

Rik Kowall, Supervisor
Anthony L. Noble, Clerk
Mike Roman, Treasurer



Trustees
Scott Ruggles
Steve Anderson
Andrea C. Voorheis
Liz Fessler Smith

SPECIAL TOWNSHIP BOARD MEETING
LOCATION: 7527 HIGHLAND ROAD, WHITE LAKE - ANNEX BOARD ROOM
TUESDAY, APRIL 22, 2025 – 5:00 PM

White Lake Township | 7525 Highland Rd | White Lake, MI 48383 | Phone: (248) 698-3300 | www.whitelaketwp.com

AGENDA

1. CALL TO ORDER
2. PLEDGE OF ALLEGIANCE
3. ROLL CALL
4. APPROVAL OF AGENDA
5. PUBLIC COMMENT
6. NEW BUSINESS
 - A. [REQUEST TO APPROVE CHANGE ORDER FOR UNDER FLOOR DRAINAGE SYSTEM - PUBLIC SAFETY BUILDING](#)
7. ADJOURNMENT

Procedures for accommodations for persons with disabilities: The Township will follow its normal procedures for individuals with disabilities needing accommodations for effective participation in this meeting. **Please contact the Township Clerk's office at (248) 698-3300 X-7 at least five days in advance of the meeting.** An attempt will be made to provide reasonable accommodations.



Redstone Architects, Inc.

30700 Telegraph Road, Suite 1677, Bingham Farms, MI 48025

04/21/2025

Memo to White Lake Township Board:

Based on the recommendation of the Township's geotechnical engineering company, G2, the Redstone Architects design team has submitted Bulletin #11 which includes a new under-slab drainage design and a waterproof membrane specification. It is the consensus of the construction and design professionals that these solutions will mitigate the standing water around and under the Public Safety Building that was initially discovered in October of 2024.

Redstone Architects supports the need for the change order to protect the building.

History

The Redstone design team provided a design, as it pertains to the footings, walls and slab on grade, for the White Lake Township (WLT) Public Safety Building (PSB) lower level based on recommendations from the Townships Geotechnical Engineering company, G2. The Geotechnical report, dated September 8, 2023, was made available to the design team and contained the following recommendations.

Below-Grade Wall Recommendations:

The drainage recommendation in the Geotech report read as follows: "We recommend a perimeter foundation drain system be incorporated at the foundation level to prevent the development of hydrostatic pressures on below-grade floors and walls. The perforated or slotted drain pipe should be protected with coarse aggregates. The drain pipe and aggregate should be wrapped with a non-woven filter fabric to prevent the migration of surrounding soil fines into the aggregate and drain pipe. The drainage system should outlet water to a sump/pump system designed to remove the collected water."

The drainage system for the underground walls and footings were designed to be perimeter foundation drainage only.

Floor Slab Recommendations:

The slab on grade for the PSB lower level received the following recommendations: "If moisture sensitive floor coverings are planned, or if greater protection against vapor transmission is desired, a vapor barrier, consisting of at least 10-mil plastic sheeting, may be placed over the capillary break layer beneath floor slabs."

As recommended by the G2 report and flooring manufacturers, a vapor barrier should be provided under the slabs on grade to prevent ground moisture from penetrating the concrete and damaging the floor installation. A vapor barrier was specified and bid for under the slab of the PSB lower level.

Construction 2024:

In late October 2024, during the excavation of the lower-level footings for the PSB, McCarthy and Smith noticed standing water. They created three (3) test pits to evaluate the cause and extent of the water. Finding significant water McCarthy and Smith notified G2 to determine the next steps.

G2 visited the site and provided a report dated October 28, 2024. The G2 report speculated that the water was perched groundwater and recommended constructing sumps to pump the water out of the building's subgrade area. McCarthy and Smith constructed two pits and installed pumps to begin pumping the water out of the area. The pumps operated for a few weeks and the site appeared to dry up while the pumps were running. However, once the pumps stopped operating the water resurfaced.

In a subsequent report dated February 24, 2025, G2 issued an opinion that the Township construct an under-slab drainage system for the PSB to mitigate issues that may arise from the ground water. McCarthy and Smith contacted Redstone Architects to discuss the design of an under-slab drainage system. Several meetings and discussions were conducted between the engineers, architect, and contractors to determine a solution that is most cost-effective and efficient.

In addition to the drainage system, a waterproofing membrane will be needed to replace the vapor barrier. A vapor barrier is not intended to be submerged in water and will not be a viable solution considering the amount of water. A waterproof membrane is designed to withstand and protect the building from these water conditions.

Bulletin #11 incorporates both the recommendations of G2 and the consensus of the design and construction professionals.

Thank you.

**REDSTONE
ARCHITECTS, INC.**

Architecture · Planning · Interior Design

Bulletin #11

		Date:	April 14, 2025
To:	Aaron Phillips		
Company:	McCarthy & Smith		
Project Name:	White Lake Township Public Safety Building Civic Center Development	Project No:	3702.00
		Phase No:	F07
Distribution:	White Lake Township McCarthy & Smith		
DOCUMENTS ISSUED WITH THIS BULLETIN:			
Documents: Drawings:			
Specifications: 06 20 13, 09 93 00			
This Bulletin forms part of the Contract Documents and modifies the original Bidding Documents dated June 03, 2024. Acknowledge receipt of this Bulletin in the space provided in the Bid Form. Failure to do so may subject Bidder to disqualification.			

Architectural

Architectural Specifications

ITEM #1:	06 20 13 EXTERIOR FINISH CARPENTRY (NEWLY ISSUED)
ITEM #2:	09 93 00 STAINING AND TRANSPARENT FINISHING (NEWLY ISSUED)

Architectural Drawings

	N/A
--	-----

Structural Drawings

	N/A
--	-----

END OF BULLETIN

SECTION 06 20 13 - EXTERIOR FINISH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Exterior trim.

1.2 DEFINITIONS

- A. MDO: Plywood with a medium-density overlay on the face.
- B. PVC: Polyvinyl chloride.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product. Indicate component materials, dimensions, profiles, textures, and colors and include construction and application details.
 1. Include data for wood-preservative treatment from chemical-treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained. Include chemical-treatment manufacturer's written instructions for finishing treated material.
- B. Samples for Initial Selection: For each type of product involving selection of colors, profiles, or textures.
- C. Samples for Verification:
 1. For each species and cut of lumber and panel products, with half of exposed surface finished; 50 sq. in. for lumber and 8 by 10 inches for panels.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Stack lumber, plywood, and other panels flat with spacers between each bundle to provide air circulation.
 1. Protect materials from weather by covering with waterproof sheeting, securely anchored.
 2. Provide for air circulation around stacks and under coverings.

1.5 FIELD CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecast weather conditions permit work to be performed and at least one coat of specified finish can be applied without exposure to rain, snow, or dampness.
- B. Do not install finish carpentry materials that are wet, moisture damaged, or mold damaged.
 - 1. Indications that materials are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
 - 2. Indications that materials are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

- A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, comply with applicable rules of any rules-writing agency certified by the American Lumber Standard Committee's (ALSC) Board of Review. Grade lumber by an agency certified by the ALSC's Board of Review to inspect and grade lumber under the rules indicated.
 - 1. Factory mark each piece of lumber with grade stamp of inspection agency, indicating grade, species, moisture content at time of surfacing, and mill.
 - 2. For exposed lumber, mark grade stamp on end or back of each piece.
- B. Softwood Plywood: DOC PS 1.
- C. Hardboard: ANSI A135.4.

2.2 WOOD-PRESERVATIVE-TREATED MATERIALS

- A. Preservative Treatment by Pressure Process: AWP A U1; Use Category UC3b.
 - 1. Kiln dry lumber and plywood after treatment to a maximum moisture content of 19 and 18 percent, respectively.
 - 2. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.
 - 3. For exposed items indicated to receive transparent finish, do not use chemical formulations that contain colorants or that bleed through or otherwise adversely affect finishes.

4. Do not use material that is warped or does not comply with requirements for untreated material.
5. Mark lumber with treatment-quality mark of an inspection agency approved by the ALSC's Board of Review.
 - a. For exposed lumber indicated to receive a stained or natural finish, mark end or back of each piece.
6. Mark plywood with appropriate classification marking of an inspection agency acceptable to authorities having jurisdiction.
 - a. For exposed plywood indicated to receive a stained or natural finish, mark back of each piece.
7. Application: Where indicated on Drawings.

2.3 EXTERIOR TRIM

A. Lumber Trim for Opaque-Stained Finish:

1. Species and Grade:
 - a. Quarter Sawn White Oak; AB 1 Common.
2. Maximum Moisture Content: 15 percent.
3. Face Surface: Surfaced (smooth).
4. Factory Priming: Factory coated on both faces and all edges, with exterior primer compatible with topcoats specified.

2.4 FABRICATION

- A. Back out or kerf backs of standing and running trim wider than 5 inches, except members with ends exposed in finished work.
- B. Ease edges of lumber less than 1 inch in nominal thickness to 1/16-inch radius and edges of lumber 1 inch or more in nominal thickness to 1/8-inch radius.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Examine finish carpentry materials before installation. Reject materials that are wet, moisture damaged, and mold damaged.

- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean substrates of projections and substances detrimental to application.
- B. Prime lumber and moldings to be painted, including both faces and edges, unless factory primed.
 - 1. Cut to required lengths and prime ends.
 - 2. Comply with requirements in Section 09 91 13 "Exterior Painting."

3.3 INSTALLATION, GENERAL

- A. Do not use materials that are unsound, warped, improperly treated or finished, inadequately seasoned, or too small to fabricate with proper jointing arrangements.
 - 1. Do not use manufactured units with defective surfaces, sizes, or patterns.
- B. Install exterior finish carpentry level, plumb, true, and aligned with adjacent materials.
 - 1. Use concealed shims where necessary for alignment.
 - 2. Scribe and cut exterior finish carpentry to fit adjoining work.
 - 3. Refinish and seal cuts as recommended by manufacturer.
 - 4. Install to tolerance of 1/8 inch in 96 inches for level and plumb. Install adjoining exterior finish carpentry with 1/32-inch maximum offset for flush installation and 1/16-inch maximum offset for reveal installation.
 - 5. Coordinate exterior finish carpentry with materials and systems in or adjacent to it.
 - 6. Provide cutouts for mechanical and electrical items that penetrate exterior finish carpentry.

3.4 INSTALLATION OF STANDING AND RUNNING TRIM

- A. Install flat-grain lumber with bark side exposed to weather.
- B. Install cellular PVC trim to comply with manufacturer's written instructions.
- C. Install trim with minimum number of joints as is practical, using full-length pieces from maximum lengths of lumber available. Do not use pieces less than 24 inches long, except where necessary.
 - 1. Use scarf joints for end-to-end joints.
 - 2. Stagger end joints in adjacent and related members.
- D. Fit exterior joints to exclude water.

1. Cope at returns and miter at corners to produce tight-fitting joints, with full-surface contact throughout length of joint.
2. Plane backs of casings to provide uniform thickness across joints, where necessary for alignment.

E. Where face fastening is unavoidable, countersink fasteners, fill surface flush, and sand unless otherwise indicated.

3.5 ADJUSTING

A. Replace exterior finish carpentry that is damaged or does not comply with requirements.

1. Exterior finish carpentry may be repaired or refinished if work complies with requirements and shows no evidence of repair or refinishing.

B. Adjust joinery for uniform appearance.

3.6 CLEANING

A. Clean exterior finish carpentry on exposed and semiexposed surfaces.

B. Touch up factory-applied finishes to restore damaged or soiled areas.

3.7 PROTECTION

A. Protect installed products from damage from weather and other causes during construction.

B. Remove and replace finish carpentry materials that are wet, moisture damaged, and mold damaged.

1. Indications that materials are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
2. Indications that materials are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

END OF SECTION

SECTION 09 93 00 - STAINING AND TRANSPARENT FINISHING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Wood stains.

1.2 ACTION SUBMITTALS

A. Product Data:

1. For each type of product.
2. Include preparation requirements and application instructions.
3. Indicate VOC content.

B. Samples for Initial Selection: Manufacturer's standard color sheets, showing full range of available colors for each type of exposed finish.

C. Samples for Verification: Sample for each type of finish system and in each color and gloss of finish required on representative samples of actual wood substrates.

1. Size: 8 inches square or 8 inches long.
2. Apply coats on Samples in steps to show each coat required for system.
3. Label each coat of each Sample.
4. Label each Sample for location and application area.

D. Product List: Cross-reference to finish system and locations of application areas. Use same designations indicated on Drawings and in schedules. Include color designations.

1.3 DELIVERY, STORAGE, AND HANDLING

A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F.

1. Maintain containers in clean condition, free of foreign materials and residue.
2. Remove rags and waste from storage areas daily.

1.4 FIELD CONDITIONS

A. Apply finishes only when temperature of surfaces to be finished and ambient air temperatures are between 50 and 95 deg F.

- B. Do not apply finishes when relative humidity exceeds 85 percent, at temperatures of less than 5 deg F above the dew point, or to damp or wet surfaces.
- C. Do not apply exterior finishes in snow, rain, fog, or mist.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Behr Paint Company; Behr Process Corporation.
 - 2. Benjamin Moore & Co.
 - 3. PPG Paints.
 - 4. Sherwin-Williams Company (The).

2.2 SOURCE LIMITATIONS

- A. Source Limitations: Obtain each coating product from single source from single manufacturer.

2.3 MATERIALS, GENERAL

- A. Material Compatibility:
 - 1. Provide materials for use within each coating system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
- B. Low-Emitting Materials: For field applications that are inside the weatherproofing system, 90 percent of paints and coatings shall comply with the requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."
- C. Stain Colors: As selected by Architect from manufacturer's full range.

2.4 WOOD STAINS

- A. Stain, Exterior, Solvent Based, Semitransparent: Solvent-based, oil or oil/alkyd, semitransparent, pigmented stain for new wood surfaces.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

- a. Behr Paint Company; Behr Process Corporation.
- b. Benjamin Moore & Co.
- c. PPG Paints.
- d. Sherwin-Williams Company (The).

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Maximum Moisture Content of Exterior Wood Substrates: 15 percent, when measured with an electronic moisture meter.
- C. Maximum Moisture Content of Interior Wood Substrates: 13 percent, when measured with an electronic moisture meter.
- D. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- E. Proceed with finish application only after unsatisfactory conditions have been corrected.
 1. Beginning finish application constitutes Contractor's acceptance of substrates and conditions.

3.2 PREPARATION

- A. Remove hardware, covers, plates, and similar items already in place that are removable. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and finishing.
 1. After completing finishing operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.
- B. Clean and prepare surfaces to be finished according to manufacturer's written instructions for each substrate condition and as specified.
 1. Remove dust, dirt, oil, and grease by washing with a detergent solution; rinse thoroughly with clean water and allow to dry. Remove grade stamps and pencil marks by sanding lightly. Remove loose wood fibers by brushing.
 2. Remove mildew by scrubbing with a commercial wash formulated for mildew removal and as recommended by stain manufacturer.
- C. Exterior Wood Substrates:

1. Scrape and clean knots, and apply coat of knot sealer before applying primer.
2. Prime edges, ends, faces, undersides, and backsides of wood.
 - a. For solid hide stained wood, stain edges and ends after priming.
 - b. For varnish-coated stained wood, stain edges and ends and prime with varnish. Prime undersides and backsides with varnish.
3. Countersink steel nails, if used, and fill with putty or plastic wood filler tinted to final color. Sand smooth when dried.

3.3 APPLICATION

- A. Apply finishes according to manufacturer's written instructions.
 1. Use applicators and techniques suited for finish and substrate indicated.
 2. Finish surfaces behind movable equipment and furniture same as similar exposed surfaces.
 3. Do not apply finishes over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
- B. Apply finishes to produce surface films without cloudiness, holidays, lap marks, brush marks, runs, ropiness, or other surface imperfections.

3.4 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing finish application, clean spattered surfaces. Remove spattered materials by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from finish application. Correct damage by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced finished wood surfaces.

3.5 EXTERIOR WOOD-FINISH-SYSTEM SCHEDULE

- A. Wood Substrates, Wood Trim:
 1. Semitransparent Stain System-As Basis of Design
 2. Sherwin-Williams- Nicole Bennett Florio (878) 236-2075

- a. Prime Coat: WoodScapes Exterior Polyurethane Semi-Transparent Wood Stain, A15 Series
- b. Top coat: WoodScapes Exterior Polyurethane Semi-Transparent Wood Stain, A15 Series

END OF SECTION

BULLETIN

PBA Project Name: White Lake Township
Public Safety Building

PBA Project Number: 2023-0062

Bulletin Number: 11

Date: April 14th, 2025

THIS IS NOT AN ORDER FOR THE WORK. Contractor shall not proceed with this work until receipt of Change Order.

This Bulletin is issued after contract award to obtain a completely itemized breakdown quotation from the Contractor for changes in the Work in accordance with the General Conditions and Supplementary General Conditions for the approval by the Owner and Architect/Engineer.

All requirements contained in the Contract Documents shall apply to this Bulletin. All incidental work necessary to complete the Work shall be included in the Contractor's quotation even though not particularly mentioned.

Parts of the Specifications and Drawings referred to herein supersede previously issued data and form a part of this Bulletin.

When submitting quotation, break down prices according to items listed in this Bulletin.

Payment will be made in accordance with method of payment described in the Contract Documents according to quotation submitted after approval by Owner and Architect/Engineer.

The final completion date is not to be affected by reason of this Bulletin.

Specifications Issued: None

Drawings Issued: M200, M201.

Mechanical Drawing Items:

MD-1 Refer to Sheet M200 (Re-issued).

1. Revised underground subsoil drainage as indicated.

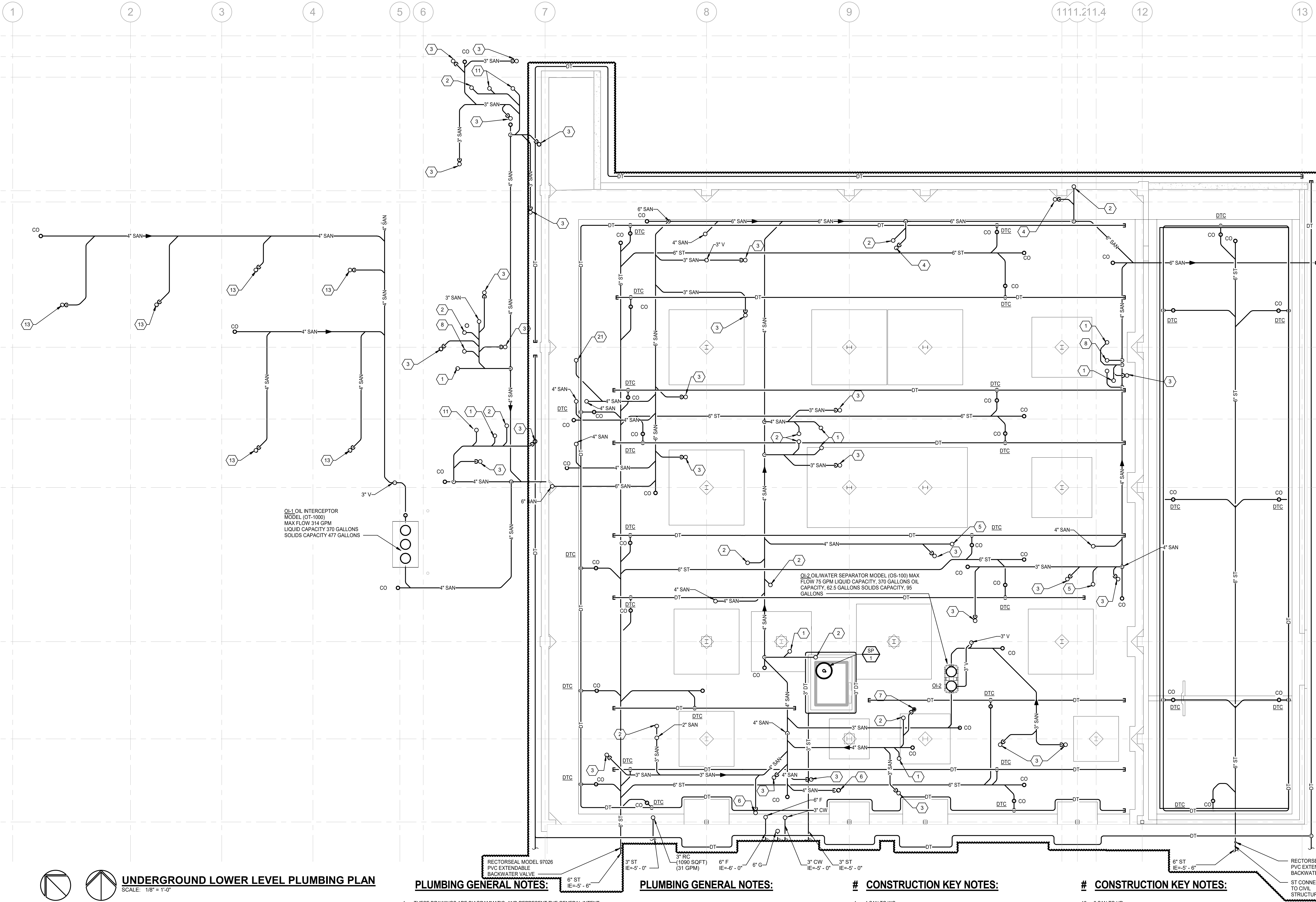
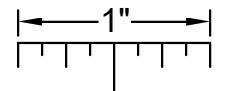
MD-2 Refer to Sheet M201 (Re-issued).

1. Revised CO's serving subsoil drainage as indicated.

End of Bulletin

\\pba.local\projects\2023\2023-0062-00\Construction Administration\Revisions\Bulletin Writeups\Bulletin 11\Bulletin #11.docx

THE FOLLOWING DIMENSION EQUALS
ONE INCH WHEN PRINTED TO SCALE.

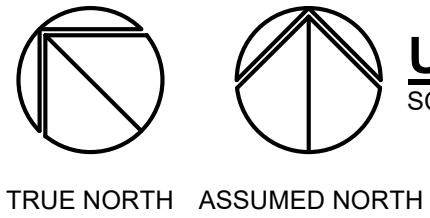


OL1 OIL INTERCEPTOR
MODEL (OT-1000)
MAX FLOW 314 GPM
LIQUID CAPACITY 370 GALLONS
SOLIDS CAPACITY 477 GALLONS

OL2 OIL/WATER SEPARATOR MODEL (OS-100) MAX.
FLOW 75 GPM LIQUID CAPACITY, 370 GALLONS OIL
CAPACITY, 62.5 GALLONS SOLIDS CAPACITY, 95
GALLONS

RECTORSEAL MODEL 97026
PVC EXTENDABLE
BACKWATER VALVE

RECTORSEAL MODEL 97026
PVC EXTENDABLE
BACKWATER VALVE



UNDERGROUND LOWER LEVEL PLUMBING PLAN

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

PLUMBING GENERAL NOTES:

- THESE DRAWINGS ARE DIAGRAMMATIC, AND REPRESENT THE GENERAL INTENT AND ARRANGEMENT OF SYSTEMS. THEY ARE NOT TO BE CONSIDERED FABRICATION/COORDINATION/SHOP DRAWINGS. COORDINATION WITH OTHER TRADES IS REQUIRED. PROVIDE THE ADDITIONAL FITTINGS AND OFFSETS THAT WILL BE REQUIRED TO COMPLETE EACH SYSTEM AND TO AVOID INTERFERENCES WITH ALL OTHER SYSTEMS INCLUDING THE STRUCTURE, SHEET METAL, OTHER PIPING SYSTEMS, ELECTRICAL CONDUITS, BUS DUCTS, CABLE TRAY, LIGHT FIXTURES, ETC. AND/OR OTHER SPACE CONSTRAINTS.
- INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
- PIPING SHALL NOT BE INSTALLED ABOVE ELECTRICAL TRANSFORMERS, SWITCHBOARDS, PANELBOARDS OR MOTOR CONTROL CENTERS.
- COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
- PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.

PLUMBING GENERAL NOTES:

- REFER TO ARCHITECTURAL PLANS FOR DIMENSIONED LOCATIONS OF PLUMBING FIXTURES.
- HOT AND COLD WATER PIPING RUN-OUTS TO LAVATORIES AND SINKS SHALL BE 1/2" UNLESS OTHERWISE NOTED.
- PLUMBING VENT PIPING THROUGH ROOF SHALL BE LOCATED A MINIMUM OF 10'-0" FROM ANY FRESH AIR INTAKE LOCATION AND A MINIMUM OF 18" CLEAR FROM THE INSIDE FACE OF PARAPET.
- PROVIDE CODE REQUIRED CLEARANCE FOR ALL CLEANOUTS INSTALLED IN SANITARY WASTE AND VENT PIPING.
- MINIMUM UNDERGROUND PIPE SIZE SHALL BE 3".
- WATER SERVICE ENTRANCE PIPING SHALL BE BURIED WITH DEPTH OF COVER, OVER TOP OF PIPE OF AT LEAST <<"2">>>, OR WITH TOP OF PIPE AT LEAST 12" BELOW LEVEL OF MAXIMUM FROST PENETRATION, OR AS REQUIRED BY AUTHORITIES HAVING JURISDICTION, WHICHEVER IS DEEPEST.

CONSTRUCTION KEY NOTES:

- 4 SAN TO WC.
- 3 SAN TO LAV/SINK
- 3 SAN TO FLOOR DRAIN/SINK.
- 3 SAN TO JANITOR SINK.
- 4 SAN TO CU.
- 4 SAN TO B.H.O.
- 3 SAN TO SH.
- 3 SAN TO UR.
- 2 SAN TO SH.
- 2 SAN TO LAV/SINK.
- 3 SAN TO WM.SD.

CONSTRUCTION KEY NOTES:

- 2 SAN TO UR.
- 4 SAN TO TRENCH DRAIN.
- 1/2 HW TO DISHWASHER. ROUTE SAN FROM DISHWASHER, AND CONNECT TO ADJACENT SINK.
- 1/2 SCW, 1/2 SHW, 1/2 SHWR, AND 2 SAN TO SINK.
- 1/2 SCW TO OUTLET BOX.
- 3/4 SCW, 3/4 SHW TO HOSE WASHER. CONFIRM FINAL CONNECTIONS WITH MANUFACTURE.
- 3/4 SHW TO MASK WASHER. CONFIRM FINAL CONNECTIONS WITH MANUFACTURE.
- 1/2 SCW, 1/2 SHW, 1/2 SHWR, TO POT FILLER FAUCET.
- 3 SAN TO EWC.
- 2 SAN TO UR.
- 2 SAN TO EWC.
- 3/4 CW TO POWER WASHER. CONFIRM FINAL CONNECTIONS WITH MANUFACTURE.
- 1/2 CA TO PNEUMATIC QUICK-CONNECT FITTING. MOUNT QUICK-CONNECT FITTING 48" A.F.F.

C. REDSTONE ARCHITECTS, INC. 2023
NOTICE: THIS DRAWING AND THE DESIGN ARE THE PROPERTY OF THE ARCHITECT AND NO ALTERATIONS OR TRANSFERS OF WORK ARE PERMITTED UNLESS WRITTEN APPROVAL IS GRANTED BY REDSTONE ARCHITECTS INC. VIOLATORS WILL BE PROSECUTED TO THE FULLEST EXTENT OF THE LAW.

NOTE:
DO NOT SCALE PRINTS.
USE ONLY FIGURED
DIMENSIONS.

No.	Description	Date
1	DD SUBMISSION	12/20/2023
2	OWNER REVIEW	05/14/2024
3	BID SET	06/03/2024
4	ADDENDUM #01	07/02/2024
5	ADDENDUM #02	07/23/2024
6	ISSUED FOR CONSTRUCTION	08/23/2024
7	BULLETIN 4	12/04/2024
8	BULLETIN 4 - REV.1	12/23/2024
9	BULLETIN 9	03/07/2025
10	BULLETIN 10	03/09/2028
11	BULLETIN 11	04/14/2025

FOR CONSTRUCTION

CONSULTANT

PBA

Peter Basso Associates Inc
CONSULTING ENGINEERS
5145 Livernois, Suite 100
Troy, Michigan 48068-3276
Tel: 248-879-5666
Fax: 248-879-0007
www.PeterBassoAssociates.com
PBA Project No.: 2023-0002

Redstone Architects, Inc.

30700 Telegraph Road, Suite 1677
Bingham Farms, MI 48025
Phone: 248-415-0900
Fax: 248-415-0999
www.redstonearchitects.com

SEAL / SIGNATURE

DATE

PROJECT MANAGER/ARCHITECT WJE
DESIGNER/DRAFTSPERSON BPC

**WLT PUBLIC SAFETY
BUILDING
CIVIC CENTER
DEVELOPMENT BID
PACKAGE #3**

10911 Elizabeth Lake Rd
White Lake, MI 48363

SHEET TITLE

**UNDERGROUND
LOWER LEVEL
PLUMBING PLAN**

DATE 08/23/24 SHEET NO.
PROJECT NO. 3702.00 M200

THE FOLLOWING DIMENSION EQUALS ONE INCH WHEN PRINTED TO SCALE.

Section 6. Item A.

C. REDSTONE ARCHITECTS, INC. 2023
NOTICE: THIS DRAWING AND THE DESIGN ARE THE PROPERTY OF THE ARCHITECT AND NO ALTERATIONS OR TRANSFERS OF WORK ARE PERMITTED UNLESS WRITTEN APPROVAL IS GRANTED BY REDSTONE ARCHITECTS, INC. VIOLATORS WILL BE PROSECUTED TO THE FULLEST EXTENT OF THE LAW.
NOTE:
DO NOT SCALE PRINTS.
USE ONLY FIGURED DIMENSIONS.

No.	Description	Date
1	DD SUBMISSION	12/20/2023
2	OWNER REVIEW	05/14/2024
3	BID SET	06/03/2024
4	ADDENDUM #01	07/02/2024
5	ADDENDUM #02	07/23/2024
6	ISSUED FOR CONSTRUCTION	08/23/2024
7	BULLETIN 4	12/04/2024
8	BULLETIN 4 - REV.1	12/23/2024
9	BULLETIN 5	02/07/2025
10	BULLETIN 9	03/07/2025
11	BULLETIN 10	03/09/2028
12	BULLETIN 11	04/14/2025

FOR CONSTRUCTION

CONSULTANT



Peter Basso Associates Inc.
CONSULTING ENGINEERS
5145 Livernois, Suite 100
Troy, Michigan 48068-3276
Tel: 248-879-5566
Fax: 248-879-0007
www.PeterBassoAssociates.com
PBA Project No.: 2023-0002



Redstone Architects, Inc.

30700 Telegraph Road, Suite 1677
Bingham Farms, MI 48025
Phone: 248-415-0900
Fax: 248-415-0999
www.redstonearchitects.com

SEAL / SIGNATURE

DATE

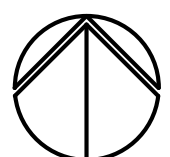
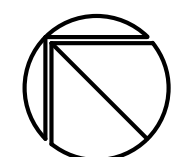
PROJECT MANAGER/ARCHITECT WJE
DESIGNER/DRAFTSPERSON BPC

WLT PUBLIC SAFETY
BUILDING
CIVIC CENTER
DEVELOPMENT BID
PACKAGE #3
10911 Elizabeth Lake Rd
White Lake, MI 48363

SHEET TITLE

LOWER LEVEL
PLUMBING PLAN

DATE 08/23/24 SHEET NO.
PROJECT NO. 3702.00 M201



LOWER LEVEL PLUMBING PLAN

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

TRUE NORTH ASSUMED NORTH

PLUMBING GENERAL NOTES:

- THESE DRAWINGS ARE DIAGRAMMATIC, AND REPRESENT THE GENERAL INTENT AND ARRANGEMENT OF SYSTEMS. THEY ARE NOT TO BE CONSIDERED FABRICATION/COORDINATION SHOP DRAWINGS. COORDINATION WITH OTHER TRADES IS REQUIRED. PROVIDE THE ADDITIONAL FITTINGS AND OFFSETS THAT WILL BE REQUIRED TO COMPLETE EACH SYSTEM AND TO AVOID INTERFERENCES WITH ALL OTHER SYSTEMS INCLUDING THE STRUCTURE, SHEET METAL, OTHER PIPING SYSTEMS, ELECTRICAL CONDUITS, BUS DUCTS, CABLE TRAY, LIGHT FIXTURES, ETC. AND/OR OTHER SPACE CONSTRAINTS.
- INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
- PIPING SHALL NOT BE INSTALLED ABOVE ELECTRICAL TRANSFORMERS, SWITCHBOARDS, PANELBOARDS OR MOTOR CONTROL CENTERS.
- COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
- PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.

PLUMBING GENERAL NOTES:

- REFER TO ARCHITECTURAL PLANS FOR DIMENSIONED LOCATIONS OF PLUMBING FIXTURES.
- HOT AND COLD WATER PIPING RUN-OUTS TO LAVATORIES AND SINKS SHALL BE 1/2" UNLESS OTHERWISE NOTED.
- PLUMBING VENT PIPING THROUGH ROOF SHALL BE LOCATED A MINIMUM OF 10'-0" FROM ANY FRESH AIR INTAKE LOCATION AND A MINIMUM OF 18" CLEAR FROM THE INSIDE FACE OF PARAPET.
- PROVIDE CODE REQUIRED CLEARANCE FOR ALL CLEANOUTS INSTALLED IN SANITARY WASTE AND VENT PIPING.
- MINIMUM UNDERGROUND PIPE SIZE SHALL BE 3".
- WATER SERVICE ENTRANCE PIPING SHALL BE BURIED WITH DEPTH OF COVER OVER TOP OF PIPE OF AT LEAST <<<72">> OR WITH TOP OF PIPE AT LEAST 12" BELOW LEVEL OF MAXIMUM FROST PENETRATION, OR AS REQUIRED BY AUTHORITIES HAVING JURISDICTION, WHICHEVER IS DEEPEST.

CONSTRUCTION KEY NOTES:

- 4 SAN TO WC.
- 3 SAN TO LAV/SINK.
- 3 SAN TO FLOOR DRAIN/SINK.
- 3 SAN TO JANITOR SINK.
- 4 SAN TO CU.
- 4 SAN TO 8 H.O.
- 3 SAN TO SH.
- 3 SAN TO UR.
- 2 SAN TO SH.
- 2 SAN TO LAV/SINK.
- 3 SAN TO WMSD.

CONSTRUCTION KEY NOTES:

- 2 SAN TO UR.
- 4 SAN TO TRENCH DRAIN.
- 1/2 HW TO DISHWASHER. ROUTE SAN FROM DISHWASHER AND CONNECT TO ADJACENT SINK.
- 1/2 SCW, 1/2 SHW, 1/2 SHWR, AND 2 SAN TO SINK.
- 1/2 SCW TO OUTLET BOX.
- 3/4 SCW, 3/4 SHW TO HOSE WASHER. CONFIRM FINAL CONNECTIONS WITH MANUFACTURE.
- 3/4 SHW TO MASK WASHER. CONFIRM FINAL CONNECTIONS WITH MANUFACTURE.
- 1/2 SCW, 1/2 SHW, 1/2 SHWR, TO POT FILLER FAUCET.
- 3 SAN TO EWC.
- 2 SAN TO UR.
- 2 SAN TO EWC.
- 3/4 CW TO POWER WASHER. CONFIRM FINAL CONNECTIONS WITH MANUFACTURE.
- 1/2 CA TO PNEUMATIC QUICK-CONNECT FITTING. MOUNT QUICK-CONNECT FITTING 48" A.F.F.

SECTION 07 13 26 - SELF-ADHERING SHEET WATERPROOFING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Blindside sheet waterproofing.

1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1. Review waterproofing requirements including surface preparation, substrate condition and pretreatment, minimum curing period, forecasted weather conditions, special details and sheet flashings, installation procedures, testing and inspection procedures, and protection and repairs.
2. Review transitions within waterproofing system and between waterproofing and adjacent air barrier.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, and tested physical and performance properties of waterproofing.
2. Include manufacturer's written installation instructions for evaluating, preparing, and treating substrate.

B. Shop Drawings: Show locations and extent of waterproofing and details of substrate joints and cracks, expansion joints, sheet flashings, penetrations, inside and outside corners, tie-ins with adjoining waterproofing, air barrier, and other termination conditions.

1. Include setting drawings that indicate layout, sizes, sections, profiles, and joint details of pedestal-supported concrete pavers.

1.4 FIELD CONDITIONS

A. Environmental Limitations: Apply waterproofing within the range of ambient and substrate temperatures recommended in writing by waterproofing manufacturer. Do not apply waterproofing to frozen, damp, or wet substrates.

1. Do not apply waterproofing when snow, rain, fog, or mist is present.
- B. Maintain adequate ventilation during preparation and application of waterproofing materials.

1.5 COORDINATION

- A. Coordinate Work under this Section with adjacent concrete foundation work, including fill, subdrainage systems.
- B. Coordinate requirements for concrete formwork to provide suitable substrate for waterproofing and to minimize penetrations through waterproofing.
- C. Coordinate formwork and form bracing requirements for blindside sheet waterproofing. Coordinate restrictions on use of form ties and other components as necessary to eliminate or minimize penetrations through blindside sheet waterproofing.

PART 2 - PRODUCTS

2.1 SOURCE LIMITATIONS

- A. Waterproofing System: Obtain waterproofing materials, protection course molded-sheet drainage panels from single source from single manufacturer.

2.2 BLINDSIDE SHEET WATERPROOFING

- A. Blindside Sheet Waterproofing for Horizontal Applications: Uniform, flexible, multilayered-composite sheet membrane that forms a permanent bond with fresh concrete placed against it; complete with accessories and preformed shapes for an unbroken waterproofing assembly; with the physical properties as specified below:
 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Carlisle Coatings & Waterproofing Inc.
 - b. GCP Applied Technologies Inc.
 - c. Polyguard Products, Inc.
 - d. W. R. Meadows, Inc.
 - e. Sika Corporation .
 2. Physical Properties:
 - a. Low-Temperature Flexibility: Pass at minus 20 deg F; ASTM D1970/D1970M.
 - b. Peel Adhesion to Concrete: 10 lbf/in. minimum; ASTM D903, modified.

- c. Lap Adhesion: 5 lbf/in. minimum; ASTM D1876, modified.
 - d. Hydrostatic-Head Resistance: 230 ft.; ASTM D5385/D5385M, modified.
 - e. Puncture Resistance: 200 lbf minimum; ASTM E154/E154M.
 - f. Water Vapor Permeance: 0.1 perm maximum; ASTM E96/E96M, Water Method.
 - g. Ultimate Elongation: 335 percent minimum; ASTM D412, modified.
- B. Mastic, Adhesives, and Detail Tape: Liquid mastic and adhesives, and adhesive tapes recommended by waterproofing manufacturer.

2.3 ACCESSORIES FOR WATERPROOFING

- A. Furnish accessory materials as recommended in writing by waterproofing manufacturer for intended use and compatibility with sheet waterproofing.
- 1. Furnish liquid-type accessory materials that comply with VOC limits of authorities having jurisdiction.
- B. Substrate Patching Membrane: Low-viscosity, two-component, modified asphalt coating.
- C. Metal Termination Bars: Aluminum or stainless steel bars, approximately 1 by 1/8 inch, predrilled at 9-inch centers.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance of waterproofing.
- 1. Verify that concrete has cured and aged for minimum time recommended in writing by waterproofing manufacturer.
 - 2. Verify that substrate is visibly dry and within the moisture limits recommended in writing by manufacturer. Test for capillary moisture by plastic sheet method in accordance with ASTM D4263.
 - 3. Verify that compacted subgrade is dry, smooth, sound, and ready to receive waterproofing sheet.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean, prepare, and treat substrates in accordance with manufacturer's written installation instructions. Provide clean, dust-free, and dry substrates for waterproofing application.
- B. Mask off adjoining surfaces not receiving waterproofing to prevent spillage and overspray affecting other construction.
- C. Remove grease, oil, bitumen, form-release agents, paints, curing compounds, and other penetrating contaminants or film-forming coatings from concrete.
- D. Remove fins, ridges, mortar, and other projections.
- E. Fill form tie holes, honeycomb, aggregate pockets, holes, and other voids.
- F. Prepare, fill, prime, and treat joints and cracks in substrates. Remove dust and dirt from joints and cracks in accordance with ASTM D4258.
 - 1. Install sheet strips of width in accordance with manufacturer's written installation instructions and center over treated construction and contraction joints and cracks exceeding a width of 1/16 inch or 1/8 inch for modified bituminous deck-paving waterproofing.
- G. Bridge and cover isolation joints, expansion joints, and discontinuous deck-to-wall and deck-to-deck joints with overlapping sheet strips of widths in accordance with manufacturer's written installation instructions.
 - 1. Invert and loosely lay first sheet strip over center of joint. Firmly adhere second sheet strip to first and overlap to substrate.
- H. Corners: Prepare, prime, and treat inside and outside corners in accordance with manufacturer's written installation instructions.
 - 1. Install membrane strips centered over vertical inside corners. Install 3/4-inch fillets of liquid membrane on horizontal inside corners and as follows:
 - a. At footing-to-wall intersections, extend liquid membrane in each direction from corner or install membrane strip centered over corner.
 - b. At plaza-deck-to-wall intersections, extend liquid membrane or sheet strips onto deck waterproofing and to finished height of sheet flashing.
- I. Prepare, treat, and seal vertical and horizontal surfaces at terminations and penetrations through waterproofing and at drains and protrusions.

3.3 INSTALLATION OF BLINDSIDE SHEET WATERPROOFING

- A. Install blindside sheet waterproofing in accordance with manufacturer's written installation instructions.
- B. Place and secure molded-sheet drainage panels over substrate. Lap edges and ends of geotextile to maintain continuity.
- C. Vertical Applications: Install sheet with face against substrate. Accurately align sheets and maintain uniform side and end laps of minimum dimensions required by membrane manufacturer. Overlap and seal seams, and stagger and tape end laps to ensure watertight installation. Mechanically fasten to substrate.
 - 1. Securely fasten top termination of membrane with continuous metal termination bar anchored into substrate and cover with detail tape.
 - 2. Ensure transition with other waterproofing membrane.
- D. Horizontal Applications: Install sheet with face against substrate. Accurately align sheets and maintain uniform side and end laps of minimum dimensions required by membrane manufacturer. Overlap and seal seams, and stagger and tape end laps to ensure watertight installation.
- E. Corners: Seal lapped terminations and cut edges of sheet waterproofing at inside and outside corners with detail tape.
- F. Seal penetrations through sheet waterproofing to provide watertight seal with detail tape patches or wraps and a liquid-membrane troweling.
- G. Install sheet waterproofing and accessory materials to produce a continuous watertight tie into adjacent waterproofing.
- H. Repair tears, voids, and lapped seams in waterproofing not complying with requirements. Tape perimeter of damaged or nonconforming area extending 6 inches beyond repaired areas in all directions. Apply a patch of sheet waterproofing and firmly secure with detail tape.

3.4 INSTALLATION OF MOLDED-SHEET DRAINAGE PANELS

- A. Place and secure molded-sheet drainage panels, with geotextile facing away from wall or deck substrate, in accordance with manufacturer's written installation instructions. Use adhesive or another method that does not penetrate waterproofing. Lap edges and ends of geotextile to maintain continuity. Protect installed molded-sheet drainage panels during subsequent construction.
 - 1. For vertical applications, install board insulation before installing drainage panels.

3.5 INSTALLATION OF INSULATION DRAINAGE PANELS

- A. Install insulation drainage panels over waterproofed surfaces. Cut and fit to within 3/4 inch of projections and penetrations.
- B. Ensure that drainage channels are aligned vertically and free of obstructions.
- C. On vertical surfaces, set insulation drainage panels in adhesive or tape applied in accordance with manufacturer's written installation instructions.
- D. On horizontal surfaces, loosely lay insulation drainage panels in accordance with manufacturer's written installation instructions. Stagger end joints and tightly abut insulation units.

3.6 FIELD QUALITY CONTROL

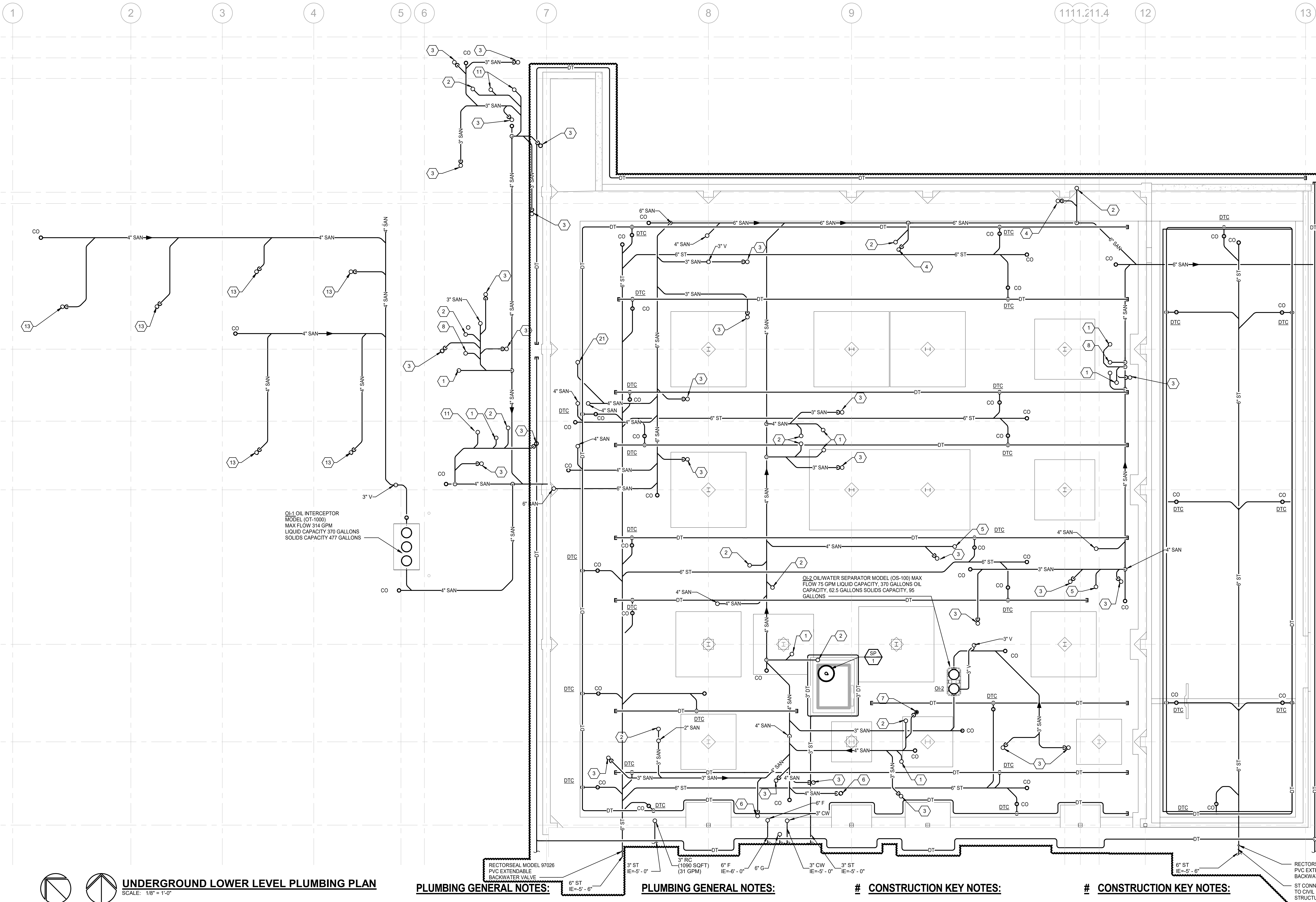
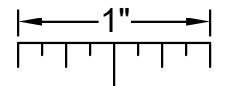
- A. Manufacturer's Field Service: Engage a site representative qualified by waterproofing membrane manufacturer to inspect substrate conditions, surface preparation, membrane application, flashings, protection, and drainage components; and to furnish daily reports to Architect.

3.7 PROTECTION, REPAIR, AND CLEANING

- A. Do not permit foot or vehicular traffic on unprotected membrane.
- B. Protect waterproofing from damage and wear during remainder of construction period.
- C. Protect installed insulation drainage panels from damage due to UV light, harmful weather exposures, physical abuse, and other causes. Provide temporary coverings where insulation is subject to abuse and cannot be concealed and protected by permanent construction immediately after installation.
- D. Correct deficiencies in or remove waterproofing that does not comply with requirements; repair substrates, reapply waterproofing, and repair sheet flashings.
- E. Clean spillage and soiling from adjacent construction using cleaning agents and procedures recommended in writing by manufacturer of affected construction.

END OF SECTION

THE FOLLOWING DIMENSION EQUALS
ONE INCH WHEN PRINTED TO SCALE.



OL1 OIL INTERCEPTOR
MODEL (OT-1000)
MAX FLOW 314 GPM
LIQUID CAPACITY 370 GALLONS
SOLIDS CAPACITY 477 GALLONS

OL2 OIL/WATER SEPARATOR MODEL (OS-100) MAX.
FLOW 75 GPM LIQUID CAPACITY, 370 GALLONS OIL
CAPACITY, 62.5 GALLONS SOLIDS CAPACITY, 95
GALLONS

RECTORSEAL MODEL 97026
PVC EXTENDABLE
BACKWATER VALVE

RECTORSEAL MODEL 97026
PVC EXTENDABLE
BACKWATER VALVE



UNDERGROUND LOWER LEVEL PLUMBING PLAN

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

PLUMBING GENERAL NOTES:

- THESE DRAWINGS ARE DIAGRAMMATIC, AND REPRESENT THE GENERAL INTENT AND ARRANGEMENT OF SYSTEMS. THEY ARE NOT TO BE CONSIDERED FABRICATION/COORDINATION/SHOP DRAWINGS. COORDINATION WITH OTHER TRADES IS REQUIRED. PROVIDE THE ADDITIONAL FITTINGS AND OFFSETS THAT WILL BE REQUIRED TO COMPLETE EACH SYSTEM AND TO AVOID INTERFERENCES WITH ALL OTHER SYSTEMS INCLUDING THE STRUCTURE, SHEET METAL, OTHER PIPING SYSTEMS, ELECTRICAL CONDUITS, BUS DUCTS, CABLE TRAY, LIGHT FIXTURES, ETC. AND/OR OTHER SPACE CONSTRAINTS.
- INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
- PIPING SHALL NOT BE INSTALLED ABOVE ELECTRICAL TRANSFORMERS, SWITCHBOARDS, PANELBOARDS OR MOTOR CONTROL CENTERS.
- COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
- PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.

PLUMBING GENERAL NOTES:

- REFER TO ARCHITECTURAL PLANS FOR DIMENSIONED LOCATIONS OF PLUMBING FIXTURES.
- HOT AND COLD WATER PIPING RUN-OUTS TO LAVATORIES AND SINKS SHALL BE 1/2" UNLESS OTHERWISE NOTED.
- PLUMBING VENT PIPING THROUGH ROOF SHALL BE LOCATED A MINIMUM OF 10'-0" FROM ANY FRESH AIR INTAKE LOCATION AND A MINIMUM OF 18" CLEAR FROM THE INSIDE FACE OF PARAPET.
- PROVIDE CODE REQUIRED CLEARANCE FOR ALL CLEANOUTS INSTALLED IN SANITARY WASTE AND VENT PIPING.
- MINIMUM UNDERGROUND PIPE SIZE SHALL BE 3".
- WATER SERVICE ENTRANCE PIPING SHALL BE BURIED WITH DEPTH OF COVER, OVER TOP OF PIPE OF AT LEAST <<"2">>, OR WITH TOP OF PIPE AT LEAST 12" BELOW LEVEL OF MAXIMUM FROST PENETRATION, OR AS REQUIRED BY AUTHORITIES HAVING JURISDICTION, WHICHEVER IS DEEPEST.

CONSTRUCTION KEY NOTES:

- 4 SAN TO WC.
- 3 SAN TO LAV/SINK
- 3 SAN TO FLOOR DRAIN/SINK.
- 3 SAN TO JANITOR SINK.
- 4 SAN TO CU.
- 4 SAN TO B.H.O.
- 3 SAN TO SH.
- 3 SAN TO UR.
- 2 SAN TO SH.
- 2 SAN TO LAV/SINK.
- 3 SAN TO WM.SD.

CONSTRUCTION KEY NOTES:

- 2 SAN TO UR.
- 4 SAN TO TRENCH DRAIN.
- 1/2 HW TO DISHWASHER. ROUTE SAN FROM DISHWASHER, AND CONNECT TO ADJACENT SINK.
- 1/2 SCW, 1/2 SHW, 1/2 SHWR, AND 2 SAN TO SINK.
- 1/2 SCW TO OUTLET BOX.
- 3/4 SCW, 3/4 SHW TO HOSE WASHER. CONFIRM FINAL CONNECTIONS WITH MANUFACTURE.
- 3/4 SHW TO MASK WASHER. CONFIRM FINAL CONNECTIONS WITH MANUFACTURE.
- 1/2 SCW, 1/2 SHW, 1/2 SHWR, TO POT FILLER FAUCET.
- 3 SAN TO EWC.
- 2 SAN TO UR.
- 2 SAN TO EWC.
- 3/4 CW TO POWER WASHER. CONFIRM FINAL CONNECTIONS WITH MANUFACTURE.
- 1/2 CA TO PNEUMATIC QUICK-CONNECT FITTING. MOUNT QUICK-CONNECT FITTING 48" A.F.F.

C. REDSTONE ARCHITECTS, INC. 2023
NOTICE: THIS DRAWING AND THE DESIGN ARE THE PROPERTY OF THE ARCHITECT AND NO ALTERATIONS OR TRANSFERS OF WORK ARE PERMITTED UNLESS WRITTEN APPROVAL IS GRANTED BY REDSTONE ARCHITECTS, INC. VIOLATORS WILL BE PROSECUTED TO THE FULLEST EXTENT OF THE LAW.
NOTE:
DO NOT SCALE PRINTS.
USE ONLY FIGURED DIMENSIONS.

No.	Description	Date
1	DD SUBMISSION	12/20/2023
2	OWNER REVIEW	05/14/2024
3	BID SET	06/03/2024
4	ADDENDUM #01	07/02/2024
5	ADDENDUM #02	07/23/2024
6	ISSUED FOR CONSTRUCTION	08/23/2024
7	BULLETIN 4	12/04/2024
8	BULLETIN 4 - REV.1	12/23/2024
9	BULLETIN 9	03/07/2025
10	BULLETIN 10	03/09/2025
11	BULLETIN 11	04/14/2025

FOR CONSTRUCTION

CONSULTANT



Peter Basso Associates Inc.
CONSULTING ENGINEERS
5145 Livernois, Suite 100
Troy, Michigan 48068-3276
Tel: 248-879-5566
Fax: 248-879-0007
www.PeterBassoAssociates.com
PBA Project No.: 2023-0002



Redstone Architects, Inc.

30700 Telegraph Road, Suite 1677
Bingham Farms, MI 48025
Phone: 248-415-0900
Fax: 248-415-0999
www.redstonearchitects.com

SEAL / SIGNATURE

DATE

PROJECT MANAGER/ARCHITECT
DESIGNER/DRAFTSPERSON

WJE
BPC

**WLT PUBLIC SAFETY
BUILDING
CIVIC CENTER
DEVELOPMENT BID
PACKAGE #3**

10911 Elizabeth Lake Rd
White Lake, MI 48363

SHEET TITLE

**UNDERGROUND
LOWER LEVEL
PLUMBING PLAN**

DATE

SHEET NO.

PROJECT NO.

3702.00

M200

BULLETIN NO. 5

PROJECT: White Lake Township Civic Center Site Development

OWNER: White Lake Township

LANDSCAPE ARCHITECT/
ENGINEER: Beckett & Raeder, Inc.
535 W. William, Suite 101
Ann Arbor, MI 48103

DATE: April 15, 2025

This Bulletin is intended to revise contract documents and to form the basis for certain adjustments in cost from the contract sum for the above referenced project. It is not an authorization to proceed with any changes in work.

Except as otherwise specifically mentioned, the general character of the work covered by the Bulletin shall be the same as originally specified for the project, and all incidental items required in connection with the work hereinafter described shall be included even though not specifically mentioned. Where an item is mentioned with no additional specifications given, reference is to be made to the original specifications. All applicable parts of the original Plans and Specifications shall apply.

Cost/credit for the work changes shall be provided on the Construction Manager's required form. Quote each item of this Bulletin on this form, as an Addition, Deduction or No Change. Submit an itemized breakdown of each item showing cost of labor, material, equipment, insurance, taxes, fees, overhead, profit and all associated incidental costs.

Failure to quote this Bulletin in a timely manner shall not be cause to increase the contract amount or contract time.

THIS BULLETIN IS NOT AN ORDER FOR THE WORK. Do not proceed with the revisions described herein until they are authorized by the Construction Manager.

DRAWINGS:

1. **C6.0 – Utility Plan (A)** (re-issued sheet)
 - a. Storm tie-in added for Public Safety Building underslab drainage system.
2. **C6.24 – Utility Plans & Profiles – Storm 8** (re-issued sheet)
 - a. Storm tie-in added for Public Safety Building underslab drainage system.
3. **C6.25 – Utility Plans & Profiles – Storm 9** (new sheet)
 - a. Storm tie-in added for Public Safety Building underslab drainage system.

SPECIFICATIONS

1. None

END OF BULLETIN #5

Sea

Project Title

White Lake Township Civic Center Site Development

White Lake, Michigan

Sheet Title

Dates

Dates	Issued for
08.01.2023	SCHEMATIC DESIGN
16.19.2023	100% DESIGN DEVELOPMENT
02.02.2024	JPA PERMIT
5.24.2024	BID PACKAGE #2 - UTILITIES & SITEWORK
6.13.2024	BID PACKAGE #2 - ADDENDUM #1
26.28.2024	ISSUED FOR CONSTRUCTION
01.01.2024	SESC PERMIT COMMENT RESPONSE
1.15.2024	BULLETIN #1
10.10.2024	BULLETIN #2
09.09.2025	BULLETIN #3
04.09.2025	BP #2 BULLETIN #4
14.15.2025	BP #2 BULLETIN #5

Scale

Quality Control

Drawn: LD

Checked: LE

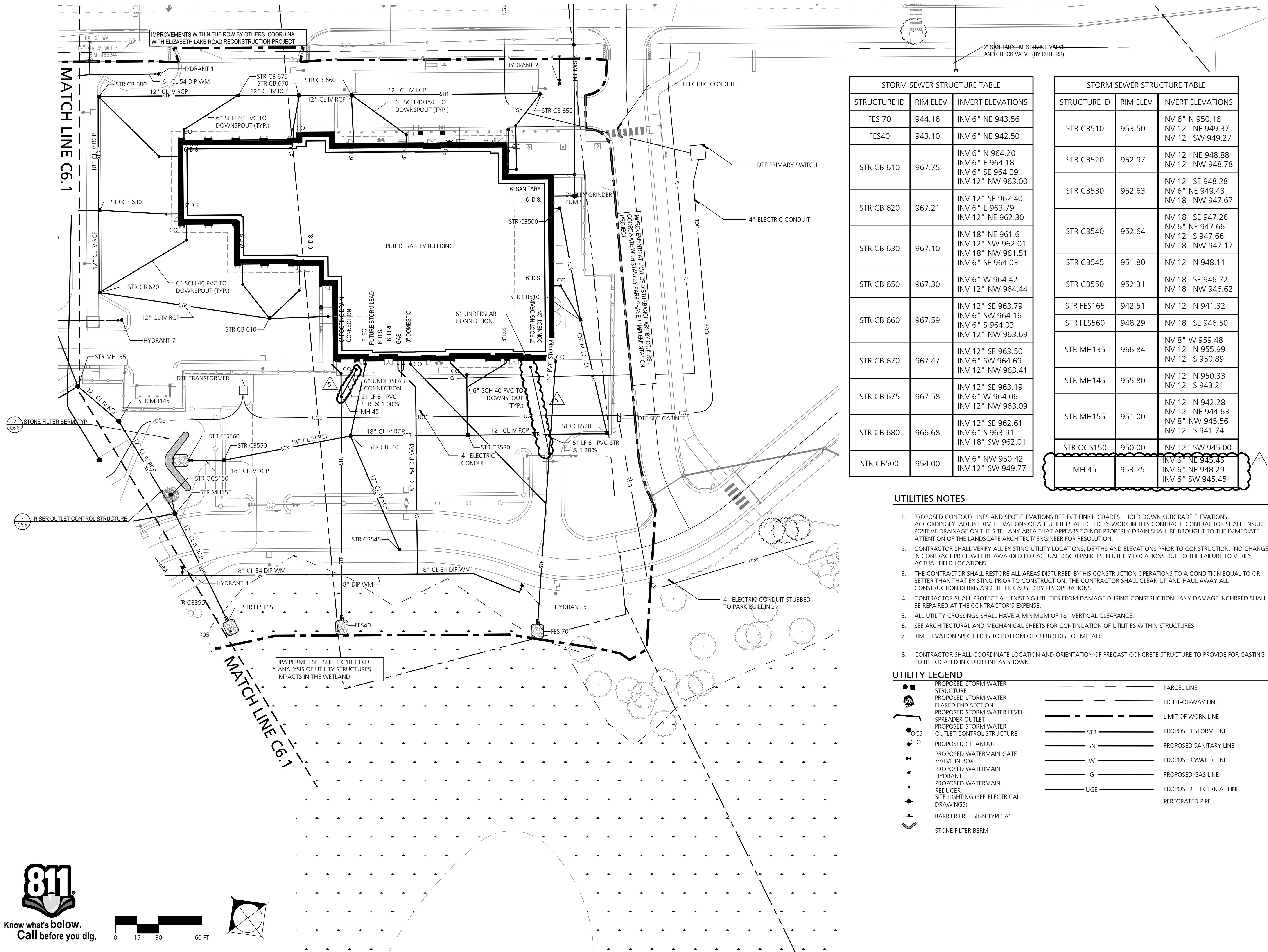
Approved: BE

Project Number

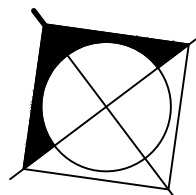
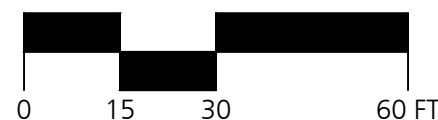
2023024

Sheet Number

C6.0 UTILITY PLAN (A)



Know what's **below**.
Call before you dig.

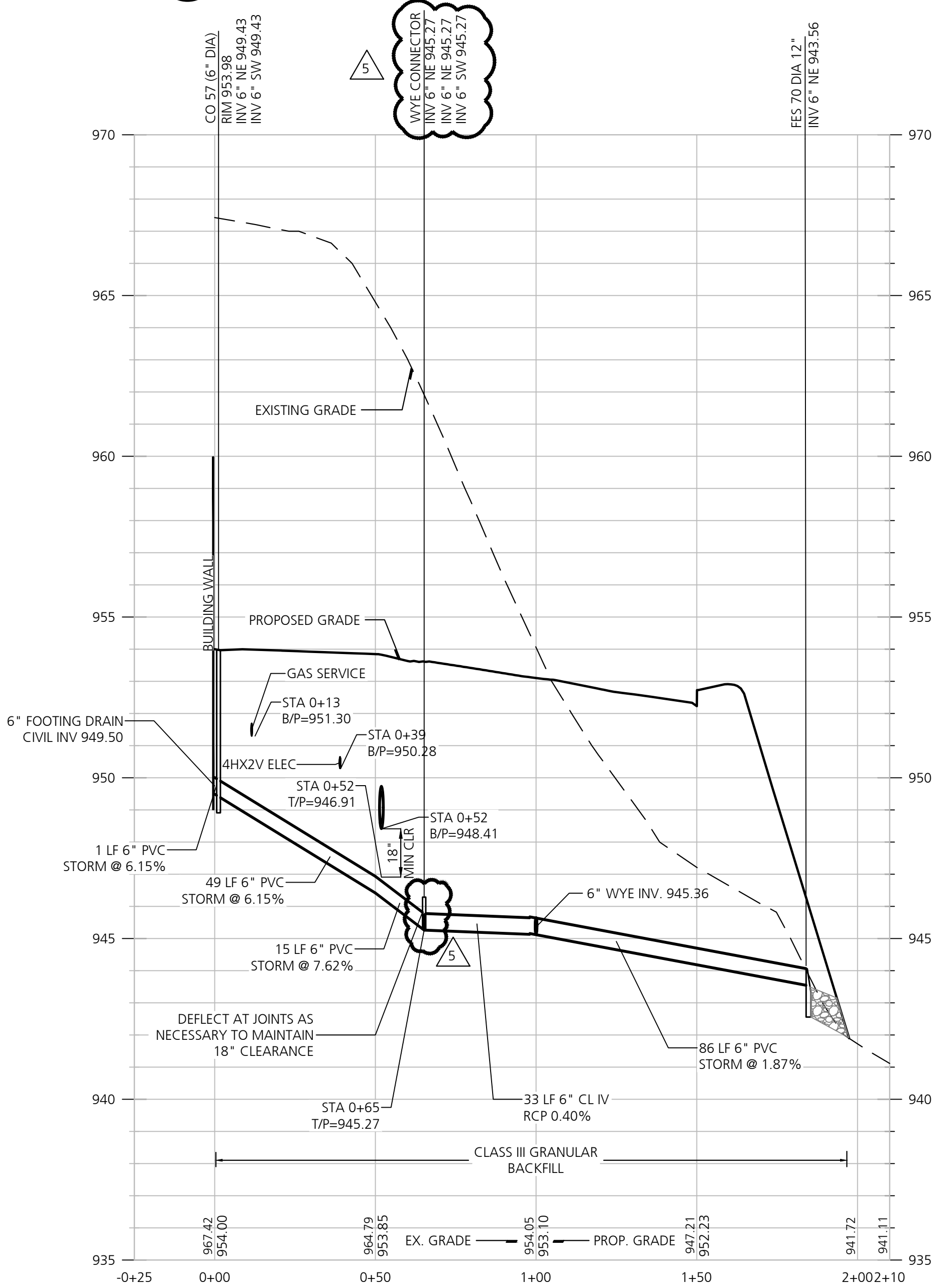
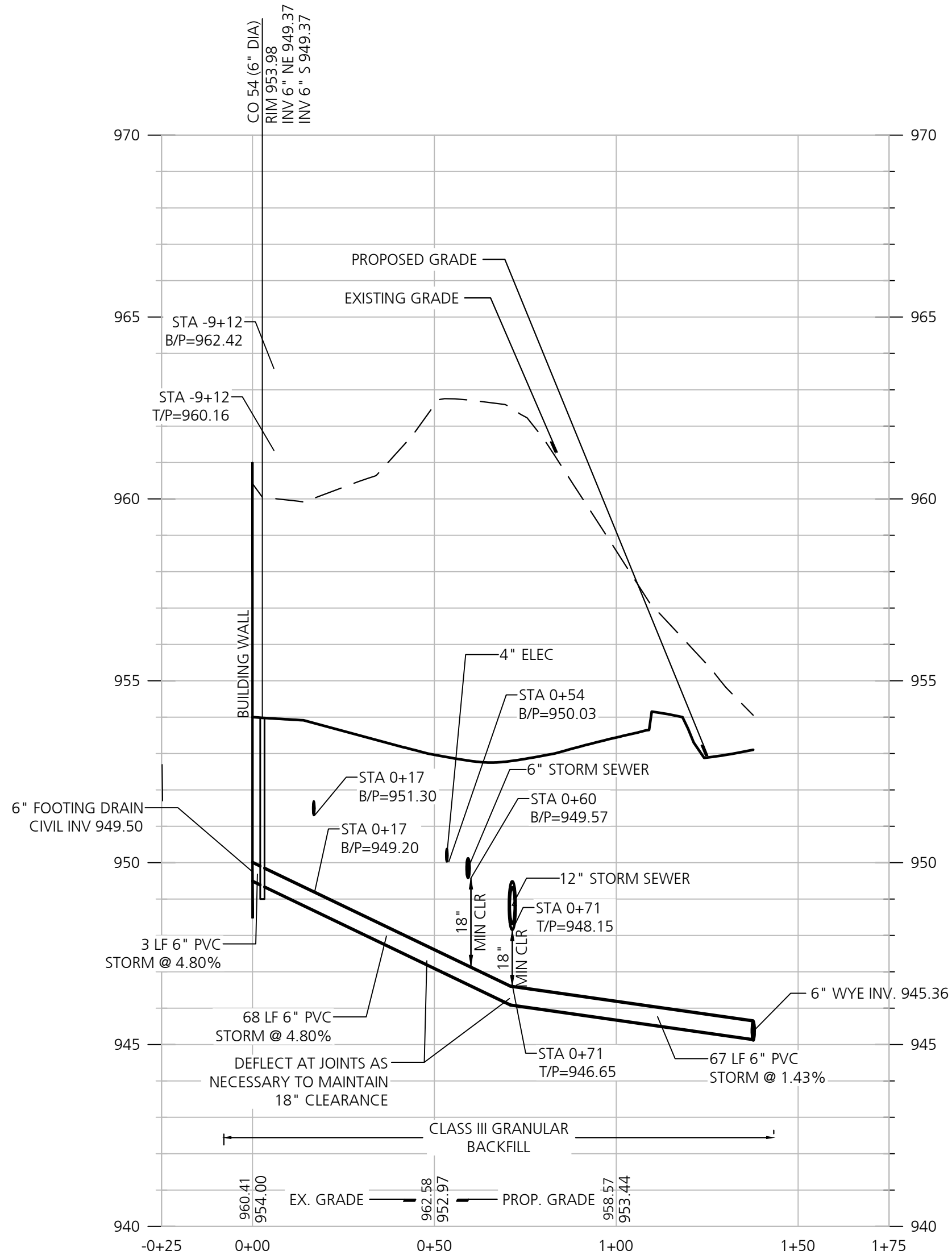
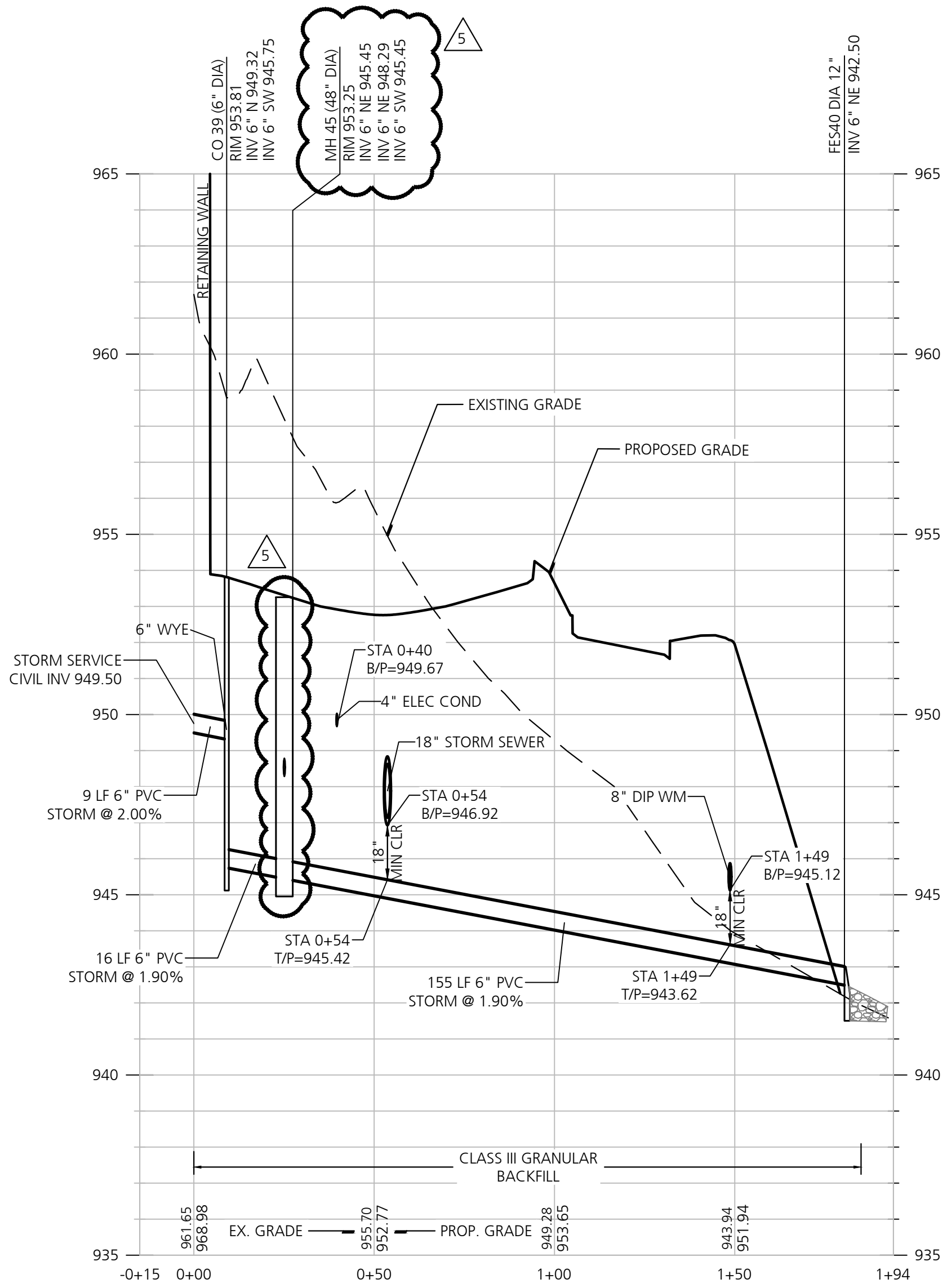
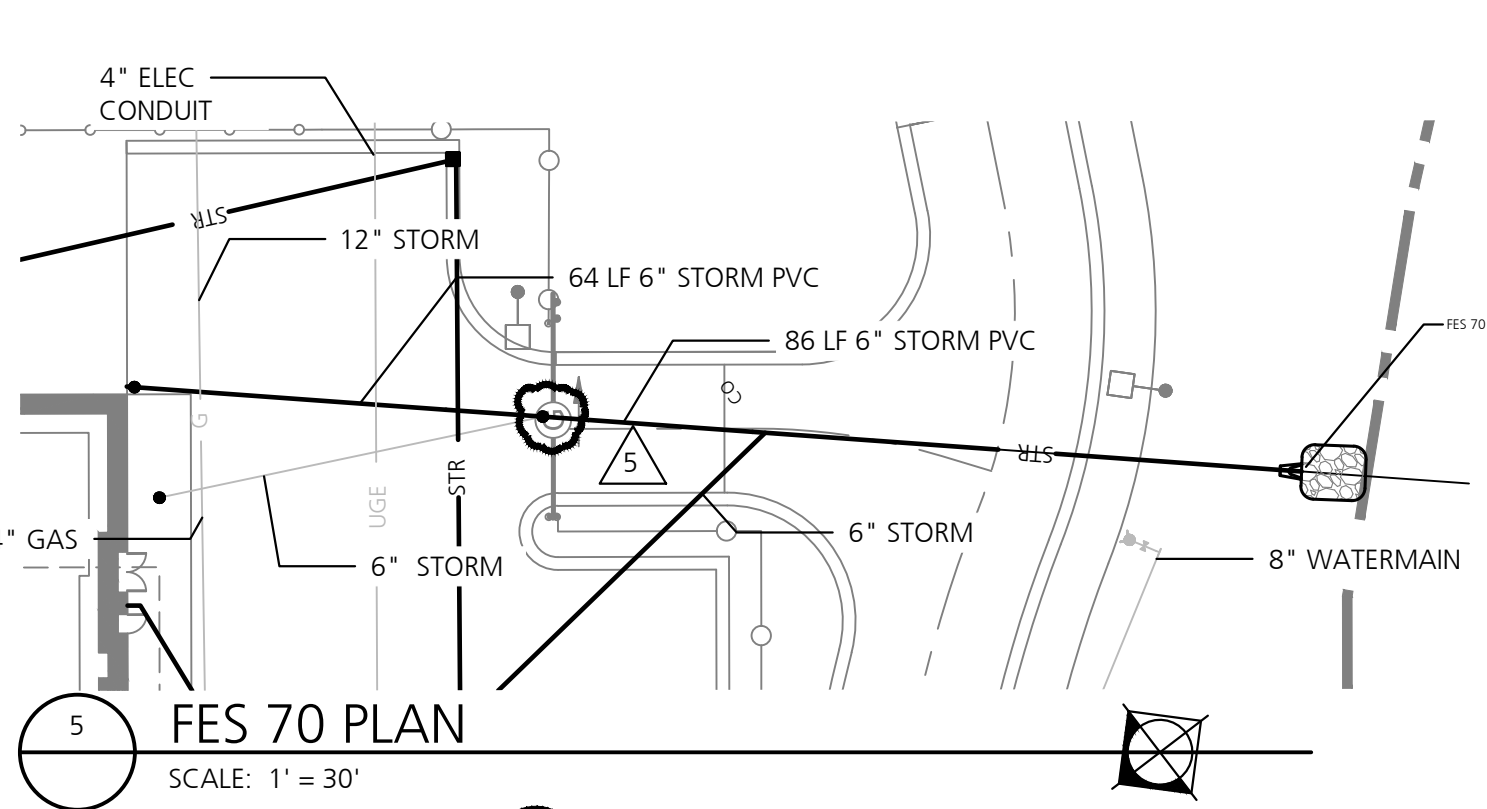
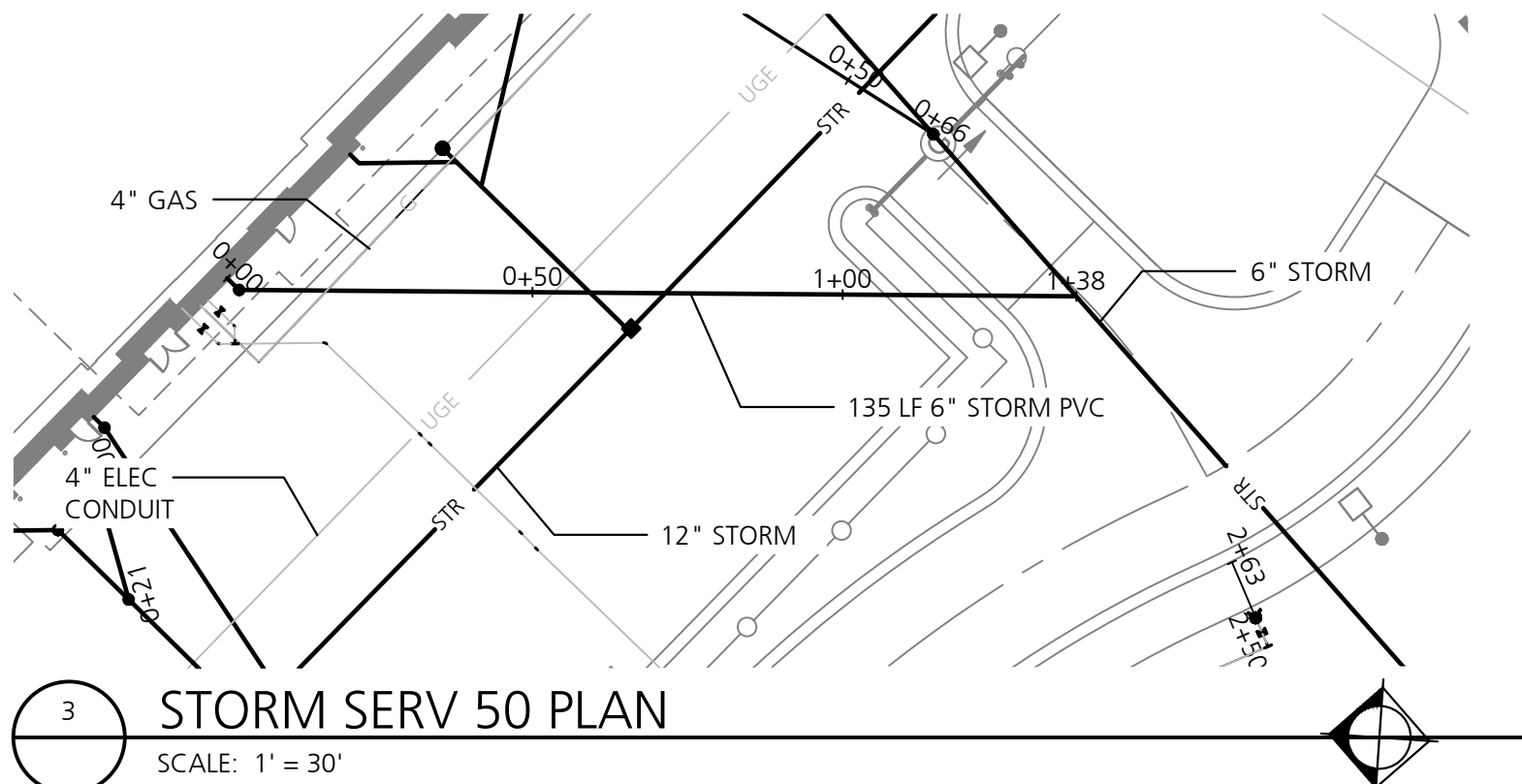
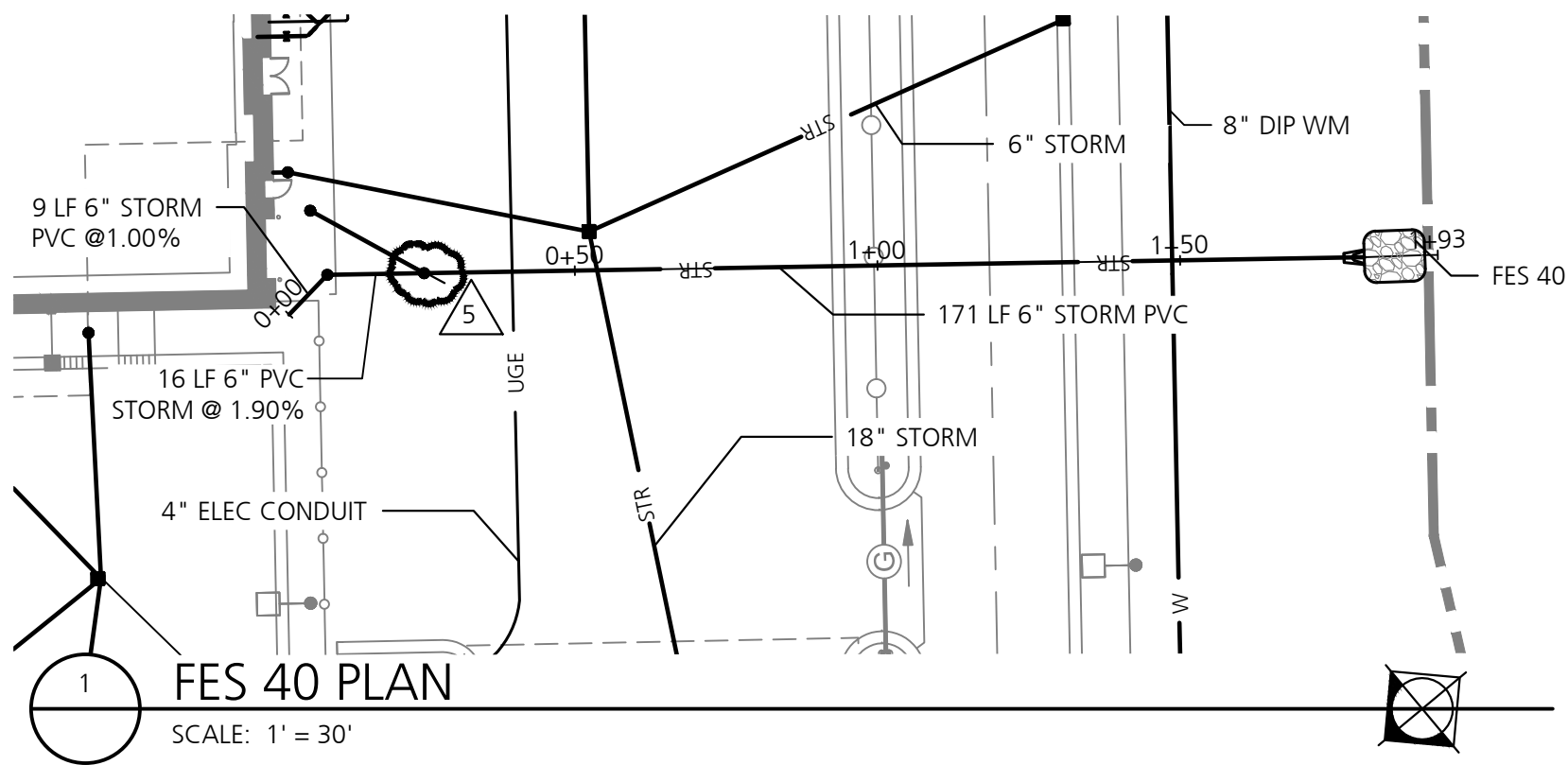


Dates	Issued for
11.15.2024	BULLETIN #1
12.10.2024	BULLETIN #2
04.09.2025	BP #2 BULLETIN #4
04.15.2025	BP #2 BULLETIN #5

Drawn: LD
Checked: LD
Approved: BB



Know what's below.
Call before you dig.



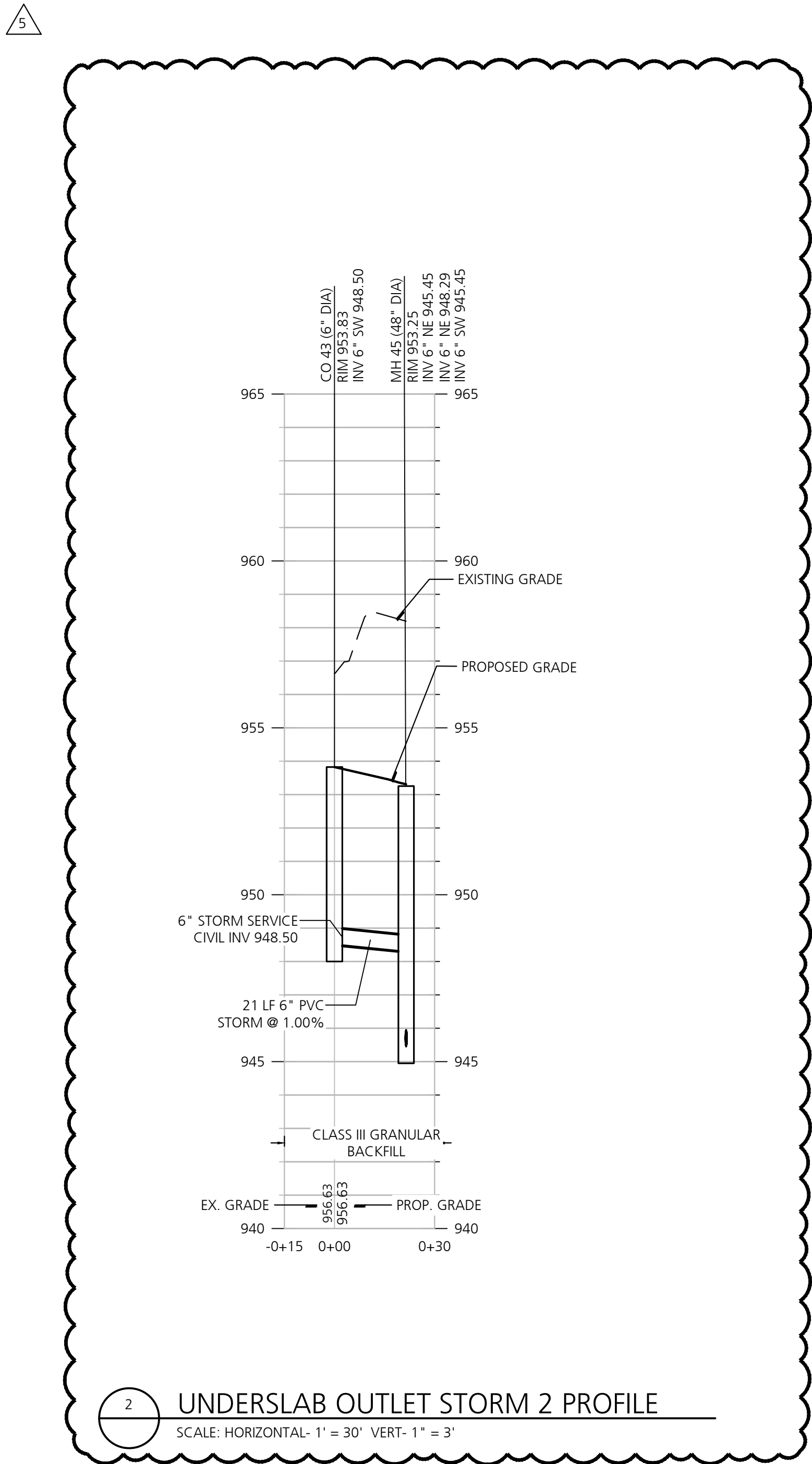
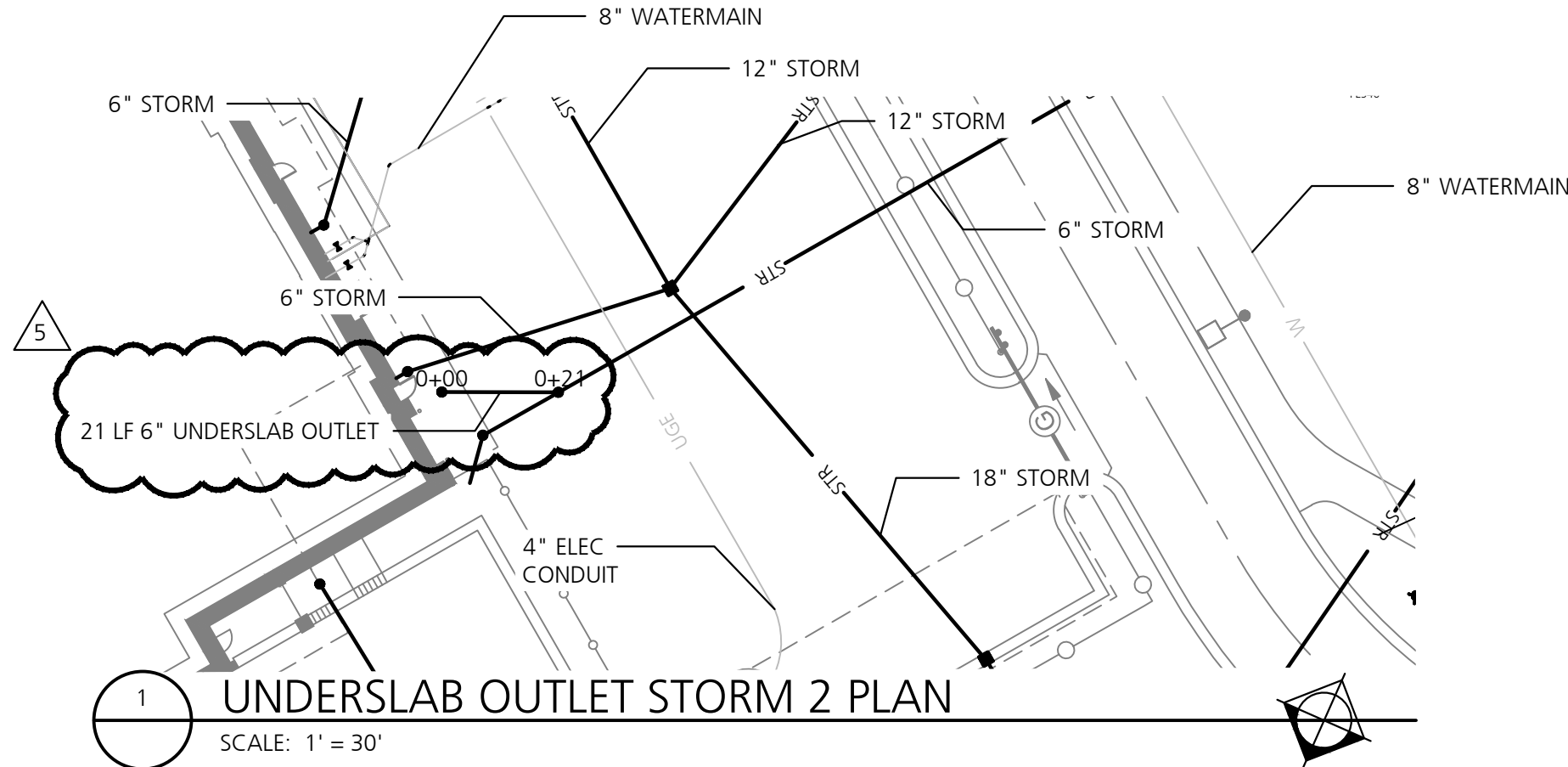
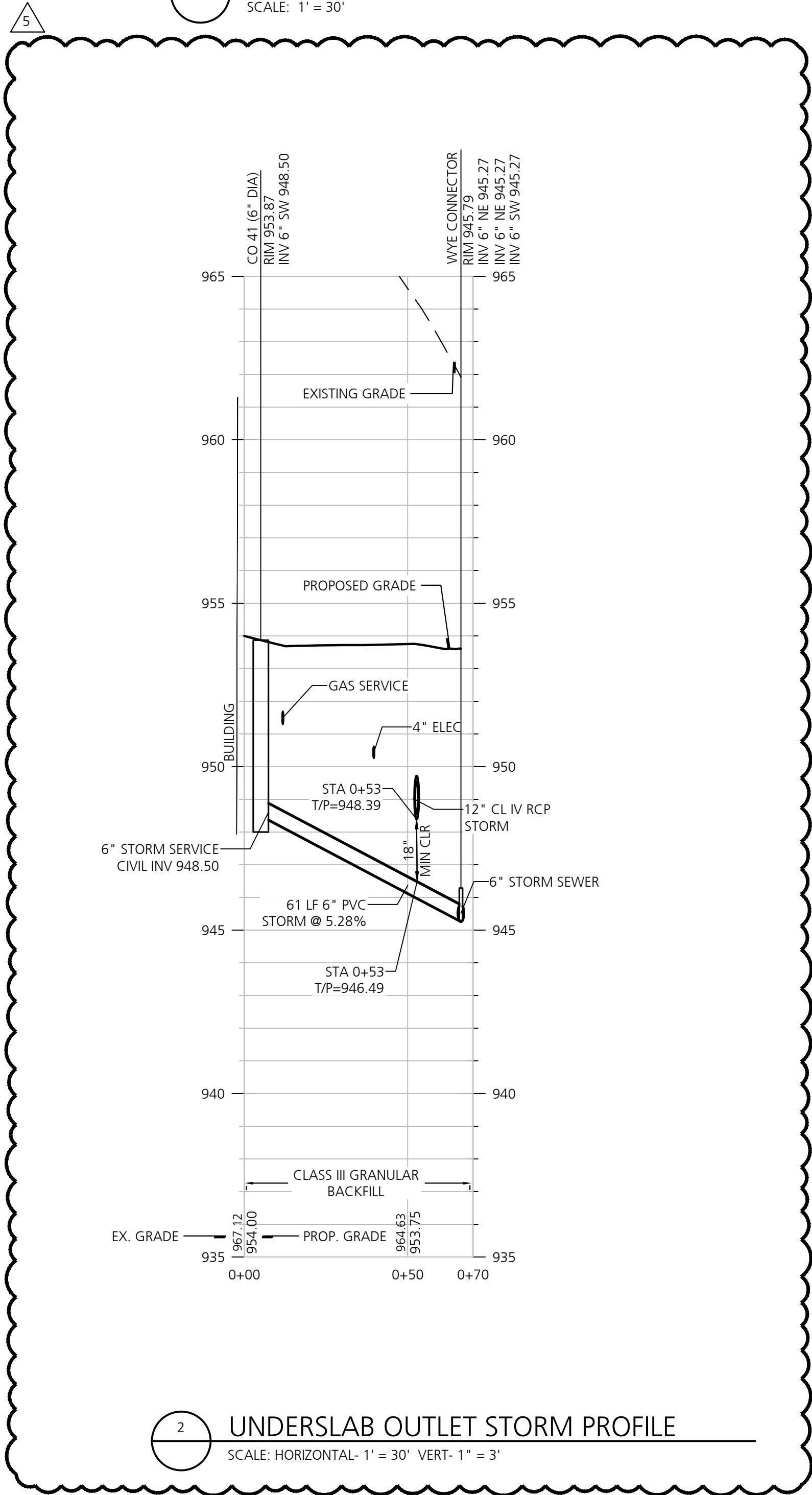
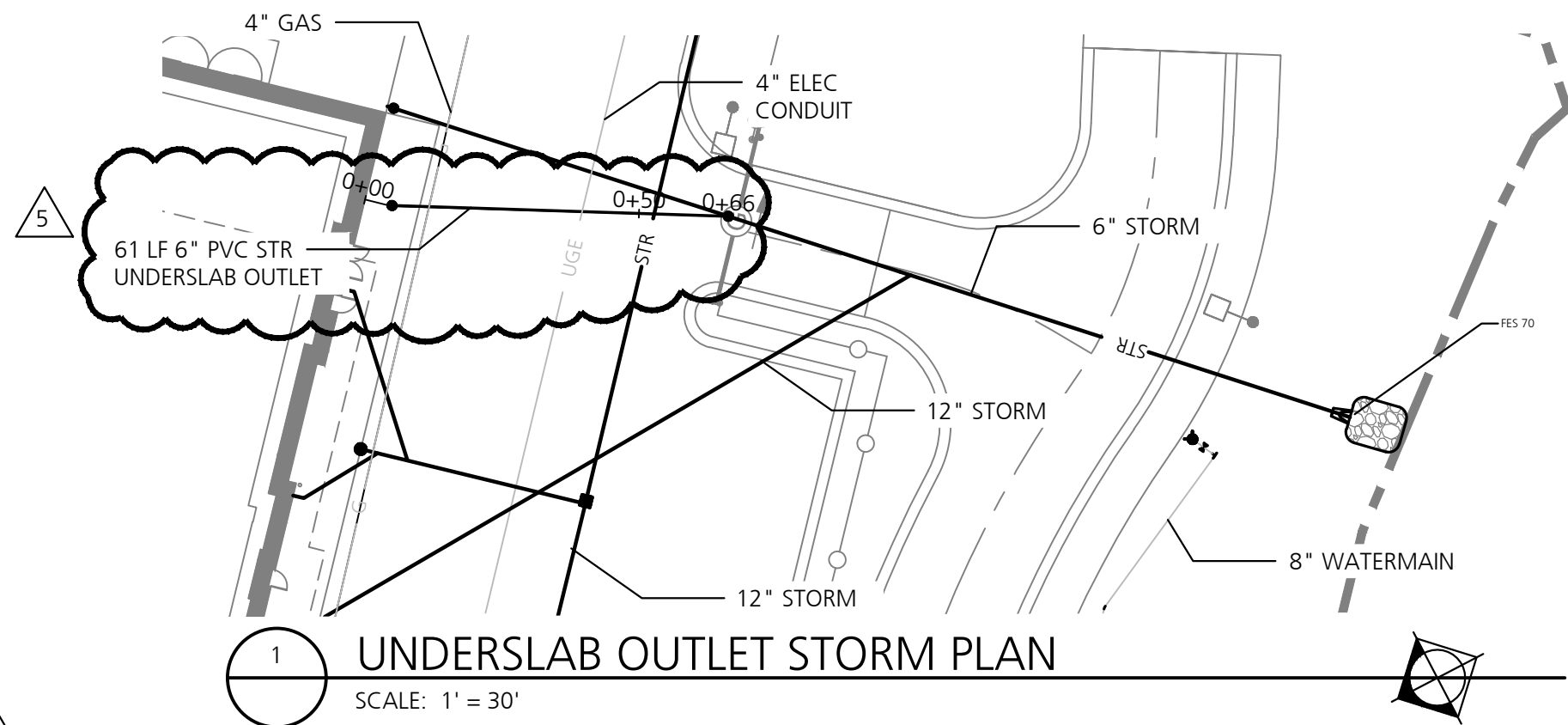
2 FES 40 PROFILE
SCALE: HORIZONTAL- 1' = 30' VERT- 1" = 3'

4 STORM SERVICE 50 PROFILE
SCALE: HORIZONTAL- 1' = 30' VERT- 1" = 3'

6 FES 70 PROFILE
SCALE: HORIZONTAL- 1' = 30' VERT- 1" = 3'

Dates	Issued for
11.15.2024	BULLETIN #1
12.10.2024	BULLETIN #2
04.09.2025	BP #2 BULLETIN #4
04.15.2025	BP #2 BULLETIN #5

Drawn: LD
Checked: LD
Approved: BB



Know what's below.
Call before you dig.



February 24, 2025

Mr. Aaron A. Phillips
Project Director
McCarthy & Smith, Inc.
24317 Indoplex Circle
Farmington Hills, Michigan 48335

RE: Opinion Letter on Under-slab Drainage
White Lake Civic Center Development – Public Safety
White Lake Township, Oakland County, Michigan
G2 Proposal No. 233354R1

Dear Mr. Phillips:

We understand the area of the Public Safety Building has been excavated to an elevation corresponding to the underside of the proposed lower-level floor slab. At this elevation, we understand water is visible in isolated areas and as a result consideration is being given to the construction of an under-slab drainage system for the purpose of mitigating issues that may arise with seasonal variations in the level of the observed water.

We understand the below grade wall portion of the perimeter foundations of the Public Safety building will incorporate drainage; thus, we anticipate groundwater entering the footprint Public Safety building from the surrounding areas will be captured by the wall drainage system and carried away from the building footprint. However, seasonal variations in the amount of precipitation at the site may result in changes to the amount of water delivered through the soil to the under-slab area.

It is our opinion that the construction of an under-slab drainage system will serve to mitigate issues that may arise due to the amount of water delivered to the under-slab area. Under-slab drainage systems typically consist of slotted PVC pipe, encapsulated in stone, spaced longitudinally every 10 to 20 feet. The system should be sloped to promote gravity drainage and should be connected to a sump-pump system. Water from the sump-pump system should be discharged to a point where the water can drain away from the building footing print by gravity. We recommend cleanouts be provided along the length of all drainage systems to allow for future maintenance.

Prolonged high-frequency operation of sump-pump systems could result in pre-mature failure of the pump. We therefore recommend sump-pump systems include a fail-safe pump. To mitigate issues that may arise due to a power-outage, we recommend the sump-pump system also include a power fail-safe such as being tied to a generator system or battery backup.

February 24, 2025
G2 Project No. 233354
Page 2

We appreciate the opportunity to provide construction engineering services to you and look forward to continue working with you on this project.

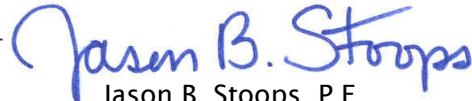
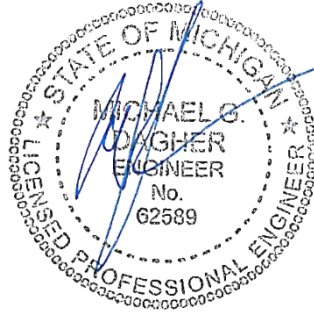
Sincerely,

G2 Consulting Group, LLC



Michael G. Dagher, P.E.
Project Manager

MGD/JBS/jbs



Jason B. Stoops, P.E.
Associate / Project Consultant



March 13, 2025

Mr. Aaron A. Phillips
Project Director
McCarthy & Smith, Inc.
24317 Indoplex Circle
Farmington Hills, Michigan 48335

RE: Opinion Letter on Under-slab Drainage
White Lake Civic Center Development – Public Safety
White Lake Township, Oakland County, Michigan
G2 Proposal No. 233354R1

Dear Mr. Phillips:

We understand the area of the Public Safety Building has been excavated to an elevation corresponding to the underside of the proposed lower-level floor slab. At this elevation, we understand water is visible in isolated areas and as a result consideration is being given to the construction of an under-slab drainage system for the purpose of mitigating issues that may arise with seasonal variations in the level of the observed water.

We understand the below grade wall portion of the perimeter foundations of the Public Safety building will incorporate drainage; thus, we anticipate groundwater entering the footprint Public Safety building from the surrounding areas will be captured by the wall drainage system and carried away from the building footprint. However, seasonal variations in the amount of precipitation at the site may result in changes to the amount of water delivered through the soil to the under-slab area.

It is our opinion that the construction of an under-slab drainage system will serve to mitigate issues that may arise due to the amount of water delivered to the under-slab area. Under-slab drainage systems typically consist of slotted PVC pipe, encapsulated in stone, spaced longitudinally every 10 to 20 feet. The system should be sloped to promote gravity drainage and should be connected to a sump-pump system. Water from the sump-pump system should be discharged to a point where the water can drain away from the building footing print by gravity. We recommend cleanouts be provided along the length of all drainage systems to allow for future maintenance.

Prolonged high-frequency operation of sump-pump systems could result in pre-mature failure of the pump. We therefore recommend sump-pump systems include a fail-safe pump. To mitigate issues that may arise due to a power-outage, we recommend the sump-pump system also include a power fail-safe such as being tied to a generator system or battery backup.

March 13, 2025
G2 Project No. 233354
Page 2

We understand consideration is being given to minimizing the footprint of the under-slab drainage system. Provided that some degree of risk of groundwater accumulation beneath the surface of the slab can be tolerated, the under-slab drainage footprint could be reduced to targeted areas. If the risk of groundwater accumulation beneath the slab cannot be tolerated, we recommend the under-slab drainage system encompass the footprint of the proposed building.

We appreciate the opportunity to provide construction engineering services to you and look forward to continue working with you on this project.

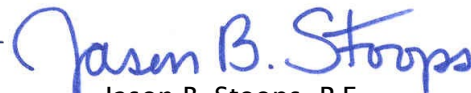
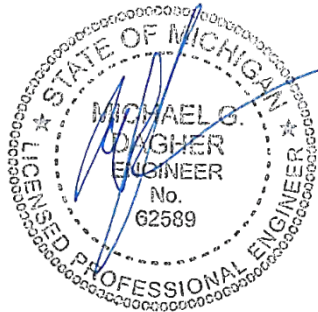
Sincerely,

G2 Consulting Group, LLC



Michael G. Dagher, P.E.
Project Manager

MGD/JBS/jbs



Jason B. Stoops, P.E.
Associate / Project Consultant

CONTRACTOR QUOTATION - WORK ITEMS DETAIL

= to be completed by Contractor
 = predetermined or automatic calculation

Date:	April 11, 2025	Project Name:	White Lake Civic Center
Contractor:	Cortis Brothers	A/E / A/E Project #:	
Check One ☐ Check if PRIME Contractor ☐ Check if Subcontractor		CM:	McCarthy & Smith, Inc.
BULLETIN NO:	5	CCD NO:	
ASI NO:		Contractor CHANGE REQUEST NO:	5

Description of Work:

Install Storm For Bulletin 5 (Note: Stub to be left outside of pad for connection:)

A. MATERIALS and PURCHASED EQUIPMENT				Enter negative quantity for deleted work items.		DO NOT INCLUDE State Sales Tax.		
Description	Quantity	Measure	Charge Price	Per		TOTAL		
1 - 6A Stone	50	TN	\$ 36.00			\$1,800.00		
2 - Dirt Out	0	CY	\$ 16.00			\$0.00		
3 - 6" Pipe Materials (Yard Materials)	2	LS	\$ 725.00			\$1,450.00		
4 - 4' MH	1	EA	\$ 3,150.00			\$3,150.00		
5 - Rim & Cover	1	EA	\$ 550.00			\$550.00		
8 -	0	EA				\$0.00		
** To add rows: COPY row, then INSERT COPIED CELLS, then re-number. ** Sub-Total Material Amount = \$6,950.00 6% State Sales Tax Amount = \$417.00 Sub-Total Material Amount = \$7,367.00 10% Overhead & Profit Mark-up (0% if Credit) = \$736.70 Total Material Amount = \$8,103.70								

B. LABOR		On first quotation provide breakdown of rate for review by McCarthy & Smith. Rate to included burden and 10% OH&P per contract.									
		Approved HOURLY Straight Time RATE (a)	TOTAL Straight Time HOURS (b)	Approved Hourly 1-1/2 Time Rate (c)	TOTAL 1-1/2 Time HOURS (d)	Approved Hourly Double Time Rate (e)	TOTAL Double Time HOURS (f)		TOTAL Straight Time AMOUNT = a x b	TOTAL 1-1/2Time AMOUNT = c x d	TOTAL Double Time AMOUNT =e x f
Craft/Trade: Classification:	LABOR	\$ 88.00	32	\$ -		\$ -		=	\$ 2,816.00	\$ -	\$ -
Craft/Trade: Classification:	OPERATOR	\$ 95.00	64	\$ -		\$ -		=	\$ 6,080.00	\$ -	\$ -
Craft/Trade: Classification:		\$ -		\$ -		\$ -		=	\$ -	\$ -	\$ -
Craft/Trade: Classification:		\$ -		\$ -		\$ -		=	\$ -	\$ -	\$ -
Sub-Totals =									\$ 8,896.00	\$ -	\$ -
Sub-Total Field Labor Amount (Straight time + x1.5 time + x2 time) =									\$8,896.00		
If net credit, reduction in credit to omit 10% Overhead & Profit in labor rate =									not applicable		
Total Labor Amount =									\$8,896.00		

C. FIELD EQUIPMENT RENTALS				Enter negative quantity for deleted work items.				
Field Equipment Description (i.e. Backhoe, manlift, etc. - Not Job Vehicles)	Quantity	Measure	Charge Price	Per				
1 - Loader	16	HR	\$ 195.00			\$3,120.00		
2 - Excavator	16	HR	\$ 232.00			\$3,712.00		
3 - Dozer	16	HR	\$ 163.00			\$2,608.00		
** To add rows: COPY row, then INSERT COPIED CELLS, then re-number. ** Sub-Total Field Equipment Amount = \$9,440.00 0% Overhead & Profit Mark-up (0% if Credit) = \$0.00 Total Field Equipment Amount = \$9,440.00								

D. UNIT PRICES: Include material, labor, all taxes other costs and fees				Enter negative quantity for deleted work items.				
Field Equipment Description (i.e. Backhoe, manlift, etc. - Not Job Vehicles)	Quantity	Measure	Charge Price	Per				
1 -		HR	\$ 215.00			\$0.00		
2 -		HR	\$ 131.00			\$0.00		
** To add rows: COPY row, then INSERT COPIED CELLS, then re-number. ** Total Unit Price Amount = \$0.00								

E. SUBCONTRACTOR MARK-UP			
Name of Subcontractor		Amount	
1 -			
2 -			\$0.00
3 -			\$0.00
** To add rows: COPY row, then INSERT COPIED CELLS, then re-number. ** Sub-Total Subcontractor Amounts = \$0.00 5% Overhead & Profit Mark-up (0% if Credit) = \$0.00 Total Subcontractor Amount = \$0.00			

TOTAL AMOUNT FOR WORK ITEM NO.					
BULLETIN NO.	5	CCD NO.		ASI NO.	
				Contractor CHANGE REQUEST NO.	
				A. Total Material Amount =	\$8,103.70
				B. Total Labor Amount =	\$8,896.00
				C. Total Field Equipment Amount =	\$9,440.00
				D. Total Unit Price Amount =	\$0.00
				E. Total Subcontractor Mark-up Amount =	\$0.00
				F. Bond Premium =	\$264.40
				TOTAL AMOUNT FOR WORK ITEM =	\$26,704.10

Bond % 1%

White Lake Charter Township Civic Center Development

Section 6, Item A.

CONTRACTOR QUOTATION - WORK ITEMS DETAIL

= to be completed by Contractor
 = predetermined or automatic calculation

Date: April 15, 2025	Project Name: White Lake Charter Township Bid Package #3 - New Public Safety Building
Contractor: Metropolitan Concrete	A/E / A/E Project #: Redstone Architects
☐ Check One ☐ Check if PRIME Contractor ☐ Check if Subcontractor	CM: McCarthy & Smith, Inc.
BULLETIN NO: 	CCD NO: ASI NO: Contractor CHANGE REQUEST NO: #017

Description of Work:

Furnish and install Precon Under slab Membrane

A. MATERIALS and PURCHASED EQUIPMENT		Enter negative quantity for deleted work items.		DO NOT INCLUDE State Sales Tax.	
Description	Quantity	Measure	Charge Price	Per	TOTAL
1 - Vapor barrier (credit for base bid material)	10	ea	\$ (275.00)	ea	-\$2,750.00
2 - Tape (credit for base bid material)	20	ea	\$ (15.00)	ea	-\$300.00
3 -					\$0.00
4 -					FALSE
5 -					\$0.00
8 - Shipping/Freight (when applicable)	1	LS	\$ -	LS	\$0.00
** To add rows: COPY row, then INSERT COPIED CELLS, then re-number. **					
				Sub-Total Material Amount =	-\$3,050.00
				6% State Sales Tax Amount =	-\$183.00
				Sub-Total Material Amount =	-\$3,233.00
				10% Overhead & Profit Mark-up (0% if Credit) =	credit item / none
				Total Material Amount =	-\$3,233.00

B. LABOR		On first quotation provide breakdown of rate for review by McCarthy & Smith. Rate to included burden and 10% OH&P per contract.														
		Approved HOURLY Straight Time RATE (a)	TOTAL Straight Time HOURS (b)	Approved Hourly 1-1/2 Time Rate (c)	TOTAL 1-1/2 Time HOURS (d)	Approved Hourly Double Time Rate (e)	TOTAL Double Time HOURS (f)		TOTAL Straight Time AMOUNT = a x b	TOTAL 1-1/2Time AMOUNT = c x d	TOTAL Double Time AMOUNT =e x f					
Craft/Trade: Credit labor to install vapor Classification: barrier	\$	(85.00)	24	\$	-	\$	-	=	\$	(2,040.00)	\$	-				
Craft/Trade: Labor to pour in 3 pours Classification: instead of 2 pours	\$	85.00	96	\$	-	\$	-	=	\$	8,160.00	\$	-				
Craft/Trade: Labor for added day of Classification: sawcutting	\$	85.00	16	\$	-	\$	-	=	\$	1,360.00	\$	-				
Craft/Trade: Classification:	\$	-		\$	-	\$	-	=	\$	-	\$	-				
** To add rows: COPY row, then INSERT COPIED CELLS, then re-number. **									Sub-Totals =		\$	7,480.00	\$	-	\$	-
** WHEN ADDING ROWS, LINK PROPERLY TO LABOR RATE SUMMARY TAB **									Sub-Total Field Labor Amount (Straight time + x1.5 time + x2 time) =		\$7,480.00					
									If net credit, reduction in credit to omit 10% Overhead & Profit in labor rate =		\$537.00					
									Total Labor Amount =		\$7,480.00					

C. FIELD EQUIPMENT RENTALS		Enter negative quantity for deleted work items.				
Field Equipment Description (i.e. Backhoe, manlift, etc. - Not Job Vehicles)	Quantity	Measure	Charge Price	Per		
1 - pumps do to not being able to drive a buggy on this product	3	ea	\$ 2,900.00	ea	\$8,700.00	
2 -					\$0.00	
3 -					\$0.00	
** To add rows: COPY row, then INSERT COPIED CELLS, then re-number. **						Sub-Total Field Equipment Amount = \$8,700.00
						10% Overhead & Profit Mark-up (0% if Credit) = \$870.00
						Total Field Equipment Amount = \$9,570.00

D. UNIT PRICES: Include material, labor, all taxes other costs and fees		Enter negative quantity for deleted work items.				
Field Equipment Description (i.e. Backhoe, manlift, etc. - Not Job Vehicles)	Quantity	Measure	Charge Price	Per		
1 -		ea				
2 -					\$0.00	
** To add rows: COPY row, then INSERT COPIED CELLS, then re-number. **						Total Unit Price Amount = \$0.00

E. SUBCONTRACTOR MARK-UP		
Name of Subcontractor		Amount
1 - DC Byers		\$115,385.00
2 -		\$0.00
3 -		\$0.00
** To add rows: COPY row, then INSERT COPIED CELLS, then re-number. **		
Sub-Total Subcontractor Amounts =		\$115,385.00
5% Overhead & Profit Mark-up (0% if Credit) =		\$5,769.25
Total Subcontractor Amount =		\$121,154.25

TOTAL AMOUNT FOR WORK ITEM NO.			
BULLETIN NO. 	CCD NO. 	ASI NO. 	Contractor CHANGE REQUEST NO.
		A. Total Material Amount = -\$3,233.00 B. Total Labor Amount = \$7,480.00 C. Total Field Equipment Amount = \$9,570.00 D. Total Unit Price Amount = \$0.00 E. Total Subcontractor Mark-up Amount = \$121,154.25 F. Bond Premium = \$1,943.59 TOTAL AMOUNT FOR WORK ITEM = \$136,914.84	
Bond % 1%			

D.C. BYERS CO., INC.
14495 E. Eight Mile Rd.
Warren, MI 48089
Ph: (313) 875-0545

Date: 4-21-2025
To: Metropolitan
Attn: Tony
Project: White Lake Twp – Public Safety

REVISED PROPOSAL

Under Slab Membrane Waterproofing

Furnish and install under slab membrane waterproofing at the under slab of the basement slab only. The membrane will be applied over a well compacted substrate and applied over the interior concrete footings (interior footings will not be encased in waterproofing) We will detail all thru slab penetrations, interior columns, and up the interior perimeter walls per manufacturer's details.

We priced up (4) systems per request of the architect.

The price increase comes from revised details and pricing from the manufacturer's

Quote is for this product

Precon Under Slab Membrane by W.R. Meadows.....	\$115,385.00
SikaProof A+12 by Sika Corp.....	\$188,100.00

****We did not fine tune the details with Polyguard or GCP at this time!!**

UnderSeal UnderSlab Membrane by Polyguard.....	\$163,000.00
Preprufe 300R by GCP (Grace).....	\$197,000.00

Exclusions:

- *Any work needed to be done to the substrate to properly install the waterproofing per manufacturer's recommendations.
- *Encasing of the interior or exterior footings with waterproofing / Applying above the interior footings
- *Any concrete prep, patching, etc
- *Waterproofing any area besides underneath the basement
- *Dewatering or demucking

Notes:

- *Substrate must be **well** compacted and free of water/puddles, etc

Respectfully submitted, D.C. Byers Company., Inc.

By: 
 Thomas Stackpoole, Vice President

From: Tony <tony@metropolitanconcrete.com>
Sent: Monday, April 21, 2025 2:57 PM
To: Noah Steiner
Cc: Chuck Kassley
Subject: External RE: WLT PSB Under slab waterproofing
Attachments: [CO 5166 Precon product Waterproofing rev 3.pdf](#); [SikaProof product Waterproofing Rev 1.pdf](#)

Noah see the attached revised proposals. The price went up substantially for DC Byers. There were elements of each that DC byers was not made aware of from the suppliers and there was a large misunderstanding between DC Byers and the Sika rep on material pricing. As we discussed the letter from WR Meadows referring to the stable substrate being stable for the laser screed is a very general statement. The definition of stable can vary depending on what side you are on. If WR Meadows wants to come and test the substrate and the base material prior to installation and sign off on it saying we can use a laser screed and they will be responsible for any damage I will use a laser screed and revise the number. Outside of that I would strongly suggest that if a decision is made we should set up a meeting with ourselves, DC byers and the rep of whichever way we decide to go and make sure that everyone has a clear understanding of the conditions, how the product needs to be installed and any precautions and affects on pouring operations.

Tony Volpe
Estimator



Metropolitan Concrete Corp.

6581 Metro Parkway

Sterling Heights, MI 48312

O: 586-264-3370

M: 586-615-7611

Tony@MetropolitanConcrete.com

https://link.edgepilot.com/s/5b37a9ce/nkuGMUKZXUKIVa5V_nsDYw?u=http://www.metropolitanconcrete.com/



From: Noah Steiner <nsteiner@mccarthysmith.com>
Sent: Monday, April 21, 2025 12:33 PM
To: Tony <tony@metropolitanconcrete.com>
Subject: FW: WLT PSB Under slab waterproofing

White Lake Charter Township Civic Center Development

Section 6, Item A.

CONTRACTOR QUOTATION - WORK ITEMS DETAIL

= to be completed by Contractor
 = predetermined or automatic calculation

Date:	April 15, 2025	Project Name:	White Lake Charter Township Bid Package #3 - New Public Safety Building
Contractor:	Professional Thermal Systems Inc.	A/E / A/E Project #:	Redstone Architects
Check One	☐ Check if PRIME Contractor ☐ Check if Subcontractor	CM:	McCarthy & Smith, Inc.
BULLETIN NO:	11	CCD NO:	
ASI NO:		Contractor CHANGE REQUEST NO:	

Description of Work:

Storm Piping and Drain Tile Work

A. MATERIALS and PURCHASED EQUIPMENT		Enter negative quantity for deleted work items.		DO NOT INCLUDE State Sales Tax.		
Description	Quantity	Measure	Charge Price	Per	TOTAL	
1 - Drain Tile and Fittings	1		\$ 3,657.00		\$3,657.00	
2 - Fabric Material	1		\$ 685.00		\$685.00	
3 - Storm Pipe Material	1		\$ 22,464.00		\$22,464.00	
4 - 6A Limestone	65	ton	\$ 33.25	ton	\$2,161.25	
5 - Peastone	169	ton	\$ 33.50	ton	\$5,661.50	
8 - Class II Sand	150	ton	\$ 15.33	ton	\$2,299.50	
** To add rows: COPY row, then INSERT COPIED CELLS, then re-number. **					Sub-Total Material Amount =	\$36,928.25
					6% State Sales Tax Amount =	\$2,215.70
					Sub-Total Material Amount =	\$39,143.95
					10% Overhead & Profit Mark-up (0% if Credit) =	\$3,914.39
					Total Material Amount =	\$43,058.34

B. LABOR		On first quotation provide breakdown of rate for review by McCarthy & Smith. Rate to included burden and 10% OH&P per contract.								
	Approved HOURLY Straight Time RATE (a)	TOTAL Straight Time HOURS (b)	Approved Hourly 1-1/2 Time Rate (c)	TOTAL 1-1/2 Time HOURS (d)	Approved Hourly Double Time Rate (e)	TOTAL Double Time HOURS (f)		TOTAL Straight Time AMOUNT = a x b	TOTAL 1-1/2 Time AMOUNT = c x d	TOTAL Double Time AMOUNT = e x f
Plumber	\$ 102.08	532	\$ -		\$ -		=	\$ 54,306.56	\$ -	\$ -
Craft/Trade: Classification:	\$ -		\$ -		\$ -		=	\$ -	\$ -	\$ -
Craft/Trade: Classification:	\$ -		\$ -		\$ -		=	\$ -	\$ -	\$ -
Craft/Trade: Classification:	\$ -		\$ -		\$ -		=	\$ -	\$ -	\$ -
Sub-Totals =								\$ 54,306.56	\$ -	\$ -
Sub-Total Field Labor Amount (Straight time + x1.5 time + x2 time) =								\$54,306.56		
If net credit, reduction in credit to omit 10% Overhead & Profit in labor rate =								not applicable		
Total Labor Amount =								\$54,306.56		

C. FIELD EQUIPMENT RENTALS		Enter negative quantity for deleted work items.				
Field Equipment Description (i.e. Backhoe, manlift, etc. - Not Job Vehicles)	Quantity	Measure	Charge Price	Per		
1 - Excavator and Skid Stear	160		\$ 200.00		\$32,000.00	
2 - Spoil Removal	240		\$ 10.00		\$2,400.00	
3 - Dewatering	1		\$ 2,856.00		\$2,856.00	
Sub-Total Field Equipment Amount =					\$37,256.00	
10% Overhead & Profit Mark-up (0% if Credit) =					\$3,725.60	
Total Field Equipment Amount =					\$40,981.60	

D. UNIT PRICES: Include material, labor, all taxes other costs and fees		Enter negative quantity for deleted work items.				
Field Equipment Description (i.e. Backhoe, manlift, etc. - Not Job Vehicles)	Quantity	Measure	Charge Price	Per		
1 -					\$0.00	
2 -					\$0.00	
Total Unit Price Amount =					\$0.00	

E. SUBCONTRACTOR MARK-UP				
Name of Subcontractor		Amount		
1 -		\$0.00		
2 -		\$0.00		
3 -		\$0.00		
Sub-Total Subcontractor Amounts =		\$0.00		
5% Overhead & Profit Mark-up (0% if Credit) =		\$0.00		
Total Subcontractor Amount =		\$0.00		

TOTAL AMOUNT FOR WORK ITEM NO.				
BULLETIN NO.	11	CCD NO.		ASI NO.
				Contractor CHANGE REQUEST NO.
				A. Total Material Amount = \$43,058.34
				B. Total Labor Amount = \$54,306.56
				C. Total Field Equipment Amount = \$40,981.60
				D. Total Unit Price Amount = \$0.00
				E. Total Subcontractor Mark-up Amount = \$0.00
				F. Bond Premium = \$1,383.46
				TOTAL AMOUNT FOR WORK ITEM = \$139,729.96

Bond % 1%

Material & Labor Detail

Project Name: **White Lake Pub Safe Bull 11**

Bid ID: **041125**

Report Time: **4/15/2025 1:48 PM**

Profile Name: **Standard**

Labor Book: **Standard**

Scoped By: **Base Bid1**

AutoBid Version: 2021 v1

Trimble Navigation

Material & Labor Detail

There was one calculation message. Project

Name: White Lake Pub Safe Bull 11

Bid ID: 041125

Page 1

Report Time: 4/15/2025 1:48:13 PM

Data Calculated: 4/15/2025 1:21:44 PM

Base Bid;

Pipe

PVC - DWV - DWV

<u>Item</u>	<u>Size</u>	<u>Qty</u>	<u>Price</u>	<u>Mat. Cost</u>	<u>Unit Lab Hr</u>	<u>Total Hrs</u>
Pipe						
6		1,198	5.64	6,756	0.09	114
PVC - DWV - DWV Totals:						
		<u>1,198</u>		<u>6,756</u>		<u>114</u>
Pipe Totals:		<u>1,198</u>		<u>6,756</u>		<u>114</u>

Nipples

PVC - Plain End Sch 40 - Thread

<u>Item</u>	<u>Size</u>	<u>Qty</u>	<u>Price</u>	<u>Mat. Cost</u>	<u>Unit Lab Hr</u>	<u>Total Hrs</u>
Nipple						
6		2	26.86	54	0.10	0
PVC - Plain End Sch 40 - Thread Totals:						
		<u>2</u>		<u>54</u>		<u>0</u>
Nipples Totals:		<u>2</u>		<u>54</u>		<u>0</u>

Fittings

PVC - Hub x Hub Plastic DWV - SolvWld

<u>Item</u>	<u>Size</u>	<u>Qty</u>	<u>Price</u>	<u>Mat. Cost</u>	<u>Unit Lab Hr</u>	<u>Total Hrs</u>
1/16 Bend						
6		1	57.81	58	0.66	1
1/4 Bend						
6		34	49.96	1,699	0.68	23
1/8 Bend						
6		28	43.79	1,226	0.66	19
Combination						
6		34	137.37	4,671	1.03	35
Coupling						
6		18	19.48	351	0.65	12
Wye						
6		23	69.05	1,588	0.98	23
PVC - Hub x Hub Plastic DWV - SolvWld Totals:						
		<u>138</u>		<u>9,592</u>		<u>112</u>
Fittings Totals:		<u>138</u>		<u>9,592</u>		<u>112</u>

Carriers

Carriers - -

<u>Item</u>	<u>Size</u>	<u>Qty</u>	<u>Price</u>	<u>Mat. Cost</u>	<u>Unit Lab Hr</u>	<u>Total Hrs</u>
-------------	-------------	------------	--------------	------------------	--------------------	------------------

Trimble Navigation

Material & Labor Detail

There was one calculation message. Project

Name: White Lake Pub Safe Bull 11

Bid ID: 041125

Data Calculated: 4/15/2025 1:21:44 PM

Base Bid;

Page 2

Report Time: 4/15/2025 1:48:13 PM

Carriers

Carriers - -

<u>Item</u>	<u>Size</u>	<u>Qty</u>	<u>Price</u>	<u>Mat. Cost</u>	<u>Unit Lab Hr</u>	<u>Total Hrs</u>
BWV BACK WATER VALVE*		2	221.00	442	1.00	2
FCO CLEANOUT*		32	175.00	5,600	2.00	64
Carriers - - Totals:		34		6,042		66
Carriers Totals:		34		6,042		66

Misc. Consumables

- Plastic Joints Glue & Cleaner -

<u>Item</u>	<u>Size</u>	<u>Qty</u>	<u>Price</u>	<u>Mat. Cost</u>	<u>Unit Lab Hr</u>	<u>Total Hrs</u>
Glue & Cleaner						
Cement - PVC		2	5.89	10	0.00	0
Cleaner-All Purpose		2	6.33	10	0.00	0
- Plastic Joints Glue & Cleaner - Totals:		3		20		0
Misc. Consumables Totals:		3		20		0

Material Cost

Total Hrs

Grand Totals

\$22,464

292

* Items flagged with an asterisk may have their price and labor overwritten in Excel's Rapid Reports

Richard Sisson Trucking, Inc <richardsissontrucking@gmail.com>

Tue, Mar
25,
11:18 AM

to me

Good Morning Steve,

Here is the pricing you requested,

-Peastone \$35.50/Ton

-6A Limestone \$35.25/Ton

-Class II Sand \$16.25/Ton

these rates include material, trucking and tax. Please let myself or Cory know if you have any questions.



McCarthy & Smith, Inc.

Job #: 1204-23 White Lake Charter Township New Civic Center Development - BP #3 New Public Safety Building
10911 Elizabeth Lake Rd
White Lake, Michigan 48383

Building Pad Water Issue

Description

Taken Date

04/08/2025 at 12:35 pm

Upload Date

04/08/2025 at 12:35 pm

Uploaded By

Jeff Robinette

File Name

[A1B22E66-3833-4DFC-9...](#)



Building Pad Water Issue

Description

Taken Date

04/08/2025 at 11:45 am

Upload Date

04/08/2025 at 11:45 am

Uploaded By

Noah Steiner

File Name

[92038B4B-1077-4A0C-8...](#)





McCarthy & Smith, Inc.

Job #: 1204-23 White Lake Charter Township New Civic Center Development - BP #3 New Public Safety Building
10911 Elizabeth Lake Rd
White Lake, Michigan 48383

Building Pad Water Issue

Description

Taken Date

04/08/2025 at 11:45 am

Upload Date

04/08/2025 at 11:45 am

Uploaded By

Noah Steiner

File Name

[45237500-3AE4-4B39-B...](#)



Building Pad Water Issue

Description

Taken Date

04/02/2025 at 01:36 pm

Upload Date

04/02/2025 at 01:37 pm

Uploaded By

Noah Steiner

File Name

[1DD19083-E696-4AF5-B...](#)





McCarthy & Smith, Inc.

Section 6, Item A.

Printed on Thu Apr 10, 2025 at 01:40 pm EDT

Job #: 1204-23 White Lake Charter Township New Civic Center Development - BP #3 New Public Safety Building
10911 Elizabeth Lake Rd
White Lake, Michigan 48383

Building Pad Water Issue

Description

Taken Date

03/25/2025 at 08:33 am

Upload Date

03/25/2025 at 08:33 am

Uploaded By

Jeff Robinette

File Name

12568422-A54F-4548-A...



Building Pad Water Issue

Description

Taken Date

03/25/2025 at 08:32 am

Upload Date

03/25/2025 at 08:32 am

Uploaded By

Jeff Robinette

File Name

BC81624C-6B19-423D-B...





McCarthy & Smith, Inc.

Section 6, Item A.

Printed on Thu Apr 10, 2025 at 01:40 pm EDT

Job #: 1204-23 White Lake Charter Township New Civic Center Development - BP #3 New Public Safety Building
10911 Elizabeth Lake Rd
White Lake, Michigan 48383

Building Pad Water Issue

Description

Taken Date

03/19/2025 at 04:29 pm

Upload Date

03/19/2025 at 04:43 pm

Uploaded By

Noah Steiner

File Name

[WLT-3.19-\(22\).JPG](#)



Building Pad Water Issue

Description

Taken Date

02/25/2025 at 01:38 pm

Upload Date

02/25/2025 at 01:38 pm

Uploaded By

Noah Steiner

File Name

[76C09FDA-CFB7-4DD3-...](#)





McCarthy & Smith, Inc.

Section 6, Item A.

Printed on Thu Apr 10, 2025 at 02:10 pm EDT

Job #: 1204-23 White Lake Charter Township New Civic Center Development - BP #3 New Public Safety Building
10911 Elizabeth Lake Rd
White Lake, Michigan 48383

Building Pad Water Issue

Description

Taken Date

01/27/2025 at 12:43 pm

Upload Date

01/27/2025 at 12:58 pm

Uploaded By

Noah Steiner

File Name

[728E0425-FD0A-4BA5-9...](#)



Building Pad Water Issue

Description

Taken Date

01/27/2025 at 12:42 pm

Upload Date

01/27/2025 at 12:42 pm

Uploaded By

Noah Steiner

File Name

[433D742C-5131-4A30-B...](#)





McCarthy & Smith, Inc.

Job #: 1204-23 White Lake Charter Township New Civic Center Development - BP #3 New Public Safety Building
10911 Elizabeth Lake Rd
White Lake, Michigan 48383

Building Pad Water Issue

Description

Taken Date

01/16/2025 at 09:01 am

Upload Date

01/16/2025 at 09:02 am

Uploaded By

Jeff Robinette

File Name

[589A2A41-A9F9-4863-B...](#)



Building Pad Water Issue

Description

Taken Date

01/10/2025 at 01:28 pm

Upload Date

01/10/2025 at 01:35 pm

Uploaded By

Noah Steiner

File Name

[C4F39F5C-CC8B-41BB-9...](#)





McCarthy & Smith, Inc.

Section 6, Item A.

Printed on Thu Apr 10, 2025 at 01:16 pm EDT

Job #: 1204-23 White Lake Charter Township New Civic Center Development - BP #3 New Public Safety Building
10911 Elizabeth Lake Rd
White Lake, Michigan 48383

Building Pad Water Issue

Description

Taken Date

12/19/2024 at 09:08 am

Upload Date

04/10/2025 at 12:46 pm

Uploaded By

Noah Steiner

File Name

6A921B21-1EF5-42CA-B...



Building Pad Water Issue

Description

Taken Date

11/19/2024 at 12:32 pm

Upload Date

04/10/2025 at 12:48 pm

Uploaded By

Noah Steiner

File Name

F49DEFB8-031F-4218-A...





McCarthy & Smith, Inc.

Job #: 1204-23 White Lake Charter Township New Civic Center Development - BP #3 New Public Safety Building
10911 Elizabeth Lake Rd
White Lake , Michigan 48383

Building Pad Water Issue

Description

Taken Date
11/14/2024 at 12:44 pm

Upload Date
04/10/2025 at 12:49 pm

Uploaded By
Noah Steiner

File Name
[171C98BA-2BA9-4775-B...](#)



Building Pad Water Issue

Description

Taken Date
10/30/2024 at 12:32 pm

Upload Date
04/10/2025 at 12:47 pm

Uploaded By
Noah Steiner

File Name
[982DC3C6-F389-43FF-A...](#)





McCarthy & Smith, Inc.

Section 6, Item A.

Printed on Thu Apr 10, 2025 at 01:40 pm EDT

Job #: 1204-23 White Lake Charter Township New Civic Center Development - BP #3 New Public Safety Building
10911 Elizabeth Lake Rd
White Lake, Michigan 48383

Building Pad Water Issue

Description

Taken Date

10/28/2024 at 08:33 am

Upload Date

04/10/2025 at 12:45 pm

Uploaded By

Noah Steiner

File Name

3E02BB57-3841-48AC-A...

