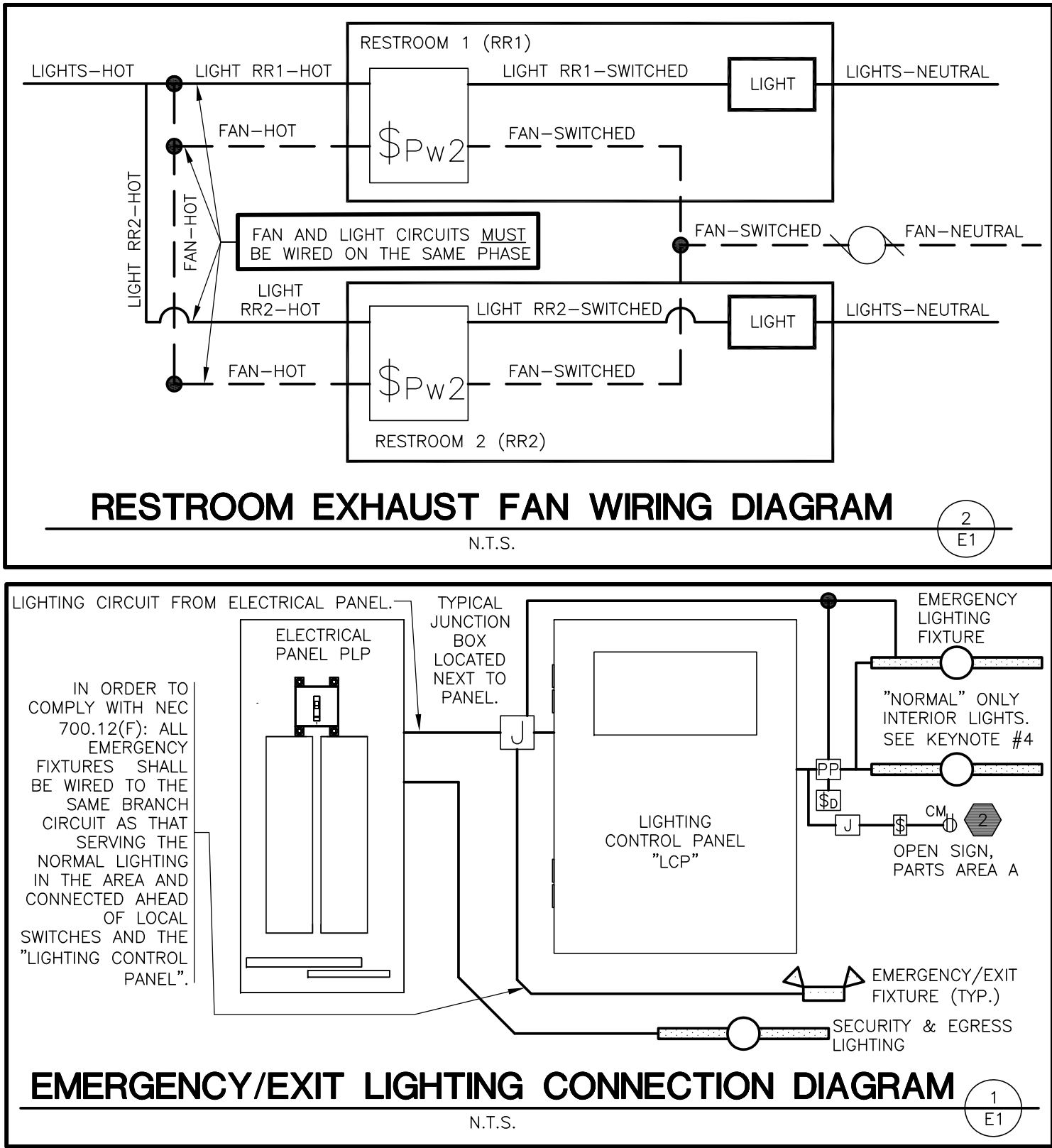
SEISMIC RESTRAINTS (ONLY REQUIRED FOR SEISMIC DESIGN CATEGORIES C,D,E,F)

CONTRACTOR TO REFER TO ARCHITECTURAL SHEET G1.1 FOR SEISMIC DESIGN CATEGORY.

IF REQUIRED SEE SEISMIC DETAILS SHEET ME1.

EMERGENCY LIGHTING

INSTALL EMERGENCY LIGHTING FIXTURES MINIMUM 12'-6" A.F.F. FIXTURE SHALL BE LOCATED SUCH THAT IT IS CLEARLY VISIBLE AND NOT OBSCURED BY SHELVING AND/OR MERCHANDISE. FIELD VERIFY HEIGHT OF SHELVING WITH O'REILLY REPRESENTATIVE PRIOR TO INSTALLATION.



LIGHTING - KEYNOTES

1. MOUNT J-BOX INSIDE BUILDING & FLEX CONDUIT THRU WALL FOR POWER SUPPLY TO ILLUMINATED SIGN. EXACT LOCATIONS OF PENETRATIONS SHALL BE COORDINATED WITH SIGN COMPANY. PENETRATIONS SHALL BE BEHIND SIGNAGE. WATERPROOF W/ ELASTOMERIC POLYURETHANE (NO EXCEPTIONS) EQUAL TO "VULKEM" 116. WIRE TO SIGN WITH 15' OF WIRING "WHIP" (SHALL BE FLEX OR TYPE MC CABLE) & MAKE FINAL ELECTRICAL CONNECTIONS TO THE SIGN CABINET'S. TYPICAL.

2. TO "OPEN" SIGN. SEE SHEET E2.

3. SEE "E" PANEL TRANSFER SWITCH SCHEDULE FOR POSITION OF CIRCUIT WIRES THROUGH TRANSFER SWITCH.

4. VIA LIGHTING CONTROL PANEL. SEE EM SHEET.

5. DIMMER LIGHTING CONTROL SWITCHES LOCATED ON OUTSIDE WALL OF OFFICE. SEE LIGHTING PLAN FOR QUANTITY. SEE DETAILS ON SHEET E4 FOR MORE INFORMATION.

6. SUSPEND 8'-0" A.F.F. THIS FIXTURE ONLY.

7. ROUTE THE OFFICE AND RESTROOM'S LIGHTING CIRCUIT THRU THE LOCAL OCCUPANCY SENSORS AND DIRECTLY TO THE CIRCUIT BREAKER. THESE FIXTURES SHALL NOT BE SWITCHED BY THE LIGHTING CONTROL PANEL. SEE "E" PANEL TRANSFER SWITCH SCHEDULE FOR POSITION OF CIRCUIT WIRES THROUGH TRANSFER SWITCH.

8. REFER TO ARCHITECTURAL ELEVATIONS SHEETS SHOWING DIMENSIONED LOCATIONS. TYPICAL ALL WALL SCONCES.

9. SECURITY & EGRESS FIXTURE TO BE AS CLOSE AS POSSIBLE BUT NOT OVER THE OVERHEAD DOOR WHEN OPEN.

10. ROUTE SECURITY & EGRESS LIGHTING CIRCUIT DIRECTLY TO THE ELECTRICAL PANEL.

AUTOMATIC LIGHTING CONTROL

COMPLIANCE WITH ENERGY CODE IS ACHIEVED BY:

1. ONCE THE EMS HAS BEEN PROGRAMMED, THE INTERIOR AND EXTERIOR LIGHTS WILL TURN ON AND OFF USING THE FOLLOWING LOGIC: SEE EM SHEETS.

INTERIOR WORK LIGHTS WILL TURN ON WITH FIRST MOTION IN THE STORE AND WILL TURN OFF 15 MINUTES AFTER LAST MOTION ONCE THE STORE IS CLOSED.

INTERIOR SALES LIGHTS WILL TURN ON AT STORE OPENING AND TURN OFF 15 MINUTES AFTER STORE CLOSING.

EXTERIOR SIGN LIGHTS WILL TURN ON WHEN ITS DARK ENOUGH OUTSIDE ANYTIME DURING STORE HOURS, AND WILL TURN OFF AT STORE CLOSING.

EXTERIOR SITE LIGHTS WILL TURN ON WHEN IT IS DARK ENOUGH OUTSIDE AND IT IS WITHIN STORE HOURS OR THERE IS MOTION IN THE STORE. THEY WILL TURN OFF 30 MINUTES AFTER LAST MOTION ONCE THE STORE IS CLOSED.

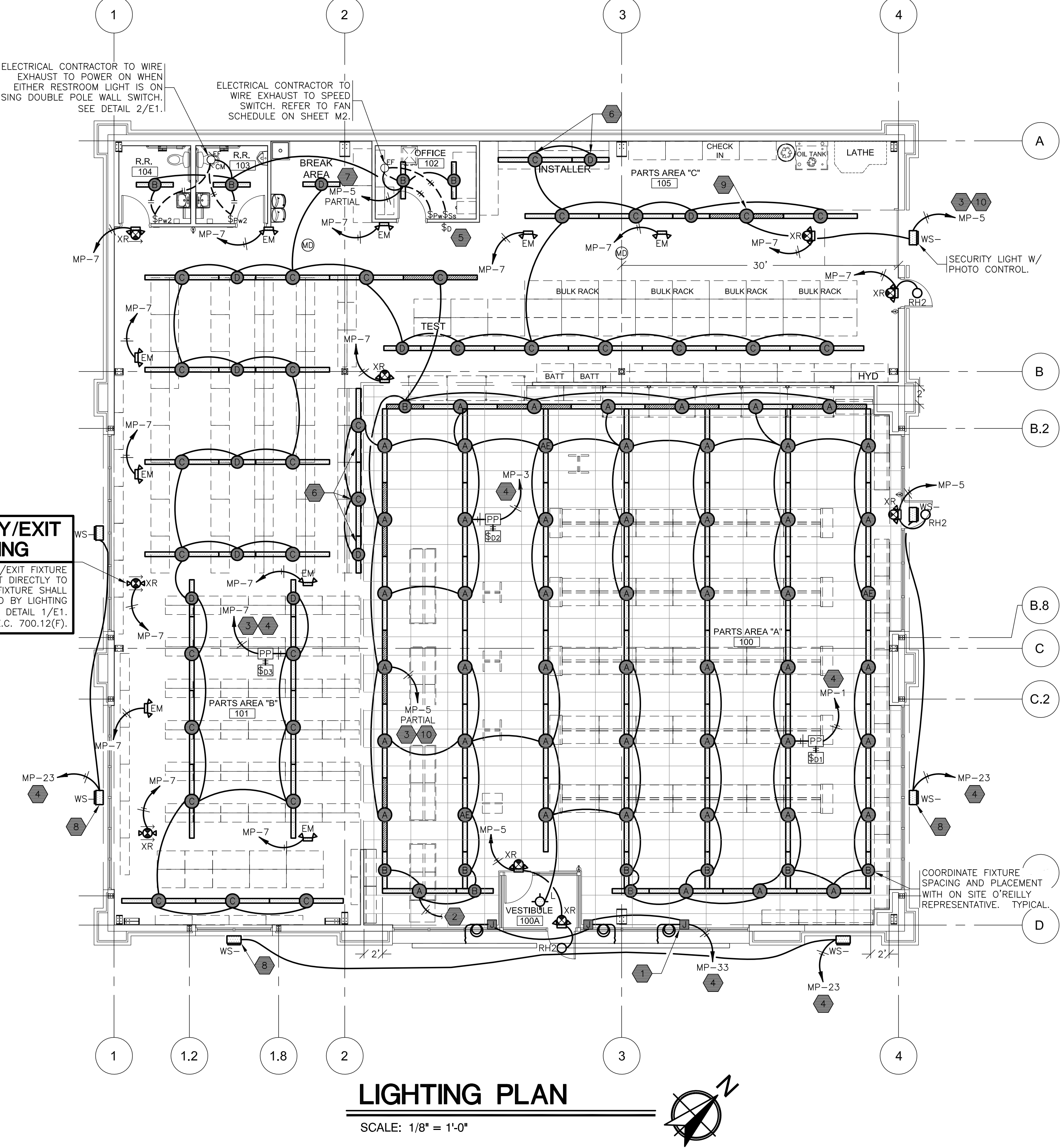
FOR NEW CONSTRUCTION LOCATIONS ONLY, THERE IS A TEMPORARY PROGRAM TO KEEP SIGN AND SITE LIGHTS ON UNTIL MIDNIGHT RATHER THAN THE TIMES INDICATED ABOVE. O'REILLY WILL DISABLE THIS PROGRAM ONE YEAR AFTER STORE OPENING.

2. RESTROOMS AND OFFICES: ALL LIGHTING IN THESE AREAS ARE CONTROLLED BY OCCUPANT-SENSING DEVICES.

INTERIOR LIGHTING ZONES

ALL INTERIOR LIGHTING WITHIN PARTS AREA "A" SHALL BE CONSIDERED "SALES" ZONE (ON ONLY WHEN STORE IS OPEN FOR BUSINESS).

ALL INTERIOR LIGHTING WITH PARTS AREA "B", PARTS AREA "C", RESTROOMS, OFFICE, AND BREAK AREA SHALL BE CONSIDERED "WORK" ZONES (ON WHENEVER THERE IS MOTION OR THE STORE IS OPEN).



BTS

STATE OF OHIO
BRETT J. PATTERSON
REGISTERED PROFESSIONAL ENGINEER
PE 84173
11/19/21

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O'Reilly AUTO PARTS
CORPORATE OFFICES
233 SOUTH PATTERSON
SPRINGFIELD, MISSOURI 65802
(417) 862-2674 TELEPHONE

PROJECT:
NEW O'REILLY AUTO PARTS STORE
301 NORTH MAIN STREET
MONROE, OHIO

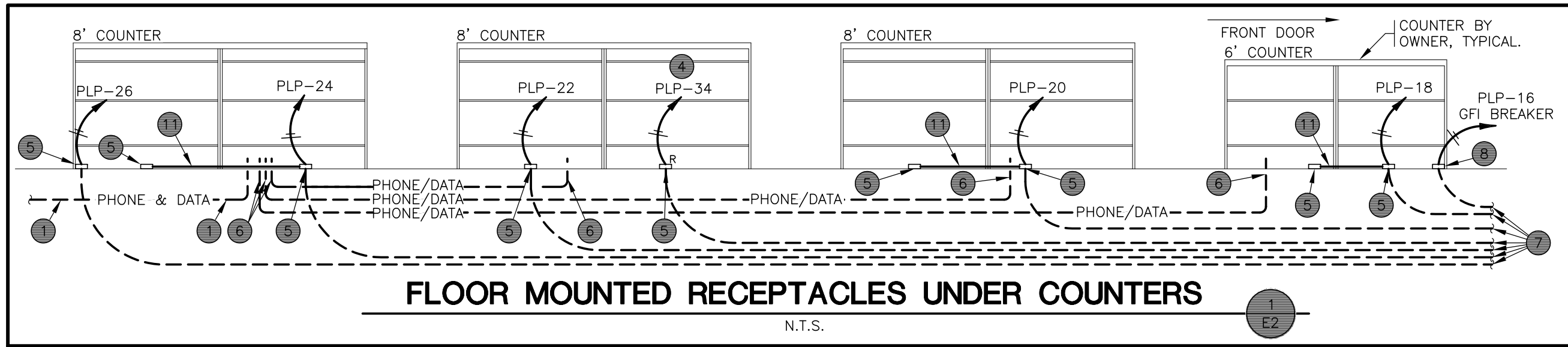
3855 S. JEFFERSON AVE.
SPRINGFIELD, MO 65807
P: 417-862-2550
F: 417-862-2550
WWW.SWITGO.COM

SWITGO ENGINEERS, INC.

DRAWN BY: LHT
CHECKED BY: ALT/BLC
DATE: 11/19/21
REVISION:
PROJECT NUMBER: MNO
SHEET NUMBER: E1

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TELEPHONE & COMPUTER DATA SYSTEMS:

A. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL TELEPHONE AND DATA CONDUITS.

B. ELECTRICAL CONTRACTOR SHALL VACUUM OUT ALL CONDUITS TO REMOVE WATER.

C. ELECTRICAL CONTRACTOR SHALL PROVIDE PULL-STRING IN EACH CONDUIT.

D. OWNER SHALL PROVIDE AND INSTALL ALL TELEPHONE AND DATA WIRING.

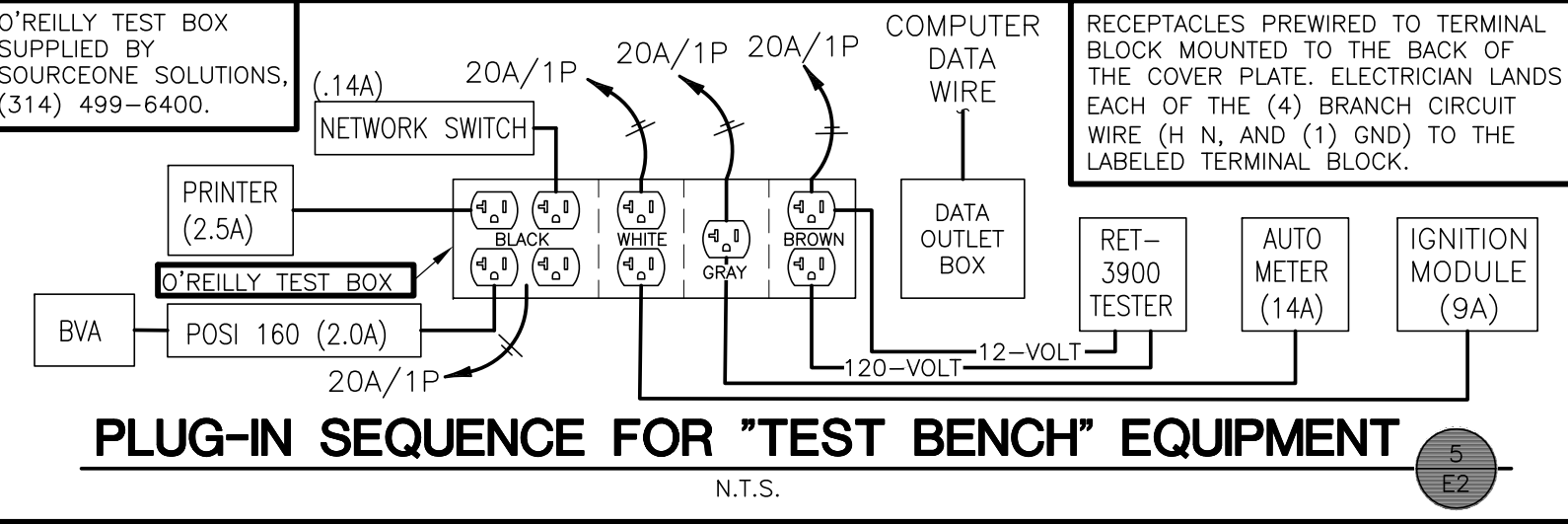
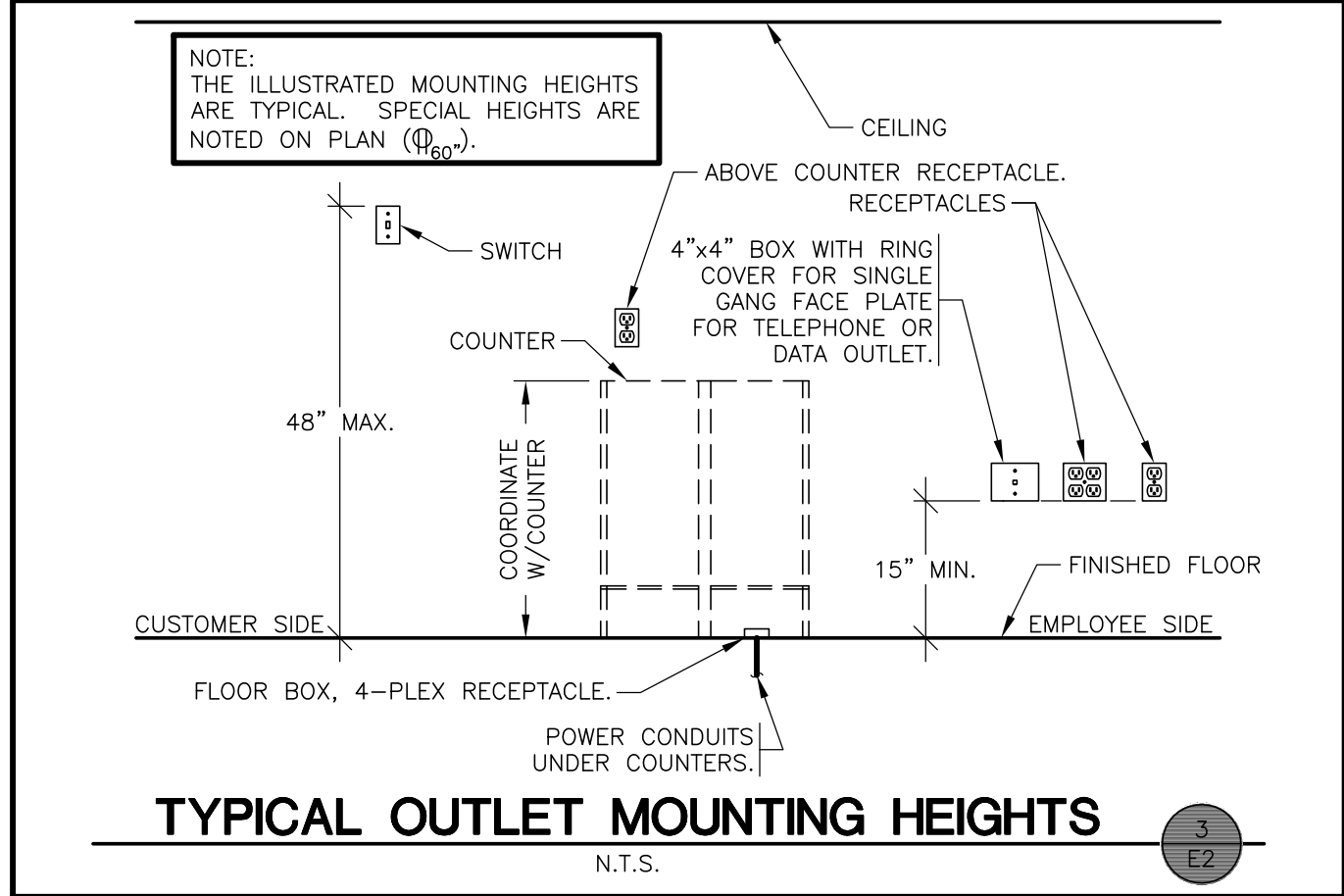
FIRE ALARM NOTE:

IN THE EVENT A MONITORED FIRE SPRINKLER SYSTEM IS REQUIRED BY THE AUTHORITY HAVING JURISDICTION, THE FIRE ALARM SYSTEM WILL BE CONTRACTED DIRECTLY BY THE DIRECTOR OF FACILITY SECURITY, LEIGH SIDES, WITH THE O'REILLY AUTOMOTIVE CORPORATE OFFICE. THE GENERAL CONTRACTOR SHALL NOT PROCURE ANYONE TO INSTALL OR QUOTE THESE SYSTEMS UNLESS THEY HAVE BEEN ASKED TO DO SO BY LEIGH SIDES. PLEASE CONTACT LEIGH SIDES @ 417-874-7132 IF A SYSTEM IS NEEDED OR IF THERE ARE ANY QUESTIONS.

SEISMIC RESTRAINTS (ONLY REQUIRED FOR SEISMIC DESIGN CATEGORIES C,D,E,F)

CONTRACTOR TO REFER TO ARCHITECTURAL SHEET G1.1 FOR SEISMIC DESIGN CATEGORY.

IF REQUIRED SEE SEISMIC DETAILS SHEET ME1.

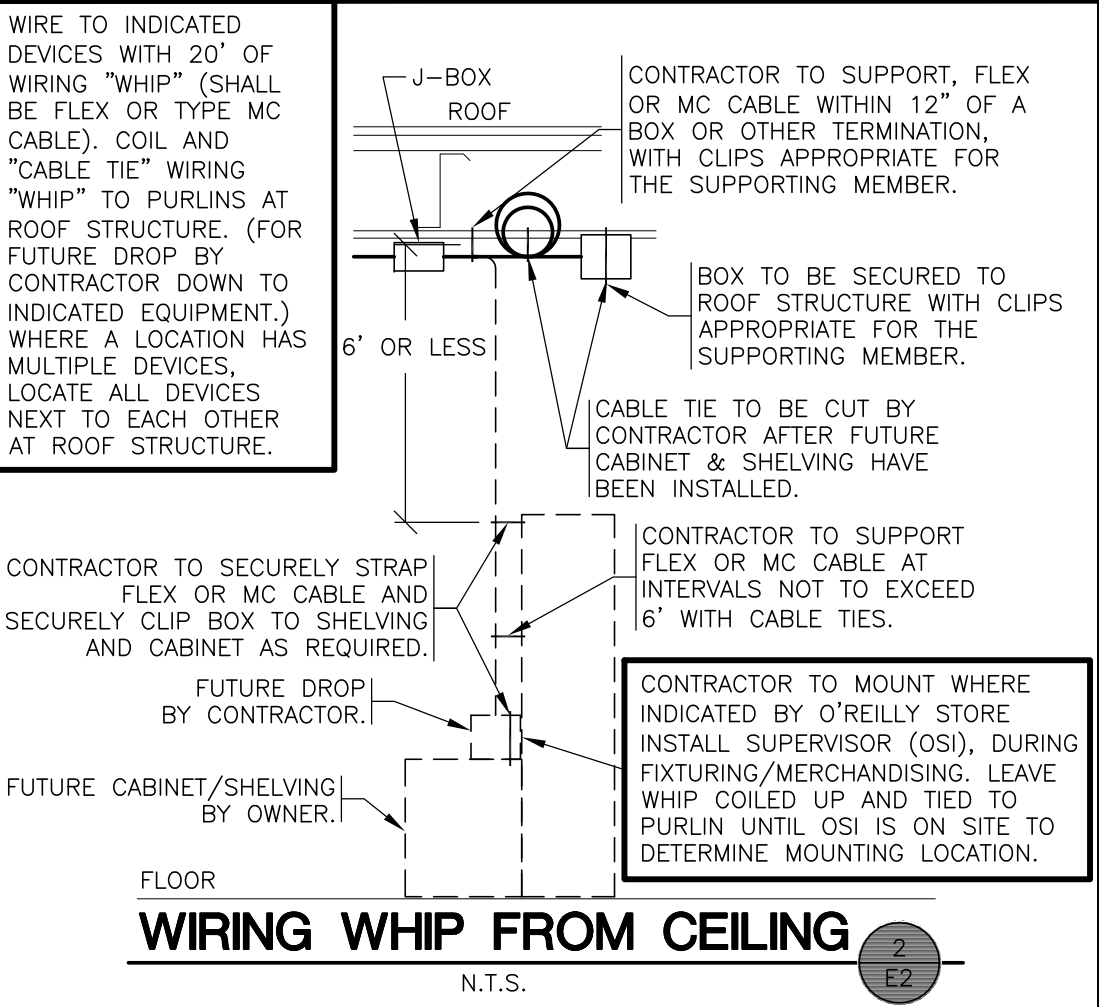


CONDUIT REQUIREMENTS

ALL WIRING SHALL BE IN CONDUIT, EXCEPT THAT MC-CABLE MAY BE SUBSTITUTED ONLY AS FOLLOWS:

A. MC-CABLE (MAXIMUM CABLE LENGTH OF 10'-0") MAY BE INSTALLED ONLY FOR BRANCH CIRCUIT WIRING TO LIGHT FIXTURES.

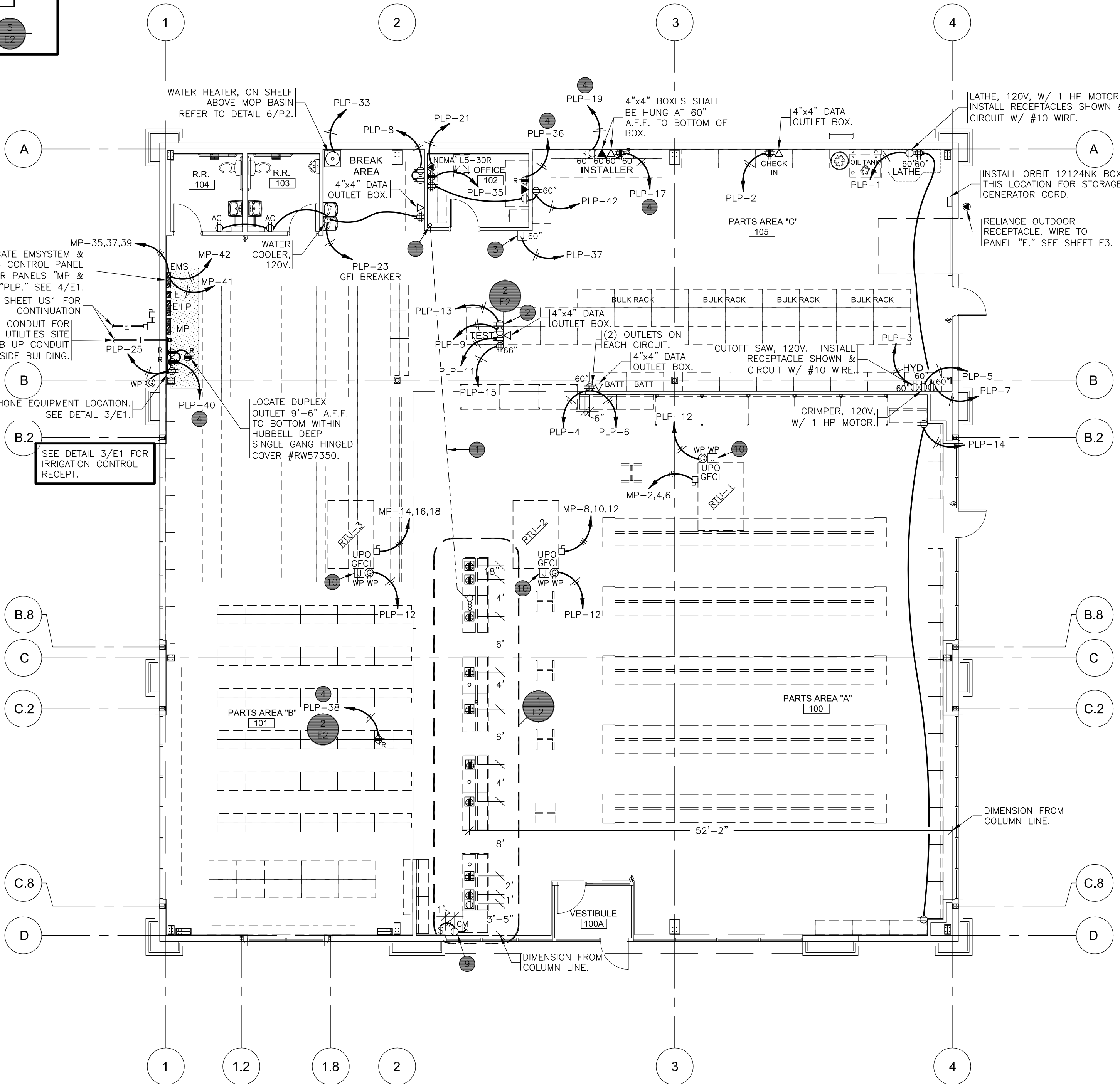
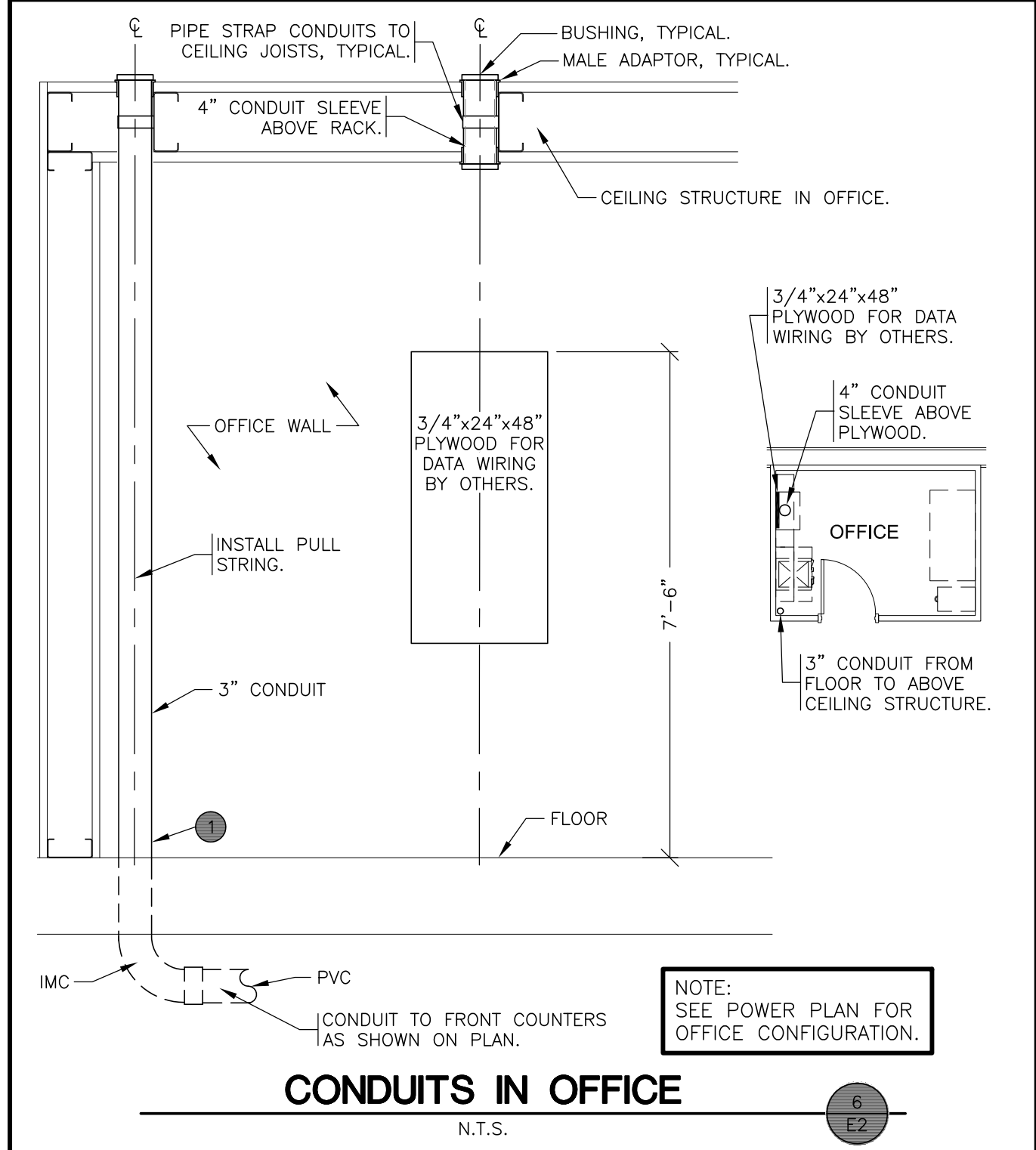
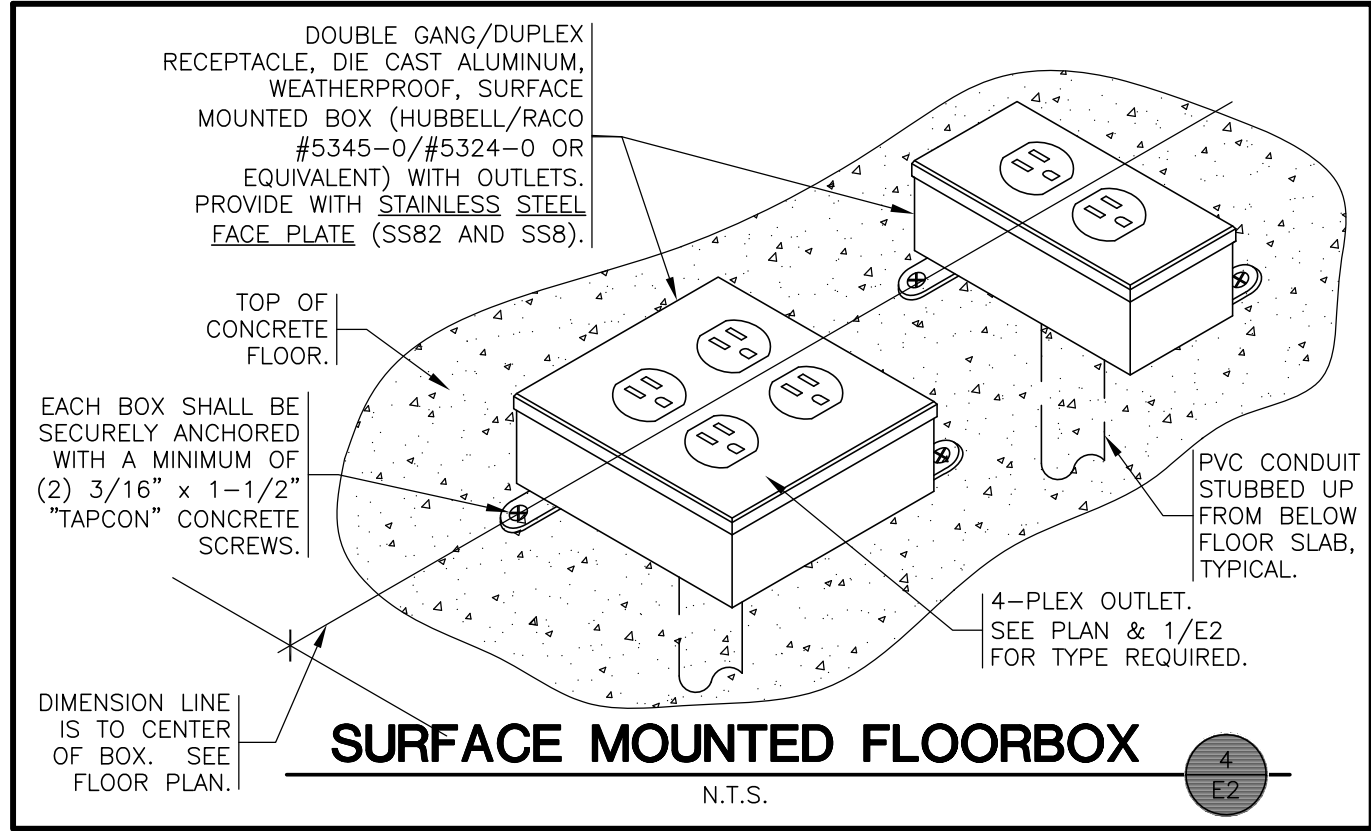
B. MC-CABLE (MAXIMUM CABLE LENGTHS SHOWN ON DETAIL 2/E2) MAY BE INSTALLED ONLY ABOVE SLAB AND ONLY AT LOCATIONS INDICATED ON E2 SHEET." SEE SHEET E4 FOR MORE REQUIREMENTS



- POWER - KEYNOTES**
- 3" CONDUIT UNDERSLAB FROM COUNTER TO OFFICE FOR PHONE & DATA WIRING BY OWNER. STUB 3" CONDUIT TO A MINIMUM OF 9 FEET ABOVE FINISH FLOOR IN OFFICE. STUB 3" CONDUIT TO A MINIMUM OF 2-INCHES ABOVE FINISH FLOOR UNDER COUNTER. SEE DETAIL 1/E2 & 6/E2. INSTALL PULL STRING.
 - TEST OUTLET BOX. 120V. INSTALL (2) DUPLEX OUTLETS EACH ON THEIR OWN CIRCUIT, (1) SINGLE OUTLET ON ONE CIRCUIT, (1) QUADPLEX OUTLET ON ONE CIRCUIT & A COMPUTER DATA OUTLET BOX. ALL MOUNTED AT 66" ABOVE FLOOR. SEE DETAIL 5/E2.
 - J-BOX/CIRCUIT FOR FIRE ALARM SYSTEM INSTALLED IF, AND ONLY IF, FIRE ALARM SYSTEM IS REQUIRED. CONTRACTOR SHALL CONFIRM THAT SYSTEM IS REQUIRED PRIOR TO ROUGH-IN. THE BREAKER SHALL BE PAINTED RED AND LOCKABLE.
 - ROUTE CIRCUIT THROUGH "E" PANEL TRANSFER SWITCH. SEE "E" PANEL TRANSFER SWITCH SCHEDULE ON SHEETS E3.
 - FLOOR 4-PLEX ISOLATED GROUND RECEPTACLE. SEE DETAIL 4/E2.
 - STUB UP 2" CONDUITS (FOR PHONE/DATA) TO A MINIMUM OF 2-INCHES ABOVE FINISH FLOOR. NO BOXES REQUIRED. TYPICAL OF ALL COUNTERS. SEE DETAIL 1/E2.
 - 3/4" PVC CONDUIT UNDERSLAB. RUN ONE PVC CONDUIT FROM EACH FLOOR RECEPTACLE TO PANEL LOCATION.
 - FLOOR DUPLEX RECEPTACLE (FOR COKE MACHINE) SEE DETAIL 4/E2 SIMILAR.
 - MOUNT RECEPTACLE IN CEILING FOR "OPEN" SIGN. CIRCUIT RECEPTACLE TO NEAREST LIGHTING CONTROL PANEL CONTROLLED LIGHTING CIRCUIT AND AHEAD OF ALL DIMMER SWITCHES AND DAY LIGHTING CONTROLS. "OPEN" SIGN CAN ALSO BE OPERATED BY WALL SWITCH. SEE DETAIL 1/E1.
 - CONTRACTOR TO INSTALL J-BOX, CONDUIT, AND PULL STRING FOR FIRE ALARM. MOUNT J-BOX BELOW OPTIONAL CONVENIENCE OUTLET LOCATION. REFERENCE SHEET M2.
 - MC CABLE BETWEEN COUNTER RECEPTABLES.

MARKING OF ELECTRICAL WORKING SPACE

IN FRONT OF ALL METER PANELS, SUB PANELS, TRANSFORMERS, AND DISCONNECTS, PROVIDE A WORKING SPACE IN FRONT, ON THE FLOOR. RECTANGLE, PAINT WITH CONTRASTING COLOR, 4-INCH BRUSH STROKES WITH DIAGONAL LINES INSIDE, WITH 6-INCH LETTERS, "NO STORAGE" BLOCKED IN, AND/OR LARGE STICKER SAYING THE SAME THING. 4'-0" DEPTH TYPICAL AT ALL LOCATIONS.



POWER PLAN

SCALE: 1/8" = 1'-0"

BTS

STATE OF OHIO
BRETT A. PATTERSON
REGISTERED PROFESSIONAL ENGINEER
PE 84173
11/19/21

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O'Reilly AUTO PARTS

CORPORATE OFFICES
233 SOUTH PATTERSON
SPRINGFIELD, MISSOURI 65802
(417) 862-2674 TELEPHONE

PROJECT:
NEW O'REILLY AUTO PARTS STORE
301 NORTH MAIN STREET
MONROE, OHIO

POWER PLAN

3855 S. JEFFERSON AVE.
SPRINGFIELD, MO 65807
P: 417-862-2650
F: 417-862-2650
WWW.SMTGOTH.COM

SGE
SMITH-GOTH ENGINEERS, INC.

DRAWN BY: LHT
CHECKED BY: ALT/BLC
DATE: 11/19/21
REVISION:
PROJECT NUMBER: MNO
SHEET NUMBER: E2

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ALL PANELBOARDS, TRANSFORMERS, TRANSFER SWITCH KIT, ENERGY MANAGEMENT SYSTEM AND DISCONNECTS WILL BE SUPPLIED BY THE OWNER (O'REILLY). ELECTRICAL GEAR SHALL BE DIRECT ORDERED AND/OR RELEASED FROM THE LISTED ELECTRICAL EQUIPMENT DISTRIBUTOR. SEE "ELECTRIC SERVICE RESPONSIBILITIES" FOR ADDITIONAL CLARIFICATION:

SOURCEONE SOLUTIONS
2081 EXCHANGE DRIVE
ST. CHARLES, MO 63303

SOURCEONE SOLUTIONS O'REILLY TEAM
EMAIL: ncreilly@sourceonesolutions.com
PHONE: 314-499-6400

MP														PANELBOARD SCHEDULE																			
MAINS: 400A MAIN LUGS ONLY										VOLTAGE: 208				ACCESSORIES:																			
TYPE: SIEMENS, P1X										PHASE: 3ø,4W																							
MOUNTING: SURFACE										WIDTH: 20																							
SCCR: 22K AIC										SPACE(S): 42																							
														1. FEED THRU LUGS 2. EQUIPMENT GROUND BAR 3. ISOLATED GROUND BAR 4. * MUST BE "BLH" 50 TO 100 AMP BREAKER 5. * SIEMENS, #ECPLD1, LOCKABLE CLIPS, CKT. #33																			
CKT	CKT	BRK	WIRE	LOAD DESCRIPTION		(KVA)	A(KVA)	B(KVA)	C(KVA)	(KVA)	LOAD DESCRIPTION		WIRE	CKT	BRK	CKT																	
1	20A/1P	#12s		LIGHTING		1.29	5.22			3.93	RTU-1 7.5-TONS		#8s	+50A/3P	4	2																	
3	20A/1P	#12s		LIGHTING		1.15			5.08							6																	
5	20A/1P	#12s		LIGHTING/EXHAUST FAN		0.92				4.85	3.93					6																	
7	20A/1P	#12s		LIGHTING		1.52	5.45				3.93					8																	
9	-	-		SPACE		0			3.93		3.93	RTU-2 7.5-TONS		#8s	+50A/3P	10																	
11	-	-		SPACE		0				3.93	3.93					12																	
13	-	-		SPACE		0		3.93			3.93					14																	
15	-	-		SPACE		0			3.93		3.93	RTU-3 7.5-TONS		#8s	+50A/3P	16																	
17	-	-		SPACE		0				3.93	3.93					18																	
19	-	-		SPACE		0	0.00			0	SPACE	-	-	-	-	20																	
21	-	-		SPACE		0		0.00		0	SPACE	-	-	-	-	22																	
23	20A/1P	#12s		BUILDING LIGHTING		0.27			0.27	0	SPACE	-	-	-	-	24																	
25	20A/1P	#12s		SITE LIGHTING		0.27	0.27			0	SPACE	-	-	-	-	26																	
27	20A/1P	#12s		SITE LIGHTING		0.14		0.14		0	SPACE	-	-	-	-	28																	
29	20A/1P	#12s		SITE SIGN		1.30			1.30	0	SPACE	-	-	-	-	30																	
31	20A/1P	#12s		SITE SIGN		1.30	1.30			0	SPACE	-	-	-	-	32																	
33	*20A/1P	#12s		LED SIGN BUILDING		1.20		1.20		0	SPACE	-	-	-	-	34																	
35	-	-		SPACE		0.03			0.03	0	SPACE	-	-	-	-	36																	
37	20A/3P	#12s		GRIDPOINT EC-2000		0.03	0.03			0	SPACE	-	-	-	-	38																	
39	-	-		SPACE		0.03			0.03	0	SPACE	-	-	-	-	40																	
41	20A/1P	#12s		XFMR J-BOX		0.60			1.20	0.60	LCP-2	#12s	20A/1P	42																			
TOTAL PHASE A (KVA)														TOTAL PHASE B (KVA)				TOTAL PHASE C (KVA)				TOTAL CONNECTED LOAD (KVA)				TOTAL AMPS							
16.20														14.31				15.51				46.02				127.74							
LIGHTING														4.88				EXTERIOR LIGHTING				4.48				TOTAL LIGHTING				9.36			
HVAC														35.37				RECEPTACLES				12.57				MISCELLANEOUS				14.40			
WATER HEATER														1.65				TOTAL CONNECT AMPS =				207.19											

PLP														PANELBOARD SCHEDULE																			
MAINS: 400A MAIN LUGS ONLY										VOLTAGE: 208				ACCESSORIES:																			
TYPE: SIEMENS, P1X										PHASE: 3ø,4W																							
MOUNTING: SURFACE										WIDTH: 20																							
SCCR: 22K AIC										SPACE(S): 42																							
														1. EQUIPMENT GROUND BAR 2. ISOLATED GROUND BAR 3. * SIEMENS, #ECPLD1, LOCKABLE CLIPS, CKT. #33 & #37 4. ** SIEMENS, #BF120AH, GFI BREAKER CKT. #16 & #23																			
CKT	CKT	BRK	WIRE	LOAD DESCRIPTION		(KVA)	A(KVA)	B(KVA)	C(KVA)	(KVA)	LOAD DESCRIPTION		WIRE	CKT	BRK	CKT																	
1	20A/1P	#10s		LATHE		1.70	2.20			0.50	CHECK IN RECEPT. (I.G.)		#12s	20A/1P	2																		
3	20A/1P	#10s		CUTOFF SAW		1.73		1.91		0.18	BATTERY RACK RECEPT.		#10s	20A/1P	4																		
5	20A/1P	#12s		CRIMPER		1.77			1.95	0.18	BATTERY RACK RECEPT.		#10s	20A/1P	6																		
7	20A/1P	#12s		RECEPTACLES		0.54	0.90			0.36	BREAK AREA RECEPTS.		#12s	20A/1P	8																		
9	20A/1P	#10s		STARTER/ALT. TESTER		1.68			1.68	0	SPACE		-	-	-	10																	
11	20A/1P	#10s		STARTER/ALT. TESTER		1.68			2.22	0.54	RTU RECEPTACLES		#12s	20A/1P	12																		
13	20A/1P	#10s		STARTER/ALT. TESTER		1.64	2.00			0.36	RECEPTACLES		#12s	20A/1P	14																		
15	20A/1P	#12s		RECEPTACLES		0.36		2.11		1.75	COKE MACHINE (ONLY)		#12s	**20A/1P	16																		
17	20A/1P	#12s		ISOLATED GRD. RECEPTS.		0.36			1.08	0.72	ISOLATED GRD. RECEPTS.		#12s	20A/1P	18																		
19	20A/1P	#12s		RECEPTACLES		0.18	0.90			0.72	ISOLATED GRD. RECEPTS.		#12s	20A/1P	20																		
21	30A/1P	#10s		BATTERY BACKUP (I.G.)		3.00		3.36		0.36	ISOLATED GRD. RECEPTS.		#12s	20A/1P	22																		
23	**20A/1P	#12s		WATER COOLER RECEPT.		0.90			1.62	0.72	ISOLATED GRD. RECEPTS.		#12s	20A/1P	24																		
25	20A/1P	#12s		RECEPTS./IRRIGATION		1.00	1.36			0.36	ISOLATED GRD. RECEPTS.		#12s	20A/1P	26																		
27	-	-		SPACE		0		0.00		0	SPACE		-	-	-	28																	
29	-	-		SPACE		0			0.00	0	SPACE		-	-	-	30																	
31	-	-		SPACE		0	0.00			0	SPACE		-	-	-	32																	
33	*20A/1P	#12s		TANK WATER HEATER		1.65		2.01		0.36	ISOLATED GRD. RECEPTS.		#12s	20A/1P	34																		
35	20A/1P	#12s		ISOLATED GRD. RECEPTS.		0.36			0.72	0.36	ISOLATED GRD. RECEPTS.		#12s	20A/1P	36																		
37	*20A/1P	#12s		FIRE ALARM (IF REQ'D)		0.30	0.80			0.50	PRINTER RECEPTACLE		#12s	20A/1P	38																		
39	-	-		SPACE		0		0.90		0.90	PHONE EQUIP./SECURITY		#12s	15A/1P	40																		
41	-	-		SPACE		0			0.90	0.90	RECEPTACLES		#12s	20A/1P	42																		
TOTAL PHASE A (KVA)														TOTAL PHASE B (KVA)				TOTAL PHASE C (KVA)				TOTAL CONNECTED LOAD (KVA)				TOTAL AMPS							
8.16														11.97				8.49				28.62				79.44							
LIGHTING														4.88				EXTERIOR LIGHTING				4.48				TOTAL LIGHTING				9.36			
HVAC														35.37				RECEPTACLES				12.57				MISCELLANEOUS				14.40			
WATER HEATER														1.65				TOTAL CONNECT AMPS =				207.19											

E					TRANSFER SWITCH SCHEDULE				
POSITION	CIRCUIT	BREAKER	LOAD DESCRIPTION	(KVA)	BREAKER				
A	20A/1P		OFFICE COMPUTER	0.36	PLP-36				
B	20A/1P		COUNTER RECEPTACLES	0.36	PLP-34				
C	20A/1P		PRINTER	0.50	PLP-38				
D	20A/1P		TELEPHONE EQUIPMENT/SECURITY	0.90	PLP-40				
E	20A/1P		INSTALLER (ISOLATED GRD RECEPTACLE)	0.36	PLP-17				
F	20A/1P		INSTALLER (RECEPTACLE)	0.18	PLP-19				
G	20A/1P		LIGHTING SECURITY/OFFICE/BATHROOMS(100% ON)	0.92	MP-5				
H	20A/1P		LIGHTING HARD PARTS (DIMMED TO 90% ON)	1.37	MP-7				
I	20A/1P		SPARE	0	-				
J	20A/1P		SPARE	0	-				
GENERATOR (6,000 WATTS) RATED. MAX KVA=5.0 LOAD					4.95	TOTAL			

NOTE:
ALL BRANCH CIRCUITS SHALL HAVE AN EQUIPMENT GROUNDING CONDUCTOR ROUTED WITH THE CIRCUIT CONDUCTORS. THIS MEANS ALL CONDUITS MUST HAVE A GREEN WIRE INSTALLED IN THEM AND SIZED IN ACCORDANCE WITH TABLE 250.122 OF THE N.E.C.

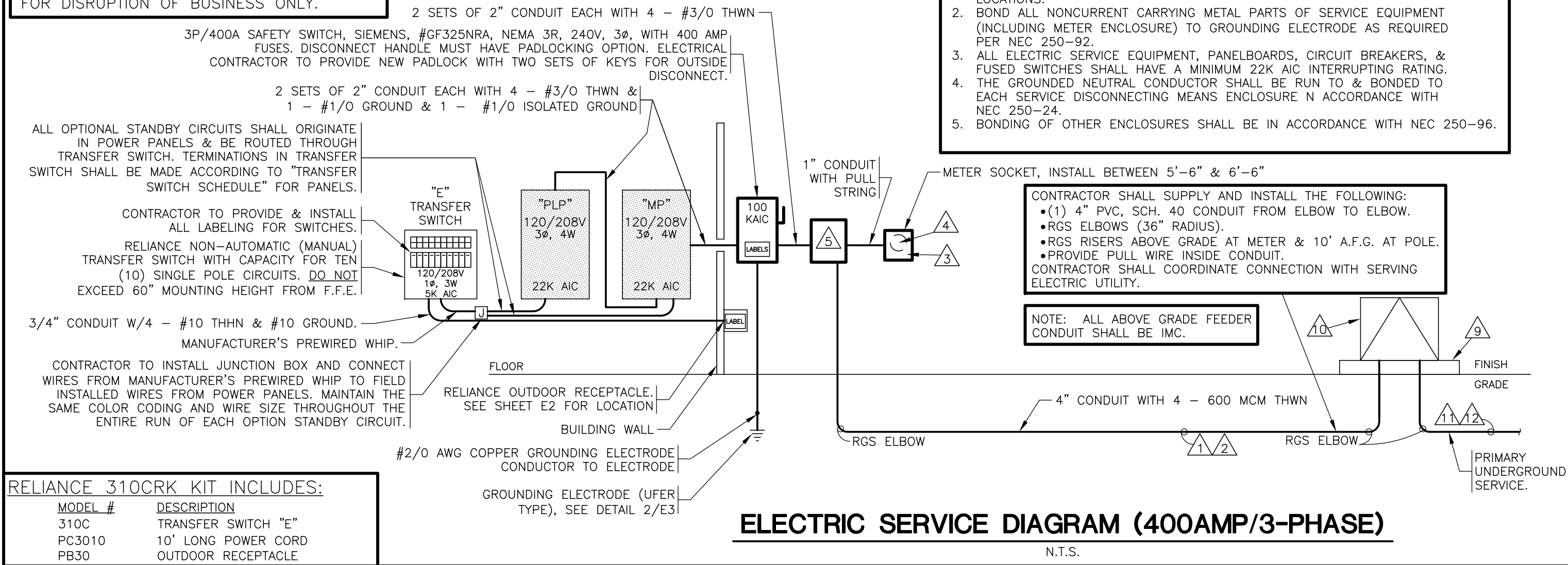
DOT-HATCH REPRESENTS CIRCUITS THAT ARE ASSOCIATED WITH OPTIONAL STANDBY GENERATOR CONTROL.

WIRING & LABELING OF EXIT & EMERGENCY LIGHT CIRCUITS

- SEE DETAIL 1/E1 FOR WIRING OF EXIT & EMERGENCY LIGHTS ON THESE CIRCUITS.
- ALL EXIT & EMERGENCY LIGHTING CIRCUITS SHALL BE LABELED BY THE CONTRACTOR ON THE "PANEL DIRECTORY". (SPEC: NEPA 70.408.4 & 700.12.)

ELECTRIC SERVICE RESPONSIBILITIES					
SEE SITE PLAN FOR UTILITY COMPANY CONTACT.					
ITEM NO.	DESCRIPTION (IF APPLICABLE)	FURNISHED BY		INSTALLED BY	
		UTILITY CO.	CONTRACTOR	UTILITY CO.	CONTRACTOR
1	SERVICE LATERAL		X		X
2	SERVICE LATERAL RACEWAY		X		X
3	METER BASE	X			X
4	METER	X		X	
5	CT CABINET		X		X
6	OH SERVICE RISER @ BUILDING				
7	TRANSFORMER POLE				
8	SERVICE RISER @ POLE				
9	TRANSFORMER PAD				
10	PAD MOUNT TRANSFORMER	X		X	
11	PRIMARY SERVICE LATERAL	X		X	
12	PRIMARY SERVICE RACEWAY		X		X

PORTABLE, PLUG-IN GENERATOR IS FOR NEC ARTICLE 702 OPTIONAL STANDBY LOADS FOR DISRUPTION OF BUSINESS ONLY.



EQUIPMENT LABELS CHART

EQUIPMENT	LABELS (MIN.)					
	SERVICE DISCONNECT	OPTIONAL STANDBY SOURCE	GENERATOR POWER INLET	SERIES RATING	AVAILABLE FAULT CURRENT	
DISCONNECT	X	X				
GENERATOR POWER INLET			X			
MP						
PLP						
E						
CT CABINET						

GENERATOR POWER INLET LABEL

PERMANENT LABEL SHALL BE 2 x 3 IN SIZE AND SHALL BE BLUE LETTERING ON A CONTRASTING BACKGROUND. LABEL TO BE PLACED 6 INCHES ABOVE GENERATOR RECEPTACLE.

WARNING:

FOR CONNECTION OF A NONSEPARATELY DERIVED (FLOATING NEUTRAL) SYSTEM ONLY (MAX. 6,000 WATT GENERATOR)

EXAMPLE OF LABELING ABOVE.

OPTIONAL STANDBY SOURCE LABEL

PERMANENT LABEL SHALL BE 2 x 3 IN SIZE AND SHALL BE BLUE LETTERING ON A CONTRASTING BACKGROUND. LABEL TO BE PLACED ON DISCONNECT DOOR.

CAUTION

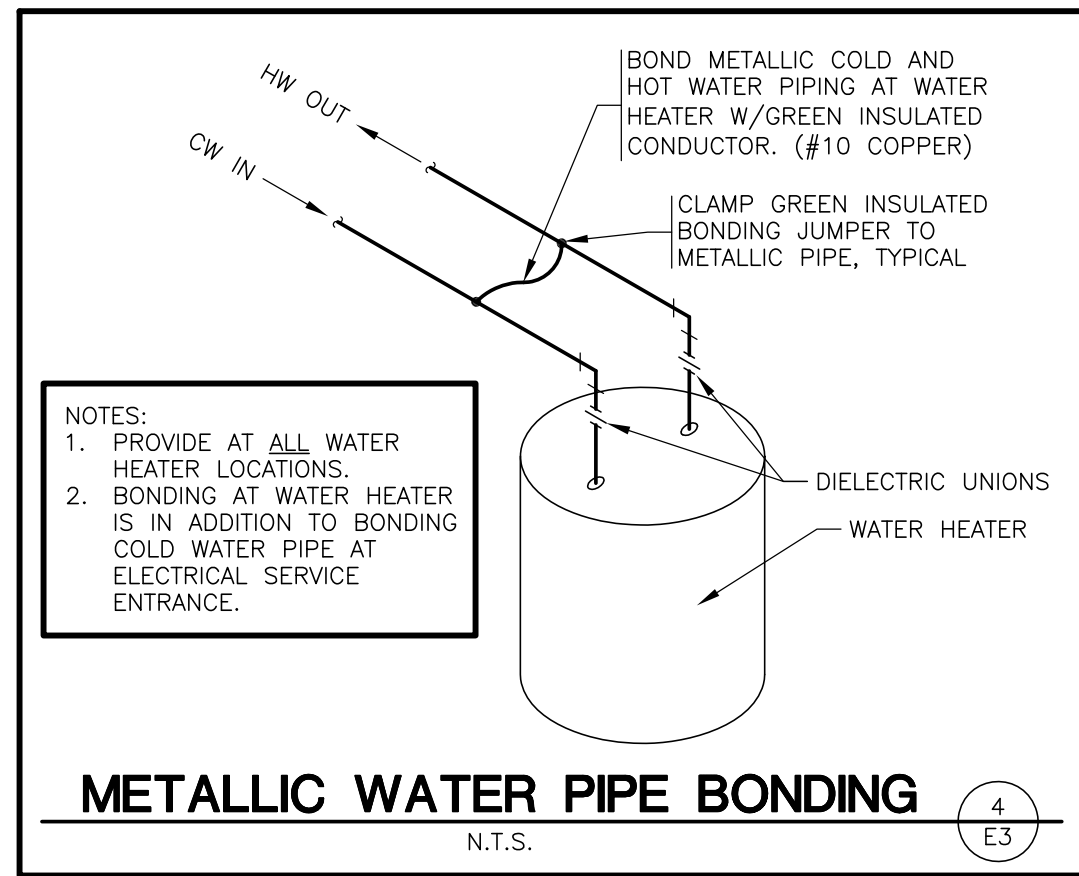
TWO SOURCES OF SUPPLY

STANDBY POWER SOURCE: PORTABLE 6kW GENERATOR LOCATION: OVERHEAD DOOR.

EXAMPLE OF OPTIONAL STANDBY SOURCE LABELING ABOVE.

SERVICE DISCONNECT LABEL

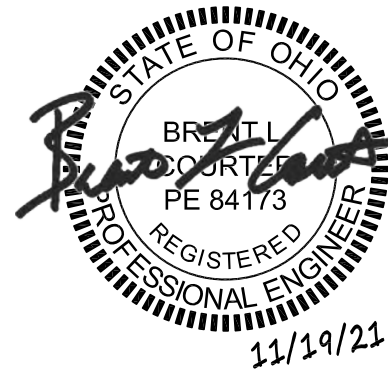
THE SERVICE DISCONNECTING MEANS SHALL BE PROPERLY MARKED "SERVICE DISCONNECT". REFER TO SPEC SECTION 26 00 20 FOR FURTHER IDENTIFICATION PLATE REQUIREMENTS.



- NOTE:
- BOND ALL NONCURRENT CARRYING METAL PARTS OF SERVICE EQUIPMENT (INCLUDING METER ENCLOSURE) TO GROUNDING ELECTRODE AS REQUIRED. PER NEC 250-92.
 - THE GROUNDED NEUTRAL CONDUCTOR SHALL BE RUN TO AND BONDED TO EACH SERVICE DISCONNECTING MEANS ENCLOSURE IN ACCORDANCE WITH NEC 250-24c.
 - BONDING OF OTHER ENCLOSURES SHALL BE IN ACCORDANCE WITH NEC 250-96.

SERVICE EQUIPMENT GROUNDING & BONDING SHALL BE IN ACCORDANCE WITH:

- *NEC 250-24
- *NEC 250-28
- *NEC 250-53
- *NEC 250-66
- *NEC 250-90
- *NEC 250-92
- *NEC 250-96
- *NEC 250-130



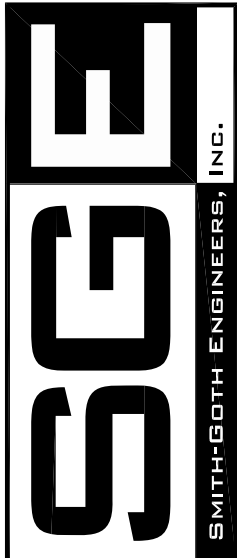
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O'Reilly AUTO PARTS
CORPORATE OFFICES
233 SOUTH PATTERSON
SPRINGFIELD, MISSOURI 65802
(417) 862-2674 TELEPHONE

PROJECT:
NEW O'REILLY AUTO PARTS STORE
301 NORTH MAIN STREET
MONROE, OHIO

ELECTRICAL NOTES

3855 S. JEFFERSON AVE.
SPRINGFIELD, MO 65807
P: 417-862-2250
F: 417-862-2250
WWW.SMITHGOTH.COM



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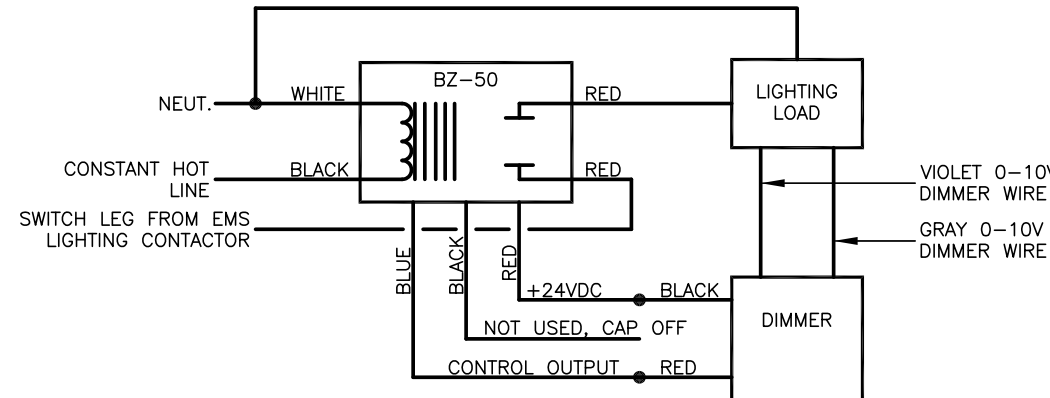
SHEET NUMBER

E4

GENERAL ELECTRICAL NOTES

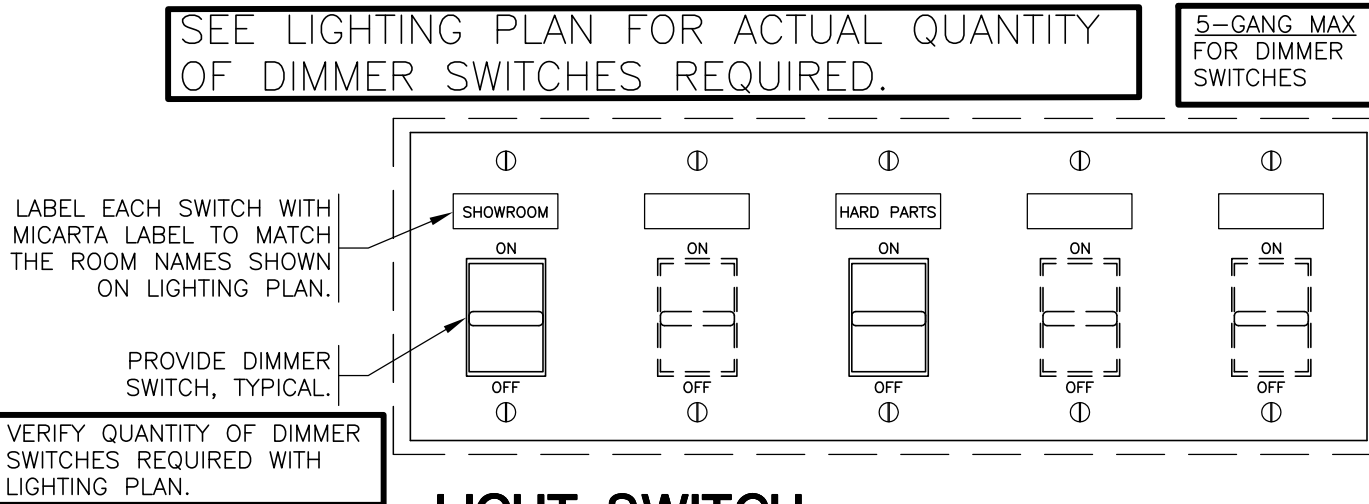
- DRAWINGS ARE DIAGRAMMATIC & ARE NOT TO BE SCALED. SEE THE ARCHITECTURAL PLANS & FIELD VERIFY CONDITIONS FOR DIMENSIONS.
- ALL ELECTRICAL WORK SHALL COMPLY WITH THE EDITION OF NFPA 70-NATIONAL ELECTRIC CODE (NEC) AS NOTED ON THE CODE SUMMARY SHEET.
- ALL WIRING SHALL BE IN CONDUIT, EXCEPT THAT MC-CABLE MAY BE SUBSTITUTED ONLY AS FOLLOWS:
 - MC-CABLE (MAXIMUM CABLE LENGTH OF 10'-0") MAY BE INSTALLED ONLY FOR BRANCH CIRCUIT WIRING TO LIGHT FIXTURES.
 - MC-CABLE (MAXIMUM CABLE LENGTHS SHOWN ON DETAIL 2/E2) MAY BE INSTALLED ONLY ABOVE SLAB AND ONLY AT LOCATIONS INDICATED ON SHEET E2.
- FEEDER CONDUIT SHALL BE IMC OR RGS ABOVE GRADE & PVC BELOW GRADE WITH IMC OR RGS ELLS & RISERS. INTERIOR BRANCH CIRCUIT CONDUIT SHALL BE ELECTRICAL METALLIC TUBING. EXTERIOR BRANCH CIRCUIT CONDUIT SHALL BE PVC BELOW GRADE WITH IMC OR RIGID GALVANIZED STEEL CONDUIT CONTINUING ABOVE GRADE. (SPEC 26 05 33)
- COORDINATE ALL WORK WITH OTHER TRADES TO AVOID CONFLICTS. COORDINATION DOES NOT MEAN "I WAS HERE FIRST."
- ALL WIRING IN FINISHED SPACES SHALL BE CONCEALED, UNLESS NOTED OTHERWISE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING A COMPLETE & FUNCTIONAL SYSTEM IN ACCORDANCE WITH THE INTENT OF THE PLANS, WHETHER OR NOT EVERY ELEMENT THEREOF IS SPECIFICALLY CALLED OUT.
- COORDINATE ALL EQUIPMENT ROUGH-IN CONNECTION REQUIREMENTS.
- ALL OUTLET BOXES SHALL BE METALLIC. (SPEC 26 05 34)
- ALL CAULKING ON BUILDING PENETRATIONS SHALL BE ELASTOMERIC POLYURETHANE (NO EXCEPTIONS), EQUAL TO "VULKEM" 116. ANY CONTRACTOR WHO USES SILICONE OR ANY OTHER CAULKING WILL BE REQUIRED TO REMOVE & REPLACE WITH ELASTOMERIC POLYURETHANE.
- RECEPTACLES INSTALLED IN RESTROOMS SHALL BE GFCI TYPE OR SHALL BE PROTECTED BY A GFI DEVICE.

- ALL DEVICES SHALL BE IVORY & SHALL BE EQUAL TO THE FOLLOWING:
SINGLE POLE SWITCHES ---
THREE-WAY SWITCHES --- (SPEC 26 27 26)
DUPLEX RECEPTACLE --- (SPEC 26 27 26)
GFCI DUPLEX RECEPTACLE ---
ISO. GRD. RECEPTACLES ---
- USE DEVICE PLATES MANUFACTURED BY THE DEVICE MANUFACTURER. (SPEC 26 27 26)
- FEEDER & BRANCH CIRCUIT CONDUCTORS SHALL BE COPPER, STRANDED, 600V THHN/THWN INSULATION.
EXCEPTION: WIRE SIZES #10 AWG & SMALLER SHALL BE SOLID. (SPEC 26 05 19)
- CONTRACTOR SHALL PROVIDE A TYPED CIRCUIT DIRECTORY FOR ALL PANELS. (SPEC 26 05 53)
- CONTRACTOR SHALL PROVIDE A ONE(1) YEAR WARRANTY ON ALL WORK PERFORMED.
- CONTRACTOR SHALL PROVIDE NEW WORKING LAMPS IN ALL LIGHT FIXTURES AT JOB COMPLETION.
- CONTRACTOR SHALL COORDINATE WITH & SHALL INCLUDE ALL FEES FOR THE SERVING "ELECTRIC UTILITY CO." TO PROVIDE ELECTRIC SERVICE AS SHOWN. CONTRACTOR SHALL ALSO INCLUDE ALL FEES FOR THE "SERVING PHONE COMPANY" TO INSTALL NO LESS THAN 10 PAIR CABLE TO BUILDING.
- CONTRACTOR SHALL ARRANGE FOR & INCLUDE ALL PERMITS & FEES FOR HIS SCOPE OF WORK.
- CONTROL WIRING BY HVAC CONTRACTOR. FINAL CONNECTIONS BY HVAC CONTRACTOR. SEE SHEET M1.
- APPROVED MANUFACTURERS:
 - PANELBOARDS & SAFETY
SWITCHES (DISCONNECTS):
--- 'SQUARE D'
--- 'GE'
--- 'LEVITON'
--- 'SIEMENS'
--- 'CUTLER-HAMMER'
(SPEC 26 24 00)
 - DEVICES:
--- 'HUBBELL'
--- 'LEVITON'
--- 'PASS & SEYMOUR'
(SPEC 26 27 26)
 - FLOOR BOXES:
--- 'STEEL CITY'
--- 'APPLETON'
--- 'HUBBELL'
(SPEC 26 05 34)
- MULTIWIRE BRANCH CIRCUITS WITH A "SHARED NEUTRAL" ARE NOT ALLOWED FOR SINGLE PHASE CIRCUITS.
- ALL BRANCH CIRCUITS SHALL HAVE AN EQUIPMENT GROUNDING CONDUCTOR ROUTED WITH THE CIRCUIT CONDUCTORS. THIS MEANS THAT ALL CONDUITS MUST HAVE A "GREEN" WIRE INSTALLED IN THEM AND SIZED IN ACCORDANCE WITH TABLE 250.122 OF THE NEC.



DIMMER-POWER PACK
WIRING DIAGRAM FOR LED LIGHTING
N.T.S. 1 E4

SEE LIGHTING PLAN FOR ACTUAL QUANTITY OF DIMMER SWITCHES REQUIRED.



LIGHT SWITCH
LABELS AND ARRANGEMENT
N.T.S. 2 E4

ELECTRICAL SYMBOL LEGEND & ABBREVIATIONS

- \$ SINGLE POLE SWITCH
- \$2 TWO POLE SWITCH
- \$3 THREE-WAY SWITCH
- \$MP MOTOR STARTING SWITCH WITH PILOT LIGHT
- \$X CLASS 1, DIVISION 1 HAZARDOUS LOCATION RATED SWITCH ASSEMBLY
- \$PW WALL MOUNTED OCCUPANCY SENSOR EQUAL TO "PASS & SEYMOUR, PW-301-W"
- \$Pw2 WALL MOUNTED OCCUPANCY SENSOR EQUAL TO "PASS & SEYMOUR, PW-302-W"
"CONTRACTOR SHALL DISABLE MANUAL SWITCHES PER MANUFACTURERS INSTRUCTIONS. SWITCH SHALL BE FULLY AUTOMATIC."
- \$sa FAN SPEED SWITCH (SUPPLIED BY HVAC CONTRACTOR / INSTALLED BY ELECTRICAL CONTRACTOR)
- \$d 0-10V LED DIMMER SWITCH, EQUAL TO "PASS & SEYMOUR, WS4FBL3P-TC". SEE DETAILS THIS SHEET (5-GANG MAX)
- PP PASS & SEYMOUR, BZ-50
- Ø SINGLE RECEPTACLE
- Ø DUPLEX RECEPTACLE
- Ø ISOLATED GROUND DUPLEX RECEPTACLE. DEVICES AND COVERPLATE SHALL BE ORANGE. SEE DETAIL 1/E3
- ØR DUPLEX RECEPTACLE. DEVICES AND COVERPLATE SHALL BE RED
- ØR ISOLATED GROUND DUPLEX RECEPTACLE. DEVICES AND COVERPLATE SHALL BE RED
- ØS QUADPLEX RECEPTACLE (TWO DUPLEX RECEPTACLES IN ONE 2-GANG BOX UNDER A SINGLE COVERPLATE)
- ØS EXISTING UNPOWERED DUPLEX RECEPTACLE
- ØR ISOLATED GROUND QUADPLEX RECEPTACLE (TWO ISO. GRD. DUPLEX RECEPTACLES IN ONE 2-GANG BOX UNDER A SINGLE COVERPLATE. DEVICES AND COVERPLATE SHALL BE RED
- ØS QUADPLEX RECEPTACLE (CIRCUIT TO BE WIRED THRU OCCUPANCY SENSOR) INSTALL A PERMANENT LABEL ON EACH OUTLET STATING "SENSOR CONTROLLED OUTLET". SEE DETAIL ON SHEET E2
- AC Ø ABOVE COUNTER GFCI (GROUND FAULT CIRCUIT INTERRUPTING) DUPLEX RECEPTACLE
- WP Ø WEATHER PROOF GFCI (GROUND FAULT CIRCUIT INTERRUPTING) DUPLEX RECEPTACLE. COVER TO PROVIDE WEATHER PROOF PROTECTION WITH CORD AND PLUG IN USE
- TELE-POWER POLE
- JUNCTION BOX
- PC REMOTE PHOTO CONTROL
- ▽ COMPUTER DATA OUTLET BOX.
- ▼ TELEPHONE OUTLET BOX.
- TELEPHONE OUTLET FLOOR BOX. SEE DETAIL 4/E2.
- 4" SQUARE STEEL BOX MOUNTED FLUSH ON FLOOR W/QUADPLEX RECEPTACLE (SEE ABOVE RECEPTACLE DESCRIPTION). SEE DETAIL 4/E2 FOR INSTALLATION OF BOX.
- 4" SQUARE STEEL BOX MOUNTED FLUSH ON FLOOR W/QUADPLEX ISOLATED GROUND RECEPTACLE (SEE ABOVE ISOLATED GROUND RECEPTACLE DESCRIPTION). SEE DETAIL 4/E2 FOR INSTALLATION OF BOX.
- 4" SQUARE STEEL BOX MOUNTED FLUSH ON FLOOR W/QUADPLEX ISOLATED GROUND RECEPTACLE (SEE ABOVE ISOLATED GROUND RECEPTACLE DESCRIPTION). SEE DETAIL 4/E2 FOR INSTALLATION OF BOX. DEVICES AND COVERPLATE SHALL BE RED.
- 2" x 4" RECTANGULAR STEEL BOX MOUNTED FLUSH ON FLOOR W/DUPLEX RECEPTACLE (SEE ABOVE RECEPTACLE DESCRIPTION). SEE DETAIL 4/E2 FOR INSTALLATION OF BOX
- SPECIAL RECEPTACLE, SEE PLANS TO VERIFY CONFIGURATION
- MOTOR
- XX/XX FUSED DISCONNECT (SAFETY) SWITCH W/ SWITCH AMPACITY / FUSE AMPACITY AS INDICATED
- NON-FUSED DISCONNECT (SAFETY) SWITCH
- POWER OR LIGHTING PANEL W/PANEL DESIGNATION SHOWN ON PLAN (SIZES & MOUNTING INDICATED ON PLANS)
- 24 HOUR EGRESS & SECURITY LIGHT, WIRE DIRECT TO ELECTRIC PANEL AHEAD OF ANY LOCAL SWITCHES AND LIGHTING CONTROL PANEL
- XS WALL/CEILING MOUNTED COMBINATION "EXIT/EMERGENCY" SIGN W/SHADING INDICATING FACES
- EM EMERGENCY LIGHTING FIXTURE WITH BATTERY
- FEEDING PANEL AND CIRCUIT NUMBER(S)
NOTE: EQUIPMENT GROUND CONDUCTOR NOT SHOWN
PLP-11,13
CIRCUIT CONDUCTORS
GROUNDED CIRCUIT CONDUCTOR (OR NEUTRAL)
- MD MOTION DETECTOR - SEE EM SHEETS FOR MORE INFORMATION
- OS OCCUPANCY SENSOR EQUAL TO "PASS & SEYMOUR, DT-305" WITH POWER PACK EQUAL TO "PASS & SEYMOUR, B-50"

AC	LOCATED ABOVE COUNTER	RTU	PACKAGED ROOFTOP UNIT	UPO	UN-POWERED OUTLET
AFF	ABOVE FINISHED FLOOR	IMC	INTERMEDIATE METALLIC TUBING	TS	TIME SWITCH
BCU	BLOWER COIL UNIT	LC	LIGHTING CONTRACTOR	W	WALL OUTLET (46" AFF SEE MOUNTING HEIGHTS)
CDU	CONDENSING UNIT	M	MOTOR STARTING	WP	WEATHERPROOF (ENCLOSURE)
EF	EXHAUST FAN	R	RED IN COLOR DEVICES & COVERPLATE	X	EXPLOSION PROOF ASSEMBLY
EFU	ELECTRIC FURNACE	MP	MOTOR STARTING W/PILOT LIGHT	GFCI	GRD./FAULT CIRCUIT INTERRUPT
FURN	GAS FURNACE	NL	NIGHT LIGHT	EMT	ELECTRICAL METALLIC TUBING
AHU	AIR HANDLER	FEC	PHOTOELECTRIC CONTROL	CM	CEILING MOUNTED
HP	HEAT PUMP UNIT	RGS	RIGID GALVANIZED STEEL		
PP	POWER PACK				

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11/19/21

REVISION:

PROJECT NUMBER:
MNO

SHEET NUMBER

E4

O'Reilly AUTO PARTS
CORPORATE OFFICES
233 SOUTH PATTERSON
SPRINGFIELD, MISSOURI 65802
(417) 862-2674 TELEPHONE
(417) 862-2674 TELEPHONE

GRIDPOINT EMS

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O'Reilly AUTO PARTS

CORPORATE OFFICES
233 SOUTH PATTERSON
SPRINGFIELD, MISSOURI 65802
(417) 862-2674 TELEPHONE

PROJECT:
NEW O'REILLY AUTO PARTS STORE
301 NORTH MAIN STREET
MONROE, OHIO

GRIDPOINT EMS

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DRAWN BY: **LHT** CHECKED BY: **ALT/BLC**

DATE: **11/19/21**

REVISION:

PROJECT NUMBER:
MNO

SHEET NUMBER

EM1.1

O'REILLY PREFERRED ONE LINE DIAGRAM

5305 VALLEY PARK DRIVE SUITE # 2 - ROANOKE, VA - 24019

GRIDPOINT CONTACT

PLEASE CONTACT GRIDPOINT INSTALLATION
MANAGEMENT @ 866-800-8906 FOR INSTALLATION
CONTACT BASED ON THE STORE LOCATION.
EMAIL: SUPPORT@GRIDPOINT.COM

PRINTS ARE FOR:

DESIGN ☒ REVIEW ☐ PERMIT ☐ BIDDING ☒ CONSTRUCTION ☐

BY: DC

DATE: 05/23/2019

REVISIONS

DESCRIPTION:

Rev 4 - Motion Sensor 24VDC

SHEET TITLE:

LIGHTING CONTROL AND MOTION SENSOR

FILE NAME:

O'REILLY PREFERRED ONE LINE DIAGRAM

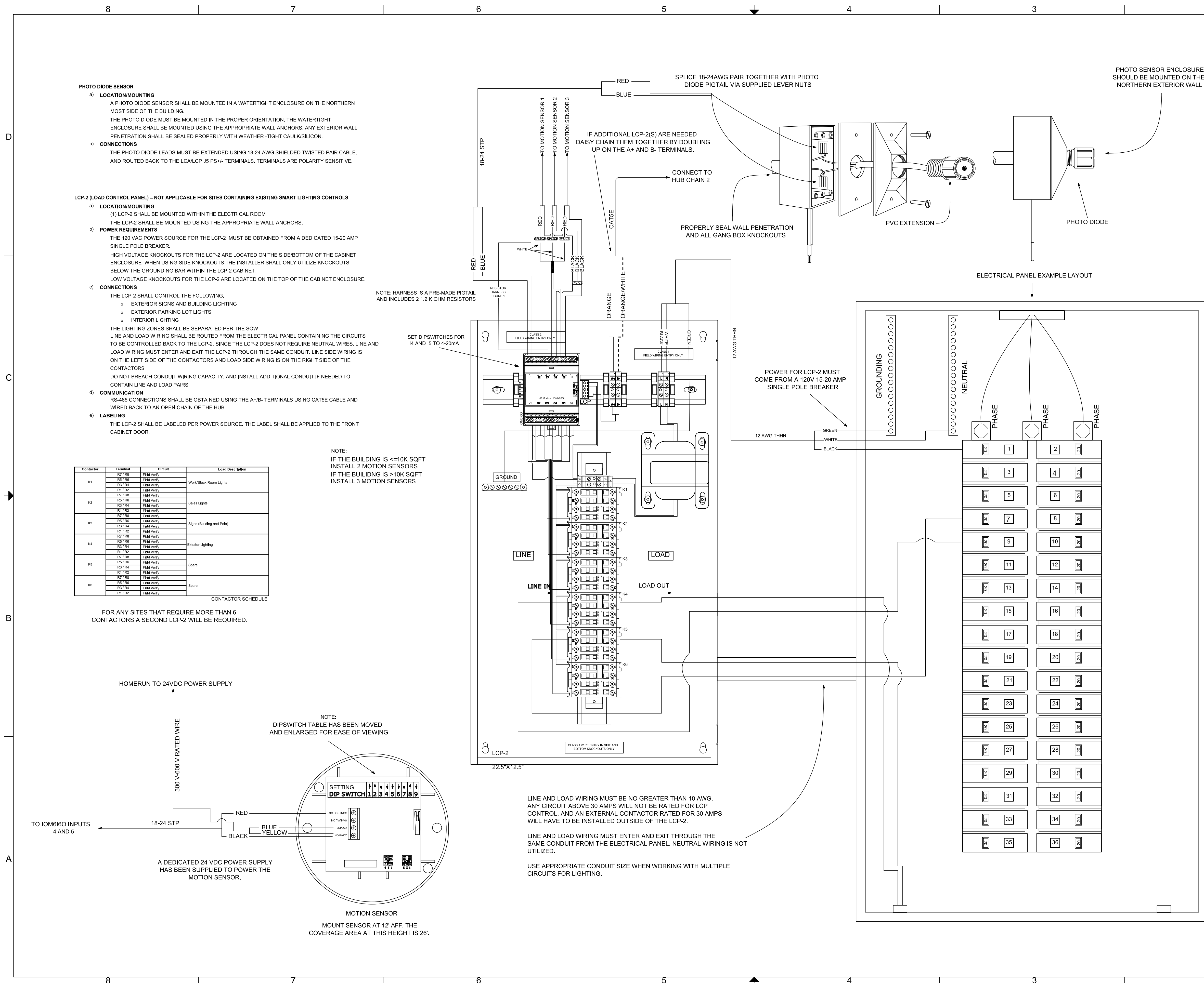
DATE: 4/24/2019

DRAWN BY: DAVID COLWELL

SHEET NO:

EM 1.1

SOURCEONE SOLUTIONS O'REILLY TEAM
EMAIL: noreilly@sourceonesolutions.com
PHONE: 314-499-6400
COMMISSIONING EMS 314-499-6400 OPTION 5



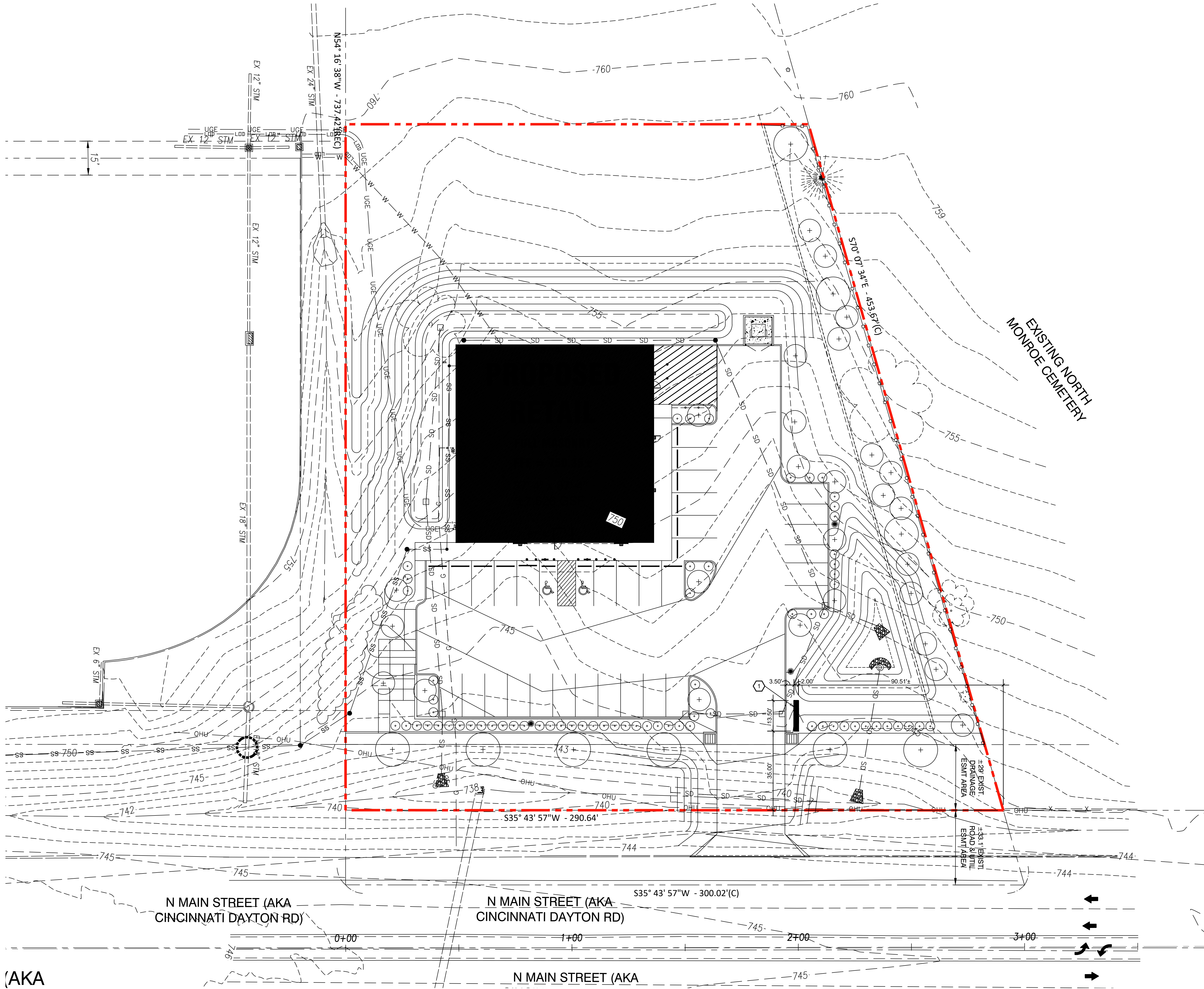
O'Reilly AUTO PARTS
CORPORATE OFFICES
233 SOUTH PATTERSON
SPRINGFIELD, MISSOURI 65802
(417) 862-2674 TELEPHONE

GRIDPOINT EMS

SHEET NUMBER

©





GENERAL NOTES

- A REFER TO PROJECT MANUAL AND SCOPE OF WORK SCHEDULE FOR ADDITIONAL REQUIREMENTS.
- B SITE DIMENSIONS TO FACE OF CONCRETE FOUNDATION, SIDEWALK, CURB GUTTER LINE, PROPERTY LINE, OR CENTER LINE OF STRIPING UNLESS OTHERWISE NOTED.
- C COORDINATE WORK WITH OTHER SITE RELATED DEVELOPMENT DRAWINGS.
- D PRIOR TO INSTALLATION, CONTRACTOR TO VERIFY LOCATIONS OF LIGHT POLES, LANDSCAPING, AND UTILITIES DO NOT CONFLICT WITH SITE SIGN LOCATION SHOWN. REFER TO U&I AND CIVIL FOR UTILITY LOCATIONS. IF CONFLICT IS DISCOVERED, CONTRACTOR TO NOTIFY OWNER'S REPRESENTATIVE PRIOR TO PROCEEDING WITH THE WORK.
- E *COMING SOON* TEMPORARY CONSTRUCTION SIGN TO BE PROVIDED BY CONTRACTOR. APPLIED SIGNAGE GRAPHICS TO BE OWNER FURNISHED AND CONTRACTOR INSTALLED. LOCATE TEMPORARY CONSTRUCTION SIGN ON SITE SO AS TO BE VISIBLE TO PUBLIC FROM RIGHT-OF-WAY. REFER TO DETAIL 1/SG1.2.

SPECIAL NOTE:
AVOID OBSCURING VISIBILITY OF SITE SIGN FROM RIGHT OF WAY WITH LARGE PLANTINGS AND LANDSCAPING.
SUBMIT LANDSCAPING LAYOUT FOR FINAL OWNER REVIEW AND APPROVAL PRIOR TO INSTALLATION.

KEY NOTES

- 1 SITE SIGN, REFER TO ELEVATION 2/SG1.2

FIRM ARCHITECTURAL REGISTRATION
NO.: 20314259

DESIGN
BY
OTHERS.
FOR
REFERENCE
ONLY

SHEETS BEARING THIS SEAL ARE
AUTHENTICATED. RESPONSIBILITY FOR
ALL OTHER PLANS, SPECIFICATIONS
OR INSTRUMENTS ARE DISCLAIMED.

O'Reilly AUTO PARTS

CORPORATE OFFICES
233 SOUTH PATTERSON
SPRINGFIELD, MISSOURI 65802
(417) 882-2874 TELEPHONE

PROJECT:
NEW O'REILLY AUTO PARTS STORE
301 NORTH MAIN STREET
MONROE, OHIO

SITE SIGNAGE PLAN

Buddy Webb & Company, Inc.

Architect - Consultant

3057 EAST CAIRO
SPRINGFIELD, MISSOURI 65802
(417) 877-1385 TELEPHONE
(417) 877-9736 FAX

DRAWN BY: RHV
CHECKED BY: SB

DATE: 11/23/21

REVISION:

PROJECT NUMBER:

MNO

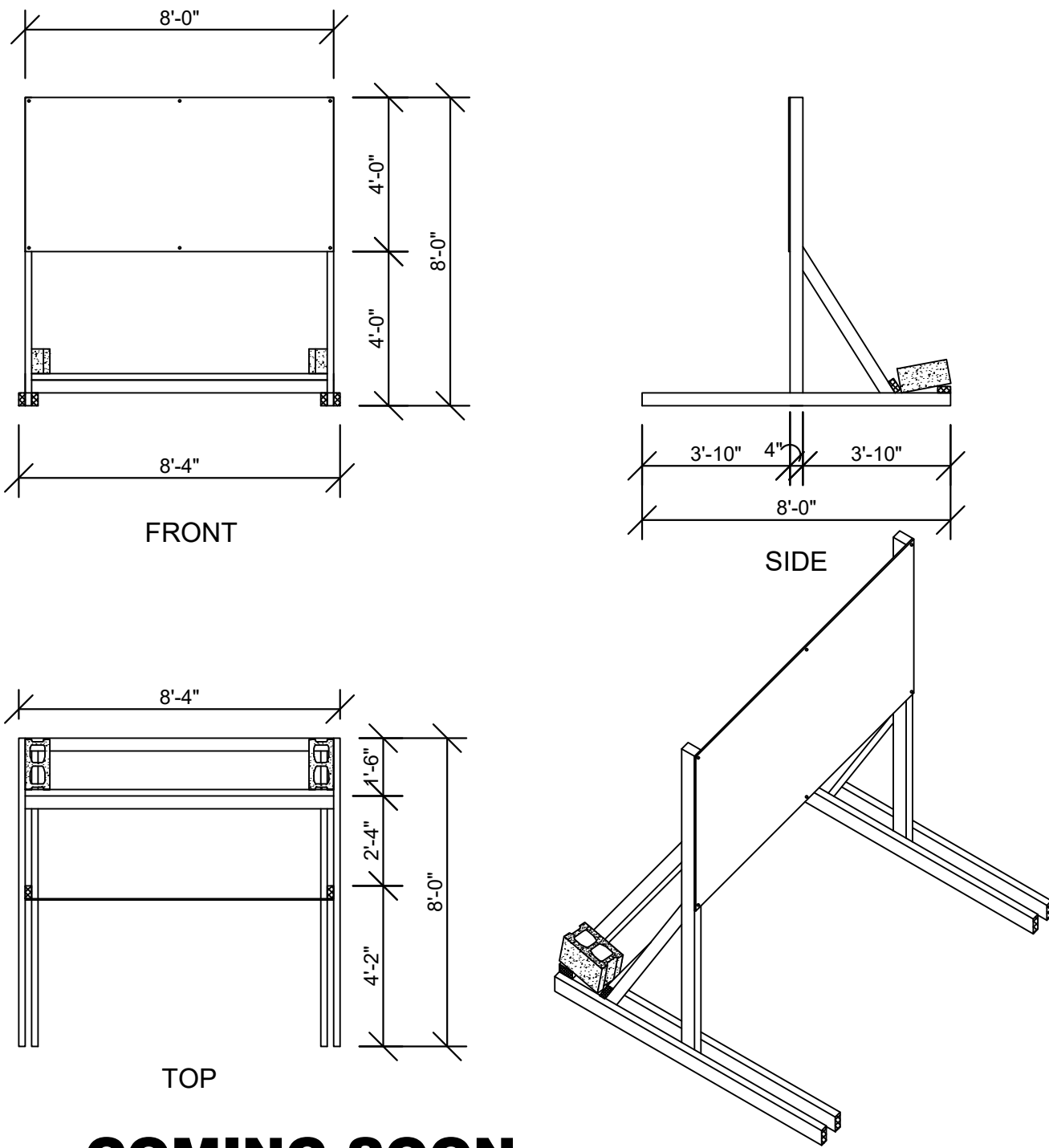
SHEET NUMBER

SG1.1

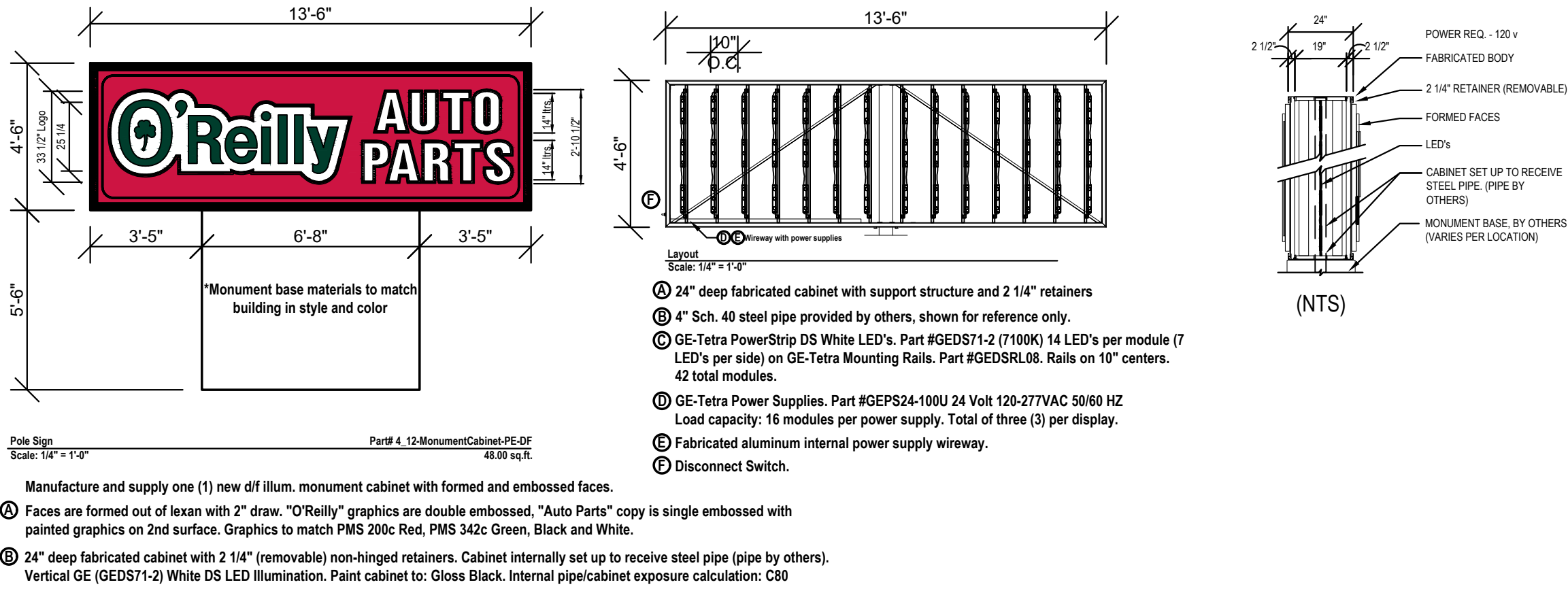


Know what's
Call before you dig.

CAUTION:
INFORMATION ON THIS DRAWING
CONCERNING TYPE AND LOCATION
OF UNDERGROUND AND OTHER
UTILITIES IS NOT GUARANTEED TO
BE ACCURATE OR ALL INCLUSIVE.
THE CONTRACTOR IS RESPONSIBLE
FOR MAKING HIS OWN
DETERMINATION AS TO THE TYPE
AND LOCATION OF UNDERGROUND
AND OTHER UTILITIES AS MAY BE
NECESSARY TO AVOID DAMAGE
THERE TO.



1 **COMING SOON**
TEMPORARY CONSTRUCTION SIGN
SG1.2 SCALE: 1/4" = 1'-0"



2 **GROUND SIGN ELEVATION**
SG1.2 SCALE: 1/4" = 1'-0"

GENERAL NOTES

- A** REFER TO PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.
- B** CONTACT OWNER'S OR TENANT'S DESIGNATED PROJECT ADMINISTRATOR FOR QUESTIONS OR CLARIFICATIONS.
- C** PERMANENT SIGNAGE OWNER FURNISHED AND INSTALLED. (REFER TO SCOPE OF WORK SCHEDULE). SIGNAGE GRAPHICS PROVIDED FOR REFERENCE ONLY (N.I.C.) AND CONTRACTOR'S COORDINATION WITH SPECIFIC PROJECT CONSTRUCTION CONDITIONS.
- D** SITE SIGN ROUGH-IN ELECTRICAL TO BE PROVIDED BY CONTRACTOR.
- E** REQUIRED GOVERNMENTAL PERMITS FOR PERMANENT TYPE SIGNAGE TO BE PROVIDED BY SIGN COMPANY PER OWNER'S DIRECTION (N.I.C.).
- F** "COMING SOON" TEMPORARY CONSTRUCTION SIGN TO BE PROVIDED BY GENERAL CONTRACTOR. APPLIED SIGNAGE GRAPHICS TO BE OWNER FURNISHED AND GENERAL CONTRACTOR INSTALLED. LOCATE TEMPORARY CONSTRUCTION SIGN ON SITE SO AS TO BE VISIBLE TO PUBLIC FROM RIGHT-OF-WAY.
- G** UNLESS OTHERWISE INDICATED, SITE POLE SIGN FOUNDATION CONSTRUCTION BY SIGN CONTRACTOR (BY OTHERS - NOT IN CONTRACT). WHERE PROVIDED, SITE MONUMENT SIGN FOUNDATION CONSTRUCTION BY GENERAL CONTRACTOR (BASE BID), REFER TO SHEET S1.2.

SPECIAL NOTE:
SIGN DESIGN BY OTHERS. REFER TO SIGN CONTRACTOR'S SHOP DRAWINGS FOR ADDITIONAL REQUIREMENTS.

FIRM ARCHITECTURAL REGISTRATION
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O'Reilly AUTO PARTS
CORPORATE OFFICES
238 SOUTH PATTERSON
STREET
MONROE, LA 70001-6580
(417) 882-2874 TELEPHONE

PROJECT:
NEW O'REILLY AUTO PARTS STORE
301 NORTH MAIN STREET
MONROE, OHIO

SITE SIGNAGE DETAILS

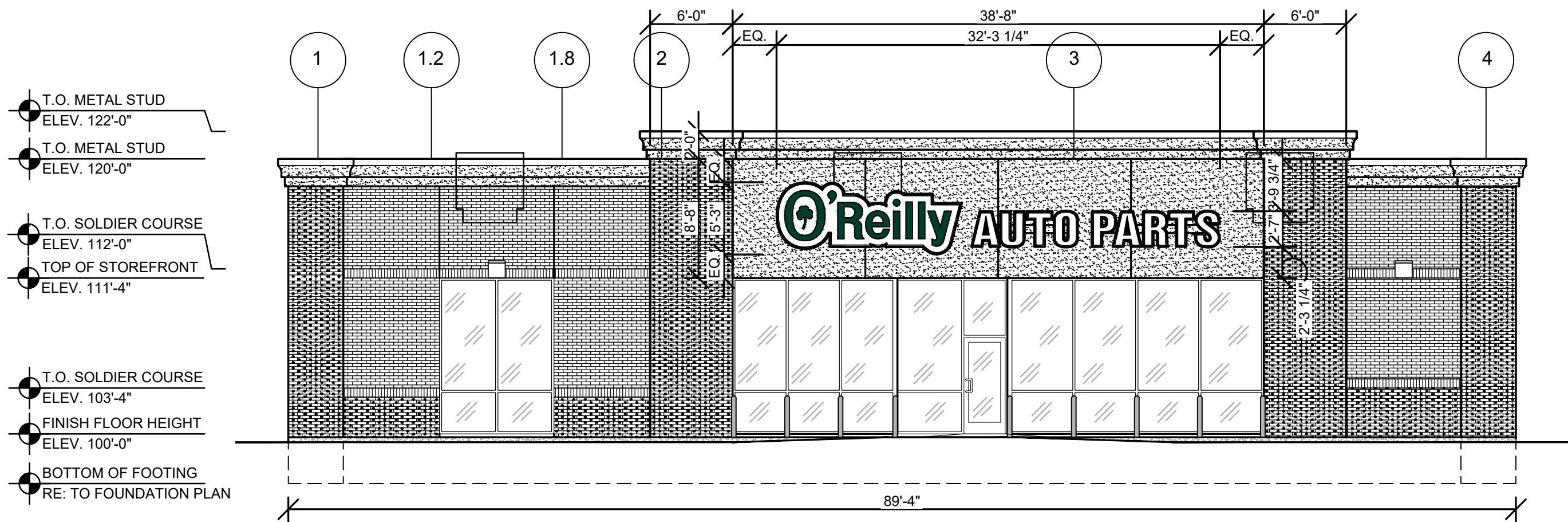
Buddy Webb & Company, Inc.
Architect - Consultant
3057 EAST CAIRO
SPRINGFIELD, MISSOURI 65802
(417) 877-1385 TELEPHONE
(417) 877-9736 FAX

DRAWN BY: **RHV** CHECKED BY: **SB**
DATE: **11/23/21**
REVISION:

PROJECT NUMBER:
MNO

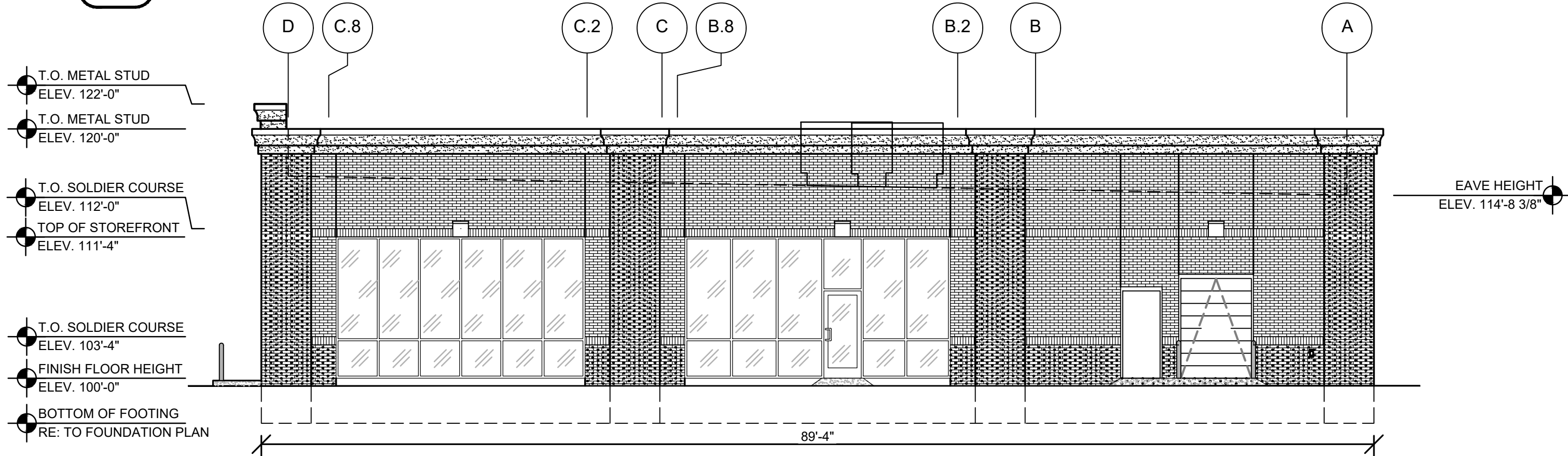
SHEET NUMBER

SG1.2



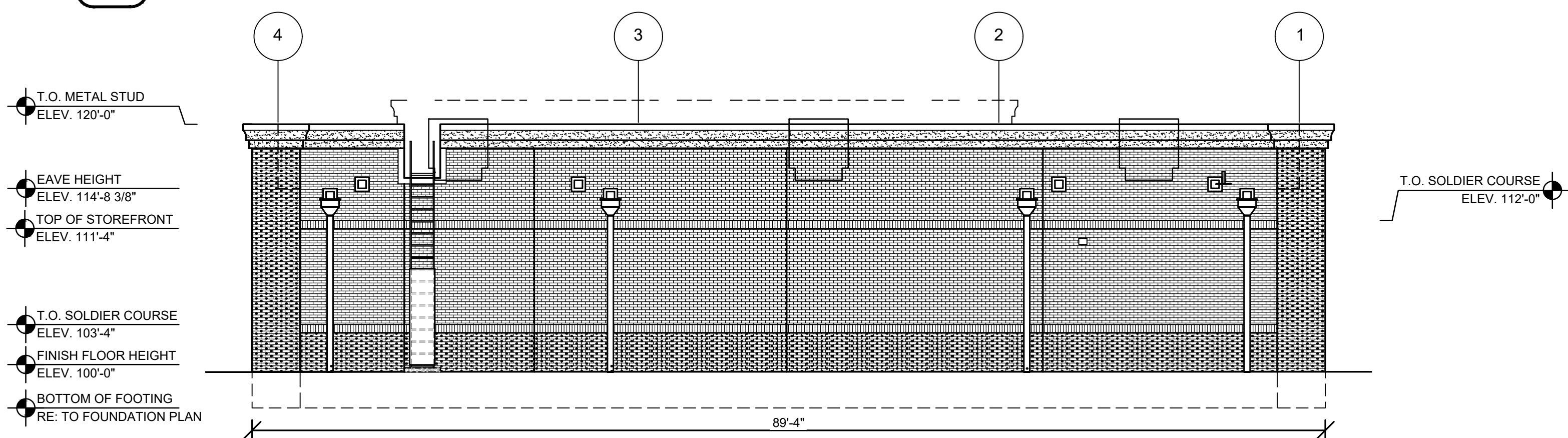
1 FRONT EXTERIOR ELEVATION

SG2.1 SCALE: 1/8" = 1'-0"



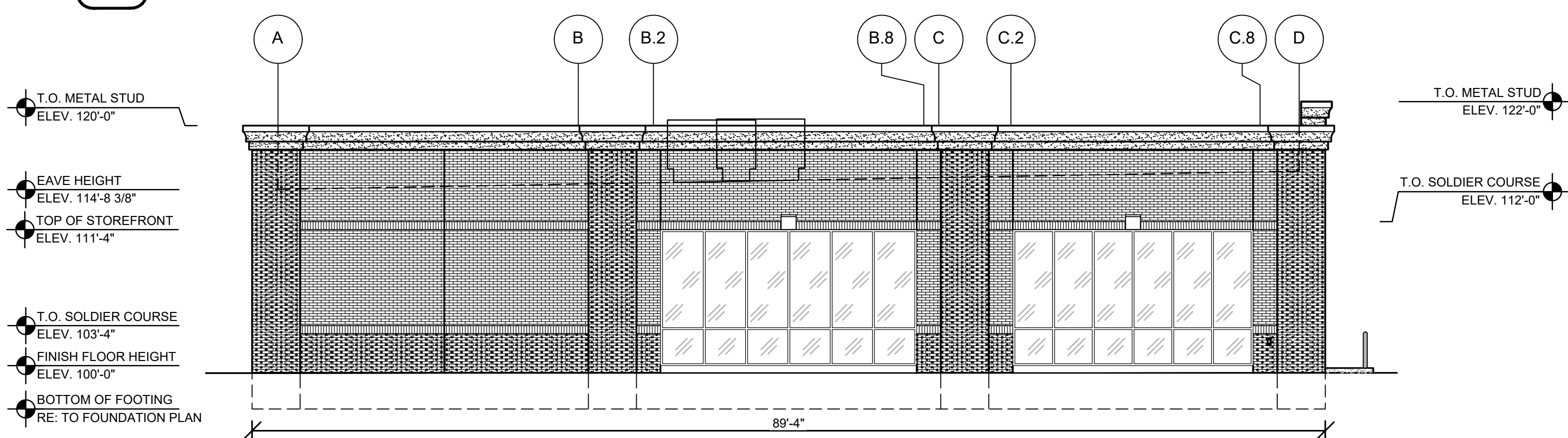
2 RIGHT EXTERIOR ELEVATION

SG2.1 SCALE: 1/8" = 1'-0"



3 REAR EXTERIOR ELEVATION

SG2.1 SCALE: 1/8" = 1'-0"



4 LEFT EXTERIOR ELEVATION

SG2.1 SCALE: 1/8" = 1'-0"

GENERAL NOTES

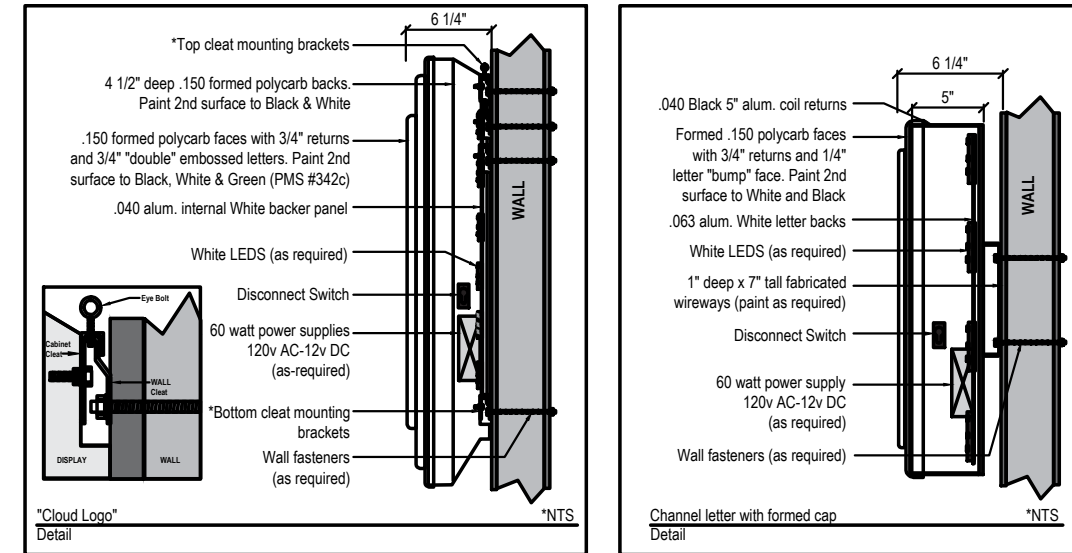
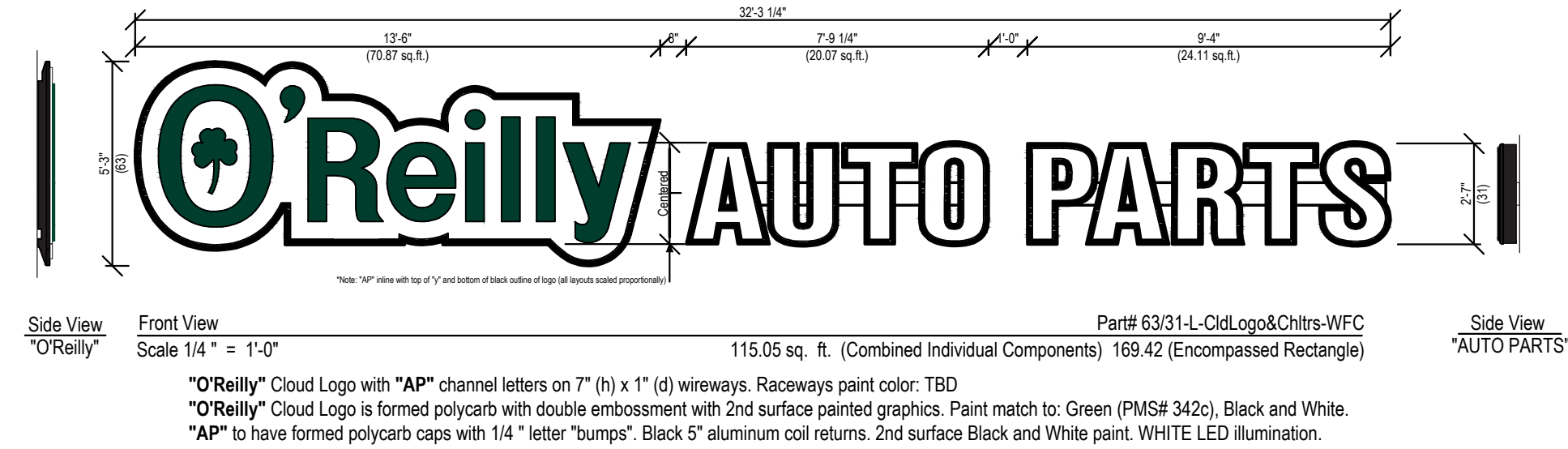
- A CONTACT OWNER'S OR TENANT'S DESIGNATED PROJECT ADMINISTRATOR FOR QUESTIONS OR CLARIFICATIONS.
- B BUILDING PERMANENT SIGNAGE OWNER FURNISHED AND INSTALLED, (REFER TO SCOPE OF WORK SCHEDULE). SIGNAGE GRAPHICS PROVIDED FOR REFERENCE ONLY (N.I.C.) AND CONTRACTOR'S COORDINATION WITH SPECIFIC PROJECT CONSTRUCTION CONDITIONS. CONTRACTOR TO PROVIDE BACKING AND ROUGH-IN ELECTRICAL AS REQUIRED FOR INSTALLATION. REFER TO A2.1 FOR EXTERIOR BUILDING FINISH.
- C REQUIRED GOVERNMENTAL PERMITS FOR PERMANENT TYPE SIGNAGE TO BE PROVIDED BY OWNER OR OTHERS (N.I.C.).

FIRM ARCHITECTURAL REGISTRATION
NO.: 20314259

DESIGN
BY
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O'Reilly AUTO PARTS
CORPORATE OFFICES
535 SOUTH PATTERSON
SPRINGFIELD, MISSOURI 65802
(417) 882-2874 TELEPHONE



Formed Cloud Logo with "AP" Formed Caps & Channel Returns
Part# 63/31-L-CldLogo&Chltrs-WFC

5 FRONT WALL SIGN DETAILS

SG2.1 SCALE: 1/4" = 1'-0"

PROJECT:
NEW O'REILLY AUTO PARTS STORE
301 NORTH MAIN STREET
MONROE, OHIO
BUILDING EXTERIOR SIGNAGE

Buddy Webb & Company, Inc.
Architect - Consultant
3057 EAST CAIRO
SPRINGFIELD, MISSOURI 65802
(417) 877-1385 TELEPHONE
(417) 877-9736 FAX

DRAWN BY: RHV
CHECKED BY: SB
DATE: 11/23/21
REVISION:

PROJECT NUMBER:
MNO
SHEET NUMBER

SG2.1



Application for a Zoning Permit

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:

Fee Paid:

Staff Initials:

Application/Case Number:

Review Information

1. This application should be used for any development that requires a zoning permit including, but not limited to, new buildings, a new business or change of use, accessory buildings and uses, home occupations, fences, outdoor sales/displays, outdoor storage, and temporary uses. See Section 1203.12 of the Monroe Planning and Zoning Code for additional information on the permit requirements.
2. The installation of new fences and walls requires a zoning permit. Requirements for fences and walls are located in Section 1204.05(A)(e).
3. Certain **accessory** uses and structures require a zoning permit, including but not limited to, new accessory buildings, outdoor sales/displays, outdoor storage, and home occupations. See Section 1205.01 to determine if a permit is required.
4. Certain **temporary** uses and structures require a zoning permit. See Section 1205.02 to determine if a permit is required.
5. The applicant is responsible for obtaining a building permit or, where such permit is not required, completing all relevant work, within 180 days of the date the zoning permit is approved or the approval shall expire. A permit for a temporary use shall expire on the date listed under the Zoning Permit Approval section. See Section 1203.12(I) for additional information.

Basic Project and Site Information

Project Address: CLARENCE F. WARNER DRIVE

County: ☒ Butler ☐ Warren Total Lot Area: 2.365

County Tax Parcel ID: C1800009220028

Existing Zoning District: C-2

Number of Full Time/Part Time Employees (required for business applications): UNKNOWN AT THIS TIME

Project Type: ☒ New Building ☐ Expansion of Existing Structure ☒ New Business or Use (change of use)
☐ Fence ☐ Home Occupation ☐ Outdoor Sales, Display, or Storage
☐ Other Accessory Use or Structure ☐ Temporary Use/Event
☐ Mobile Food Vending Service

Applicant Information

Applicant Name: CINCINNATI COMMERCIAL CONTRACTING

Contact Person: CHRISTIAN STONE

Contact Address: 4779 RED BANK EXPRESSWAY, CINCINNATI, OH 45227

Contact Phone Number: (513) 561-6633 x107

Contact Fax Number:

Contact E-Mail: CSTONE@CINCIGROUP.COM

Property Owner Name: AMERICAN EXIT 29 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: C1800009220028

Additional Project Information

1) Please describe, in detail, the proposed use, project, building, or structure.

NEW CCC OFFICE AND NEW SPECULATIVE USE OFFICE SPACES.

2) If an accessory use/structure is proposed, how many are currently on the property?

N/A

3) What are the anticipated start and completion dates for the project? If this is a temporary use or structure the completion date shall be the date when the use or structure is no longer on the proposed site.

3/1/2021 - START

5/1 - FINISH

4) What is the name of the business or project, if applicable?

CCC - NORTH

5) For proposed home occupations only:

Will the proposed occupation be conducted entirely within the dwelling unit? ☐ Yes ☐ No

What is the total square footage of the home?

What is the proposed square footage of the home to be used for the home occupation:

Will there be any employees who do not reside in the same dwelling? ☐ Yes ☐ No

If yes, how many employees reside outside of the dwelling?

5) Check any relevant procedural reviews applicable to this project:

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

If you checked any of the above procedures, please provide specific details on what you are seeking to have approved through the applicable review procedure?

Project Address or Tax Parcel ID: C1800009220028

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 other review applications.

Print Name: CHRISTIAN STONE

Signature: *Christian Stone*

Date: 12/21/2021

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 application is for multiple properties, a signature from each property owner is required.

Print Name: CHRISTIAN STONE

Signature: *Christian Stone*

Date: 12/21/2021

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.

Zoning Permit Approval – Development Department Staff ONLY

The signature below authorizes only that work that was ☐ APPROVED ☐ DENIED as part of this application.

Signature:

Date:

Date of Temporary Use Expiration:

Comments:

Zoning Compliance Inspection – Development Department Staff ONLY

A zoning compliance inspection may be required for certain work authorized by this zoning permit (primarily development or changes of use in a nonresidential building). See Section 1203.12(D)(3) for applicability. Where required, the Code Enforcement Officer must sign below prior to occupancy.

Signature:

Date:

Comments:

Submittal Requirement Checklist

Digital Submittal Requirements

- ☐ All document applications shall be submitted in an electronic format compatible with the city's computer systems.

General Information – Required for All types of Zoning Permit Work and Projects

(Additional forms may be necessary for conditional use, variance, administrative waiver, & alternative equivalent compliance)

- ☐ Zoning Permit Application form
- ☐ Application fee
- ☐ Any additional information determined to be necessary by the Development Department

Nonresidential - New Building or Expansion of an Existing Structure (Refer to the Site Plan Application for number of copies and submittal requirements.)

- ☐ A scaled site layout plan or map illustrating all existing or proposed buildings, structures, driveways, and impervious surfaces. Such plan shall include dimensions of setbacks from all lot lines and any other dimensions required to demonstrate compliance with the requirements of the applicable zoning district
- ☐ For any new construction (building or expansion), **that does not require Planning Commission site plan review**, the applicant shall provide elevations of the building façade to illustrate compliance with the applicable architectural standards identified in Chapter 1210

Nonresidential – New Business or Change of Use (Not Reviewed through a Site Plan Review) (3 Copies a minimum of 11x17)

- ☐ A scaled site layout plan or map illustrating all existing buildings, structures, driveways, parking spaces, loading spaces, stacking spaces, and landscaping to demonstrate compliance with applicable standards – The Code Enforcement Officer may waive this requirement if it is determined that the change in use or intensity of the use is not significant

Residential - New Building or Expansion of an Existing Structure (3 Copies a minimum of 11x17)

- ☐ **For all new residential dwellings or expansions** - A scaled site plan or map illustrating the proposed buildings, structures, and driveways and the required setback lines
- ☐ **For all residential construction in districts other than the R-1 District** – Elevations of the proposed building or expansion illustrating compliance with the applicable architectural standards
- ☐ **For new residential dwellings or expansions in the R-1 District** – If the applicant is proposing to utilize building materials similar to surrounding properties, the applicant shall provide photographs of all similar uses along the same block face (same side of road, between intersection roads)

Fences and Walls (2 copies)

- ☐ A scaled site layout plan, map, or survey illustrating the lot lines and the proposed location and height of any new or expanded fencing. The plan shall note if there is will be any man-made earth mounds or berms to be located below the fencing
- ☐ Information or examples regarding the type (style) of fencing and the fence materials
- ☐ A letter or notation on the plan, map, or survey, that the finished side of the fence will be oriented away from the applicable site to face the neighboring lots

Home Occupation (2 copies)

- ☐ A letter acknowledging that the applicant has read and understands the performance standards and regulations applying to home occupations as identified in Section 1205.01 (G)(10)

Outdoor Display, Sales, or Storage (2 copies)

- ☐ A letter stating the days and hours of operation of any area to be used for outdoor displays, sales, or storage
- ☐ A scaled site layout plan or map illustrating existing buildings, sidewalks, and the location of any areas that will be used for outdoor display, sales, or storage areas
- ☐ Any additional information necessary to show compliance with the applicable sections of the Monroe Planning and Zoning Code including, but not limited to, Section 1205.01(G)(13) for Outdoor Sales and Display and/or Section 1205.01(G)(14) for Outdoor Bulk Storage

Submittal Requirement Checklist**Accessory Use or Structure (3 copies)**

☐	A scaled site layout plan or map illustrating all existing or proposed buildings, structures, and driveways. Such plan shall include dimensions of setbacks (for the proposed accessory use or structure) from all lot lines and any other dimensions required to demonstrate compliance with the requirements of the applicable zoning district
☐	Information about the predominant building materials on the principal building and the proposed accessory building to demonstrate compliance with the architectural requirements of Chapter 1210

Temporary Use or Structure (3 copies)

☐	A scaled site layout plan or map illustrating where the temporary use or structure will be located
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Mobile Food Vending (3 copies)

☐	A scaled site layout plan or map illustrating the proposed operational locations in relation to all existing buildings, existing parking spaces and aisles, any existing restaurants within 150 feet of the proposed site, trash receptacles location, and any residential areas within 150 feet.
☐	A signed letter from each restaurant owner within 150 feet of the proposed location indicating consent for the mobile food vending unit.
☐	A signed copy of the Mobile Food Vending Service handout acknowledging the City's codes and regulations for mobile food vending services.

GENERAL NOTES:

THE OHIO DEPARTMENT OF TRANSPORTATION "CONSTRUCTION AND MATERIAL SPECIFICATIONS", CURRENT EDITION, AND THE CURRENT "RULES AND REGULATIONS" OF THE CITY OF MONROE SHALL GOVERN ALL CONSTRUCTION ITEMS ON THIS PLAN, UNLESS OTHERWISE NOTED.

THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS PER LOCAL, STATE, AND FEDERAL REQUIREMENTS.

WHERE PLANS REFER TO CONTRACTOR, IT MAY MEAN SUBCONTRACTOR AT THE GENERAL CONTRACTOR'S DISCRETION.

ALL WORK IN THE AMERICAL WAY, AND/OR CLARANCE WARNER DR., RIGHT OF WAY, INCLUDING UTILITY CUTS/TAPS WILL NEED A PERMIT FROM THE CITY OF MONROE.

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL SAFETY REQUIREMENTS TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS AND PROPERTY. IT IS ALSO THE RESPONSIBILITY OF THE CONTRACTOR AND SUB-CONTRACTOR(S) TO INITIATE, MAINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THIS WORK.

ITEM 201: CLEARING AND GRUBBING: THIS WORK CONSISTS OF CLEARING, GRUBBING, SCALPING, REMOVING TREES AND STUMPS, AND REMOVING ALL VEGETATION AND CONSTRUCTION DEBRIS FROM THE LIMITS SHOWN ON THE PLANS, EXCEPT SUCH OBJECTS THAT ARE TO REMAIN OR ARE TO BE REMOVED ACCORDING TO OTHER ITEMS OF WORK.

USE REMOVED OR EXCAVATED MATERIALS IN THE WORK WHEN THE MATERIAL CONFORMS TO THE SPECIFICATIONS; IF NOT THEN RECYCLE, OR DISPOSE OF THE MATERIAL ACCORDING TO 105.16 AND 105.17.

REMOVE OR SAVE ALL TREES, SHRUBS, AND PLANTS AS DESIGNATED ON THE PLANS. PRESERVE ALL VEGETATION AND OBJECTS NOT DESIGNATED FOR REMOVAL. PAINT CUT OR SCARRED SURFACES OF TREES OR SHRUBS SELECTED FOR RETENTION ACCORDING TO 666.04. IN ORDER TO RETARD AND PREVENT THE SPREAD OF THE EMERALD ASH BORER, LIMIT THE MOVEMENT OF REGULATED ARTICLES ACCORDING TO OHIO ADMINISTRATIVE CODE 901:5-36. OBSERVE REQUIREMENTS FOR HANDLING AND TRANSPORTING OF REGULATED ARTICLES IN QUARANTINED AREAS AS DEFINED BY THE OHIO DEPARTMENT OF AGRICULTURE ([HTTP://WWW.AGRI.OHIO.GOV/EAB/](http://www.agri.ohio.gov/EAB/)).

ALL EROSION AND SEDIMENT CONTROL SHALL BE IN ACCORDANCE WITH THE SWPPP PLAN AND LOCAL AND OHIO EPA REGULATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ALL INSPECTIONS AND REPORTING AS REQUIRED BY THE OHIO EPA FOR THE NATIONAL POLLUTANT DISCHARGE ELIMINATION (NPDES) PERMIT. CONTRACTOR SHALL PROVIDE WRITTEN REPORTS TO THE OWNER AND KEEP COPY ON FILE.

THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED THROUGH INFORMATION PROVIDED BY THE VARIOUS UTILITY OWNERS AND BY FIELD SURVEY, BUT ARE NOT GUARANTEED TO BE ACCURATE OR COMPLETE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, PRIOR TO CONSTRUCTION, TO DETERMINE THE ACTUAL FIELD LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES IMPACTING HIS WORK. BY LAW, THE CONTRACTOR IS REQUIRED TO CONTACT THE OHIO UTILITY PROTECTION, INC. AT OHIO811.ORG, 8-1-1 OR 1-800-362-2764 AT LEAST 48 HOURS BUT NO MORE THAN 10 WORKING DAYS (EXCLUDING WEEKENDS AND LEGAL HOLIDAYS) BEFORE BEGINNING ANY DIGGING.

THE LOCATION, SUPPORT, PROTECTION AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS ITEMS.

THE DESIGN ENGINEER ASSUMES NO RESPONSIBILITY FOR THE MEANS, METHODS, PROCEDURES, TECHNIQUES, OR SEQUENCES OF OPERATIONS OF THE CONTRACTOR, NOR FOR SAFETY ON THE JOB SITE OR THE CONTRACTOR'S FAILURE TO COMPLETE THE WORK AS SPECIFIED ON THIS PLAN.

THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL SURVEYING AND CONSTRUCTION STAKING REQUIRED FOR SITEWORK IN THIS PACKAGE AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR SHALL RESTRICT ALL CONSTRUCTION ACTIVITIES TO THE PROJECT SITE AND EXISTING RIGHTS-OF-WAY, CONSTRUCTION AND PERMANENT EASEMENTS AND SHALL NOT TRESPASS UPON OTHER PROPERTY WITHOUT WRITTEN CONSENT OF THE PROPERTY OWNER.

ACCESS TO ADJOINING PROPERTIES SHALL BE MAINTAINED AT ALL TIMES.

ANY STORM PIPES DAMAGED DURING CONSTRUCTION SHALL EITHER BE RESTORED TO ITS ORIGINAL CONDITION OR CONNECTED TO THE STORM SEWER SYSTEM AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL DISPOSE OF ALL SURPLUS EXCAVATION AS DIRECTED OR APPROVED BY THE OWNER.

ALL TRENCHES SHALL BE BACKFILLED OR SECURELY PLATED DURING NON-WORKING HOURS.

ALL MANHOLES, FIRE HYDRANTS AND VALVE BOXES SHALL BE ADJUSTED TO FINAL GRADE AT THE CONTRACTOR'S EXPENSE.

GRANULAR BACKFILL SHALL BE REQUIRED IN ALL TRENCHED IN AREAS OF EXISTING PAVEMENT. FILL IN PROPOSED PAVEMENT OR BUILDING PAD AREAS SHALL BE COMPACTED TO THE PROJECT'S GEOTECHNICAL ENGINEER'S RECOMMENDATIONS AND FIELD PERSONELL APPROVAL.

STORM SEWERS AND STRUCTURES:

ALL PROPOSED STORM SEWERS AND STRUCTURES ARE PRIVATE AND SHALL BE MAINTAINED BY THE OWNER. SUPPLY PIPE OF THE REQUIRED SIZE OR ONE SIZE LARGER. PROPOSED STORM SEWERS "PR. STM" SHALL BE PVC-SDR 35/ HIGH DENSITY POLYETHYLENE (HDPE), PER ODOT 707.33/ OR REINFORCED CONCRETE PIPE, PER ODOT ITEM 706.02, CLASS IV. ALL STORM SHALL BE INSTALLED PER ODOT ITEM 611.10, TYPE A (CULVERTS) AND TYPE B (STORM/SANITARY UNDER PAVEMENT).

611.06 BEDDING. TYPE 1 BEDDING CONSISTS OF STRUCTURAL BACKFILL EXTENDING AT LEAST 6 INCHES (150 MM) BELOW THE BOTTOM OF THE CONDUIT FOR THE FULL WIDTH OF THE TRENCH. COMPACT THE BEDDING ACCORDING TO 611.06.

USE TYPE 1 BEDDING FOR 706.05, OR 706.051 AND 706.052 ON SLAB BOTTOMS, OR CORRUGATED INVERT PLATES.

TYPE 2 BEDDING CONSISTS OF STRUCTURAL BACKFILL EXTENDING AT LEAST 3 INCHES (75 MM) FOR ALL 706 RIGID PIPE CONDUITS AND 6 INCHES (150 MM) FOR ALL OTHER CONDUITS BELOW THE BOTTOM OF THE CONDUIT FOR THE FULL WIDTH OF THE TRENCH. EXTEND THE BEDDING UP AROUND THE PIPE FOR A DEPTH OF NOT LESS THAN 30 PERCENT OF THE RISE OF THE CONDUIT. SHAPE THE BEDDING TO FIT THE CONDUIT WITH RECESSES SHAPED TO RECEIVE THE BELL OF BELL-AND-SPIGOT PIPE. LEAVE THE BEDDING BELOW THE MIDDLE ONE-THIRD OF THE PIPE SPAN UNCOMPACTED. COMPACT THE REMAINING BEDDING ACCORDING TO 611.06.

USE TYPE 2 BEDDING FOR TYPES A, B, C, AND D CONDUITS EXCEPT FOR LONG SPAN STRUCTURES AND FOR CONDUITS THAT REQUIRE TYPE 3 BEDDING.

COMPACTED FILLS SHALL BE MADE TO A MINIMUM OF THREE FEET ABOVE THE CROWN OF ANY PROPOSED SEWER PRIOR TO TRENCHING FOR PLACEMENT OF SEWER. ALL FILLS SHALL BE INSPECTED AND APPROVED BY THE PROJECT'S GEOTECHNICAL ENGINEER, OR PER GOVERNING AGENCIES APPROVAL.

CATCH BASINS AND/OR MANHOLES OVER 4 FEET SHALL BE FURNISHED WITH STEPS, MEETING ODOT ITEM 706.13, 711.13, 711.30, OR 711.31.

CATCH BASINS LOCATED IN PAVEMENT AREAS SHALL HAVE FINGER DRAINS. (SEE DETAIL SHEET).

DISTANCES LISTED ON THE PLANS ARE FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.

EXCAVATION/FILL:

SITE BUILDING PAD EXCAVATION AND EMBANKMENT SHALL BE PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATION AND APPROVAL

DUKE ENERGY-ELECTRIC
BRETT KING
CINCINNATI, OHIO 45216
TEL: 513-287-4658
BRETT.KING@duke-energy.com

BUTLER COUNTY WATER & SEWER
STEVE THOMPSON
130 HIGH STREET
HAMILTON, OH 45011
513.785.5288
513.887.3777 FAX

CITY OF MONROE PLANNING & ZONING & BUILDING DEPARTMENT
233 S. MAIN ST.
MONROE, OHIO 45050
KAMERYN JONES
513-539-7374 EXT.-1020
JONESK@MONROEOHIO.ORG

CITY OF MONROE PUBLIC WORKS AND ENGINEERING DEPARTMENT
FOR ANY WORK IN R/W
233 S. MAIN ST.
MONROE, OHIO 45050
BILL BROCK

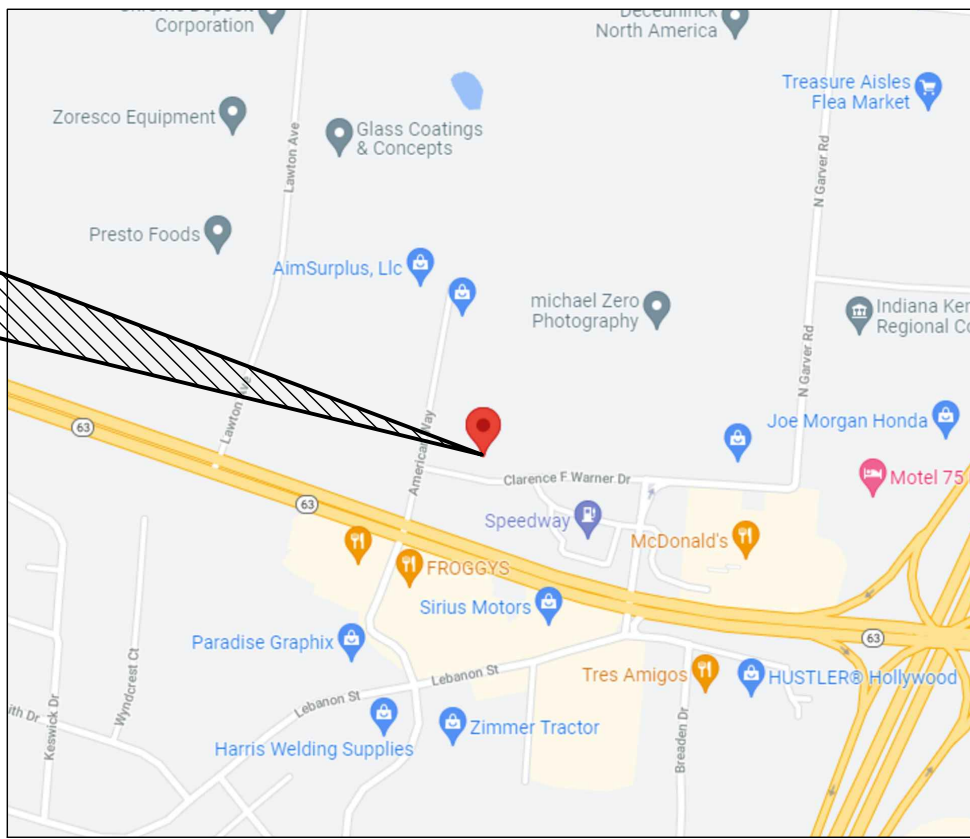
DUKE ENERGY-GAS
JEREMY PRATT
TEL: 513-287-4625
TEM: JEREMY.PRATT@DUKE-ENERGY.COM

PLANS FOR THE CONSTRUCTION OF A NEW COMMERCIAL BUILDING KNOWN AS:

CFW - MONROE

CLARENCE F. WARNER, CITY OF MONROE, BUTLER COUNTY, OHIO
NOV., 2021

PROPOSED SITE



LOCATION MAP

OWNER:

CCC

CIVIL ENGINEERING:

EVANS ENGINEERING
4240 AIRPORT RD., SUITE 211
CINCINNATI, OHIO 45226
(513)-321-2168
JONATHAN R. EVANS, P.E.

SURVEYING:

BINZ SURVEYING, LLC
6547 BROOKS RD.
HARRISON, OHIO 45030
(513)-202-0525
DANIEL BINZ

INDEX:

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- C-1.1 SITE CONSTRUCTION DETAILS
- C-1.2 SITE CONSTRUCTION DETAILS
- C-2 EXISTING CONDITIONS & DEMO PLAN
- C-3 SITE DIMENSION PLAN
- C-3.1 UTILITY SERVICE PLAN
- C-4 GRADING PLAN
- C-5 STORMWATER POLLUTION PREVENTION PLAN (SWPPP), NOTES

STANDARD DRAWINGS:

THE FOLLOWING ODOT AND LOCAL STANDARD DRAWINGS SHALL BE CONSIDERED A PART OF THIS PLAN:

- CB-2-2A, 2-2B, 2-2C (7-16-2021) CATCH BASINS NOs 2-2A, B & C
- CB-2-3, 2-4 (7-16-2021) CATCH BASINS NOs 2-3 & 2-4
- CB-2-5, 2-6 (7-16-2021) CATCH BASINS NOs 2-5 & 2-6
- CB 3 (7-16-2021) CATCH BASIN NO. 3
- CB 3A (7-16-2021) CATCH BASIN NO. 3A
- MH 3 (7-16-2021) MANHOLE NO. 3
- BP-7.1 (7-17-2020) NEW CURB RAMPS

- ST-001 (5-1-2019) ROADWAY STANDARDS
- ST-002 (11-1-2019) RETROFIT CURB RAMPS AND CURB & GUTTER
- ST-003 (8-13-2019) SANITARY AND STORM SEWER STANDARDS

CONSTRUCTION SEQUENCE:

THE CONSTRUCTION SEQUENCING FOR SITE WORK SHOULD BE SIMILAR IN NATURE TO THE FOLLOWING:

- CLEARING AND GRUBBING FOR THOSE AREAS NECESSARY FOR THE INSTALLATION OF EROSION AND SEDIMENT PERIMETER CONTROL MEASURES.
- INSTALL EROSION AND SEDIMENT CONTROL MEASURES.
- GRADING AND STRIPPING OF THE REMAINING AREAS OF THE DEVELOPMENT SITE OR PROJECT AREA.
- DEMOLITION OF EXISTING FEATURES. (DEMOLITION UNDER SEP. PERMIT)
- INSTALL STORMWATER MANAGEMENT SYSTEMS.
- TEMPORARY VEGETATIVE STABILIZATION OR EROSION AND SEDIMENT CONTROL MEASURES.
- SITE CONSTRUCTION.
- FINAL GRADING, STABILIZATION, AND LANDSCAPING.
- REMOVAL OF EROSION AND SEDIMENT CONTROL MEASURES.

PRELIMINARY
NOT FOR CONSTRUCTION

REVISIONS
NO. & DESCRIPTION

BY

DATE

EVANS ENGINEERING
4240 AIRPORT ROAD, SUITE 211
CINCINNATI, OHIO 45226
(513) 321-2168



CFW - MONROE
TITLE SHEET & GENERAL
NOTES
CLARENCE F. WARNER,
CITY OF MONROE, BUTLER COUNTY, OHIO

SCALE:	HORIZ.	VERT.
	1"=40'	N/A
JOB NO.	21-162	
DATE	Dec. 16, 2021	

SHEET NO.

C-1



GENERAL NOTES:

SPECIFICATIONS AND STANDARD CONSTRUCTION DRAWINGS

THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION, CONSTRUCTION AND MATERIALS SPECIFICATIONS, DATED JANUARY 1, 2013, AND THE NOTED STANDARD CONSTRUCTION DRAWINGS SHALL GOVERN THIS IMPROVEMENT.

WHEREVER THE WORD "STATE" OR "DEPARTMENT" OCCURS, IT IS TO MEAN THE CITY OF MONROE. WHEREVER THE WORD "DIRECTOR" OCCURS, IT IS TO MEAN THE CITY ENGINEER AND/OR THEIR DESIGNATED REPRESENTATIVE, LIMITED TO THE PARTICULAR DUTIES ENTRUSTED TO THEM.

PRE-CONSTRUCTION MEETING

FOLLOWING THE AWARD OF THE CONTRACT AND BEFORE STARTING ANY WORK, THE CONTRACTOR AND THEIR SUPERINTENDENT, SHALL MEET WITH THE CITY MANAGER, DIRECTOR OF PUBLIC WORKS, AND CITY STAFF FOR A PRE-CONSTRUCTION MEETING. THE PURPOSE OF SUCH IS FOR REVIEWING THE SITE, AND ANY RESTRICTIONS AND REGULATIONS GOVERNING THE WORK.

ANY SCHEDULES, REQUESTS, PAPERS, APPROVALS, SUBMITTALS, SHOP DRAWINGS, CHANGES, ETC. AS CALLED FOR IN THE CONTRACT DOCUMENTS SHALL BE DONE AT THIS TIME UNLESS OTHERWISE DIRECTED.

PERMITS FEES AND NOTICES

THE CONTRACTOR SHALL OBTAIN, AT THEIR EXPENSE, ANY AND ALL PERMITS AND INSPECTIONS REQUIRED FOR THE PROSECUTION OF THE WORK BY LOCAL LAWS, ORDINANCES, RULES AND REGULATIONS.

MATERIALS AND WORKMANSHIP

UNLESS OTHERWISE SPECIFIED, ALL MATERIALS SHALL BE NEW AND BOTH WORKMANSHIP AND MATERIALS SHALL BE OF THE FIRST QUALITY, PROPER AND SUFFICIENT FOR THE PURPOSE CONTEMPLATED. THE CONTRACTOR SHALL FURNISH, IF SO REQUIRED, SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF MATERIALS AND WORKMANSHIP. ALL ITEMS OF EQUIPMENT AND/OR MATERIALS PROPOSED FOR SUBSTITUTION MUST BE APPROVED BY THE ENGINEER IN WRITING AND SHALL BE EQUAL OR BE SUPERIOR TO THE ITEMS SPECIFIED IN THE CONTRACT DOCUMENTS. IF SAID SUBSTITUTION PROPOSED BY THE CONTRACTOR FOR A SPECIFIED ITEM REQUIRED ENGINEERING REVISIONS, THE EXPENSE OF SUCH REVISIONS SHALL BE PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

EXISTING FACILITIES

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM HIS WORK IN SUCH A MANNER AS NOT TO DAMAGE OR DESTROY ANY EXISTING FACILITY. IF ANY SUCH DAMAGE DOES OCCUR DUE TO THE CONTRACTOR'S OPERATIONS, HE SHALL REPLACE THE DAMAGED PORTION AT HIS EXPENSE AND TO THE SATISFACTION OF THE OWNER.

EXAMINATION OF THE SITE

THE CONTRACTOR SHALL CAREFULLY EXAMINE THE SITE OF THE PROPOSED WORK, THE PLANS AND SPECIFICATIONS. THE SUBMISSION OF A BID SHALL BE CONSIDERED EVIDENCE THAT THE CONTRACTOR HAS MADE SUCH EXAMINATION AND IS SATISFIED AS TO THE CONDITIONS TO BE ENCOUNTERED IN PERFORMING THE PLANS AND SPECIFICATIONS.

SECURITY AND PROTECTION PROVISIONS

THE TYPES OF TEMPORARY SECURITY AND PROTECTION PROVISIONS REQUIRED INCLUDE, BUT NOT BY WAY OF LIMITATION, BARRICADES, WARNING SIGNS/LIGHTS, SITE ENCLOSURE FENCE, ETC. AND SIMILAR PROVISIONS INTENDED TO MINIMIZE PROPERTY LOSSES, PERSONAL INJURIES AND CLAIMS FOR DAMAGE TO THE PROJECT SITE. THE CONTRACTOR SHALL PROVIDE ANY PROTECTION SERVICES AND SYSTEMS IN COORDINATION WITH ACTIVITIES AND IN A MANNER TO ACHIEVE 24-HOUR, 7-DAY PER-WEEK EFFECTIVENESS.

TRENCHES THAT ARE OPEN SHALL NOT REMAIN UNPROTECTED AT ANY TIME. DURING NON-WORKING HOURS, TRENCHES SHALL BE CLOSED AND ANY EQUIPMENT ON THE SITE SHALL BE ADEQUATELY FENCED.

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM NVD 88, NGS MONUMENT NO. T-347, ELEVATION 664.76 (1993).

COOPERATION WITH UTILITY COMPANIES

WHILE THE WORK OF THIS CONTRACT IS BEING PERFORMED, THE UTILITY COMPANIES MAY BE WORKING IN THE AREA ADJUSTING AND RESETING EXISTING FACILITIES.THE CONTRACTOR SHALL FULLY COOPERATE WITH UTILITY COMPANIES SO THAT THE ENTIRE WORK IS COMPLETED IN A MANNER CONSISTENT WITH GOOD CONSTRUCTION PRACTICES. THE CONTRACTOR, UTILITIES, AND ENGINEER SHALL DISCUSS THE NECESSARY CONSTRUCTION SCHEDULES TO COMPLETE THE PROJECT AT THE PRE-CONSTRUCTION MEETING.

CONSTRUCTION LIMITS

THE CONTRACTOR SHALL RESTRICT ALL OF THEIR ACTIVITIES, EQUIPMENT STORAGE AND STAGING TO WITHIN THE CONSTRUCTION LIMITS. UNLESS OTHERWISE IDENTIFIED IN THE PLANS OR PROPOSAL, THE ACTUAL CONSTRUCTION LIMITS ARE SHOWN ON THE PLANS OR THE EXISTING OR PROPOSED R/W, WHICHEVER IS NEAREST. SHOULD THE CONTRACTOR WISH TO USE ANY AREA OUTSIDE THESE LIMITS, THEY MUST SUBMIT THEIR REQUEST IN WRITING TO THE ENGINEER. THE DOCUMENT SUBMITTED MUST CLEARLY IDENTIFY THE AREA THAT THE CONTRACTOR PLANS TO USE AND EXPLAIN THE PROPOSED USE AND RESTORATION OF THE AREA. THE ENGINEER SHALL APPROVE THE REQUEST IN WRITING BEFORE THE CONTRACTOR HAS PERMISSION TO USE THE AREA. PRIOR TO THE BEGINNING OF WORK, THE REPRESENTATIVE OF THE MAINTAINING AGENCY SHALL REVIEW AND RECORD ALL ADJACENT SITES WITHIN THE RIGHT-OF-WAY (BOTH WITHIN AND OUTSIDE THE CONSTRUCTION LIMITS). A RECORD OF THIS REVIEW WILL BE KEPT IN THE PROJECT ENGINEER'S FILES. PRIOR TO FINAL ACCEPTANCE, A FINAL REVIEW OF THE ADJACENT SITES WILL BE MADE. ANY AREAS DAMAGED BEYOND THE CONSTRUCTION LIMITS AS DEFINED ABOVE WILL BE REPAIRED OR REPLACED, AT THE CONTRACTOR'S EXPENSE, IN KIND OR AS DIRECTED BY THE ENGINEER.

PROTECTING EXISTING UNDERGROUND UTILITIES

THE CONTRACTOR SHALL BE RESPONSIBLE FOR STAKING, MARKING, OR OTHERWISE DESIGNATING THE LOCATIONS OF THE UNDERGROUND UTILITIES IN THE CONSTRUCTION AREAS IN SUCH A MANNER AS TO INDICATE THEIR COURSE TOGETHER WITH THE APPROXIMATE DEPTH OF WHICH THEY WERE INSTALLED. THE MARKING OR LOCATING SHALL BE COORDINATED TO STAY APPROXIMATELY TWO DAYS AHEAD OF PLANNED CONSTRUCTION. EXTREME CARE SHALL BE TAKEN IN THE VICINITY OF THE EXISTING UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ISOLATE, BRACE, SUPPORT, SHEET, ETC. AND PROTECT THE EXISTING UTILITY FROM MOVING EITHER HORIZONTALLY OR VERTICALLY. IF SUCH MOVEMENT DOES OCCUR DUE TO THE CONTRACTOR' S OPERATIONS, THEY SHALL REPAIR THE UTILITY AT THEIR EXPENSE. THE CONTRACTOR MAY ELECT TO REMOVE AND RECONSTRUCT PORTIONS OF THE EXISTING UTILITY AT THEIR OWN EXPENSE IF THEY SO DESIRE.

SHOULD AN UNLOCATED OR AN EXTREME VARIANCE IN LOCATION OF A UTILITY BE ENCOUNTERED DURING EXCAVATION, CONSULT THE OWNER IMMEDIATELY FOR DIRECTIONS.

DO NOT INTERRUPT EXISTING UTILITIES SERVING FACILITIES OCCUPIED AND USED BY THE OWNER OR OTHERS, EXCEPT WHEN PERMITTED IN WRITING BY THE ENGINEER AND THEN ONLY AFTER ACCEPTABLE TEMPORARY UTILITY SERVICING HAS BEEN PROVIDED. COOPERATION WITH THE OWNER IN KEEPING RESPECTIVE SERVICES AND FACILITIES IN OPERATION IS ESSENTIAL. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM HIS WORK IN SUCH A MANNER AS NOT TO DAMAGE OR DESTROY ANY EXISTING UTILITY. IF ANY SUCH DAMAGE DOES OCCUR DUE TO THE CONTRACTOR'S OPERATIONS, HE SHALL NOTIFY THE OWNER IMMEDIATELY AND REPLACE THE DAMAGED PORTION IMMEDIATELY, AND AT HIS EXPENSE.

UTILITY COORDINATION:

THE FOLLOWING IS A LIST OF THE KNOWN EXISTING UTILITIES IN THE PROJECT AREA ALONG WITH THE RESPECTIVE OWNERS. THE LIST IS INCLUDED FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITY OWNERS IN THE PROJECT AREA PRIOR TO START OF CONSTRUCTION WHETHER LISTED ON THIS PAGE OR NOT.

PROTECTION OF EXISTING TREES ANO VEGETATION

THE CONTRACTOR SHALL PROTECT EXISTING TREES AGAINST UNNECESSARY CUTTING, BREAKING OR SKINNING OF ROOTS, SKINNING AND 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 FENCES, BARRICADES OR GUARDS AS REQUIRED TO PROTECT TREES AND VEGETATION. THE CONTRACTOR SHALL WATER TREES AND OTHER VEGETATION WITHIN THE CONSTRUCTION AREA TO MAINTAIN THEIR HEALTH DURING THE COURSE OF CONSTRUCTION OPERATIONS. NO TREES SHALL BE REMOVED UNLESS APPROVED BY THE OWNER. PROVIDE PROTECTION FOR ROOTS OVER 1 1/2" DIAMETER THAT ARE CUT DURING CONSTRUCTION OPERATIONS. COAT AND CUT FACES WITH AN EMULSIFIED ASPHALT OR OTHER ACCEPTABLE COATING, ESPECIALLY FOR MUTILATED OR HORTICULTURE USE ON CUT OR DAMAGED PLANT TISSUES. TEMPORARILY COVER ALL EXPOSED ROOTS WITH WET BURLAP TO PREVENT ROOTS FROM DRYING OUT.PROVIDE EARTH COVER AS SOON AS POSSIBLE.

THE CONTRACTOR SHALL REPAIR OR REPLACE TREES AND VEGETATION WHICH ARE DAMAGED BY CONSTRUCTION OPERATIONS, IN A MANNER ACCEPTABLE TO THE OWNER AND ENGINEER ALL TREES WHICH CANNOT BE REPAIRED AND RESTORED TO FULL-GROWTH STATUS, AS DETERMINED BY A TREE SURGEON, SHELL BE REPLACED.

ALL TEMPORARY SIGNS, SPRINKLER SYSTEMS, LANDSCAPING, ORNAMENTAL FENCING, ETC., LOCATED WITHIN THE PROJECT LIMITS MUST BE REPLACED OR RELOCATED UPON COMPLETION OF THE CONSTRUCTION.

STORM CONDUITS

ALL STORM SEWER CONDUITS LOCATED UNDER PAVEMENT SHALL COMPLY WITH ODOT CONCRETE CONDUIT, 706.02. CONDUIT LOCATED OUTSIDE OF PAVEMENT MAY BE HDPE CONDUIT.

UTILITIES NOTIFICATION

AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN AN AREA WHICH MAY INVOLVE UNDERGROUND UTILITY FACILITIES, THE CONTRACTOR SHALL NOTIFY THE ENGINEER, THE REGISTERED UTILITY PROTECTION SERVICE AND THE OWNERS OF EACH UNDERGROUND UTILITY FACILITY SHOWN ON THE PLAN.

THE OWNER OF THE UNDERGROUND FACILITY SHALL, WITHIN 48 HOURS (EXCLUDING SATURDAYS, SUNDAYS AND LEGAL HOLIDAYS), MARK THE LOCATION OF THE UNDERGROUND UTILITY FACILITIES IN THE CONSTRUCTION AREA IN SUCH A MANNER AS TO INDICATE THEIR COURSE AND THE APPROXIMATE DEPTH AT WHICH THEY WERE INSTALLED. THE MARKING OR LOCATING SHALL BE COORDINATED TO STAY APPROXIMATELY TWO DAYS AHEAD OF THE PLANNED CONSTRUCTION.

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, ANY POWER-OPERATED CONSTRUCTION-TYPE DEVICE SHALL NOT BE OPERATED BETWEEN THE HOURS OF 9:00 PM AND 7:00 AM. IN ADDITION, ANY SUCH DEVICE SHALL NOT BE OPERATED AT ANY TIME IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

WEATHER CONDITIONS

NO CONSTRUCTION SHALL BE DONE DURING STORMY, FREEZING, OR INCLEMENT WEATHER UNLESS PERMISSION IS GIVEN BY THE CITY. WHENEVER WORK PROCEEDS DURING SUCH WEATHER, THE CONTRACTOR SHALL PROVIDE APPROVED FACILITIES, INCLUDING HEAT (IF REQUIRED), FOR THE PROTECTION OF ALL MATERIALS AND FINISHED WORK.

TACK COAT

THE RATE OF APPLICATION OF THE 407 TACK COAT SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER.

RESTORATION

THE CONTRACTOR SHALL PROVIDE FOR PROTECTION OF THE FOLLOWING: EXISTING STREETS, DRIVEWAYS, SIDEWALKS, CURBS, GUTTERS, RE-SEEDING/RE-SODDING, REMOVAL OF TREES, RESTORATION OF AGRICULTURAL LAND, THE MAINTENANCE OF THE CONSTRUCTION AREA DURING PROGRESS OF THE WORK AND THE COMPLETE RESTORATION OF THE CONSTRUCTION AREA TO ITS ORIGINAL CONDITION AT THE COMPLETION OF THE WORK. THE CONTRACTOR SHALL CONTINUOUSLY CARRY ON WITH THE FINAL RESTORATION OF THE CONSTRUCTION AREA AFTER THE BACKFILLING IS COMPLETED, AND HE SHALL PROCEED TO RESTORE TO ITS ORIGINAL CONDITION ALL STREETS, DRIVEWAYS, SIDEWALKS, CURBS, GUTTERS, STRUCTURES, AND ALL AREAS THAT WERE DAMAGED, DISTURBED, OR OCCUPIED BY THE CONTRACTOR IN CONNECTION WITH ANY PHASE OF THE WORK.

PAVEMENTS, TREES, SHRUBS, FENCES, POLES, OR OTHER PROPERTY AND SURFACE STRUCTURES WHICH HAVE BEEN DAMAGED. REMOVED. OR DISTURBED BY THE CONTRACTOR, WHETHER DELIBERATELY OR THROUGH FAILURE TO CARRY OUT THE REQUIREMENTS OF THE CONTRACT DOCUMENTS, STATE LAWS, MUNICIPAL ORDINANCES, THE SPECIFIC DIRECTION OF THE ENGINEER, OR THROUGH FAILURE TO EMPLOY USUAL AND REASONABLE SAFEGUARDS SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.

ALL TEMPORARY SIGNS, SPRINKLER SYSTEMS, LANDSCAPING, ORNAMENTAL FENCING, ETC., LOCATED WITHIN THE PROJECT LIMITS MUST BE REPLACED OR RELOCATED UPON COMPLETION OF THE CONSTRUCTION.

TRENCH FOR WIDENING

TRENCH EXCAVATION FOR BASE WIDENING SHALL BE ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

OVERNIGHT TRENCH CLOSING

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 3 INCHES BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY.NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25 FEET OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

EARTHWORK

CONTRACTOR SHALL BE ADVISED THAT THE EXISTING GRADES SHOWN ON THE PLANS ARE PROPOSED SITE GRADING BY OTHERS. UPON COMPLETION OF THE SITE GRADING, ROADWAY CONTRACTOR SITE CAN ELECT TO FIELD VERIFY THE TOPOGRAPHY. THE OWNER AND CONSTRUCTION MANAGER SHALL BE NOTIFIED OF THE CONTRACTOR'S INTENT AND WILL APPROVE THE FIELD SURVEY METHODS AND RESULTS PRIOR TO ANY ADJUSTMENT IN QUANTITIES/PAYMENT. IF THE CONTRACTOR BEGINS EARTHWORK ACTIVITIES PRIOR TO FIELD CHECK, NO ADJUSTMENT TO QUANTITIES/PAYMENT WILL BE MADE.

THE CONTRACTOR SHALL COORDINATE HIS GRADING AND TIE IN LIMITS WITH THE SITE CONTRACTOR. IT MAY BE EXPECTED THAT THE ROADWAY CONTRACTOR SHALL PROVIDE MINIMUM 2:1 GRADING SLOPES TO TIE INTO EXISTING SITE GRADES BEYOND THE PROPOSED RIGHT OF WAY. THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES.

SEEDING AND MULCHING

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT.

PRELIMINARY
NOT FOR CONSTRUCTION

REVISEMENTS
NO. & DESCRIPTION
BY
DATE

EVANS ENGINEERING
4240 AIRPORT ROAD, SUITE 211
CINCINNATI, OHIO 45226
(513) 321-2168



CTW - MONROE
GENERAL NOTES
CLARENCE F. WARNER,
CITY OF MONROE, BUTLER COUNTY, OHIO

SCALE:	HORIZ.	VERT.
	N/A	N/A
JOB NO.	21-162	
DATE	Dec. 16, 2021	

SHEET NO.

C-1.1



GENERAL NOTES:

INSPECTION OF PUBLIC IMPROVEMENTS

A. INSPECTION:ALL MATERIALS USED TO CONSTRUCT OR INSTALL ALL PUBLIC IMPROVEMENTS MUST BE INSPECTED AND APPROVED BY A COMPETENT TESTING LABORATORY AT THE DEVELOPER’S EXPENSE. TWO COPIES OF ALL REPORTS OF THE TESTING LABORATORY SHALL BE SENT TO THE CITY ENGINEER.

B. THE FOLLOWING ITEMS IN CONNECTION WITH THE INSTALLATION OF PUBLIC IMPROVEMENTS IN THE DEVELOPMENT OF SUBDIVISIONS ARE SUBJECT TO INSPECTION BY AN AUTHORIZED CITY REPRESENTATIVE:

1. INSTALLATION OF SANITARY SEWERS SHALL BE INSPECTED BY BUTLER COUNTY INCLUDING LAYING OF TRUNK LINES, LATERALS AND SERVICE BRANCHES, CONSTRUCTION OF MANHOLES AND BACKFILLING OF TRENCHES. ALL MATERIAL SHALL BE INSPECTED AND A CERTIFICATION OF CONFORMANCE TO APPLICABLE SPECIFICATIONS SHALL BE FURNISHED TO THE CITY ENGINEER.

2. INSTALLATION OF STORM SEWERS, INCLUDING LAYING OF PIPE, CONSTRUCTION OF MANHOLES, INLETS AND HEADWALLS, AND BACKFILLING OF TRENCHES.

3. CONSTRUCTION OF CULVERTS OR OTHER DRAINAGE STRUCTURES.

4. CONSTRUCTION OF STREETS, INCLUDING SUBGRADE, PLACING OF CURB AND GUTTER, LAYING OF BASE COURSES AND LAYING OF SURFACE COURSES.

5. ALL CONCRETE, ASPHALT, AND AGGREGATE MATERIALS SHALL BE TESTED AND INSPECTED. CONCRETE SHALL BE 4000 PSI AT 28 DAYS WITH 5% +/- ENTRAINED FOUR CONCRETE TEST CYLINDERS SHALL BE MADE BY A TESTING LABORATORY FROM EACH LOAD OF CONCRETE. TEST CYLINDERS SHALL BE TESTED AT 7 DAYS AND 28 DAYS WITH REPORTS FURNISHED TO THE CITY ENGINEER. ASPHALT MATERIALS SHALL BE INSPECTED AT THE PLANT. TEST REPORTS FOR ASPHALT AND AGGREGATE MATERIALS SHALL BE FURNISHED TO THE CITY ENGINEER.

C. THE INSTALLATION OF WATER MAINS, FIRE HYDRANTS AND WATER SERVICE BRANCHES ARE SUBJECT TO THE INSPECTION OF THE CITY. FIRE HYDRANTS ARE SUBJECT TO INSPECTION BY THE CITY FIRE DEPARTMENT. COMPACTION OF BACKFILL OVER WATER LINE TRENCHES IS SUBJECT TO APPROVAL BY THE CITY REPRESENTATIVE.

D. ALL COSTS OF INSPECTIONS SHALL BE BORNE BY THE DEVELOPER. DESIGNATED CITY INSPECTORS MAY BE CONTRACT PERSONNEL HIRED BY THE CITY, WHOSE ENTIRE EARNINGS ARE PAID FROM THE INSPECTION FUND SET UP AND MAINTAINED AT THE CONSTRUCTION DEVELOPER’S EXPENSE AS A CONDITION OF THE CONSTRUCTION PERMIT. THE DEVELOPER SHALL SUBMIT AN ANTICIPATED CONSTRUCTION SCHEDULE TO THE CITY, AND THE CITY WILL PROVIDE AN ANTICIPATED INSPECTION COST. THIS INSPECTION COST IS AN APPROXIMATION, AND MAY CHANGE DUE TO FIELD CONDITIONS. THE DEVELOPER SHALL PAY THE CITY THE ANTICIPATED INSPECTION COST PRIOR TO COMMENCEMENT OF CONSTRUCTION. SHOULD THE FUND NOT BE FULLY UTILIZED, THE DEVELOPER WILL BE PAID THE REMAINDER OF THE FUND. SHOULD THE INSPECTION NEEDS GO BEYOND THE ORIGINAL ANTICIPATED COST, THE DEVELOPER WILL BE REQUIRED TO AGAIN SUBMIT A CURRENT CONSTRUCTION SCHEDULE, AND POST PAY THE CITY THE ANTICIPATED INSPECTION COSTS TO COMPLETE THE PROJECT. THESE INSPECTORS ARE PAID AN HOURLY RATE FOR THE TIME ACTUALLY SPENT ON THE INSPECTION WORK ON ANY SUBDIVISION. TIME AND ONE–HALF IS ALLOWED FOR WORK IN EXCESS OF EIGHT HOURS IN ANY ONE WEEKDAY, OR FOR WORK ON SATURDAYS. DOUBLE TIME IS ALLOWED FOR WORK ON SUNDAYS OR RECOGNIZED HOLIDAYS.

E. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO KEEP THE INSPECTOR ADVISED OF THE WORK SCHEDULE. ANY WORK SUBJECT TO INSPECTION, PERFORMED AND COVERED WITHOUT THE KNOWLEDGE OF THE INSPECTOR, WILL, AT THE DISCRETION OF THE INSPECTOR, HAVE TO BE UNCOVERED FOR INSPECTION AT THE CONTRACTOR’S EXPENSE.

F. FAILURE TO NOTIFY THE INSPECTOR AT LEAST ONE HOUR BEFORE STARTING TIME THAT NO WORK SUBJECT TO INSPECTION IS TO BE PERFORMED THAT DAY, WILL RESULT IN A MINIMUM TWO–HOUR CHARGE FOR THE SHOW–UP TIME.

G. INSPECTION TIME REPORTS TURNED IN TO THE CITY OFFICE FOR PAYMENT SHOULD BE SIGNED BY THE CONTRACTOR’S REPRESENTATIVE ON THE JOB AS AN ACKNOWLEDGMENT THAT THE INSPECTOR HAS ACTUALLY BEEN ON THE JOB FOR THE AMOUNT OF TIME CHARGED. IT IS ALSO RECOMMENDED THAT THE CONTRACTOR ’S REPRESENTATIVE KEEP A RECORD OF THE INSPECTIONS TIME CHARGED SO AS TO BE ABLE TO CHECK THE STATUS OF THE INSPECTION FUND AT ANY TIME.

H. IN THE EVENT AN INSPECTOR DOES NOT REPORT TO A JOB AFTER BEING NOTIFIED THAT WORK IS TO BE PERFORMED, THE CITY MANAGER SHOULD BE NOTIFIED.

WATER AND SANITARY SEWER GENERAL NOTES

1. ITEM NUMBERS REFER TO THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, AND ALL CONSTRUCTION WORK SHALL BE DONE ACCORDING TO SAID SPECIFICATIONS OF BUTLER COUNTY REQUIREMENTS. WHEN IN CONFLICT, THE COUNTY REQUIREMENTS SHALL PREVAIL.

2. ITEMS THAT PERTAIN TO UNDERGROUND UTILITIES SUCH AS WATER MAIN PIPE, SANITARY SEWER PIPE, WATER VALVES AND MANHOLE FRAMES AND COVERS, ETC., WILL REMAIN UNDER SPECIFICATION OF THE UTILITY SERVING THE AREA. STORM SEWERS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF MONROE.

3. ALL TRENCHES WITHIN THE RIGHT–OF–WAY AND 15’ UTILITY EASEMENT SHALL BE COMPACTED AND BACKFILLED IN ACCORDANCE WITH ITEM 203 AND 603 IN THE STATE SPECIFICATIONS.

4. WATER MAIN MATERIALS, VALVES, FIRE HYDRANTS, FITTINGS AND APPURTENANCES AND INSTILLATION TO BE AS PER BUTLER COUNTY SPECIFICATIONS, USING CLASS 53 DUCTILE IRON AS PER AWWA C–151 WITH MINIMUM 4’ COVER.

5. SANITARY SEWER MATERIALS AND INSTALLATION AS PER BUTLER COUNTY ENVIRONMENTAL SERVICES SPECIFICATION, USING SECTION 3110 FPR PVC, SDR–35 AND 26 PIPE; SECTION 3140 FOR ABS OR PVC COMPOSITE PIPE. SECTION 3410 FOR MANHOLES.

WATER AND SAN[ARY SEWER GENERAL NOTES (CONTINUED)

6. CROSSINGS

WHENEVER A SANITARY SEWER AND WATER MAIN MUST CROSS, THE SEWER SHALL BE AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST 18 INCHES MEASURED BETWEEN THE OUTSIDE PIPE WALLS, BELOW THE BOTTOM OF THE WATER MAIN.

IF IT IS ABSOLUTELY IMPOSSIBLE TO MAINTAIN 18 INCHES VERTICAL SEPARATION, THE WATER MAIN SHALL BE RELOCATED OR THE SEWER SHALL BE CONSTRUCTED AS FOLLOWS:

A. A SEWER PASSING OVER OR UNDER THE WATER MAIN SHALL BE ENCASED OR CONSTRUCTED OF MATERIALS THAT ARE EQUIVALENT TO WATER STANDARDS OF CONSTRUCTION FOR A MINIMUM DISTANCE OF 10’ ON EACH SIDE OF THE WATER MAIN.

B. THE SEWER CROSSING SHALL BE CONSTRUCTED SO THAT THE SEWER JOINTS WILL BE OF EQUAL DISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS.

C. WHERE A WATER MAIN PASSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO THE WATER MAIN.

7. ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO SANITARY SEWER SYSTEM ARE PROHIBITED.

8. ALL CATCH BASINS WITH A DEPTH GREATER THAN 4.5’ SHALL BE PROVIDED WITH STEPS. STEPS SHALL MEET THE REQUIREMENTS OF ODOT STD. 604 AND SHALL CONFORM TO THE DETAILS SHOWN ON BUTLER COUNTY STANDARD DRAWING MH–1A.

9. BUTLER COUNTY WATER AND SEWER DEPARTMENT OR THE CITY OF MONROE DOES NOT ACCEPT ANY RESPONSIBILITY FOR THE RELOCATION, REPAIR, OR REPLACEMENT OF ANY OTHER UTILITY INSTALLED WITHIN FIVE FEET OF THE CENTER LINE OF ANY SANITARY SEWER MAIN OR WATER MAIN.

10. ALL WATER MAIN VALVES TO HAVE A MINIMUM DEPTH OF 2.5’ AND A MAXIMUM OF 4.0’ FROM PROPOSED GRADE TO THE TOP OF THE VALVE OPERATING NUT.

11. ALL FIRE HYDRANTS TYPES TO BE AMERICAN DARLING B62B AND SHALL BE RED IN COLOR.

12. PRIVATE DRIVEWAYS, PARKING LOTS AND OTHER PAVED AREAS, EARTHEN BERMS, OR STRUCTURES SHOULD NOT BE CONSTRUCTED OVER PRIVATE WATER OR SEWER SERVICE LINES WITHIN THE PUBLIC ROAD RIGHT–OF–WAY OR WITHIN THE EASEMENT AREAS FOR THE PUBLIC UTILITIES. SHOULD THIS OCCUR, THE PROPERTY OWNER SHALL BE HELD RESPONSIBLE FOR THE PROTECTION AND REPAIR AND FOR PROVIDING ACCESS TO ANY CURB STOPS. METER PITS. MANHOLES, CLEAN–OUTS, ETC. INSTALLED IN CONJUNCTION WITH THESE PRIVATE SERVICE LINES AND FOR ANY DAMAGE OR RESTORATION OF THE PAVED SURFACES OR STRUCTURES THAT MAY RESULT FROM THE FUTURE OPERATION, MAINTENANCE, REPAIR OR REPLACEMENT OF SAID SERVICE LINES AND APPURTENANCES.

13. ALL BUILDINGS TO BE SERVED BY THE PUBLIC SEWER SYSTEM SHALL BE CONSTRUCTED SO AS TO PROVIDE A MINIMUM OF FOUR FEET OF VERTICAL SEPARATION BETWEEN THE PUBLIC SANITARY SEWER, AT THE POINT OF CONNECTION AND THE LOWEST BUILDING LEVEL SERVED BY A GRAVITY SEWER CONNECTION. IN ADDITION, SAID BUILDING LEVEL SHALL BE AT LEAST ONE FOOT ABOVE THE LOWEST POINT OF FREE OVERFLOW (NON–SEATED MANHOLE COVER) UPSTREAM OF ANY TREATMENT FACILITY OR WASTEWATER PUMPING FACILITY THAT RECEIVES THE DISCHARGE FROM SAID BUILDING. SAID MINIMUM SERVICE LEVELS SHALL BE RECORDED ON THE AS BUILTS PLANS FOR THE DEVELOPMENT, WHICH WILL BE KEPT ON FILE IN THE OFFICE OF THE BUTLER COUNTY WATER AND SEWER DEPARTMENT.

INTERIM COMPLETION DATE

AN INTERIM DATE OF COMPLETION FOR THIS CONTRACT IS SET 30 DAYS PRIOR TO THE FINAL COMPLETION DATE. ALL CONTRACT ITEMS OF WORK MUST BE COMPLETED BY THE INTERIM COMPLETION DATE. THE INTERIM DATE WILL BE SUBJECT TO LIQUIDATED DAMAGES AS INDICATED BY SECTION 108.07 OF THE CONSTRUCTION AND MATERIALS SPECIFICATIONS BOOK. REQUEST FOR TIME EXTENSIONS TO THE INTERIM COMPLETION DATE WILL BE PROCESSED AS PER SECTION 108.06 OF THE SPECIFICATIONS BOOK. THE PERIOD OF TIME BETWEEN THE INTERIM COMPLETION DATE AND THE FINAL COMPLETION DATE IS STRICTLY TO ALLOW FOR COMPLETION OF THE "PUNCH LIST" ITEMS AND REMOVAL OF THE PROJECT FIELD OFFICES.FAILURE TO COMPLETE THE "PUNCH LIST" AND REMOVE THE FIELD OFFICES BY THE FINAL COMPLETION DATE WILL RESULT IN ASSESSMENT OF LIQUIDATED DAMAGES AS PER SECTION 108.07 OF THE SPECIFICATIONS BOOK. A GRANTED TIME EXTENSION TO THE INTERIM COMPLETION DATE WILL NOT INCLUDE A CORRESPONDING EXTENSION TO THE FINAL COMPLETION DATE. EXTENSIONS OF TIME TO THE FINAL COMPLETION DATE WILL ONLY BE GRANTED IF IT CAN BE JUSTIFIED THAT NOT ENOUGH TIME EXIST TO COMPLETE "PUNCH LIST" ITEMS AND REMOVE THE PROJECT FIELD OFFICES PRIOR TO FINAL COMPLETION DATE.

CONSTRUCTION NOTIFICATION

THE CONTRACTOR WILL ADVISE THE PROJECT ENGINEER A MINIMUM OF FOURTEEN (14) DAYS PRIOR TO THE FOLLOWING: THE START OF CONSTRUCTION ACTIVITIES, LANE CLOSURES. AND ROAD CLOSURES. THE PROJECT ENGINEER WILL FORWARD THIS INFORMATION TO THE DISTRICT PUBLIC INFORMATION OFFICER (PIO} BY FAX AT (513) 932–7651 OR AT THE CITY ENGINEER. THE CITY ENGINEER WILL, IN TURN, NOTIFY THE PUBLIC, THE LOCAL EMERGENCY SERVICES, AFFECTED SCHOOLS AND BUSINESSES, AND ANY OTHER IMPACTED LOCAL AGENCY OF ANY OF THE ABOVE MENTIONED ITEM, VIA MEDIA SOURCES.

TEMPORARY PAVEMENT WEDGE

TEMPORARY PAVEMENT WEDGES SHALL BE PROVIDED AT ALL TIMES WHERE TRAFFIC IS REQUIRED TO TRAVEL FROM OR ONTO A PAVEMENT SURFACE OF A DIFFERENT ELEVATION. THE MINIMUM SLOPE OF THE TEMPORARY PAVEMENT WEDGE SHALL BE 3:1 ALONG LONGITUDINAL JOINTS AND 120:1 AT TRANSVERSE JOINTS. THESE WEDGES SHALL BE REMOVED PRIOR TO PLACING THE SPECIFIED PAVEMENT COURSE. PAYMENT FOR ALL WORK, MATERIALS, ETC. ASSOCIATED WITH THIS ITEM SHALL BE PAID FOR UNDER ITEM 614 MAINTAINING TRAFFIC LUMP SUM.

MAINTENANCE OF TRAFFIC. GENERAL REQUIREMENTS

THE REQUIRED WORK SHALL BE PERFORMED IN A MANNER THAT CAUSES THE LEAST INCONVENIENCE TO AND THAT PROVIDES THE MAXIMUM SAFETY FOR THE TRAVELING SAFETY–SERVICE AND THE CONTRACTOR. THE REQUIREMENTS FOR MAINTAINING TRAFFIC AS INDICATED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (REFERRED TO AS THE "OMUTCD"), CURRENT EDITION, PERTINENT ITEMS IN THE ODOT SPECIFICATIONS, AND AS REQUESTED BY THE ENGINEER SHALL APPLY IN ADDITION TO THE FOLLOWING NOTES.

SHOULD ANY PAVED AREAS NOT DESIGNATED FOR MAINTAINING TRAFFIC BECOME DAMAGED OR DESTROYED DURING CONSTRUCTION DUE TO THE CONTRACTOR’S NEGLIGENCE OR FAILURE TO PROVIDE ADEQUATE SIGNS, BARRICADES, DRUMS, FLAGGERS OR OTHER TRAFFIC CONTROL DEVICES, THE RESTORATION OF THE PAVED AREAS SHALL BE AT THE EXPENSE OF THE CONTRACTOR AND TO THE SATISFACTION OF THE ENGINEER.

TEMPORARY PAVEMENT MARKINGS (ITEM 642} SHALL BE IN PLACE PRIOR TO A STAGE OF CONSTRUCTION BEING OPENED TO TRAFFIC.

BEFORE THE WORK BEGINS, THE CONTRACTOR WILL PROVIDE THE ENGINEER WITH THE NAMES AND TELEPHONE NUMBERS OF TWO (2) PERSONS WHO CAN BE CONTACTED 24 HOURS A DAY BY THE ENGINEER, AFFECTED SAFETY–SERVICE AGENCIES, AND ALL INTERESTED POLICE AGENCIES, TO REPAIR AND/OR REPLACE THE TRAFFIC CONTROL DEVICES AS NEEDED TO MAINTAIN THE SAFETY OF THE TRAVELED PAVEMENT.

UPON OPENING THE ROADWAY TO THE PUBLIC, THE CONTRACTOR SHALL RETURN THE EXISTING ROAD CLOSED BARRICADES LOCATED ON GATEWAY BOULEVARD TO THE CITY OF MONROE.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH ITEM 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

PRELIMINARY
NOT FOR CONSTRUCTION

REVISIONS	NO. & DESCRIPTION	
	BY	
	DATE	

EVANS ENGINEERING
4240 AIRPORT ROAD, SUITE 211
CINCINNATI, OHIO 45226
(513) 321-2168



CTW – MONROE
GENERAL NOTES
CLARENCE F. WARNER,
CITY OF MONROE, BUTLER COUNTY, OHIO

SCALE:	HORIZ.	VERT.
	N/A	N/A

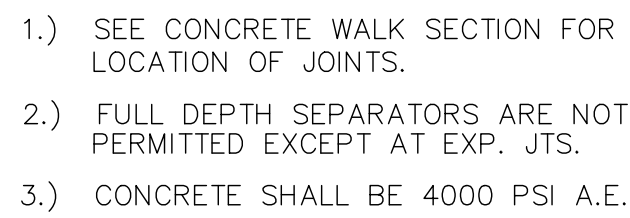
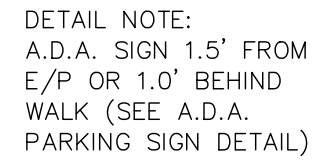
JOB NO.	21–162	
DATE	Dec. 16, 2021	

SHEET NO.

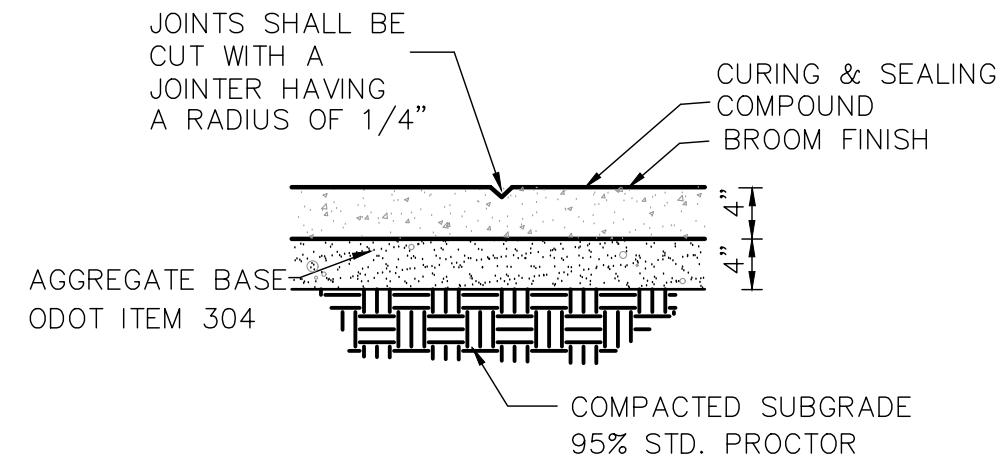
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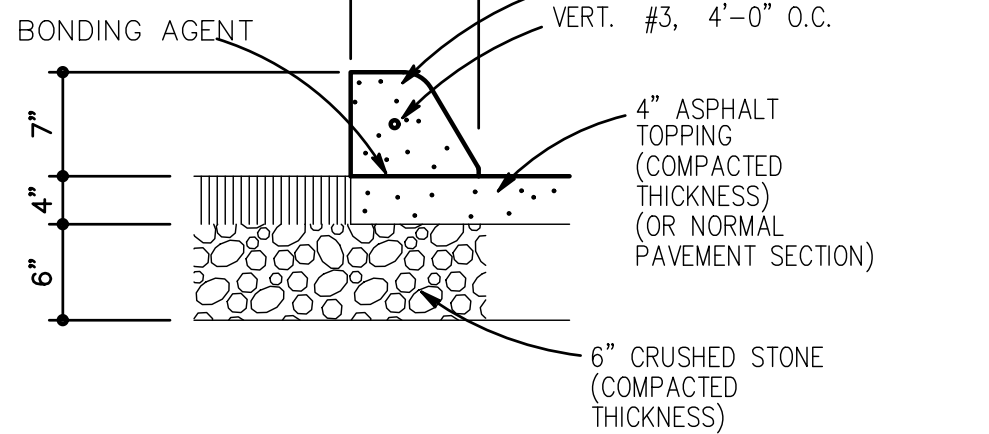
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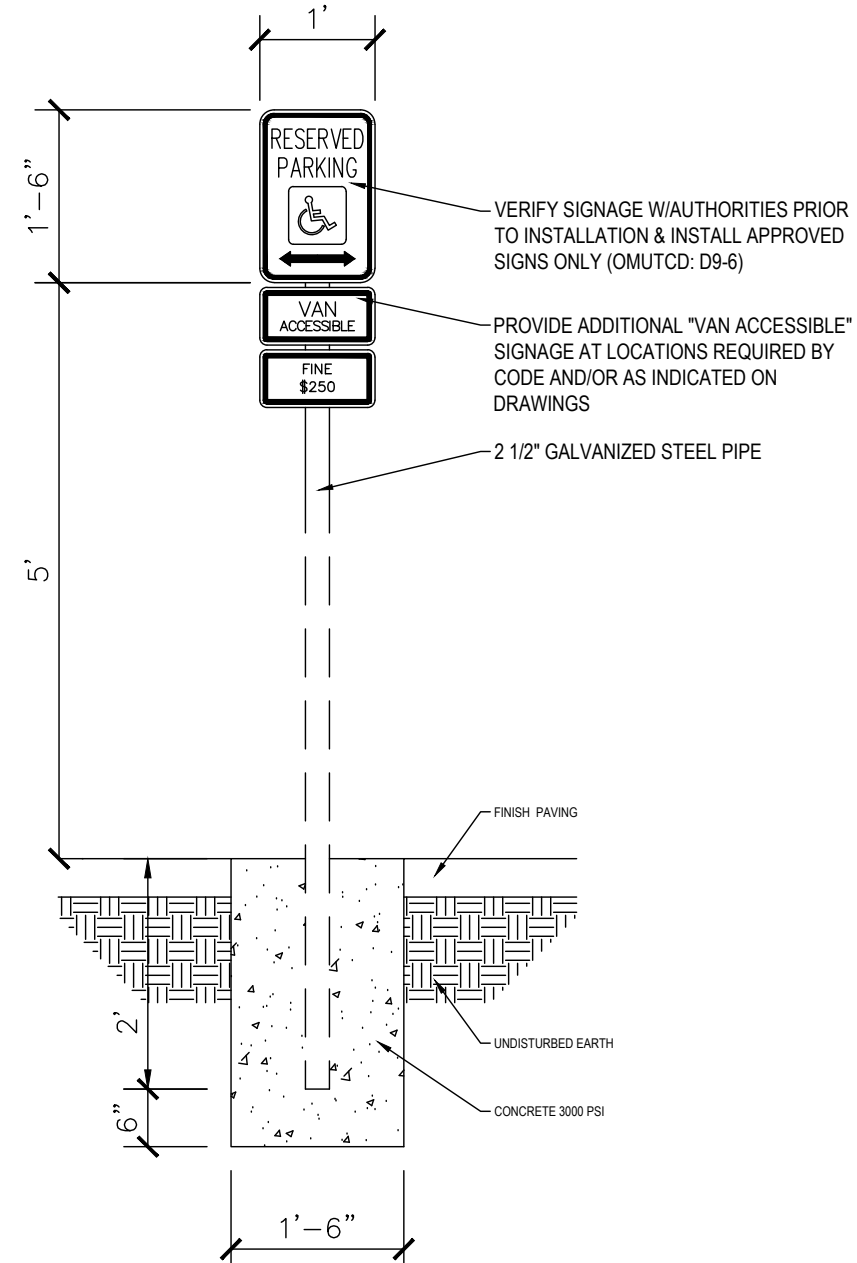
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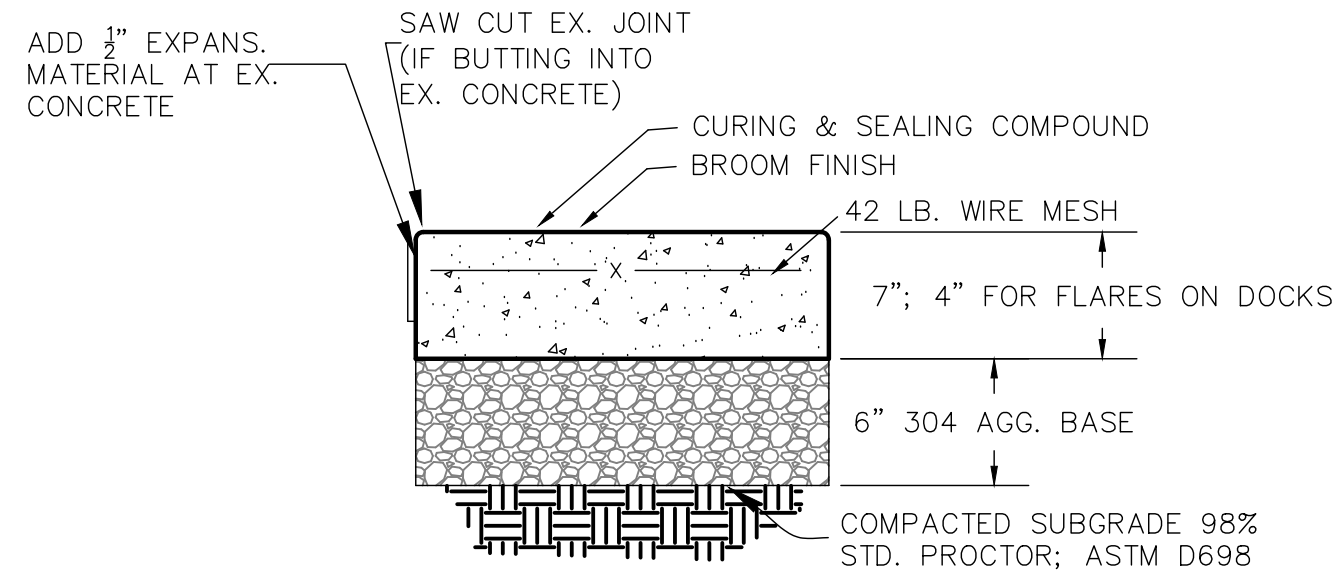
- CONCRETE WALK DETAIL**
NOT TO SCALE



NOT TO SCALE



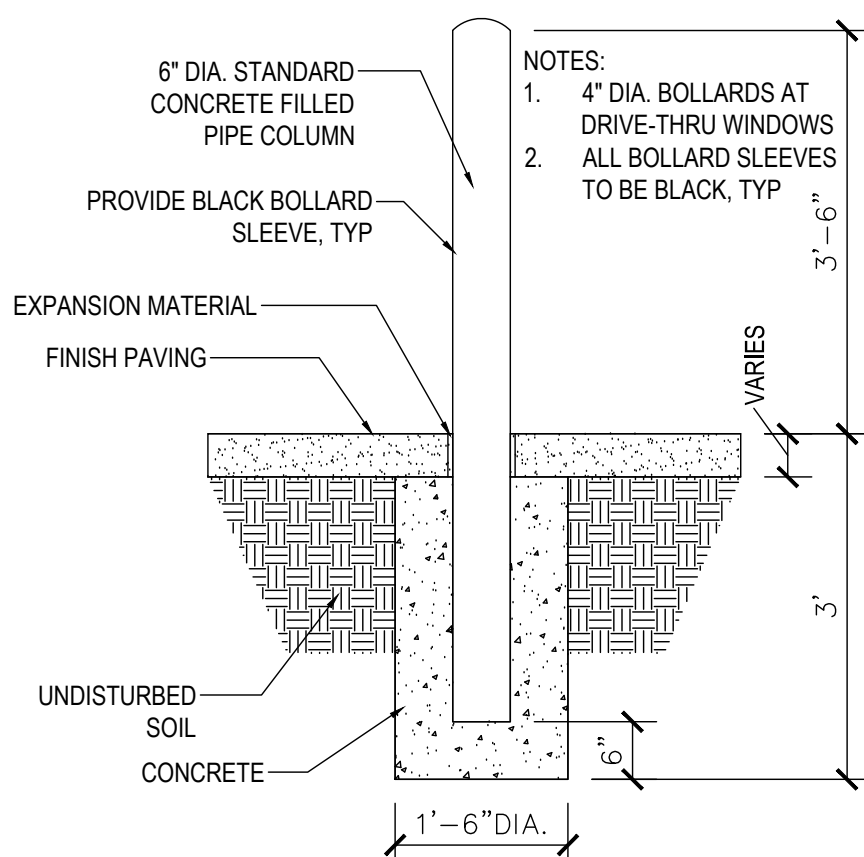
- ADA PARKING SIGN DETAIL
- NOT TO SCALE



- 1.) CONTROL JOINTS 10' O.C. MAX (EACH DIRECTION).
- 2.) PRE-FORMED EXPANSION JOINTS 30' O.C. MAX. & WHERE ABUTS CONCRETE
- 3.) CONCRETE SHALL BE 4000 PSI A.E.

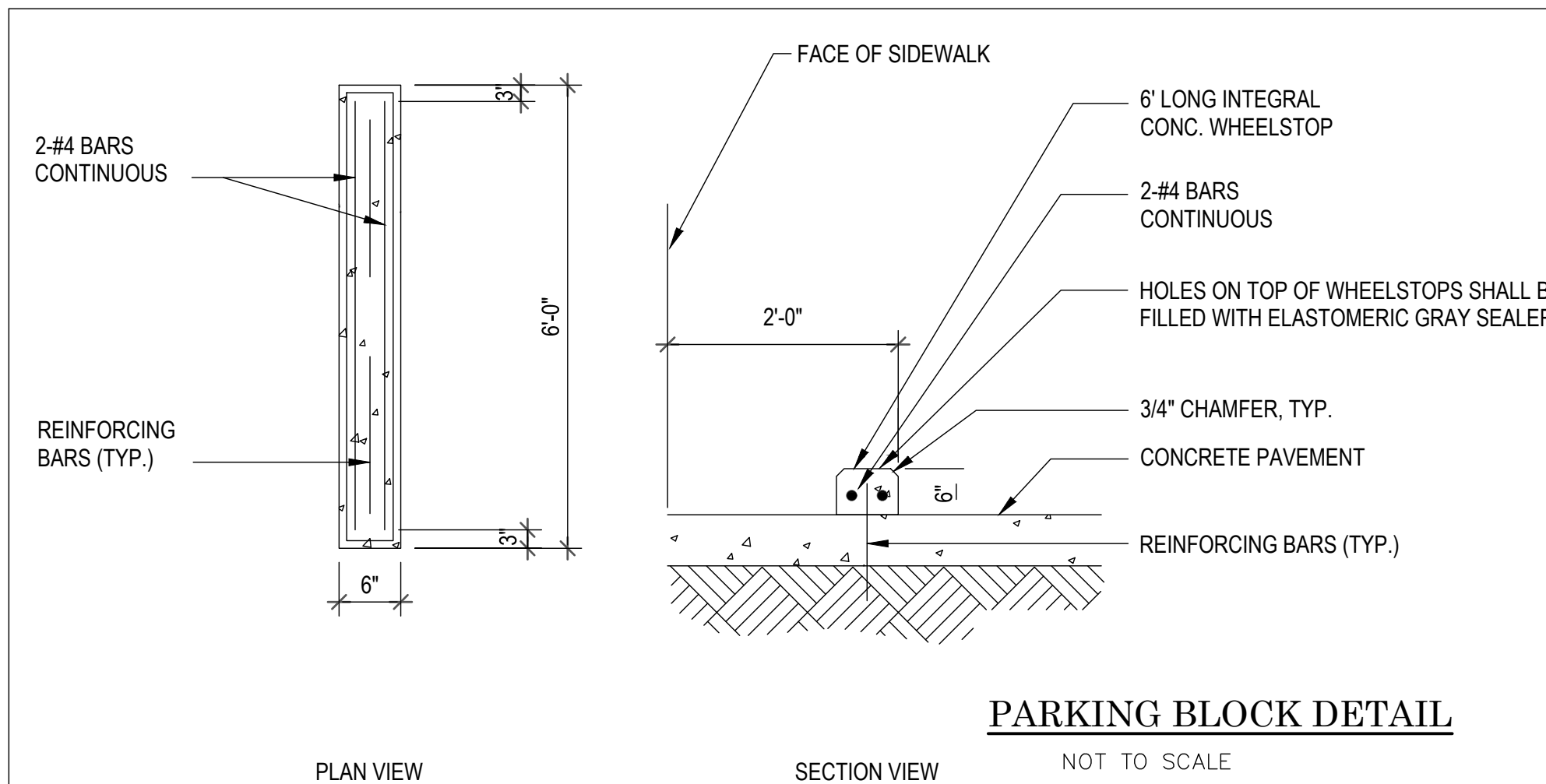
NOT TO SCALE

**PER GEOTECHNICAL REPORT
DATED 12.09.20 BY ALT AND
WITZIG ENGINEERING**

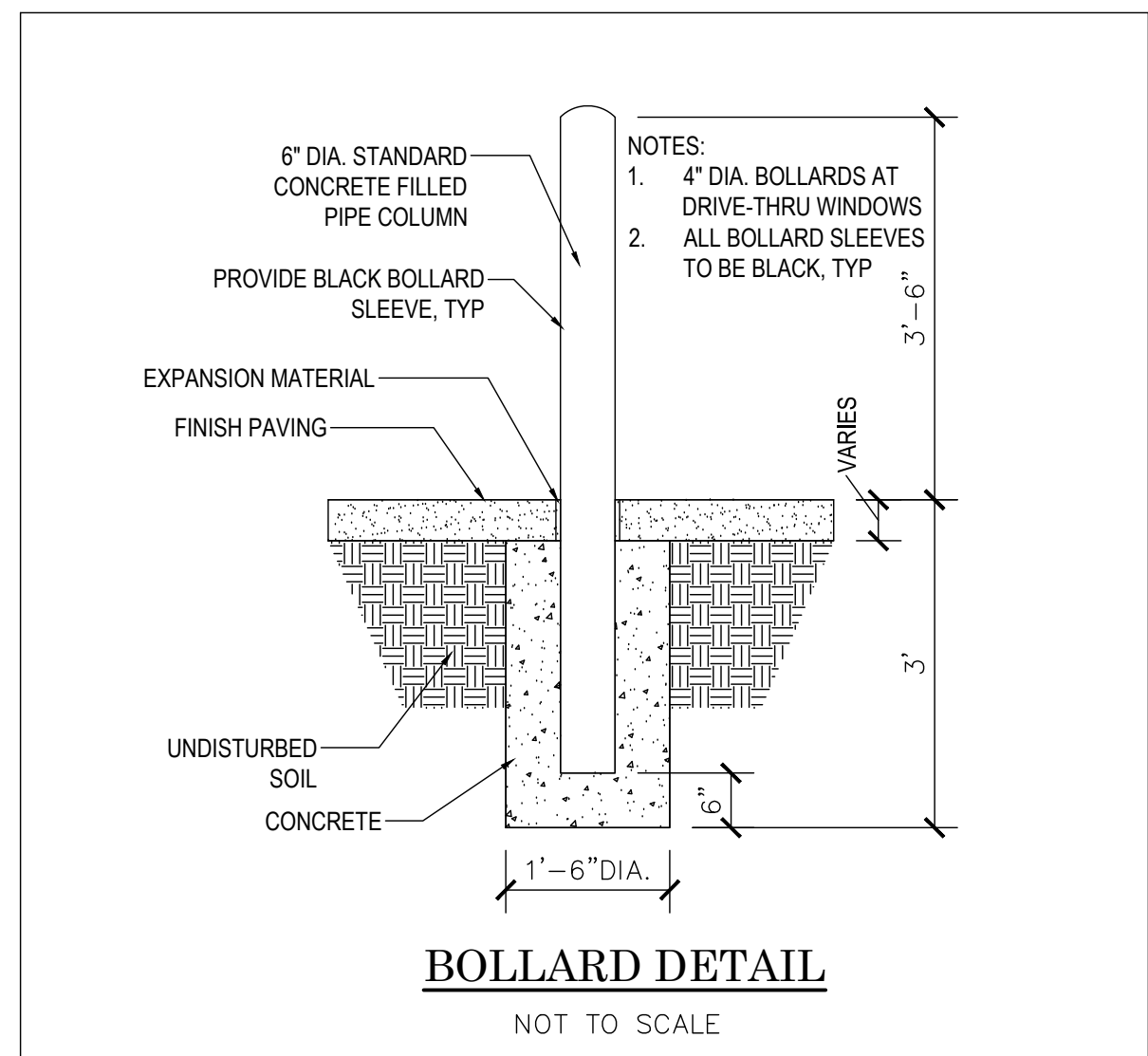


- NOTES:
1. 4" DIA. BOLLARDS AT DRIVE-THRU WINDOW
 2. ALL BOLLARD SLEEVES TO BE BLACK, TYPE

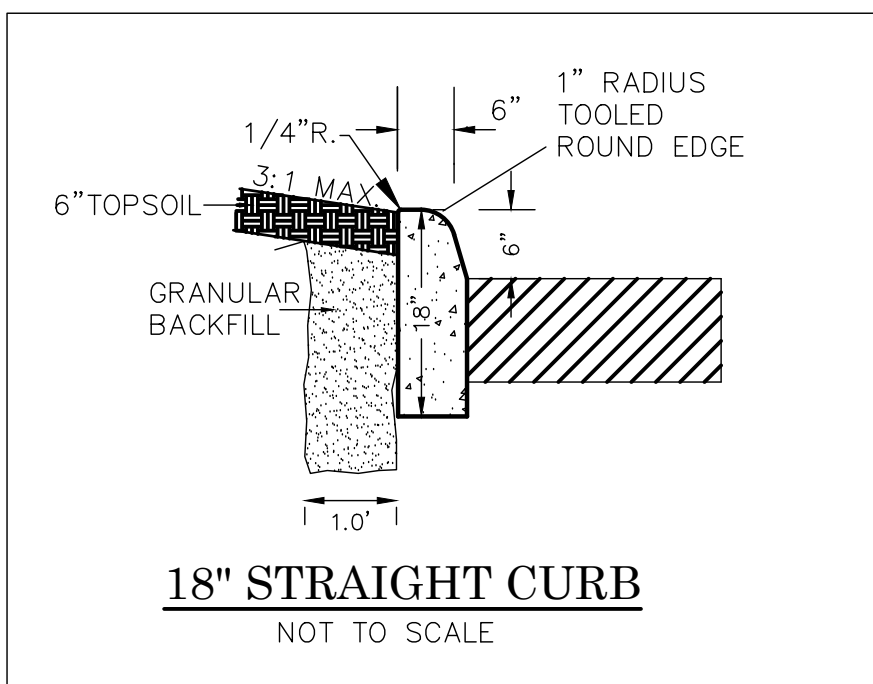
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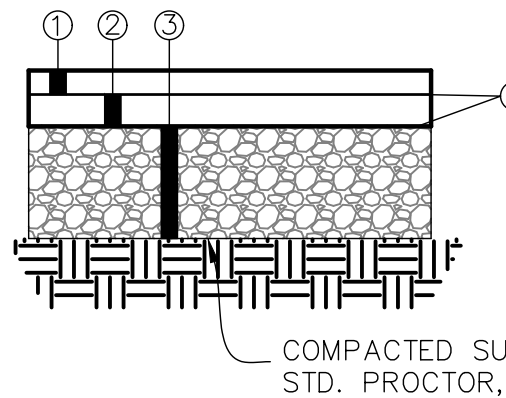
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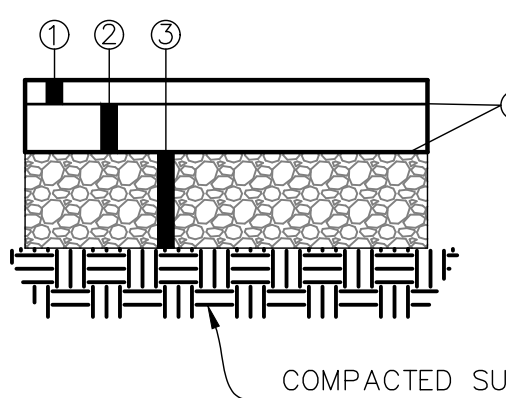


- ① - 1 1/2" ODOT ITEM 441 ASPHALT CONCRETE SURFACE COURSE
TYPE 1, (446 & 448), PG64-22
- ② - 2" ODOT ITEM 441 ASPHALT CONCRETE INTERMEDIATE COURSE
TYPE 2 (448)
- ③ - 6" COMPACTED AGGREGATE BASE-#304 (2 LIFTS)
- ④ ODOT ITEM 407 TACK COAT BETWEEN LAYERS

NOT TO SCALE

AFTER BITUMINOUS PAVEMENT HAS BEEN REPLACED, SAWCUT OR ROUTE JOINT BETWEEN EXISTING AND NEW PAVEMENT AND FILL WITH HOT POURED RUBBER JOINT SEALER PRODUCT. HOT POURED RUBBER JOINT SEALER SHALL BE ONE OF THE FOLLOWING OR AN APPROVED EQUAL:

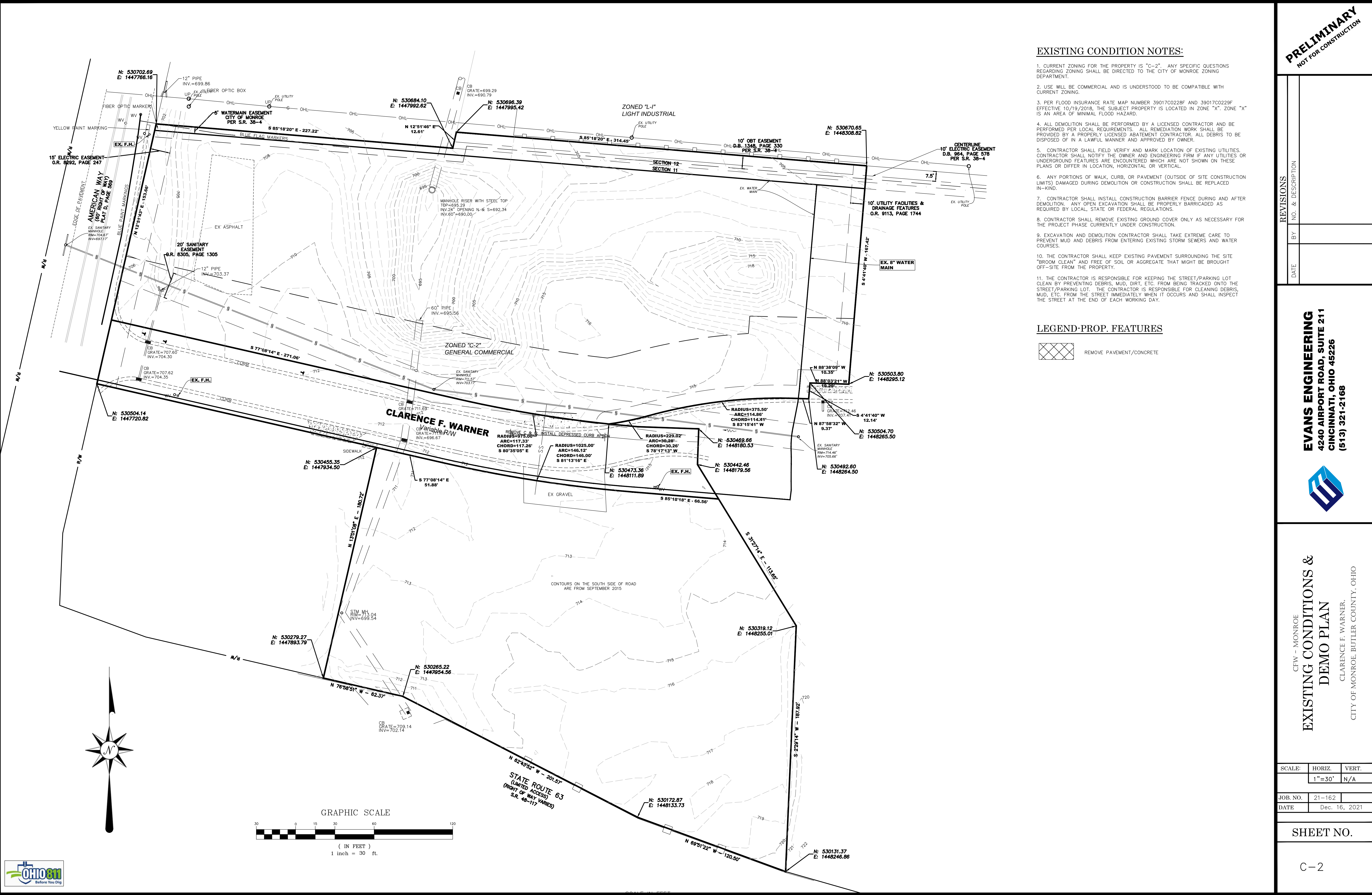
- 1) ROADSaver 221; CRAFCO INC.
- 2) PRODUCT #9005 OR #9030; KOCH MATERIAL COMPANY
- 3) SEALTIGHT HI-SPEC; W.R. MEADOWS, INC.



- ① - 1 1/2" ODOT ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446 & 448); PG64-22
- ② - 3" ODOT ITEM 441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 (448) (2 LIFTS)
- ③ - 8" COMPACTED AGGREGATE BASE - #304 (2 LIFTS)**
- ④ ODOT ITEM 407 TACK COAT BETWEEN LAYERS

NOT TO SCALE





EXISTING CONDITION NOTES:

1. CURRENT ZONING FOR THE PROPERTY IS "C-2". ANY SPECIFIC QUESTIONS REGARDING ZONING SHALL BE DIRECTED TO THE CITY OF MONROE ZONING DEPARTMENT.
2. USE WILL BE COMMERCIAL AND IS UNDERSTOOD TO BE COMPATIBLE WITH CURRENT ZONING.
3. PER FLOOD INSURANCE RATE MAP NUMBER 39017C0228F AND 39017C0228F EFFECTIVE 10/19/2018, THE SUBJECT PROPERTY IS LOCATED IN ZONE "X". ZONE "X" IS AN AREA OF MINIMAL FLOOD HAZARD.
4. ALL DEMOLITION SHALL BE PERFORMED BY A LICENSED CONTRACTOR AND BE PERFORMED PER LOCAL REQUIREMENTS. ALL REMEDIATION WORK SHALL BE PROVIDED BY A PROPERLY LICENSED ABATEMENT CONTRACTOR. ALL DEBRIS TO BE DISPOSED OF IN A LAWFUL MANNER AND APPROVED BY OWNER.
5. CONTRACTOR SHALL FIELD VERIFY AND MARK LOCATION OF EXISTING UTILITIES. CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEERING FIRM IF ANY UTILITIES OR UNDERGROUND FEATURES ARE ENCOUNTERED WHICH ARE NOT SHOWN ON THESE PLANS OR DIFFER IN LOCATION, HORIZONTAL OR VERTICAL.
6. ANY PORTIONS OF WALK, CURB, OR PAVEMENT (OUTSIDE OF SITE CONSTRUCTION LIMITS) DAMAGED DURING DEMOLITION OR CONSTRUCTION SHALL BE REPLACED IN-KIND.
7. CONTRACTOR SHALL INSTALL CONSTRUCTION BARRIER FENCE DURING AND AFTER DEMOLITION. ANY OPEN EXCAVATION SHALL BE PROPERLY BARRICADED AS REQUIRED BY LOCAL, STATE OR FEDERAL REGULATIONS.
8. CONTRACTOR SHALL REMOVE EXISTING GROUND COVER ONLY AS NECESSARY FOR THE PROJECT PHASE CURRENTLY UNDER CONSTRUCTION.
9. EXCAVATION AND DEMOLITION CONTRACTOR SHALL TAKE EXTREME CARE TO PREVENT MUD AND DEBRIS FROM ENTERING EXISTING STORM SEWERS AND WATER COURSES.
10. THE CONTRACTOR SHALL KEEP EXISTING PAVEMENT SURROUNDING THE SITE "BROOM CLEAN" AND FREE OF SOIL OR AGGREGATE THAT MIGHT BE BROUGHT OFF-SITE FROM THE PROPERTY.
11. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING THE STREET/PARKING LOT CLEAN BY PREVENTING DEBRIS, MUD, DIRT, ETC. FROM BEING TRACKED ONTO THE STREET/PARKING LOT. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING DEBRIS, MUD, ETC. FROM THE STREET IMMEDIATELY WHEN IT OCCURS AND SHALL INSPECT THE STREET AT THE END OF EACH WORKING DAY.

LEGEND-PROP. FEATURES

 REMOVE PAVEMENT/CONCRETE

PRELIMINARY
NOT FOR CONSTRUCTION

REVISIONS	
NO.	DESCRIPTION

EVANS ENGINEERING
4240 AIRPORT ROAD, SUITE 211
CINCINNATI, OHIO 45226
(513) 321-2168

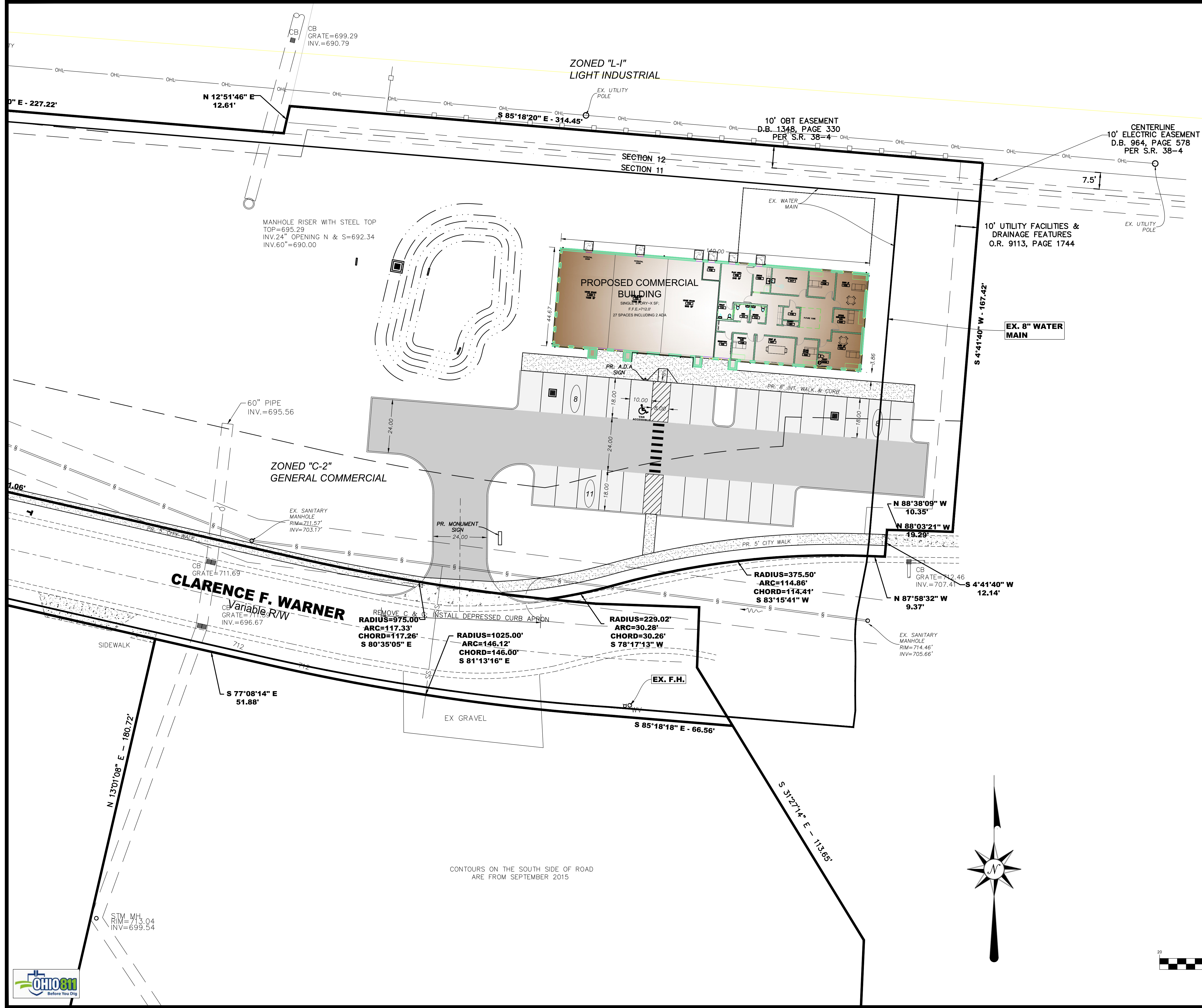


CFW - MONROE
EXISTING CONDITIONS &
DEMO PLAN
CLARENCE F. WARNER,
CITY OF MONROE, BUTLER COUNTY, OHIO

SCALE:	HORIZ.	VERT.
	1"=30'	N/A
JOB NO.	21-162	
DATE	Dec. 16, 2021	

SHEET NO.

C-2



LEGEND-PROP. FEATURES

- LIGHT DUTY ASPHALT PAVEMENT
- HEAVY DUTY ASPHALT PAVEMENT
- NEW PORTLAND CEMENT CONCRETE PAVEMENT
- NEW PORTLAND CEMENT CONCRETE WALK

SEE LANDSCAPE PLAN, BY OTHERS. ALL AREAS NOT PAVING, OR BUILDING ARE TO BE COVERED WITH GRASS/TURF UNLESS OTHERWISE NOTED.

PARKING TABLE:

PROPOSED PARKING=	28
ADA ACCESSIBLE =	2
TOTAL PARKING	30 SPACES (MIN. 9' X 18')

NOTES:

- ALL DIMENSIONS ARE TO FACE OF CURB, CENTERLINE OF STRIPE, PROPERTY LINE OR R/W UNLESS OTHERWISE NOTED.
- ALL CURB RADI ARE 3' UNLESS OTHERWISE NOTED.
- ALL CONSTRUCTION STAGING ACTIVITIES MUST BE SELF-CONTAINED WITHIN THE LOT.
- ALL STORAGE OF CONSTRUCTION MATERIALS, CONSTRUCTION STAGING AREAS AND THE PARKING OF CONSTRUCTION VEHICLES, INCLUDING VEHICLES OF WORKERS, SHALL OCCUR ONLY ON THE SUBJECT PROPERTY.
- ONLY THE ACCESS POINTS LOCATED UPON THE PROPERTY SHALL BE USED BY ALL LABORERS, SUPPLIERS, CONTRACTORS AND OTHERS CONNECTED WITH SUCH CONSTRUCTION ACTIVITIES.
- ALL CONCRETE FOR SITE WORK SHALL BE PER ODOT 452, CLASS "C", 4,000 PSI, 5-7% AIR ENTRAINED.
- PROVIDE A TOOLED JOINT AT THE PERIMETER OF THE CONCRETE DRIVE.

PRELIMINARY
NOT FOR CONSTRUCTION

REVISIONS	
NO.	DESCRIPTION

EVANS ENGINEERING
4240 AIRPORT ROAD, SUITE 211
CINCINNATI, OHIO 45226
(513) 321-2168

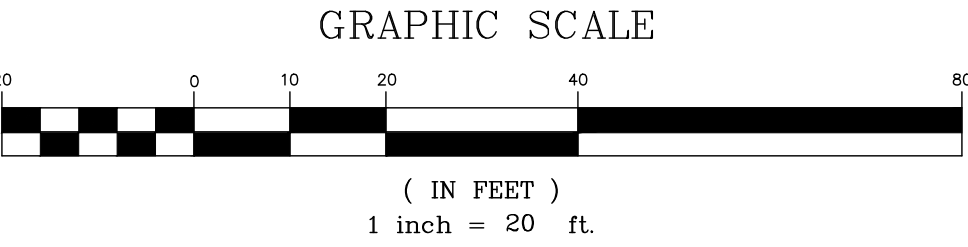


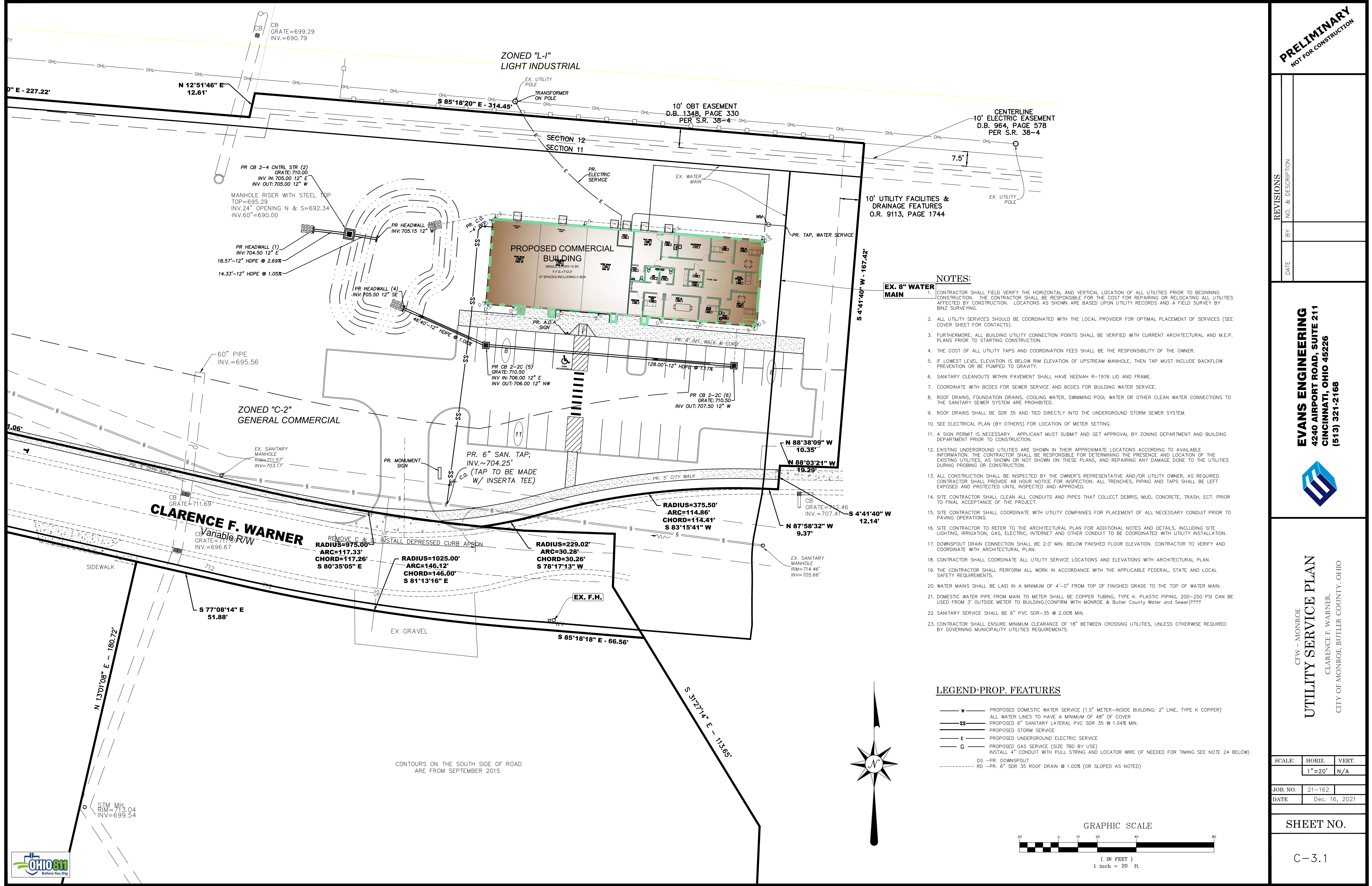
CTW - MONROE
SITE DIMENSION PLAN
CLARENCE F. WARNER,
CITY OF MONROE, BUTLER COUNTY, OHIO

SCALE:	HORIZ.	VERT.
	1"=20'	N/A
JOB NO.	21-162	
DATE	Dec. 16, 2021	

SHEET NO.

C-3





PRELIMINARY
NOT FOR CONSTRUCTION

REVISIONS

NO. & DESCRIPTION

BY

DATE

EVANS ENGINEERING
4240 AIRPORT ROAD, SUITE 211
CINCINNATI, OHIO 45226
(513) 321-2168

UTILITY SERVICE PLAN
CLARENCE F. WARNER,
CITY OF MONROE, BUTLER COUNTY, OHIO

SCALE: HORIZ. VERT.

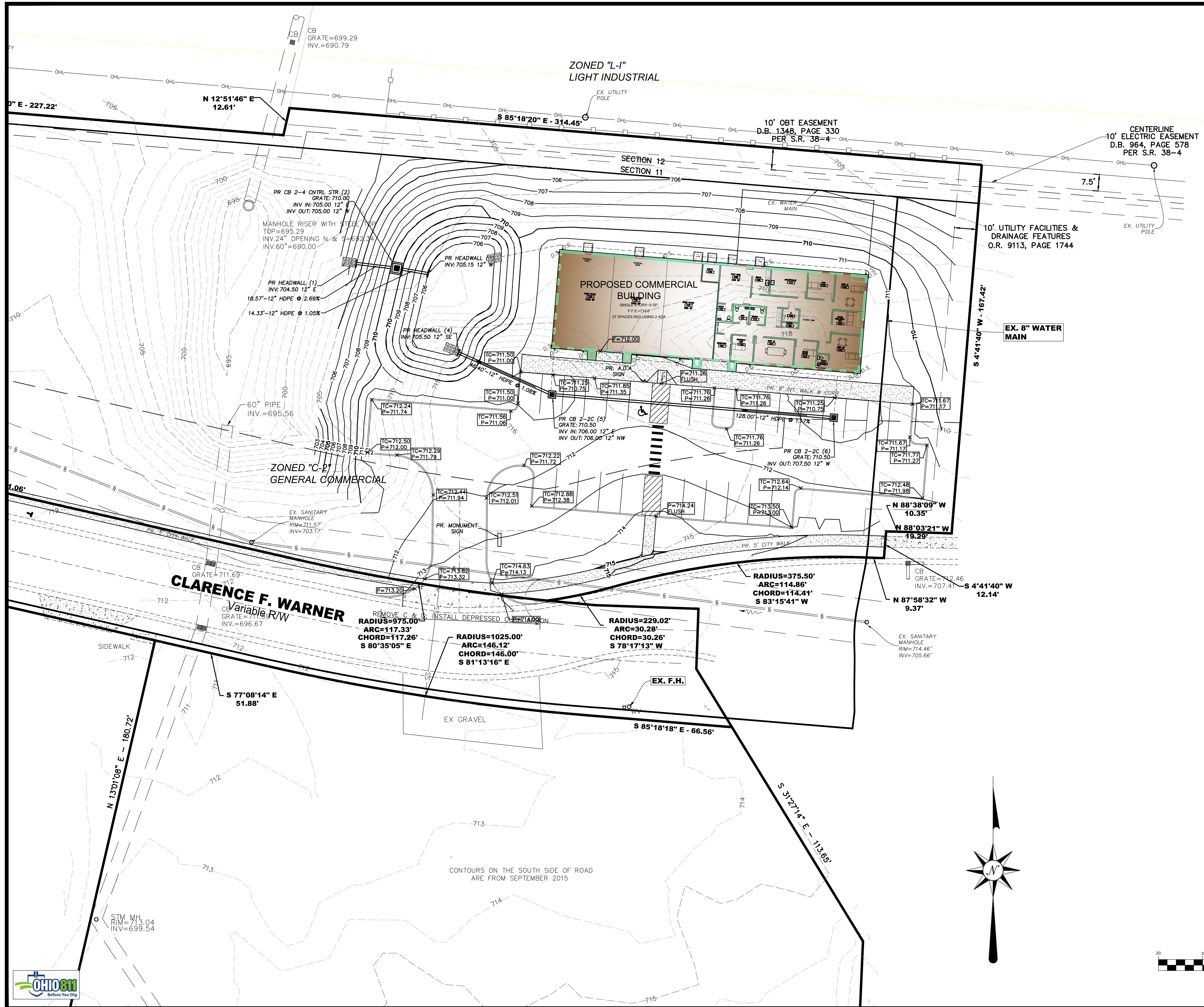
1"=20' N/A

JOB NO. 21-162

DATE Dec. 16, 2021

SHEET NO.

C-3.1



GRADING LEGEND

TC=TOP OF CURB ELEVATION
P=FINISHED GRADE (PAVEMENT)
F=FINISHED GRADE
TW=TOP OF WALL
BW=BOTTOM OF WALL

B/C=EXISTING BACK OF CURB GRADE
B/W=EXISTING BACK OF WALL GRADE
EX.=EXISTING GRADE

SPECIAL NOTES:

CONTRACTOR SHALL CONSULT WITH
GEOTECHNICAL ENGINEER BEFORE
COMMENCING EARTHMOVING ACTIVITIES.

TOPSOIL ~6" SHOULD BE DISTRIBUTED BACK
ACROSS LANDSCAPE AREAS PRIOR TO
SEEDING.

CONTRACTOR SHALL DISPOSE OF EXCESS
MATERIAL IN ACCORDANCE WITH ALL LOCAL
AND STATE CODES AND PERMIT
REQUIREMENTS. EXPORTED MATERIAL SHALL
BE TRANSPORTED TO AN APPROVED FILL
AREA.

CONTOUR LEGEND:

--- EX. CONTOUR
--- PR. CONTOUR (MAJOR)
--- PR. CONTOUR (MINOR)

PRELIMINARY
NOT FOR CONSTRUCTION

REVISIONS		
NO.	BY	DESCRIPTION

EVANS ENGINEERING
4240 AIRPORT ROAD, SUITE 211
CINCINNATI, OHIO 45226
(513) 321-2168

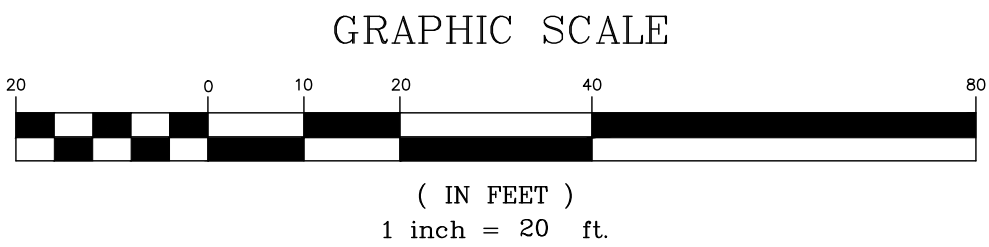


CTW - MONROE
GRADING PLAN
CLARENCE F. WARNER,
CITY OF MONROE, BUTLER COUNTY, OHIO

SCALE:	HORIZ.	VERT.
	1"=20'	N/A
JOB NO.	21-162	
DATE	Dec. 16, 2021	

SHEET NO.

C-4



EROSION AND SEDIMENT CONTROL NOTES:

PRE-CONSTRUCTION:

1. THE CONTRACTOR SHALL NOTIFY THE CITY OF MONROE (513) 352-4973 AT LEAST SEVEN (7) DAYS BEFORE COMMENCING ANY LAND DISTURBING ACTIVITIES AND, UNLESS WAIVED BY THE UTILITY, WILL BE REQUIRED TO HOLD A PRE-CONSTRUCTION MEETING BETWEEN PROJECT REPRESENTATIVES FROM THE CITY OF MONROE.
2. THE CONTRACTOR SHALL NOTIFY THE CITY OF MONROE BY TELEPHONE AT THE FOLLOWING POINTS:
- A. THE REQUIRED PRE-CONSTRUCTION MEETING
 - B. FOLLOWING INSTALLATION OF SEDIMENT CONTROL MEASURES.
 - C. PRIOR TO REMOVAL OR MODIFICATION OF ANY SEDIMENT CONTROL STRUCTURE
 - D. PRIOR TO REMOVAL OF ALL SEDIMENT CONTROL DEVICES
 - E. PRIOR TO FINAL ACCEPTANCE

3. A COPY OF THE APPROVED SEDIMENT AND EROSION CONTROL PLAN MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES.

4. THE CONTRACTOR SHALL CONSTRUCT ALL EROSION AND SEDIMENT CONTROL MEASURES PER THE APPROVED PLAN AND CONSTRUCTION SEQUENCE AND SHALL HAVE THEM INSPECTED AND APPROVED BY A REPRESENTATIVE OF THE CITY OF MONROE PRIOR TO BEGINNING ANY OTHER LAND DISTURBANCES.

5. THE CONTRACTOR SHALL ENSURE THAT ALL RUNOFF FROM DISTURBED AREAS IS DIRECTED TO THE SEDIMENT CONTROL DEVICES AND SHALL NOT REMOVE AN EROSION OR SEDIMENT CONTROL MEASURE WITHOUT PRIOR PERMISSION FROM A REPRESENTATIVE OF THE CITY OF MONROE.

6. THE CONTRACTOR MUST OBTAIN APPROVAL FROM THE CITY OF MONROE BEFORE ANY CHANGES TO THE SEDIMENT CONTROL PLAN AND/OR SEQUENCE OF CONSTRUCTION ARE IMPLEMENTED UNLESS IMMEDIATE ACTION IS NECESSARY. IN THIS CASE, THE CONTRACTOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.

7. THE CONTRACTOR SHALL INSPECT DAILY AND MAINTAIN CONTINUOUSLY IN AN EFFECTIVE OPERATING CONDITION ALL EROSION AND SEDIMENT CONTROL MEASURES UNTIL SUCH TIMES AS THEY ARE REMOVED WITH PRIOR PERMISSION FROM AN SMU REPRESENTATIVE. THE CONTRACTOR SHALL KEEP WRITTEN RECORDS OF ALL SEDIMENT AND EROSION CONTROL INSPECTIONS AND MAINTENANCE FOR THE DURATION OF THE PROJECT. THIS INFORMATION MUST BE MADE AVAILABLE TO REPRESENTATIVES OF THE CITY OF MONROE UPON REQUEST.

SAFETY:

8. THE CITY OF MONROE SITE REPRESENTATIVE ALWAYS HAS THE OPTION OF REQUIRING ADDITIONAL SAFETY OR SEDIMENT CONTROL MEASURES IF DEEMED NECESSARY.

9. WHERE DEEMED APPROPRIATE BY THE ENGINEER OR INSPECTOR, BASINS AND TRAPS MAY NEED TO BE SURROUNDED WITH AN APPROVED SAFETY FENCE. THE FENCE MUST CONFORM TO LOCAL ORDINANCES AND REGULATIONS. THE DEVELOPER OR OWNER SHALL CHECK WITH LOCAL BUILDING OFFICIALS ON APPLICABLE SAFETY REQUIREMENTS. WHERE SAFETY FENCE IS DEEMED APPROPRIATE AND LOCAL ORDINANCES DO NOT SPECIFY FENCING SIZES AND TYPES, THE FOLLOWING SHALL BE USED AS A MINIMUM STANDARD: THE SAFETY FENCE MUST BE MADE OF WELDED WIRE AND AT LEAST FORTY TWO (42) INCHES HIGH, HAVE POSTS SPACED NO FARTHER APART THAN EIGHT (8) FEET, HAVE MESH OPENINGS NO GREATER THAN TWO (2) INCHES IN WIDTH AND FOUR (4) INCHES IN HEIGHT WITH A MINIMUM OF 14 GAUGE WIRE. SAFETY FENCE MUST BE MAINTAINED AND IN GOOD CONDITION AT ALL TIMES.

10. STORM DRAIN INLETS IN NON-SUMP AREAS SHALL HAVE TEMPORARY ASPHALT PADS CONSTRUCTED AT THE TIME OF BASE PAVING TO DIRECT GUTTER FLOW INTO THE INLETS TO AVOID SURCHARGING AND OVERFLOW OF INLETS IN SUMP AREAS.

11. STOCKPILE SLOPES SHALL NOT BE STEEPER THAN 2:1.

STABILIZED CONSTRUCTION ENTRANCE:

12. THE CONTRACTOR SHALL PROTECT ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS TO PREVENT THE DEPOSITION OF MATERIALS ONTO PUBLIC ROADS. ALL MATERIALS DEPOSITED ONTO PUBLIC ROADS SHALL BE REMOVED IMMEDIATELY USING A STREET SWEEPER OR SCRAPER. DEBRIS SHALL NOT BE WASHED OFF PAVED SURFACES OR INTO STORM DRAINS.

13. CONSTRUCTION ENTRANCES SHOULD NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES. VEHICLES THAT ENTER AND LEAVE THE SITE SHALL BE RESTRICTED FROM MUDDY AREAS OR CLEANED BEFORE LEAVING SITE.

SEDIMENT TRAPS AND BASINS:

14. SEDIMENT TRAPS OR BASINS ARE NOT PERMITTED WITHIN TWENTY (20) FEET OR EXISTING OR PROPOSED FOUNDATION OR TRAFFIC AREA. NO STRUCTURE MAY BE CONSTRUCTED WITHIN TWENTY (20) FEET OF AN ACTIVE SEDIMENT TRAP OR BASIN.

15. SEDIMENT TRAPS AND BASINS MUST HAVE STABLE INFLOW AND OUTFLOW POINTS SO THAT WATER CAN DISCHARGE WITHOUT CAUSING EROSION.

16. SEDIMENT BASINS/TRAPS SHALL NOT BE GREATER THAN FOUR (4) FEET IN DEPTH.

17. SEDIMENT MUST BE CLEANED, AND THE TRAP/BASIN RESTORED TO ITS ORIGINAL DIMENSIONS, WHEN ACCUMULATION REACHES A HEIGHT HALF-WAY UP TO THE TOP OF THE DESIGNED HOLDING AREA.

18. SEDIMENT REMOVED FROM TRAPS AND BASINS SHALL BE PLACED AND STABILIZED IN APPROVED AREAS, BUT NOT WITHIN A FLOODPLAIN, WETLAND OR VEGETATION PRESERVATION AREA.

19. WHEN PUMPING SEDIMENT LADEN WATER, THE DISCHARGE MUST BE DIRECTED TO A SEDIMENT TRAPPING DEVICE PRIOR TO DISCHARGE TO A FUNCTIONAL STORM DRAIN SYSTEM, STABLE GROUND SURFACE, OR RELEASE FROM THE SITE.

20. SEDIMENT BASINS MUST BE REMOVED WITHIN THIRTY SIX (36) MONTHS AFTER THEIR CONSTRUCTION.

21. OHIO DAM SAFETY LAWS APPLY TO BASINS LARGER THAN FIFTEEN (15) ACRE-FEET (24,000 CY) AS MEASURED TO THE TOP OF THE HOLDING AREA.

TEMPORARY & PERMANENT STABILIZATION:

22. ALL CRITICAL SLOPES (3:1 OR STEEPER) SHALL BE STABILIZED WITH SOD OR SEED AS SOON AS POSSIBLE BUT NO LATER THAN SEVEN (7) CALENDAR DAYS AFTER ACHIEVING FINAL GRADE.

23. ALL AREAS NOT DRAINING TO A FUNCTIONING SEDIMENT BASIN MUST BE FINAL GRADED AND STABILIZED WITH SOD OR SEED WITHIN SEVEN (7) CALENDAR DAYS OF ACHIEVING FINAL GRADE.

24. ALL AREAS WITHIN FIFTY (50) FEET OF A STREAM MUST BE STABILIZED WITHIN TWO (2) CALENDAR DAYS OF ACHIEVING FINAL GRADE.

25. ALL AREAS THAT ARE TO REMAIN IDLE, INCLUDING STOCK PILES, FOR FOURTEEN (14) CALENDAR DAYS MUST BE STABILIZED WITH SEED OR SOD.

26. WHEN THE PROPERTY IS BROUGHT TO FINISHED GRADE DURING THE MONTHS OF NOVEMBER THROUGH FEBRUARY, AND PERMANENT STABILIZATION IS FOUND TO BE IMPRACTICAL, TEMPORARY SEED AND ANCHORED MULCH SHALL BE APPLIED TO ALL DISTURBED AREAS. THE FINAL PERMANENT STABILIZATION OF SUCH PROPERTY SHALL BE APPLIED BY MARCH 15 OR EARLIER IF GROUND AND WEATHER CONDITIONS ALLOW.

27. PERMANENT SWALES OR OTHER POINTS OF CONCENTRATED WATER FLOW SHALL BE STABILIZED WITH SOD OR SEED WITH AN APPROVED EROSION CONTROL MATTING, RIP-RAP, OR BY OTHER APPROVED STABILIZATION MEASURES WITHIN TWO (2) DAYS OF ACHIEVING FINAL GRADE.

28. TEMPORARY SEDIMENT CONTROL DEVICES MAY BE REMOVED, WITH PERMISSION OF AN SMU REPRESENTATIVE, THIRTY (30) CALENDAR DAYS FOLLOWING ESTABLISHMENT OF PERMANENT STABILIZATION IN ALL CONTRIBUTORY DRAINAGE AREAS.

29. STORMWATER MANAGEMENT STRUCTURES, USED TEMPORARILY FOR SEDIMENT CONTROL, SHALL BE CONVERTED TO THE PERMANENT CONFIGURATION THIRTY (30) CALENDAR DAYS FOLLOWING ESTABLISHMENT OF PERMANENT STABILIZATION IN ALL CONTRIBUTORY DRAINAGE AREAS.

30. FOR FINISHED GRADING, THE CONTRACTOR SHALL PROVIDE ADEQUATE GRADIENTS TO PREVENT WATER FROM PONDING FOR MORE THAN TWENTY FOUR (24) HOURS AFTER THE END OF A RAINFALL EVENT. DRAINAGE COURSES AND SWALE FLOW AREAS MAY TAKE AS LONG AS FORTY EIGHT (48) HOURS AFTER THE END OF A RAINFALL EVENT TO DRAIN. AREAS DESIGNED TO HAVE STANDING WATER (I.E. RETENTION PONDS) DO NOT HAVE TO MEET THIS REQUIREMENT.

31. ALL WASTE AND BORROW AREAS OFF-SITE MUST BE PROTECTED BY SEDIMENT CONTROL MEASURES AND STABILIZED.

OTHER:

32. NO SOLID OR LIQUID WASTE, INCLUDING BUILDING MATERIALS, SHALL BE DISCHARGED IN STORM WATER RUNOFF. THE CONTRACTOR MUST IMPLEMENT ALL NECESSARY CONTROL MEASURES TO PREVENT THE DISCHARGE OF POLLUTANTS TO THE DRAINAGE SYSTEM OF THE SITE OR SURFACE WATERS. UNDER NO CIRCUMSTANCE SHALL CONCRETE TRUCKS WASH OUT DIRECTLY INTO A DRAINAGE CHANNEL, STORM SEWER OR SURFACE WATER.

33. SEDIMENT MUST BE CLEANED FROM SILT FENCES AND MULCH BERMS WHEN ACCUMULATION REACHES A HEIGHT OF HALF-WAY UP TO THE TOP OF THE FENCE/BERM.

34. SEDIMENT REMOVED FROM SILT FENCES AND MULCH BERMS SHALL BE PLACED AND STABILIZED IN APPROVED AREAS, BUT NOT WITHIN A FLOODPLAIN, WETLAND OR VEGETATION PRESERVATION AREA.

35. ALL SLOPES STEEPER THAN 3:1 REQUIRED GRADE TREATMENT, EITHER STAIR-STEP GRADING, GROOVING, FURROWING, OR TRACKING IF THEY ARE TO BE STABILIZED WITH VEGETATION.

36. AREAS WITH GRADES LESS STEEP THAN 3:1 SHOULD HAVE THE SOIL SURFACE LIGHTLY ROUGHENED AND LOOSE TO A DEPTH OF TWO (2) TO FOUR (4) INCHES PRIOR TO SEEDING.

37. CONSTRUCTION AND DEMOLITION DEBRIS MUST BE DISPOSED OF IN ACCORDANCE WITH OHIO REVISED CODE, CHAPTER 3714.

ADDITIONAL STORMWATER POLLUTION PREVENTION NOTES:

UNLESS OTHERWISE NOTED, STANDARDS AND SPECIFICATIONS ESTABLISHED IN THE LATEST EDITION OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY "RAINWATER AND LAND DEVELOPMENT" MANUAL, CURRENT EDITION, SHALL GOVERN THE EROSION AND SEDIMENT CONTROL INSTALLATIONS SPECIFIED ON THIS PLAN.

THE DEVELOPER AND CONTRACTOR SHALL ABIDE BY THE RULES AND REGULATIONS SET FORTH IN THE OHIO EPA PERMIT NO. OH0000005-"AUTHORIZATION FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)."

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

SEDIMENT CONTROL STRUCTURES SHALL BE FUNCTIONAL THROUGHOUT THE COURSE OF EARTH DISTURBING ACTIVITY. SEDIMENT BASINS AND PERIMETER SEDIMENT BARRIERS SHALL BE IMPLEMENTED PRIOR TO GRADING AND WITHIN SEVEN DAYS FROM THE START OF GRUBBING. THEY SHALL CONTINUE TO FUNCTION UNTIL THE UP SLOPE DEVELOPMENT AREA IS RE-STABILIZED. AS CONSTRUCTION PROGRESSES AND THE TOPOGRAPHY IS ALTERED, APPROPRIATE CONTROLS MUST BE CONSTRUCTED OR EXISTING CONTROLS ALTERED TO ADDRESS THE CHANGING DRAINAGE PATTERNS.

SOIL STOCKPILED MUST BE STABILIZED AND PROTECTED WITH SEDIMENT TRAPPING TO PREVENT SOIL LOSS.

SILT FENCES AND "INLET FILTERS" ARE TO BE CONTINUOUSLY MAINTAINED BY THE DEVELOPER AND/OR CONTRACTOR UNTIL ALL DANGER OF EROSION/SEDIMENTATION OCCURRING HAS BEEN ELIMINATED.

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 STATE OF OHIO SPECIFICATION ITEM 659, AND PER TABLE LISTED ON THIS SHEET "STABILIZATION."

EXCAVATION CONTRACTOR SHALL TAKE EXTREME CARE TO PREVENT MUDS AND DEBRIS FROM ENTERING EXISTING STORM SEWERS AND WATER COURSES.

THE CONTRACTOR SHALL KEEP EXISTING PAVEMENT SURROUNDING THE SITE "BROOM CLEAN" AND FREE OF SOIL OR AGGREGATE THAT MIGHT BE BROUGHT OFF-SITE FROM THE LOT ONTO STREETS.

THE CONTRACTOR IS RESPONSIBLE FOR KEEPING THE STREET/PARKING LOT CLEAN BY PREVENTING DEBRIS, MUD, DIRT, ETC. FROM BEING TRACKED ONTO THE STREET/PARKING LOT. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING DEBRIS, MUD, ETC. FROM THE STREET IMMEDIATELY WHEN IT OCCURS AND SHALL INSPECT THE STREET AT THE END OF EACH WORKING DAY.

THE DEVELOPER AND/OR CONTRACTOR SHALL PERFORM REGULAR STREET SWEEPING TO MINIMIZE SEDIMENTS TO THE PROPOSED STORM SEWER SYSTEM.

UPON REQUEST OF THE OHIO EPA, OR LOCAL JURISDICTION, THE CONTRACTOR SHALL PROVIDE ALL NPDES PERMIT REPORTS AND A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN. THE CONTRACTOR SHALL ALLOW THE OHIO EPA, OR LOCAL JURISDICTION, TO ENTER THE SITE TO INSPECT AND MONITOR ALL EROSION CONTROL MEASURES.

DUMPSTERS AND PORT-O-LETS ARE NOT TO BE CLOSER THAN 20' FROM THE PROPERTY LINES.

TEMPORARY AND PERMANENT SEEDING:

1.1 SEEDBED PREPARATION

A. LIME (IN LIEU OF A SOIL TEST RECOMMENDATION) ON ACID SOIL (pH=5.5 OR LESS) AND SUBSOIL AT A RATE OF 100 POUNDS PER 1000 SF, OR TWO (2) TONS PER ACRE OF AGRICULTURAL GROUND LIMESTONE.

B. FERTILIZER (IN LIEU OF A SOILS TEST RECOMMENDATION) SHALL BE APPLIED AT A RATE OF 12-15 POUNDS (25 POUNDS FOR PERMANENT SEEDING) PER 1000 SF OF 10-10-10 OR 12-12-12 ANALYSIS OR EQUIVALENT.

1.2 SEEDING

1. TEMPORARY SEEDING MIXTURE

SEEDING PERIOD	TYPE	RATE (1000 SF)
SPRING AND SUMMER	1. OATS	3 LBS
	2. PEREN. RYEGRASS	1 LBS
	3. TALL FESCUE	1 LBS
FALL	1. PEREN. RYEGRASS	1 LBS
	2. RYE	3 LBS
	3. WHEAT	3 LBS
	4. TALL FESCUE	1 LBS

2. PERMANENT SEEDING MIXTURE

SEEDING PERIOD	TYPE	RATE (1000 SF)
SPRING, SUMMER, AND FALL	1. CREEPING RED FESCUE	0.5 LBS
	DOMESTIC RYEGRASS	0.25 LBS
	KENTUCKY BLUEGRASS	0.25 LBS
	2. TALL FESCUE	1 LBS
	3. DWARF FESCUE	1 LBS

2-1 SEEDING FOR STEEP BANKS OR CUTS

SPRING, SUMMER, AND FALL	1. TALL FESCUE	1 LBS
	2. CROWNVEITCH TALL FESCUE	0.25 LBS
	3. FLATPEA TALL FESCUE	0.50 LBS

2-2 SEEDING FOR WATERWAYS AND ROAD DITCHES

SPRING, SUMMER AND FALL	1. TALL FESCUE	1 LBS
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B. APPLY THE SEED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER (SLURRY MAY INCLUDE SEED AND FERTILIZER) PREFERABLY ON A FIRM, MOIST SEEDBED. SEED WHEAT OR RYE NO DEEPER THAN ONE (1) INCH. SEED RYEGRASS NO DEEPER THAN ONE QUARTER (1/4) OF AN INCH.

TEMPORARY AND PERMANENT SEEDING (CONT.)

C. WHEN FEASIBLE, EXCEPT WHERE A CULTIPACKER TYPE SEEDER IS USED, THE SEEDBED SHOULD BE FIRMD FOLLOWING SEEDING OPERATIONS WITH A CULTIPACKER, ROLLER, OR LIGHT DRAG. ON SLOPING LAND SEEDING OPERATIONS SHOULD BE ON THE CONTOUR WHEREVER POSSIBLE.

D. OTHER SEEDING SPECIES MAY BE SUBSTITUTED FOR THESE MIXTURES.

E. THESE SEEDING RATES NEED TO BE INCREASED TWO TO THREE TIMES IF THEY ARE TO BE USED AS A LAWN.

2. DORMANT SEEDING

A. TEMPORARY SEEDING-AFTER NOVEMBER 1, USE MULCH ONLY.

B. PERMANENT SEEDING- SEEDINGS SHOULD NOT BE PLANTED FROM OCTOBER 1 THROUGH NOVEMBER 20. THE FOLLOWING METHODS MAY BE USED TO MAKE A "DORMANT SEEDING":

1. FROM OCT. 1 THROUGH NOV. 20, PREPARE THE SEEDBED, ADD THE REQUIRED AMOUNTS OF LIME AND FERTILIZER, THEN MULCH AND ANCHOR. AFTER NOV. 20, AND BEFORE MARCH 15, BROADCAST THE SELECTED SEED MIXTURE. INCREASE THE SEEDING RATES BY 50% FOR THIS TYPE OF SEEDING.

2. FROM NOV. 20 THROUGH MARCH 15, WHEN SOIL CONDITIONS PERMIT, PREPARE SEEDBED, LIME AND FERTILIZE, APPLY THE SELECTED SEED MIXTURE, AND MULCH AND ANCHOR. INCREASE THE SEEDING RATES BY 50% FOR THIS TYPE OF SEEDING.

3. MULCHING

A. MULCH SHALL CONSIST OF SMALL GRAIN STRAW (PREFERABLY WHEAT OR RYE) AND SHALL BE APPLIED AT THE RATE OF TWO TONS PER ACRE OR 100 POUNDS PER 1000 SF.

B. SPREAD THE MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THE SOIL SURFACE IS COVERED.

C. MULCH ANCHORING METHODS:

1. MECHANICAL- USE A DISK, CRIMPER, OR SIMILAR TYPE TOOL SET STRAIGHT TO PUNCH OR ANCHOR THE MULCH INTO THE SOIL.

2. ASPHALT EMULSION-APPLY AT THE RATE OF 160 GALLONS PER ACRE INTO THE MULCH AS IT IS BEING APPLIED.

3. MULCH NETTING-USE ACCORDING TO THE MANUF. RECOMMENDATIONS.

4. IRRIGATION

SUPPLY NEW SEEDLINGS WITH ADEQUATE WATER FOR PLANT GROWTH UNTIL THEY ARE FIRMLY ESTABLISHED.

STABILIZATION:

DISTURBED AREAS MUST BE STABILIZED AS FOLLOWS:

PERMANENT STABILIZATION

Area requiring permanent stabilization	Time frame to apply erosion controls
Any area that will lie dormant for one year or more	Within seven days of the most recent disturbance
Any area within 50 feet of a stream and at final grade	Within two days of reaching final grade
All other areas at final grade	Within seven days of reaching final grade within that area

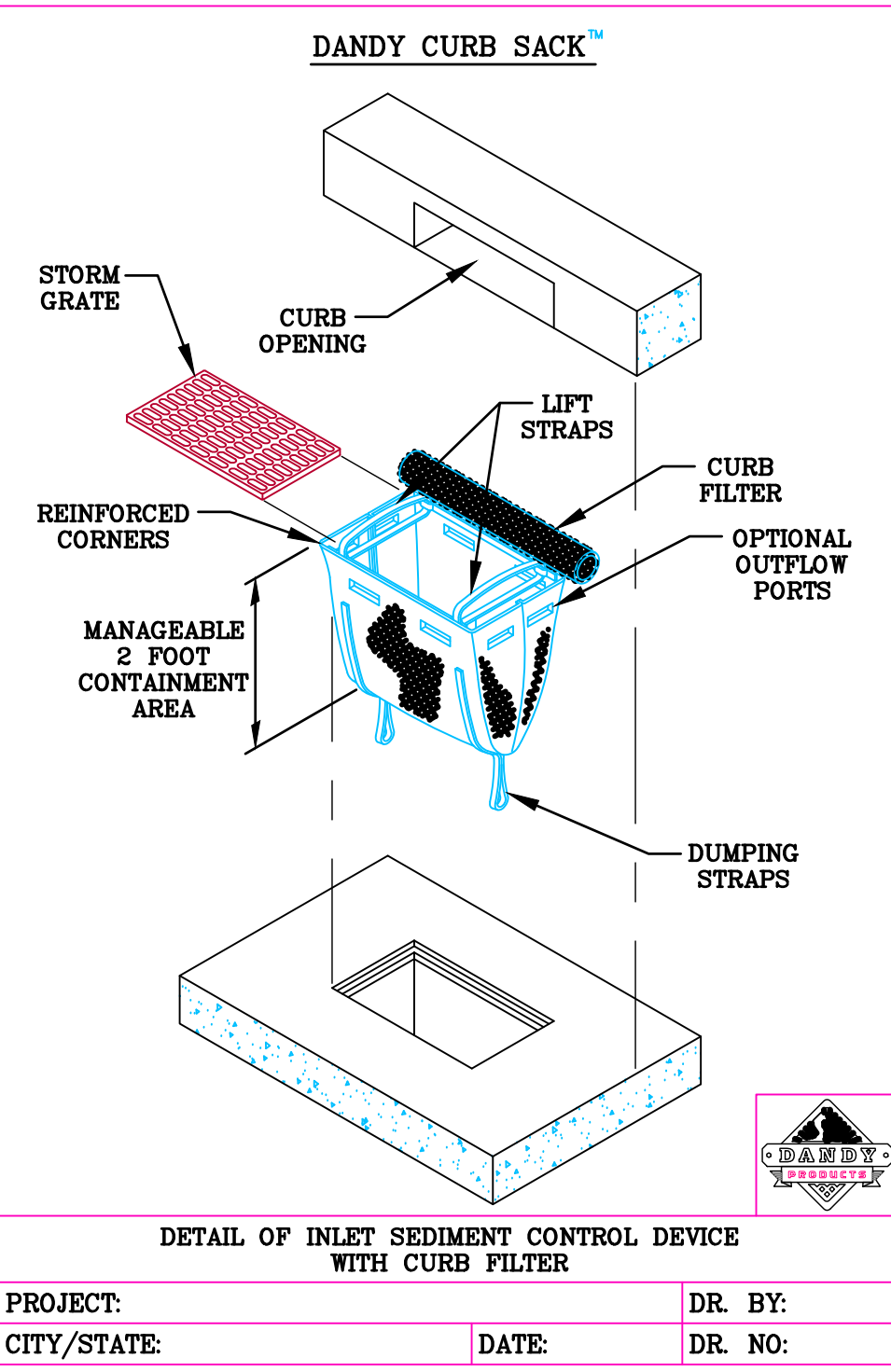
TEMPORARY STABILIZATION

Area requiring temporary stabilization	Time frame to apply erosion controls
Any disturbed areas within 50 feet of a stream and not at final grade	Within two days of the most recent disturbance if the area will lie dormant 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 stream	Within seven days of the most recent disturbance within the area
Disturbed areas that will be idle over winter	Prior to the onset of winter weather

CONSTRUCTION SEQUENCE:

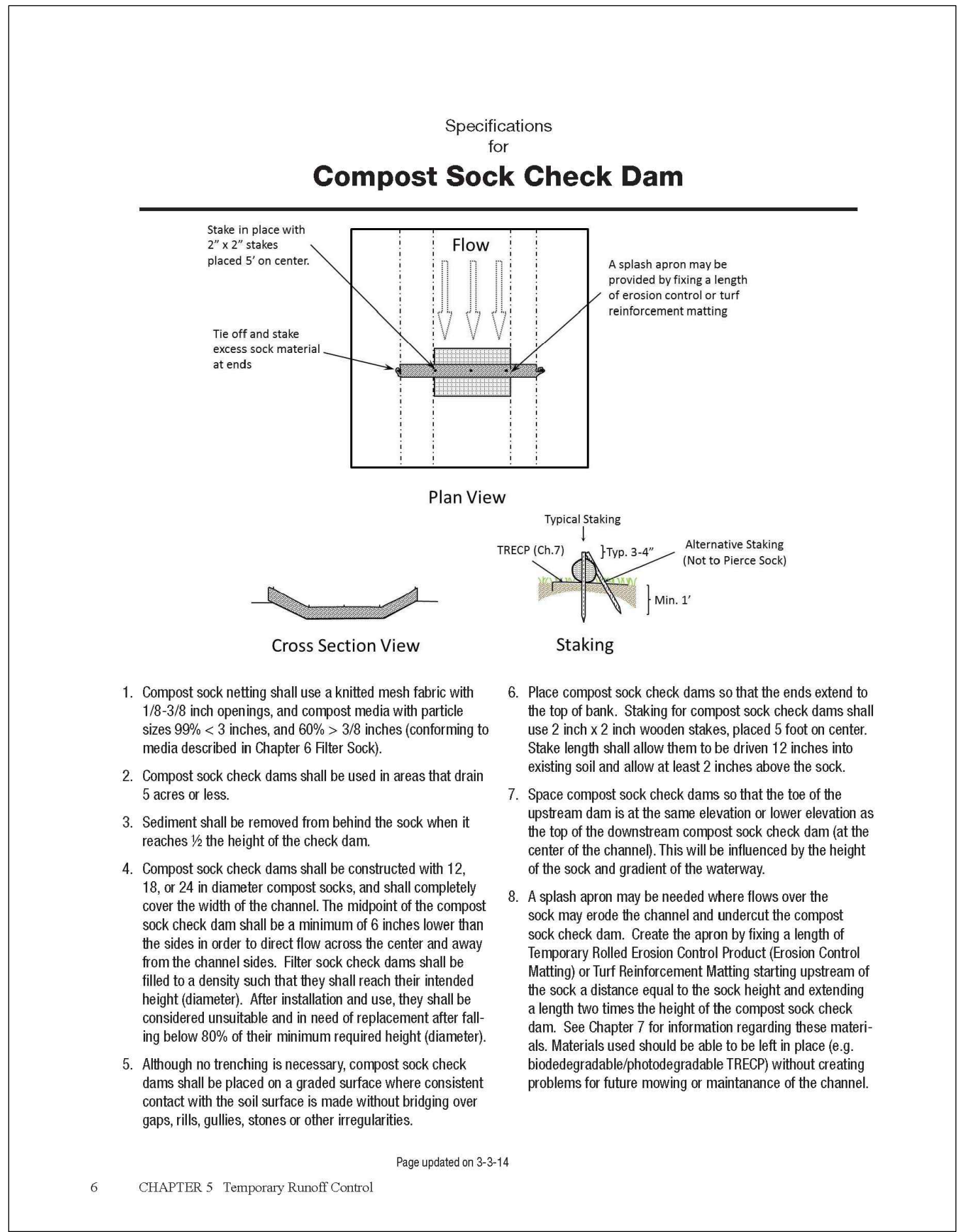
THE CONSTRUCTION SEQUENCING FOR SITE WORK SHOULD BE SIMILAR IN NATURE TO THE FOLLOWING:

- CLEARING AND GRUBBING FOR THOSE AREAS NECESSARY FOR THE INSTALLATION OF EROSION AND SEDIMENT PERIMETER CONTROL MEASURES.
- INSTALL EROSION AND SEDIMENT CONTROL MEASURES.
- GRADING AND STRIPPING OF THE REMAINING AREAS OF THE DEVELOPMENT SITE OR PROJECT AREA.
- DEMOLITION OF EXISTING FEATURES. (DEMOLITION UNDER SEP. PERMIT)
- INSTALL STORMWATER MANAGEMENT SYSTEMS.
- TEMPORARY VEGETATIVE STABILIZATION OR EROSION AND SEDIMENT CONTROL MEASURES.
- SITE CONSTRUCTION.
- FINAL GRADING, STABILIZATION, AND LANDSCAPING.
- REMOVAL OF EROSION AND SEDIMENT CONTROL MEASURES.



DANDY CURB SACK™ SPECIFICATIONS			
NOTE: THE DANDY CURB SACK™ WILL BE MANUFACTURED IN THE U.S.A. FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:			
REGULAR FLOW DANDY CURB SACK™ (BLACK)			
Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	lbf (kg)	1.78 (400) x 1.40 (315)
Grab Tensile Elongation	ASTM D 4632	%	15 x 15
Puncture Strength	ASTM D 4633	lbf (kg)	0.67 (150)
Mullen Burst Strength	ASTM D 3786	psi (kg)	8500 (650)
Trapezoid Tear Strength	ASTM D 4533	lbf (kg)	0.87 (190) x 0.73 (165)
UV Resistance	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4461	1/min/m² (gal/min/ft²)	2800 (145)
Permeability	ASTM D 4461	Sec/in	0.90
HI-FLOW DANDY CURB SACK™ (SAFETY ORANGE)			
Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	lbf (kg)	1.62 (365) x 0.89 (200)
Grab Tensile Elongation	ASTM D 4632	%	24 x 10
Puncture Strength	ASTM D 4633	lbf (kg)	0.40 (90)
Mullen Burst Strength	ASTM D 3786	psi (kg)	3087 (450)
Trapezoid Tear Strength	ASTM D 4533	lbf (kg)	0.51 (115) x 0.33 (75)
UV Resistance	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4461	1/min/m² (gal/min/ft²)	5807 (145)
Permeability	ASTM D 4461	Sec/in	2
*Note: All Dandy Sacks™ can be ordered with our optional oil absorbent pillows			

DETAIL OF INLET SEDIMENT CONTROL DEVICE DANDY CURB FILER BAG

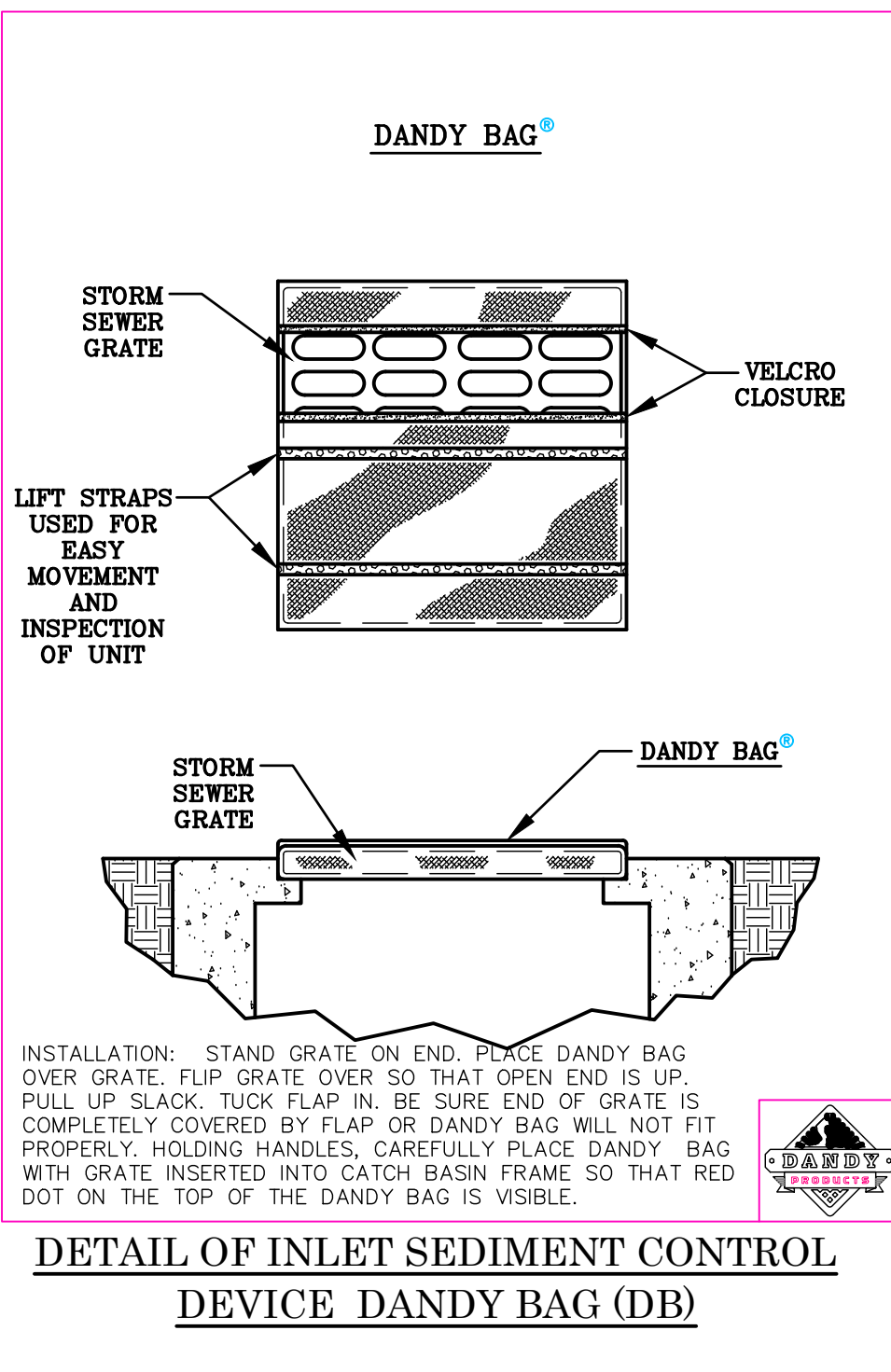


COMPOST SOCK CHECK DAM

NOTES:

FILTER FABRIC SHALL BE FASTENED TO WOODEN POSTS USING 1/2" HEAVY DUTY STAPLES. FILTER FABRIC SHALL BE PLACED IN A CONTINUOUS ROLL TO MINIMIZE THE OCCURRENCE OF JOINTS. WHERE JOINTS CANNOT BE AVOIDED, FABRIC SHALL BE SPLICED TOGETHER AT SUPPORT POSTS, WITH A MINIMUM OF 6-INCH OVERLAP, AND SECURLY SEALED.

SILT FENCE (SF) DETAIL NO SCALE



PRELIMINARY NOT FOR CONSTRUCTION

REVISIONS	NO. & DESCRIPTION
BY	
DATE	

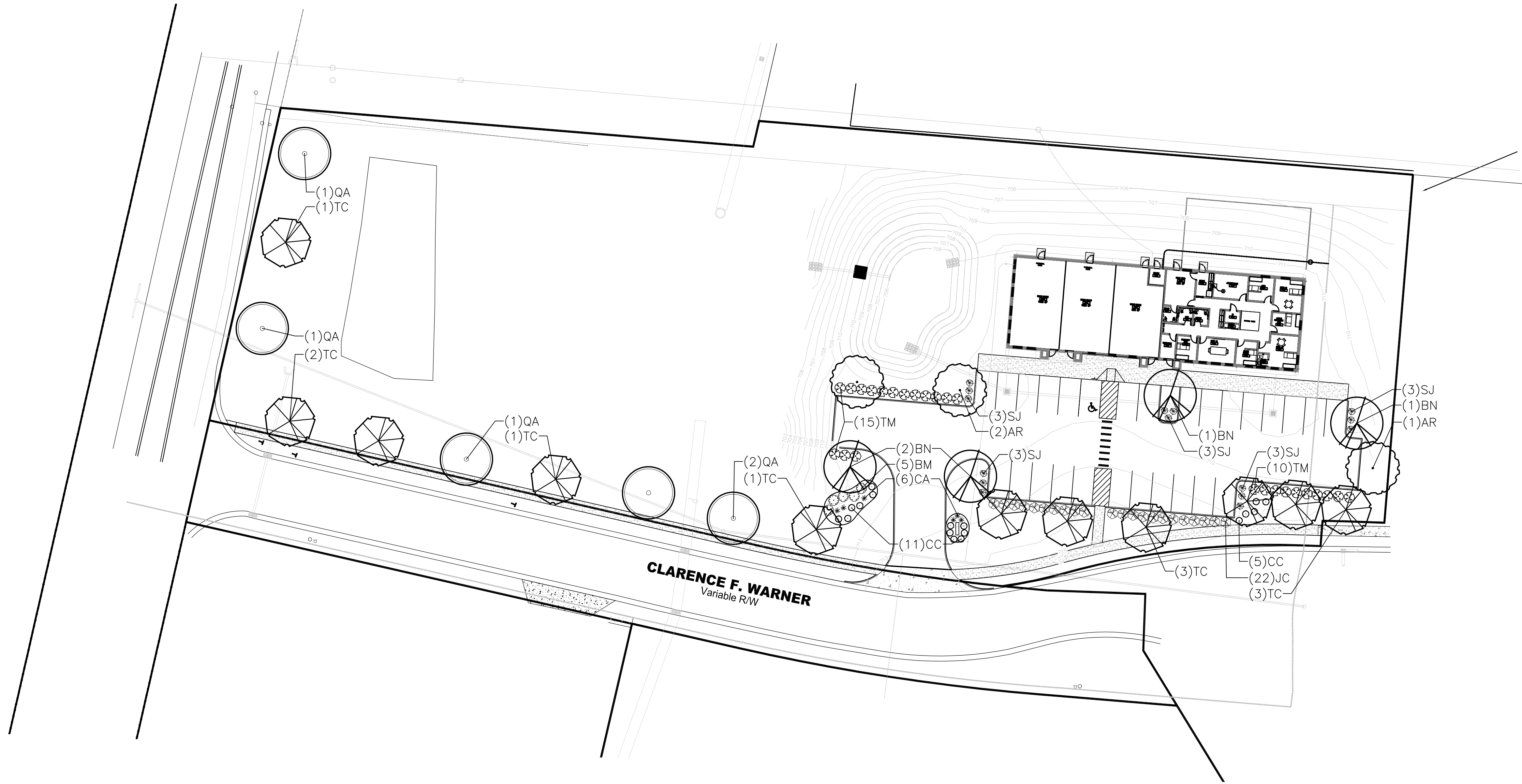
EVANS ENGINEERING
4240 AIRPORT ROAD, SUITE 2411
CINCINNATI, OHIO 45226
(513) 321-2168



CFW - MONROE
SWPPP PLAN
CLARENCE F. WARNER,
CITY OF MONROE, BUTLER COUNTY, OHIO

SCALE:	HORIZ.	VERT.
	N/A	N/A
JOB NO.	21-162	
DATE	Dec. 16, 2021	

SHEET NO.



LANDSCAPE NOTES:

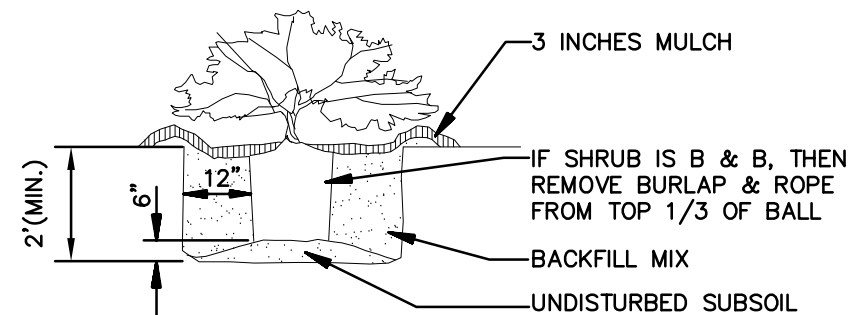
- ALL PLANTING BEDS TO BE TILLED TO A DEPTH OF 4". RAKE TILLED AREAS TO REMOVE DEBRIS 1" OR LARGER. PLANTING BEDS TO RECEIVE A MINIMUM OF 4" OF TOPSOIL AND TILL WITH LOOSED SUBGRADE. GRADE PLANTING BEDS TO A SMOOTH, UNIFORM GRADE.
- ALL PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS, AND FREE OF PESTS AND DISEASE.
- ALL PLANT MATERIAL SHALL BE CONTAINER GROWN OR BALLED AND BUR LAPPED AS INDICATED IN THE PLANT LIST.
- ALL TREES SHALL HAVE A STRAIGHT TRUNK AND FULL HEAD. ALL MATERIALS ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT BEFORE, DURING, AND AFTER INSTALLATION.
- ALL PLANTING AREAS SHALL BE COMPLETELY MULCHED AS SPECIFIED.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND SHALL AVOID DAMAGE TO ALL UTILITIES DURING THE COURSE OF THE WORK. LOCATIONS OF EXISTING BURIED UTILITY LINES SHOWN ON THE PLANS ARE BASED UPON BEST AVAILABLE INFORMATION AND ARE TO BE CONSIDERED APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR 1) TO VERIFY THE LOCATIONS OF UTILITY LINES AND ADJACENT TO THE WORK AREA 2) TO PROTECT OF ALL UTILITY LINES DURING THE CONSTRUCTION PERIOD 3) TO REPAIR ANY AND ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC. WHICH OCCURS AS A RESULT OF THE CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON THESE PLANS BEFORE PRICING THE WORK.
- CONTRACTOR SHALL BE RESPONSIBLE FOR DELIVERY SCHEDULE AND PROTECTION BETWEEN DELIVERY AND PLANTING PER SPECIFICATIONS TO MAINTAIN HEALTHY PLANT CONDITIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR FULLY MAINTAINING (INCLUDING BUT NOT LIMITED TO: WATERING, SPRAYING, MULCHING, FERTILIZING, ETC.) ALL OF THE PLANT MATERIALS AND LAWN FOR THE PERIOD OF SPECIFIED.
- ANY PLANT MATERIAL WHICH IS DISEASED, DISTRESSED, DEAD, OR REJECTED (PRIOR TO SUBSTANTIAL COMPLETION) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE AND MEETING ALL PLANT LIST SPECIFICATIONS.
- STANDARDS SET FORTH IN "AMERICAN STANDARD FOR NURSERY STOCK" REPRESENT GUIDELINE SPECIFICATIONS ONLY AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIAL.
- WHERE SHOWN ON THE PLANS AND DETAILS, PLANTING BEDS ARE TO BE COMPLETELY COVERED WITH A SHREDDED HARDWOOD MULCH TO A MINIMUM DEPTH OF THREE INCHES. APPLY PRE-EMERGENT HERBICIDE BEFORE MULCHING.

PERMANENT SEEDING

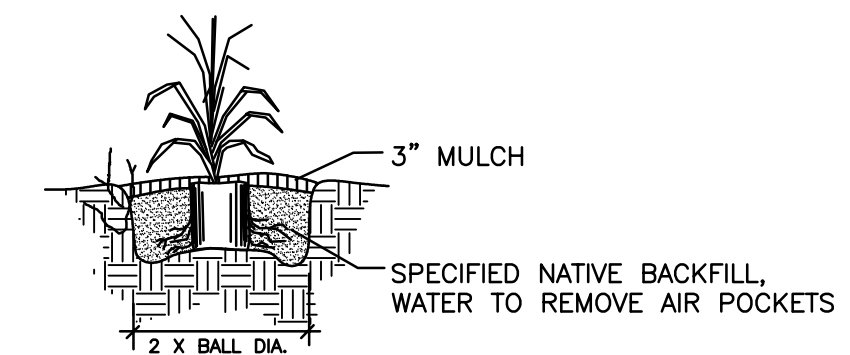
- ALL DISTURBED AREAS SHOULD BE FINE GRADED AND SEEDED IMMEDIATELY AFTER CONSTRUCTION. SEED WITH APPROPRIATE MIXTURE AT THE MANUFACTURE'S WRITTEN RECOMMENDED RATE.
- TILL AREAS TO BE SEEDED TO A DEPTH OF 4". RAKE TILLED AREAS TO REMOVE DEBRIS 1" OR LARGER. PROTECT SEEDED AREAS WITH SLOPES EXCEEDING 1:6 WITH EROSION CONTROL FIBER MESH.
- PROTECT SEEDED AREAS WITH STRAW MULCH AT A UNIFORM RATE OF 2 TONS PER ACRE TO A DEPTH OF 1" OVER SEEDED AREAS.

KEY	QTY.	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	REMARKS
CANOPY TREES						
AR	3	Acer rubrum 'October Glory'	October Glory Maple	2.5" cal.	B&B	Straight Central Leader
BN	3	Betula Nigra 'Dura Heat'	River Birch	8" ht.	B&B	Clump
TC	11	Tilia cordata 'Greenspire'	Greenspire Littleleaf Linden	2.5" cal.	B&B	Straight Central Leader
QA	5	Quercus alba	White Oak	2.5" cal.	B&B	Straight Central Leader
SHRUBS						
BM	5	Buxus x 'Green Mountain'	Green Mountain Boxwood	36" ht.	B&B	
JC	22	Juniperus chinensis 'Sea Green'	Sea Green Chinese Juniper	36" ht.	B&B	
SJ	15	Spiraea japonica 'Little Princess'	Little Princess Japanese Spirea		#3 cont.	
TM	25	Taxus x media 'Densiformis'	Densiformis Yew	36" ht.	B&B	
ORNAMENTAL GRASSES						
CA	6	Calamagrostis acutiflora 'Karl Foerster'	Feather Reed Grass		#3 cont.	
PERENNIALS						
CC	16	Caryopteris x clandonensis 'Dark Knight'	Dark Knight Bluebeard		#3 cont.	

LANDSCAPE REQUIREMENTS	REQUIRED
VEHICULAR USE AREAS (ISLANDS)	1 TREE AND 3 SHRUBS PER ISLAND
VEHICULAR USE AREAS (PERIMETER)	1 TREE PER 5 PARKING SPACES AND 3' TALL EVERGREEN SCREEN ALONG PARKING AREAS.
FRONT YARD LANDSCAPE REQUIREMENTS	20% TO BE LANDSCAPED WITH TREES AND SHRUBS, (MIN. 6 FOOT WIDE AREA ADJACENT TO THE RIGHT OF WAY, PERIMETER VUA CAN COUNT TOWARDS REQUIREMENT.)
STREET TREES	1 TREE PER 40 LF

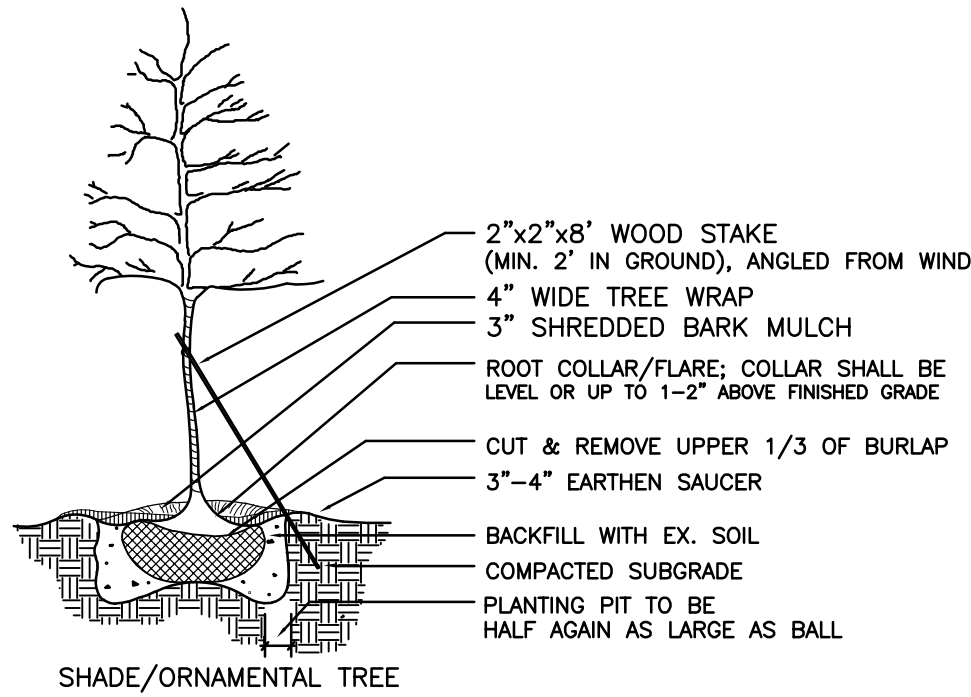


SHRUB PLANTING
NOT TO SCALE

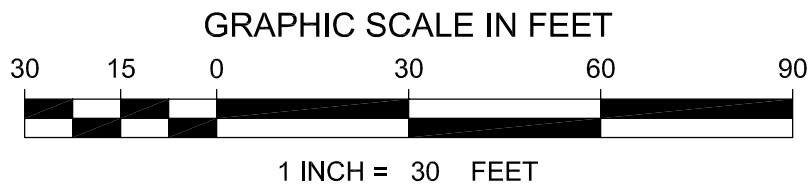


PERENNIAL PLANTING DETAIL

- LOOSEN SOIL IN ROOT BALL AND SPREAD ROOTS PRIOR TO PLACING IN PIT.



TREE PLANTING
NOT TO SCALE



REVISION NUMBER	DATE	REMARKS



LANDSCAPE PLAN

CFW

CLARENCE F. WARNER
CITY OF MONROE, BUTLER COUNTY, OHIO

OWNER:

PROJECT NO.: 2021-35

DATE: DECEMBER 17, 2021

DRAWN BY: KTC

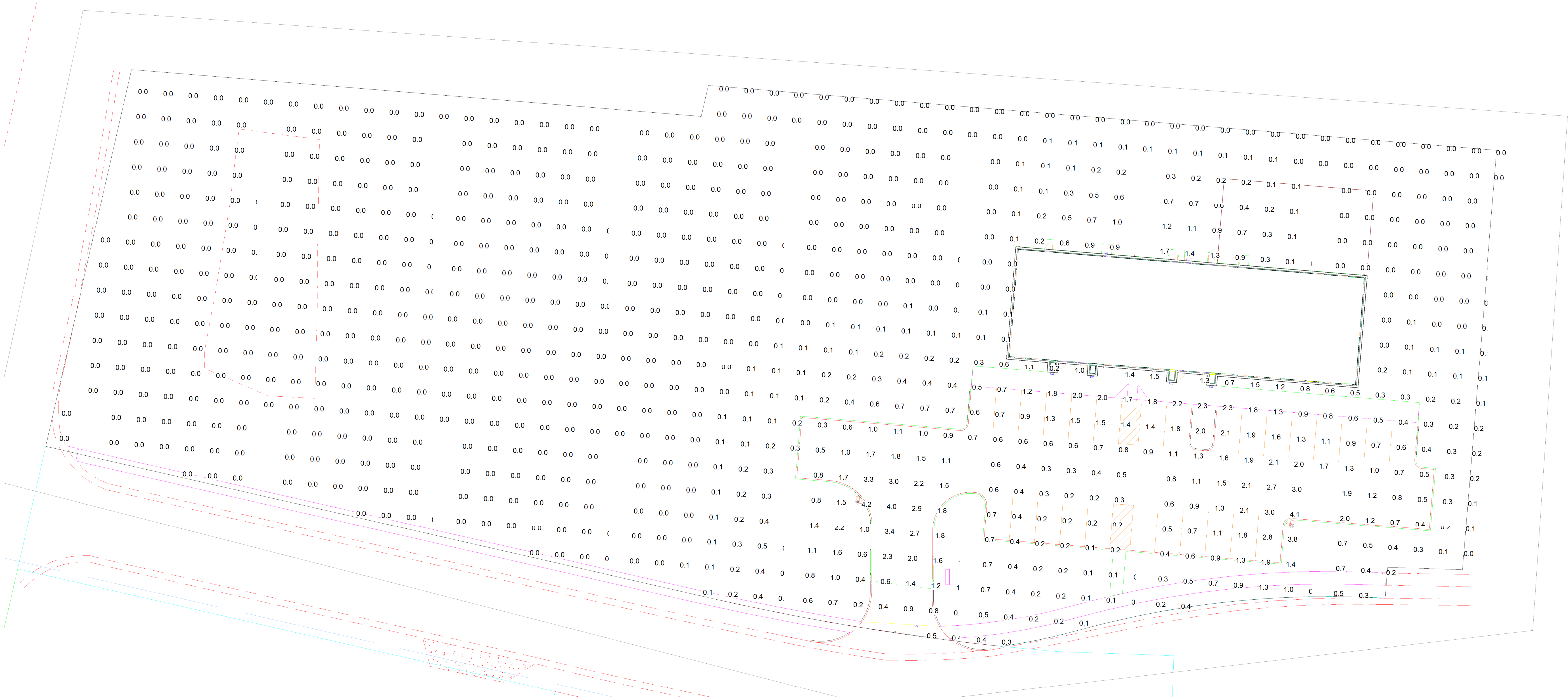
CHECKED BY: KTC

SCALE: 1" = 30'

SHEET:

L-1

ElumTools General Use Global Illuminance Results			
Calculation Points Name	Average	Maximum	Minimum
Detail Filled Region	0.3 fc	4.2 fc	0 fc



1 SITE PLAN - PHOTOMETRICS
3/64" = 1'-0"

CINCINNATI COMMERCIAL CONTRACTING

CCC - NORTH

CLARENCE F. WARNER,
CITY OF MONROE, OH 45050

REV	DATE	DESCRIPTION

PH-101

PHOTOMETRIC PLAN

DATE:
12/21/2021

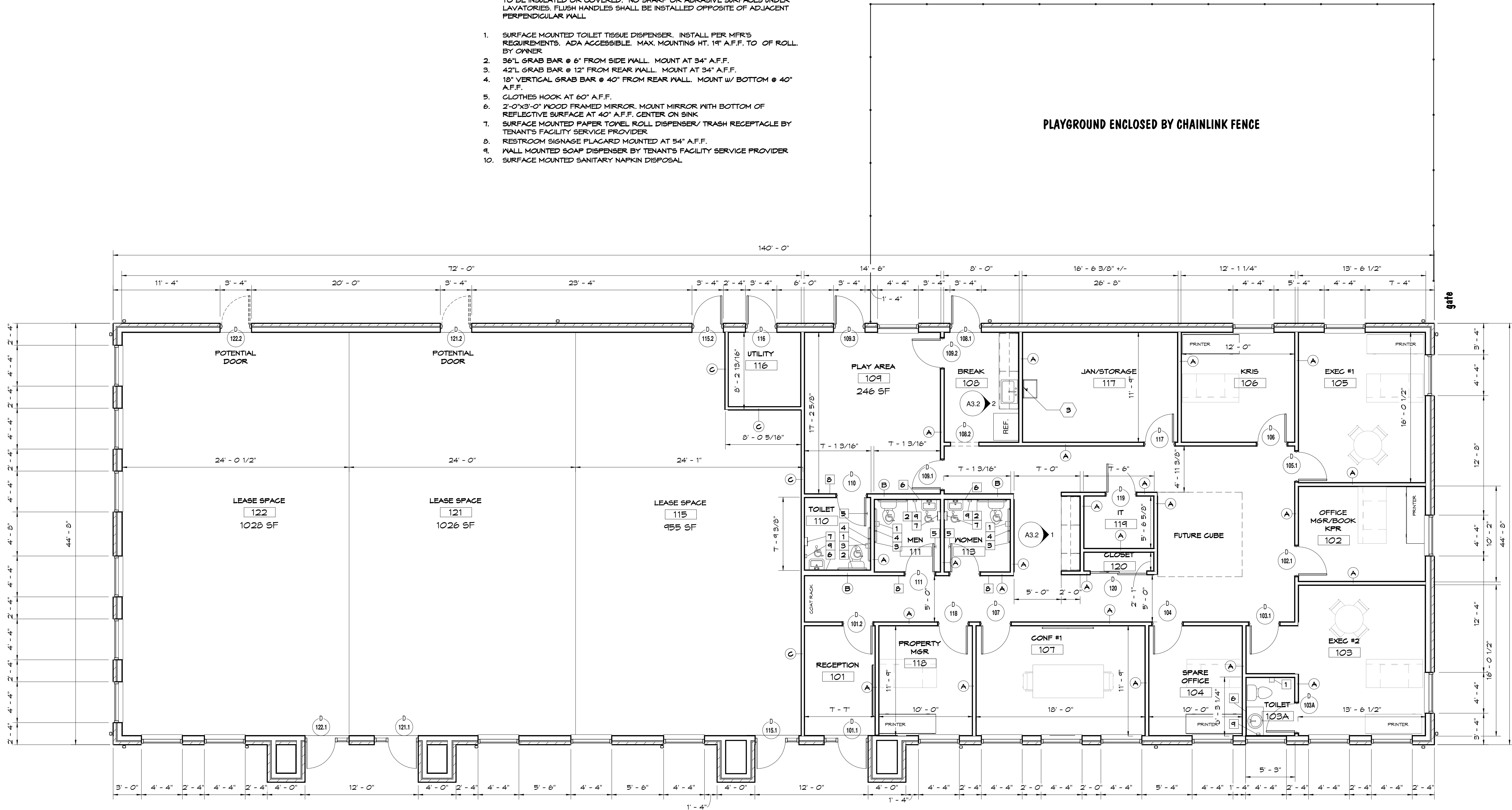
DRAWN BY:
CCC

NOT FOR CONSTRUCTION

TOILET ACCESSORIES NOTES

NOTE: PLUMBING FIXTURES IDENTIFIED BY THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL BE MOUNTED ACCORDING TO THE LATEST REQUIREMENTS OF THE ADA. TOILETS SHALL BE MOUNTED WITH SEAT BETWEEN 17" & 19" A.F.F. AND 18" FROM CENTERLINE OF TOILET TO SIDE WALL. URINALS SHALL BE MOUNTED WITH RIM AT 17" A.F.F. WALL-HUNG LAVATORIES SHALL BE MOUNTED AT 34" TO THE TOP OF THE RIM WITH HOT WATER SUPPLY INSULATED & DRAIN PIPING TO BE INSULATED OR COVERED. NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES. FLUSH HANDLES SHALL BE INSTALLED OPPOSITE OF ADJACENT PERPENDICULAR WALL.

1. SURFACE MOUNTED TOILET TISSUE DISPENSER. INSTALL PER MFR'S REQUIREMENTS. ADA ACCESSIBLE. MAX. MOUNTING HT. 19" A.F.F. TO OF ROLL BY OWNER
2. 36"L GRAB BAR @ 6" FROM SIDE WALL. MOUNT AT 34" A.F.F.
3. 42"L GRAB BAR @ 12" FROM REAR WALL. MOUNT AT 34" A.F.F.
4. 18" VERTICAL GRAB BAR @ 40" FROM REAR WALL. MOUNT W/ BOTTOM @ 40" A.F.F.
5. CLOTHES HOOK AT 60" A.F.F.
6. 2'-0"x3'-0" WOOD FRAMED MIRROR. MOUNT MIRROR WITH BOTTOM OF REFLECTIVE SURFACE AT 40" A.F.F. CENTER ON SINK
7. SURFACE MOUNTED PAPER TOWEL ROLL DISPENSER/ TRASH RECEPTACLE BY TENANT'S FACILITY SERVICE PROVIDER
8. RESTROOM SIGNAGE PLACARD MOUNTED AT 34" A.F.F.
9. WALL MOUNTED SOAP DISPENSER BY TENANT'S FACILITY SERVICE PROVIDER
10. SURFACE MOUNTED SANITARY NAPKIN DISPOSAL



6252 S.F. FLOOR PLAN

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

- KEYNOTES
1. 30" WIDE VANITY COORD. STYLE W/ OWNER
 2. SHELF & ROD. ROD @ 48" A.F.F.
 3. 4' X 8' FRD CENTER OVER JAN. SINK

Proposed Building For: Multi-Tenant Building Monroe, Ohio

REV. DATE CK'D

Drawn By: WNS Checked By: WNS

Preliminary
Not For
Construction

Date: 12.13.21 Job No: 21.063

A1.1





FRONT ELEVATION - EAST

SCALE: 1/2" = 1'-0"

2
A2.2



FRONT ELEVATION - WEST

SCALE: 1/2" = 1'-0"

1
A2.2

Proposed Building For:
Multi-Tenant Building
Monroe, Ohio

REV. DATE CK'D

Drawn By: WNS Checked By: WNS

Preliminary
Not For
Construction

Date: 12.13.21 Job No: 21.063

A2.2



Drainage Calculations

December 16, 2021

For: CFW - MONROE
CLARENCE F. WARNER
CITY OF MONROE, BUTLER CO., OHIO

By: Evans Engineering
4240 Airport Rd., Suite 211
Cincinnati, Ohio 45226

Project Narrative

This project consists of constructing a commercial building on a vacant lot located on the north side of Clarence F Warner Drive in Monroe, Ohio. Storm water detention will be provided by creating a surface detention basin at the north end of the site. We have modeled our storm water design on current City of Monroe Storm Water Regulations.

Existing Conditions

The site is located at the north side of Clarence F Warner Drive, northwest of a Speedway gas station. It is mostly an open grass area with some wooded areas and drains north toward Millers Creek. The time of concentration for the existing conditions was estimated to be 15 minutes. The predeveloped runoff coefficient used in the calculations was 0.3.

Proposed Drainage

The drainage area to the detention system will be approximately 0.76 acres. Grass areas along the perimeter of the site will remain as direct runoff. This development will result in 63% imperviousness of the drainage area tributary to the proposed basin. The basin will outlet through a control structure located on the west side of the basin.

The required storage volume was determined by finding the critical storm and then using Hydraflow to model the detention system. An orifice plate will control the release rates from the detention structure. The orifice is sized such that the release rate due to the critical storm event in the post-developed condition is restricted to the runoff rate due to a 1-year storm in the pre-developed conditions. Less frequent, more intense storms should be restricted to the pre-developed runoff rate due to one design storm lower (i.e. $Q_{50\text{yr-post}} < Q_{25\text{yr-pre}}$). In this case the critical storm was found to be the 25-year storm.

The pre-developed time of concentration of 15 minutes was used again for the post-developed condition in the Hydraflow model so that similar storms are being compared. The post-developed runoff coefficient was calculated to be 0.68. Through an iterative process of sizing the detention system and controlling orifice to meet the requirements, the required storage volume was found to be 2302 ft³ during the 100-year storm event and the release rates can be controlled by a 4" orifice. Hydrographs are attached showing that all design storms up to the critical storm are restricted to the peak discharge rate of the 1-year storm in predeveloped conditions.

We have designed the erosion and sediment control to minimize sediment loss during construction by using silt fencing, inlet controls, and temporary sediment control. We have included notes to discuss stabilization of ground. Upon completion and stabilization there will be grass and landscaping to be placed around the perimeter of the property. Upon completion, this project should have a good stable buffer around the property which should help water quality and storm water management.

Critical Storm Determination Using SCS Method for Runoff Volume Due to 24-hour Storm

$$Q = (P - 0.2S)^2 / (P + 0.8S)$$

$$S = 1000 / CN - 10$$

		ACRES
Drainage Area (ft ²)	33193	0.76
P _{1yr-24hr} (in.)	2.5	
CN _{pre}	74	
CN _{post}	89.1	

CN_{pre} for open space, good condition (grass cover > 75%), Soil Group C

CN_{post} weighted between 74 and 98 with 63% imperviousness

$$S_{pre} = 3.514$$

$$S_{post} = 1.221$$

$$100 * (20846)$$

$$/ 33193 =$$

62.8 % impervious

$$Q_{pre} \text{ (in.)} = 0.61$$

$$Q_{post} \text{ (in.)} = 1.46$$

$$CN_{post} = 0.63 * 98 + (1 - 0.63) * 74 =$$

$$89.1$$

$$V_{pre} \text{ (ft}^3\text{)} = 1682$$

$$V_{post} \text{ (ft}^3\text{)} = 4049$$

Percent Volume Increase 141

Critical Storm (yr) 25

% Increase in Runoff Volume from a 1-yr, 24 hour Storm		Storm Frequency (Years)
Equal or Greater than (percent)	Less Than (percent)	
-	10	1
10	20	2
20	50	5
50	100	10
100	250	25
250	500	50
500	-	100

Pond Characteristics

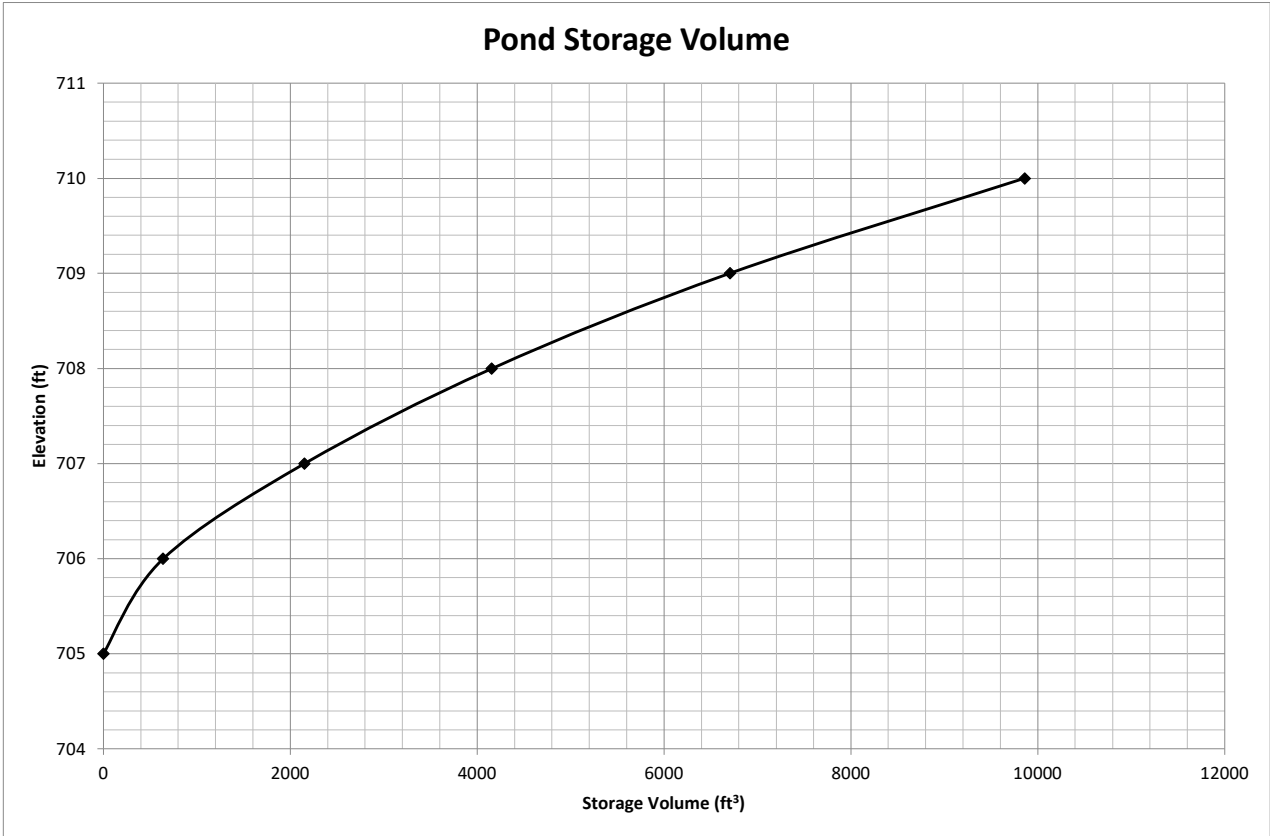
Date: 12/16/2021
Revised:

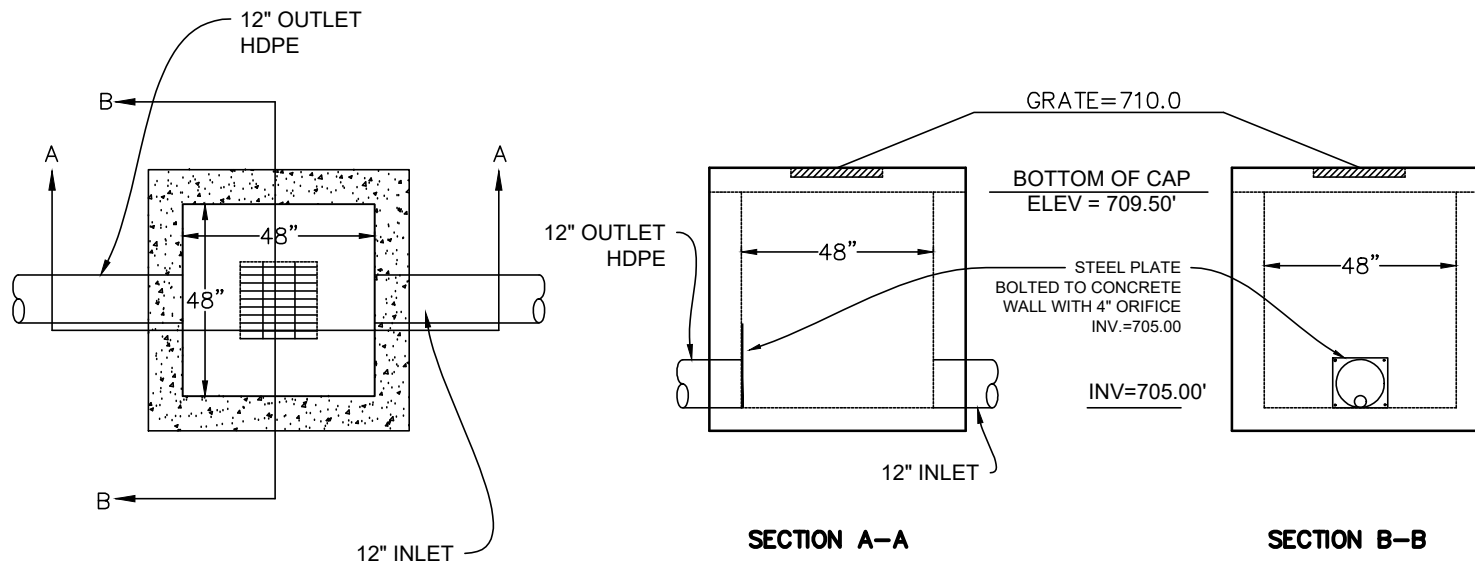
CONTOUR	AREA (sf)	VOLUME (cf)	CUMUL. VOL (cf)
710	3470	3154	9861
709	2838	2551	6707
708	2263	2004	4157
707	1744	1513	2153
706	1281	641	641
705	0	0	0

Pipe Storage (Existing Pipes & Proposed)

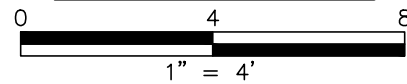
LF	Diameter (in)	Area	Volume (cu ft.)
0	36	7.07	0.00
0	24	3.14	0.00
0	18	1.77	0.00
0	15	1.23	0.00
	12	0.79	0.00
Subtotal			0.00

Total Available Storage (cu ft.) 9861.00





SECTION A-A
SECTION B-B
DETENTION CONTROL STRUCTURE
MODIFIED ODOT CB-2-4



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2019

Thursday, 12 / 16 / 2021

Hyd. No. 1

Pre-dev

Hydrograph type	= Rational	Peak discharge	= 0.629 cfs
Storm frequency	= 1 yrs	Time to peak	= 15 min
Time interval	= 1 min	Hyd. volume	= 566 cuft
Drainage area	= 0.760 ac	Runoff coeff.	= 0.3
Intensity	= 2.759 in/hr	Tc by User	= 15.00 min
IDF Curve	= butler county.IDF	Asc/Rec limb fact	= 1/1



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2019

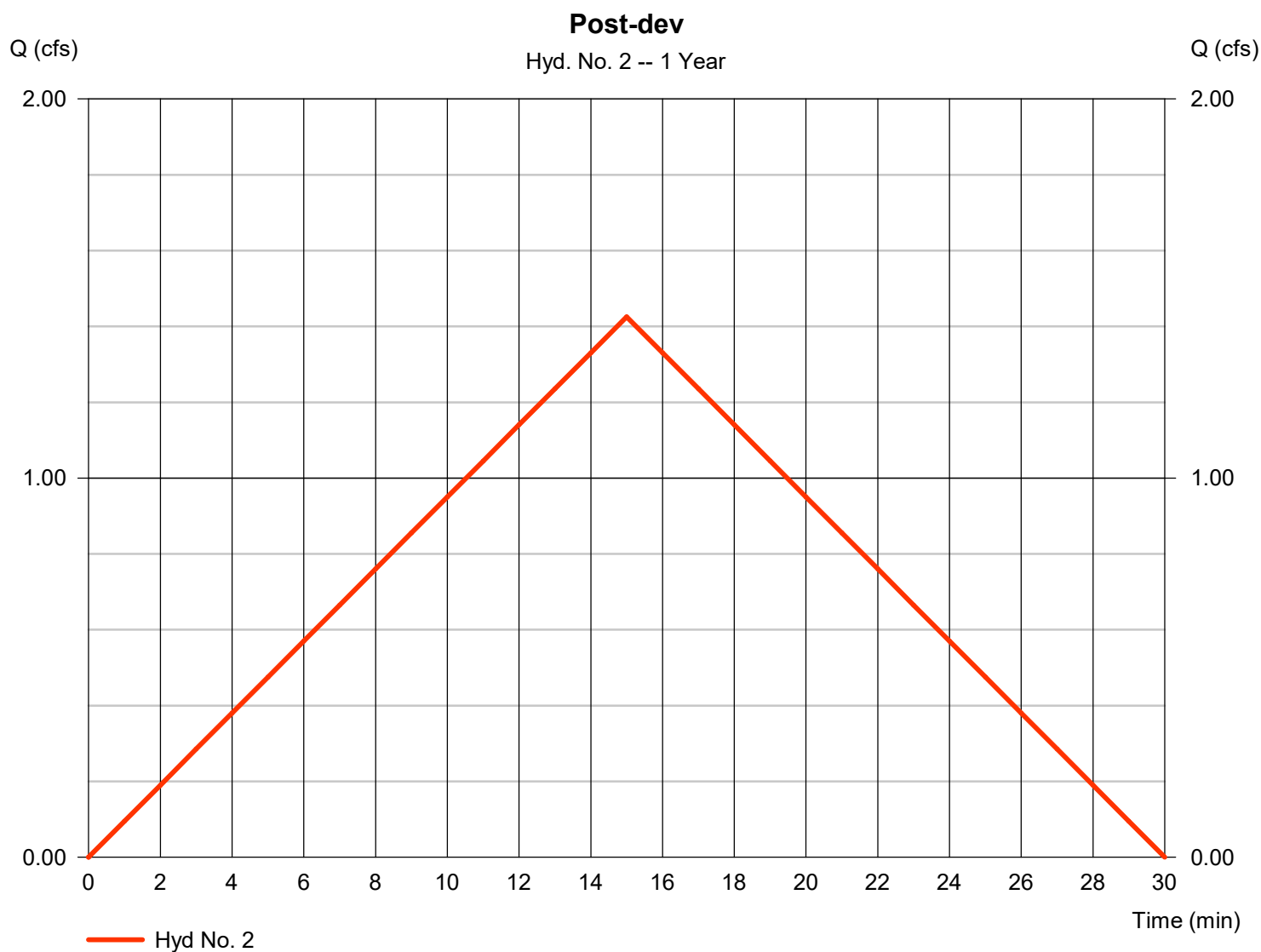
Thursday, 12 / 16 / 2021

Hyd. No. 2

Post-dev

Hydrograph type	= Rational	Peak discharge	= 1.426 cfs
Storm frequency	= 1 yrs	Time to peak	= 15 min
Time interval	= 1 min	Hyd. volume	= 1,283 cuft
Drainage area	= 0.760 ac	Runoff coeff.	= 0.68*
Intensity	= 2.759 in/hr	Tc by User	= 15.00 min
IDF Curve	= butler county.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = $[(0.480 \times 0.90) + (0.280 \times 0.30)] / 0.760$



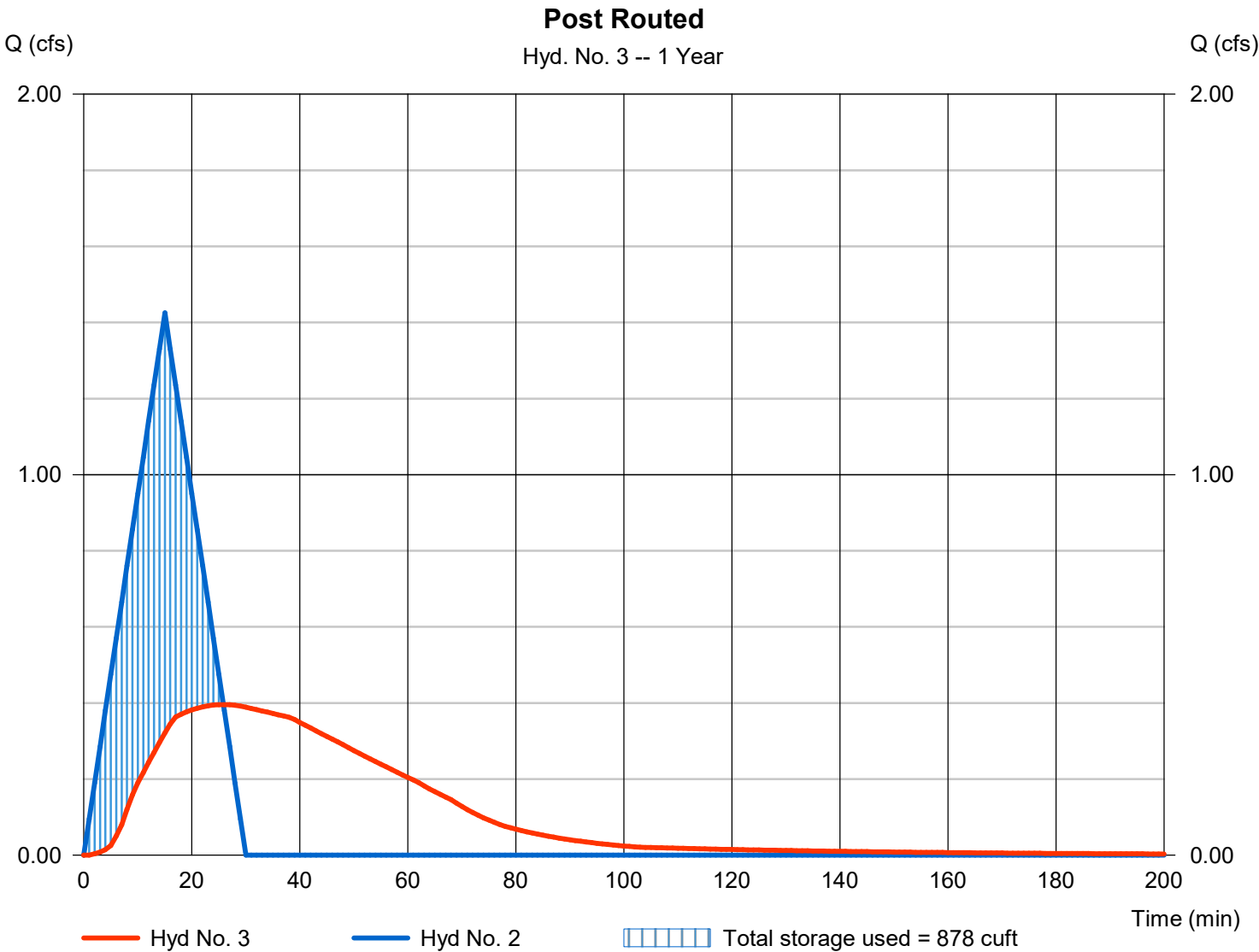
Hydrograph Report

Hyd. No. 3

Post Routed

Hydrograph type	= Reservoir	Peak discharge	= 0.396 cfs
Storm frequency	= 1 yrs	Time to peak	= 26 min
Time interval	= 1 min	Hyd. volume	= 1,280 cuft
Inflow hyd. No.	= 2 - Post-dev	Max. Elevation	= 706.16 ft
Reservoir name	= North Pond	Max. Storage	= 878 cuft

Storage Indication method used.



Pond Report

Pond No. 1 - North Pond

Pond Data

Contours -User-defined contour areas. Average end area method used for volume calculation. Beginning Elevation = 705.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	705.00	00	0	0
1.00	706.00	1,281	641	641
2.00	707.00	1,744	1,513	2,153
3.00	708.00	2,263	2,004	4,157
4.00	709.00	2,838	2,551	6,707
5.00	710.00	3,470	3,154	9,861

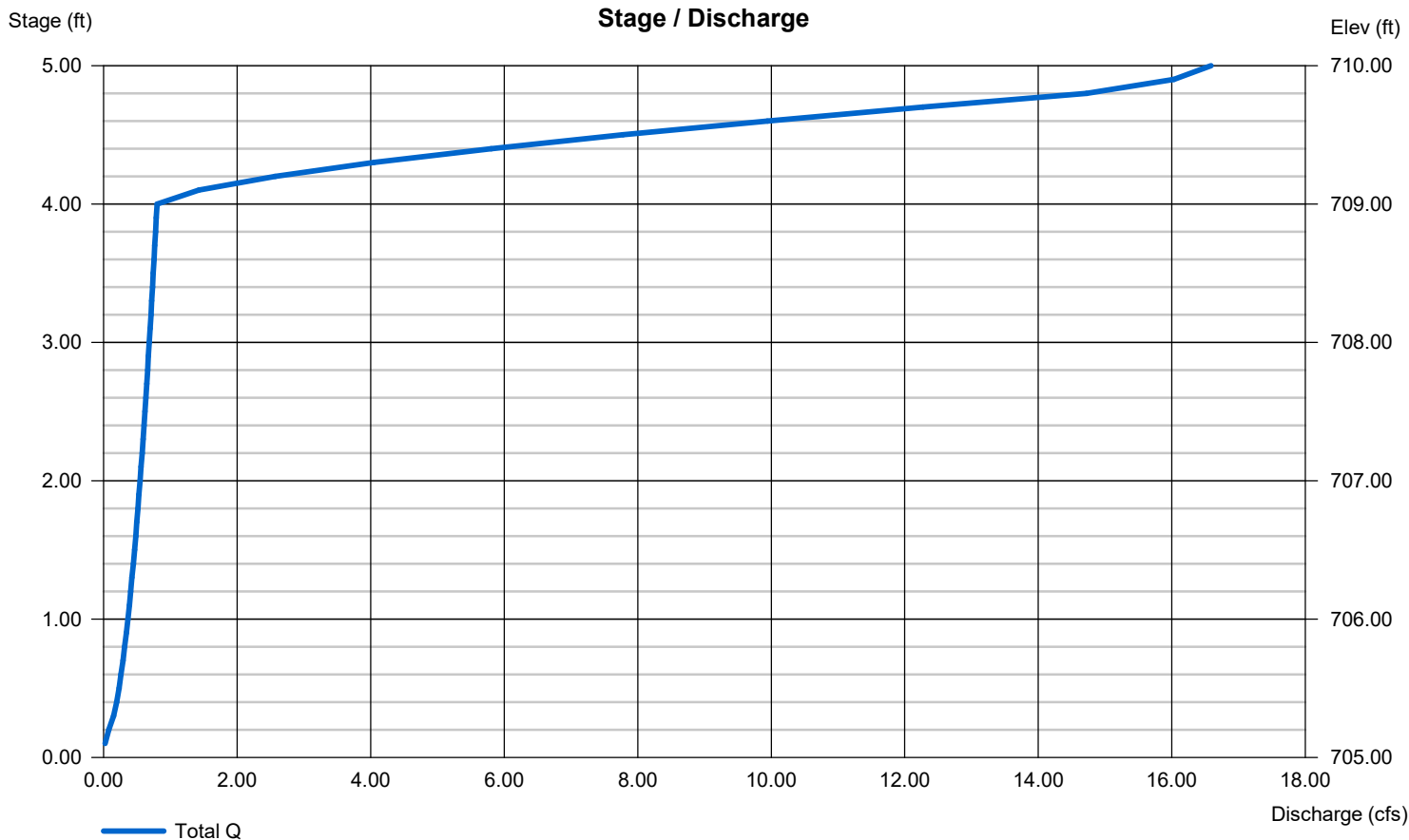
Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 18.00	4.00	Inactive	0.00
Span (in)	= 18.00	4.00	7.00	0.00
No. Barrels	= 1	1	1	0
Invert El. (ft)	= 705.00	705.00	720.00	0.00
Length (ft)	= 0.00	0.00	0.00	0.00
Slope (%)	= 0.00	0.00	0.00	n/a
N-Value	= .012	.012	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	Yes	Yes	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 6.00	0.00	0.00	0.00
Crest El. (ft)	= 709.00	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Rect	---	---	---
Multi-Stage	= Yes	No	No	No
Exfil.(in/hr)	= 0.000 (by Wet area)			
TW Elev. (ft)	= 0.00			

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2019

Thursday, 12 / 16 / 2021

Hyd. No. 1

Pre-dev

Hydrograph type	= Rational	Peak discharge	= 0.755 cfs
Storm frequency	= 2 yrs	Time to peak	= 15 min
Time interval	= 1 min	Hyd. volume	= 680 cuft
Drainage area	= 0.760 ac	Runoff coeff.	= 0.3
Intensity	= 3.313 in/hr	Tc by User	= 15.00 min
IDF Curve	= butler county.IDF	Asc/Rec limb fact	= 1/1



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2019

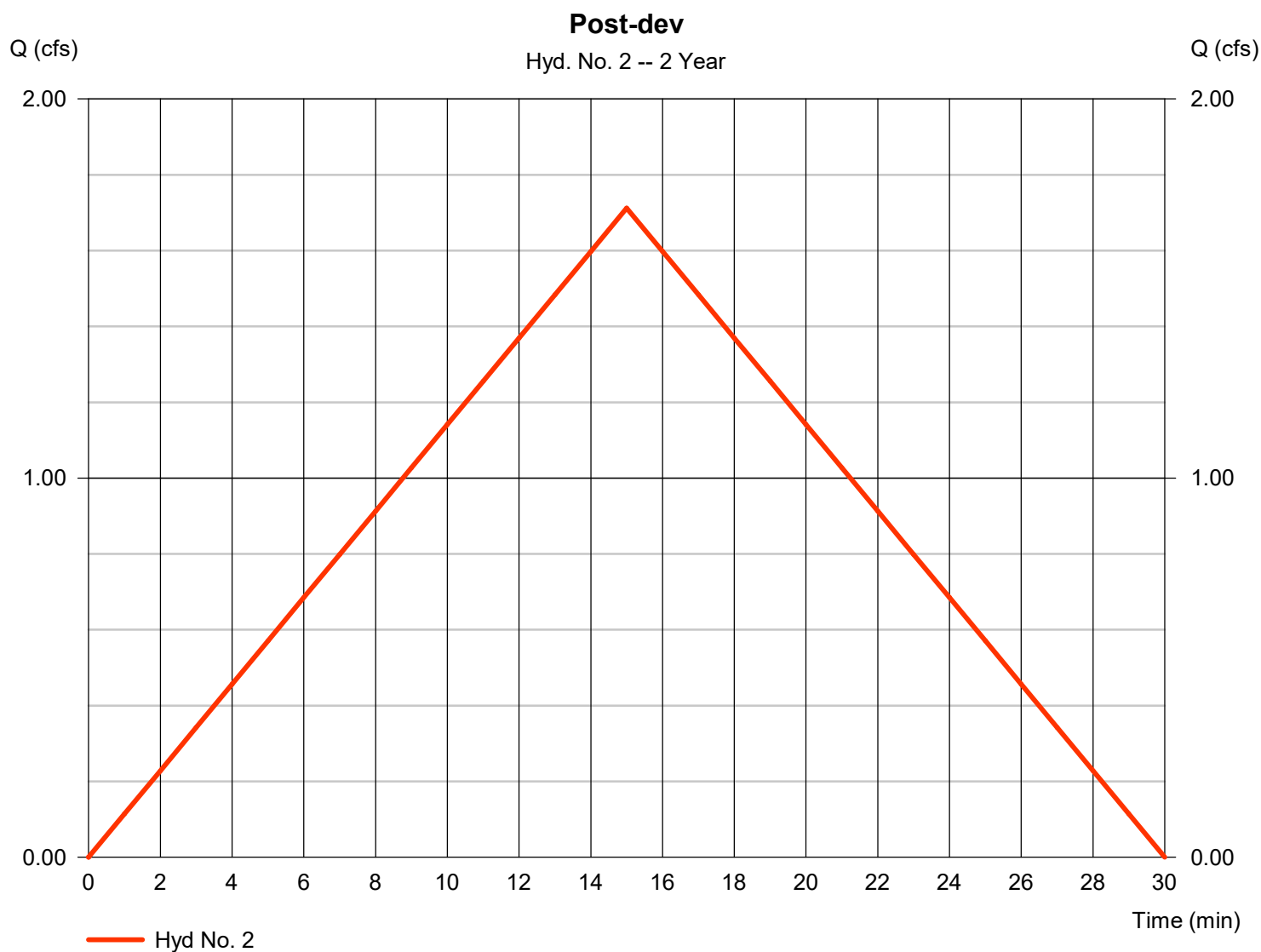
Thursday, 12 / 16 / 2021

Hyd. No. 2

Post-dev

Hydrograph type	= Rational	Peak discharge	= 1.712 cfs
Storm frequency	= 2 yrs	Time to peak	= 15 min
Time interval	= 1 min	Hyd. volume	= 1,541 cuft
Drainage area	= 0.760 ac	Runoff coeff.	= 0.68*
Intensity	= 3.313 in/hr	Tc by User	= 15.00 min
IDF Curve	= butler county.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = $[(0.480 \times 0.90) + (0.280 \times 0.30)] / 0.760$



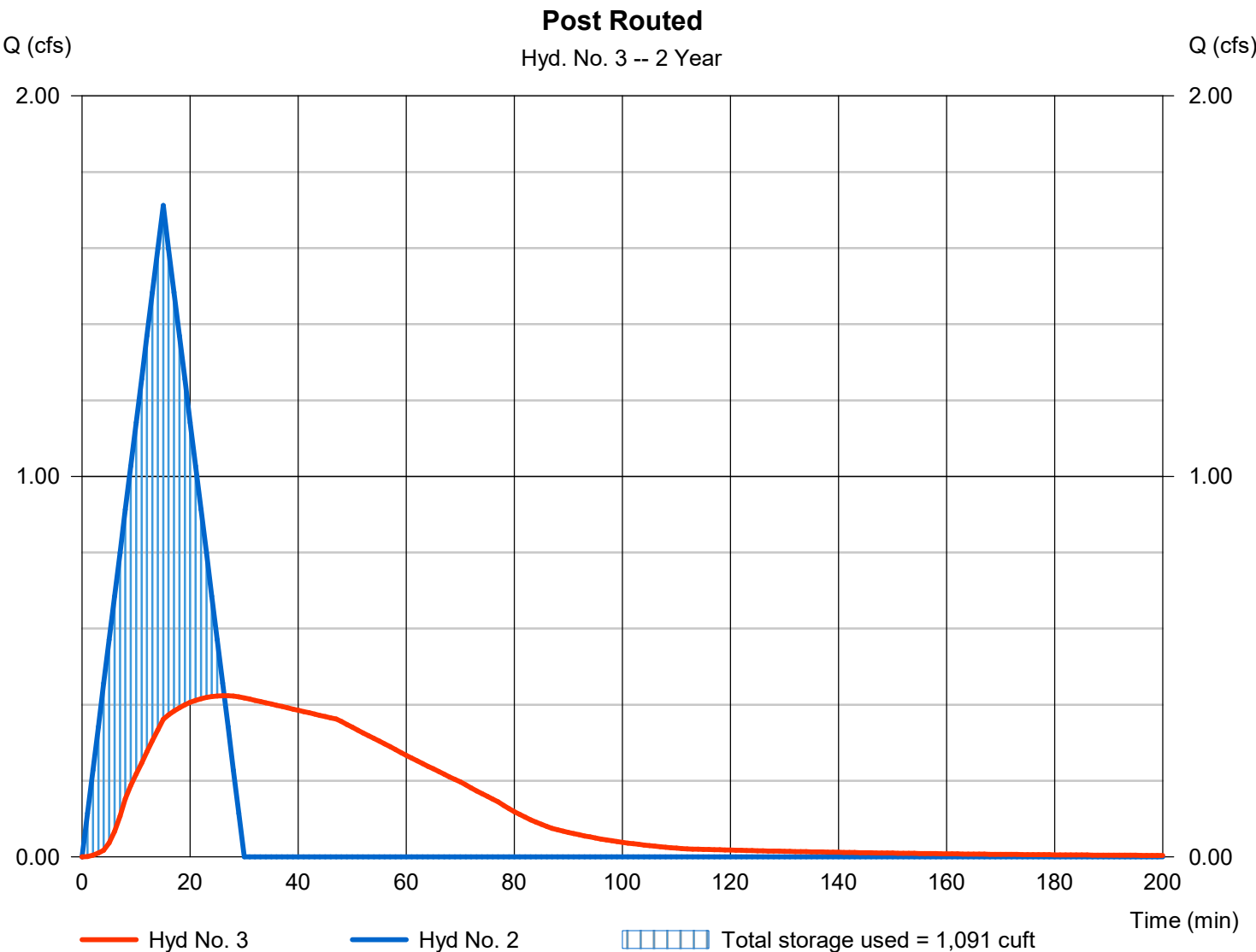
Hydrograph Report

Hyd. No. 3

Post Routed

Hydrograph type	= Reservoir	Peak discharge	= 0.424 cfs
Storm frequency	= 2 yrs	Time to peak	= 26 min
Time interval	= 1 min	Hyd. volume	= 1,538 cuft
Inflow hyd. No.	= 2 - Post-dev	Max. Elevation	= 706.30 ft
Reservoir name	= North Pond	Max. Storage	= 1,091 cuft

Storage Indication method used.



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2019

Thursday, 12 / 16 / 2021

Hyd. No. 1

Pre-dev

Hydrograph type	= Rational	Peak discharge	= 0.878 cfs
Storm frequency	= 5 yrs	Time to peak	= 15 min
Time interval	= 1 min	Hyd. volume	= 791 cuft
Drainage area	= 0.760 ac	Runoff coeff.	= 0.3
Intensity	= 3.853 in/hr	Tc by User	= 15.00 min
IDF Curve	= butler county.IDF	Asc/Rec limb fact	= 1/1



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2019

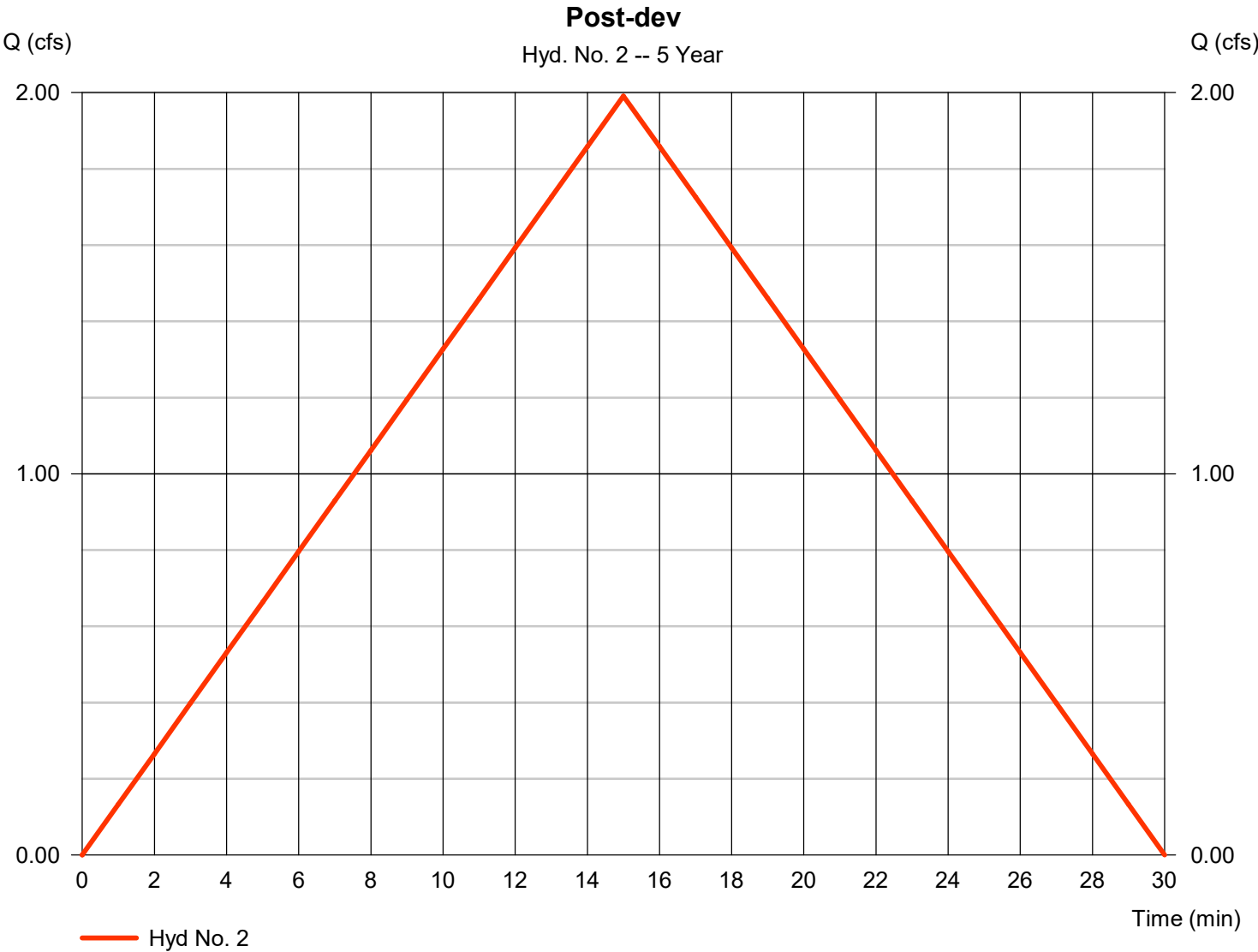
Thursday, 12 / 16 / 2021

Hyd. No. 2

Post-dev

Hydrograph type	= Rational	Peak discharge	= 1.991 cfs
Storm frequency	= 5 yrs	Time to peak	= 15 min
Time interval	= 1 min	Hyd. volume	= 1,792 cuft
Drainage area	= 0.760 ac	Runoff coeff.	= 0.68*
Intensity	= 3.853 in/hr	Tc by User	= 15.00 min
IDF Curve	= butler county.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = [(0.480 x 0.90) + (0.280 x 0.30)] / 0.760



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2019

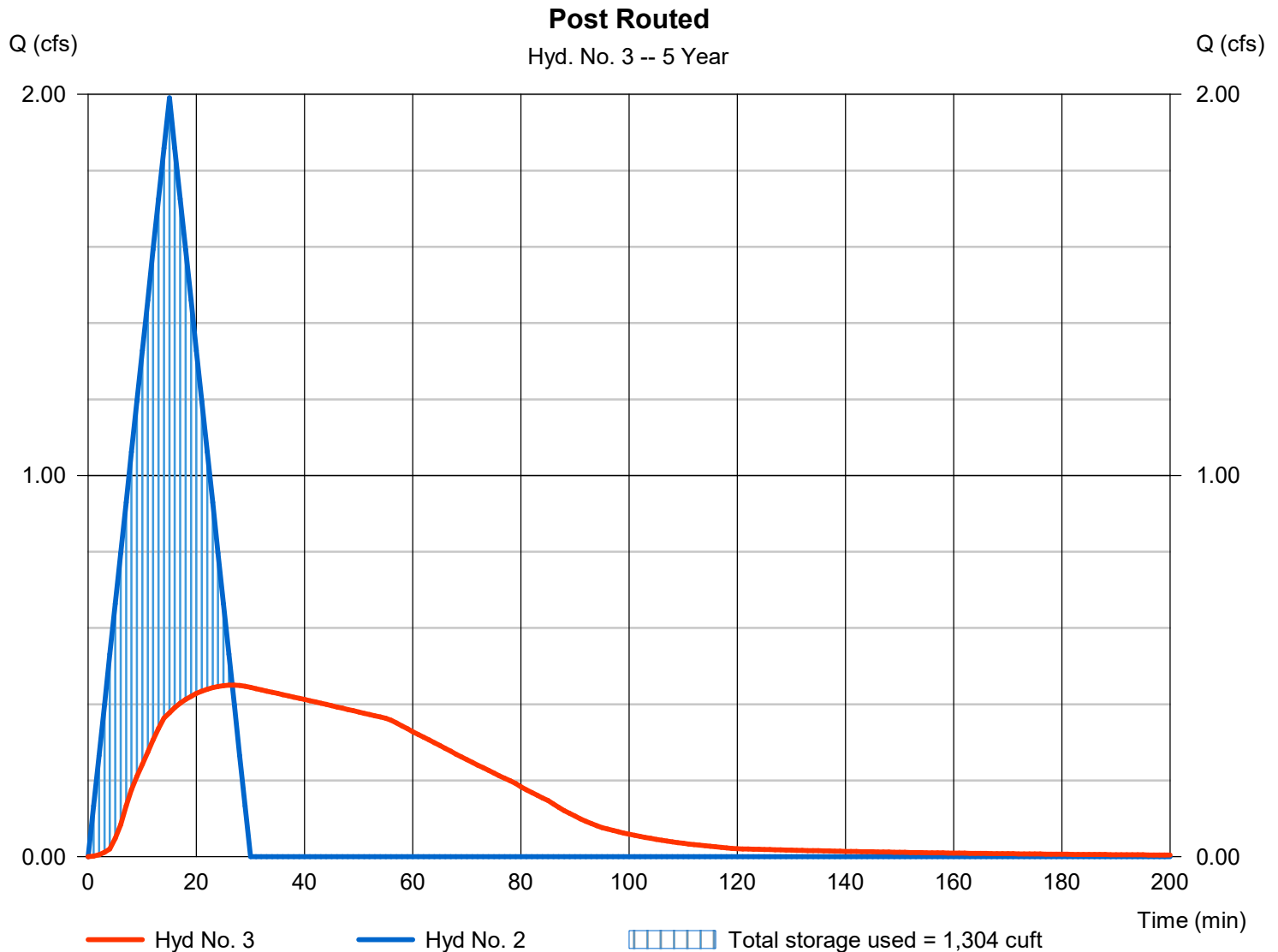
Thursday, 12 / 16 / 2021

Hyd. No. 3

Post Routed

Hydrograph type	= Reservoir	Peak discharge	= 0.450 cfs
Storm frequency	= 5 yrs	Time to peak	= 27 min
Time interval	= 1 min	Hyd. volume	= 1,789 cuft
Inflow hyd. No.	= 2 - Post-dev	Max. Elevation	= 706.44 ft
Reservoir name	= North Pond	Max. Storage	= 1,304 cuft

Storage Indication method used.



Hydrograph Report

Hyd. No. 1

Pre-dev

Hydrograph type	= Rational	Peak discharge	= 1.020 cfs
Storm frequency	= 10 yrs	Time to peak	= 15 min
Time interval	= 1 min	Hyd. volume	= 918 cuft
Drainage area	= 0.760 ac	Runoff coeff.	= 0.3
Intensity	= 4.474 in/hr	Tc by User	= 15.00 min
IDF Curve	= butler county.IDF	Asc/Rec limb fact	= 1/1



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2019

Thursday, 12 / 16 / 2021

Hyd. No. 2

Post-dev

Hydrograph type	= Rational	Peak discharge	= 2.312 cfs
Storm frequency	= 10 yrs	Time to peak	= 15 min
Time interval	= 1 min	Hyd. volume	= 2,081 cuft
Drainage area	= 0.760 ac	Runoff coeff.	= 0.68*
Intensity	= 4.474 in/hr	Tc by User	= 15.00 min
IDF Curve	= butler county.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = $[(0.480 \times 0.90) + (0.280 \times 0.30)] / 0.760$



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2019

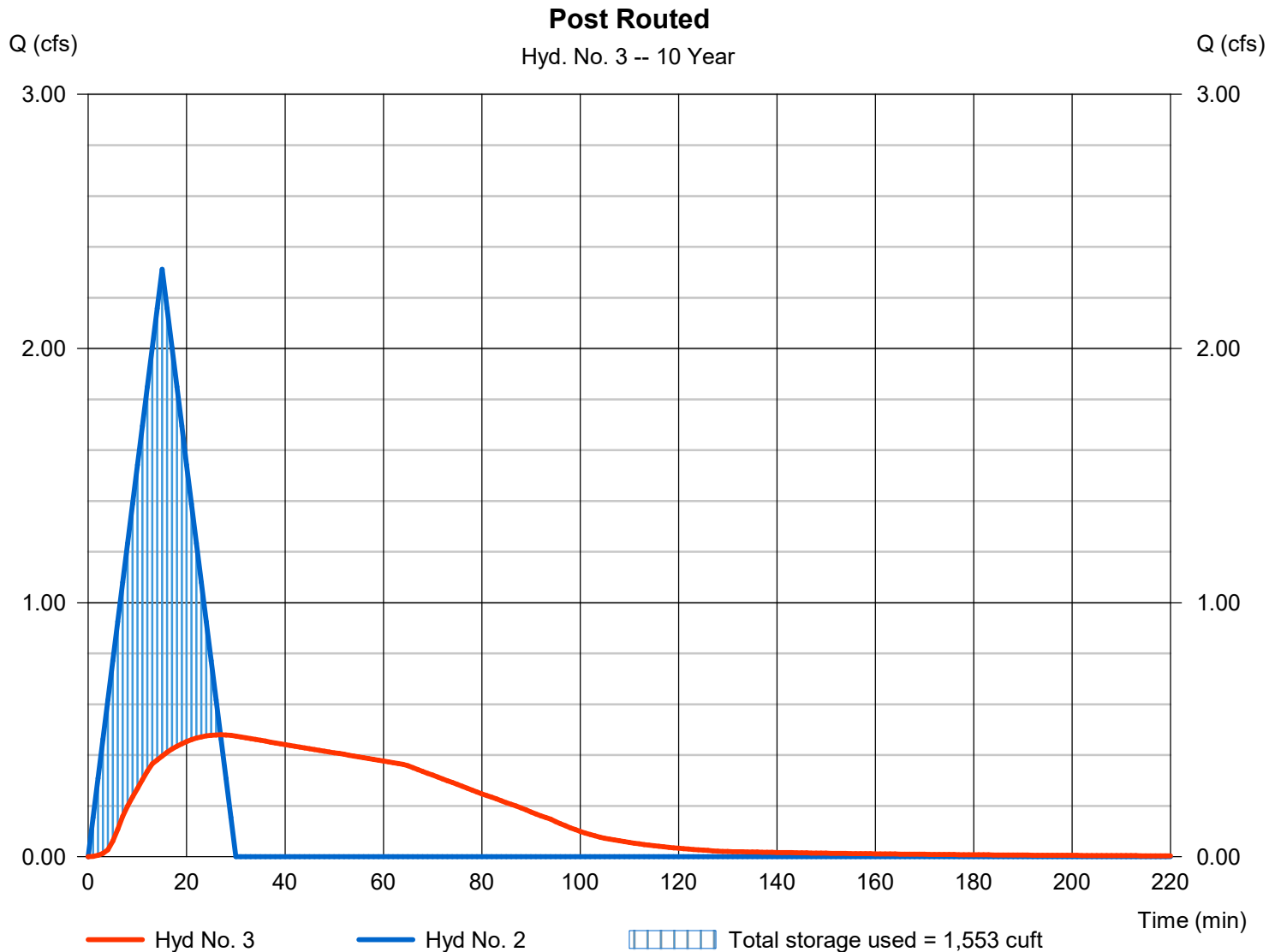
Thursday, 12 / 16 / 2021

Hyd. No. 3

Post Routed

Hydrograph type	= Reservoir	Peak discharge	= 0.480 cfs
Storm frequency	= 10 yrs	Time to peak	= 27 min
Time interval	= 1 min	Hyd. volume	= 2,078 cuft
Inflow hyd. No.	= 2 - Post-dev	Max. Elevation	= 706.60 ft
Reservoir name	= North Pond	Max. Storage	= 1,553 cuft

Storage Indication method used.



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2019

Thursday, 12 / 16 / 2021

Hyd. No. 1

Pre-dev

Hydrograph type	= Rational	Peak discharge	= 1.165 cfs
Storm frequency	= 25 yrs	Time to peak	= 15 min
Time interval	= 1 min	Hyd. volume	= 1,049 cuft
Drainage area	= 0.760 ac	Runoff coeff.	= 0.3
Intensity	= 5.111 in/hr	Tc by User	= 15.00 min
IDF Curve	= butler county.IDF	Asc/Rec limb fact	= 1/1



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2019

Thursday, 12 / 16 / 2021

Hyd. No. 2

Post-dev

Hydrograph type	= Rational	Peak discharge	= 2.641 cfs
Storm frequency	= 25 yrs	Time to peak	= 15 min
Time interval	= 1 min	Hyd. volume	= 2,377 cuft
Drainage area	= 0.760 ac	Runoff coeff.	= 0.68*
Intensity	= 5.111 in/hr	Tc by User	= 15.00 min
IDF Curve	= butler county.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = $[(0.480 \times 0.90) + (0.280 \times 0.30)] / 0.760$



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2019

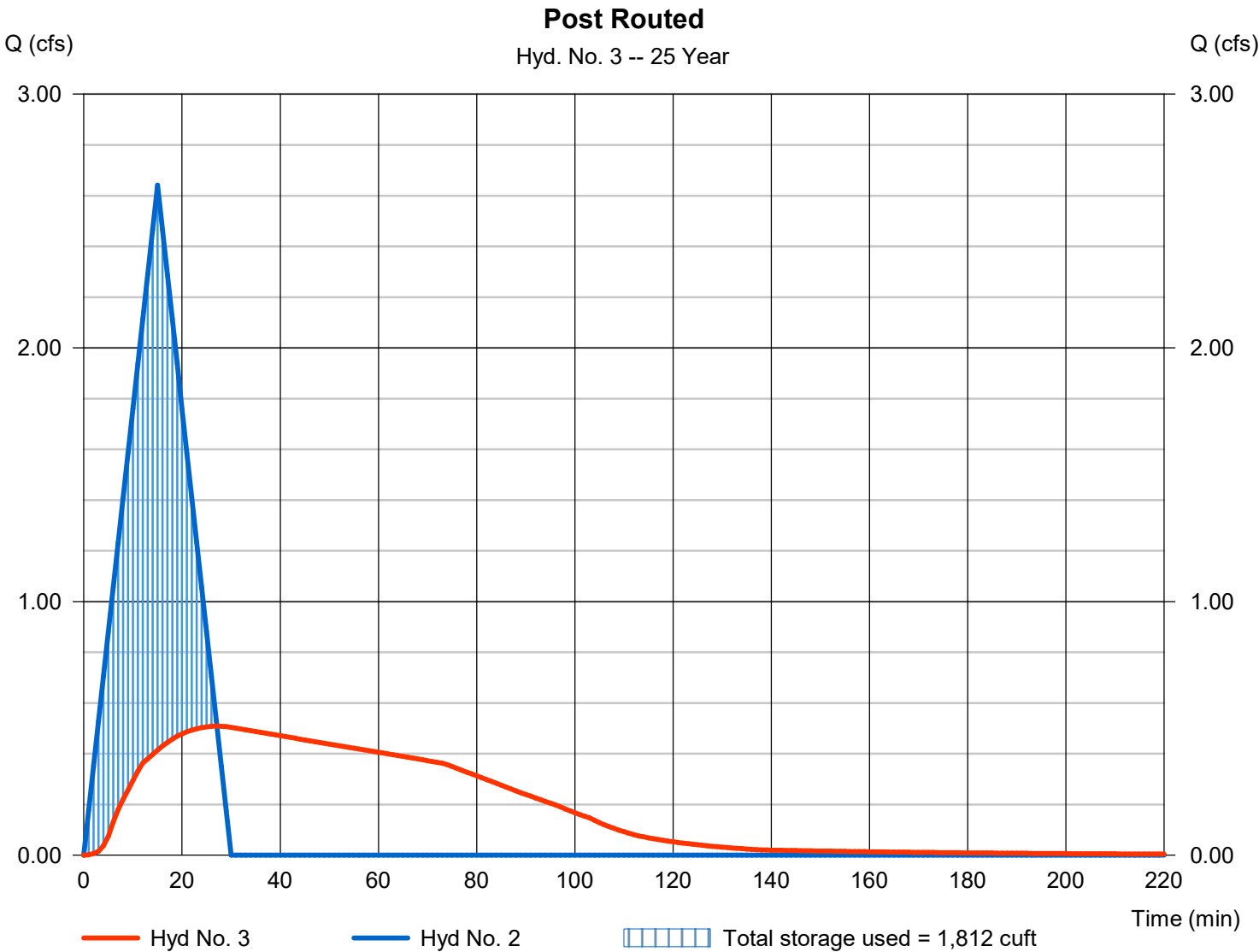
Thursday, 12 / 16 / 2021

Hyd. No. 3

Post Routed

Hydrograph type	= Reservoir	Peak discharge	= 0.509 cfs
Storm frequency	= 25 yrs	Time to peak	= 27 min
Time interval	= 1 min	Hyd. volume	= 2,374 cuft
Inflow hyd. No.	= 2 - Post-dev	Max. Elevation	= 706.77 ft
Reservoir name	= North Pond	Max. Storage	= 1,812 cuft

Storage Indication method used.



Hydrograph Report

Hyd. No. 1

Pre-dev

Hydrograph type	= Rational	Peak discharge	= 1.357 cfs
Storm frequency	= 50 yrs	Time to peak	= 15 min
Time interval	= 1 min	Hyd. volume	= 1,221 cuft
Drainage area	= 0.760 ac	Runoff coeff.	= 0.3
Intensity	= 5.952 in/hr	Tc by User	= 15.00 min
IDF Curve	= butler county.IDF	Asc/Rec limb fact	= 1/1



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2019

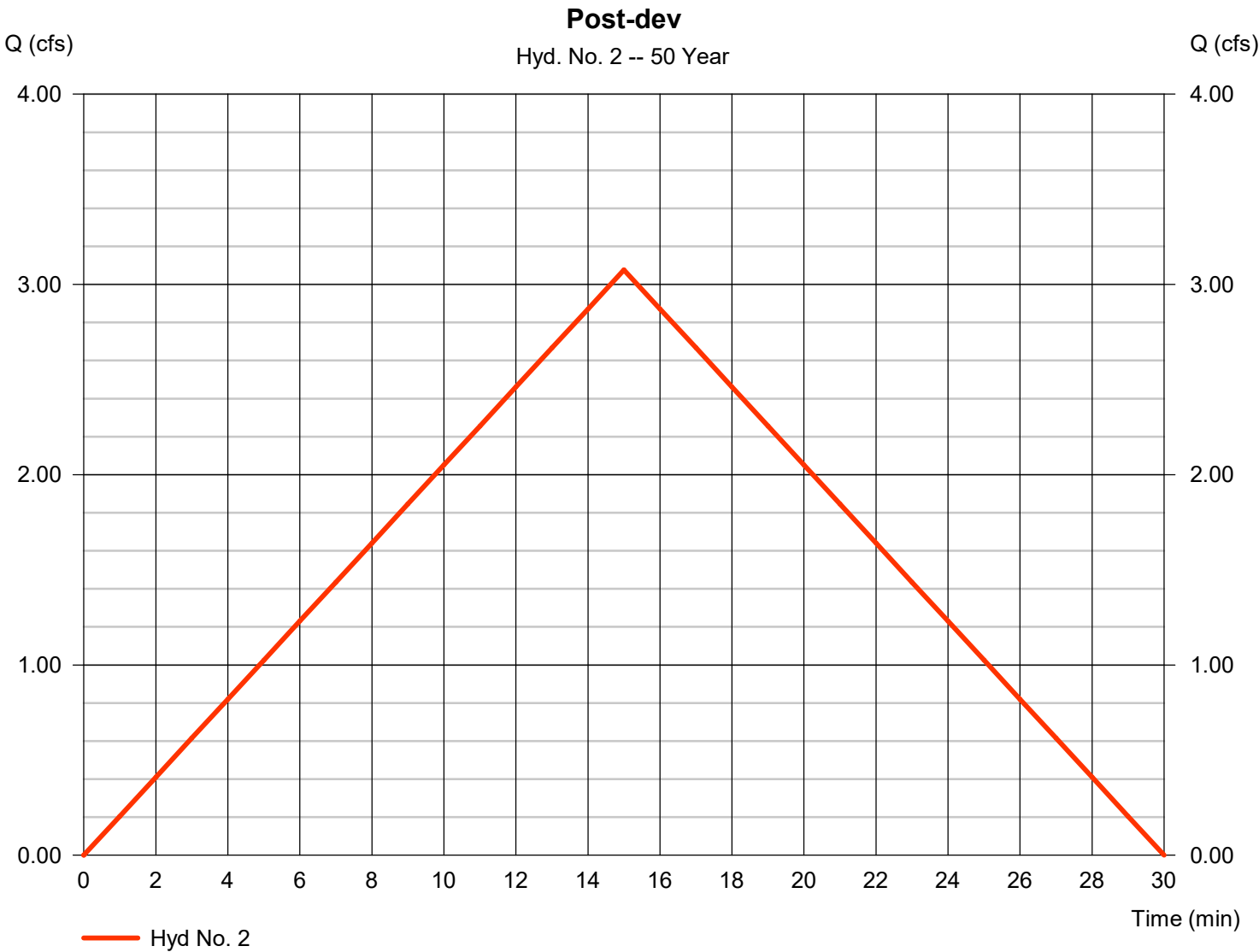
Thursday, 12 / 16 / 2021

Hyd. No. 2

Post-dev

Hydrograph type	= Rational	Peak discharge	= 3.076 cfs
Storm frequency	= 50 yrs	Time to peak	= 15 min
Time interval	= 1 min	Hyd. volume	= 2,769 cuft
Drainage area	= 0.760 ac	Runoff coeff.	= 0.68*
Intensity	= 5.952 in/hr	Tc by User	= 15.00 min
IDF Curve	= butler county.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = [(0.480 x 0.90) + (0.280 x 0.30)] / 0.760



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2019

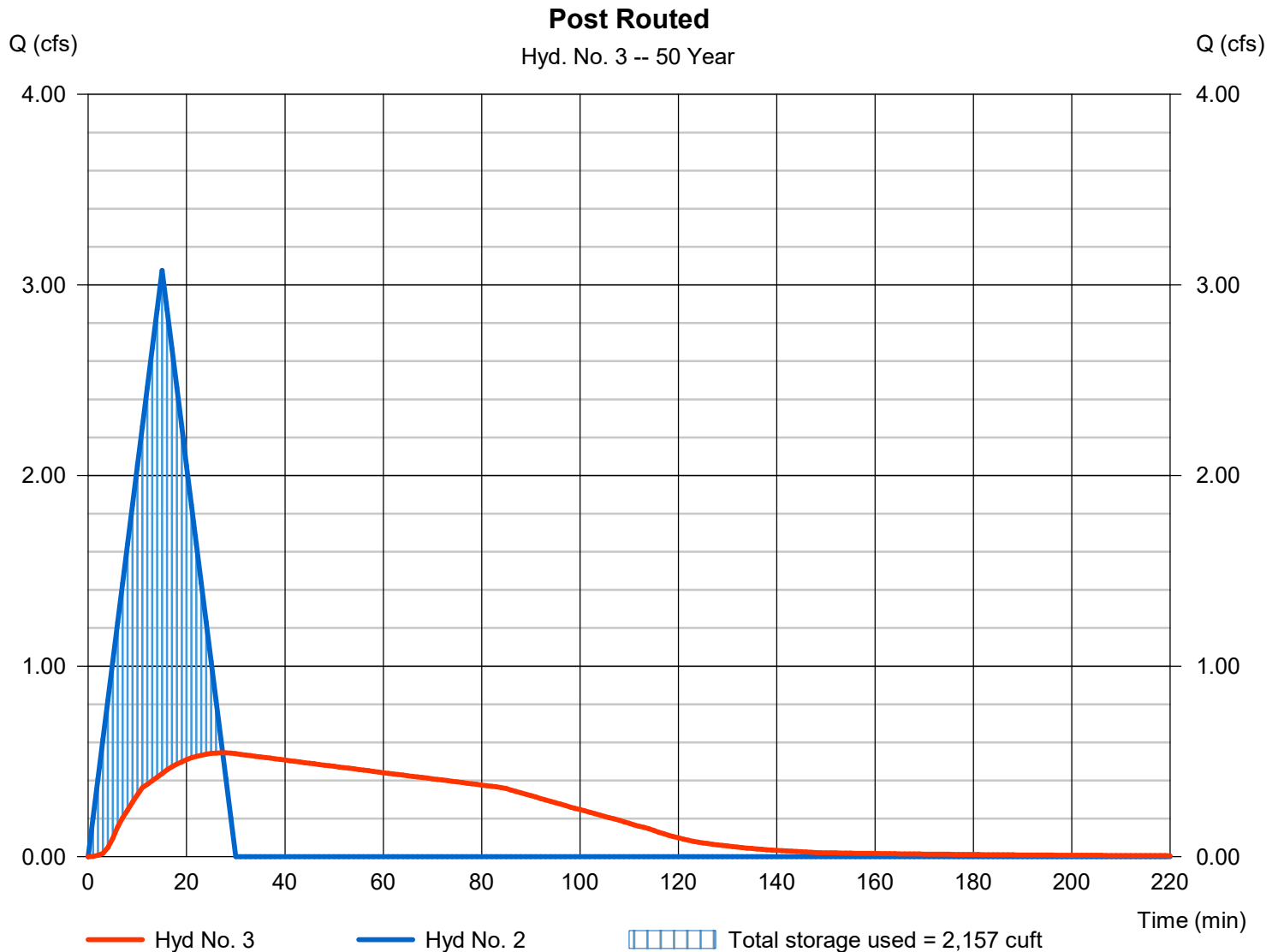
Thursday, 12 / 16 / 2021

Hyd. No. 3

Post Routed

Hydrograph type	= Reservoir	Peak discharge	= 0.545 cfs
Storm frequency	= 50 yrs	Time to peak	= 27 min
Time interval	= 1 min	Hyd. volume	= 2,766 cuft
Inflow hyd. No.	= 2 - Post-dev	Max. Elevation	= 707.00 ft
Reservoir name	= North Pond	Max. Storage	= 2,157 cuft

Storage Indication method used.



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2019

Thursday, 12 / 16 / 2021

Hyd. No. 1

Pre-dev

Hydrograph type	= Rational	Peak discharge	= 1.437 cfs
Storm frequency	= 100 yrs	Time to peak	= 15 min
Time interval	= 1 min	Hyd. volume	= 1,294 cuft
Drainage area	= 0.760 ac	Runoff coeff.	= 0.3
Intensity	= 6.304 in/hr	Tc by User	= 15.00 min
IDF Curve	= butler county.IDF	Asc/Rec limb fact	= 1/1



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2019

Thursday, 12 / 16 / 2021

Hyd. No. 2

Post-dev

Hydrograph type	= Rational	Peak discharge	= 3.258 cfs
Storm frequency	= 100 yrs	Time to peak	= 15 min
Time interval	= 1 min	Hyd. volume	= 2,932 cuft
Drainage area	= 0.760 ac	Runoff coeff.	= 0.68*
Intensity	= 6.304 in/hr	Tc by User	= 15.00 min
IDF Curve	= butler county.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = $[(0.480 \times 0.90) + (0.280 \times 0.30)] / 0.760$



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2019

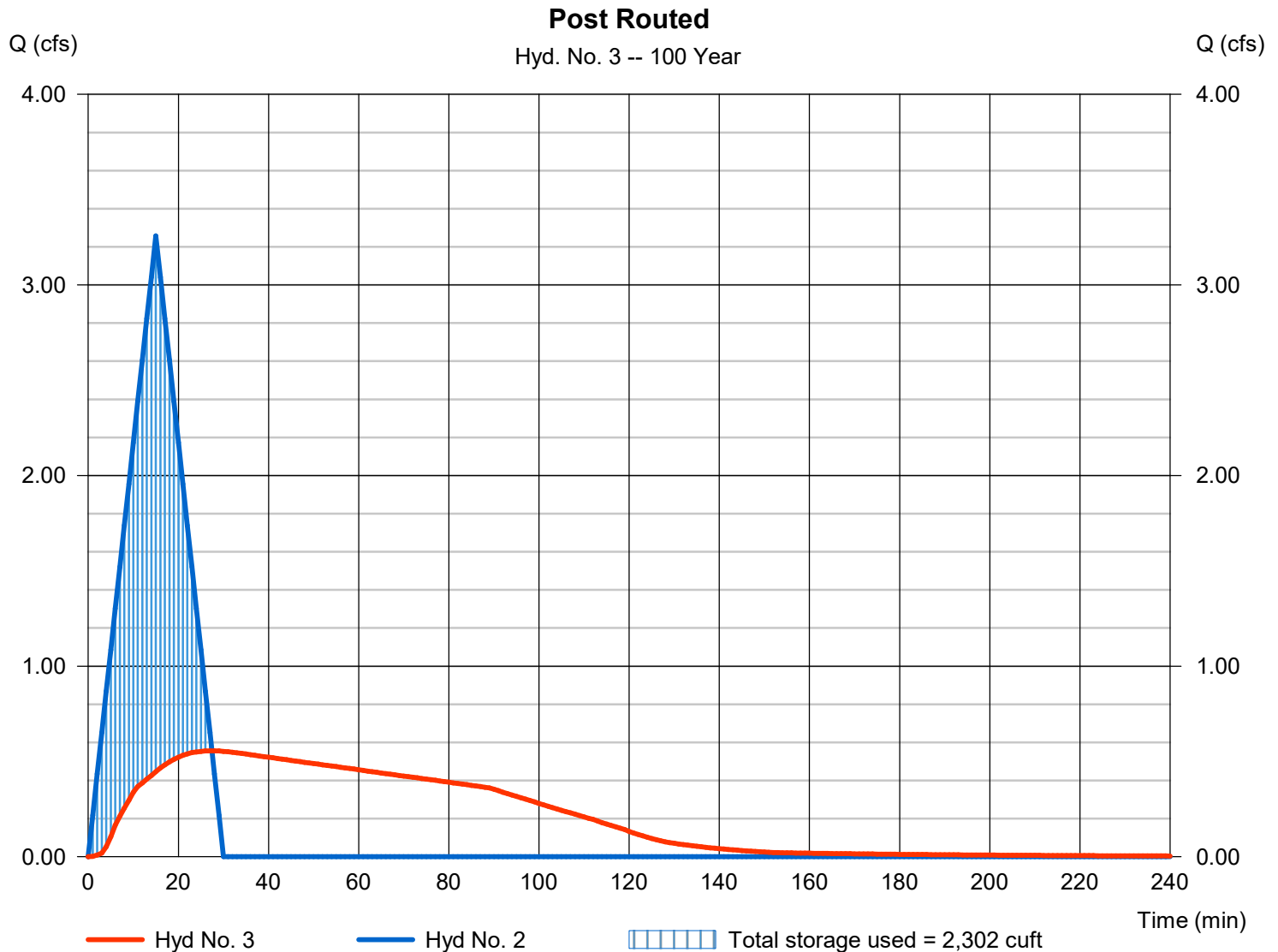
Thursday, 12 / 16 / 2021

Hyd. No. 3

Post Routed

Hydrograph type	= Reservoir	Peak discharge	= 0.556 cfs
Storm frequency	= 100 yrs	Time to peak	= 27 min
Time interval	= 1 min	Hyd. volume	= 2,929 cuft
Inflow hyd. No.	= 2 - Post-dev	Max. Elevation	= 707.08 ft
Reservoir name	= North Pond	Max. Storage	= 2,302 cuft

Storage Indication method used.





18 Watt LED wall sconce. Die-cast aluminum wall bracket with five 1/2" conduit openings with plugs.

Color: Bronze

Weight: 14.0 lbs

Project:

Type:

Prepared By:

Date:

Driver Info

Type	Constant Current
120V	0.24A
208V	N/A
240V	N/A
277V	N/A
Input Watts	17.4W

LED Info

Watts	18W
Color Temp	4000K (Neutral)
Color Accuracy	85 CRI
L70 Lifespan	100,000 Hours
Lumens	1,907
Efficacy	109.6 lm/W

Technical Specifications

Electrical

Driver:

Constant Current, Class 2, 100-277V, 50/60 Hz, 4kV Surge Protection, 700mA, 120V: 0.24A, 208V: 0.18A, 240V: 0.15A, 277V: 0.12A

THD:

6.4% at 120V, 10.6% at 277V

Power Factor:

99.5% at 120V, 89.9% at 277V

Photocell:

120V Swivel photocell included. Photocell is only compatible with 120V.

Compliance

UL Listed:

Suitable for wet locations

IESNA LM-79 & IESNA LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities.

DLC Product Code: P7ZPTT2S

LED Characteristics

LEDs:

Long-life, high-efficiency, surface-mount LEDs

Color Consistency:

5-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:

LED color temperature is warranted to shift no more than 200K in color temperature over a 5-year period

Color Uniformity:

RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017

Performance

Lifespan:

100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Optical

BUG Rating:

B1 U3 G2

Construction

Cold Weather Starting:

Minimum starting temperature is -40°C (-40°F)

Technical Specifications (continued)

Construction

Thermal Management:

Cast aluminum Thermal Management system for optimal heat sinking. The BLED is designed for cool operation, maximum efficiency and long life by minimizing LED junction temperature.

Housing:

Reinforced Die-cast Aluminum

Lens:

Polycarbonate lens

Reflector:

Vacuum-metalized polycarbonate

Gaskets:

High-temperature silicone gaskets seal out moisture
gaskets seal out moisture

Mounting:

Die-cast aluminum wall bracket with five (5) 1/2" conduit openings with plugs

Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color

Green Technology:

Mercury and UV free. RoHS-compliant components.

Other

Patents:

The design of WBLED is protected by patents in US, Canada & China

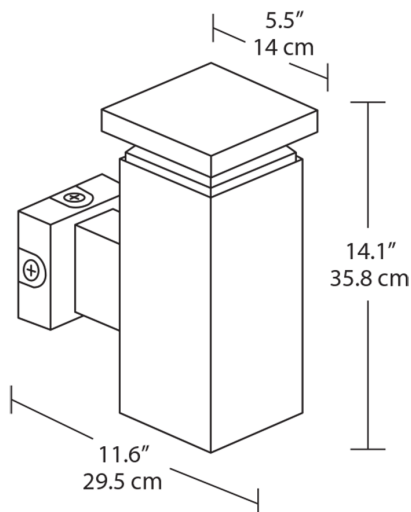
Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Dimensions



Features

- 18 Watt LED architectural wall sconce
- Companion fixture to RAB BLED Round and Square Bollard
- Durable construction and vandal-resistant polycarbonate lens
- 100,000-hour LED lifespan

Ordering Matrix

Family	Shape	Wattage	Color Temp	Finish	Photocell Option
WBLED		18	N		/PCS
	Blank = Square R = Round	18 = 18W	Blank = 5000K (Cool) Y = 3000K (Warm) N = 4000K (Neutral)	Blank = Bronze W = White	Blank = No Option /PCS = 120V Swivel Photocell /PCS2 = 277V Swivel Photocell



Specification grade area lights available in IES Type IV distributions. Best-in-class 5-G vibration rating. 5-year, limited warranty.

Color: Bronze

Weight: 20.9 lbs

Project:

Type:

Prepared By:

Date:

Driver Info

Type	Constant Current
120V	0.55A
208V	0.33A
240V	0.29A
277V	0.25A
Input Watts	65.4W

LED Info

Watts	65W
Color Temp	3000K (Warm)
Color Accuracy	71 CRI
L70 Lifespan	100,000 Hours
Lumens	6,300
Efficacy	96.3 lm/W

Technical Specifications

Compliance

UL Listed:

Suitable for wet locations

IESNA LM-79 & IESNA LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

Dark Sky Conformance:

Conforms to (allows for conformance to) the requirements for the IDA's "Fixture Seal of Approval" as of March 1, 2016.

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.
DLC Product Code: PTFWA65X

Performance

Lifespan:

100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Construction

IES Classification:

The Type IV distribution (also known as a Forward Throw) produces a semicircular distribute, and is especially suited for mounting on sides of buildings or walls and perimeter of parking areas

Effective Projected Area:

EPA = 0.8

Vibration Rating:

Industry-leading 5G vibration rating per ANSI C136.31

Cold Weather Starting:

Minimum starting temperature is -40°C (-40°F)

Ambient Temperature:

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

Housing:

Precision die-cast aluminum housing

Mounting:

Mounts to RAB square poles. Mounts to all square and round poles if optional Universal Pole Adaptor is used.

Lens:

Clear acrylic lens with integrated optics

IP Rating:

Ingress protection rating of IP66 for dust and water

Technical Specifications (continued)

Construction

Gaskets:

High-temperature silicone gaskets

Finish:

Formulated for high durability and long-lasting color

Green Technology:

Mercury and UV free. RoHS-compliant components.

LED Characteristics

LEDs:

Long-life, high-efficacy, surface-mount LEDs

Color Uniformity:

RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Electrical

Driver:

Constant Current, Class 2, 100-277V, 50/60 Hz, 120V: 0.55A, 208V: 0.33A, 240V: 0.29A, 277V: 0.25A

THD:

7.2% at 120, 10.6% at 277V

Power Factor:

99.6% at 120V, 95.4% at 277V

Surge Protection:

L-N 4kV; L-L, L-GND 6kV

Other

5 Yr Limited Warranty:

Fixture operation and paint finish are covered for a period of 5-years. [See our full warranty here.](#)

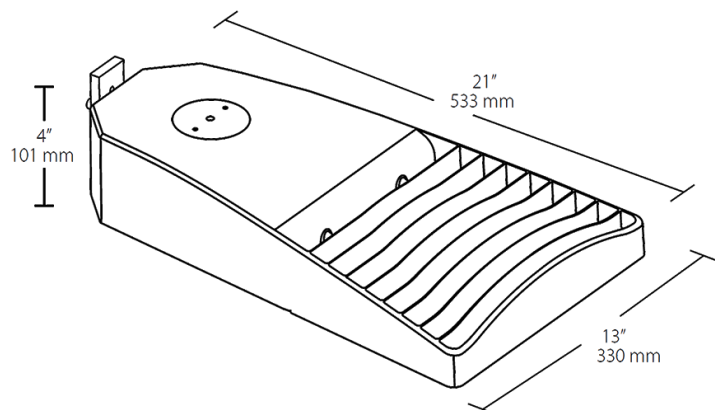
Equivalency:

Equivalent to 150W Metal Halide

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Dimensions



Features

100,000-hour LED lifespan

Type IV distribution

Ordering Matrix

Family	IES Type	Wattage	Color Temp	Finish	Driver Options	Mounting	Sensor Options	Accessories	Other Options
LOT	4T	65	Y		/D10				
	5T = Type V 4T = Type IV 3T = Type III 2T = Type II	65 = 65W 110 = 110W 160 = 160W	Blank = 5000K (Cool) N = 4000K (Neutral) Y = 3000K (Warm)	Blank = Bronze W = White	/D10 = 120-277V, 0-10V Dimming (standard) /480/D10 = 480V, 0-10V Dimming	Blank = Mounts to RAB square poles /UPA = Universal Pole Adaptor	Blank = None /PCT = 120-277V Twistlock PC /PCT4 = 480V Twistlock PC /WS2 = Wattstopper Sensor + 20ft lens, 120-277V /WS4 = Wattstopper Sensor + 40ft lens, 120-277V /5PR = 5-Pin Receptacle, no PCT /7PR = 7-Pin Receptacle, no PCT /BL = Bi-Level Dimming, 120-277V	Blank = None /HS = 2 House-Side- Shields ¹	Blank = Standard USA = BAA Compliant

¹ Available for Types II, III and IV only



Square steel poles drilled for 2 Area Lights at 180°. Designed for ground mounting. Poles are stocked nationwide for quick shipment. Protective packaging ensures poles arrive at the job site good as new.

Color: Bronze

Weight: 136.7 lbs

Project:

Type:

Prepared By:

Date:

Technical Specifications

Compliance

CSA Listed:

Suitable for wet locations

Construction

Shaft:

46,000 p.s.i. minimum yield.

Hand Holes:

Reinforced with grounding lug and removable cover

Base Plates:

Slotted base plates 36,000 p.s.i.

Shipping Protection:

All poles are shipped in individual corrugated cartons to prevent finish damage

Color:

Bronze powder coating

Height:

20 FT

Weight:

137 lbs

Gauge:

11

Wall Thickness:

1/8"

Shaft Size:

4"

Hand Hole Dimensions:

3" x 5"

Bolt Circle:

8 1/2"

Base Dimension:

8"

Technical Specifications (continued)

Construction

Anchor Bolt:

Galvanized anchor bolts and galvanized hardware and anchor bolt template. All bolts have a 3" hook.

Anchor Bolt Templates:

WARNING Template must be printed on 11" x 17" sheet for actual size. CHECK SCALE BEFORE USING. Templates shipped with anchor bolts and available [online](#).

Pre-Shipped Anchor Bolts:

Bolts can be pre-shipped upon request for additional freight charge

Max EPA's/Max Weights:

70MPH 10.7 ft./360 lb.
80MPH 7.0 ft./350 lb.
90MPH 4.3 ft./350 lb.
100MPH 2.5 ft./350 lb.
110MPH 1.1 ft./350 lb.
120MPH 0.1 ft./340lb

Other

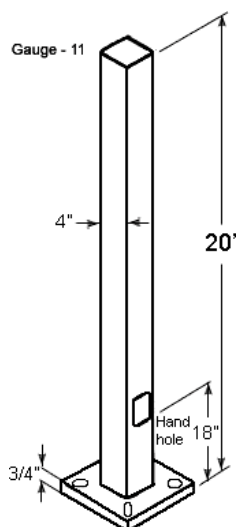
Terms of Sale:

Pole Terms of Sale is available [online](#).

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Dimensions



Features

- Designed for ground mounting
- Heavy duty TGIC polyester coating
- Reinforced hand holes with grounding lug and removable cover for easy wiring access
- Pole caps, base covers & bolts are sold separately
- Custom manufactured for each application